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Biodegradable Materials Production from Food Waste: A Sustainable Approach

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Abstract

Food waste has become a significant global issue, contributing to environmental degradation through methane emissions in landfills. This research explores the potential of utilizing food waste as a source for producing biodegradable materials, offering a sustainable alternative to petroleum-based plastics. By examining various studies and advancements in this area, the research discusses the potential benefits, challenges, and future prospects of converting food waste into eco-friendly products. Food waste is a critical issue worldwide, with approximately one-third of food produced for human consumption being discarded. This waste, often sent to landfills, decomposes anaerobically, generating methane, a potent greenhouse gas. To mitigate the environmental impacts of food waste, innovative solutions are being explored, including converting it into biodegradable materials. This approach not only addresses the problem of waste disposal but also provides an alternative to conventional plastics, which are derived from non-renewable resources and contribute to long-term environmental pollution.

Keywords:

