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Environmental Geochemistry of Heavy Metals: Contamination, Impacts, and Countermeasure Strategies

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Message from the Guest Editors

In this Special Issue, we aim to provide an update on novel advances focusing on environmental geochemistry of heavy metals and countermeasure strategies. This Special Issue will cover metal and potentially toxic elements in water, soil, and groundwater, highlighting the latest progress in the following areas:

1. Multi-Element Analysis: understanding inter-element relationships in various compartments, their geochemical behavior, and implications for contamination.
2. Sources and Pathways: examining their sources, contamination levels, and the pathways through which they enter and persist in the environment.
3. Advances in Analysis Methods: quantifying heavy metals in various environmental matrices and investigating the interactions between contaminants and soil components, including batch sorption analysis and column tests.
4. Environmental Monitoring and Countermeasure: exploring novel countermeasure techniques and monitoring strategies to mitigate the impact of heavy metal contamination on ecosystems and human health.

This Special Issue seeks to continuously expand the scope of knowledge and innovation in addressing the complex challenges posed by heavy metal contamination.

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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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