Abstract

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Sustainable 3D Printing Filament Production from Recycled Nonbiodegradable Waste: A Review

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Abstract:

The rapid growth of 3D printing technology has opened up new avenues for innovation across various industries. However, the increasing use of non-biodegradable polymers in 3D printing has raised environmental concerns due to their contribution to plastic waste. This review paper examines sustainable approaches to 3D printing filament production, with a focus on recycling non-biodegradable waste, such as plastics, to create high-quality filaments. The paper explores current research on the development of recycling methods, material properties, economic viability, and the environmental impacts of using recycled polymers for 3D printing.

Keywords: Sustainable technology, Nonbiodegradable waste, Recycling process, 3D Printing

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