

## Special Issue

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

### 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:

- Low-cost and efficient capture of low-concentration CO<sub>2</sub>
- Long-distance pipeline transport of supercritical CO<sub>2</sub>
- Detailed reservoir characterization of low-permeability heterogeneous reservoirs
- Sweep volume expansion of CO<sub>2</sub> flooding in multi-layer heterogeneous reservoirs
- Low-cost CO<sub>2</sub> injection and production technologies in field practice
- Monitoring and safety evaluation of long-term CO<sub>2</sub> storage
- Numerical simulation and laboratory experiment technologies of CO<sub>2</sub> flooding and storage
- Economic evaluation in the whole industrial chain of CCUS

### Guest Editors

Dr. Weifeng Lv

Dr. Tiya Zhou

Dr. Yongbin Wu

Prof. Dr. Xiaoqing Lu

### Deadline for manuscript submissions

closed (23 March 2024)



## Energies

an Open Access Journal  
by MDPI

Impact Factor 3.2  
CiteScore 7.3



[mdpi.com/si/165755](https://mdpi.com/si/165755)

*Energies*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[energies@mdpi.com](mailto:energies@mdpi.com)

[mdpi.com/journal/  
energies](https://mdpi.com/journal/energies)





# Energies

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.2  
CiteScore 7.3



[mdpi.com/journal/  
energies](https://mdpi.com/journal/energies)



## About the Journal

### 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.

---

### Editor-in-Chief

Prof. Dr. Enrico Sciubba

Department of Mechanical and Industrial Engineering, University  
Niccolò Cusano, 00166 Roma, Italy

---

### Author Benefits

#### Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

#### High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, RePEc, Inspec, CAPlus / SciFinder, and other databases.

#### Journal Rank:

CiteScore - Q1 (Control and Optimization)