



Toxicology and Biocompatibility of Nanomaterials

Guest Editors:

Dr. Carsten Weiss

Institute of Biological and
Chemical Systems–Biological
Information Processing (IBCS-
BIP), Karlsruhe Institute of
Technology (KIT), Hermann-von-
Helmholtz-Platz 1, 76344
Eggenstein-Leopoldshafen,
Germany

Dr. Silvia Diabaté

Institute of Biological and
Chemical Systems – Biological
Information Processing (IBCS-
BIP), Karlsruhe Institute of
Technology (KIT), Hermann-von-
Helmholtz-Platz 1, 76344
Eggenstein-Leopoldshafen,
Germany

Deadline for manuscript
submissions:

closed (25 June 2020)

Message from the Guest Editors

Although the technological and economic benefits of NPs are obvious, concern has also been raised that the very same properties, which open a variety of novel applications, might have adverse effects if such material is inhaled, ingested, applied to the skin or even released into the environment. These concerns have led to an increasing discussion worldwide about possible regulatory policies for NPs. Therefore, there is clearly the need to establish convincing scientific knowledge to assess the impact of NPs on human health and the ecosystem. These questions can only be tackled by collaborative research at the interface of engineering, physics, chemistry, toxicology, and biology. This Special Issue will cover research in the field of nanotoxicology with a special interest in molecular mechanism of action as well as the safe-by-design concept, i.e., the synthesis of biocompatible nanomaterials. Further, the impact of the bio-corona, that is, the interaction of biomolecules with the NP surface, on toxicity and biocompatibility will be addressed. We welcome submission of reviews, original research articles, and communications.





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Editor-in-Chief

Prof. Dr. Eugenia Valsami-Jones

School of Geography, Earth and
Environmental Science,
University of Birmingham,
Birmingham B15 2TT, UK

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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Nanomaterials Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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