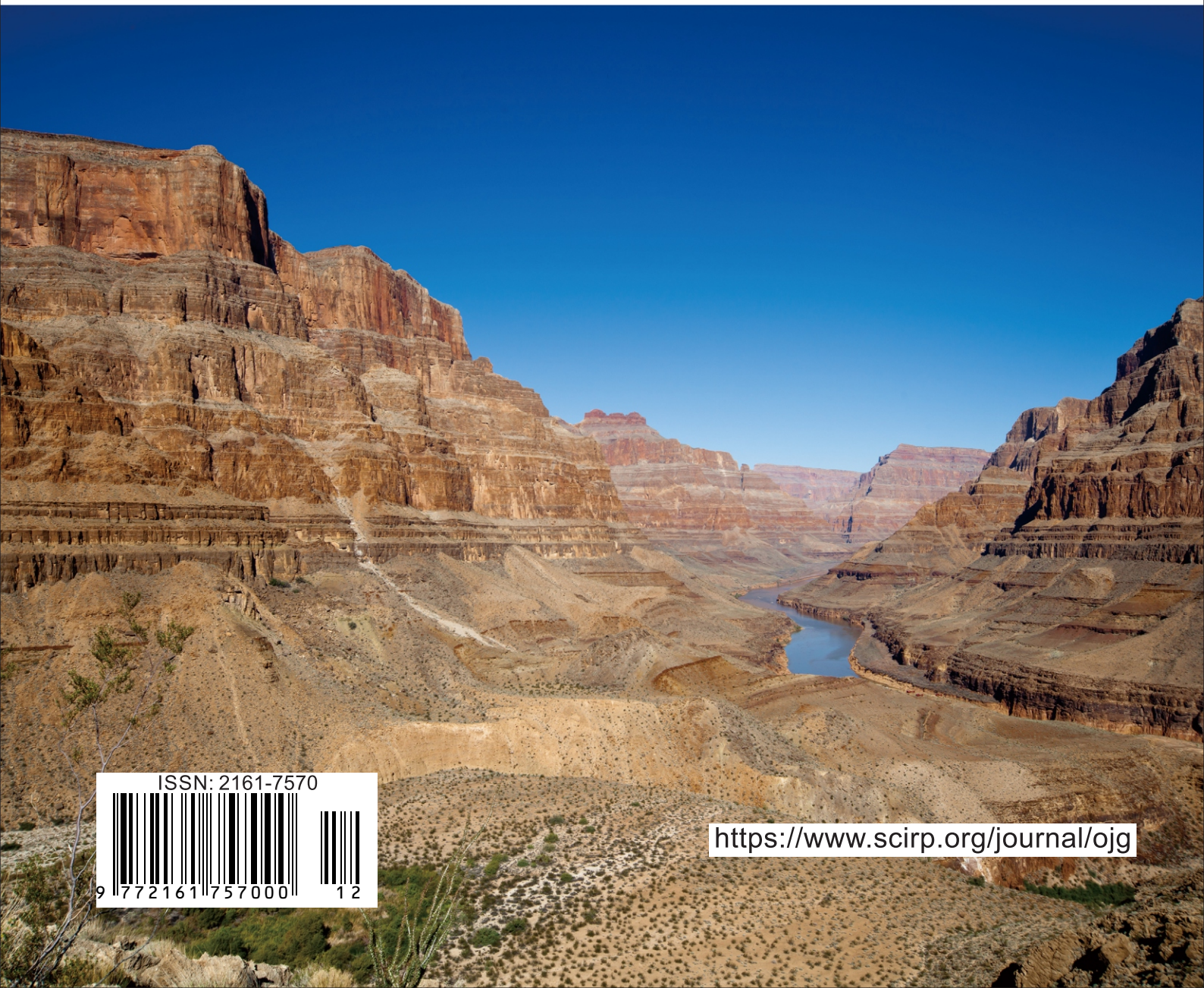


ISSN: 2161-7570    Volume 15, Number 12, December 2025



# Open Journal of Geology



ISSN: 2161-7570



9 772161 757000 12

<https://www.scirp.org/journal/ojg>

# Journal Editorial Board

ISSN 2161-7570 (Print) ISSN 2161-7589 (Online)

