

Special Issue

Advances in Magnetoelectric Materials and Devices

Message from the Guest Editor

The progress in electronic technology and materials science is directly coupled with functional materials providing a unique opportunity for developing novel components and devices, as their physical and chemical properties are sensitive to changes occurring in the environment, such as temperature, pressure, and electric and magnetic fields. Among functional materials, magnetoelectric (ME) composites represent a class of smart materials that transform one basic physical property into another. The ME effect in these materials consists in inducing an electric polarization by an applied external magnetic field, or vice versa, in inducing a magnetization by an external electric field, and is a result of elastically coupled piezoelectric and piezomagnetic effects. The fact is that composites have an obvious advantage over single-phase materials, since they demonstrate a giant ME response above room temperature and are ready for technological applications.

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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