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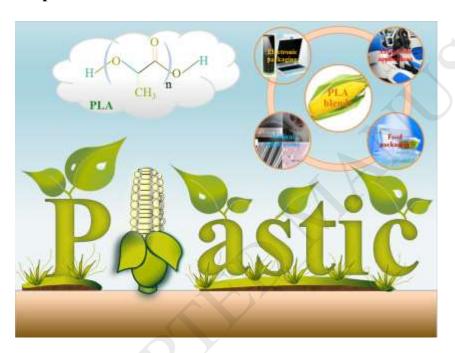
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Graphical abstract



Abstract

Polylactic acid (PLA) is a biobased product and a compostable aliphatic polyester that has been studied for use in several applications over the last decade. Many properties of PLA, such as strength, stiffness, and gas permeability, have been found to be comparable to those of traditional petrochemical-based polymers. However, PLA-based materials exhibit a number of limitations for specific applications, such as slow biodegradation rate, high cost, and low toughness. The modification of PLA using the polymer blending technique to achieve suitable properties for different applications has been receiving significant attention

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