

Development of selective sorbent based on magnetic ion imprinted polymer for preconcentration and FAAS determination of urinary cadmium

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Table 1S: The tolerance limit of various ions on the determination of cadmium

Potentially interfering ions	Tolerable concentration ratio X/Cd(II) *	% Recovery
Zn ²⁺	2000	96.4
Pb ²⁺	2000	97.4
Na ⁺	2000	94.7
Cu ²⁺	2000	96.0

Conditions: sample pH, 7.0; eluent volume 4.0 mL (2 mol L⁻¹ HCl); sorption and elution time 5.0 min

Table 2S: Day-to-day (D-day) and within day (W-day) reproducibility of cadmium determination in aqueous sample. Sample volume 25 mL, N = 6.

Statistical data	Concentration added ($\mu\text{g L}^{-1}$)					
	2		10		50	
	D-day	W-day	D-day	W-day	D-day	W-day
Mean	4.63	3.49	11.76	11.29	50.91	50.69
SD	0.43	0.51	0.79	0.66	0.88	0.70
CV(%)	0.092	0.146	0.064	0.058	0.017	0.014

Fig. 1S: FT-IR spectra of magnetic IIP before and after removal of Cd(II) ions.

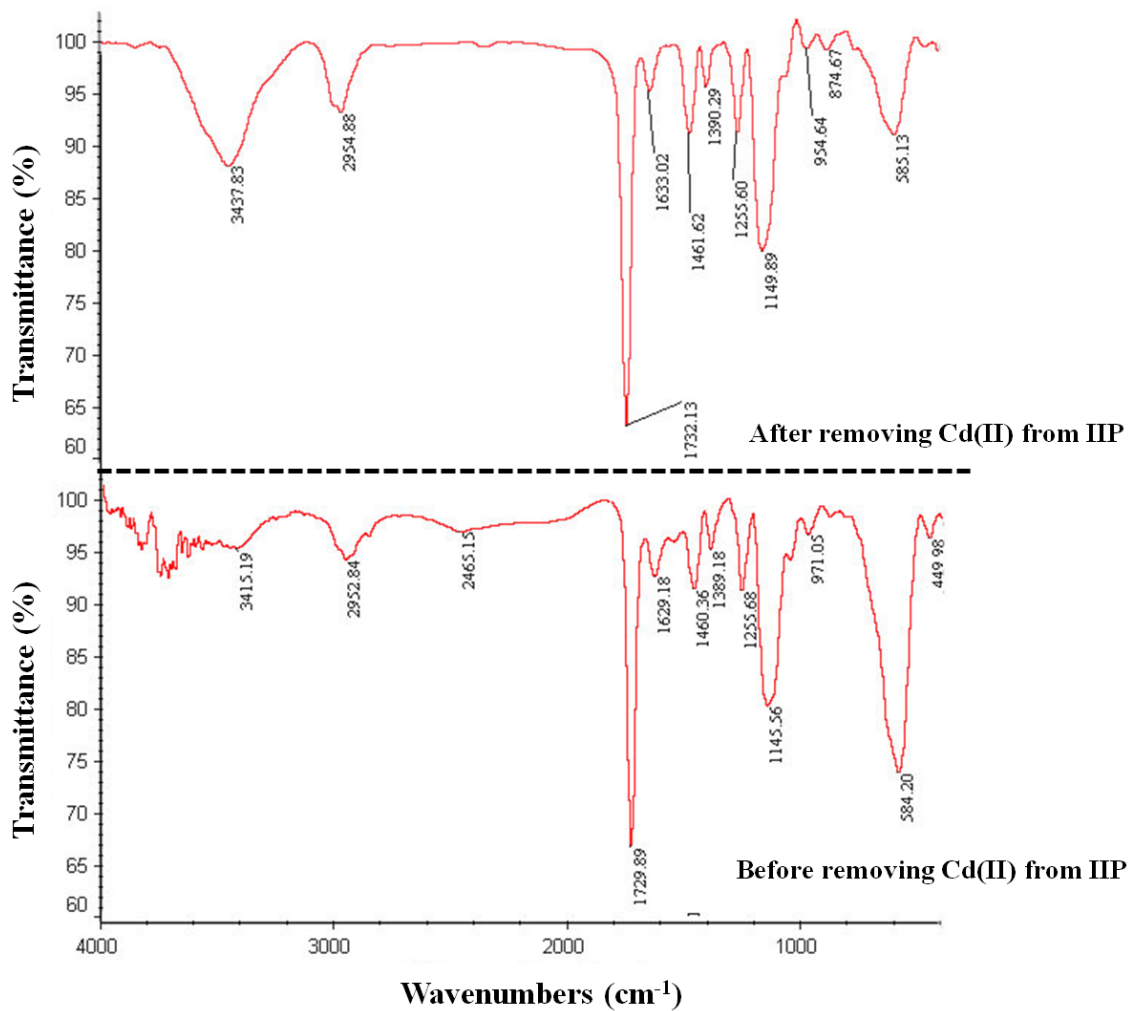


Fig. 2S: Thermal analysis of synthesized magnetic IIP: TGA curve and b: DAT curve.

