

Special Issue

Organic Pollutant Removal from Water and Wastewater Using Clay Minerals

Message from the Guest Editors

Contamination of waters by persistent and emerging organic pollutants (herbicides, pharmaceuticals, hormones, food additives) imposes severe environmental and human health risks. There is a continuous quest for materials that can efficiently remove these pollutants from wastewaters before reaching rivers, lakes, and groundwaters. Natural clay minerals are excellent sorbents for cations but not very efficient for removing anions and hydrophobic compounds. However, more and more studies have demonstrated that clay minerals work as an efficient platform for chemical modification and fine-tuning of surface chemistries to enhance their affinity to a wide variety of anionic and hydrophobic organic pollutants. Organoclays, composite materials, bioreactive organoclays, and clay minerals containing magnetic nanomaterials work as efficient sorbents with potential applicability for wastewaters remediation. They also exhibit a high degree of reusability. This Special Issue aims at presenting the state-of-the-art on preparation, characterization, and application of clay mineral-based materials for the remediation of waters and wastewaters, emphasizing the removal of organic pollutants.

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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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