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EDITORIAL

Special issue: Polymer degradation for a sustainable future

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Polymer materials are used as plastics, rubber, fibers, and electronics, playing an integral role in modern society. However, such polymer materials have been developed without respect to sustainability and recyclability, and thus, the Earth is facing environmental issues such as microplastic pollution. Despite the fact that polymers have contributed to solutions to other environmental issues, polymer scientists must urgently dispel the negative aspects of the polymer pollution problem.

One of the solutions to address the global issue is to make polymers degradable while maintaining stability and/or providing advanced performance. Recent developments in polymer synthesis technologies [1–6] have allowed construction of polymers having well-defined structures at will, and thus the combination of degradation-oriented molecules with the synthetic methodology would lead to degradable polymers. From a different perspective, the concepts of supramolecular polymers [7–10] or photoresist materials [11] may provide hints to degradation of polymer materials.

It is with great pleasure that we publish this special issue entitled "Polymer Degradation for a Sustainable Future" in this day and age. We invited outstanding researchers from all over the world to the issue and collected 15 Original Articles, 2 Focus Reviews, and 3 Reviews. We believe that this special issue not only highlights the current state of polymer degradation but also provides a foundation for future advancements in this area. Finally, we greatly appreciate all the authors and referees for their contributions to the special issue.

Compliance with ethical standards

Conflict of interest The authors declare no competing interests.

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