Special Issue

Solar Energy Conversion and Storage Technologies

Message from the Guest Editors

This Special Issue will gather original research articles, comprehensive reviews, and novel case studies that address the latest developments and emerging trends in the field. Topics of interest include, but are not limited to, the following:

- Advanced photovoltaic technologies and high-efficiency solar cells;
- Thermal energy storage systems integrated with solar energy;
- Hybrid solar energy systems combining multiple storage and conversion technologies;
- Modeling, simulation, and optimization of solar energy conversion and storage processes;
- Materials development for improved solar harvesting and thermal energy storage;
- Passive and active cooling techniques for photovoltaic modules;
- Solar-driven energy systems for industrial, residential, and mobility applications;
- Life-cycle analysis, techno-economic assessment, and performance evaluation of solar systems;
- Integration of solar energy storage into smart grids and decentralized energy networks.

We particularly welcome interdisciplinary works that connect fundamental research in thermodynamics, fluid dynamics, material science, and system optimization with practical applications.

Guest Editors

Dr. Rosa Pilar Merchán Corral
Department of Applied Physics and IUFFYM, Universidad de Salamanca, 37008 Salamanca, Spain

Dr. Julián González Ayala
Department of Applied Physics and IUFFYM, Universidad de Salamanca, 37008 Salamanca, Spain

Deadline for manuscript submissions

10 November 2025

Energies

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 7.3

mdpi.com/si/240870

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)