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Synthesis of Bio-Based Polymers: Challenges and Opportunities

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Deadline for manuscript submissions:
closed (1 February 2022)

Message from the Guest Editors

Fossil-fuel-based synthetic polymers have great properties but they can remain in the environment for several decades and do not degrade. Therefore, renewable-resource-based biopolymers, which are sustainable and potentially biodegradable, have been attracting the interest of researchers worldwide.

Bio-based polymers may be classified into three main categories: polymers directly extracted from biomass; polymers produced by micro-organisms or genetically modified bacteria; and polymers synthesized using bio-based monomers. To date, the major focus has been on the extraction and utilization of polymers from biomass, such as cellulose, starch, and protein. Only a limited number of studies have reported on the synthesis of monomers and biopolymers from renewables. At present, we have a great opportunity to produce renewable polymers from biomass; however, there are several challenges that need to be overcome, particularly those associated with the synthesis, properties and processing of such polymers.

This Special Issue aims to present a collection of original research papers and review articles that focus on challenges in and opportunities for the synthesis of bio-based monomers.

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Message from the Editor-in-Chief

Since its foundation in 2009, *Polymers* has developed into an internationally renowned, extremely successful open access journal. The editorial team and the editorial board dedicatedly combine open-access publishing and high-quality rigorous peer reviewing. The performance of the journal has proven this strategy to be well-suited and highly successful. This is reflected in the increasing impact factor of *Polymers*, the most recent one being 4.7.

I would like to invite you to contribute to the success of the journal by sending us your high quality research papers. We would be pleased to welcome you as one of our authors.

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