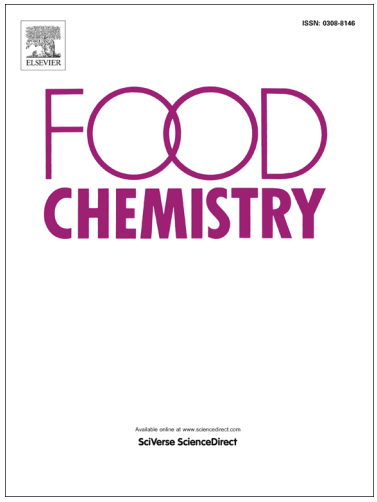

Developing a Multispectral model for detection of docosahexaenoic acid (DHA) and eicosapentaenoic acid (EPA) changes in fish fillet using physarum network and genetic algorithm (PN-GA) method

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Running Title: DHA and EPA changes in fish fillet

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Abstract

A multispectral model for the detection of docosahexaenoic acid (DHA) and eicosapentaenoic acid (EPA) changes in grass carp and salmon fillet was developed using physarum network and genetic algorithm (PN-GA) method for the first time. Partial least-squares regression (PLSR), multiple linear regressions (MLR), and principal component regression (PCR) algorithms were used to predict the DHA and EPA using optimal wavelengths selected by PN-GA. The MLR models showed the best DHA prediction results for both grass carp and salmon fillets, and also showed good prediction for

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