Special Issue

Heat Transfer Enhancement in Sustainable Energy Systems

Message from the Guest Editor

The global transition towards sustainable energy systems is paramount for addressing climate change and ensuring energy security. A critical but often limiting factor for the performance, reliability, and compactness of these systems—which range from concentrated solar power and advanced nuclear reactors to fuel cells and high-density electronics—is the efficient management of thermal energy. Enhancing heat transfer efficiency directly translates to higher energy conversion rates, improved system longevity, reduced material costs, and greater overall sustainability. This has spurred intensive research into advanced heat transfer approaches, including the development of novel materials, innovative surface geometries, and sophisticated multi-physics modelling techniques. With this Special Issue, we aim to collate and disseminate cutting-edge research and comprehensive review articles on recent advancements in heat transfer enhancements that are specifically used for sustainable energy applications. Our goal is to provide a platform for researchers and engineers to share insights that can lead to more efficient, compact, and cost-effective sustainable energy technologies.

Guest Editor

Dr. Tooraj Yousefi

Department of Mechanical, Industrial and Mechatronics Engineering, Toronto Metropolitan University, Toronto, ON, Canada

Deadline for manuscript submissions

closed (29 April 2026)

Energies

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 8.3

mdpi.com/si/259630

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 8.3

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)