Special Issue

Advances in Green Nanotechnology: From Nanoparticles' Green Synthesis to Their Applications in Engineering

Message from the Guest Editors

The environmental impacts of conventional physical and chemical nanoparticle synthesis methods have driven researchers to develop greener alternatives such as "Green Synthesis." This approach is based on environmentally friendly methods using bioactive compounds extracted from biological materials for nanoparticle synthesis. The application of green nanomaterials has affirmed their potential in multifarious applications, i.e., cancer therapy, wastewater treatment, agriculture, heat transfer, bioimaging, and sensing. This Special Issue aims to highlight the latest advances on the subject by covering these areas: (i) the green synthesis of nanoparticles (from plants, micro- and macro-algae, microorganisms, bacteria, biowastes, and biopolymers); (ii) the characterization and fundamental properties of green nanoparticles; (iii) the practical and potential applications of green nanoparticles. Thus, all manuscripts reporting original research, short communications, state-of-the-art reviews, and perspectives on the latest subject developments are welcome.

Guest Editors

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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.

Editor-in-Chief

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