Special Issue

Polymer Packaging: Sustainable Innovations and Alternatives to Fossil-Based Materials

Message from the Guest Editor

Packaging plays a crucial role in modern lifestyles, but its reliance on synthetic polymers derived from petroleum raises significant environmental and health concerns due to excessive plastic waste, greenhouse gas emissions, and the release of microplastics and harmful chemicals.

In response, sustainable innovations are focusing on reducing these negative impacts while maintaining functionality. Bio-based polymers, emerging as alternatives to fossil-based materials, are becoming key in the transition towards a fully sustainable, circular bioeconomy. Another innovation involves advancements in recycling, where polymers are designed to be more easily recyclable or made from recycled materials. Additionally, lightweight packaging designs and the incorporation of compostable materials help minimize resource consumption and packaging waste generation.

Overall, sustainable innovations in polymer packaging can offer promising solutions to decrease reliance on fossil fuels, reduce environmental impact, and move towards a circular economy in packaging materials.

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 4.7.

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

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