

Special Issue

CO₂ Capture and Conversion Processes: Recent Trends and Future Perspectives

Message from the Guest Editors

- The amplification of energy demands due to global population growth and modern lifestyles result in increasing CO₂ atmospheric levels, mostly attributed to intensifying fossil fuel industrial production. International initiatives, such as the Kyoto protocol and the Paris agreement, target the significant reduction of CO₂ emissions in order to mitigate climate change. Towards this direction, various technologies have emerged, aiming to capture CO₂ and transform it to useful products. Energy-efficient CO₂ adsorption and absorption processes for capturing CO₂ from various point emission sources and directly from air (DAC), employing innovative low-cost material solvents and membranes, as well as innovative conversion processes including electrocatalytic CO₂ reduction reactions (CO₂RRs) to useful products, are of major importance.
- 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.

Guest Editors

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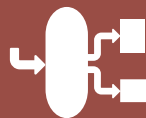
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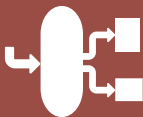


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