

Special Issue

Magnetoelectric Materials and Their Applications

Message from the Guest Editor

In recent decades, tremendous progress has been made in the fabrication and investigation of magnetoelectric (ME) materials, whose magnetization is changed by an electric field, and electric polarization is changed by a magnetic field. Possibilities of using ME materials in high-sensitivity magnetic field sensors, low-frequency and microwave signals processing devices, data storage elements, and energy harvesting devices were demonstrated. This Special Issue calls for papers that report on recent advances in the synthesis, research, theoretical description, and application of both single-phase and composite ME materials. In addition to traditional areas of ME materials research, nanocomposite ME materials, lead-free ME materials, flexible ME structures based on piezoelectric and magnetic polymers, strongly anisotropic ME materials, ME structures with semiconductor and active optical layers, nonlinear ME effects, ME devices for the high-frequency range, ME materials-based artificial synaptic devices, and problems in ME devices' miniaturization are of interest.

Guest Editor

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Message from the Editorial Board

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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