

Special Issue

Recent Advances in Carbon Capture, Utilisation and Storage Technologies

Message from the Guest Editors

To combat the detrimental impacts of climate change and meet the obligations outlined in the 2015 Paris Agreement, CO₂ Capture, Utilisation, and Storage (CCUS) has emerged as a crucial technology with significant potential for achieving climate targets. CCUS technology achieves the resource utilization of captured CO₂ and stores it in strata such as oil/gas reservoirs and salinity aquifers. However, there are still many challenges involved in several key parts of CCUS, including low-cost carbon capture, long-distance pipeline transport, CO₂-EOR, CO₂-ECBM/shale gas, and long-term safe storage. There is an urgent need for research and development in order that we implement CCUS-related technologies. In this Special Issue, contributions to recent advances in CCUS technologies are welcome. Topics include, but are not limited to

- New theories and methods for CCUS;
- Laboratory experiments and numerical modelling of CCUS;
- Economic evaluation and field practices of CCUS;
- The environmental impact of CCUS projects;
- CO₂ monitoring

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