

## 微波辅助提取刺五加中黄酮类化合物过程中的化学变化研究

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**摘要** 利用HPLC-UV和HPLC-ESI-MSn技术系统地研究了传统中药刺五加中黄酮类化合物在微波辅助常压和高压提取过程中的化学变化, 并考察了提取压力和提取时间对其化学变化规律的影响, 结果表明, 在提取压力超过300 kPa时芦丁开始失去一个芸香糖转化为槲皮素; 随着微波照射时间的延长, 金丝桃苷、芦丁、槲皮苷和槲皮素提取产率先增加, 而后下降. 提取压力越大, 提取速率越快, 分解的速度也越快, 达到最高提取产率的时间越短.

**关键词** [微波辅助提取](#) [刺五加](#) [黄酮类化合物](#) [化学变化](#)

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## Studies on the Chemical Change in the Process of Microwave-assisted Extraction of Flavonoids from *Acanthopanax Senticosus* Harms

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**Abstract** In the process of microwave assisted extraction(MAE), the chemical changes of the flavonoids in *Acanthopanax Senticosus* Harms were studied by HPLC-UV and HPLC-ESI-MS<sup>n</sup>. The influences of pressure and MAE time on the chemical changes were investigated. The experimental results demonstrate that rutin in the extract can be partly decomposed when pressure is over 300 kPa, as a result, the content of quercetin increases by the loss of rutosyl from rutin. With the increase of microwave extraction time, extraction yields of hyperin, rutin, quercitrin and quercetin are firstly increased and then decreased. The higher the pressure is, the faster the extraction rate and the decomposition rate are, the shorter the extraction time for obtaining the highest yield is.

**Key words** [Microwave-assisted extraction](#) [Acanthopanax Senticosus Harms](#) [Flavonoids](#) [Chemical change](#)

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