

Supporting Information

Adsorption-Reduction of Cr(VI) with Magnetic Fe-C-N Composites

Xu Liu ^{1,2,†}, Huilai Liu ^{1,2,†}, Kangping Cui ¹, Zhengliang Dai ³, Bei Wang ³, Rohan Weerasooriya ^{2,4} and Xing Chen ^{1,2,*}

¹ Key Laboratory of Nanominerals and Pollution Control of Higher Education Institutes, School of Resources and Environmental Engineering, Hefei University of Technology, Hefei 230009, China; akira0519@sina.com (X.L.); liuhuilai1996@163.com (H.L.); cui kangping@hfut.edu.cn (K.C.)

² Key Laboratory of Aerospace Structural Parts Forming Technology and Equipment of Anhui Province, Institute of Industry and Equipment Technology, Hefei University of Technology, Hefei 230009, China; rohan.we@nifs.ac.lk

³ Anqing Changhong Chemical Co., Ltd., Anqing 246002, China; zl_dai@163.com (Z.D.); 13855694589@163.com (B.W.)

⁴ National Centre for Water Quality Research, National Institute of Fundamental Studies, Hantana, Kandy 20000, Sri Lanka

* Correspondence: xingchen@hfut.edu.cn; Tel./Fax: +86-551-62902634

† These authors contributed equally to this work.

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Figure S4. Langmuir, and Freundlich isotherm for the adsorption of Cr(VI) by FCN-500 ($T = 308\text{ K}$, $\text{pH} = 2$, $[\text{FCN-500}] = 0.8\text{ g/L}$).

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Table S1. BET specific surface area and pore size distribution.

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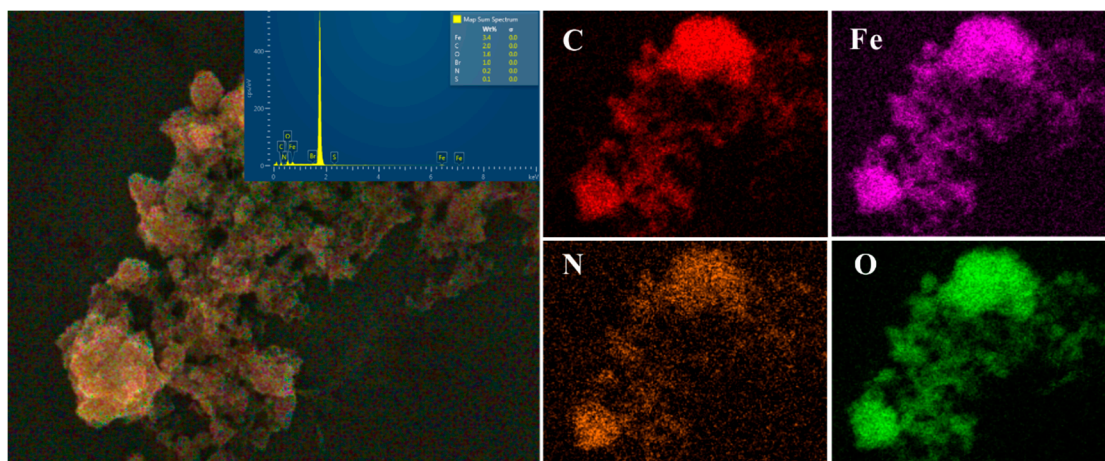


