Special Issue

Advanced Electroceramics and Their Applications in Energy Harvesting, Conversion and Storage

Message from the Guest Editors

Electroceramics, with their unique properties and versatile applications, have emerged as promising candidates in energy field. Examples include dielectric, piezoelectric, ferroelectric, and multiferroic materials, which exhibit remarkable capacitive, electromechanical, and magnetoelectric properties. Ferro-/piezoelectric materials can efficiently convert mechanical energy into electrical energy and vice versa. Multiferroic materials enable efficient energy conversion between magnetic and electrical energy. The ability to store and release electrical energy in dielectric materials makes them useful for energy storage devices. This Special Issue aims to showcase the latest advancements in this field and we welcome research papers or review articles that explore various aspects of advanced electroceramics, including but not limited to:

1. Novel synthesis and fabrication techniques for electroceramics;
2. Structural characterization of electroceramics;
3. Physical and chemical properties of electroceramics;
4. Modelling and simulation of electroceramic materials and devices;
5. Applications of electroceramics in energy harvesting, conversion, and storage technologies.

Guest Editors

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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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