

Special Issue

Wide Band Gap Oxide Based Nanomaterials and Thin Films

Message from the Guest Editors

The development of wide band gap oxide nanomaterials and thin films with excellent transport properties has become a major key for harnessing solar energy and advancing optoelectronic and high-power devices. Wide band gap oxides also play crucial roles as nanoparticles for drug delivery and diagnostic imaging agents in biomedical applications, as well in advanced radiation detection and nuclear energy research. The wide band gap provides a unique wide transparency for the electromagnetic spectrum and can sustain extremely high fields and radiation. This Special Issue aims to cover the recent experimental and theoretical research advances in physics, chemistry, and material science, especially pertaining to synthesis and characterization of wide band gap oxide nanomaterials and thin films as well as their broad applications in energy, electronics, and radiation detection. Research related but not limited to functional oxides such as Ga_2O_3 , ZnO , SnO_2 , In_2O_3 , and TiO_2 , as well as oxides with relevant applications in medical research, nuclear energy, and radiation detection such as iron oxides, pyrochlores, and perovskites are highly encouraged.

Guest Editors

Prof. Farida Selim

Department of Physics and Astronomy & Center for Photochemical Sciences, Bowling Green State University, Bowling Green, OH 43403, USA

Dr. Yongqiang Wang

Materials Science & Technology Division, Los Alamos National Laboratory, Los Alamos, NM 87544, USA

Deadline for manuscript submissions

closed (30 November 2022)



Nanomaterials

an Open Access Journal
by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed



mdpi.com/si/83546

Nanomaterials
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
nanomaterials@mdpi.com

[mdpi.com/journal/
nanomaterials](https://mdpi.com/journal/nanomaterials)





Nanomaterials

an Open Access Journal
by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed



[mdpi.com/journal/
nanomaterials](https://mdpi.com/journal/nanomaterials)



About the Journal

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

Prof. Dr. Eugenia Valsami-Jones

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

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, CAPIus / SciFinder, Inspec, and other databases.

Journal Rank:

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