Special Issue

Process Optimization in Mineral Processing

Message from the Guest Editor

The theme of the Special Issue is process optimization in mineral processing, a vitally important and comprehensive area of research. Multidisciplinary collaboration is required, since production of saleable concentrate of high quality is the sum of many factors and requires wide understanding of the technical and economical aspects of mineral processing and the stages linked to it. In simple terms, the primary aim of process control is to maximize efficiency of the process: achieving maximum production at minimum cost. The quality of the final concentrate determines the success of further downstream process and the optimum outcome requires proper characterization and optimization of the process. Variability of ore feed, complex mineralogy, quality of process water, reagents—all these impact process performance and pose challenges for process optimization and control. To optimize the process in the best possible way, integrated and frequent mineralogy-based analysis, reliable real-time information from the various process stages, and optimized data management play key roles: Repeatable measurements provide the control system with essential information for a stable operation.

Guest Editor

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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)

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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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