Special Issue

Modification and Application of Starch-Based Polymers

Message from the Guest Editor

Due to its universality, environmental safety, biocompatibility, and application potential, starch is intensely important for the industry. However, its physicochemical properties, including the tendency to induce swelling and retrogradation, strong polarity, variable rheological properties, and structural differences characterizing various botanical types, make its processing difficult. The use of proper modification allows for starch industrialization. The derivatives obtained by variable synthesis (chemical or physical) methods give starch-based materials unique, programmable, processing, and utility properties. The design of biomaterials for specific applications in the food and packaging industry, as well as in medicine and cosmetics, attracts particular attention. Controlled biodegradability, improved mechanical strength and water resistance, as well as more specific properties for definite applications (gas barrier and antioxidant properties, biocompatibility, and bioactivity), are of particular interest.

Guest Editor

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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 4.9.

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.

Editor-in-Chief

Prof. Dr. Alexander Böker
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