



Emerging Applications of Ferroelectrics in Nanoelectronics and Renewable Energy

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Message from the Guest Editors

Dear Colleagues,

Ferroelectric materials, characterized by electrically switchable polarization, have found broad and mature applications in modern society. Recently, novel ferroelectric materials, made available by advanced synthesis techniques such as freestanding epitaxial thin films, nanometer/sub-nanometer nanoparticles/nanowires, organic ferroelectrics, have found applications in low-energy electronics and renewable energy. For example, based on the atomic thicknesses and complementary metal-oxide-semiconductor (CMOS) compatibility of 2D vdW ferroelectrics, ferroelectric materials can be used for post-Moore's law nanoelectronics. Based on the polymer-like flexibility of ferroelectric nanowires, nanoferroic materials have found new applications in piezocatalysis for water splitting.

This Special Issue aims to showcase the latest advancements in ferroelectric materials and their diverse applications in various fields. We welcome contributions related to the synthesis and characterization of novel ferroelectrics, theoretical studies exploring new physics and functionalities, and nanoelectronic device developments involving vdW ferroelectrics.





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Message from the Editor-in-Chief

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