

## Special Issue

# An Overview of Applications and Types of Flotation Reagents: Performance, Efficiency and Optimization

### Message from the Guest Editors

Flotation is a pivotal process in mineral processing, allowing for the concentration of valuable minerals from ores. Flotation reagents, encompassing collectors, frothers, modifiers and dispersants, enable the selective collection of valuable mineral particles via air bubbles, separating them from gangue minerals. The effectiveness of these reagents significantly impacts the metallurgical efficiency (grade–recovery curve). Optimization strategies consider factors such as reagent dosage, water quality, particle size and ore mineralogy to achieve desired outcomes. This abstract underscores the significance of efficient flotation reagents in mineral processing, especially for separating minerals in complex ores. This Special Issue in the *Minerals* journal showcases the latest advancements and innovations in flotation reagents, encompassing both improved performance and a commitment to sustainability within the mining industry.

### Guest Editors

Dr. André C. Azevedo

Laboratório de Tecnologia Mineral e Ambiental (LTM), Departamento de Engenharia de Minas, PPGE3M, Universidade Federal do Rio Grande do Sul, Porto Alegre 91501-970, RS, Brazil

Dr. Rafael Teixeira Rodrigues

Laboratório de Tecnologia Mineral e Ambiental (LTM-PPGE3M), Departamento de Engenharia de Minas (DEMIN), Universidade Federal do Rio Grande do Sul (UFRGS), Porto Alegre 91501-970, RS, Brazil

### Deadline for manuscript submissions

closed (30 November 2024)



## Minerals

an Open Access Journal  
by MDPI

Impact Factor 2.2  
CiteScore 4.4



[mdpi.com/si/180581](https://mdpi.com/si/180581)

*Minerals*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[minerals@mdpi.com](mailto:minerals@mdpi.com)

[mdpi.com/journal/  
minerals](https://mdpi.com/journal/minerals)





# Minerals

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.2  
CiteScore 4.4



[mdpi.com/journal/  
minerals](https://mdpi.com/journal/minerals)



## 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.

---

### Editor-in-Chief

Prof. Dr. Leonid Dubrovinsky

Bayerisches Geoinstitut, University Bayreuth, D-95440 Bayreuth,  
Germany

---

### Author Benefits

#### High Visibility:

indexed within Scopus, SCIE (Web of Science), GeoRef, CaPlus / SciFinder, Inspec, Astrophysics Data System, AGRIS, and other databases.

#### Journal Rank:

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

#### Rapid Publication:

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).