Special Issue

Progress of Semiconductor Nanomaterials: From Material Synthesis to Functional Devices

Message from the Guest Editor

The current state-of-art of photonics allows for tuning the opto-electronic properties of the materials, rendering high performance systems intended for many technological advances. Within this context, semiconductor nanomaterials play nowadays a chief role in countless (photo/opto-)electronic devices and applications, whose properties are tightly linked to their microstructure. Thus, the design of customized functionalities relies on playing with different combinations of materials (including alloying), their morphology and environment (size, shape, relative orientation, etc.), attainable through optimized synthesis and processing strategies. This Special Issue focusses on new advances achieved in semiconductor materials. The research topics cover semiconductor synthesis and (micro/nano-)processing, characterization, applications and devices, with special interest on complex nano-architectures, novel material systems, new/improved synthesis and processing procedures, high-resolution characterization techniques, etc.

Guest Editor

Dr. María De La Mata

Dto. de Ciencia de los Materiales e Ing. Metalúrgica y Qca. Inorg., IMEYMAT, Universidad de Cádiz, 11510 Puerto Real, Spain

Deadline for manuscript submissions

closed (31 March 2022)

Nanomaterials

an Open Access Journal by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed

mdpi.com/si/54768

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

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

MDPI

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, CAPlus / SciFinder, Inspec, and other databases.

Journal Rank:

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