



Highly Efficient Thermal Energy Storage (TES) Technologies

Guest Editors:

Dr. Saeed Tiari

Biomedical Engineering
Department, Widener University,
One University Pl, Chester, PA
19013, USA

Prof. Dr. Hamid Torab

Mechanical Engineering
Department, Gannon University,
109 University Square, Erie, PA
16541, USA

Deadline for manuscript
submissions:

closed (31 May 2025)

Message from the Guest Editors

In recent years, the quest for sustainable and efficient energy storage solutions has gained significant momentum. Thermal energy storage (TES) technologies play a crucial role in enhancing the efficiency and reliability of energy systems. This Special Issue aims to collate cutting-edge research and advancements in the field of highly efficient TES technologies.

This Special Issue invites original research articles, reviews, and case studies that address a wide range of topics related to highly efficient TES technologies. Topics of interest include, but are not limited to, the following:

- Advanced materials for thermal energy storage;
- Phase change materials (PCMs) and their applications;
- Sensible, latent, and thermochemical storage systems;
- Novel designs and configurations of TES systems;
- Heat transfer enhancement in TES;
- The integration of TES with renewable energy sources;
- Thermal energy storage for industrial processes;
- The performance optimization and modeling of TES systems;
- Thermal energy storage for building applications;
- Thermal management and control strategies;
- Economic and environmental assessments of TES technologies.





energies



an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Enrico Sciubba

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

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.

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)

Contact Us

Energies Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/energies
energies@mdpi.com
[X@energies_mdpi](https://twitter.com/energies_mdpi)