Special Issue

Thermochemical Processing of Low-Grade Ores and Mineral-Related Wastes

Message from the Guest Editor

In recent years, thermochemical processing of low-grade ores and mineral wastes has received renewed attention. This Special Issue will focus on recent advances in thermochemical processing of low-grade ores and mineral wastes, including but not limited to the following topics:

- Alkali roasting-leaching methods using e.g. NaOH, Na2CO3, CaCO3
- Ammonium salt roasting-leaching methods using e.g. (NH4)2SO4, NH4Cl
- Microwave-enhanced extraction methods
- Thermochemical processing applied to e.g., mine tailings, coal fly ash, individual minerals (e.g., serpentine)
- Extraction of rare earth elements, aluminium and other metals by thermochemical processing
- Thermochemical decomposition of extraction agents (e.g., (NH4)2SO4)
- Thermodynamics and kinetics studies
- Techno-economic and exergy studies

Guest Editor

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Deadline for manuscript submissions

closed (31 December 2024)

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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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Journal Rank:

JCR - Q2 (Mining and Mineral Processing) / CiteScore - Q1 (Geology)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 17.7 days after submission; acceptance to publication is undertaken in 2.6 days (median values for papers published in this journal in the second half of 2025).

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