

[研究简报]

一种新型微波辅助萃取法用于中药 刺五加中总黄酮萃取的研究

丁 兰, 李 毅, 李敏晶, 刘忠英, 张寒琦

(吉林大学化学学院, 长春 130023)

关键词 微波辅助萃取; 正交设计; 刺五加; 黄酮**中图分类号** O657**文献标识码** A**文章编号** 0251-0790(2003)08-1403-03

A Novel Microwave-assisted Extraction Method for Extracting Flavonoids from *Radix et Caulis Acanthopanaxis Senticosi*

DING Lan, LI Yi, LI Min-Jing, LIU Zhong-Ying, ZHANG Han-Qi*

(College of Chemistry, Jilin University, Changchun 130023, China)

Abstract In this study a novel microwave-assisted extraction(MAE) device was presented. In this newly developed system, a 3/4 wavelength microwave resonance cavity was used as the microwave coupling device for replacing a traditional microwave oven. This device is used to extract flavonoids from *Radix et caulis acanthopanaxis senticosi*. The effects of solvent concentration, microwave forward power and solvent uptake rate on the extraction yield of flavonoids were investigated by using orthogonal experimental design. The results show that the effects of the solvent(ethanol) concentration and solvent uptake rate on the extraction yield of flavonoids are very significant, the effect of the interaction of solvent concentration and solvent uptake rate is significant and the effects of the other factors are general. Under the optimal conditions of MAE the extraction yield of flavonoids by this system is 46% higher than that by Soxhlet method. The RSD of the method was lower than 6%.

Keywords Microwave assisted extraction; Orthogonal experimental design; *Radix et caulis acanthopanaxis senticosi*; Flavonoid