



Biological Interactions of Nanomaterials

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Message from the Guest Editors

Rapid development of nanotechnology offers new opportunities for engineering nanomaterials with unique physico-chemical properties. It is worth mentioning that the mechanisms of nanomaterial toxicity cannot be identified without a generalized systemic approach to the study of structural and functional interactions between artificial nano-objects and biological systems. Therefore, this Special Issue focuses on the interactions between nanomaterials and living organisms, seeking a wider perspective on this complex problem, including the nanomaterials' capability of crossing biological barriers and accumulating in specific biological compartments, the details of the formation of the biomolecular corona, the effects of nanomaterials on the immune system and redox homeostasis, genotoxicity of nanomaterials, assessment of nanotoxicity, as well as controlled functionalization of nanomaterials to obtain biocompatible hybrid materials and their targeted safe delivery to tissues and cells.





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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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