Special Issue

Piezoelectric Energy Harvesting and Sensing Technology: Materials, Mechanisms, and Applications

Message from the Guest Editors

Recent progress in material science, manufacturing technology, and biotechnology advances has fostered exciting applications that are based on piezoelectric materials. The development and expansion of piezoelectric-based energy harvesting and sensing technologies offer new opportunities for the next generation of wearable and implantable electronics. In particular, advancements in nano/microfabrication and bioengineering allow piezoelectric energy harvesters and sensors to be developed with the significant advantages of flexibility, low cost, and real-time, selfpowered, label-free sensing for potential applications in areas such as healthcare, electronics, and automotive applications, suggesting a new platform for ongoing research efforts in the field. This Special Issue is dedicated to current research activities on the most recent developments in piezoelectric materials, including novel materials design, advanced fabrication techniques, as well as their integration with other systems for energy harvesting and sensing applications. Both reviews and original research papers on principles and applications are welcome.

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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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