Special Issue

The Design and Performance of Piezoelectric/Ferroelectric Thin Films and Their Application in Energy Storage and Conversion

Message from the Guest Editor

Piezoelectric and ferroelectric materials exhibit unique properties, such as the ability to convert mechanical energy into electrical energy and vice versa, making them suitable for a wide range of energy-related applications. In recent years, there has been increasing interest in the design and performance of piezoelectric and ferroelectric thin films due to their unique properties and various potential applications in energy storage and conversion. Thin films have emerged as a promising platform for the design and fabrication of high-performance devices due to their small thickness, high surface-to-volume ratio, and the ability to be integrated with other materials and structures. The development of thin film technologies has led to the creation of various devices such as energy harvesters, sensors, actuators, and energy storage devices. Overall, this Special Issue showcases the latest advances in the field of piezoelectric and ferroelectric thin films and their potential to be used for energy-related applications. The research and development of these materials and devices have the potential to revolutionize energy storage and conversion technologies.

Guest Editor

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Deadline for manuscript submissions

closed (20 December 2023)

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
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mdpi.com/si/170427

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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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