Special Issue

Nano-Based Advanced Thermoelectric Design

Message from the Guest Editors

Boiling and condensation are representative heat transfer processes in air conditioning, heat pumps, and Rankie cycles while icing on wind turbine blades is also a significant issue in turbine operation. Nowadays, with the development of micro/nanotechnologies, material sciences provide new perspectives regarding improvements in these thermal processes.

The present Special Issue aims to demonstrate the state of the art in thermal energy transport, storage, and conversion. Original research papers, brief research reports, and review papers that address the following topics are welcome:

- Micro/nano-structure surfaces for boiling, condensation, deicing, combustion, lubrication;
- Advanced thermoelectric materials;
- Energy storage materials;
- Flammable materials.

See more information at https://www.mdpi.com/si/190367

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Deadline for manuscript submissions

closed (7 March 2025)



Nanomaterials

an Open Access Journal by MDPI

Impact Factor 4.3 CiteScore 9.2 Indexed in PubMed



mdpi.com/si/190367

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Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometerscale dimensions, which we call "nanomaterials". These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal-organic frameworks, membranes, nano-alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, Nanomaterials, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access.

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