Special Issue

Nanotechnology in Natural Fibers and Natural Fiber-Reinforced Polymer Biocomposites: Advances and Multifunctional Applications

Message from the Guest Editors

We welcome original research articles, comprehensive reviews, and short communications on topics including but not limited to the following:

- Nano-functionalization and surface treatment of natural fibers and textiles;
- Synthesis and characterization of nanomaterials from biomass or natural fibers;
- Valorization of natural fibers through nanotechnology;
- Nano-modification, processing, and characterization of natural fiber-reinforced polymer composites;
- Integration of nanomaterials in bio-based polymers for advanced composite development;
- Fabrication and optimization of nanocellulosic fiber-based biocomposites;
- Environmental durability and aging of nano-engineered biocomposites or polymer composites;
- Enhancement of multifunctional properties via nanotechnology;
- Circular economy strategies, including recycling and reuse of nano-engineered natural fiber composites;
- Advanced applications of nano-engineered natural fibers, biocomposites, or polymer composites across industries.

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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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