

## Special Issue

# New Advances in Heat Transfer, Energy Conversion and Storage

### Message from the Guest Editors

This Special Issue aims to compile cutting-edge research that pushes the boundaries of heat transfer, energy conversion, and storage. Contributions to this Special Issue may address various aspects of entropy generation; improvements in the efficiency of energy systems; techniques for the enhancement of heat transfer; LHS optimization, including computational fluid dynamics (CFD) simulations; alternative storage device designs; and mathematical algorithms for systematic optimization. We also welcome studies exploring different heat exchange configurations, such as shell-and-tube heat exchangers, finned structures, packed-bed setups, and composite systems using PCM. Emphasis is placed on optimization criteria related to energy performance, thermodynamic considerations, cost-effectiveness, and other relevant factors. We aim to provide comprehensive guidance for future research directions in thermal engineering, energy usage, and heat management. By fostering interdisciplinary collaboration and showcasing innovative methodologies, we aim to drive advancements in thermal engineering and sustainable energy utilization.

### Guest Editors

Dr. Bernardo Buonomo

Dipartimento di Ingegneria, Università degli Studi della Campania "Luigi Vanvitelli", Via Roma 29, 81031 Aversa (CE), Italy

Dr. Renato Elpidio Plomitallo

Dipartimento di Tecnica e Gestione dei Sistemi Industriali (Management and Engineering Department), Università degli Studi di Padova, Padova, Italy

### Deadline for manuscript submissions

closed (10 December 2025)



## Energies

an Open Access Journal  
by MDPI

Impact Factor 3.2  
CiteScore 7.3



[mdpi.com/si/201469](https://mdpi.com/si/201469)

*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)