Special Issue

Design and Characterization of Materials for Energy Conversion and Storage

Message from the Guest Editor

Energy harvesting is emerging as an attainable approach to convert the energy from the ambient including mechanical vibration, thermal energy, magnetic field, sound, and light into electricity for sustainable development of mobile electronic devices and sensor network systems. Innovative materials for energy conversion and storage serve as an alternative power supply, which are crucial to the advanced development of various wearable electronics and wireless sensors. This Special Issue plans to give an overview of state-of-the-art bulk, micro- and nano-scale energy-related materials (including single crystals, ceramics, polymers, alloys, and composites), which involves the advances in the materials design strategies, synthesis, characterizations, and applications. Potential topics include, but are not limited to:

- Magnetoelectric materials
- Piezoelectric materials
- Pyroelectric materials
- Thermoelectric materials
- Triboelectric materials
- Hybrid harvesters

Guest Editor

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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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