Special Issue

Research Progress of Thermoelectric Materials, Modules and Applications

Message from the Guest Editors

Thermoelectric materials have potential applications in power generation devices that convert waste heat into electric current by the so-called Seebeck effect, thus providing alternative energy technology to reduce the dependence on traditional fossil fuels. Moreover, thermoelectric devices can be used as solid-state Peltier coolers, which do not use environmentally harmful fluids. Thermoelectric generators have the advantage of containing no moving parts, making them quiet, durable, and reliable. It is only recently that advances in materials development, theory, and computational tools have shown that thermoelectric devices can compete with traditional refrigeration technologies and be attractive for power generation. This Special Issue aims to present a collection of articles describing recent advances in thermoelectric-related materials and technologies, ranging from material study to device development. I kindly invite you to submit a manuscript for this Special Issue. Your participation will ensure that this Special Issue becomes an essential contribution to the thermoelectric materials and energy community. I look forward to receiving your contributions.

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Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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