

Special Issue

Synthesis, Characterization, and Application of Biomacromolecules and Biobased Polymers

Message from the Guest Editors

Biomacromolecules and biobased polymers encompass a diverse range of large molecular substances found in biological organisms, including nucleic acids (polynucleotides), proteins (polypeptides), carbohydrates (glucans or polysaccharides) and lipids. These substances have attracted significant attention in the biopharmaceutical field due to their natural properties such as high biocompatibility, biodegradability, low immunogenicity and efficient targeting capabilities. Despite their promising properties, challenges exist in replacing traditional polymers with these substances for advanced materials, including issues with stability, high extraction costs. Efforts in optimized design synthesis aim to enhance the stability and delivery capacity of these biological materials, making them more accessible and cost-effective. This research is expanding their applications across diverse fields such as biopharmaceuticals, tissue engineering, biosensors, environmental protection, bioinformatics, bioengineering and materials science.

We invite contributions to this focused Special Issue and encourage you to share this information with colleagues and peers who may be interested in this topic.

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Editor-in-Chief

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