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Application of nutmeg shell pyrolysis-based liquid smoke for sea cucumber (*holothuria scabra*) processing

NettySalindeho*

[1]Department of FisheriesTechnology, Faculty of Fisheries and Marine Science,SamRatulangi University, Manado, North Sulawesi, Indonesia.

Abstract: Traditional sea cucumber smoking generally uses hot smoke of wood fie in a smoke room. There have been no method and technological application to develop thesea cucumber smoking, such as the use of liquid smoke.The advantages of liquid smoke utilization in sea cucumber smoking are as follows: safer in wood usage as smoke source, environmental pollutioncan be reduced, and the product flavor can be controlled and consistent.This study was aimed at determining the optimum concentration and immersion time length in the smoke solution through experiment. The liquid smoke used was that of nutmeg shell pyolysis to yield the best flavor of smoked sea cucumber under immersion time of 30 min., 60 min., and 90 min., respectively. Results found that 30 minutes immersion in 5% liquid smoke solution yielded the lowest water content.The profile of sea cucumber fatty acid immersed for 30 min. in 5%, 10%, and 15% liquid smoke yielded palmitoleinic acid, palmitic acid, linoleiic acid, oleic acid, stearric acid, arachidic acid, and behenic acid.
Keywords :liquid smoke, sea cucumber, nutmeg shell, fatty acid profile.

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