Special Issue

Solution-Processed Metal Oxide Nanostructures for Carrier Transport

Message from the Guest Editor

Metal oxide semiconductors represent a unique class of materials that show prominent optoelectronic applications today. Nanostructured metal oxides are especially useful for carrier transport in miscellaneous devices, including organic light emitting diodes, polymer solar cells, perovskite photovoltaics, perovskite light emitting diodes, quantum-dot light emitting diodes, and organic/inorganic hybrid transistors and sensors.

This Special Issue of Nanomaterials is open to manuscripts concerning synthesis, characterization, and especially carrier transport abilities of metal oxide thin films and nanostructures in working devices. Potential topics include but are not limited to:

- Hole transport metal oxides such as VOx, NiOx, CoOx, etc.;
- Electron transport metal oxides such as ZnO, TiO2, SnO2, etc.;
- Preparation and characterization of metal oxide thin films and nanostructures;
- Utilization of nanostructured metal oxides as carrier transport layers in miscellaneous devices.

Guest Editor

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Message from the Editor-in-Chief

Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometer-scale dimensions, which we call “nanomaterials”. These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal–organic frameworks, membranes, nano-alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, *Nanomaterials*, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access.

Editor-in-Chief

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