

# Comparison of the Volatile Composition of *Stachys persica* Gmel. and *Stachys byzantina* C. Koch. Oils Obtained by Hydrodistillation and Steam Distillation

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The oils obtained by hydrodistillation and steam distillation of the aerial parts of *Stachys persica* Gmel. and *Stachys byzantina* C. Koch grown in Iran were analyzed by GC/MS. The essential oil obtained by hydrodistillation of the aerial parts of *S. persica* was characterized by a high amount of non-terpenoid components of which methylolinoleate (27.7%), hexadecanoic acid (9.8%) and 6,10,14-trimethyl-2-pentadecanone (9.2%) were the major constituents, whereas the steam distilled oil of the plant contained hexadecanoic acid (27.2%), carvacrol (9.4%) and eugenol (5.2%).

Both hydrodistilled and steam distilled essential oils of the aerial parts of *S. byzantina* were rich in sesquiterpenes such as  $\alpha$ -copaene (16.6% and 10.4%), spathulenol (16.1% and 18.5%) and  $\beta$ -caryophyllene (14.3% and 13.5%), respectively.

*Key words:* *Stachys persica*, *Stachys byzantina*, Essential Oil Composition