



Supervisor:
China Geological Survey
Sponsor:
China Geological Survey
Chinese Academy of Geological Sciences
<http://chinageology.cgs.cn>



CONTENTS

Volume 4, Issue 4, 25 December 2021, 541-760

(Full text available online at <http://chinageology.cgs.cn>)
(<https://www.sciencedirect.com/journal/china-geology>)

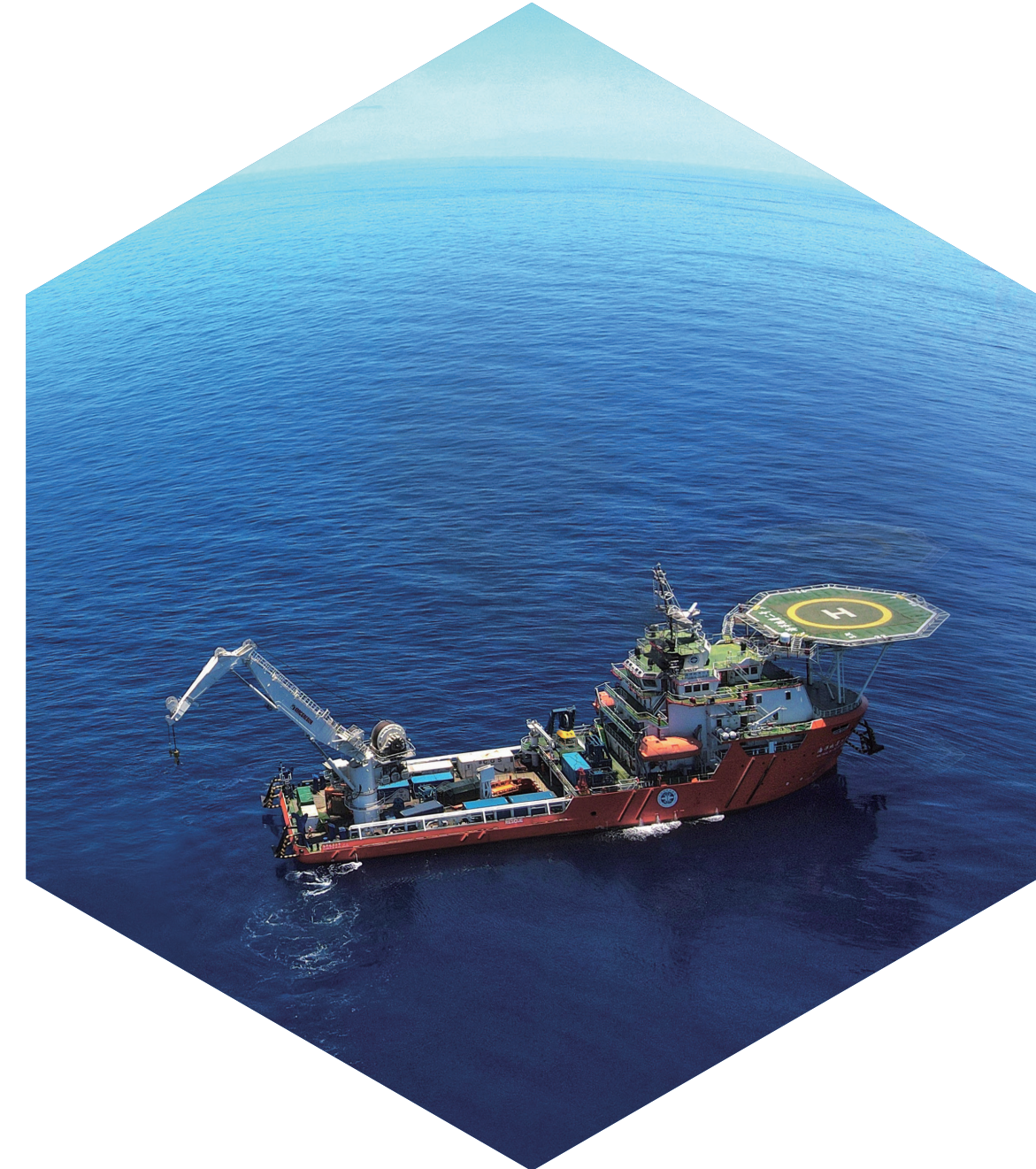
Original Articles

Structural characteristics of the KPR-CBR triple-junction inferred from gravity and magnetic interpretations, Philippine Sea Plate <i>Lu-ning Shang, Pan-feng Li, Run-lin Du, Feng-long Bai, Gang Hu, Wen-chao Lü, Xia Li, Xi Mei, Tian-yu Zhang, Hou-zhen Cao, Jing-yi Cong, Xian-yao Shi</i>	541
Characteristics of gravity and magnetic fields and deep structural responses in the southern part of the Kyushu-Palau Ridge <i>Zhen Lin, Wen-chao Lü, Zi-ying Xu, Peng-bo Qin, Hui-qiang Yao, Xiao Xiao, Xin-he Zhang, Chu-peng Yang, Xiang-yu Zhang, Jia-le Chen</i>	553
Topographic and geomorphological features and tectogenesis of the southern section of the Kyushu-Palau Ridge (KPR) and its adjacent areas <i>Xu-wen Qin, Wei-dong Luo, Pan-feng Li, Hong-jun Chen, Xiao Xiao, Gang Hu, Yu-fang Tan, Run-lin Du, Mei-jing Sun, Jing-yi Cong, Xiao-san Hu, Kai Lu, Li-xing Wang, Huo-dai Zhang, Hao-yi Zhou</i>	571
Microplastic pollution in Yellow River, China: Current status and research progress of biotoxicological effects <i>Rui-ping Liu, Zhi-zhong Li, Fei Liu, Ying Dong, Jian-gang Jiao, Ping-ping Sun, El-Wardany RM</i>	585
Tracing crustal contamination of the Cenozoic basalts with OIB-affinity in northern marginal region of North China Craton: An Os perspective <i>Zhuang Li, Bin Chen</i>	593
Zircon U-Pb ages and provenance characteristics of the Zhiluo Formation sandstones and the formation background of the uranium deposit in Huangling area, Ordos Basin, China <i>Reng-an Yu, Shan-bo Wang, Qiang Zhu, Qing-hong Si, Xue-ming Teng, Xiao-xue Liu, Hou-ning Liu, Yong-xiang Tang</i>	600
Discovery of rhyolitic tuffaceous slate in the southwestern margin of Yangtze Craton: Zircon U-Pb ages (2491 Ma) and tectonic-thermal events <i>Jun-ping Liu, Su-mei Tian, Xun-zao Zhu, Jin-hua Ma, Jing Li, Shao-bin Hu, Sai-ying Yu, Hu Zhang, Zhong-ming She, Xu-gui Li</i>	616
