Single-Hole Hollow Molecularly Imprinted Polymer Embedded Carbon Dot for Fast Detection of Tetracycline in Honey

Huiyu Li, Li Zhao, Yuan Xu, Tianyu Zhou, Haochi Liu, Ning Huang, Jie Ding, Yi Li, Lan Ding

www.elsevier.com/locate/talanta

PII: S0039-9140(18)30374-6
DOI: https://doi.org/10.1016/j.talanta.2018.04.024
Reference: TAL18563

To appear in: *Talanta*

Received date: 21 January 2018
Revised date: 3 April 2018
Accepted date: 7 April 2018

Cite this article as: Huiyu Li, Li Zhao, Yuan Xu, Tianyu Zhou, Haochi Liu, Ning Huang, Jie Ding, Yi Li and Lan Ding, Single-Hole Hollow Molecularly Imprinted Polymer Embedded Carbon Dot for Fast Detection of Tetracycline in Honey, *Talanta,* https://doi.org/10.1016/j.talanta.2018.04.024

Single-Hole Hollow Molecularly Imprinted Polymer Embedded Carbon Dot for Fast Detection of Tetracycline in Honey

Huiyu Li[a], Li Zhao[a], Yuan Xu [a], Tianyu Zhou[a], Haochi Liu[a], Ning Huang[a], Jie Ding[b,*], Yi Li[c], Lan Ding[a,*]

[a]College of Chemistry, Jilin University, 2699 Qianjin Street, Changchun 130012, China

[b]State Key Laboratory of Urban Water Resource and Environment, Harbin Institute of Technology, 202 Haihe Road, Nangang District, Harbin 150090, China

[c]State Key Laboratory of Inorganic Synthesis and Preparative Chemistry, College of Chemistry, Jilin University, Changchun 130012, China

hitdingjie@163.com

dinglan@jlu.edu.cn

***Corresponding Author.** Tel.: +86-451-86289113.

***Corresponding Author.** Tel.: +86-431-85168399.

ABSTRACT

It is difficult to detect tetracycline (TC) in honey sample by using carbon dots (CDs) because the autofluorescence of the matrix of honey sample overlaps with the fluorescence emission spectrum of the large majority of CDs. Herein, single-hole hollow molecularly imprinted polymers embedded carbon dots (HMIP@CD) was prepared via microwave-assisted method. TC in diluted honey sample was adsorbed by the HMIP@CD within 3 min, after which the HMIP@CD absorbed with TC was