Special Issue

Advances in CO_2 Capture and Absorption

Message from the Guest Editor

The unexpected amount of CO2 emissions caused by anthropogenic activities is the main reason behind global warming. Carbon capture, utilization and storage (CCUS) is considered an effective technology to curb CO2 emissions in industry. The most used CO2 absorption method in the industry is the alkanolamine-based scrubbing process. However, the alkanolamine-based scrubbing process suffers from several inherent drawbacks. Therefore, it is highly desirable to develop and create new methods for efficient CO2 capture and absorption. The aim of this Special Issue, entitled "Advances in CO2 Capture and Absorption", is to showcase the recent research results related to efficient carbon capture technology. In this Special Issue, experimental and theoretical investigations that explore economically and ecologically methods related to carbon capture are welcome. Submissions to this Special Issue might include, but are not limited to, the following topics: the capture of carbon dioxide using liquid solvents; the capture of carbon dioxide using solid materials; the separation of carbon dioxide via membrane; carbon storage; and carbon utilization.

Guest Editor

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Deadline for manuscript submissions

closed (28 August 2024)

Atmosphere

an Open Access Journal by MDPI

Impact Factor 2.3
CiteScore 4.9

mdpi.com/si/180508

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Message from the Editor-in-Chief

Continued developments in instrumentation and modeling have driven atmospheric science to become increasingly more complex with a deeper understanding of concepts, mechanisms, and interactions. This is the field that innovation built and it has led to a better appreciation for the complexity with atmosphere. Human life is intertwined in this complexity as we strive to better understand our atmosphere. Climate change is constantly stretching the limits of our thinking and forcing new ideas and concepts to be played out. Welcome to the Anthropocene!

Editor-in-Chief

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