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Nanocomposites Based on Biopolymers and Graphene-Related Materials: Preparation and Properties

Guest Editor:

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Message from the Guest Editor

The recent interest in environmentally-friendly materials has favoured the development of biopolymers, and of their nanocomposites with improved functional properties, as alternatives to synthetic polymers. Compared to the fillers/nanofillers generally used, graphene and graphene-related materials (GRM) hold a superior ability to result in substantial improvements in functional properties of polymers.

This Special Issue of *Nanomaterials* aims at collecting works focusing on the correlation of nanocomposite preparation approaches with final material features, particularly in terms of GRM dispersion and filler/biopolymer interactions. Moreover, it considers the role of GRM on the nanocomposite properties, focusing, not only on classically-studied properties (mechanical, thermal and conductivity), but also on features strictly related to the application of biopolymers, such as their degradation and biocompatibility.

The topics cover a wide range of research fields, including nanomaterials, biotechnology, and nanofabrication, and are welcomed in the form of reviews, communications, and academic articles.

Prof. Dr. Orietta Monticelli
Guest Editor



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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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