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Biopolymers and Biopolymer Based Composites: Processing, Properties, Durability

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Message from the Collection Editors

This is to present a collection of papers regarding processing, properties, durability of biopolymers including microcomposites, nanocomposites, and blends.

There is a growing interest toward the development and applications of polymeric materials, derived from oil or from natural resources, which display specific characteristics such as biodegradability, compostability, and biocompatibility.

As well as other polymeric systems, adding a second phase, rigid or flexible, may improve some specific properties (e.g., mechanical properties in the case of rigid fillers) or provide the material with new ones (e.g., by adding functional additives).

The aim of this collection is to explore the often unknown relationships between processing variables, the macromicro-nanomorphology of the materials prepared, and their final properties.

The durability of biopolymers is one of the weak spots of these materials. Therefore, contributions dealing with this aspect, including thermomechanical, environmental, photooxidative degradation, and the related stabilization strategies are more than welcome.



Topical Collection





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Message from the Editor-in-Chief

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