Special Issue

Clay Minerals in Geoengineering Applications: Behaviour, Hazards and Solutions

Message from the Guest Editor

Clay minerals are hydrous aluminium phyllosilicates, sometimes with variable amounts of iron, magnesium, alkali metals, alkaline earths, and other cations found on or near some planetary surfaces. They are important constituents of soil, and are among the most common and readily accessible of all of the materials encountered in construction operations. Where exposed to seasonal environments, active clay minerals exhibit significant swell–shrink volume changes and desiccation-induced cracking, thereby bringing forth instability concerns to the overlying structures, and hence incurring large amounts of maintenance costs. Consequently, clay soils demand engineering solutions to alleviate the associated socio-economic impacts on human life. This Special Issue aims to bring together corresponding original studies related to the identification, classification, characterisation, and stabilisation of clays and clay minerals for their effective use in geotechnical engineering projects. Fundamental constitutive modelling studies, analytical and numerical analyses, and experimental and field investigations will be considered.

Guest Editor

Dr. Abbas Taheri

Chair in Mine Design, The Robert M. Buchan Department of Mining, Queen's University, Kingston, ON K7L 3N6, Canada

Deadline for manuscript submissions

closed (20 September 2020)

Minerals

an Open Access Journal by MDPI

Impact Factor 2.2
CiteScore 4.4

mdpi.com/si/25990

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