



Chitosan, Chitin, and Cellulose Nanofiber Biomaterials

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Message from the Guest Editor

There is increasing interest in using natural polymers and fiber-filled composites to achieve the development of functional biomaterials (polysaccharides chitosan, chitin, cellulose, and their derivatives, etc) for the most varied applications. However, fundamental research relating chitosan/chitin physico-chemistry with biological properties is only addressed by a relatively minor number of studies. In addition, cellulose nanofibers (CNF) unique mechanical properties and renewability increasingly motivate their use as filler in nanocomposites. As a nanomaterial, the question on CNF toxicity and environmental impact has been addressed, and good CNF biocompatibility has been also reported.

This special issue is oriented to all types of biomaterials (biological materials, bio-based materials and biomaterials for biomedical applications) presenting chitosan, chitin, and/or cellulose nanofibers, includes: (i) microstructure-properties relationship in both biological and engineering materials; (ii) the understanding of biopolymer physical-chemistry behavior by interrelating processing-microstructure-function-biological response, but it will not be limited to this field.





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Message from the Editor-in-Chief

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