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### 不同方法提取薰衣草挥发油主要成分的GC测定

Content Determination of the Essential Oil from Lavender with Different Extraction Methods by GC

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中文关键词: [气相色谱法](#) [薰衣草挥发油](#) [芳樟醇](#) [乙酸芳樟酯](#) [含量测定](#)

英文关键词: [GC](#) [lavender oil](#) [linalool](#) [linalyl acetate](#) [content determination](#)

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中文摘要:

**目的** GC测定不同方法提取薰衣草挥发油中芳樟醇和乙酸芳樟酯的含量。**方法** 采用毛细管气相色谱法, 以间二硝基苯为内标, 采用DB-5弹性石英毛细管柱(30 m×0.25 mm, 0.25 μm), FID检测器; 进样口温度为: 250 °C, 分流比20:1, 流量: 1.0 mL·min<sup>-1</sup>, 检测器温度: 220 °C; 程序升温: 110 °C保持3 min, 以10 °C·min<sup>-1</sup>升至130 °C保持4 min, 然后以20 °C·min<sup>-1</sup>升至250 °C保持1 min。**结果** 在该色谱条件下, 芳樟醇、乙酸芳樟酯及内标物间二硝基苯均得到良好的分离; 测得超临界CO<sub>2</sub>萃取的精油中芳樟醇的含量为38.02%, 乙酸芳樟酯的含量为34.24%, 而通过水蒸气蒸馏法提取的精油中芳樟醇的含量为59.09%, 乙酸芳樟酯的含量为18.14%。**结论** 本方法简便、准确、重复性好, 可用于不同提取方法提取的薰衣草挥发油的质量控制。

英文摘要:

**OBJECTIVE** To determine the linalyl acetate and linalool content in the essential oil from lavender with different extraction methods by GC. **METHODS** The capillary GC system consisted of a DB-5 capillary column(30 m×0.25 mm, 0.25 μm), and meta-dinitro-benzent was used as an internal standard. The detector was FID; inlet temperature was 230 °C; split ratio was 20:1; the flow rate was 1.0 mL·min<sup>-1</sup>; the detector temperature was 250 °C. The incept temperature programmed was 110 °C and kept for 3 min; programmed from 110 °C to 130 °C at 10 °C·min<sup>-1</sup> and kept for 4 min, and then progammed to 250 °C at 20 °C·min<sup>-1</sup> and kept for 1 min. **RESULTS** Linalool, linalyl acetate and the internal standard were separated in the chromatographic condition. The linalool content from the supercritical CO<sub>2</sub> extract in the volatile oil was 38.02%, the linalyl acetate content was 34.24%, the linalool content from the steam distillation extract in the volatile oil was 59.09%, the linalyl acetate content was 18.14%. **CONCLUSION** The method is accurate, selectivity, and can be used as quality control for the lavender oil extracted with different methods.

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