



an Open Access Journal by MDPI

## Evaluation of the Biocompatibility and Toxicity of Nanoparticles

Guest Editors:

**Dr. Sónia Silva**

LAQV/REQUIMTE & Department  
of Chemistry, University of Aveiro,  
Aveiro, Portugal

**Dr. Maria Celeste Dias**

Department of Life Sciences,  
Centre for Functional Ecology,  
University of Coimbra, Coimbra,  
Portugal

**Dr. Helena Oliveira**

Department of Biology, CESAM—  
Centre for Environmental and  
Marine Studies, University of  
Aveiro, 3810-193 Aveiro, Portugal

Deadline for manuscript  
submissions:

**closed (30 July 2023)**

### Message from the Guest Editors

Dear Colleagues,

Nanotechnology occupies a prominent position among diverse fields of science. In order to understand the NPs biocompatibility and toxicity, it is mandatory that toxicological research of NPs evolves towards mechanistic comprehension of the toxicological pathways.

This special issue aims to provide a venue to publish up-to-date and research on the field of NPs impact on living organisms, taking in consideration their biocompatibility vs toxicity, the mechanism of action involved in each one, and a comprehensive point of view of their major targets in organisms.

Research areas may include (but are not limited to) the following:

NPs uptake, accumulation and effects in plants species, namely in plants metabolism

Evaluation of NPs toxic activity in plants, animals and humans

NPs mode of action in mitigating plants stress

Assessment of the effects of NPs on humans, including in-vitro toxicological assays

NPs as therapeutic agents and drug delivery systems

Impact of NPs on biota

See more information in: <https://www.mdpi.com/si/151492>

Dr. Sónia Silva

Dr. Maria Celeste Dias

Dr. Helena Oliveira

Guest Editors



[mdpi.com/si/151492](https://www.mdpi.com/si/151492)

# Special Issue



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](#), [CAPus / 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](http://www.mdpi.com)

[mdpi.com/journal/nanomaterials](http://mdpi.com/journal/nanomaterials)  
[nanomaterials@mdpi.com](mailto:nanomaterials@mdpi.com)  
[X@nano\\_mdpi](#)