Special Issue

New Challenges in Antimicrobial Nanomaterials

Message from the Guest Editors

Antimicrobial nanomaterials are facing new challenges in biomedical and healthcare settings. These challenges span meeting regulatory hurdles, scalability in terms of cost, and sustainability. Also, more detailed research needs be intensified in some important areas such as the mechanism of action against bacteria and fungi; toxicities in vitro, in vivo, *or* ex vivo; biocompatibility; and environmental impact. These challenges require multidisciplinary collaboration solutions to harness the full potential of antimicrobial nanomaterials while ensuring their sustainability, safety, and efficacy. Therefore, this Special Issue invites authors to submit their research for publication in the above key areas and beyond.

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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 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.

Editor-in-Chief

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