

Special Issue

Advances in Thermoelectric Materials: From Particle to Bulk

Message from the Guest Editors

One of the leading challenges facing humankind all over the world is the daily increases in energy demand and limitations of traditional energy sources. The complications of using these energies and efforts of combating global warming have encouraged both national and international agencies to find alternative clean energy sources in order to decrease dependence on traditional fossil fuels combustion, thus reducing CO₂ and greenhouse gas emissions. In this context, thermoelectric materials have been getting more attention as they can directly transform heat energy into usefully electrical energy using the well-known Seebeck effect. Additionally, due to their simplicity of design and fabrication, they can be used as standalone devices, e.g., using the heat of solar radiation in solar panels, or adopted to existing mechanisms enhancing their overall efficiency...

Guest Editors

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Symmetry is ultimately the most important concept in natural sciences. It is not surprising then that very basic and fundamental research achievements are related to symmetry. For instance, the Nobel Prize in Physics 1979 (Glashow, Salam, Weinberg) was received for a unified symmetry description of electromagnetic and weak interactions, while the Nobel Prize in Physics 2008 (Nambu, Kobayashi, Maskawa) was received for the discovery of the mechanism of spontaneous breaking of symmetry, including CP symmetry. Our journal is named *Symmetry* and it manifests its fundamental role in nature.

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