Special Issue

Geological and Mineralogical Control on the Environmental Risk of Potentially Toxic Elements in Mine Waste Heaps: A Risk Mitigation Perspective

Message from the Guest Editors

Mining produces the second largest waste stream in the world. Modern mines, as well as abandoned mines, are responsible for significant environmental damage throughout the world and can pollute air and drinking water, harm wildlife and habitat, and permanently scar natural landscapes. Acid mine drainage carrying high concentrations of potentially toxic elements (PTEs) such as Pb, As, Cd, Zn and Ni is the primary source of water and soil pollution from mining. This Special Issue aims at bringing together state-of-the-art studies on PTE behavior in mine waste (waste rock and tailings) heaps whose focus is on the geological and mineralogical control on PTE mobility, liberation by weathering and deposition by secondary geochemical processes with a risk mitigation perspective under various climatic conditions and on effective remediation control.

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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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