

BULLETIN

PERSATUAN GEOLOGI MALAYSIA

EDITOR: WAN HASIAH ABDULLAH



Bulletin of the
GEOLOGICAL SOCIETY OF MALAYSIA

May 2022

No. 73



Buletin Persatuan Geologi Malaysia

Bulletin of the Geological Society of Malaysia

The Bulletin of the Geological Society of Malaysia (ISSN 0126-6187; e-ISSN 2637-109X), is a peer-reviewed open access interdisciplinary journal which publishes Earth Science research that addresses not only trending research areas but also high quality application topics. The scope of published articles covers engineering geology, environmental geology, geochemistry, geomorphology, geophysics, hydrogeology, mining geology, paleontology, petroleum geology, regional geology, sedimentology, stratigraphy, structural geology and tectonics.

The Bulletin supports researchers primarily focusing on Asia/SE Asia, but is not limited to this region, and publishes research papers of both scientific and technical nature that are of current interest and have potential impact on activities such as oil & gas exploration, mining, environmental issues, earthquakes, hazard assessment, disaster risk reduction and climate change adaptation. The Bulletin also promotes geological interest on subjects of a conservation nature such as geoheritage and geotourism.

The Bulletin is published twice a year (May and November) by the Geological Society of Malaysia (GSM). Digital copies are distributed to all members of the Society and can be downloaded from GSM's website. Printed copies are available at RM80.00 per copy (price exclusive of postage).

The Bulletin is indexed in the following abstracting and indexing services and databases: Scopus, MyJournal, MyCite, Ebsco, ASEAN Citation Index and AAPG Datapages.

GSM is committed to upholding standards of ethical behaviour at all stages of the publication process and we recommend the Committee on Publication Ethics (COPE) Best Practice Guidelines (<http://publicationethics.org/resources/guidelines>).

All articles published by the Bulletin are licensed under the Creative Commons Attribution 4.0 International License. No fee is imposed on authors for publishing in the journal.

For submission instructions please refer to the inner back page. For GSM membership, subscription and any enquiry concerning GSM and the Bulletin please contact:

Geological Society of Malaysia,
c/o Department of Geology, University of Malaya,
50603 Kuala Lumpur, Malaysia
Tel: 603-79577036 Fax: 603-79563900
Email: geologicalsociety@gmail.com

Editor

Wan Hasiah Abdullah (Geological Society of Malaysia, Malaysia)

Assistant Editors

Baba Musta (Universiti Malaysia Sabah, Malaysia)

Meor Hakif Amir Hassan (University of Malaya, Malaysia)

Mohammed Hail Hakimi (Taiz University, Yemen)

Editorial Board

Alfredo Lagmay (University of the Philippines, the Philippines)

Azman A. Ghani (University of Malaya, Malaysia)

Felix Tongkul (Universiti Malaysia Sabah, Malaysia)

Harry Doust (Vrije Universiteit Amsterdam, The Netherlands)

Ian Metcalfe (University of New England, Australia)

Ibrahim Komoo (Universiti Kebangsaan Malaysia, Malaysia)

Joy J. Pereira (Universiti Kebangsaan Malaysia, Malaysia)

Ng Tham Fatt (University of Malaya, Malaysia)

Peter R. Parham (Universiti Teknologi Malaysia, Malaysia)

Rajib Shaw (Keio University, Japan)

Robert Hall (University of London, UK)

Editorial Management Committee

Lim Choun Sian, Mazlan Madon, Muhammad Hatta Roselee,
Elvaene James, Anna Lee, Wan Aida Wan Zahari

Reviewers

Adi Susilo, Aiad Ali Hussien Al-Zaidy, Anuar Othman, Azman A. Ghani, Elvaene James, Fauzi Mardan, Felix Tongkul, Franz L. Kessler, Herman Darman, Jasmi Ab Talib, John Kuna Raj, Junaidi Asis, Lim Choun Sian, Maher Mandeel Mahdi, Mazlan Madon, Mohd Hariri Arifin, Muhammad Hatta Roselee, Ng Tham Fatt, Noer El Hidayah Ismail, Robert Hall, Salah Hussain, Salam Al-Dulaimy, Suhaina Ismail, Sukonmeth Jitmahantaku, Thamer Mahdi, Yasir Bashir, Zuliskandar Ramli

Printed in Malaysia by
Nets Printwork Sdn. Bhd., No. 56, Jln. PBS 14/4,
Taman Perindustrian Bukit Serdang, 43300 Seri Kembangan,
Selangor

