

芝麻叶中总黄酮的最佳提取工艺研究

Optimum extraction technology of flavonoids in sesame leaves

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作者	单位
黄泽元	武汉工业学院食品科学与工程学院, 武汉 430023
王海滨	武汉工业学院食品科学与工程学院, 武汉 430023
刘志伟	中国疾病预防控制中心营养与食品安全所, 北京 100050

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中文摘要:

该文测定了芝麻叶中总黄酮的含量, 并对芝麻叶黄酮的提取工艺进行了研究。重点探讨了采用乙醇提取法和微波处理与乙醇提取相结合的方法提取芝麻叶黄酮类化合物的最佳工艺条件。试验结果表明: 芝麻叶中总黄酮的含量为0.98%; 乙醇提取法的最适工艺参数是浸提剂乙醇浓度为80%、浸提温度为80℃、料液比为1:25、浸提时间为2.5 h, 如此条件可使黄酮提取率达95.6%; 微波处理与乙醇提取相结合的方法的最适工艺参数是微波功率200 W、微波处理时间70s, 乙醇浓度为80%、浸提温度为80℃、料液比为1:25、浸提时间为30 min, 这种工艺可使黄酮提取率达95.8%。

英文摘要:

The content of total flavonoids in sesame leaves and its extraction technology were studied in this paper. By means of the methods of ethanol-extracting and ethanol-extracting with microwave processing, the optimum extraction conditions of flavonoids in sesame leaves were determined. The results showed that the content of total flavonoids in sesame leaves was 0.98%, the optimum conditions of ethanol-extracting were obtained as follows: 80% ethanol as extraction solvent at 80℃ for 2.5 h, and the ratio of material to solvent was 1:25. Using the technological parameters above mentioned, the average extraction rate of total flavonoids in sesame leaves was 95.6%. Meanwhile, the optimum conditions of ethanol-extracting with microwave processing were as follows: 200 W of microwave power for 70 s, 80% ethanol extracting at 80℃ for 30 min, and the ratio of material to solvent was 1:25. Using this technology, the extraction rate of total flavonoids in sesame leaves was 95.8%.

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主办单位: 中国农业工程学会 单位地址: 北京朝阳区麦子店街41号

服务热线: 010-65929451 传真: 010-65929451 邮编: 100026 Email: tcsae@tcsae.org

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