Special Issue

Advances in Polymer Recycling and Upcycling: Toward a Circular and Sustainable Future

Message from the Guest Editors

This Special Issue explores advances and challenges in polymer recycling and upcycling, highlighting strategies to enhance material circularity and reduce environmental impacts. It covers:

- **Recycling Technologies:** Advances in mechanical, chemical, and biological methods, improved sorting, and innovations preserving polymer properties.
- **Upcycling Approaches:** Converting plastic waste into higher-value products, developing functionalized polymers, and employing advanced methods.
- **Sustainability & Circular Economy:** Using life cycle assessments (LCAs) to evaluate impacts, explore policies, and analyze trends.
- **Novel Materials & Composites:** Creating biologically derived materials for better performance and recyclability.
- **Integration of Safety & Sustainability:** Minimizing impact from design and enhancing performance for a circular economy.
- **Challenges & Future Directions:** Addressing polymer degradation, contamination, and leveraging AI and robotics in waste management.

This issue aims to foster collaboration among academia, industry, and policymakers, driving innovation in polymer recycling and upcycling for a sustainable future.

Guest Editors

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Message from the Editor-in-Chief

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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