

研究简报

微波辅助萃取鬼箭羽叶中芦丁和槲皮素

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摘要 建立了鬼箭羽中主要有效成分芦丁和槲皮素的MAE-HPLC定量分析方法, 该方法具有测定准确、操作简便和分析速度快等优点. 此外, 利用扫描电镜观察了鬼箭羽叶经微波辅助萃取后植物结构的变化, 初步证明了微波辅助萃取鬼箭羽叶的萃取机理符合细胞破壁学说.

关键词 [微波辅助萃取](#) [鬼箭羽](#) [芦丁](#) [槲皮素](#)

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Microwave-assisted Extraction of Rutin and Quercetin from *Euonymus alatus*(Thunb.) Sieb

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Abstract A detail procedure for extracting rutin and quercetin from *Euonymus alatus*(Thunb.) Sieb was developed with an obturated microwave-assisted extraction(MAE) device with pressure and temperature controlling units. The effects of solvent concentration, ratio of solution to solid, radiation time and microwave power were discussed in orthogonal experiments. Compared with Soxhlet extraction and ultrasonic extraction, microwave extraction was a rapid method with a higher yield and less solvent consumption. The mechanism of the microwave-assisted extraction was studied by scanning electronic micrograph. In the case of microwave heating, the build-up pressure within the cells could exceed their capacity for expansion, and caused their rupture more rapidly than that in conventional extraction.

Key words [Microwave-assisted extraction](#) [Euonymus alatus\(Thunb.\) Sieb](#) [Rutin](#) [Quercetin](#)

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