

## Special Issue

# Adsorption Properties and Environmental Applications of Clay Minerals

### Message from the Guest Editors

Clay minerals play a fundamental role in many environmental processes, particularly in controlling the movement of various ions and molecules in soils, waters, and barriers of waste storage facilities. Several applications are facilitated by clay minerals, via either their direct use or after modification. The mineralogical, chemical, and geotechnical characterization of the clay materials studied and applied needs to be carried out to learn which controlling processes determine the uptake of contaminants by clay materials. To predict the changes in the studied environmental systems over time, it is necessary to search for an adequate mathematical description of the individual-identified sub-processes. Knowledge of these sub-models and their interconnectedness in global transport models helps to predict the flow of contaminants in the vicinity of contamination sources. Papers addressing (i) wastewater treatment technologies using clay materials, (ii) theoretical aspects of the capture of significant contaminants on the surface of clay minerals, and (iii) the modeling of contaminant transport in such an environment, of which clay minerals are a significant part, are welcome.

### Guest Editors

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### Deadline for manuscript submissions

closed (28 February 2025)



## Minerals

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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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