

Extraction of Neem, Justicia adhatoda & Black pepper and Synthesis of extraction loaded Gum acacia / Carboxymethyl cellulose composite film their characterization and antibacterial activity

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1 Abstract

In this work, the composite film based on Carboxy methyl cellulose (CMC) and Gum Arabic (GA) were prepared by solution casting method. Calcium chloride was used as a crosslinking agent with different ratios. The physical properties of the composite film were investigated in terms of swelling percent (%) and the structure of the composite film was characterized by Fourier transform infrared spectroscopy. Antimicrobial activity in leaf extract of neem (Azadirachtolides) against human pathogenic bacteria. E. coli, extract showed a broad spectrum of very significant antibacterial activity by producing a clear zone of inhibition against, E. coli.