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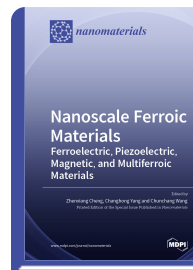
Nanoscale Ferroic Materials—Ferroelectric, Piezoelectric, Magnetic, and Multiferroic Materials

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Ferroic materials, including ferroelectric, piezoelectric, magnetic, and multiferroic materials, are receiving great scientific attention due to their rich physical properties. They have shown their great advantages in diverse fields of application, such as information storage, sensor/actuator/transducers, energy harvesters/storage, and even environmental pollution control. At present, ferroic nanostructures have been widely acknowledged to advance and improve currently existing electronic devices as well as to develop future ones.

This Special Issue covers the characterization of crystal and microstructure, the design and tailoring of ferro/piezo/dielectric, magnetic, and multiferroic properties, and the presentation of related applications. These papers present various kinds of nanomaterials, such as ferroelectric/piezoelectric thin films, dielectric storage thin film, dielectric gate layer, and magnonic metamaterials. These nanomaterials are expected to have applications in ferroelectric non-volatile memory, ferroelectric tunneling junction memory, energy-storage pulsed-power capacitors, metal oxide semiconductor field-effect-transistor devices, humidity sensors, environmental pollutant remediation, and spin-wave devices. The purpose of this Special Issue is to communicate the recent developments in research on nanoscale ferroic materials.



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