Special Issue

Advances in Magnetoelectric Multiferroic Materials and Heterostructures: Properties, Techniques and Devises

Message from the Guest Editor

The aim here stems from memory applications via multijunction information processing and sensors to quantum mechanically coupled states for quantum information technology. In this context, generally speaking about magnetoelectric and multiferroic materials, magneto-electric coupling can be intrinsically in and also mediated via boundaries in heterostructures, utilizing, for example, magneto-strictive, piezoelectric, and ferroelectric/-magnetic materials. This Special Issue aims at providing comprehensive insight into state-of-the-art as well as topical research within areas such as regarding the fabrication and experimental characterization of those systems, the theoretical understanding of the coupling mechanism at the atomic level, feasibility studies, and device demonstration. Additionally, aspects of the fundamental polarization and spin interaction processes in pure magnetic or ferroelectric materials when related to the coupling mechanism may be discussed.

Guest Editor

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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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