Fatty acids compositions of Sargassum granuliferum and dictyota dichotoma and their anti-fouling activities/ Kamariah Bakar, Habsah Mohammad, Jalifah latip, Hock Seng Tan, Gan Ming Herng

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Abstrak

ABSTRAK
In this study, characterization of fatty acids in Dictyota dichotoma and Sargassum granuliferum, the sea-weeds collected from Pulau Nuyunan, Sabah, were carried out. fatty acid methyl-ester analysis (FAME) showed palmitic acid, elaidic acid, stearic acid, cis- 11,14,17-eicosatrienoic acid and erucic acid were dominant in both seaweeds with co poly- and mono-unsaturated fatty acids were higher than the saturated fatty acids. The pure compounds isolated from Sargassum granuliferum were hexadecanoic acid, pentadecanoic acid, docosanoic acid, tetracosanoic acid, octadecanoic acid, eicosanoic acid and oleamide. Meanwhile, hexadecanoic acid, tetradecanoic acid and 2-hydroxyhexadecanoic acid were isolated from Dictyota dichotoma. All fatty acids isolated exhibited anti-fouling properties with broader activities shown for hexadecanoic acid and fatty acids isolated from Sargassum granuliferum and also more superior than Dictyota dichotoma.