<https://www.scirp.org/journal/ojg>

---

## Editor-in-Chief

**Prof. Zhihong Wang** Chinese Academy of Sciences, China

## Editorial Board

**Prof. Boushaba Abdellah** Sidi Mohamed Ben Abdellah University, Morocco

**Prof. Md. Mahmudul Alam** Rajshahi University, Bangladesh

**Prof. Nadhir Al-Ansari** Lulea University of Technology, Sweden

**Prof. Mokhles K. Azer** National Research Centre, Egypt

**Dr. Ranjith Pathegama Gamage** Monash University, Australia

**Prof. Alexandra Guedes** University of Porto, Portugal

**Prof. Olga Hachay** Institute of Geophysics, Ural Branch of Russian Academy of Sciences,  
Russia

**Prof. Sayed Hemed** Cairo University, Egypt

**Prof. Mohamed Tahir Hussein** King Saud University, Saudi Arabia

**Prof. Gehad Mohamed Saleh Ibrahim** Nuclear Materials Authority (NMA), Egypt

**Dr. Pradeep Kamaraj** Dhaanish Ahmed College of Engineering, India

**Prof. M. Kannan** Parisutham Institute of Technology and Science (Anna University  
Affiliated College), India

**Prof. Ali Ihsan Karayigit** Hacettepe University, Türkiye

**Prof. Gang Li** Chinese Academy of Sciences, China

**Dr. Patrizia Maiorano** University of Bari, Italy

**Prof. Tranos D. Markos** Aristotle University of Thessaloniki, Greece

**Dr. Mostafa Tantawy Mohamed** Assiut University, Egypt

**Prof. Károly Németh** Massey University, New Zealand

**Prof. Cyril Ngozi Nwankwo** University of Port Harcourt, Nigeria

**Prof. Gopalakrishnarao Parthasarathy** NIAS IISc Campus, India

**Prof. M. M. Sheikh** Government Lohia PG College, India

**Prof. Alireza K. Somarin** Brandon University, Canada

**Prof. Jamel Touir** University of Sfax, Tunisia

**Prof. Xiaoli Yang** Central South University, China

**Prof. Hong Zheng** Chinese Academy of Sciences, China

# Table of Contents

**Volume 15    Number 12**

**December 2025**

## **Assessing the Impact of Reservoir Heterogeneity on Carbon Capture and Storage Feasibility through Numerical Simulation**

F.-H. Essiagne, K. L. Kra, M. Camara, K. E. Kouadio..... 867

## **Some Travel Sites in the Region of Dahab in Eastern Sinai**

I. Warburg..... 897

## **Soil Mapping and Assessment of the Agricultural Capacity of the Land at Kouh-Est in the Logone Oriental (Southern Chad)**

N. M'Baïti, J.-C. Doumnang Mbaigane, A. B. Ibrahim ..... 908

## **Petrographic, Geochemical and Geotechnical Properties of Laterites from Two Quarries in the Diass Horst (Senegal, West Africa)**

M. M. Thiam, A. Dione, N. P. Dione, I. Ndoye, A. L. Soumare, M. M. Dia, L. B. Malo ..... 942

## **Employing Principal Component Analysis and K-Means Clustering to Elucidate the Geological Compositional Process at N'Guérédonké Ultramafic Fe-Ti Deposit**

M. L. S. Sanogo, I. Wagani ..... 951

## **Cinder Cones Geomorphometric Dating in the Camargo Volcanic Field, Chihuahua, Mexico**

V. V. Espejel-Garcia, A. Villalobos-Aragon, D. Espejel-Garcia, M. I. Gallegos-Aragon,  
M. E. Chavez-Armendariz..... 972

## **Correlations between Granulometric and Petrophysical Parameters of Sediments in the Continental Terminal of the South Comoé Region (Côte d'Ivoire)**

P.-C. Affoumou, Y. A. N'Guessan, D. F. Yao ..... 986

## **Environmental Monitoring of Total Hydrocarbon Contents in Fjords of Svalbard, Grönfjord**

A. Aleksandrova, N. Aleksandrova, A. Demeshkin ..... 999

## **New Geological Data on the Inselbergs of Anié, Togo (West Africa)**

S. A. M. Kpazou, G. Alayi, K. E. Kassegne, Y. E. Baite, O.-D. E. Samah,  
M. S. Tairou, Y. Agbossoumondé..... 1009

## **Incorporation of Geospatial Data and Multi-Criteria Analysis for Mapping and Assessing the Mineral Potential of the Baïbokoum Pluton (Southern Chad)**

R. G. Baïssema, D. Mbaguejé, N. F. Djerosse, O. Safianou, N. S. Abdoulaye,  
D. M. Gountié, M. Kwékam..... 1029

**Petrographic and Geochemical Characterization of the Fianga Granitoids (Mayo Kebbi)  
in the Pan-African Range of Central Africa in Chad: Geodynamic Implication**

M. N. Klamadji, D. Mbaguedje, N. F. Djerossem, R. G. Baïssemia, D. Temoua ..... 1061

# Open Journal of Geology (OJG)

## Journal Information

### SUBSCRIPTIONS

The *Open Journal of Geology* (Online at Scientific Research Publishing, <https://www.scirp.org/>) is published monthly by Scientific Research Publishing, Inc., USA.

#### Subscription rates:

Print: \$79 per issue.

