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Studies on Mechanical Characterization of Biopolymers

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Message from the Guest Editors

Dear Colleagues,

Biopolymer is a polymer that can be obtained naturally or formed by living organisms or plants. Biopolymer also refers to a polymer that can be biodegraded by microorganisms or under normal environmental conditions. Thus, this material can be either bio-based plastic, biodegradable plastic, or both. Mechanical properties are aspects that need to be emphasized in the production of quality bioplastic-based products. However, when compared with synthetic polymers, bioplastics usually have lower tensile strength and barrier properties. Their high-water vapor permeability, oxygen permeability, fragility, low thermal resistance, vulnerability to degradation, and low processability have also limited their use in some applications such as packaging and coating.

The aim of this Special Issue is to overview and discuss current progress in the field of bioplastics and bioplastic composites, including several technologies and strategies to improve the mechanical and physical properties of the bioplastics. Topics of interest include all aspects of the manufacturing, analysis, characterization, and application of such bioplastics, as well as theoretical studies in the field.







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Editor-in-Chief

Message from the Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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