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New Approach Methodologies for the Toxicity Assessment of Nanomaterials

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submissions:

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Message from the Guest Editors

The aim of this Special Issue is to encourage scientists to publish their theoretical and experimental research on the toxicity assessment of NMs using NAMs as an alternative to mammalian in vivo models. The specific topics covered may include the following:

- New approach methodologies (NAMs), including in silico, in chemico, and in vitro models for the human and environmental risk assessment of nanoparticles;
- The role of nanoparticles (including environmental ultrafine particles, engineered NMs, and bio-based and advanced NMs) in biological process including cytotoxicity, oxidative stress, inflammation, and genotoxicity;
- The impacts and adverse effects of nanoparticles on lung in vitro models, and other target organs, including innovative 3D in vitro models and in silico approaches;
- The toxicity/safety of NMs and nano-enabled functional products (antibacterial, antiviral, and bio-nanomaterials) by using cell culture models, advanced complex in vitro models, and non-mammalian model organisms.



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Special Issue



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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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