Special Issue

Thermoelectric Materials and Applications for Energy Harvesting Power Generation

Message from the Guest Editor

Thermoelectricity can be considered for use in the technology of renewable energy sources because it can directly convert wasted thermal energy into useful electric energy. Recent developments in thermoelectric materials have resulted in the expansion of thermoelectric field, however, novel high-performance thermoelectric materials that are cost-effective and nontoxic need to be developed in order to further expand the field of possible thermoelectric applications. In addition to the development of thermoelectric materials, thermoelectric modules should also be developed with regard to flexibility, high performance, and high reliability. This Special Issue will address works in thermoelectric materials, their integration into thermoelectric modules targeted for various temperature range of wasted thermal energy, and their applications. Potential topics include, but are not limited to: Inorganic thermoelectric materials; Organic or organic/inorganic hybrid thermoelectric materials; Advances synthesis and processing in thermoelectric materials; Thermoelectric module with rigid/flexible substrate; Applications on energy harvesting power generation.

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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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