



Diagenesis and Geochemistry of Carbonates

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Message from the Guest Editors

Sedimentary marine carbonates are one of the targets most favored by geologists, mainly due to their significance in recording the primary signals for paleoclimate modeling, as well as in hosting petroleum, geothermal, and mineral resources.

The diagenesis of carbonates may have resulted in the cycling of important geochemical elements and their isotopes, which significantly altered their promises in paleoclimate reconstruction. In addition, the alteration of diagenesis would have great impacts on petrophysical parameters, leading to heterogeneity in the carbonate reservoir.

The developments of novel geochemical analysis methods, including high-spatial and mass-resolution microprobes, clumped isotopes, and micro-CT, have allowed for the measurement of carbonate component-dependant in situ U–Pb dating, the temperature, and the microporosity and the pore structure.

This Special Issue of *Minerals* aims to contribute to the disclosure of all the applications of traditional and novel methods to decipher the processes of diagenesis in carbonates, as well as their effects on primary geochemical signals and carbonate reservoir development in the deep subsurface.





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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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