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Biodegradable Polymeric Composites: Development and Industrial Applications

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Message from the Guest Editors

Plastics derived from fossil fuels are extensively used for the large-scale production of commodities, due to the availability of well-developed manufacturing processes and to the possibility of achieving good control over their physicochemical properties. However, once commodity plastics end up in landfills and the oceans, their limited biodegradability is a concern for biodiversity, ecosystems, food security and human health.

The global threat of plastic pollution has stimulated the research of materials that can be broken down to CO₂, CH₄ and water by the action of microorganisms. These biodegradable polymers can be produced from fossil fuels, biomasses or micro-organisms. An interesting perspective is represented by composite systems based on this class of polymers for their enhanced properties and retained biodegradability.

In this Special Issue, we aim to publish original work and reviews about the current strategies and technologies for the fabrication of biodegradable polymeric composites and their industrial applications, such as in food packaging and biomedical devices, among others.



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Special Issue



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