

Supplementary information

Enhanced Removal of Chromium(VI) by Fe(III)-Reducing Bacterium coated ZVI for Wastewater Treatment: Batch and Column Experiments

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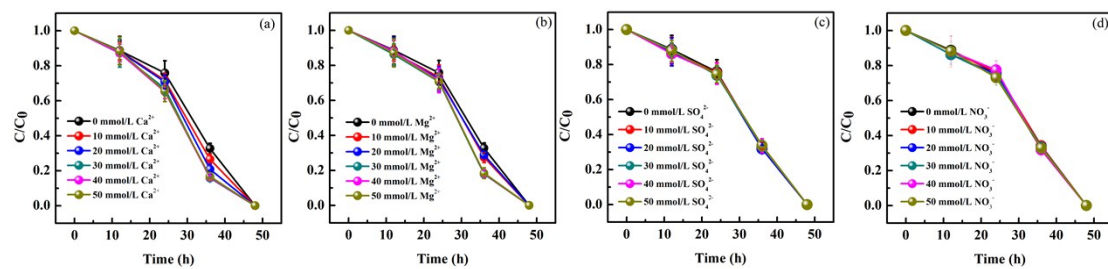


Fig. S1 Effects of Ca^{2+} , Mg^{2+} , SO_4^{2-} , and NO_3^- on the removal efficiency of Cr(VI)

Table S1 Kinetic fitting results of first and second order kinetics

	First order kinetics		Second order kinetics	
	$k_1(\text{h}^{-1})$	R_1^2	$k_2(\text{h}^{-1})$	R_2^2
1	0.00906	0.836	0.0132	0.903
2	0.00804	0.992	0.0105	0.996
3	0.0336	0.987	0.066	0.915

Table S2 Kinetic fitting results of pseudo first and second order kinetics

	Pseudo-first-order			Pseudo-second-order		
	$q_e(\text{mg/g})$	$k_a(\text{h}^{-1})$	R_a^2	$q_e(\text{mg/g})$	$k_\beta(\text{h}^{-1})$	R_β^2
1	27.82	0.055	0.989	34.34	0.059	0.996
4	33.60	0.039	0.977	43.88	0.037	0.987

Table S3 Fitting results of logistic model.

	PC				IM-PC			
	1d	5d	10d	15d	1d	5d	10d	15d
$t_0(\text{h})$	9.41	8.70	7.14	5.67	11.67	12.92	16.42	12.06
p	4.41	3.70	4.43	3.89	3.49	3.03	2.17	2.53
R^2	0.988	0.987	0.991	0.991	0.996	0.998	0.999	0.992

Table S4 Fitting results of Thomas model.

	PC				IM-PC			
	1d	5d	10d	15d	1d	5d	10d	15d
k_{Th}	0.0028	0.0026	0.0032	0.0034	0.0024	0.0022	0.0019	0.0021
q_{Th} (mg/g)	107.35	97.38	83.06	66.61	121.47	125.45	122.84	109.11
R^2	0.991	0.990	0.995	0.996	0.994	0.995	0.992	0.988