



Electronic Processes in Ferroelectrics

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Message from the Guest Editors

Dear Colleagues,

Ferroelectricity was discovered more than 100 years ago. Since then, ferroelectric materials have been intensively studied due to their unique properties (reversible polarization under applied electric field, presence of piezoelectric, pyroelectric, photovoltaic, and thermoelectric effects, nonlinear optical properties) that make them very attractive for a large variety of applications from domestic burglar alarms up to nonvolatile memories, micro(nano)-electro-mechanic systems, or microwave devices.

This Special Issue addresses experimental and theoretical investigations of diverse aspects of the electronic behavior in ferroelectric materials and related structures. These aspects include but are not limited to charge transport, polarization switching, compensation of the depolarization field, negative capacitance, resistive switching, memristor and memcapacitor behavior, optical behavior, etc., and their relation to doping, defects, and interfaces (electrode interfaces, interfaces in heterostructures).

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