

Special Issue

Advances in Heat Transfer and Fluid Dynamics of Energy Systems

Message from the Guest Editors

This Special Issue aims to bring together innovative research and comprehensive reviews that advance the understanding of heat transfer and fluid dynamics phenomena in energy systems. In this Special Issue, original research articles and comprehensive reviews are welcome. Research areas may include (but are not limited to) the following:

- Heat transfer enhancement techniques in energy systems
- Multiphase and turbulent flows in thermal systems
- Advanced computational fluid dynamics (CFD) modeling
- Thermal management in renewable and conventional energy plants
- Flow and heat transfer in micro/nano systems for energy applications
- Energy system optimization using simulation and machine learning
- Experimental methods in heat transfer and fluid mechanics
- Fluid–structure interaction and thermal stresses in energy devices
- Thermofluid analysis of energy storage systems
- Integration of digital twins and AI in energy system simulations

Guest Editors

Dr. Ali Allahyarzadeh-Bidgoli

Department of Mechanical Engineering, Polytechnic School, University of São Paulo, São Paulo, Brazil

Prof. Dr. Jurandir Itizo Yanagihara

Department of Mechanical Engineering, Polytechnic School, University of São Paulo, São Paulo, Brazil

Deadline for manuscript submissions

15 January 2026



Processes

an Open Access Journal
by MDPI

Impact Factor 2.8
CiteScore 5.5



mdpi.com/si/241325

Processes
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
processes@mdpi.com

[mdpi.com/journal/
processes](https://mdpi.com/journal/processes)





Processes

an Open Access Journal
by MDPI

Impact Factor 2.8
CiteScore 5.5



[mdpi.com/journal/
processes](https://mdpi.com/journal/processes)



About the Journal

Message from the Editor-in-Chief

You are invited to contribute either a research article or a comprehensive review for consideration and publication in *Processes* (ISSN 2227-9717). *Processes* is published in open access format – research articles, reviews, and other content are released on the internet immediately after acceptance. The scientific community and the general public have unlimited, free access to the content. As an open access journal, *Processes* is supported by the authors and their institutes through the payment of article processing charges (APCs) for accepted papers. We would be pleased to welcome you as one of our authors.

Editor-in-Chief

Prof. Dr. Giancarlo Cravotto

Department of Drug Science and Technology, University of Turin, Via P. Giuria 9, 10125 Turin, 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, Inspec, AGRIS, and other databases.

Journal Rank:

CiteScore - Q2 (Chemical Engineering (miscellaneous))