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Green Synthesis of Nanomaterials for Environmental and Biomedical Applications

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Message from the Guest Editors

This Special Issue aims to collect perspectives, review articles, and original research papers on topics including, but not limited to:

Green synthesis of nanomaterials using plant materials, microorganisms, bacteria, micro- and macro-algae, biopolymers, and various biowastes, in the context of a clean environment—synthesis which uses environmentally friendly materials, is cost-effective, and avoids the use of hazardous and expensive precursors as well as the production of unwanted end products; The environmental applications of green nanomaterials, including wastewater treatment, water remediation, air treatment, water and air pollutants monitoring, antimicrobial activity, and CO₂ capture and conversion; NPs with antioxidant, antibacterial, and antimicrobial characteristics, making them suitable candidates for application in different biomedical applications; The development of green nanomaterials to reduce energy consumption and raw materials as well as environmental impact during production, utilization, and release throughout the whole life cycle—therefore, life cycle impact and analysis, environmental impact, and toxicity are challenges.



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Special Issue



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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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