



Computer-Assisted Microscopy for Characterization of Ores and Rocks

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submissions:
closed (19 October 2022)

Message from the Guest Editors

Computer-assisted microscopy involves microscope control and automation, as well as digital image acquisition, processing, and analysis. Besides the automation of routine tasks in the microscopes, it extends the capabilities of traditional microscopy techniques. There are important characteristics of ores and rocks, such as, for instance, pore structure, texture, and mineral liberation, that can only be quantitatively evaluated using computer-assisted microscopy methods. This Special Issue will focus on novel developments and case studies of computer-assisted microscopy applied to the characterization of ores or rocks, which may include, but are not limited to, the following topics:

automated mineralogy
texture and liberation analysis
digital microscopy
correlative microscopy
multidimensional microscopy
x-ray micro-tomography
image analysis
machine learning/deep learning





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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.

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