Special Issue

Recent Advances in Heat Transfer Efficiency

Message from the Guest Editors

Nowadays, energy supply, clean energy, renewable energy, energy consumption and storage, environmental issues constitute important challenges. In this wide framework, a possible answer is to improve the efficiency of heat exchange. In fact, in many technological applications connected to the use of energy, the development and application of knowledge, theories, and advanced technologies on heat transfer plays a crucial role. Many different activities can be addressed, such as the use of new operating fluids, the optimization of heat exchangers and storage systems, and the development of heat pumps and their application. Concerning this latter topic, for instance, particular attention should be paid to integration with other low-enthalpy energy sources, since in many industrial processes recovery heat could be available. In this framework, this *Energies* Special Issue is devoted to the frontier state of the art and to the new perspectives in heat transfer efficiency. Papers addressing, but not limited to, the following topics are welcomed:

- Nanofluids and their applications;
- Heat pumps;
- Heat exchangers;
- Heat storage systems;
- Computational fluid dynamics.

Guest Editors

Dr. Eugenia Rossi Di Schio Department of Industrial Engineering, Alma Mater Studiorum, University of Bologna, 40136 Bologna, Italy

Dr. Paolo Valdiserri

Department of Industrial Engineering, Alma Mater Studiorum, University of Bologna, 40136 Bologna, Italy

Deadline for manuscript submissions

15 April 2025



Energies

an Open Access Journal by MDPI

Impact Factor 3.0 CiteScore 6.2



mdpi.com/si/191169

Energies 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 3.0 CiteScore 6.2



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 Aerospace Engineering, University of Roma Sapienza, Via Eudossiana 18, 00184 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)