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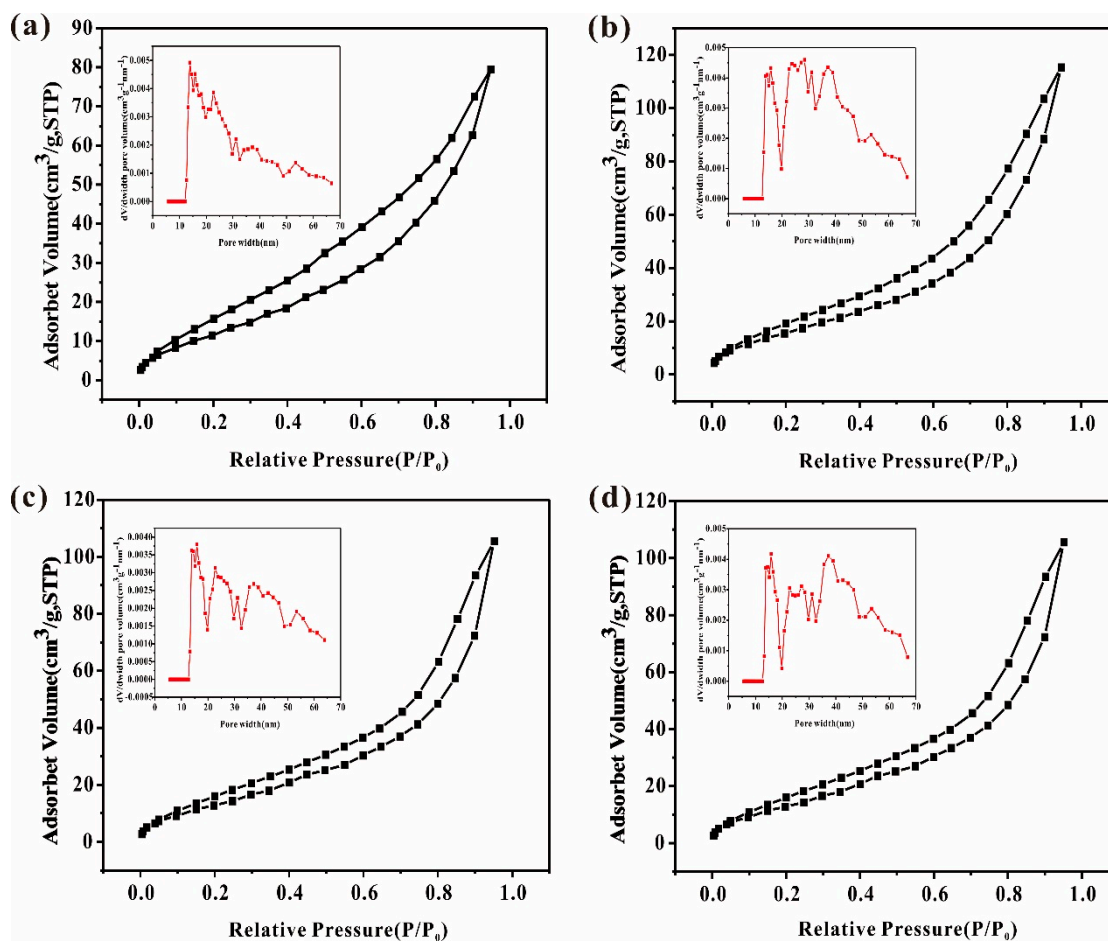


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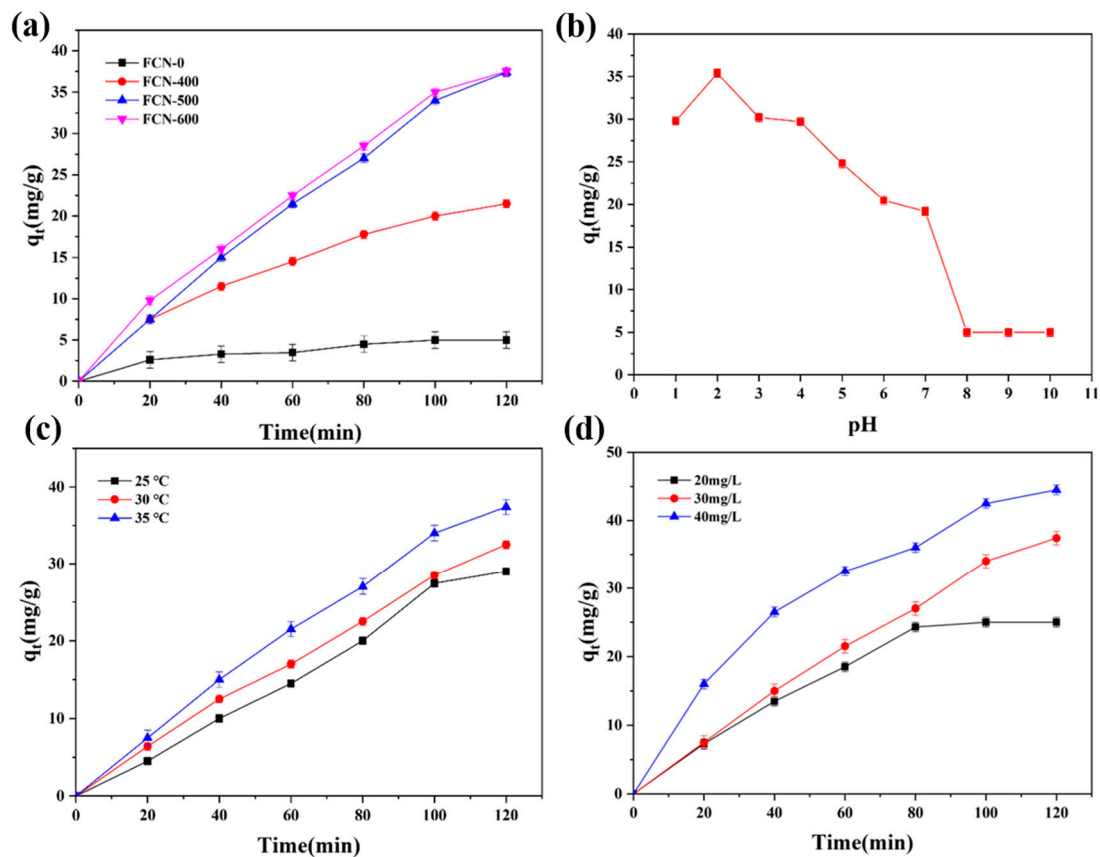


