Special Issue

Advances in Particle Morphological Analysis and Current Characterization Applications in Mineral Processing

Message from the Guest Editors

Since ores must be physically or chemically processed before being converted into usable metals or finished mineral products, particle properties such as size and shape are critical for liberating and separating valuable minerals from their gangues, improving their separation efficiency, and employing them in the modeling and simulation of comminution unit operations. Since comminuted particles have non-spherical particles, they behave differently from the homogeneous spherical particles that are traditionally used as models. Therefore, not only their size and distribution but also their shape become crucial in mineral processing applications. Characterizing particle shapes helps to determine the connection between process efficiency and product quality and offers opportunities to increase production efficiency. Thus, this Special Issue welcomes the shape characterization of particles in mineral processing operations (screening and classification, ore sorting, gravity separation, magnetic separation, electrostatic separation, leaching, and flotation) by using new techniques and approaches.

Guest Editors

Prof. Dr. Ugur Ulusoy

Dr. Onur Guven

Dr. Xiangning Bu

Deadline for manuscript submissions

closed (31 May 2024)

Minerals

an Open Access Journal by MDPI

Impact Factor 2.2
CiteScore 4.4

mdpi.com/si/167549

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

mdpi.com/journal/minerals

Minerals

an Open Access Journal by MDPI

Impact Factor 2.2
CiteScore 4.4

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).

MDPI