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Advanced Analysis of Heat Transfer and Energy Conversion

Guest Editors:

Prof. Dr. Jianxin Xu

Faculty of Metallurgical and
Energy Engineering, Kunming
University of Science and
Technology, Kunming 650093,
China

Dr. Qingtai Xiao

State Key Laboratory of Complex
Nonferrous Metal Resources
Clean Utilization, Kunming
University of Science and
Technology, Kunming 650093,
China

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Message from the Guest Editors

Dear Colleagues,

In the international context of carbon neutrality and carbon peaks, efficient and clean energy utilization methods are expected to be explored, and the mechanisms of advanced heat transfer processes should be revealed. The main topics include the inertial effect, wave effect, dissipation effect, and conversion effect of heat and mass, as well as a deeper understanding of the basic laws of basic physical processes such as flow, heat and mass transfer, and combustion from a combination of macroscopic, mesoscopic, and microscopic perspectives. This Special Issue aims to present and disseminate the advanced theory and technology of heat transfer, energy generation, utilization, conversion, storage, transmission, and conservation.

Topics of interest for publication include, but are not limited to:

- Modelling of multi-scale enhanced heat transfer;
- Application of advanced measurement technology in heat transfer and energy conversion;
- Characterization of heat mass transfer at phase interfaces;
- Deep learning and machine learning for flow pattern recognition;
- Advanced thermodynamic cycle construction;

Prof. Dr. Jianxin Xu

Dr. Qingtai Xiao



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Special Issue



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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.

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Energies Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

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