Special Issue

CO_2 Mineralization and Utilization

Message from the Guest Editors

Effective reduction in CO2 emissions towards carbon neutrality needs both CO2 mineralization and enhanced supply of critical materials to facilitate the clean energy transition as direct and indirect approaches, respectively. CO2 mineralization is one example of the self-regulatory mechanisms of the Earth and can be accelerated to capture and store excessive CO2 gas as stable mineral carbonates. Accelerated CO2 mineralization can be also utilized in many aspects of anthropology activities, e.g., enhancing the growth of agricultural crops, enhancing metal recovery, producing nanosilicas, etc. With the global transition to clean energy, the utilization of CO2 mineralization plays an increasingly important role in enhancing the recovery of critical materials with minimizing CO2 emissions for sustainable development.

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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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