Geochronology and petrogeochemistry of Late Permian volcanic rocks in the B.Xiengnou area, Northwestern Laos: Petrogenesis and tectonic significance <i>Mei-feng Shi, Bao-ci Xu, Zhen-bo Wu, Shu-sheng Liu, Gerrit Pieter Goosen, Zhi-min Peng, Fei Nie, Hui-min Liang</i>	630
Determination of hydrocarbon generation potential of a non-isothermal pyrolysis of Faraghun and Sarchahan Formations in Coastal Fars and the Persian Gulf, Iran <i>Younes Jalilian, Mohammad Hossein Saberi</i>	644
Age and geochemistry of the granitoid from the Lunte area, Northeastern Zambia: Implications for magmatism of the Columbia supercontinent <i>Hong-wei Sun, Jun-ping Ren, Jie Wang, A-lei Gu, Xing-yuan Wu, Fu-qing He, Li-bo Zuo, Chipilauka Mukofu, Alphet Phaskani Dokowe, Ezekiah Chikambwe, Zi-jiang Liu, Shi Xing</i>	658
Sedimentology and sequence stratigraphy of the mixed clastic-carbonate deposits in the Late Paleozoic icehouse period: A case study from the northern Qaidam Basin <i>Xiao-jie Wei, Zong-xing Li, Yin-sheng Ma, Yi-fan Li, Jun-jie Hu, Kui Liu, Xin-xin Fang</i>	673

(contents continued on inside back cover)

Important Note to Authors

Online submission is now available for this journal: to submit your article online, go to the journal homepage at <http://chinageology.cgs.cn>. Instructions on how to submit a manuscript to the journal can be found in the Guide for Authors on the journal homepage.



Original Articles

- Structural characteristics of the KPR-CBR triple-junction inferred from gravity and magnetic interpretations, Philippine Sea Plate
- Characteristics of gravity and magnetic fields and deep structural responses in the southern part of the Kyushu-Palau Ridge

Review Articles

- Geology and mineralization of the Sanshandao supergiant gold deposit (1200 t) in the Jiaodong Peninsula, China: A review

Aims and scope

China Geology is co-sponsored by the China Geological Survey (CGS) and the Chinese Academy of Geological Sciences (CAGS). The journal is published quarterly by China Geology Editorial Office.

