

## MAJOR VOLATILE CHEMICAL COMPOUNDS OF AGARWOOD OILS FROM MALAYSIA BASED ON Z-SCORE TECHNIQUE

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Agarwood oil has been widely used in a number of different applications, including its use as a perfumery ingredient in incense products and a therapeutic agent in traditional medicines [1–8]. The oil itself can be obtained from the scented wood of plants belonging to the *Aquilaria* species (Thymelaeaceae) [1]. Agarwood oil consists of a complex mixture of chemicals, including sesquiterpenes, oxygenated sesquiterpenes, and chromone derivatives [7–9]. These compounds can be used to differentiate agarwood oil into different grades and therefore have a significant impact on its quality and commercial value [8]. Many factors can influence the quality of agarwood oil, but the two most important are the chemical composition of the oil and the temperature used during the extraction of the oil from plant material [8, 10].

Agarwood oil is currently extracted from plant materials using a combination of GC/MS and solid-phase microextraction (SPME) techniques, which allow for the volatile chemical compounds characteristic of its odor to be successfully extracted from a complex mixture without using solvents [3, 11].

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