

Neodictyoprolenol and Dictyoprolenol, the Possible Biosynthetic Intermediates of Dictyopterenes, in the Japanese Brown Algae *Dictyopteris*

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Neodictyoprolenol [(−)-(3*S*)-(1,5*Z*,8*Z*)-undecatrien-3-ol] and dictyoprolenol [(−)-(3*S*)-(1,5*Z*,8*Z*)-undecadien-3-ol]), which had been proposed as possible biosynthetic intermediates of the sex pheromones of marine brown algae such as dictyopterene B [(−)-*trans*-1-((1′*E*,3′*Z*)-hexadienyl)-2-vinylcyclopropane], D′ [(+)-6-((1′*Z*)-butenyl)-1,4-cycloheptadiene] and C′ [(+)-6-butyl-1,4-cycloheptadiene], were again identified in the essential oils from *Dictyopteris prolifera*, *D. laticula*, and in *D. undulata*, together with the C11-related volatile compounds such as neodictyoprolene, dictyoprolene and dictyopterenes. Incubation of *D. prolifera* preparation with racemic neodictyoprolenol and dictyoprolenol as substrates showed (*S*)-enantioselective decreases of the added substrates and increases in dictyopterenes. From these results, a possible pathway to form dictyopterenes is discussed.