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Biodegradable Polymers: Synthesis, Characterization and Applications

Guest Editors:

Dr. Kohei Iritani

School of Engineering, Tokyo University of Technology, Hachioji, Japan

Prof. Dr. Piotr Dobrzynski

Centre of Polymer and Carbon Materials, Polish Academy of Sciences, 34 Marii Curie-Skłodowskiej Str., 41-819 Zabrze, Poland

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Message from the Guest Editors

Biomaterials have attracted intense interest for solving problems such as increase in CO₂ gas emission, exhaustion of petroleum resources, and expansion of microplastics. As bio-based materials, biomass polymers, which are made from plant-based raw materials such as corn and sugarcane, are well known. Although CO₂ gas is emitted by burning biomass polymers, carbon recycling can be achieved through photosynthesis of plant growth. As another significant material, biodegradable polymers, which are decomposed into CO₂ and H₂O in nature by microorganisms, have been widely researched all over the world, with some studies focusing on marine decomposed polymers to solve the problem of micro-plastics in the ocean. For the construction of a sustainable society, it would be necessary to develop technologies for the efficient production of materials from biomass and for the development of materials with a low environmental impact.

Thus, this Special Issue invites researchers to submit original research and review articles on biodegradable polymers. describing their synthesis, processing, the course of degradation, as well as examples of various interesting applications.







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Editor-in-Chief

Prof. Dr. Alexander Böker

Lehrstuhl für Polymermaterialien und Polymertechnologie, University of Potsdam, 14476 Potsdam-Golm, Germany

Message from the Editor-in-Chief

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Polymers Editorial Office MDPI, St. Alban-Anlage 66 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/polymers polymers@mdpi.com X@Polymers_MDPI