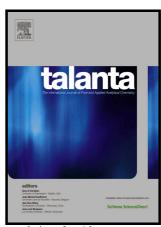
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A Non-derivative Method for the Quantitative Analysis of Isosteroidal Alkaloids From Fritillaria by High Performance Liquid Chromatography Combined With Charged Aerosol Detection

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ACCEPTED MANUSCRIPT

A Non-derivative Method for the Quantitative Analysis of Isosteroidal Alkaloids

From Fritillaria by High Performance Liquid Chromatography Combined With

Charged Aerosol Detection

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Keywords: isosteroidal alkaloids, weak UV absorbance compound, charged aerosol

detector, evaporative light scattering detector, quantitative

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Abstract:

A non-derivative method was developed for the qualitative and quantitative analysis

of isosteroidal alkaloids from Fritillaria thunbergii. During method development the

performance of two universal detectors, the charged aerosol detector (CAD) and

evaporative light scattering detector (ELSD), were evaluated. The CAD was found to

be 30 to 55 times more sensitive than ELSD enabling the measurement of low levels

of reference compound impurities that could not be detected by ELSD. The peak area

percent of the reference compound, peimisine, obtained by CAD was 50.10%, but

1

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