

Cadmium preconcentration with bean-coat as a green adsorbent with detection by electrothermal atomic absorption spectrometry

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Supporting Information

Table S1. The temperature program of the microwave digestion system.

Step	Temp. (°C)	Pressure (atm)	Time (min)	Power (W)
1	150	10	4	600
2	170	15	3	600
3	190	22	3	600
4	210	30	5	600

Table S2. Temperature program of the ETAAS instrument for cadmium detection.

Step	Start Temp. (°C)	End Temp. (°C)	Ramp (s)	Hold (s)	Argon flow (mL min ⁻¹)
Drying	80	140	40	0	200
Pyrolysis	300	300	0	20	200
Atomization	1500	1500	0	3	10
Cleaning	1500	1800	1	0	200

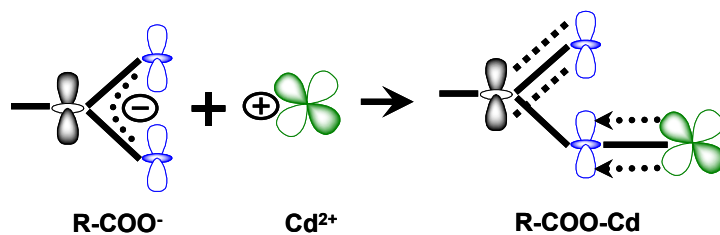


Fig. S1. The potential mechanism for the adsorption of Cd²⁺ via coordinative interaction with the carboxylic group on the mungbean-coat.

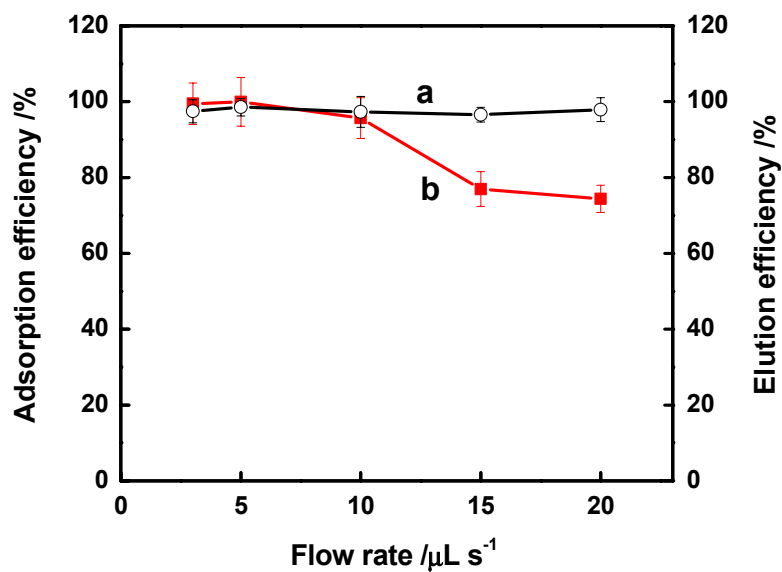


Fig. S2. The dependences of adsorption and elution efficiencies on the sample loading and elution flow rates. The experimental conditions are given in [Table 1](#) and the ETAAS temperature program is illustrated in [Table S2](#). (a) Sample loading flow rate, (b) Elution flow rate.