Special Issue

Advanced Analysis of Thermodynamic and Thermal Energy

Message from the Guest Editors

This Special Issue aims to present and disseminate recent advances in the theory, modelling, design, optimization, control, and integration of thermodynamic and thermal energy systems. Contributions that address innovative concepts, computational and experimental analyses, emerging applications, and system-level solutions across various clean and renewable energy technologies are welcome. Topics of interest for publication include, but are not limited to, the following:

- Advanced fuel-cell technologies (PEMFC, SOFC, high-temperature fuel cells, and hybrid systems).
- Hydrogen production, storage, transport, and utilization technologies.
- Multi-energy systems based on renewable resources (solar, wind, hydro, geothermal, biomass, etc.).
- Thermodynamic cycle analysis and optimization (Brayton analysis, Rankine analysis, combined cycles, and supercritical CO2 cycles).
- Optimal design and operation strategies for low-carbon energy systems.
- System-level simulation, digital twins, and data-driven modelling for thermal-energy systems.
- Environmental impact, lifecycle analysis, and emissions reduction technologies.

Guest Editors

Prof. Dr. Yiwu Weng

Dr. Xiaoyi Ding

Dr. Xusheng Wang

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

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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

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