China Geology aims to be an innovative, high-impact and authoritative academic journal for researchers across the entire geological community. It will primarily publish new research results in cutting-edge and emerging topics, as well as covering traditional topics in geology. The journal seeks to promote research from all aspects of geology, including basic, applied and engineering research and applications, such as mineralogy, igneous and metamorphic petrology, geochemistry; sedimentology, paleontology, historical geology; petroleum geology and petroleum engineering, tectonic-orogenic geology (such as the central Asian orogenic belt, Tethys-Himalayan tectonic domain, etc.), marine geology, geophysics, economic and applied geology (ore deposit research and exploration), remote sensing geology, engineering geology, environmental geology, urban geology, groundwater science and engineering, etc.

China Geology publishes Original and Review articles that are of high quality, high interest and far-reaching consequence in the field of geology, as well as Editorials, Research Advances, News and Highlights. The Reviews papers featuring invited high-profile synthesis articles by leading experts on timely topics to bring cutting-edge research to the wider community. Emphasis is placed on high-quality content and form for all articles and on international coverage of subject matter. All papers are subject to international peer review.

Copyright Information

©2021 China Geological Survey

For Authors

As soon as an article is accepted for publication, authors will be requested to assign copyright of the article (or to grant exclusive publication and dissemination rights) to the China Geology Editorial Office, China Geological Survey. This will ensure the widest possible protection and dissemination of information under copyright laws.

For Readers

This journal and the individual contributions contained in it are protected under copyright, and the following terms and conditions apply to their use in addition to the terms of any Creative Commons or other user license that has been applied by the publisher to an individual article:

—Photocopying

Single photocopies of single articles may be made for personal use as followed by national copyright laws. Permission is not required for photocopying of articles published under the CC BY license nor for photocopying for non-commercial purposes in accordance with any other user license applied by the publisher. Permission of the Publisher and payment of a fee is required for all other photocopying, including multiple or systematic copying, copying for advertising or promotional purposes, resale, and all other forms of document delivery. Special rates are available for educational institutions that wish to make photocopies for non-profit educational classroom use.

—Derivative Works

Users may reproduce tables of contents or prepare lists of articles including abstracts for internal circulation within their institutions or companies. Other than for articles published under the CC BY license, permission of the publisher is required for resale or distribution

outside the subscribing institution or company. For any subscribed articles or articles published under a CC BY-NC-ND license, permission of the publisher is required for all other derivative works, including compilations and translations.

—Storage or Usage

Except as outlined above or as set out in the relevant user license, no part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without prior written permission of the Publisher.

—Notice

No responsibility is assumed by the Publisher for any injury and/or damage to persons or property as a matter of products liability, negligence or otherwise, or from any use or operation of any methods, products, instructions or ideas contained in the material herein. Because of rapid advance in the medical sciences, in particular, independent verification of diagnoses and drug dosages should be made. Although all advertising material is expected to conform to ethical (medical) standards, inclusion in this publication does not constitute a guarantee or endorsement of the quality or value of such product or of the claims made of it by its manufacturer.

Citing articles in *China Geology*

China Geology (CG) uses the digital object identifier (DOI) as the primary means to identify papers, instead of the more traditional Volume / Issue / Consecutive page numbers. The DOI is an international, public, "persistent identifier of intellectual property entities" in the form of a combination of numbers and letters. For CG content, the DOI is assigned to an item of editorial content, providing a unique and persistent identifier for that item. The DOI system is administered by the International DOI Foundation, a not-for-profit organization. CrossRef, another not-for-profit organization, uses the DOI as a reference linking standard, enables cross-publisher linking, and maintains the lookup system for DOIs. *China Geology* is a member of CrossRef.

To cite articles published in *China Geology*, you can give the paper's DOI at the end of the citation. For example:
[Author(s)]. ([Year]). [Title]. *China Geology* [volume], [page(s)]; doi: [DOI].

Or
[Author(s)]. [Title]. *China Geology* accepted article preview, [publication date]; doi: [DOI].

For your background information, the DOI has two components, a prefix (before the slash) and a suffix (after the slash). The prefix is a DOI resolver server identifier (10) and a unique identifier assigned to the publisher; for example, the identifier for *China Geology* is 10.31035 and the entire DOI prefix for an article published by *China Geology* is 10.31035. The suffix is an arbitrary number provided by the publisher; it can be composed of numbers and/or letters and does not necessarily have any systematic significance. Each DOI is registered in a central resolution database that associates it with one or more corresponding web locations (URLs).

