Special Issue

Unlocking Critical Elements in Base Metal Supply Chains: Challenges and Opportunities

Message from the Guest Editors

Many critical elements, such as germanium, gallium, selenium, tellurium, arsenic, bismuth, etc., are contained in mineral phases that are closely associated with base metal sulfides. As reported in many studies, most of these critical elements are lost to tailings or other process streams during the early stages of mineral processing (i.e., physical beneficiation) or during the downstream processing (i.e., extractive metallurgy). This Special Issue focuses on the characterization and recovery of critical elements in the base metal supply chain. Possible research topics may include the characterization of critical elements and their carrier mineral phases, mineral processing methods for possible enrichment, and potential extractive metallurgy techniques to recover them. Lift cycle analysis associated with the processing of these elements is also considered.

Guest Editors

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Deadline for manuscript submissions

closed (30 November 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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JCR - Q2 (Mining and Mineral Processing) / CiteScore - Q1 (Geology)

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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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