

Special Issue

Advanced Nanocellulose-Based Materials: Production, Properties and Applications

Message from the Guest Editors

Bacterial nanocellulose (BNC), cellulose nanocrystals (CNCs), and cellulose nanofibers (CNFs) are three nanometric forms of the most abundant natural polymer (viz. cellulose), and are currently at the spotlight in numerous fields of modern science and technology. The eco-friendly connotation, peculiar features, and multiple functionalities of these nanoscale cellulosic substrates are being explored to engineer advanced nanocomposites and nanohybrid materials for application in manifold domains, such as mechanics, optics, electronics, energy, environment, biology, and medicine. The aim of this Special Issue titled “Advanced Nanocellulose-Based Materials: Production, Properties, and Applications” is to gather a collection of original research and review contributions from the world-leading scientists working with nanocellulose. Thus, research that is representative of the current developments dealing with the production methodologies, properties, and applications of nanocellulose-based materials (e.g., nanocomposites, hybrids, aerogels, hydrogels, films, and fibers), are very welcome to the Special Issue.

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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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