



Nanostructured Perovskite Oxides: Synthesis and Emerging Applications

Guest Editor:

Dr. Selda Ozkan

School of Chemistry, University of
St. Andrews, St. Andrews KY16
9ST, UK

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Message from the Guest Editor

Dear Colleagues,

Perovskite oxides (ABO_3) are unique materials due to their ability to form a variety of structures and chemical compositions via the substitution of A- and B-site cations. The doping process changes the optical, electrical, and catalytic properties of perovskite oxides by modifying their defect density, vacancy, and valance state. The main challenge in this field is the design of new perovskite oxide structures with an optimized defect structure, enhanced electrical, optical, and thermal properties, a high surface area, and long-term stability. Furthermore, a comprehensive understanding of the structure–property relationship is vital for emerging applications.

We encourage scientists from different backgrounds to contribute original research articles, reviews, and perspectives concerning nanostructured perovskite oxide and functional applications to this Special Issue. The scope of this Issue includes, but is not limited to: perovskite oxide synthesis, fabrication, nanostructuring, thin films, doping, defect engineering to tune properties, nanoparticle exsolution, characterizations, applications covering electrocatalyst, photocatalysts, batteries...





Editor-in-Chief

Dr. Andres Castellanos-Gomez

Instituto de Ciencia de Materiales
de Madrid (ICMM-CSIC), E-28049
Madrid, Spain

Message from the Editor-in-Chief

The capability to manipulate, assemble, and fabricate nano-objects have given rise to nanoscience, one of the most rich and interdisciplinary fields of research. In fact, mechanics, optics, magnetism, or electronics at the nanoscale strongly differ from their macroscopic counterparts, and thus several disciplines are necessary to study nanomaterials. This field's development parallels the technical advances that have made it possible to control matter at the nanoscale. Our journal, *Nanomanufacturing*, seeks to provide a forum for discussion and a platform to publish the latest results regarding the fabrication, manipulation, scalability, and eventual industrial production of miniaturized devices or objects. All of our articles are published with rigorous refereeing and open access.

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Nanomanufacturing Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
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