Title: Construction of an optimized method for quality evaluation and species discrimination of Coptidis Rhizoma by ion-pair high performance liquid chromatography combined with response surface methodology

Authors: Tian-Jin Wu, Jun Lu, Hui Ni, Ping Li, Yan Jiang, Hui-Jun Li

PII: S0731-7085(17)33091-1
DOI: https://doi.org/10.1016/j.jpba.2018.02.019
Reference: PBA 11787

To appear in: *Journal of Pharmaceutical and Biomedical Analysis*

Received date: 17-12-2017
Revised date: 3-2-2018
Accepted date: 8-2-2018

Please cite this article as: Tian-Jin Wu, Jun Lu, Hui Ni, Ping Li, Yan Jiang, Hui-Jun Li, Construction of an optimized method for quality evaluation and species discrimination of Coptidis Rhizoma by ion-pair high performance liquid chromatography combined with response surface methodology, Journal of Pharmaceutical and Biomedical Analysis https://doi.org/10.1016/j.jpba.2018.02.019

Construction of an optimized method for quality evaluation and species discrimination of Coptidis Rhizoma by ion-pair high performance liquid chromatography combined with response surface methodology

Tian-Jin Wu [a], Jun Lu [a], Hui Ni [a], Ping Li [a], Yan Jiang [b, *], Hui-Jun Li [a, *]

[a]*State Key Laboratory of Natural Medicines, China Pharmaceutical University, No. 24 Tongjia Lane, Nanjing 210009, China*

[b]*Nanjing Forestry University, Nanjing 210037, China*

***Corresponding authors**: Assoc. Prof. Yan Jiang, Tel.:+86-25-85427544; Prof. Hui-Jun Li, Tel./Fax: +86-25-83271379.

E-mail addresses: jiangyancpu@126.com (Yan Jiang); cpuli@163.com (Hui-Jun Li)

Highlights

- Influential factors in ion-pairing chromatography are reasonably optimized.
- The optimal chromatographic conditions improve the resolutions and save the analysis time.
- A single standard to determine multi-components method is developed.
- Three *Coptis* species can be discriminated by the distribution of three minor alkaloids.