

Stability of Essential Oils in Pang-Rum by Gas Chromatography-Mass Spectrometry

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Abstract : Ancient Thai perfumed powder was used as a fragrance for clothing, food, and the body. Plant-based natural Thai perfume products are known as Pang-Rum. The objective of this study was to evaluate the stability of essential oils after six months of incubation. The chemical compositions were determined by gas chromatography-mass spectrometry (GC-MS), in terms of the qualitative composition of the isolated essential oil. The isolation of the essential oil of natural products by incubate sample for 5 min at 40 °C is described. The volatile components were identified by percentage of total peak areas comparing their retention times of GC chromatograph with NIST mass spectral library. The results show no significant difference in the seven chromatograms of perfumed powder (Pang-Rum) both with binder and without binder. Further identification was done by GC-MS. Some components of Pang-Rum with/without binder were changed by temperature and time.

Keywords : GC-MS analysis, essential oils, stability, Pang-Rum

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