Special Issue

Phase Relations, Redox and Melting Reactions in Carbonate-bearing Systems in the Earth's Mantle

Message from the Guest Editors

The study of carbonates under various *P-T-X-f*O2 conditions provides insights into both the deep carbon cycle and the transport of atmospheric CO2 to the Earth's mantle. Carbonates are one of the important classes of minerals lowering the solidus temperatures of mantle rocks, which, in turn, influences the generation of deeply seated magmas. Carbonates may have a substantial role in mantle processes relevant to partial melting, metasomatism, and diamond formation. Recent findings of alkali and alkaline earth carbonates in mantle minerals and xenoliths including superdeep diamonds call for further study of the carbonate-bearing systems in a wider range of compositions, pressures and redox conditions. Accordingly, we invite researchers to contribute to this Special Issue on "Phase Relations, Redox and Melting Reactions in Carbonated Systems in the Earth's Mantle".

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Deadline for manuscript submissions

closed (1 August 2020)

Minerals

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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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