

Special Issue

Engineering Bionanocomposites for Functional Applications

Message from the Guest Editor

Bionanocomposites have been emerging as sustainable hybrid alternatives in various applications where conventional composites have been traditionally exploited. Until recently, they have been actively researched in areas such as regenerative medicine, electronics, food packaging, and water remediation. They are fabricated by combining natural polymers and solids, with nanoscale dimensions. Properties inherent to biopolymers render them highly suitable for regenerative medicine, and food science and technology. Also known as green nanocomposites, their development is interdisciplinary benefiting from polymer science, graphene, biomineralization, emulsion science, bioinspired materials, and biomimetic systems. This special issue intends to attract both research and review articles on the fabrication, characterization, and functional applications of bionanocomposites. Topics of interest are thermomechanical properties, sustainable electronic materials employing graphene, cellulose-based nanocomposites, bionanocomposites for drug delivery, food packaging, tissue engineering in regenerative medicine, bio-based sensor applications, and finally, biodegradable nanostructured hydrogels.

Guest Editor

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Deadline for manuscript submissions

closed (10 April 2019)



Nanomaterials

an Open Access Journal
by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed



mdpi.com/si/11962

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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. We are proud of our increasing impact factor and ability to provide rapid decisions to authors.

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