



Nanocatalysis for Environmental Protection, Energy, and Green Chemistry, Volume II

Guest Editors:

Prof. Dr. Ioannis Yentekakis

Prof. Dr. Dimitrios Gournis

**Dr. Paraskevi
Panagiotopoulou**

Prof. Dr. Haralambos Stamatis

Deadline for manuscript
submissions:

31 August 2024

Message from the Guest Editors

Dear Colleagues,

Currently, nanoscience and nanotechnology represent cutting-edge areas of modern science and technology across an array of applications. The design of nanocatalysts is now considered “one way” in modern heterogeneous catalysis. The rational design of nanostructured catalysts provides materials characterized by well-tailored activity/selectivity/stability in applications related to environmental protection and remediation, sustainability, and green energy technologies.

This Special Issue aims to host significant advances in the aforementioned areas, including, but not limited to, the design, synthesis, and characterization of nano-catalysts for:

- Greenhouse gas abatement: CO₂ capture, sequestration, and utilization;
- Clean energy topics: H₂ production and cleaning of the produced gas stream; fuel cells;
- Photo-electro-chemical wastewater and water treatment;
- Emission control catalysis;
- Green chemical production;
- Nanobiocatalysts, bionanoassemblies and bionanodevices and their application in biocatalytic processes, drug delivery and biosensing;
- Production of high value products and biofuels by microbial cultures and microalgae;





an Open Access Journal by MDPI

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](#), [CAPlus / SciFinder](#), [Inspec](#), and [other databases](#).

Journal Rank: JCR - Q1 (*Physics, Applied*) / CiteScore - Q1 (*General Chemical Engineering*)

Contact Us

Nanomaterials Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/nanomaterials
nanomaterials@mdpi.com
[X@nano_mdpi](#)