



Conference Abstract

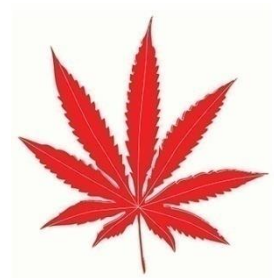
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Conference Abstract

THE DEVELOPMENT, CHARACTERIZATION AND APPLICATION STUDIES OF BIODEGRADABLE PLASTIC INCORPORATED WITH CARICA PAPAYA AND RICINUS COMMUNIS LEAF EXTRACT

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ABSTRACT

Health hazards linked with usage of plastic films for food packaging and preservation has been increased in recent years and demands the development of eco-friendly biodegradable plastic films with added functional properties. The reported work highlights the development, characterization and application studies of biodegradable film by utilizing generally wasted Ricinus Communis and Carica Papaya Leaves. The aim of this study was to utilize waste and develop an anti-oxidant, anti-microbial, anti-fungal biodegradable film with water resistance, oil and grease resistance and high mechanical strength by the use of water soluble extracts of leaves. Due to such enormous properties leaves exhibit it can be used in the packaging material to make it more protective for product. The water soluble extract of leaves of ricinus communis and carica papaya leaves was made and then filtered. The packaging film was made by replacing some of the liquid portion and adding extract in it. The film was then dried by brushing it on a surface for 24hours and then it was followed by scrapping. Analysis of physical, mechanical and morphological studies was undertaken. The experiments showed that both the films has positive results where the film incorporated with Carica Papaya leaves extract has potential application as an active packaging material for various food products due to its enhanced mechanical properties and antimicrobial

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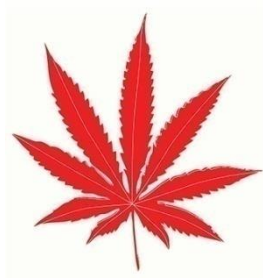
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Competing Interests:

The authors declare no competing interests.

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activity.



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