



Smart Nanomaterials for Biomedical Applications, Volume II

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Message from the Guest Editor

Dear Colleagues,

Materials are considered “smart” when they are “responsive” to stimuli ranging from internal biochemical cues to environmental factors (stress, temperature, humidity, pH, ionic strength, and specific chemical analytes) or to externally applied stimuli derived from magnetic or electric fields. These materials often exhibit dynamic and reversible changes in their critical physicochemical properties (e.g., their shape, volume, solubility, or molecular conformation), which can be repeated many times.

Novel biomaterials with enhanced performance and unique properties are required in fields such as tissue engineering, immunoengineering, cancer research, immunomodulation, drug delivery systems, and antimicrobial materials. A material’s smartness is more important if the system is highly biocompatible and has poor toxicity, and thus, depends on the physico-chemical properties of the system.

This Special Issue represents an opportunity for researchers in fields ranging from material science to biomolecular design, engineering, and medical physics to combine different aspects of their work.





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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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