



**Microstructures Evaluation of Fish Fillets Tuna  
(*hunnus albacares*) Coated with Chitosan from Waste Shell  
Vannamei Shrimp (*Litopenaeus vannamei*)**

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**Abstract:** Fish is a food that is easily damaged; do to either the influence of environmental factors or the biochemical reactions that occur in food, especially tuna fish fillet. Tuna fish is one of the important species that have high economic value which is influential in the international market trade. Generally, Tuna fish is consumed in the fresh form, canned or frozen. Some research has shown that the use of chitosan as a coating can maintain the physical, chemical and microbiological, but changes in the microstructure of the characteristics of the fillet can only be seen under the microscope. The aim of the study was to determine the microstructure of Tuna fish fillets coated with chitosan from vannamei shrimp shell waste at the various treatment of solvent, stored at room temperature and low temperature (-10<sup>0</sup>C). The results showed that the microstructure of Tuna fish fillet coated by chitosan extracted with different stages stored at room and low temperature showed different microstructures.

**Keywords:** Chitosan, tuna fillet, microstructure, room temperature, low temperature.

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