

Supplementary information

Chitosan/graphite/polyvinyl alcohol magnetic hydrogel microspheres for decontamination of Reactive Orange 16 dye

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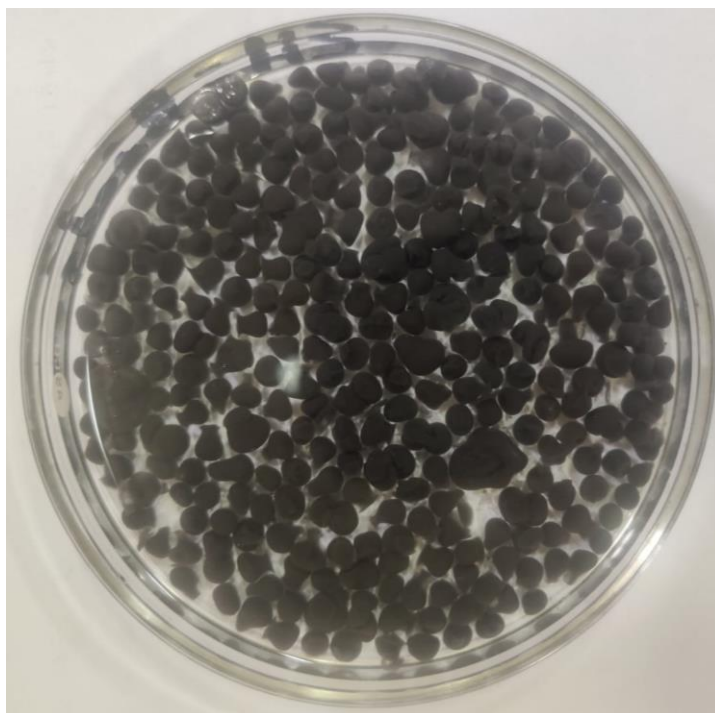


Figure S1: As formed hydrogel beads of m-CGPA



Figure S2: Removal of dye at by m-CGPA at different time intervals.

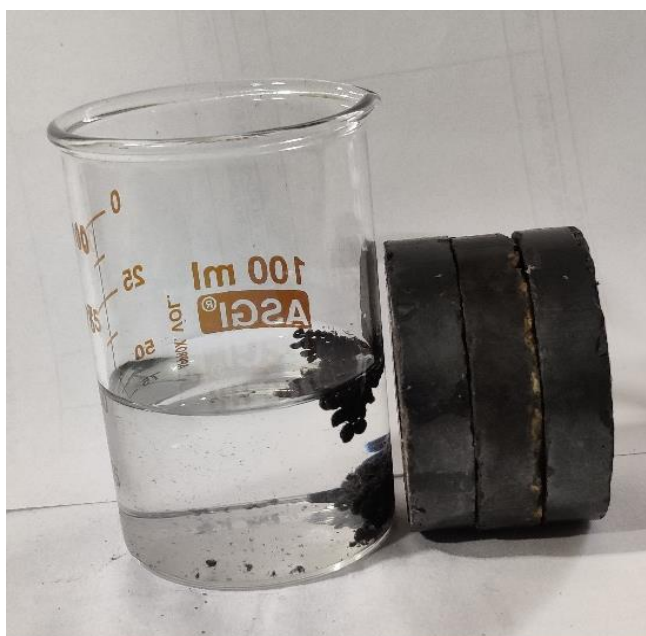


Figure S3: Magnetic separation of m-CGPA using external magnet

Supplementary Table S1: Linearized equations of the adsorption isotherm models studied.

Isotherm model	Linearized Equation	Parameter	Significance
Langmuir	$\frac{C_e}{q_e} = \frac{1}{q_m b} + \frac{C_e}{q_m}$	q_m	Maximum Cr ^{VI} adsorption capacity (mg g ⁻¹)
	Monolayer adsorption on homogeneous adsorbent surface	b	Constant related to affinity of binding sites (L mg ⁻¹)
	$R_L = \frac{1}{1 + bC_0}$	R_L	Dimensionless separation factor ($R_L < 1$ represents favourable adsorption)
Freundlich	$\log q_e = \log K_F + \frac{1}{n} \log C_e$	K_F	Adsorption capacity (mg ^{1-1/n} g ⁻¹ L ⁻¹)
	Multilayer adsorption on heterogeneous adsorption surface	n	Adsorption intensity (1<n<10 represents strong interaction)