



Climate Change, Carbon Capture, Storage and CO₂ Mineralisation Technologies

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Message from the Guest Editors

Dear Colleagues,

Climate change is a global issue that is interrelated with the energy and petroleum industry. In this scope, there is an increasing demand for new low cost and energy efficient techniques that reduce the CO₂ emissions. The use of fossil fuels is the primary source of CO₂ emissions, which is one of the main greenhouse gases.

Carbon Capture and Storage is regarded as one of the most efficient technologies that allows carbon intensive industries to continue to operate with lower CO₂ emissions. CCS offers double benefits combining the reduction of greenhouse gas with the direct use of the captured carbon for Enhanced Oil Recovery. Mineral carbonation is a permanent and secure CCS and sequestration technology that gives the solution in cases of smaller to medium emitters. It is based on the in situ or ex situ production of carbonate minerals through the chemical reaction of CO₂ with Ca, Mg and Fe-silicate minerals.

Researchers from the fields of physical sciences and engineering are invited to contribute to our special issue.

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