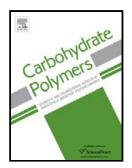
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ACCEPTED MANUSCRIPT

Development of Chitosan and Polycaprolactone based active bilayer films enhanced with nanocellulose and grape seed extract

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Highlights

Active chitosan (CH) films were prepared with nanocellulose and grape seed extract CH-based bilayer film was prepared by coating and compression with polycaprolactone Allowing combination of active properties with adequate physicomechanical properties The suitability of chitosan films was improved for food packaging applications

Abstract

In this study, nanocellulose (NC) (2-5%, w/w) and grape seed extract (GSE) (15%, w/w) added chitosan (CH) and polycaprolactone (PCL) based active bilayer films were prepared by

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