



Volume II: Carbon Capture, Utilisation and Storage

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Message from the Guest Editors

This Special Issue explores and promotes research and applications in the field of CCUS to achieve carbon-neutral processes, clean energy development, safe storage methods and climate change mitigation at large.

Potential topics include, but are not limited to, the following:

- Pre- and post-combustion carbon capture from the chemical process industry—technologies and methodologies;
- Carbon capture and storage applications in power generation;
- Direct air carbon capture;
- CO₂ transmission in pipelines;
- Bioenergy with Carbon Capture and Storage;
- Negative emissions technologies;
- The thermal, electrochemical, and photochemical conversion of CO₂ into fuels and chemicals;
- The biological utilisation of CO₂ into value-added products;
- The CO₂ mineralisation into inorganic materials;
- System optimisation, digital twins, and decision-making models;
- Techno-economic feasibility and life-cycle analysis evaluation of CCUS;
- Risk assessment, intelligent monitoring, advanced sensors and process control of CCUS processes;
- Supply chain, economics, social factors, governmental policies and regulations regarding CCUS applications.





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Message from the Editor-in-Chief

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