Special Issue

Seawater Flotation

Message from the Guest Editor

The mining industry plays an irreplaceable role in the development of human beings. Flotation processes, which predominate the collection of minerals in the mining industry, consume a massive amount of freshwater. The use of freshwater in floatation has often been limited by many factors, such as the availability of local freshwater resources, competing water use for the growing world population and other industries, and stringent environmental regulations. Seawater, which occupies 97.5% of water resources on Earth, is therefore a promising alternative water source for mineral flotation. However, various inorganic ions contained in seawater have a significant influence on the mineral flotation process. This Special issue will cover the latest developments in the seawater flotation of minerals. The flotation kinetics and the mechanisms of minerals in seawater flotation systems are different from those in fresh water, limiting the application of seawater in the mining industry. Therefore, fundamental knowledge in terms of flotation reagents, different ions, precipitation and adsorption, surface oxidation, etc. are essential to enable the seawater flotation of minerals.

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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