# ISOLATION AND INCORPORATION OF NITROGENOUS COMPOUNDS FROM YELLOW FIN TUNA (*Thunnus albacares*) TO PRODUCE A FISH FLAVORED VEGETABLE BURGER

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by

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# Abstract

Nitrogen compounds play an important role in flavor and taste of fish. There are many nitrogenous compounds present in the fish flesh. The objectives of this study was to find out the ways to maximize the utilization of fish waste which generate in fish processing industry and used to extract flavor compounds from tuna (*Thunnus albacares*) and incorporate it in to a vegetable burger. Isolation of the compounds and incorporating them to prepared vegetable burger were practiced. Vegetable burger was prepared by several organoleptic preliminary sensory evaluation tests. Flavors of fish were isolated with different concentrations and dilutions of NaCl solutions with heat treatment of 60 °C for 15 minutes. The data was collected by organoleptic sensory evaluation tests. The best dilution series for flavor extraction was fish: NaCl = 1: 1 and the best NaCl concentration was 01 % (w/v). Then shelf-life of the finalized product was analyzed by pH value, lipid oxidation, microbiology tests and all results showed acceptable level even after 30 days of storage at 4 °C include individual data. The pH value of the product was not significantly increased and there was a significant increase of the oxidation after 30 days of storage at 4 °C. Level of oxidation is within the acceptable level. According to the microbiology test there was no growth of hazardous microorganism in the product during the time of testing. The nutrition content of the fish flavored vegetable burger was analyzed. The protein content of the finalized burger was 31.65 %, fat 23.04 %, moisture 27.47 % and ash 6.93 %.



Keywords: Fish, flavor, vegetable burger, non-protein nitrogen, soya flour