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CO2 Capture and Conversion Processes: Recent Trends and Future Perspectives

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Deadline for manuscript submissions:
15 November 2024

Message from the Guest Editors

The present Special Issue seeks high quality works, focusing on CO2 capture and CO2 conversion technologies. The aim of the Issue is to collect recent research and review works related to the aforementioned processes targeting CO2 mitigation. Topics include, but are not limited to, the following:

1. CO2 capture technologies:
Direct air capture (DAC)
Direct ocean capture (DOC)
Post-combustion capture
Pre-combustion capture
Oxy-fuel combustion
Chemical looping combustion
Cryogenic separation

2. CO2 capture methods:
Absorption
Adsorption
Membrane separation
Hybrid processes

3. CO2 conversion technologies:
Catalytic processes
Dry reforming of methane (DRM) to sygas production
CO2 hydrogenation to high-value products
Electrocatalytic CO2 reduction reaction (CO2RR)
Microbial electrosynthesis systems (MESs)
Photocatalytic CO2 reduction

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Message from the Editor-in-Chief

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