Special Issue

Digital Exploration and Assessment of Mineral Resources: Theories, Methods and Achievements, 2nd Edition

Message from the Guest Editors

"Digital geology" can be called a combination of "mathematical geology" and "information technology", which is the data analysis component of geological science. Geological data science is a science that uses the general methodology of data to study geology based on the characteristics of geological data and the needs of geological works. The digital exploration and assessment of mineral resources manifest in the application of digital geology in mineral exploration to reduce ore-prospecting uncertainty and to improve ore-prospecting efficiency. The key digital geoscience knowledge lies in highly condensed information derived from raw geological, geochemistry, geophysics, and remote-sensing survey data, which can be used to derive quantitatively exact expressions of the underlying ore-forming processes, phenomena, and regularities. These scientific expressions can be used to predict the occurrence, development, and results of ore-forming events in geological time. Digital mineral exploration is a successful application of data geosciences combined with information technology in geosciences.

Guest Editors

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Deadline for manuscript submissions

31 December 2025

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.

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