Journal of Nanomaterials

Special Issue on

# Functional Oxide Thin Films and Nanostructures: Growth, Interface, and Applications

## CALL FOR PAPERS

Metal-oxides exhibiting fascinating physical/chemical properties have been focused on for decades in experimental and theoretical studies. The sensitivity of the functionalities of these oxides to microstructure, surfaces/interfaces, charges, and strain has created challenges and opportunities to materials research communities. Tremendous efforts of material synthesis, structure/defect/property characterizations, and theoretical simulations have improved our knowledge in basic science and practical applications of oxide materials.

We invite authors to submit their original research articles regarding functional oxide thin films and nanostructures as well as reviews that summarize recent advances in the oxide fields. Specifically, we seek the latest progress in research and development on multifunctional metal-oxides with an emphasis on the processing-structure-property relationships of both composite and thin film metal-oxides and their applications in information storage and energy related topics.

Potential topics include, but are not limited to:

- Simulation and modeling for complex oxide materials and devices
- Synthesis and properties of complex oxide thin films, heterostructures, superlattice, composites, and nanostructures
- Characterization of microstructures and defects
- Characterization of nanostructures, grain boundaries, interfaces, and surfaces
- Fabrication of oxide thin films from epitaxy to self-assembled nanostructures
- Multifunctional oxide thin films by strain and interface engineering
- Electric, ferroelectric, magnetic, multiferroic, and optical properties of metal-oxides
- Metal-oxide based devices for information storage and sensors
- Effects of microstructures and defects on thermoelectric and photovoltaic properties
- Free-standing films of metal oxide as energy storage

Authors can submit their manuscripts via the Manuscript Tracking System at http://mts.hindawi.com/submit/journals/jnm/foth/.

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