To subscribe, please contact Journals Subscriptions Department, E-mail: [sub@scirp.org](mailto:sub@scirp.org)

### SERVICES

#### Advertisements

Advertisement Sales Department, E-mail: [service@scirp.org](mailto:service@scirp.org)

#### Reprints (minimum quantity 100 copies)

Reprints Co-ordinator, Scientific Research Publishing, Inc., USA.

E-mail: [sub@scirp.org](mailto:sub@scirp.org)

### COPYRIGHT

#### Copyright and reuse rights for the front matter of the journal:

Copyright © 2025 by Scientific Research Publishing Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY).

<http://creativecommons.org/licenses/by/4.0/>

#### Copyright for individual papers of the journal:

Copyright © 2025 by author(s) and Scientific Research Publishing Inc.

#### Reuse rights for individual papers:

Note: At SCIRP authors can choose between CC BY and CC BY-NC. Please consult each paper for its reuse rights.

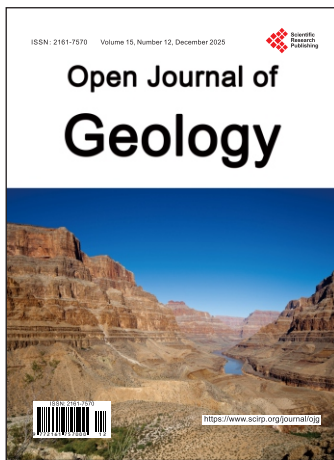
#### Disclaimer of liability

Statements and opinions expressed in the articles and communications are those of the individual contributors and not the statements and opinion of Scientific Research Publishing, Inc. We assume no responsibility or liability for any damage or injury to persons or property arising out of the use of any materials, instructions, methods or ideas contained herein. We expressly disclaim any implied warranties of merchantability or fitness for a particular purpose. If expert assistance is required, the services of a competent professional person should be sought.

### PRODUCTION INFORMATION

For manuscripts that have been accepted for publication, please contact:

E-mail: [ojg@scirp.org](mailto:ojg@scirp.org)



***Call for Papers***

# Open Journal of Geology (OJG)

ISSN: 2161-7570 (Print)      ISSN: 2161-7589 (Online)

<https://www.scirp.org/journal/ojg>

**Open Journal of Geology (OJG)** is an international journal dedicated to the latest advancement of geology. The goal of this journal is to provide a platform for scientists and academicians all over the world to promote, share, and discuss various new issues and developments in different areas of geology.

## Subject Coverage

All manuscripts must be prepared in English, and are subject to a rigorous and fair peer-review process. Accepted papers will immediately appear online followed by printed hard copy. The journal publishes original papers including but not limited to the following fields:

- Earth Science
- Economic Geology
- Engineering Geology
- Environmental Geology
- Geoarchaeology
- Geochemistry
- Geochronology
- Geodetics
- Geography
- Geological Modelling
- Geometallurgy
- Geomicrobiology
- Geomorphology
- Geomythology
- Geophysics
- Glaciology
- Historical Geology
- Hydrogeology
- Meteorology
- Mineralogy
- Mining Geology
- Oceanography
- Paleoclimatology
- Paleontology
- Petroleum Geology
- Petrology
- Petrophysics
- Plate Tectonics
- Sedimentology
- Seismology
- Soil Science
- Speleology
- Stratigraphy
- Structural Geology
- Volcanology

We are also interested in: 1) Short Reports—2-5 page papers where an author can either present an idea with theoretical background but has not yet completed the research needed for a complete paper or preliminary data; 2) Book Reviews—Comments and critiques.

## Notes for Intending Authors

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere. Paper submission will be handled electronically through the website. All papers are refereed through a peer review process. For more details about the submissions, please access the website.

## Website and E-Mail

<https://www.scirp.org/journal/ojg>

E-mail: [ojg@scirp.org](mailto:ojg@scirp.org)

## ***What is SCIRP?***

Scientific Research Publishing (SCIRP) is one of the largest Open Access journal publishers. It is currently publishing more than 200 open access, online, peer-reviewed journals covering a wide range of academic disciplines. SCIRP serves the worldwide academic communities and contributes to the progress and application of science with its publication.

## ***What is Open Access?***

All original research papers published by SCIRP are made freely and permanently accessible online immediately upon publication. To be able to provide open access journals, SCIRP defrays operation costs from authors and subscription charges only for its printed version. Open access publishing allows an immediate, worldwide, barrier-free, open access to the full text of research papers, which is in the best interests of the scientific community.

- High visibility for maximum global exposure with open access publishing model
- Rigorous peer review of research papers
- Prompt faster publication with less cost
- Guaranteed targeted, multidisciplinary audience



**Scientific  
Research  
Publishing**

**Website: <https://www.scirp.org>**

**Subscription: [sub@scirp.org](mailto:sub@scirp.org)**

**Advertisement: [service@scirp.org](mailto:service@scirp.org)**