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Nanocelluloses: Synthesis, Modification and Applications

Guest Editor:

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Deadline for manuscript submissions:
closed (31 August 2019)

Message from the Guest Editor

Dear Colleagues,

Nanocelluloses (NCs), namely cellulose-based materials with peculiar physicochemical properties, appear as a new research, offering a wide range of specific applications, quite different from those of cellulose. NC structure, properties, and nanocomposites and NCs have been defined as a new family of nature-based materials. The approach to provide NCs is intimately correlated to the NC source. NC recovery from waste materials is a concrete opportunity to take advantage of cellulose-containing wastes and to enhance them.

Another nanocellulose that has been studied in recent years, and that is prepared by biotechnology, is bacterial nanocellulose (BNC), a nanofibrilar polymer produced by strains such as *Gluconacetobacter xylinus*. BNC cannot be ignored by researchers interested in nanocellulose due to its unique properties, such as chemical purity, biocompatibility, inertness and non-toxicity, biofunctionality and hypoalergenicity, good mechanical strength, high absorbency, and the possibility of forming any shape and size.

We look forward to receiving your valuable contributions in the forms of reviews, communications, and academic articles.

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Editor-in-Chief

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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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