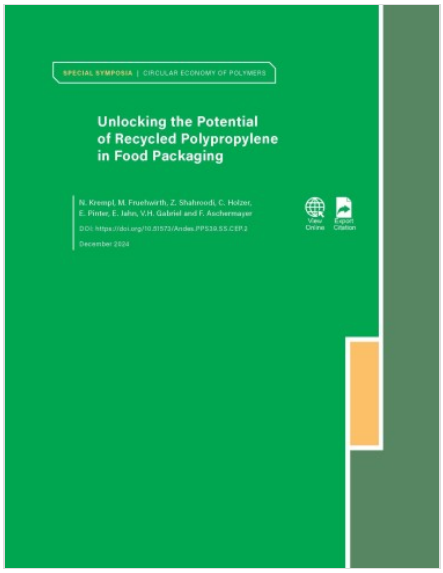
Unlocking the Potential of Recycled Polypropylene in Food Packaging

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Sinopsis

This study aims to enhance recycled polypropylene (rPP) for yogurt cups, promoting sustainable resource use and waste reduction. Analysis of sorting, recycling, and decontamination shows mechanical recycling of PP effectively generates new products. Experiments reveal pre-sorted, hot-washed, and color-sorted rPP has superior quality and is processable up to 100% recyclate content. Adding a masterbatch additive improves oxidative stability and reduces degradation. Biological, chemical, and sensory analyses confirm rPP cups match virgin PP in odor and appearance, with no mutagenic substances detected. This demonstrates the feasibility of high-quality rPP in food packaging, supporting sustainable practices in the circular economy.



Escanea para ver en línea

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