**ZnO Nanowires: Growth, Properties, and Energy Applications**

**Message from the Guest Editor**

Dear Colleagues,

As an abundant and biocompatible compound semiconductor with a high aspect ratio at nanoscale dimensions, ZnO, in the form of nanowires, has emerged as a potential building block in a wide variety of devices. However, there is still a significant need for the exploration of the growth of ZnO nanowires, elucidating and monitoring their fundamental properties, and improving their integration into nanoscale devices, specifically in the field of energy conversion and storage.

This Special Issue will address the following topics: i) growth and nucleation mechanisms of ZnO nanowires using chemical and physical deposition techniques, ii) fundamental properties of ZnO nanowires, including doping, polarity, surfaces, and interfaces, iii) energy applications including photovoltaic cells (i.e., ETA solar cells, dye-sensitized solar cells, quantum dot solar cells, etc.), piezoelectric devices (i.e., nano-generators and pressure/strain sensors), self-powered devices, and batteries.

Dr. Vincent Consonni  
*Guest Editor*
Editor-in-Chief

Prof. Dr. Shirley Chiang
Department of Physics, University of California Davis, One Shields Avenue, Davis, CA 95616-5270, USA

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.

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

Contact Us

Nanomaterials
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland
Tel: +41 61 683 77 34
www.mdpi.com
nanomaterials@mdpi.com
@nano_mdpi