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Comparison between the essential oil and supercritical Carbon Dioxide extraction of Mentha Piperita L. cultivated in Iran

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Abstract:

The chemical compositions of the essential oils and the volatile concentrate of Mentha piperita L. (Labiatae) obtained by supercritical carbon dioxide extraction (SFE) at 35°C and 100 atm were compared using GC/MS. Whereas twenty four components were identified in the essential oil, only seven compounds, including the main compounds of the peppermint oil were isolated by the SFE. The percent of major components of the oil and the extract were: Menthol (31.53 and 48.39), Menthone (23.37 and 26.68) and Isomenthone (11.11 and 6.58), respectively. From these results it may concluded that the SFE method supply a selective essential oil extract.

Keywords:

Mentha piperita ، Labiatae ، SFE ، Menthol ، Menthone

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