Special Issue

CO_2 Capture and Sequestration

Message from the Guest Editor

CCS aims to reduce global warming by capturing carbon dioxide (CO2) from large point sources (e.g., fossil fuel power plants), separating the CO2 and storing it in suitable media using the latest developments in engineering principles. CO2 is captured using a variety of technologies that include processes such as **absorption**, **adsorption**, and **membrane gas separation**, among others. The choice, design, modeling and optimization, and tuning/control of material properties for CO2 capture, as well as the processes themselves, are important. The different methods used for CO2 sequestration include (i) geological-sequestration that injects different phases of CO2 in the subsurface (ii) oceanic storage that dissolves CO2 into an ocean at different depths and (iii) solid-phase reaction of CO2 with metal oxides to produce stable carbonates with no risk of CO2 release to the atmosphere. Flow, transport, and reaction of CO2 during sequestration, as well as other related matters, such as the monitoring of key environmental parameters, are important. I welcome your contributions on topics that address/relate to any of the above CCS sub-topics.

Guest Editor

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Clean Technologies (ISSN 2571-8797) is an international, open access journal of novel scientific research on technology development aimed at reducing the environmental impact of human activities. *Clean Technologies* publishes reviews, regular research papers, communications and short notes which show a significant advance in the development of sustainable technology that reduces energy consumption, environmental pollution and/or the use of water and nonrenewable resources. Our aim is to encourage scientists to publish their experimental and theoretical research in detail as open access, serving a trustable base of advance for the scientific community.

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