



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

Guest Editors:

**Dr. Gyozo Jordan**

Department of Applied  
Chemistry, Szent István  
University, 1118 Budapest,  
Hungary

**Prof. Dr. Gyorgy Heltai**

Hungarian University of  
Agriculture and Life Sciences,  
2100 Godollo, Hungary

Deadline for manuscript  
submissions:

**closed (15 November 2022)**

### Message from the Guest Editors

Dear Colleagues,

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.

Dr. Gyozo Jordan  
Prof. Dr. Gyorgy Heltai





an Open Access Journal by MDPI

## Editor-in-Chief

**Prof. Dr. Leonid Dubrovinsky**  
Bayerisches Geoinstitut,  
University Bayreuth, D-95440  
Bayreuth, Germany

## 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.

## Author Benefits

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within Scopus, SCIE (Web of Science), GeoRef, CaPlus / SciFinder, Inspec, Astrophysics Data System, AGRIS, and other databases.

**Journal Rank:** JCR - Q2 (*Mineralogy*) / CiteScore - Q2 (*Geology*)

## Contact Us

---

*Minerals* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/minerals](http://mdpi.com/journal/minerals)  
[minerals@mdpi.com](mailto:minerals@mdpi.com)  
[X@Minerals\\_MDPI/](https://twitter.com/Minerals_MDPI/)