

质谱在石油化工、环境保护、产品质量等领域中的应用

广西甜茶叶中甜茶苷的UPLC-MS分析

张健^{1,2}; 俞桂新²; 刘李明¹; 刘志军³

1. 上海应用技术学院香料香精技术与工程学院, 上海 200235 2. 上海中医药大学中药研究所, 上海 201203 3. 美国路易斯安那州立大学自然资源学院, LA 70803

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摘要

关键词

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Determination of Rubusoside from *Rubus suavissimus* S. Lee by UPLC-MS

ZHANG Ji an^{1,2}, CHOU Gui -xi n², LIU Li -mi ng¹, LIU Zhi -j un³

1. School of Perfume and Aroma Technology, Shanghai Institute of Technology, Shanghai 200235, China; 2. Institute of Chinese Materia Medica, Shanghai University of Traditional Medical School, Shanghai 201203, China; 3. School of Renewable Natural Resources, Louisiana State University, Baton Rouge, LA 70803 U.S.A

Abstract Rubusoside is a major sweet component in *Rubus suavissimus* S. Lee (sweet tea), which is a special product of Guangxi Province, China. A liquid chromatography-electrospray ionization mass spectrometry (LC-MS/MS) method was developed for the determination of Rubusoside in sweet tea. After pretreatment procedure, sample was separated on a ACQUITY UPLC @BEH C₁₈ (2.1×100 mm i.d.; 1.7 μm) column with a mobile phase consisting of V(acetonitrile (0.1% formic acid)):V(distilled water(0.1% formic acid))=20:80 and injection volume of 5 μL at a flow-rate of 1.5 mL min⁻¹ and the column temperature was 35 °C. Detection was performed by Waters mass spectrometer using multiple reaction monitoring (MRM) mode via electrospray ionization (ESI) source and selecting m/z 643-319 as detecting ion. A good linear calibration is obtained for 0.1-10 mg L⁻¹ with a correlation coefficient of 0.9993. The recoveries are in the range of 95.3%-97.7%. The limit of Determination is 0.04 mg L⁻¹, and the limit of Quantification is 0.1 mg L⁻¹. The proposed method is simple, sensitive and reproducible enough to be used for the determination of Rubusoside in *Rubus suavissimus* S. Lee.

Key words Rubusoside UPLC-MS/MS *Rubus suavissimus* S. Lee

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