Volatile compounds of Khiaosawoey mango twigs by gas chromatography – mass spectrometry

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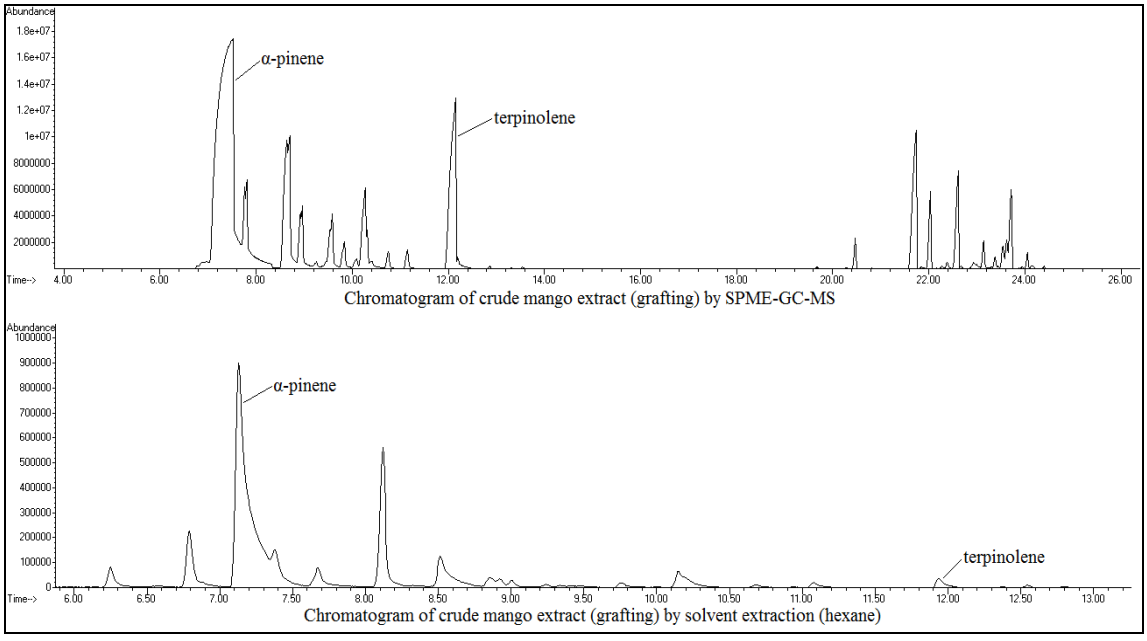
Khiaosawoey mango (*Mangifera indica* L.) is found in Thailand. It has a specific aroma and it is rich in vitamins and antioxidant compounds. Khiaosawoey mango twigs which grown by seed and grafting were analyzed. Solid phase microextraction (SPME) and solvent extraction with two solvents were used. The mango twigs were extracted by polydimethylsiloxane fiber 15 minutes at 60°C in SPME method and were extracted by sonication with hexane or methanol 10 minutes at room temperature in solvent extraction method. Volatile compounds of mango twigs were identified tentatively by gas chromatography – mass spectrometry (GC-MS) with DB5-MS column, oven temperature programming, split and splitless injection. Major components found in both mango twigs using SPME method were α-pinene, β-pinene, terpinolene and β-caryophyllene. The most abundant compound in mango twigs which grown by seed and grafting was terpinolene (41.1%) and α-pinene (42.9%), respectively. Among solvent extraction methods, 1,19-icosadiene, m-pentadecylphenol and α-pinene were found using hexane as extracting solvent whereas pyrogallol and taraxerol were obtained using methanol as solvent. The constituents of mango twigs obtained using SPME method in comparison to those obtained using solvent extraction were demonstrated.



Keywords: Khiaosawoey mango; Volatile compound; SPME; GC-MS