

## 高速逆流色谱分离纯化九里香中的黄酮类化合物

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### Isolation and purification of flavones from *Murraya exotica* L. by counter-current chromatography

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摘要	参考文献	相关文章
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**摘要** 应用高速逆流色谱法分离纯化了九里香中的4种黄酮类化合物。以石油醚-乙酸乙酯-甲醇-水(5:5:4.8:5, v/v/v/v)作为两相溶剂为固定相,下相为流动相,以主机转速800 r/min、流速2.0 mL/min、单次进样量200 mg的条件成功地从4.0 g九里香粗提物中分离得到54.31 mg 5,7,3',4',5'-五甲氧基黄酮(重结晶后)、107.68 mg 5-羟基-6,7,3',4'-四甲氧基黄酮、215.54 mg 5-羟基-6,7,8,3',4'-五甲氧基黄酮、84.36 mg 5-羟基-6,7,8,3',4',5'-六甲氧基黄酮,纯度均在95%以上。各化合物的结构均由质谱和核磁共振氢谱、碳谱鉴定。5-羟基-6,7,3',4'-四甲氧基黄酮为首次从九里香中分离得到。

**关键词:** 高速逆流色谱 黄酮类化合物 九里香 中药

**Abstract:** High-speed counter-current chromatography (HSCCC) was used to isolate and purify flavones from *Murraya exotica* L. The optimum separation conditions were as follows: A two-phase solvent system was petroleum ether-acetate-methanol-water (5:5:4.8:5, v/v/v/v). The lower phase as the mobile phase was operated at a flow rate of 2.0 mL/min, while the apparatus rotated at 800 r/min. Each time 200 mg of the sample was loaded. Under these conditions, 54.31 mg of recrystallized 5,7,3',4',5'-pentamethoxyflavone, 107.68 mg of 5-hydroxy-6,7,3',4'-tetramethoxyflavone, 215.54 mg of 5-hydroxy-6,7,8,3',4'-pentamethoxyflavone, and 84.36 mg of 5-hydroxy-6,7,8,3',4',5'-hexamethoxyflavone with their purities over 95% were successfully obtained from 4.0 g of the crude extract of *Murraya exotica* L. The compounds were analyzed by high performance liquid chromatography (HPLC), and identified by mass spectrometry (MS), <sup>1</sup>H-nuclear magnetic resonance (NMR) and <sup>13</sup>C-NMR. The compound 5-hydroxy-6,7,3',4'-tetramethoxyflavone was for the first time isolated and purified from *Murraya exotica* L.

**Keywords:** high-speed counter-current chromatography (HSCCC) flavones *Murraya exotica* L. traditional Chinese medicine

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