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An investigation on the effect of polyphenolic extracts of *Nigella sativa* seedcake on physicochemical properties of chitosan-based films

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Highlights

- The functional property of CH-NSE composite film closely related with the content of NSE added and compared to CH & CH-tannic acid (CH-TA) films
- NSE improved the barrier property against visible light and water vapor permeability (WVP) of the films.
- Contrasting effects of NSE and TA was seen on the mechanical strength and WVP of films.
- NSE and TA led to decrease in crystallinity and increase in melting peak of films.
- CH films exhibit a potential antioxidant and polyphenol release profile upon the addition of NSE

Abstract

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