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Recent Developments in Biodegradable and Biobased Polymers

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Message from the Guest Editor

Biodegradable polymers are considered promising materials to solve the problem of microplastic pollution in marine environments. However, these polymers have some crucial drawbacks such as poor crystallizability and insufficient mechanical properties, compared to commodity polymers synthesized using monomers from fossil fuels. Therefore, many research studies have been devoted to improving their crystallizability and mechanical properties. For crystallizability, the addition of a nucleation agent, diluent, or plasticizer has been reported. To ameliorate the mechanical properties, block copolymerization and polymer blending are main strategies, but it is important to use additives derived from natural sources and components of block copolymers or polymer blends that are biobased and/or biodegradable. In this context, new biobased monomers and synthetic routes of biobased polymers from such biobased monomers should be investigated. This Special Issue focuses on these topics, including biomedical applications and recent developments in biodegradable and biobased polymers.



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Special Issue



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Message from the Editor-in-Chief

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