## COMPARISON OF GC-MS PROFILES OF VOLATILE ORGANIC COMPOUNDS IN BRANDED AND IMITATION PERFUMES OF SAME NAME BRAND

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#### ABSTRACT

### COMPARISON OF GC-MS PROFILES OF VOLATILE ORGANIC COMPOUNDS IN BRANDED AND IMITATION PERFUME OF SAME NAME BRAND

Aroma compounds are present in perfume whether the perfume is branded or imitation. In this study, the volatile aromatic compounds in three brands of perfumes (branded and imitation perfumes of same name brand) were extracted using solid phase microextraction (SPME) coupled to gas chromatography with mass spectrometry detector (GC-MS). Several extraction temperatures; 28, 35, and 40°C and time conditions; 5 min, 10 min, and 20 min were tested on the samples to achieve the optimum condition. The highest extraction efficiency was found when the samples were extracted at 28°C for 10 min extraction time. The volatile aroma compounds in all samples were extracted at this optimum condition and were identified by GC-MS. The common volatile aroma compounds such as limonene,  $\alpha$ -pinene,  $\beta$ -pinene,  $\alpha$ -myrcene, phellandrene, and linalool were found in both branded and imitation perfume. Their relative amounts however were different in the branded and imitation perfumes.