Effective extraction of trace cytokinins in plants based on a carboxyl functionalized microporous organic network

Li Chen, ^a Tao Yu, ^{a, b} Le Huang, ^a Qiaomei Lu, ^{a, b, c*} Wenmin Zhang, ^{c, d} Lan Zhang

- (a. College of Biological Science and Engineering, Fujian Key Laboratory of Medical Instrument and Pharmaceutical Technology, Fuzhou University, Fuzhou 350116, China;
- b. Fujian College Association Instrumental Analysis Center of Fuzhou University, Fuzhou 350116, China;
- c. Key Laboratory for Analytical Science of Food Safety and Biology (Ministry of Education), College of Chemistry, Fuzhou University, Fuzhou 350116, China;
- d. Department of Chemistry and Biotechnology, Minjiang Teachers College, Fuzhou 350108, China)

Corresponding author: Qiaomei Lu (luqm@fzu.edu.cn), Lan Zhang (zlan@fzu.edu.cn).

Table S1. The procedure of gradient elution

Time (min)	A (%)	B (%)	Flow rate (μL min ⁻¹)	
0.0	90.0	10.0	200.0	
2.5	20.0	80.0	200.0	
3.0	20.0	80.0	200.0	
3.5	90.0	10.0	200.0	
5.0	90.0	10.0	200.0	

Table S2. Auto-tuned mass spectrometric parameters of CKs

	Qualitative	Quantitative	SRM	Declustering	Entrance	Cell exit
Analytes	ion	ion	collision	potential (V)	potential (V)	potential (V)
	(m/z)	(m/z)	energy (eV)			
IP	204.034	135.973	20	75	37	20
KT	216.006	81.011	26	73	37	1
DHZ	222.054	135.978	27	85	58	0
BA	226.014	91.006	29	84	41	5

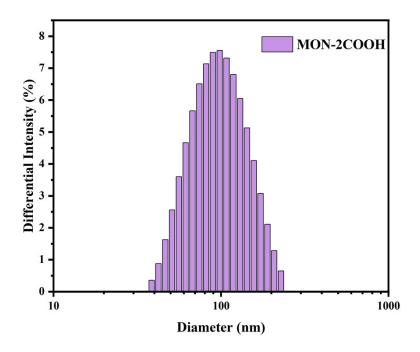


Figure S1. Particle size distribution analysis of MON-2COOH

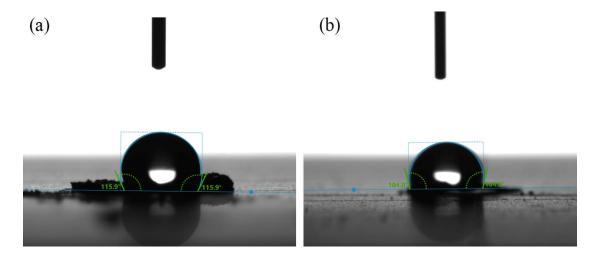


Figure S2. Water contact angle of the synthesized MON(a) and MON-2COOH(b).

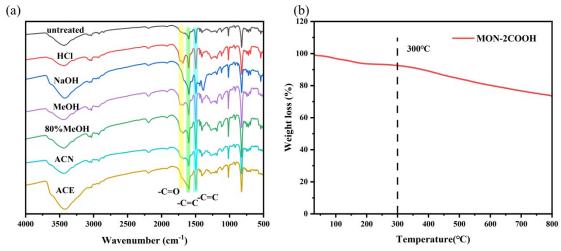


Figure S3. (a) FT-IR spectra after soaking MON-2COOH in different solvents for 48 h, (b) TGA curve of MON-2COOH

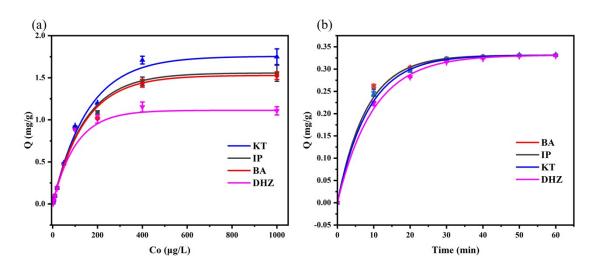


Figure S4. Adsorption thermodynamics of MON-2COOH

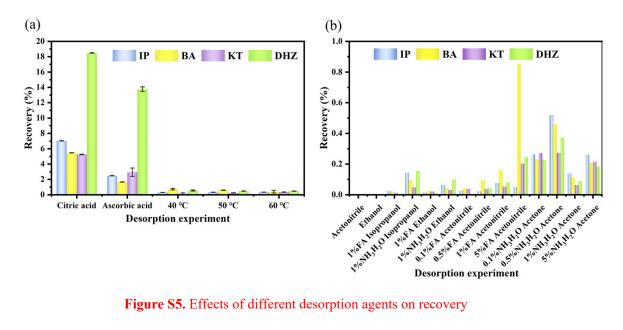


Figure S5. Effects of different desorption agents on recovery

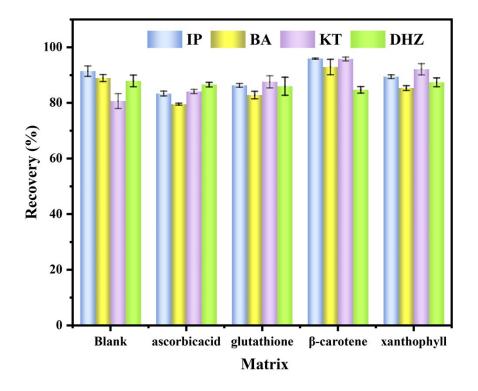


Figure S6. Anti-interference experiment