Disclaimer

The editorial policies of this publication are determined by China Geology Editorial Office in accordance with the legal and regulatory requirements of China.

Publication information

China Geology (pISSN 2096-5192, eISSN 2589-9430, CN 10-1549/P). For 2021, volume 4 including issues 1-4 are scheduled for publication. For information on subscription rates and further information please contact the China Geology Editorial Office, China Geological Survey.

Published by: Journal center of China Geological Survey
Printed by: Beijing BOHS Colour Print Co.,Ltd
Distributed by: Journal center of China Geological Survey
(Address: No. 45 Fuwai Street, Xicheng District, Beijing 100037, P. R. China)

Review Articles

Geology and mineralization of the Sanshandao supergiant gold deposit (1200 t) in the Jiaodong Peninsula, China: A review

Ming-chun Song, Zheng-jiang Ding, Jun-jin Zhang, Ying-xin Song, Jun-wei Bo, Yu-qun Wang, Hong-bo Liu, Shi-yong Li, Jie Li, Rui-xiang Li, Bin Wang, Xiang-dong Liu, Liang-liang Zhang, Lei-lei Dong, Jian Li, Chun-yan He

686

Carbon peak and carbon neutrality in China: Goals, implementation path and prospects

Yao Wang, Chi-hui Guo, Xi-jie Chen, Li-qiong Jia, Xiao-na Guo, Rui-shan Chen, Mao-sheng Zhang, Ze-yu Chen, Hao-dong Wang

720

Research Advances

Determination of formation age (0.14Ma) of the Pengyang sandstone-type uranium deposit in the Ordos Basin, China: Using pitchblende *in situ* femtosecond LA-MC-ICP-MS method

Hua-lei Zhao, Jian-guo Li, Zhi-bin Xiao, Pei-sen Miao, Qing-hong Si, Lu-lu Chen, Reng-an Yu, Yin Chen

747

The invention of an automatic measurement and data recording method of a fluorescence spectrophotometer

Zhong-yu Li, Jiang-hua Zhao, Shan Cao, Yan-bing Han

749

New observation on seed/ovule position in the fruit of *Archaeanthus* and its systematic implications

Xin Wang

752

News and Highlights

Overview and characteristics of China's islands: Based on "Statistical Communiqué on China's Island Survey in 2017"

Xi-jie Chen, Li-qiong Jia, Ting Jia

756

Editorial Contents of *China Geology*

759

Cover Photo

R/V Haiyangdizhi 2 of Guangzhou Marine Geological Survey of China Geological Survey is preparing to carry out submarine scientific investigation and drilling operations (Photo provided by Guangzhou Marine Geological Survey of China Geological Survey).

USD: 40/RMB: 200

Guidelines for Authors

We now differentiate between the requirements for new and revised submissions. You may choose to submit your manuscript as a single Word or PDF file to be used in the refereeing process. Only when your paper is at the revision stage, will you be requested to put your paper into a 'correct format' for acceptance and provide the items required for the publication of your article.

Please write your text in good English (American or British usage is accepted, but not a mixture of these).

Types of papers

There are four types of submission: regular manuscripts for publication as Original Research Articles /Reviews and short fast track manuscripts for publication as Letters or Notes.

Original Research Articles/Reviews should present detailed scientific studies of the geology, mineralogy, and geochemistry of mineral deposits.

Research Advances are intended for fast publication of exciting new scientific results in geology that will be of broad interest.

News and Highlights are intended for fast publication of short accounts of new discoveries that have not reached the maturity to warrant publications as a full Article, and brief descriptions of new prospects.

Original /Review Articles typically should be 10-30 pages in length within the journal (approximately 30-90 manuscript pages of 1600 characters including text, title, references, less space needed for tables and figures).

Research Advances should be no longer than four print pages (less than 12 manuscript pages of 1600 characters including title, abstract, references, tables and up to four display items).

News and Highlights should be no longer than two print pages (less than 6 manuscript pages of 1600 characters including title, abstract, references, tables and up to four display items).

Editor-in-Chief

Dr. Hao Zi-guo, E-mail: haoziguo@126.com

Editorial staff

Dr. Jia Li-qiong, E-mail: jialiqiong1225@163.com

Dr. Chen Xi-jie, E-mail: xijiechen2020@163.com

Jia Ting, E-mail: tina_533@163.com

China Geology Editorial Office

Tel: +86-10-58584308, 58584267, 58584239

E-mail: chinageology_2018@163.com

Website: http://chinageology.cgs.cn

Address: No. 45 Fuwai Street, Xicheng District, Beijing 100037, P. R. China