



牡荆不同部位中牡荆素的积累动态和分布特性研究

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摘要 目的 研究不同采收期牡荆不同部位中牡荆素的积累动态规律和分布特性。方法 采用超声波提取法提取牡荆素,高效液相色谱法测定牡荆不同部位中牡荆素的含量,色谱柱:菲罗门柱(4.6 mm×150 mm,5 μm),流动相为甲醇-水(4:6),流速1.0 mL·min⁻¹,检测波长为340 nm,柱温 35 ℃,进样量5 μL。结果 牡荆茎、花中牡荆素含量极少,牡荆叶中牡荆素的含量在不同生长时期有明显的变化规律。6~7月含量最高(1.380%~1.465%),随着牡荆花的盛开和牡荆子的形成到成熟,牡荆叶中牡荆素的含量逐渐降低,9~10月含量最低(0.720%~0.751%)。随着牡荆籽的成熟,牡荆籽中含量逐渐增加(0.435%~1.231%)。结论 牡荆不同部位牡荆素的含量随采收期不同而变化,为确定牡荆适宜采收期和药用部位提供了实验依据。

关键词: 牡荆 牡荆素 高效液相色谱法 积累动态 分布特性

Abstract: OBJECTIVE To study the accumulation dynamics and distribution law of vitexin during the whole year period in different parts of *Vitex negundo* var. *cannabifolia* (Sieb. et Zucc.). METHODS Vitexin was obtained by ultrasonic extraction, and its content was determined by HPLC. Filodor column (4.6 mm×150 mm,5 μm) was used. Methanol-water (volume ratio of 4:6) was used as the mobile phase at a flow rate of 1 mL·min⁻¹. The UV detective wavelength was set at 340 nm, injection volume was 5 μL, and the column temperature was set at 35 ℃. RESULTS The content of vitexin was low in *vitex negundo* branches and flowers, and had obvious regularity in different growth periods of *Vitex negundo* leaves. The content of vitexin was the highest (1.380%-1.465%) in June and July. Along with the blooming and formation of *negundo* chastetree to their maturation, the content of vitexin in *Vitex negundo* leaves decreased. Its content was the lowest (0.720%-0.751%) in September and October. The content of vitexin in *Vitex negundo* seeds increased(0.435%-1.231%)with seed maturation. CONCLUSION The content of vitexin in different parts of *Vitex negundo* presents a regular change in different periods. The detection of vitexin in different growth periods provides experimental basis for the selection of best collection phase and medical parts.

Keywords: *Vitex negundo* var. *cannabifolia*, vitexin, HPLC, accumulation dynamics, distribution law

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