Special Issue

Advances in the Theory and Technology of Physical Separation

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.

Guest Editors

Dr. Dongfang Lu

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

Dr. Mehdi Safari

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

Deadline for manuscript submissions

closed (31 July 2025)



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Minerals
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
minerals@mdpi.com

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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.

Fditor-in-Chief

Prof. Dr. Leonid Dubrovinsky

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

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