Special Issue

Advanced Nanoscale Materials for Thermoelectric Applications

Message from the Guest Editors

Thermoelectric modules can achieve energy conversion between heat and electricity and are important in solving energy crises and environmental pollution. However, the efficiency of existing thermoelectric materials is inferior to that of heat engines under the same operating conditions. Nanomaterials are considered as one of the most effective methods for decoupling the thermoelectric parameters to enhance the performance of thermoelectric materials. We are pleased to invite authors in the field to contribute high-quality original research papers and systematic review articles covering the preparation, measurement, device, and application based on thermoelectric nanomaterials. In this special issue, research areas may include but are not limited to:

- Nanostructures and nanocomposites of thermoelectric materials;
- Thermoelectric crystals and thermoelectric transport properties;
- Characterization of thermoelectric materials;
- Two-dimensional thermoelectric films;
- Fiber-based thermoelectric materials and devices;
- Applications of thermoelectric devices;
- Thermoelectric measurement of nanomaterials.

Guest Editors

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Message from the Editor-in-Chief

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 nanometer-scale 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.

Editor-in-Chief

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