

Supplementary materials

Development of solid phase extraction method based on ion imprinted polymer for determination of Cr(III) ions by ETAAS in waters

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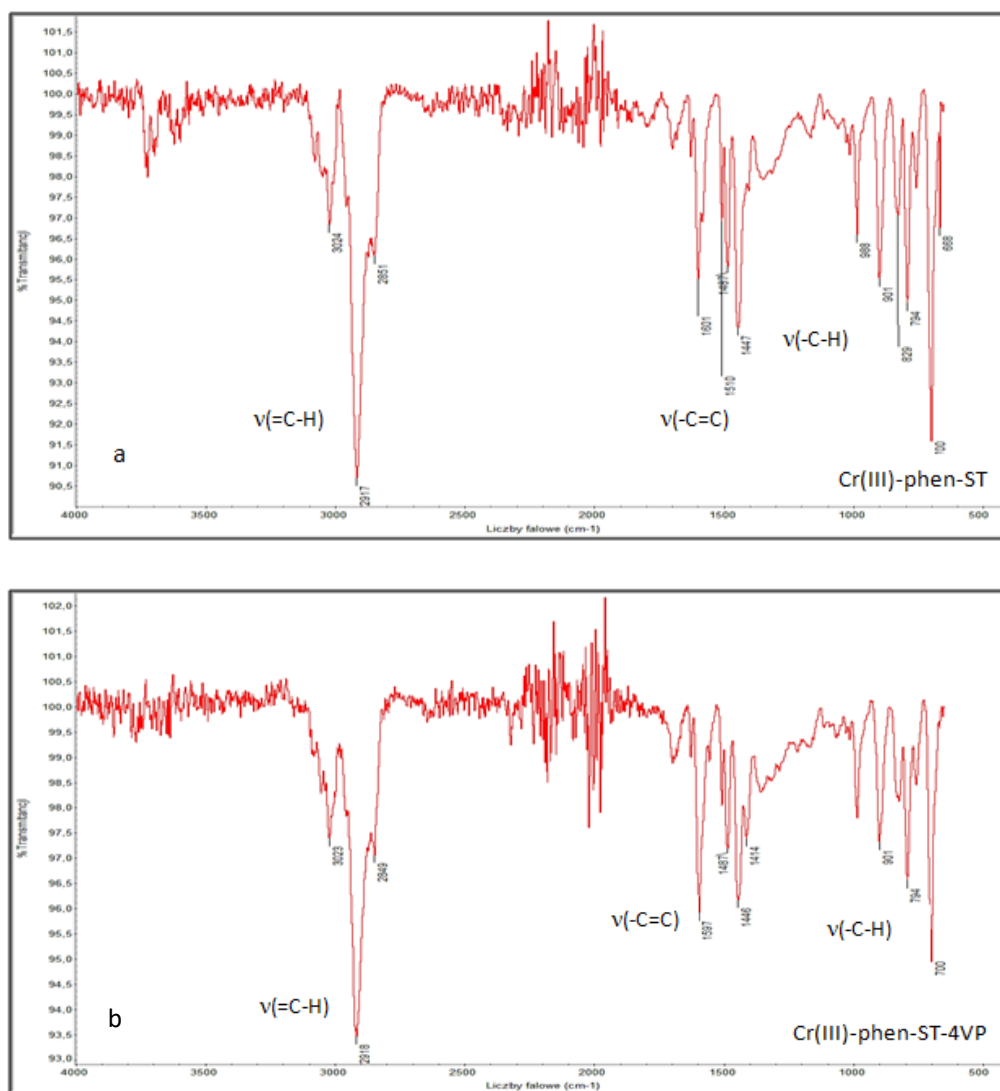
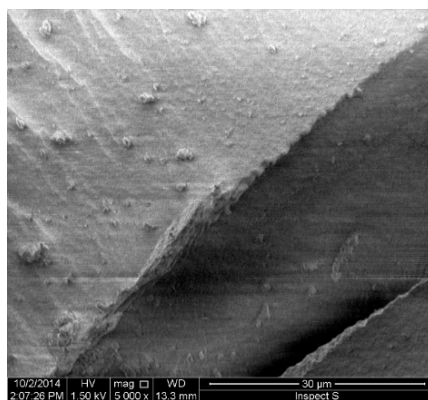
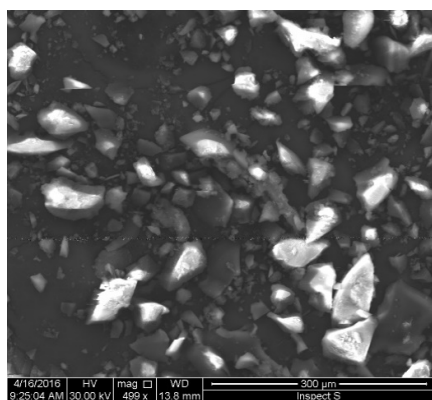
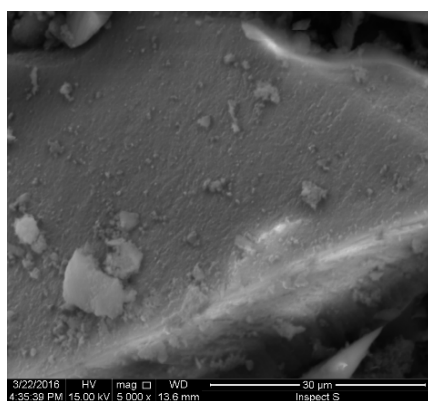
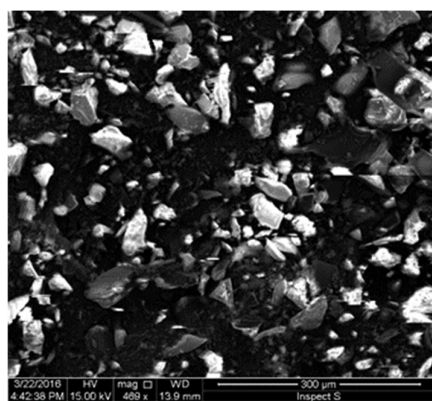


