

Special Issue

Nanostructured and Multifunctional Solid Catalysts for Sustainable Chemical Processes

Message from the Guest Editors

In this special Section of our journal, we present innovative research findings from various research teams, encompassing a diverse array of topics such as plasma activation technology for nanocatalyst preparation, performance characterization, and its applications in energy conversion and environmental protection. These studies illustrate the versatility of technologies and their pivotal role in enhancing nanocatalyst performance. Through these contributions, readers will gain insights into the latest advancements in the domain of nanostructured and multifunctional solid catalysts, as well as their potential application for sustainable chemical processes. We anticipate that this Special Issue will serve as a valuable resource for researchers and industry professionals, providing thought-provoking perspectives on the future of nanocatalytic technology. It is our hope that this journal will inspire greater engagement from researchers in the expansive field of plasma technology and catalysis, fostering collaboration toward the advancement of environmental remediation technologies.

Guest Editors

Dr. Bin Zhu

Laboratory of Plasma Catalysis, College of Environmental Sciences and Engineering, Dalian Maritime University, Dalian 116026, China

Dr. Kai Li

Key Laboratory of Fluid Transmission Technology of Zhejiang Province, Zhejiang Sci-Tech University, Hangzhou 310018, China

Deadline for manuscript submissions

31 July 2026



Nanomaterials

an Open Access Journal
by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed



mdpi.com/si/219920

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. 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, CAPIus / SciFinder, Inspec, and other databases.

Journal Rank:

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