Special Issue

Functional Nanomaterials for Sensing and Detection

Message from the Guest Editor

Dear Colleague, Functional nanomaterials involve various nanostructured objects: zero-dimensional (0D), 1D, and 2D nano-objects (nanoparticles, nanowires, nanotubes, nanosheets, and so on), as well as materials with nanostructured surfaces including metals, semiconductors and organic materials. These nanomaterials possess high surface/volume ratio and nanotip- and nanogap-induced physical effects, which lead to significantly different functional properties from those presented by the bulk materials, and hence have great potential applications in sensing and detection. These functional nanomaterials for sensing and detection are mostly used as transducers in tools such as spectral devices and chemiresistive sensors. They are also employed in some nanosensor designs as capture agents (magnetic nanoparticles), signal amplifiers (plasmonic metals with nanopatterned surfaces for surface-enhanced Raman spectroscopic chips), identification elements (polymers for molecular imprinting), and more. For detailed information please see the link.

Guest Editor

Prof. Dr. Weiping Cai
Institute of Solid State Physics, HFIPS, Chinese Academy of Sciences, Hefei 230031, China

Deadline for manuscript submissions

closed (31 May 2023)

Nanomaterials

an Open Access Journal by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed

mdpi.com/si/102275

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

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

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)

MDPI