Special Issue

Trace Element Uptake by Carbonate Minerals

Message from the Guest Editors

Carbonates are a group of widely occurring minerals, with a variety of applications in natural sciences and engineering. Incorporation of trace and minor elements (impurities) into carbonates as well as isotope fractionation provides invaluable information on the conditions of mineral formation, which is actively used in geological and oceanographical disciplines. An important application in environmental sciences is the remediation potential of carbonates (e.g., the ability to sequester hazardous elements into the crystal lattice and retain it there for up to millions of years). The role of impurities in changing the physical properties of carbonate minerals (e.g., lattice strength and surface wettability) has important implications in geological and petroleum engineering. This special issue focuses on the evaluation of impurity incorporation and isotope fractionation during the crystallization of carbonate minerals via nucleation/growth, recrystallization, phase transformation, and diffusion. Studies on the incorporation of cations and anions to carbonate minerals at ambient and hydrothermal conditions are encouraged for submission.

Guest Editors

Dr. Rinat Gabitov

Department of Geosciences, Mississippi State University, Starkville, MS 39762, USA

Dr. Jeremy Weremeichik

Geosciences Program, Indiana University Southeast, New Albany, IN 47150, USA

Deadline for manuscript submissions

closed (13 August 2021)

Minerals

an Open Access Journal by MDPI

Impact Factor 2.2
CiteScore 4.4

mdpi.com/si/54595

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

mdpi.com/journal/minerals

Minerals

an Open Access Journal by MDPI

Impact Factor 2.2
CiteScore 4.4

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), 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 18.2 days after submission; acceptance to publication is undertaken in 2.6 days (median values for papers published in this journal in the first half of 2025).

MDPI