Special Issue

Recycling and Degradation of Polymeric Materials: Exploring Different Perspectives in Plastic Waste Management

Message from the Guest Editors

This Special Issue aims to provide a platform for thoughtful discussion on the recycling of polymer waste. We encourage contributions that delve into these critical facets, fostering a comprehensive understanding of the challenges and opportunities in the realm of polymer waste recycling. Your valuable insights and research findings will contribute to advancing sustainable practices and mitigating the adverse impacts of plastic waste on our environment.

- The environmental fate of plastics;
- Characterization of post-consumer plastics for recyclability;
- Processes and technologies for post-consumer plastics recycling;
- Design principles for recyclability;
- Degradation processes of plastics in natural environments;
- Degradation processes of plastics in municipal solid waste management systems;
- Physicochemical properties of polymers during degradation;
- Development of new products from recycled plastics;
- Economic, social, and environmental aspects of plastics recycling;
- Case studies highlighting effective plastics recycling processes.

Guest Editors

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Dr. Maria Oliviero

Dr. Giovanni Gadaleta

Deadline for manuscript submissions

closed (20 July 2025)



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Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. Materials provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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