

Special Issue

Advances in Ore Processing Technologies: Crushing, Milling and Separation

Message from the Guest Editors

Advances in the mineral processing steps are constant. Crushing develops more efficient particle breaking, avoiding fine particles, and optimizing energy consumption. The liberation step is the grinding process and consumes most of the energy in a mineral processing plant. The liberation size gets smaller every day, and the milling operation must be constantly optimized. Energy saving remains a minor area of improvement. Gravity separation is in constant adaptation for future problems. New technologies improve fine concentration, especially using centrifugal forces. Magnetic and electrostatic separations have a small scope of application, but they are more relevant for the future in mineral processing. Metal recovery in the mining industry is a real problem for future industry development. Froth flotation, especially micro-flotation, will be increasingly studied to concentrate on the fine particles generated during liberation. This Special Issue aims to bring together relevant publications in the field of mineral processing.

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Deadline for manuscript submissions

closed (31 July 2022)



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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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