Special Issue

Advances in Nano-Bio Interactions: Nanosafety and Nanotoxicology, Volume II

Message from the Guest Editor

The broad application of nanomaterials (NMs) has raised concerns regarding the potential environmental and human health risks associated with exposure to NMs. The physicochemical properties of NM, such as size, shape, chemical composition, surface modification, etc., determine how NMs interact with biological media, biomolecules, cells, organs, and organisms. Given that new nanomaterial-based products are being introduced into the market on a daily basis, there is an urgent need to reduce the knowledge gaps regarding physicochemical properties and their influence on the manifestation of toxicities. This Special Issue will bring together the latest advances in nano-bio interactions at systemic, cellular, and molecular levels. Understanding nano-bio interactions and the relationships between the nanomaterial properties/structure and activity will provide a conceptual basis for the rational design and safe use of NMs.

Guest Editor

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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 nanometerscale 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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