



## Advances in the Theory and Technology of Physical Separation

Guest Editors:

**Dr. Dongfang Lu**

School of Minerals Processing  
and Bioengineering, Central  
South University, Changsha  
410083, China

**Dr. Mehdi Safari**

1. Minerals Processing Division,  
Mintek, Randburg 2125, South  
Africa  
2. Faculty of Engineering and the  
Built Environment, University of  
the Witwatersrand, 1 Jan Smuts  
Ave., Johannesburg 2000, South  
Africa

Deadline for manuscript  
submissions:

**31 January 2025**

### Message from the Guest Editors

The history of physical separation can be traced back to ancient times, when people began to use the physical properties of substances for separation, such as washing gold-bearing placers with water. With the development of the industrial revolution, physical separation technology has been further developed and applied. This Special Issue invites submissions that include original scientific research relating to physical separation from well-known and/or new localities worldwide.

This Special Issue focuses on the following topics: (1) research on gravity separation theory and its utilization in mineral and secondary resource recovery; (2) theoretical research on magnetic separation, research and development of new magnetic separation equipment, and utilization of magnetic separation equipment in minerals and secondary resources; (3) theoretical research on electric separation and utilization of electric separation equipment in resource recovery; (4) particle classification and its application in resource recovery; and (5) other theories and applications of physical separation, e.g., photoelectric beneficiation, heavy medium pre-separation, color separation, etc.





an Open Access Journal by MDPI

## Editor-in-Chief

**Prof. Dr. Leonid Dubrovinsky**  
Bayerisches Geoinstitut,  
University Bayreuth, D-95440  
Bayreuth, Germany

## 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.

## Author Benefits

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

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

**Journal Rank:** JCR - Q2 (*Geochemistry and Geophysics*) / CiteScore - Q2 (*Geology*)

## Contact Us

---

*Minerals* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/minerals](http://mdpi.com/journal/minerals)  
[minerals@mdpi.com](mailto:minerals@mdpi.com)  
[X@Minerals\\_MDPI/](https://twitter.com/Minerals_MDPI/)