Effect of shrimp chitosan coatings as affected by chitosan extraction processes on postharvest quality of strawberry

Authors
MS Benhabiles, N Drouiche, H Lounici, A Pauss, N Mameri

Publication date
2013/12/1

Journal
Journal of Food Measurement and Characterization

Volume
7

Issue
4

Pages
215-221

Publisher
Springer US

Description
Edible coatings as affected by chitosan extraction processes were used to preserve the quality of strawberries (*Fragaria* × *ananssa*) during their storage at ambient temperature (20–25 °C). Thus, three different chitosans were prepared from shrimp shell and were designated as the following: C1 by classical method, C2 without the decoloration step, and C3 without the decoloration step and the deproteinization step. In order to study the effectiveness of coatings, changes in physicochemical parameters and mold spoilage were studied. Chitosan coatings had no significant effects on titrable acidity, pH and soluble solids content (SSC) of strawberries throughout the storage, while the SSC content of control fruits increased with the storage time. In contrast, chitosan coatings delayed changes in weight loss and the appearance of fungal infection. Coated samples had greater visual acceptability than had the …