Figure S1. FT-IR spectra of the Cr(III)-phen-ST polymer (a) and the Cr(III)-phen-ST-4VP polymer (b).

Cr(III)-phen-ST



Cr(III)-phen-ST-VP



Control polymer-ST

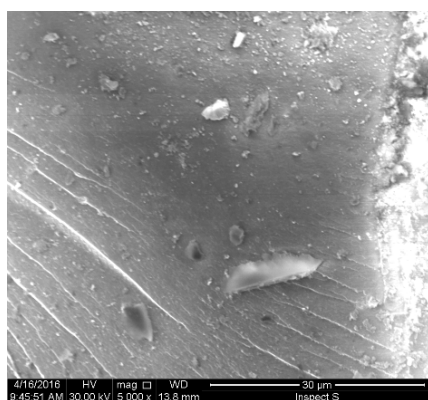
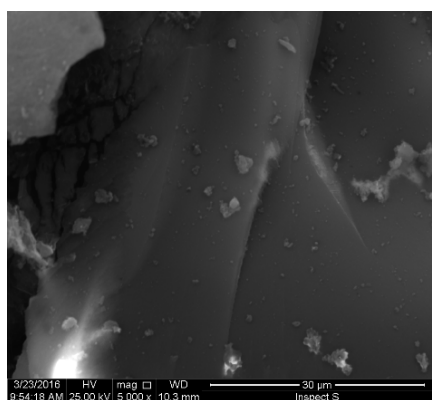


Figure S2. SEM images of the surface particles of the Cr(III)-phen-ST polymer, the Cr(III)-phen-ST-4VP polymer and control polymers (~500- fold and 5000-fold magnification).

Table S1. Efficiency of imprinting/leaching of Cr(III) from IIPs and structural parameters of the Cr(III)-phen-ST, the Cr(III)-phen-ST-4VP and control polymers determined by nitrogen adsorption-desorption isotherm.

Polymer	Efficiency of imprinting/leaching of Cr(III), %	BET characteristic		BJH pore characteristic		
		BET surface, m ² /g	pores size, nm	size, nm	volume, cm ³ /g	surface, cm ² /g
Cr(III)-phen-ST	80/6	364.8	1.29	2.12	0.241	452.8
CP		305.6	1.30	2.18	0.204	373.0
Cr(III)-phen-ST-4VP	70/1	177.1	1.21	2.14	0.091	170.8
CP		215.6	1.23	2.16	0.117	216.7