Special Issue

Ferroelectric/Dielectric Materials for Energy Storage Applications

Message from the Guest Editor

Owing to the global energy crisis and environmental pollution, effective energy storage has become a hot topic being studied all over the world. Although batteries and electrochemical capacitors possess a high energy density, they suffer from low power density. In contrast, dielectric capacitors exhibit a relatively high power density, which can be used for electromagnetic catapults, military weapons, new energy vehicles and other pulsed power systems. Unfortunately, the conflicts between the polarization and the maximum applied electric field impede the improvement of energy storage performance and the applications of dielectric capacitors. Therefore, it is urgent to develop dielectric capacitors with high energy storage density and efficiency.

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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