Electronic Supplementary Materials:

Preparation of PEI/CS aerogel beads with high-density of reactive sites for efficient Cr(VI) sorption: batch and column studies

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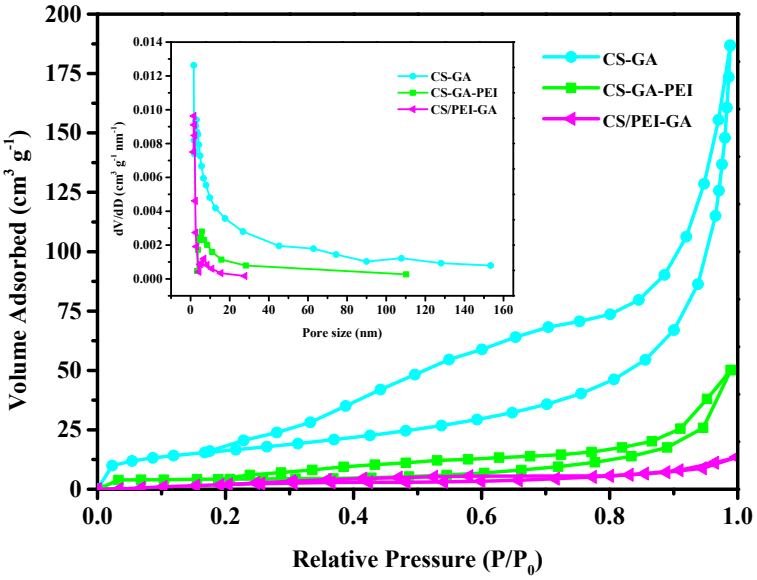

Fig. S1. Nitrogen adsorption–desorption isotherms and pore size distribution curves (*inset*) of CS-GA, CS-GA-PEI and CS/PEI-GA.

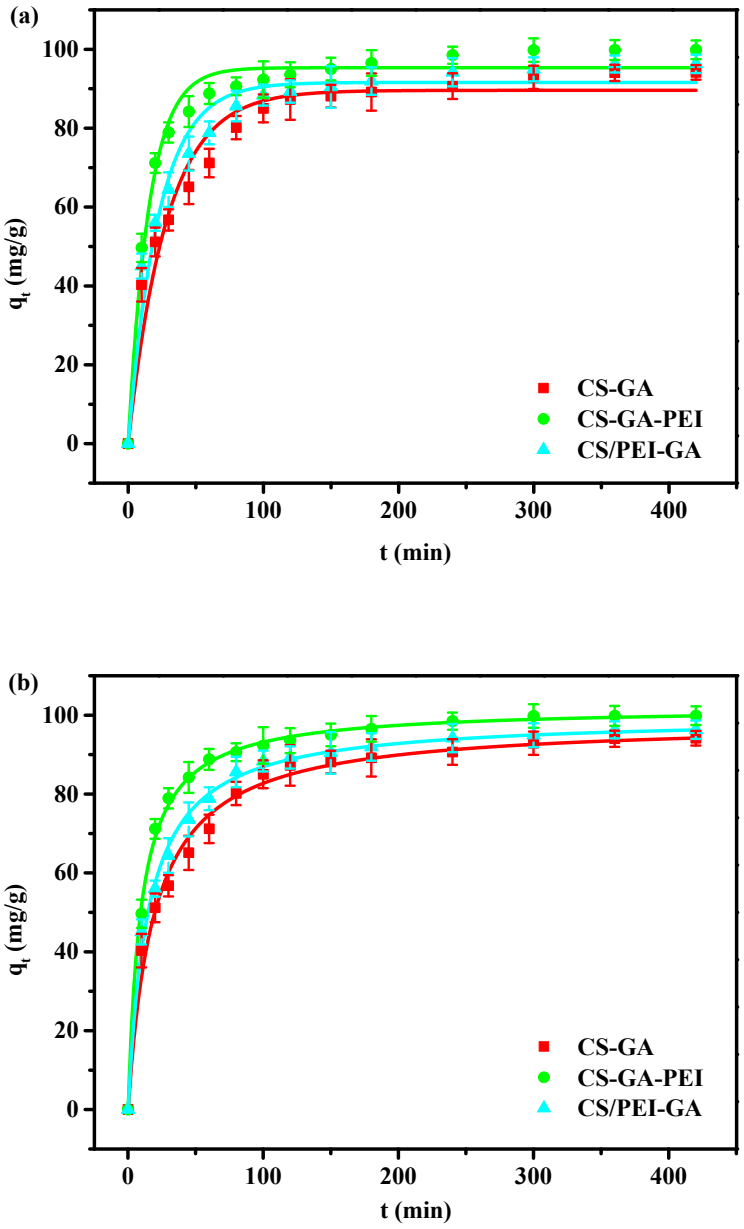

Fig. S2. Adsorption kinetics modeled with (a) pseudo-first-order equation and (b) pseudo-second-order equation of CS-GA, CS-GA-PEI and CS/PEI-GA beads.

Table S1

The textural parameters of the adsorbents.

Sample	Specific surface area (m^2 g^{-1})	Pore volume (cm^3 g^{-1})	Average pore diameter (nm)
CS-GA	59.4	0.29	19.5
CS-PEI-GA	13.7	0.08	22.7
CS/PEI-GA	23.0	0.02	3.8

Table S2

The isotherm parameters for adsorption of Cr (VI) onto CS-GA, CS-GA-PEI and CS/PEI-GA beads.

Materials	Langmuir model			Freundlich model		
	q_m (mg/g)	b (L/mg)	R^2	K_F(mg/g)	n	R^2
CS-GA	284.6	0.11407	0.99146	88.583	4.41445	0.82053
CS-GA-PEI	402.9	0.19326	0.8728	163.089	5.10314	0.82825
CS/PEI-GA	363.1	0.11263	0.93926	108.646	4.0693	0.87997