

Supporting Information

Efficient Cr(VI) removal by expanded graphite synergized with oxalic acid under UV irradiation

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Table S1. Comparison of Cr(VI) elimination performance for EG+Ox+UV with the reported carbon-based material and Ox-involved system.

Material	Cr(VI) (mg L^{-1})	Dosage (g L^{-1})	Removal efficiency	References
SA/PEI/GO	50	1	14 h; 97.7 %	[1]
g-C ₃ N ₄ /GO/BiFeO ₃	5	2.5	90 min; 100 %	[2]
GO	1 mM (≈ 52)	0.2	15 h; 96 %	[3]
TNTs/MAC	10	1	330 min; 97 %	[4]
Lep-Ox-Cr(VI)	10	0.5	60 min; 100 %	[5]
g-C ₃ N ₄ /ZnFe ₂ O ₄ -Ox	60 μM (≈ 3.12)	0.01	120 min; 100%	[6]
EG+Ox+UV	1 mM (≈ 52)	0.5	60 min; 99.32 %	This work

Supplementary references

1. C. Guo, S. Wu, X. Gao, M. Li and H. Long, *Int J Biol Macromol*, 2021, **189**, 910-920.
2. X. Hu, W. Wang, G. Xie, H. Wang, X. Tan, Q. Jin, D. Zhou and Y. Zhao, *Chemosphere*, 2019, **216**, 733-741.
3. Z. Ding, W. Zhang, J. Liang, S. Qiang, W. Wang, P. Li and Q. Fan, *Chemosphere*, 2023, **311**, 137136.
4. S. G. Hosseini and J. V. Pasikhani, *Environ Technol*, 2021, **42**, 914-931.
5. S. Hu, H. Li, P. Wang, C. Liu, Z. Shi, F. Li and T. Liu, *Chemical Geology*, 2021, **583**, 120481.
6. D. Lei, J. Xue, X. Peng, S. Li, Q. Bi, C. Tang and L. Zhang, *Applied Catalysis B: Environmental*, 2021, **282**, 119578.