Special Issue

Challenges and Research Trends of Carbon Dioxide Capture

Message from the Guest Editors

This Special Issue aims to clearly identify and analyze the key challenges in CO_2 capture. This includes technological barriers like low-efficiency capture materials, high-energy-consuming processes, and difficulties in integrating capture systems into existing industrial set-ups. It also seeks to explore the latest research trends. This involves emerging areas such as bio-inspired CO_2 capture, electro-chemical and photochemical methods, and the use of artificial intelligence in optimizing capture processes. Authors are encouraged to submit papers that address these challenges or showcase new research trends. Papers can be experimental, theoretical, or review-based. Experimental papers may present new materials or processes, theoretical papers may offer models for understanding and predicting capture behavior, and review papers may summarize and analyze the current state of the art in CO_2 capture research.

Guest Editors

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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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