

Special Issue

Deep Saline CO₂ Sequestration: Mechanisms and Coupling Behaviours

Message from the Guest Editors

Current and historical human activities, including energy production by the burning of fossil fuels, unsustainable agriculture activities, and land use changes, have escalated levels of greenhouse gases in the atmosphere. Of the various greenhouse gases, it is CO₂ and its abundance in the atmosphere that humanity is best positioned to control. Geological CO₂ sequestration has been routinely proposed by many countries to control their elevated levels of anthropogenic CO₂ in the atmosphere. CO₂ sequestration in deep saline aquifers offers an innovative and ingenious way to combat increased emissions... This Special Issue aims to identify recent advances in understanding, monitoring, and modelling of coupled chemico-mineralogical-thermo-hydro-mechanical (CMTHM) processes in deep saline aquifers and to apply these processes to realistically assess the feasibility of large-scale CO₂ storage in deep saline reservoirs. We look forward to receiving comprehensive reviews, nano/micro to macro scale experimental evaluations and field studies, and analytical and numerical techniques related to deep saline CO₂ sequestration.

Guest Editors

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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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