



Advanced Cooling Methods, Thermal Protection for Modern Engines, Turbines and Hydrogen Cooled Turbogenerators

Guest Editor:

Prof. Dr. Alexander Balitskii

1. Department of Strength of the Materials and Structures in Hydrogen-Containing Environments, Karpenko Physico-Mechanical Institute, National Academy of Sciences of Ukraine, 79-601 Lviv, Ukraine
2. Department of Mechanical Engineering and Mechatronics, West Pomeranian University of Technology in Szczecin, 70-310 Szczecin, Poland

Deadline for manuscript submissions:

closed (11 September 2023)

Message from the Guest Editor

This Special Issue will focus on novel techniques for determining the influence of hydrogen-containing fuels and lubricant-cooling environments on durability during long-term service of structural materials, their preparation, wear, cavitation, and modern engines, turbines, turbogenerators performance. This Special Issue will focus on, but is not limited to, the following themes:

- Modern hydrogen-containing fuel systems for engines and turbines;
- Advanced hydrogen-cooling methods and thermal protection for turbogenerators;
- Advanced cooling strategies and thermal protection for hydrogen turbines blades;
- Hydrogen influences crack resistance and fracture character of materials for hydrogen buffer infrastructures;
- In hydrogen-grid distribution: the compatibility of non-steel (Cu-Ni, Ni-Co alloys, Pb, Al, group 3 metals chalcogenides and group 6 transition metals dichalcogenides) materials;
- Lubricant cooling (liquid, solid, gaseous) of hydrogen-containing technological environments;
- Analysis of conditions of hydrogen-assisted vibration cavitation.





energies



an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Enrico Sciubba

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