



Polymers for Sustainable Packaging

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Message from the Guest Editors

The use of petroleum-based synthetic polymers in packaging poses a significant threat to the environment. With the increasing concerns over population growth, safety, and health, as well as the rising demand for packaged food and consumer goods, the need for sustainable and smart packaging has become more pressing. Starch-based biopolymers are environmentally sustainable and possess desirable properties, such as good solubility, multifunctionality, and easy processability, making them a promising alternative to conventional petroleum-based synthetic polymers in packaging.

A broad range of topics will be covered by the Special Issue, including, but not limited to, the following:

- Synthetic of starch-based renewable resin;
- Multi-scale structure characterization;
- Mechanical and dynamic modeling of packaging;
- Biodegradable sensor technology;
- Investigation of biodegradable mechanisms;
- Barrier properties of starch-based biopolymers;
- Sustained-release properties of starch-based biopolymers;
- Safety assessment of starch-based biopolymers;
- Life-cycle analysis of starch-based biopolymers.





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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 5.0.

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