Special Issue

Applications of SEM Automated Mineralogy: From Ore Deposits over Processing to Secondary Resource Characterization

Message from the Guest Editor

During the last decade, software developments in Scanning Electron Microscopy (SEM) provoked a notable increase of applications to the study of solid matter. The mineral liberation analysis (MLA) of processed metal ores was an important drive for innovations that led to QEMSCAN, MLA and other software platforms. These combine the assessment of the backscattered electron (BSE) image to the directed steering of the electron beam for energy dispersive spectroscopy (EDS) to automated mineralogy. However, despite a wide distribution of SEM instruments in material research and industry, the potential of SEM automated mineralogy is still under-utilised. The characterisation of primary ores, and the optimisation of comminution, flotation, mineral concentration and metallurgical processes in the mining industry by generating quantified data [...]
We request articles dealing with the applications of SEM automated mineralogy to solid matter, material and particle analysis, in geosciences, process mineralogy, chemical technology, recycling, environmental sciences, forensic science and archeometry, and in combination with other analytical methods.

Guest Editor

Prof. Dr. Bernhard Schulz

Department of Economic Geology and Petrology, Technische Universität Bergakademie Freiberg, D-09599 Freiberg, Germany

Deadline for manuscript submissions

closed (15 February 2020)

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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.

Editor-in-Chief

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

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