



an Open Access Journal by MDPI

Solution-Processed Metal Oxide Nanostructures for Carrier Transport

Guest Editor:

Dr. Sheng-Hsiung Yang

Institute of Lighting and Energy Photonics, College of Photonics, National Yang Ming Chiao Tung University (NYCU), Tainan 71150, Taiwan

Deadline for manuscript submissions:

closed (31 August 2022)

Message from the Guest Editor

Dear Colleagues,

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 VO_x , NiO_x , CoO_x , etc.;
- Electron transport metal oxides such as ZnO , TiO_2 , SnO_2 , etc.;
- Preparation and characterization of metal oxide thin films and nanostructures;
- Utilization of nanostructured metal oxides as carrier transport layers in miscellaneous devices.



mdpi.com/si/87044

Dr. Sheng-Hsiung Yang
Guest Editor

Special Issue



an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Eugenia Valsami-Jones

School of Geography, Earth and Environmental Science,
University of Birmingham,
Birmingham B15 2TT, UK

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. We are proud of our increasing impact factor and ability to provide rapid decisions to authors.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), PubMed, PMC, CAPlus / SciFinder, Inspec, and other databases.

Journal Rank: JCR - Q2 (Physics, Applied) / CiteScore - Q1 (General Chemical Engineering)

Contact Us

Nanomaterials Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/nanomaterials
nanomaterials@mdpi.com
[X@nano_mdpi](https://x.com/nano_mdpi)