

Special Issue

Multispectral Remote Sensing Satellite Data for Mineral and Hydrocarbon Exploration: Big Data Processing and Deep Fusion Learning Techniques

Message from the Guest Editors

Multispectral remote sensing data afford synoptic view of immense metallogenic provinces such as Archean granite-greenstone terranes for mineral exploration and ore-related lithological mapping, macroseepage and microseepage associated with hydrocarbon reservoirs and CO₂ sequestration in Ophiolite complexes. This special issue is focused on the recent developments of the applications of multispectral remote sensing satellite data for mineral exploration in metallogenic provinces and onshore oil slick detection to offshore oil spill monitoring and hydrocarbon exploration, which may include, but are not limited to, the following topics:

- Innovative methods to fuse multispectral remote sensing satellite data for prospectivity mapping in vast metallogenic provinces
- Multispectral remote sensing satellite data for both macroseepage direct detection and microseepage indirect detection
- Mapping Ophiolite complexes to understand mineral carbonation and CO₂ sequestration using novel remote sensing approaches and modeling
- Geographic Information System (GIS) modeling for integrating different remote sensing datasets and geophysical and geochemical techniques for mineral exploration

Guest Editors

Dr. Amin Beiranvand Pour

Dr. Omeid Rahmani

Dr. Mohammad Parsa

Deadline for manuscript submissions

closed (16 December 2022)



Minerals

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Impact Factor 2.2
CiteScore 4.4



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Minerals
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
minerals@mdpi.com

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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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