Special Issue

Process Optimization of Carbon Capture Technology

Message from the Guest Editors

It is well known that there is an urgent need to reduce greenhouse gas emissions, highlighting the demand for effective CO2 sinks in order to mitigate carbon emissions. Innovative solutions play a crucial role in achieving a low-carbon economy. This Special Issue focuses on advancements in the optimization of carbon capture technologies aimed at reducing industrial CO2 emissions. As global efforts intensify to combat climate change, enhancing the efficiency and cost-effectiveness of carbon capture, utilization, and storage (CCUS) has become a priority. This Special Issue will explore innovative strategies for optimizing carbon capture processes across various sectors. Topics of interest include, but are not limited to:

- Novel materials and adsorbents for CO2
- Process of energy efficiency improvements.
- Scale-up challenges and solutions for industrial applications.
- Modeling, simulation, and optimization techniques.
- Lifecycle assessments.
- Carbon capture technologies.

We invite scholars to contribute cutting-edge studies that drive the field toward more sustainable and economically viable carbon capture solutions.

Guest Editors

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Deadline for manuscript submissions

15 January 2026

Energies

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 7.3

mdpi.com/si/219453

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Message from the Editor-in-Chief

Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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