

Special Issue

Advances in Nanotoxicology: Health and Safety (Second Edition)

Message from the Guest Editors

We invite you to contribute to this *Nanomaterials* Special Issue, “Advances in Nanotoxicology: Health and Safety”. We are seeking high-impact original research and reviews that explore the interactions of nanomaterials with biological and ecological systems, define their toxicological mechanisms, and propose innovative strategies for risk assessment and mitigation. We particularly welcome studies that incorporate emerging methodologies. The topics of interest include, but are not limited to, the following:

- The molecular and cellular mechanisms of nanotoxicity;
- Systems biology and multi-omics approaches in nanotoxicology;
- Predictive modelling and computational toxicology;
- Safe-by-design strategies for producing nanomaterials;
- Environmental exposure and ecotoxicological assessments;
- The use of nanoparticles in diagnostics and therapeutics: the benefits vs. the risks;
- Preclinical and clinical studies on nanomaterial safety
- The role of phytochemicals and antioxidants in mitigating nano-induced toxicity;
- Nano–bio interactions at the immune and genomic levels;
- Regulatory perspectives and translational challenges.

Guest Editors

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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

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