

Special Issue

Advances in Nuclear Thermal and Electric Propulsion

Message from the Guest Editor

This Special Issue explores the forefront of **nuclear thermal propulsion (NTP)** and **nuclear electric propulsion (NEP)**, highlighting innovations set to transform space exploration. NTP uses nuclear reactors to heat propellants for high-efficiency thrust, enabling faster deep-space travel. NEP converts nuclear energy to electricity to power ion or plasma thrusters, delivering sustained propulsion for long-duration missions. Topics include reactor designs, thermal management, fuel safety, materials for extreme environments, power conversion, thruster advancements, mission planning, and economic, environmental, and regulatory aspects. Comparative analyses of NTP and NEP efficiencies and potential auxiliary applications are also covered.

Guest Editor

Dr. Justin Watson

Nuclear Engineering Program, Department of Materials Science and Engineering, University of Florida, Gainesville, FL 32611, USA

Deadline for manuscript submissions

15 July 2026



Energies

an Open Access Journal
by MDPI

Impact Factor 3.9
CiteScore 8.3



mdpi.com/si/250785

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

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





Energies

an Open Access Journal
by MDPI

Impact Factor 3.9
CiteScore 8.3



[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)