minerals

an Open Access Journal by MDPI

IMPACT FACTOR 2.5

CITESCORE 3.9

Biomineralization and Biominerals: Lessons from Mineral-Producing Organisms

Guest Editors:

Dr. Oluwatoosin Agbaje
School of Natural Sciences, Macquarie University, Sydney, NSW 2109, Australia

Dr. Olev Vinn
Department of Geology, University of Tartu, 50411 Tartu, Estonia

Deadline for manuscript submissions:
closed (28 February 2023)

Message from the Guest Editors

Dear Colleagues,

Living organisms have gone through an evolution, over 3.8 Gyr, to use inorganic matrices to fashion a diverse range of highly organized biological minerals that are ideal for biological functions. For instance, the skeletons of deep-sea glass sponges are built of silica-based minerals which, in turn, make exceptional fibre-optic properties. Mollusc shells are made of calcareous, aragonite or calcite, then achieve stiffness and toughness higher than that of their pure inorganic counterparts. The properties of biominerals are far superior compared to human-made materials, and the current understanding of their formation is far from complete. It is indeed necessary to learn from nature. The structural lessons gained from the study of these biocomposites could thus provide important design insights into the fabrication of tough layered inorganic–organic hybrid materials/morphologies that could always have fresh surfaces to do specific jobs. Therefore, you are invited to submit manuscripts that focus on biomineralization and biomineral characterization, and biomimetic design that will be highly beneficial to society.

minerals

an Open Access Journal by MDPI

IMPACT FACTOR 2.5

CITESCORE 3.9

Editor-in-Chief

Prof. Dr. Leonid Dubrovinsky
Bayerisches Geoinstitut,
University Bayreuth, D-95440
Bayreuth, Germany

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.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.
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 & Mineral Processing*) / CiteScore - Q2 (*Geology*)

Contact Us

Minerals Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/minerals
minerals@mdpi.com
𝕏@Minerals_MDPI/