Supporting information:



 $\label{eq:Fig.S1} \textbf{Fig.S1} \text{ XRD patterns of (a) } Fe_3O_4 \text{ microspheres, (b) } Fe_3O_4/PPy \text{ composite microspheres and (c) porous } PPy \text{ microspheres.}$



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Fig. S3 TEM images (a) and (b) Fe₃O₄/PPy composite microspheres synthesized under mechanical stirring for 1.5 h and (c) and (d) their corresponding porous PPy microspheres after residual Fe3O4 nanoparticles were removed.



Fig. S4 N_2 adsorption/desorption isotherm for the Fe₃O₄/PPy composite microspheres. (Inset: BJH pore-size distribution curve obtained from the desorption data)

Langmuir			Freundlich		
$Qm (mg g^{-1})$	b (L mg ⁻¹)	\mathbb{R}^2	k	1/n	\mathbb{R}^2
209.2	0.11	0.99	27.97	0.498	0.96

Table S1 Langmuir and Freundlich isothermal parameters for Cr(VI) adsorption on Fe₃O₄/PPy composite microspheres.

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 $Fig. \ S5 \ {\rm Adsorption-desorption} \ cycles.$