Special Issue

Ferromagnetic and Ferroelectric Materials: Synthesis, Applications, and Techniques (Second Edition)

Message from the Guest Editor

The aim of this Special Issue, “Ferromagnetic and Ferroelectric Materials: Synthesis, Applications, and Techniques (Second Edition)”, is to provide updated information regarding novel preparation techniques of ferroelectric and ferromagnetic systems and to understand the physics of ferroelectric and ferromagnetic surfaces in conjunction with emerging theoretical models. Another purpose is to explore the relationship between charge transfer and screening, compensation mechanisms, interface band alignment, and spin ground state and the ferroelectric as well as ferromagnetic order. We will discuss theoretical and experimental aspects of different mechanisms and disclose their impacts on device functionality. We will focus on the challenges involving material modeling, process engineering, and application in conventional and organic–inorganic multiferroic systems. Theoretical perspectives, together with novel preparation and investigation approaches of one-, two-, and three-dimensional ferroic materials, including powders, thin films, heterostructures, ceramics, and composites, are welcomed.

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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