

Electronic Supplementary Information

On-line pre-treatment, separation, and nanoelectrospray mass spectrometric determinations for pesticide metabolites and peptides based on a modular microfluidic platform[†]

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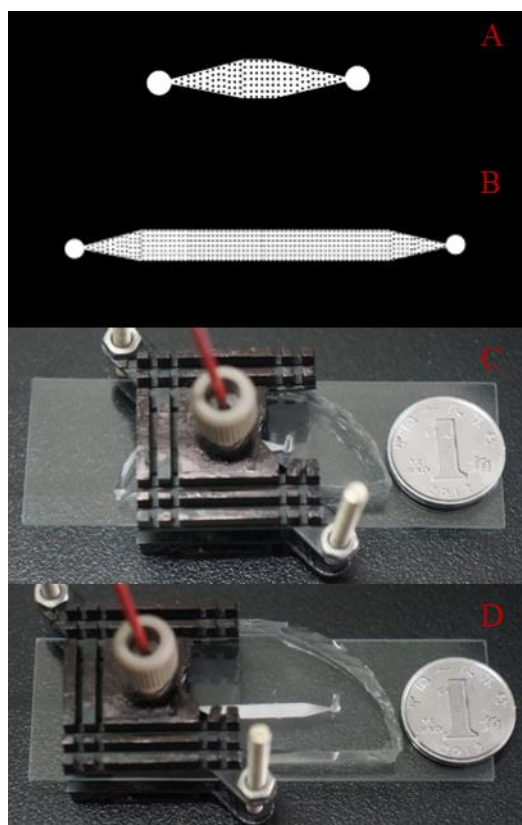


Fig. S1 Photomasks of pretreatment and separation chips (A, B), and prepared pretreatment and separation modules (C, D) with tubing holders and plate porous filters (2 μm) to introduce solutions and maintaining the stationary phase (silica particles, 5 μm).

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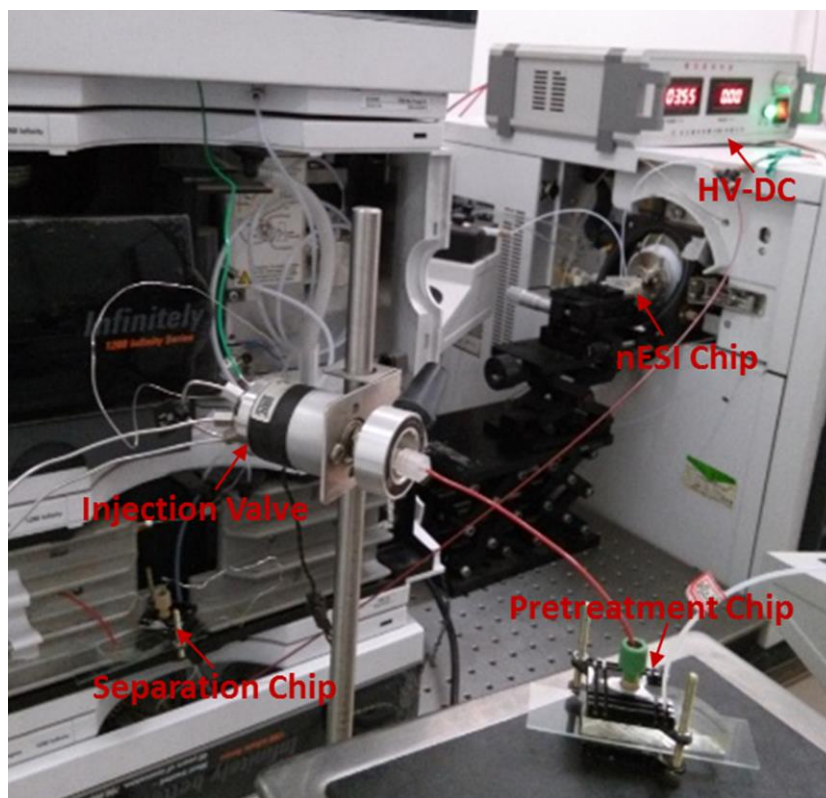


Fig. S2 Instrumental setup of the proposed modular platform, composed of pretreatment, separation, and nESI chips coupled with an injection valve and a TOF-MS.

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Table S1 The composition of a PCR mixture (A) and its amplification program (B).

(A)		
Reagent	Volume (μ L)	
SYBR. Premix Ex Taq. II (Tli RNaseH Plus)	12.5	
PCR Forward Primer (10 μ M)	1	
PCR Reverse Primer (10 μ M)	1	
DNA model	2	
dH ₂ O	8.5	
Total	25	

(B)		
Step 1	94°C	3min
Step 2	94°C	5s
	60°C	30s
		} 20cycles
Step 3	12°C	∞

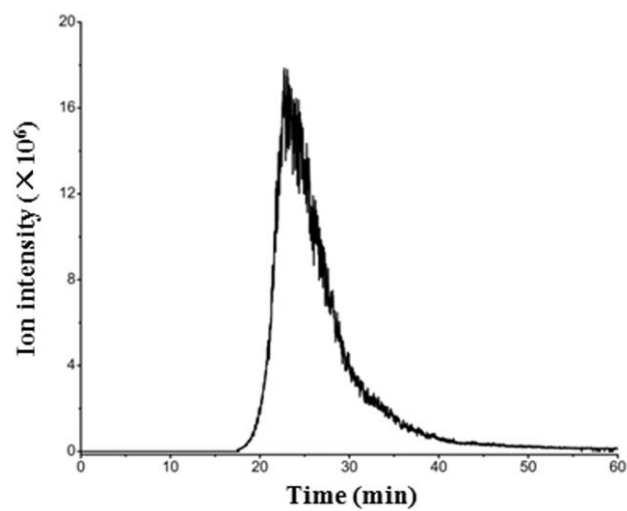


Fig. S3 EIC of the reserpine ($5 \text{ ng } \mu\text{L}^{-1}$, $2 \text{ } \mu\text{L}$) determined by the modular microfluidic platform coupled with TOF-MS.