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Bio-Based Polymers: Synthesis and Applications

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Message from the Guest Editors

In the past few decades, research focus has dramatically increased on the synthesis of bio-based polymers from renewable sources with an aim to supplement and substitute fossil fuel-based polymers. Bio-based polymers may be classified into three main categories, including polymers directly extracted from biomass, polymers produced by microorganisms or genetically modified bacteria, and polymers synthesized using bio-based monomers. Although substantial efforts have been applied to generate bio-based polymers which have an identical chemical structure to those derived from fossil fuel, synthesizing new sustainable bio-based polymers with better function and performance is also a critical long-term goal to achieve.

This Special Issue aims to publish original works and reviews focusing on the synthesis of novel bio-based monomers and polymers from renewable resources. It will cover but not be limited to the following aspects: development and preparation of new synthetic bio-based polymers, including polyester, polypeptide, polysaccharide, polyphenol, synthetic melanin, etc.; and property evaluations and applications of synthetic biobased polymers.







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Message from the Editor-in-Chief

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