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反相高效液相色谱法同时分析龙葵中3种甾体生物碱

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中文摘要：目的: 利用反相高效液相色谱法快速测定龙葵中3种甾体生物碱的含量。 方法: 采用Agilent Zorbax SB-C_{18}(4.6 mm×150 mm,5 μm)色谱柱,以乙腈-1%磷酸为流动相,流速1.0 mL·min^{-1},进样量20 μL,柱温30 ℃,205 nm条件下检测,以梯度洗脱方式在30 min内分离了澳洲茄碱、澳洲茄边碱和khasianine 3种生物碱。 结果: 澳洲茄碱含量测定的线性范围为0.860~10.320 μg(r=0.999 7);澳洲茄边碱含量测定的线性范围为0.726~8.710 μg(r=0.999 7);khasianine含量测定的线性范围为0.696~8.352 μg(r=0.999 8)。方法的平均回收率分别为100.18%,99.08%,99.88%。 结论: 方法简便快速、准确度高,可用于龙葵药材的质量评价。

中文关键词：反相高效液相色谱法 龙葵 澳洲茄碱 澳洲茄边碱 khasianine

Simultaneous determination of three steroidal alkaloids from *Solanum Nigrum* by RP-HPLC

Abstract: Objective : A new method for simultaneous determination of solasonine (1), solamargine (2) and khasianine (3) in *Solanum Nigrum* by reversed-phase HPLC was developed. Method: The samples were separated at 30 ℃ on Agilent Zorbax SB C_{18}(4.6 mm×150 mm, 5 μm) column with acetonitrile-water-phosphoric as mobile phase. Flow rate was 1.0 mL·min^{-1} and the detection wavelength was 205 nm. Result: There was good linearity between the peak area and concentration at the ranges of 0.860-10.320 μg (r=0.999 7),0.726-8.710 μg (r=0.999 7),0.856-10.270 μg (r=0.999 7) for 1, 2 and 3 respectively.The average recoveries of 1, 2 and 3 were 101.04%, 99.65%, 100.17%. Conclusion: The method is rapid, simple and accurate, and it can be used for the evaluation of *Solanum Nigrum* L..

keywords:reversed-phase high performance liquid chromatography *Solanum Nigrum* solasonine solamargine khasianine

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