Special Issue

Nanosafety and Nanotoxicology: Current Opportunities and Challenges

Message from the Guest Editors

The increasing use of nanomaterials in a wide range of consumer products arises from the need to define a correct strategy for hazard identification and risk assessment. This Special Issue is open to contributions on studies on the cytotoxicity and genotoxicity of nanomaterials regarding a) the conditions for cytotoxicity and genotoxicity testing, such as the cell line(s) to be used, the maximum dose/concentration, and the rationale for nanomaterial-positive controls; b) advanced biological models for in vitro cytotoxicity and genotoxicity testing; c) Safe-and Sustainable by-Design (SSbD) approaches; d) in silico methodologies, like QSAR, grouping, and read-across; and e) criteria for the efficient reuse of existing nanosafety data, as recently established through the FAIR (Findable, Accessible, Interoperable, and Reusable) guiding principle.

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Deadline for manuscript submissions

23 August 2025

Nanomaterials

an Open Access Journal by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed

mdpi.com/si/191583

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mdpi.com/journal/nanomaterials

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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.

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