

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

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Deadline for manuscript submissions

closed (20 September 2020)



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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.

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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).