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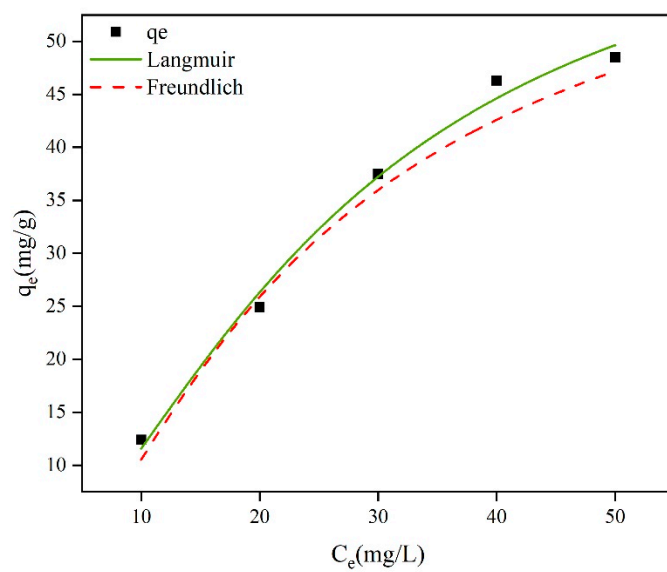


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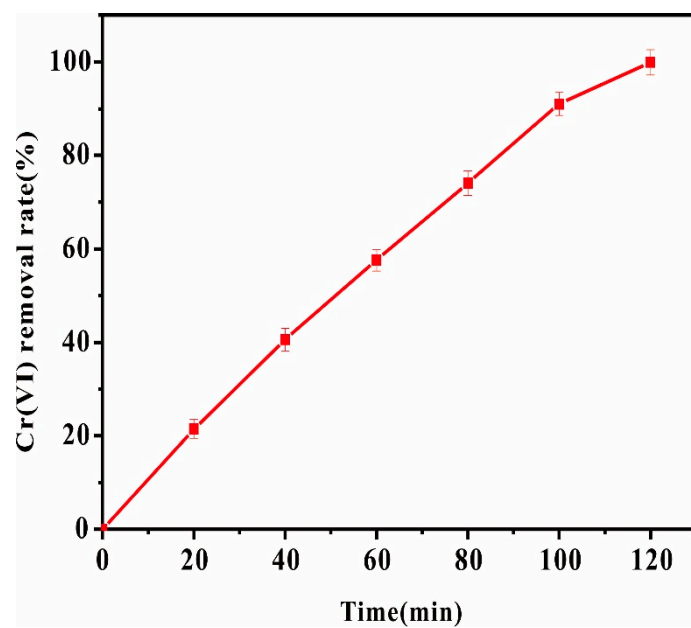


Figure S5. Cr(VI) removal rate from electroplating wastewater by FCN-500 ($T = 298$ K, $\text{pH} = 3$, $C_0 = 117$ mg/L, $[\text{FCN-500}] = 2.4$ g/L).

Table S1. BET specific surface area and pore size distribution.

name	$S_{\text{BET}}/(\text{m}^2/\text{g})$	$VT/(\text{cm}^3/\text{g})$	$D/(\text{nm})$
FCN-0	50.43	0.105	48.78
FCN-400	64.93	0.18	54.98
FCN-500	47.77	0.13	55.29
FCN-600	55.63	0.16	56.65

Table S2. The chemical properties of FCN-0, FCN-400, FCN-500, FCN-600.

Metal element	FCN-0 (wt)	FCN-400 (wt)	FCN-500 (wt)	FCN-600 (wt)
Fe	68.57%	73.08%	74.01%	74.02%
Mn	0.63%	0.70%	0.72%	0.70%
Ca	0.60%	0.73%	0.64%	0.68%
Na	0.23%	0.27%	0.35%	0.42%
Mg	0.13%	0.18%	0.14%	0.15%
Cr	0.09%	0.09%	0.09%	0.09%
Zn	0.08%	0.08%	0.08%	0.08%

Table S3. The data for ICP-MS analysis of chromium species.

Element	Before reaction	After reaction
Cr	29.89 ppm	3.12 ppb

Table S4. The Proportion of elements in catalyst before and after reaction

Element	Before reaction	After reaction
C	41.24%	41.73%
N	11.22%	9.77%
O	34.74%	34.55%
Fe	12.8%	12.7%
Cr	0	1.25%