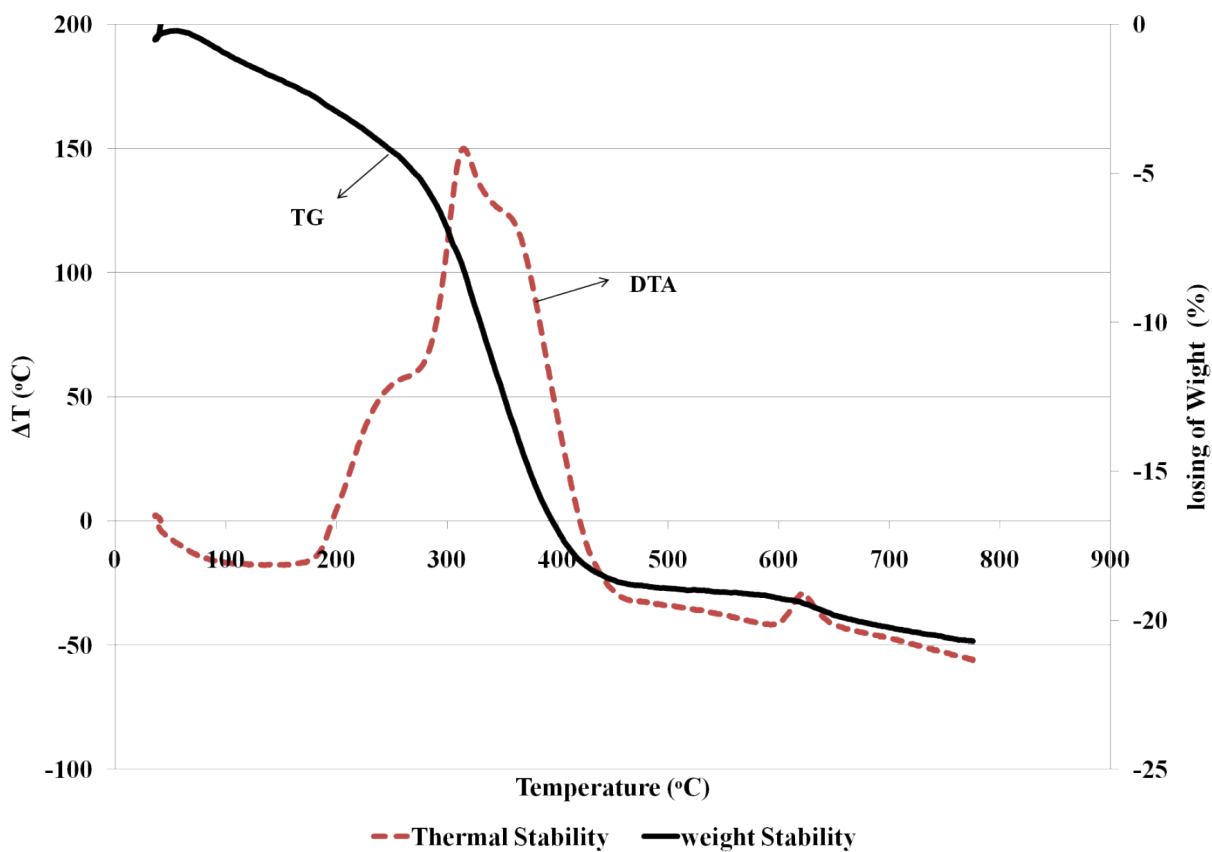


Fig. 3S: Effect of sample pH on the recovery of cadmium ions, Conditions: sample volume, 25 mL; initial concentration of cadmium ions, 0.5 mg L⁻¹; eluent, 2 mol L⁻¹ of HCl; amount of sorbent, 20 mg; eluent volume, 4.0 mL; sorption time, 5.0 min; elution time, 5.0 min).

