

Special Issue on  
**Biobased Polymers and Composites**

# CALL FOR PAPERS

With the depletion of the world crude oil stock and increasing environmental concerns, efforts on a global scale are dedicated to developing viable alternatives to conventional petroleum-based polymeric materials for a sustainable and green society in the future. Renewable resources, such as cellulose, natural oils, and lignin, are mass produced by nature through photosynthesis, using carbon dioxide and water. Innovative technologies to transform these natural resources into useful materials with tunable structures and functionalities are a key part of sustainable development. Strategies involving the direct chemical or physical modification of natural polymers, the extraction of useful small molecules followed by controlled polymerization, and the pyrolysis of large molecular weight natural carbohydrates to produce reactive small molecular weight monomers followed by controlled polymerization are already on the way.

Despite the progress made in renewable polymers, such as PLA, in the last decades, most of the proposed biobased materials are far from commercial application and from replacing petroleum-based products. In order to improve physical and thermomechanical properties, nanofillers and fibers have been incorporated into biobased polymer matrices. The development of novel composite materials facilitates the application of these materials in new areas, for example, sensors, structural parts, and biomedical devices.

The purpose of this special issue is to publish high-quality research papers as well as review articles addressing recent advances on biobased polymers and composites in terms of new processing technology, new properties, and new characterization methods. Original, high-quality contributions that are not yet published or that are not currently under review by other journals or peer-reviewed conferences are sought.

Potential topics include but are not limited to the following:

- ▶ Polymers synthesized from biobased feedstock
- ▶ Polymer blends from natural resources
- ▶ Bionanocomposites; natural rubber; biobased additives for polymers
- ▶ Fiber-reinforced, biobased polymers, including natural fibers, glass fibers, and carbon fibers
- ▶ Multifunctional or smart biobased polymers and composites

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/ijps/bbpc/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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