International Journal of Polymer Science

Special Issue on

From Food Waste to Plastic Market: Current Trusted Technology and Innovation for the Production of Bio-Based Polymers for Packaging Applications

CALL FOR PAPERS

Every year many billion kg of fresh fruits and vegetables, grain products, milk, meat, seafood, and other dairy products are lost as wastes by retailers, restaurants, and consumers. Their disposal represents one of the current greatest concerns at the global level as it causes several problems of both economic and environmental nature. Every ton of food waste means approximately 4.5 tons of CO_2 emissions. About 33% of our home foods are disposed in landfills causing the exploitation of natural and primary-energy resources and the emission of both greenhouse gases affecting climate change and other gases impacting upon human health and ecosystem quality.

Furthermore, every year the food-processing industry produces huge volumes of aqueous wastes like fruit and vegetable residues, molasses and bagasse from sugar, bones, fresh and blood from meat and fish industry, and stillage from wineries and distilleries. Those streams represent a considerable amount of potentially reusable materials that can be processed into polymers, usable for packaging applications. In this context, the guest editorial team conceived this special issue (SI) to collect studies that discuss those researches and related findings and, so, are aimed at assessing, improving, and promoting the supply chains of packaging systems from food waste recovery.

Authors from all over the world are so invited to submit original-research and review articles that make relevant contribution within this SI scope. We are particularly interested in articles describing the synthesis and full characterization of polymer materials obtained from food waste processing, with a great economical advantage, and on the development of new food waste technologies to recover high-value food by-products.

We encourage authors to investigate one or more of them in terms of the aforementioned issues, with the final objective of providing insights upon the current and likely future opportunities and challenges in the development and improvement of food waste recovery systems for packaging product manufacturing.

Potential topics include but are not limited to the following:

- Recent developments in food waste recovery strategies
- Advance in food waste technologies
- Synthesis of bio-based packaging materials from food wastes
- Production of biopolymers films for food packaging application
- Development of new polymer synthesis methodologies
- Identification of high-value food waste by-product for polymer synthesis

Authors can submit their manuscripts through the Manuscript Tracking System at http://mts.hindawi.com/submit/journals/ijps/cofw/.

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