

International Conference on Nurturing Sustainability through Innovations in Science and Technology for Global Welfare



Contribution ID: 248

Type: Poster

Pectin/Kappa-carrageenan/ZnO Nanocomposite bio-film as Food packaging material

In the current investigation an endeavor was undertaken to replace Synthetic polymer-based films employed in food packaging applications with films from renewable materials sourced from waste. A polymer Nano composite film was prepared from K-Carrageenan (KC), Pectin and ZnO Nano particles (NPs) by solution casting method. The Morphology and structure of the P/KC/ZnO Nanocomposite films prepared were characterized by SEM, XRD, and FTIR techniques, the incorporation of ZnO NPs into P/KC films varied in mechanical, thermal, structural and barrier characteristics of Nano composite films. the result of the biodegradation investigation showed that both films could be degraded over a significant amount of time in ambient circumstances, making them a better option for ecofriendly food packaging material

Keywords: Pectin-ZnO/KC, Eco-friendly, Biodegradation, Food packaging

Primary authors: Dr S, Bindya (JSS Science and Technology University, Mysuru); Ms U, Chandana (JSS Science and Technology University, Mysuru); T R, Pallavi (JSS Science and Technology University); Ms K M, Rajeshwari (JSS Science and Technology University, Mysuru)

Presenter: T R, Pallavi (JSS Science and Technology University)

Track Classification: Innovation and Technology for Sustainability