Special Issue

High-Pressure and High-Temperature Mineral Physics

Message from the Guest Editors

Recent progress in HPHT mineral physics includes significant advancements in experimental techniques and computational modeling. Synchrotron X-ray and neutron diffraction methods now allow for detailed examination of mineral structures under extreme conditions, leading to the discovery of new high-pressure phases. Laser heating techniques in diamond anvil cells have improved temperature control, enabling more accurate simulations of deep Earth conditions. Additionally, first-principle calculations and computational models have enhanced the predictive capabilities for mineral properties, guiding experimental designs and interpreting complex systems. These advancements have not only deepened our understanding of Earth's interior processes but also facilitated the discovery of new materials with industrial applications, such as superhard substances and novel electronic materials. Based on the above opportunities, we plan to prepare a Special Issue on progresses in High-pressure and High-temperature Mineral Physics.

Guest Editors

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Deadline for manuscript submissions

25 September 2025

Minerals

an Open Access Journal by MDPI

Impact Factor 2.2
CiteScore 4.4

mdpi.com/si/210681

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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

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