

Special Issue

Deep-Sea Ferromanganese Nodules and Related Mineral Resources: Genesis, Exploration, and Mining

Message from the Guest Editors

Deep-sea ferromanganese nodules have long been thought to be a potential metal resource since their first discovery in the 19th century. Recently, particular attention has been paid to the nodules as a promising resource for critical metals such as manganese, cobalt, nickel, and copper. This Special Issue will focus on the latest research developments on ore genesis, exploration, and mining of deep-sea ferromanganese nodules. Insights related to the following aspects will be included in this Special Issue:

- New analytical techniques or approaches to reveal genesis and nature;
- Genetic relationship between ferromanganese nodules and other deep-sea mineral resources;
- Earth's surface environmental change and geology behind the genesis of the nodules;
- Physicochemical processes of critical metal concentration;
- Chemical or physical extraction method for critical metals;
- Geological investigation on new or known ferromanganese nodule fields;
- Innovation and development of exploration methods;
- Feasibility study and economical evaluation on the new or existing strategic technical flow.

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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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manuscripts are peer-reviewed and a first decision is provided to authors approximately 18.2 days after submission; acceptance to publication is undertaken in 2.6 days (median values for papers published in this journal in the first half of 2025).