Special Issue

Functionalized Carbon-Based Nanomaterials for Emerging Applications in Optoelectronics, Clean Energy, and Environmental Monitoring

Message from the Guest Editors

Due to remarkable chemical stability and electrical properties, functionalized carbon materials with different moieties are required materials for emerging applications. This is especially true in the generation of hydrogen via electrocatalytic water splitting, overcoming the performance of fullerenes, carbon nanotubes, graphene or carbon dots alone. This Special Issue covers applications in optoelectronic field/field emission displays, because undoped and doped oxide nanomaterials have strong luminescence, thermo-stability, and thermo-responsive emission properties. According to the successful results that have been obtained, oxide-carbon-based complexes are much stronger adsorbents than carbon materials in gas adsorption. Synergistic effects between porphyrins and carbon-based materials are offering the best molecular electrocatalysts with regard to oxygen reduction reactions yet reported, and are also acting as high-performance gas sensors. Dr. Eugenia Fagadar-Cosma

Dr. Serban Stam

Guest Editors

Dr. Eugenia-Lenuta Fagadar-Cosma

Dr. Mihaela Birdeanu

Dr. Isabela Costinela Man

Dr. Serban Stamatin

Deadline for manuscript submissions

closed (20 March 2024)

Nanomaterials

an Open Access Journal by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed

mdpi.com/si/128225

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)