

## Accepted Manuscript

Title: A full solution for multi-component quantification-oriented quality assessment of herbal medicines, Chinese agarwood as a case

Authors: Huixia Huo, Yao Liu, Wenjing Liu, Jing Sun, Qian Zhang, Yunfang Zhao, Jiao Zheng, Pengfei Tu, Yuelin Song, Jun Li



PII: S0021-9673(18)30590-9  
DOI: <https://doi.org/10.1016/j.chroma.2018.05.018>  
Reference: CHROMA 359386

To appear in: *Journal of Chromatography A*

Received date: 28-2-2018  
Revised date: 17-4-2018  
Accepted date: 8-5-2018

Please cite this article as: Huixia Huo, Yao Liu, Wenjing Liu, Jing Sun, Qian Zhang, Yunfang Zhao, Jiao Zheng, Pengfei Tu, Yuelin Song, Jun Li, A full solution for multi-component quantification-oriented quality assessment of herbal medicines, Chinese agarwood as a case, *Journal of Chromatography A* <https://doi.org/10.1016/j.chroma.2018.05.018>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

# A full solution for multi-component quantification-oriented quality assessment of herbal medicines, Chinese agarwood as a case

Huixia Huo, Yao Liu, Wenjing Liu, Jing Sun, Qian Zhang, Yunfang Zhao, Jiao Zheng, Pengfei Tu, Yuelin Song\*, and Jun Li\*

*Modern Research Center for Traditional Chinese Medicine, School of Chinese Materia Medica, Beijing University of Chinese Medicine, Beijing 100029, People's Republic of China.*

\* Corresponding authors:

*E-mail address:* drlj666@163.com (J. Li) and syltwc2005@163.com (Y. Song).

## Highlights

- ◆ A qualified tool was configured for Q-markers-oriented quality control of HMs.
- ◆ Automated fraction collector was utilized to prepare pseudo-authentic compounds.
- ◆ RPLC-HILIC–tailored MRM was used to address the wide content and polarity ranges.
- ◆ RRCEC matching was proposed for identity consolidation.
- ◆ Simultaneous determination of 26 analytes was conducted for Chinese agarwood.

## Abstract

The quality of herbal medicines (HMs) is the prerequisite for their pronounced therapeutic outcomes in clinic, and multi-component (also known as quality markers, Q-markers) quantification has been widely emphasized as a viable means for quality evaluation. Because of the chemical diversity, the quality control practices are extensively dampened by four principal technical bottlenecks, including the lack of authentic compounds, large polarity span, extensive concentration range, and signal misrecognition for those potential Q-markers. An attempt to promote the potential of LC–MS/MS is made herein to cope with those obstacles and Chinese agarwood was employed as a case study. Firstly, a home-made fraction collector was introduced to automatically fragment the entire extract into a panel of fractions-of-interest. Secondly, quantitative  $^1\text{H}$  NMR was deployed to offset the LC–MS/MS potential towards in-depth chemical profiling each fraction, and those

Download English Version:

<https://daneshyari.com/en/article/7607915>

Download Persian Version:

<https://daneshyari.com/article/7607915>

[Daneshyari.com](https://daneshyari.com)