

Special Issue

Mineral Prospectivity Mapping (MPM) Using Multi-Source Datasets, Geo-Statistical Algorithms and Machine Learning Techniques

Message from the Guest Editors

Mineral prospectivity mapping (MPM) is one the most important approaches to mineral exploration using a multi-source dataset. It normally uses a multivariable decision-making contrivance to define and highlight potential zones of ore mineralizations in metallogenic areas. Remote sensing, geological, geophysical, and geochemical datasets can be combined to generate a mineral potential map of a study area at local to regional scales. Fusion, analysis, and the selection of information layers using geo-statistical algorithms and machine learning techniques provide a vital phase on the way to accomplishing accurate MPM for mineral exploration in metallogenic provinces. The main goal of this Special Issue is to focus on miscellaneous ideas about data fusion for MPM with a focus on elevating integration methods and intensifying methods for mineral exploration. Multidisciplinary innovative studies of mineral exploration established on a variety of datasets, algorithms, field, and laboratory techniques covering different research aspects to address ore mineral exploration are highly welcome and encouraged.

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Deadline for manuscript submissions

30 September 2025



Minerals

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Impact Factor 2.2
CiteScore 4.4



mdpi.com/si/159594

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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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