

## 高速逆流色谱法分离制备鱼藤根中的2种鱼藤酮类化合物

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## Separation and preparation of two rotenoids from the roots of Derris by high-speed counter-current chromatography

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**摘要** 建立了分离制备鱼藤根中2种鱼藤酮类化合物的高速逆流色谱法。以正己烷-乙酸乙酯-甲醇-水(体积比为7:0.25:5:3)为两相溶剂系统,上相为固定相,下相为流动相,在主机转速850 r/min、流速2.0 mL/min、检测波长254 nm条件下进行分离制备,从50 mg鱼藤根粗提物中得到了2种鱼藤酮类化合物,分别为6.4 mg纯度为96.60%的鱼藤酮和23.4 mg纯度为97.87%的鱼藤素。该方法为鱼藤酮类化合物的深入研究提供了物质基础。

**关键词:** 高速逆流色谱 高效液相色谱 鱼藤素 鱼藤酮 鱼藤根

**Abstract:** Two rotenoids (rotenone and deguelin) were successfully isolated and purified from the roots of Derris by high-speed counter-current chromatography (HSCCC) with a two-phase solvent system composed of n-hexane-ethylacetate-methanol-water (7:0.25:5:3, v/v/v/v) on a preparative scale. The lower phase was used as the mobile phase and the upper phase was used as the stationary phase. The revolution speed was 850 r/min, the detection wavelength was set at 254 nm and the flow rate was 2.0 mL/min. Under the optimized conditions, within 2.5 h, 6.4 mg of rotenone with the purity of 96.60% and 23.4 mg of deguelin with the purity of 97.87% were obtained from 50 mg of the crude extract of the roots of Derris in a one-step elution. The results indicate that the rotenone and deguelin with high purities can be obtained by HSCCC, and the established method can provide the basic experimental material for the intensive study of rotenoids.

**Keywords:** high-speed counter-current chromatography (HSCCC) high performance liquid chromatography (HPLC) deguelin rotenone roots of Derris

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