BULETIN

PERSATUAN GEOLOGI MALAYSIA

KANDUNGAN / CONTENTS

- 1 – 12 Magnitude-rupture area scaling derived from global earthquakes of moderate to large sizes: Implications for seismic hazards in Indonesia
TJIPTO PRASTOWO, GANDHIS PUTRI AYUDIA, HILDA RISANTI
- 13 – 22 Diving wave tomography: Velocity modelling using first arrival traveltimes
AMATUL SYAFI ABDUL BASIT, ABDUL RAHIM MD ARSHAD, ARULINI PERMALU
- 23 – 33 Pengurusan risiko bencana tanah runtuh di Semenanjung Malaysia
(*Disaster risk management of landslides in Peninsular Malaysia*)
CHE SITI NOOR KOH POH LEE, RABIEHTUL ABU BAKAR, SARAH AZIZ, MOHD. RAIHAN TAHA
- 35 – 52 An erosional unconformity at the top of the Nyalau Formation near Bintulu, Central Sarawak (Malaysia): Its regional context and significance
MAZLAN MADON, MEOR HAKIF AMIR HASSAN, JOHN JONG
- 53 – 65 Tracing the source and origin of earthenware stove in Kelantan State Museum by means of geochemical and mineralogical method
SURESH NARAYANEN, NASHA RODZIADI KHAW, AHMAD FADLY JUSOH, AHMAD SYAHIR ZULKIPLI
- 67 – 77 Occurrence and relationship of the Aqra, Bekhme and Govanda formations in the Soran (Rawanduz) area, Kurdistan Region, northeastern Iraq
KAMAL H. KARIM, HIYAM DAOUD, RZGER A. ABDULA, ARKAN O. SHAREZWRI
- 79 – 89 Biozonation (benthic foraminifera) of Mishrif Formation at Majnoon and Zubair oil fields, southern Iraq
SALAM I.M. AL-DULAIMY, YASAMIN KH. IBRAHIM, FATIMA T. ABDALLAH
- 91 – 103 Clay minerals and their implications for Late Quaternary palaeoclimate investigation: A case study in Pontian, Johor
ABDUL HADI HASHIM, HABIBAH JAMIL, RAMLAN OMAR
- 105 – 118 Characterization of naturally fractured basement reservoir and its play concept, South Pattani Basin, Gulf of Thailand
UGI KURNIA GUSTI, ANGUS FERGUSON
- 119 – 138 Tectonic geomorphology of the Jhelum fault zone and its contiguous regions in western Himalaya
SHAH A.A., SYAAKIIRROH SAHARI, NAVAKANESH B., NURHAFIZAH A.M., FU FUI, ASHWINI, TALHA Q.
- 139 – 149 Geophysics and geomorphic observation for near-surface structures mapping of Seulimeum Fault on Lamtamot area, Northern Sumatra
MUHAMMAD YANIS, GOZIAN ISLAMI, NAZLI ISMAIL
- 151 – 161 Microfacies analysis and depositional environment of Pila Spi Formation (Middle - Late Eocene) in the Nerwa section, Berat anticline, High Folded Zone, Kurdistan Region, northern Iraq
IRFAN SH. ASAAD
- 163 – 169 A stratigraphic analysis of the Khasib, Tanuma and Sa'di formations in the Majnoon oil field, southern Iraq
HAMID A.A. ALSULTAN, FALAH H.H. MAZIQA, MOHANAD R.A. AL-OWAIDI
- 171 – 179 Penggunaan abu terbang dalam penyingkiran logam berat daripada saluran lombong berasid
(*Utilization of fly ash in heavy metal removal from acid mine drainage*)
NUUR HANI MOHAMMED, WAN ZUHAIRI WAN YAACOB
- 181 – 189 Distinct depositional environments of two internal reference materials with marine sediment matrix from nearby Bangka Island
RONALDO IRZON, KURNIA, AGUS DIDIT HARYANTO, SIGIT MARYANTO, UNDANG HERNAWAN

EDITOR: WAN HASIAH ABDULLAH



Bulletin of the
GEOLOGICAL SOCIETY OF MALAYSIA

Copyright:

Copyright 2022 by the Authors. Licensee Geological Society of Malaysia.
The articles in the journal are open access articles distributed under the terms and conditions of the
Creative Commons Attribution (CC-BY) License 4.0.

PERSATUAN GEOLOGI MALAYSIA Geological Society of Malaysia

Council 2022/2023

President :	Ahmad Nizam Hasan
Vice President :	Mohd Hariri Arifin
Secretary :	Farah Fazulah Abdullah
Assistant Secretary :	Norazianti Asmari
Treasurer :	Lim Choun Sian
Editor :	Wan Hasiah Abdullah
Immediate Past President :	Abd. Rasid Jaapar
Councillors :	Abdull Halim bin Abdul Abdul Halim Abdul Latiff Ahmad Zulqurnain bin Ghazali Amie Norsyazan Amir Joy Jacqueline Pereira Nor Shahidah bt. Mohd. Nazer Nur Iskandar Taib Tan Boon Kong

The Geological Society of Malaysia was founded in 1967 with the aim of promoting the advancement of geoscience, particularly in Malaysia and Southeast Asia. The Society has a membership of about 700 local and international geoscientists.

Published by
Geological Society of Malaysia
c/o Department of Geology, University of Malaya, 50603 Kuala Lumpur
Tel: 603-79577036 Fax: 603-79563900
Email: geologicalsociety@gmail.com
<http://www.gsm.org.my/>

This publication
is financed by the
Society's Publication Fund

Printed by
Nets Printwork Sdn. Bhd., No. 56, Jalan PBS 14/4, Taman Perindustrian Bukit Serdang,
43300 Seri Kembangan, Selangor