Special Issue

Functional Design of Clay Minerals

Message from the Guest Editors

Functional design of clay minerals is a key strategy to realize its high value utilization. The special issue primarily focuses on the functional strategy and theoretical study of clay minerals, and their application in the environment, energy, and biomedicine fields. Functional design mainly includes the controllable loading of nanomaterials on the surface of clay minerals, interlayer structure adjust and interface binding behavior. Also the interaction of biological cells with clay minerals was emphasized. Furthermore, density functional theory (DFT) calculations can analyse the electronic structure and energy of functionalized clay minerals at the atomic molecular level. The keywords are:

- clay minerals
- nanotubular clay
- functional design
- energy and environmental applications
- atomic molecular interface
- DFT calculation

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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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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).

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