Special Issue

Interactions between Bubbles and Solid Particles during the Flotation Process

Message from the Guest Editors

The interaction between bubbles and solid particles is an important mechanism in many industrial processes; flotation is one of the most widely used applications in these domains. Today, flotation is used not only to separate coal or mineral particles from mined ore deposits, but also to separate plastic materials, wastewater treatment or paper recycling. The overall flotation efficiency is given as the combination of collision efficiency and attachment efficiency, which is influenced by the formation and expansion of the three-phase contact line, solid particle properties, bubble size and dynamics, or by the presence of flotation agents, particularly surface-active agents.

Given the scientific scope of Minerals, the topics of interest of this Special Issue include original papers related to basic and applied research on the physicochemical aspects of the flotation separation process, such as experimental or calculated flotation efficiency, three-phase contact line formation and expansion, the stability of bubble-particle aggregates, flotation kinetics, the attachment mechanism, and the influence of flotation agents.

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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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