

## Special Issue

# Digital Exploration and Assessment of Mineral Resources: Theories, Methods and Achievements

### 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. Digital exploration and assessments 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. This Special Issue will showcase the theories, methods, and achievements in digital mineral exploration and assessments in recent years.

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### Guest Editors

Prof. Dr. Yongqing Chen  
Prof. Dr. Xianchuan Yu  
Dr. Jiangnan Zhao

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### Deadline for manuscript submissions

closed (31 August 2023)



## Minerals

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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.

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### Editor-in-Chief

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indexed within Scopus, SCIE (Web of Science), GEOBASE, 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 17.7 days after submission; acceptance to publication is undertaken in 2.6 days (median values for papers published in this journal in the second half of 2025).