

Special Issue

CO₂ Mineralization and Utilization

Message from the Guest Editors

Effective reduction in CO₂ emissions towards carbon neutrality needs both CO₂ mineralization and enhanced supply of critical materials to facilitate the clean energy transition as direct and indirect approaches, respectively. CO₂ mineralization is one example of the self-regulatory mechanisms of the Earth and can be accelerated to capture and store excessive CO₂ gas as stable mineral carbonates. Accelerated CO₂ mineralization can be also utilized in many aspects of anthropology activities, e.g., enhancing the growth of agricultural crops, enhancing metal recovery, producing nanosilicas, etc. With the global transition to clean energy, the utilization of CO₂ mineralization plays an increasingly important role in enhancing the recovery of critical materials with minimizing CO₂ emissions for sustainable development.

Guest Editors

Dr. Fei Wang

Department of Mining, Metallurgical and Materials Engineering, Laval University, Quebec City, QC G1V 0A6, Canada

Prof. Dr. Rafael Santos

Department of Civil, Environmental, and Water Resources Engineering, University of Guelph, Guelph, ON N1G 2W1, Canada

Deadline for manuscript submissions

closed (31 August 2025)



Minerals

an Open Access Journal
by MDPI

Impact Factor 2.2
CiteScore 4.4



mdpi.com/si/169027

Minerals
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
minerals@mdpi.com

[mdpi.com/journal/
minerals](https://mdpi.com/journal/minerals)





Minerals

an Open Access Journal
by MDPI

Impact Factor 2.2
CiteScore 4.4



[mdpi.com/journal/
minerals](https://mdpi.com/journal/minerals)



About the Journal

Message from the Editor-in-Chief

Minerals welcomes submissions that report basic and applied research in mineralogy. Research areas of traditional interest are mineral deposits, mining, mineral processing and environmental mineralogy. The journal footprint also includes novel uses of elemental and isotopic analyses of minerals for petrology, geochronology and thermochronology, thermobarometry, ore genesis and sedimentary provenance. Contributions are encouraged in emerging research areas such as applications of quantitative mineralogy to the oil and gas, manufacturing, forensic science, climate change, geohazard and health sectors.

Editor-in-Chief

Prof. Dr. Leonid Dubrovinsky

Bayerisches Geoinstitut, University Bayreuth, D-95440 Bayreuth,
Germany

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), GEOBASE, GeoRef, CaPlus / SciFinder, Inspec, Astrophysics Data System, AGRIS, and other databases.

Journal Rank:

JCR - Q2 (Mining and Mineral Processing) / CiteScore - Q1 (Geology)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 17.7 days after submission; acceptance to publication is undertaken in 2.6 days (median values for papers published in this journal in the second half of 2025).