Special Issue

Supercritical CO_2 Power Cycles

Message from the Guest Editors

This Special Issue's objective is to showcase and spread the latest progress in the theory, modeling, design, application, components, system equipment, and control of all types of supercritical CO2 power cycles. Topics suitable for publication involve, yet are not restricted to, the following:

- Thermodynamic analysis, system integration, and operation control of all types of supercritical CO2 power cycles;
- Analysis and experiments of components or systems for supercritical CO2 power cycles;
- Flow of supercritical CO2 and fluid machinery (compressors and turbines);
- Heat transfer of supercritical CO2 and heat exchangers;
- Design, physical properties, and power cycles of composite working fluids based on supercritical CO2;
- Phase transition and pseudo-phase transition of supercritical CO2;
- Theory and technology of supercritical CO2 energy storage.

Guest Editors

Dr. Jianhui Qi

Prof. Dr. Cheng Xu

Dr. Kan Qin

Dr. Tuantuan Xin

Dr. Hao Qiu

Deadline for manuscript submissions

10 September 2025

Energies

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 7.3

mdpi.com/si/234559

Energies
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
energies@mdpi.com

mdpi.com/journal/energies

Energies

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 7.3

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)