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# Advances in Carbon Capture, Utilization and Storage Technologies (CCUS)

Guest Editors:

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Deadline for manuscript submissions: closed (23 March 2024) Message from the Guest Editors

Carbon neutrality is a major measure to effectively address global climate change. CCUS (Carbon Capture, Utilization and Storage) technology realizes the resource utilization of the captured wasted CO<sub>2</sub> emissions and effectively stores them in geological bodies.

This Special Issue will focus on the application of the core technologies in all aspects associated with CCUS, covering theoretical research, laboratory experiment, numerical modelling, economic evaluation and field practice in CO<sub>2</sub> capture, transport, utilization and storage. Topics include but are not limited to:

- 1. Low-cost and efficient capture of low-concentration CO<sub>2</sub>
- 2. Long-distance pipeline transport of supercritical CO<sub>2</sub>
- 3. Detailed reservoir characterization of lowpermeability heterogeneous reservoirs
- 4. Sweep volume expansion of CO<sub>2</sub> flooding in multilayer heterogeneous reservoirs
- 5. Low-cost CO<sub>2</sub> injection and production technologies in field practice
- 6. Monitoring and safety evaluation of long-term CO<sub>2</sub> storage
- 7. Numerical simulation and laboratory experiment technologies of CO<sub>2</sub> flooding and storage
- 8. Economic evaluation in the whole industrial chain of CCUS **Specials**



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#### Message from the Editor-in-Chief

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