Special Issue

Towards Sustainable Mining and Mineral Processing of Metals: Assessment to Implementation

Message from the Guest Editors

The minerals sector faces an exciting and challenging future. There is a dual requirement to discover and develop significant new sources of raw materials to process into metals, including critical minerals for the energy transition, but to do so in a manner that is sustainable, incurring minimal environmental externalities. We are pleased to launch a new Special Issue focusing on recent and emerging developments that will ensure a sustainable minerals industry to facilitate the energy transition and the concurrent achievement of net zero emissions mining A list of potential topics of interest is reported below:

- New frontiers in innovative mineral exploration and discovery
- Non-invasive mining, including in situ leaching of metals
- Mineral resources life cycle impact assessment
- Towards net zero emissions mining
- Energy efficiency in mining and processing
- New methods and emerging technologies for mineral processing and recovery
- Efficient recovery of by-product metals from smelting and refining
- Mining closure strategies
- New demand segments for metals, for example in energy storage technologies
- Social and environmental sustainability of mining and mineral processing

Guest Editors

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Deadline for manuscript submissions

closed (30 April 2025)

Minerals

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Impact Factor 2.2
CiteScore 4.4

mdpi.com/si/192422

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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 18.2 days after submission; acceptance to publication is undertaken in 2.6 days (median values for papers published in this journal in the first half of 2025).

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