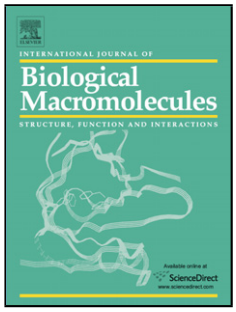

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Characterization of Fish Myofibrillar Protein Film Incorporated with Catechin-Kradon Extract

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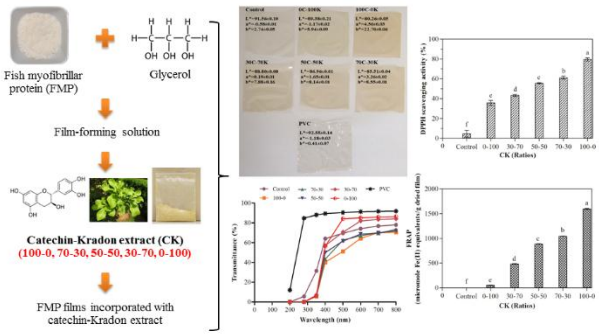
Short running tille : *Fish Myofibrillar Protein Film with Catechin-Kradon Extract*

Graphical Abstract



Abstract

This study investigates the properties of films made from fish myofibrillar protein (FMP) incorporated with combinations of catechin-Kradon extract (C/K) (20%, w/w) at different ratios. The experimental films were compared to a polyvinyl chloride (PVC). The thickness and the transparency of the films were in the range of 0.014-0.015 mm and 3.65-3.77, respectively. Significant decreases were observed in elongation at break (35-122%), water vapor permeability (0.54-1.26 × 10^{-10} g m^{-1} s^{-1} Pa^{-1}) properties, and a gradual decrease in L^* value was pronounced when the proportions of catechins were increased ($P < 0.05$). FMP films incorporated with C/K demonstrated to have very good barrier properties to UV light and also enhanced the thermal