

Title Comparison of volatile compounds distributing in 4 species of waterlilies
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Abstract

Waterlily as aqueous flowering plants provides a diverse variety of different colours and smells. Little information of the aroma volatiles has been known. In this study, volatile compounds produced from 4 species of Thai waterlily, namely *Nymphaea* 'King of Siam (Dark blue purple-petal)', *Nymphaea carpensis* v. *zanzibariensis* (Red purple-petal), *Nymphaea* 'Mangala Ubol (Orange-yellow petal)' and *Nymphaea* 'Gloriosa (Pink-petal)'. The volatile compounds were analyzed using gas chromatography mass spectrophotometry. Diethyl ether: n-pentane (1:1) was used as solvent to extract the volatiles. *N. carpensis* var *zanzibariensis* and *N. 'Mangala Ubol'* containing higher alcohols and ester of benzyl alcohol, hexadecanoic acid, ethyl ester, eicosanoic acid and phenyl methyl ester, were received in the highest scores of odour from panelists. *N. 'Gloriosa'* smells least odour due to containing a large number of compounds in alkane such as hexadecane, nonadecane and heneicosane. Some waterlilies can be encouraged to be consumed because of its nutrition such as Gammatocopherol and vitamin e.