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(57) Abstract :
ABSTRACT: Title: A Method for Preparation of Etherification-Derived Hydroxypropyl Karaya Gum for Sustained-Release Drug Delivery Applications The present disclosure proposes a method of preparation of modified or derivatized natural karaya gum or gum sterculia for controlled or delayed or extended release drug delivery systems. The proposed method comprises a composition that is biodegradable, biocompatible, nontoxic, and eco-friendly. The proposed method modifies the structure of the karaya gum, limiting uncontrolled hydration and forms a more porous gel structure. The proposed method provides a new natural and biodegradable polymer, making it safe for use in humans. The proposed method to modify karaya gum has the potential to be a commercially viable product. The proposed method improves the dispersability of the specific gum and reducing the rheological fluctuations. The HP-karaya is clear of fungal and bacterial contamination including harmful bacteria, thereby indicating the safety and nontoxicity of lower percentage HP-karaya as well.

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