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Supporting Information

Improvement on the selectivity and sorption capacity of cadmium by iron loaded carbon nanotubes with detection by electrothermal atomic absorption spectrometry

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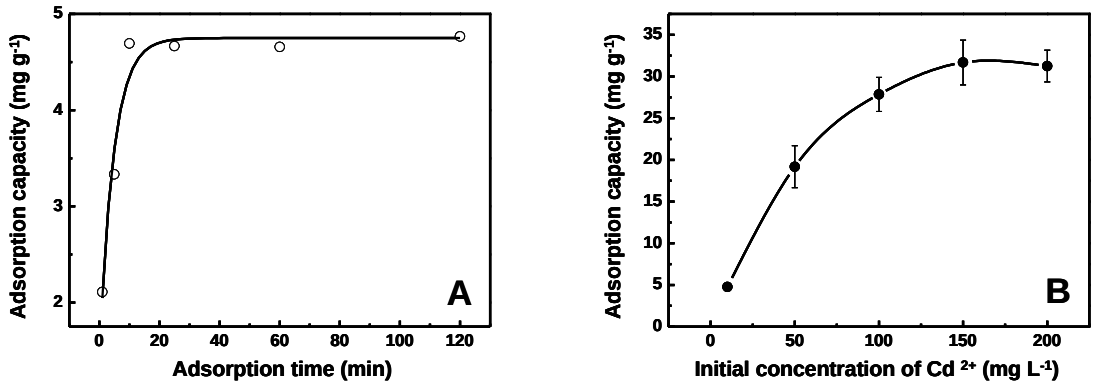

Fig. S1. The dependence of cadmium adsorption by NT-FP on the sorption time (A) and initial concentration of cadmium (B).

(A): Initial Cd^{2+} concentration: 10 mg L^{-1}, pH: 6, sample volume: 0.5 mL; amount of sorbent: 1.0 mg.

(B): Sample volume: 0.5 mL, pH: 6; sorption time: 120 min; amount of sorbent: 1.0 mg.

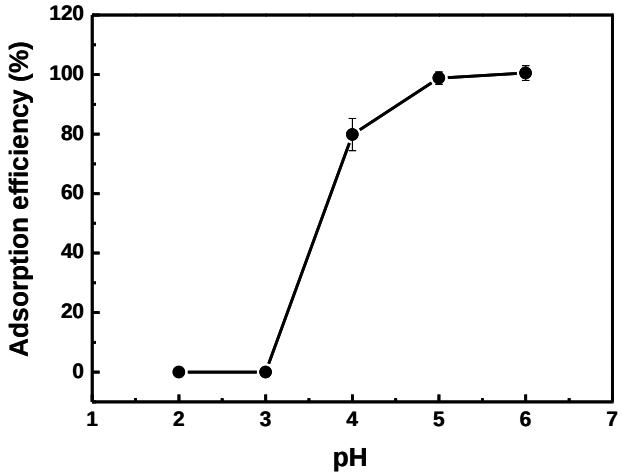

Fig. S2. pH dependence of the adsorption efficiency of cadmium onto the NT-FP mini-column.

Sample volume: 200 µL, 2 µg L^{-1} Cd^{2+}; sampling flowrate: 15 µL s^{-1}.

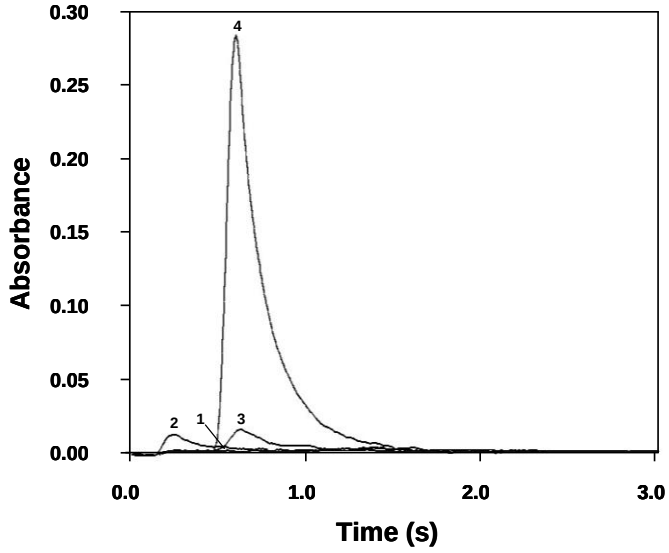

Fig. S3. The recorded ETAAS signals for cadmium before and after proconcentration on the NT-FP mini-column. (1) Blank; (2) 0.1 µg L^{-1} Cd^{2+}; (3) blank after preconcentration/elution; (4) 0.1 µg L^{-1} Cd^{2+} undergoing preconcentration/elution process. Sample volume: 1000 µL, pH 6; sampling flowrate: 15 µL s^{-1}; eluent: 0.002 mol L^{-1} H_3PO_4 + 0.1 mol L^{-1} NH_4NO_3, 50 µL; elution flowrate: 10 µL s^{-1}.