

Supplementary

New sustainable approach for the production of Fe_3O_4 /graphene oxide-activated persulfate system for dye removal in real wastewater

Md. Nahid Pervez^{1,2,3}, Wei He¹, Tiziano Zarra², Vincenzo Naddeo^{2*}, Yaping Zhao^{1*},

¹ School of Ecological and Environmental Science, Shanghai Key Laboratory for Urban Ecological Process and Eco-Restoration, East China Normal University, Shanghai 200241, China; nahid.tex92@gmail.com (M.N.P.); 811611797@qq.com (W.H.)

² Sanitary Environmental Engineering Division (SEED), Department of Civil Engineering, University of Salerno, via Giovanni Paolo II 132, 84084 Fisciano (SA), Italy; tzarra@unisa.it (T.Z.)

³ Department of Textile Engineering, Southeast University, Tejgaon, Dhaka-1208, Bangladesh

* Correspondence: vnaddeo@unisa.it (V.N.); ypzha@des.ecnu.edu.cn (Y. Z.); Tel.: +39 (0) 89-96 9333 (V.N.); +86 (0) 21-54341241 (Y.Z.)

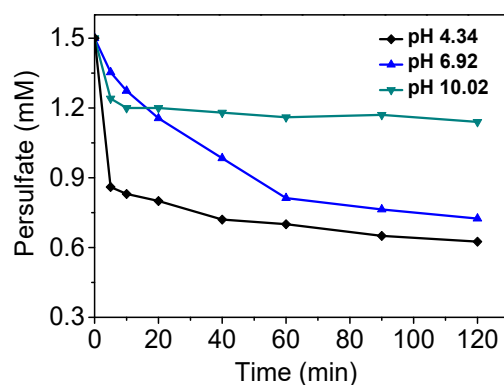


Figure S1. Persulfate evolution under different pH

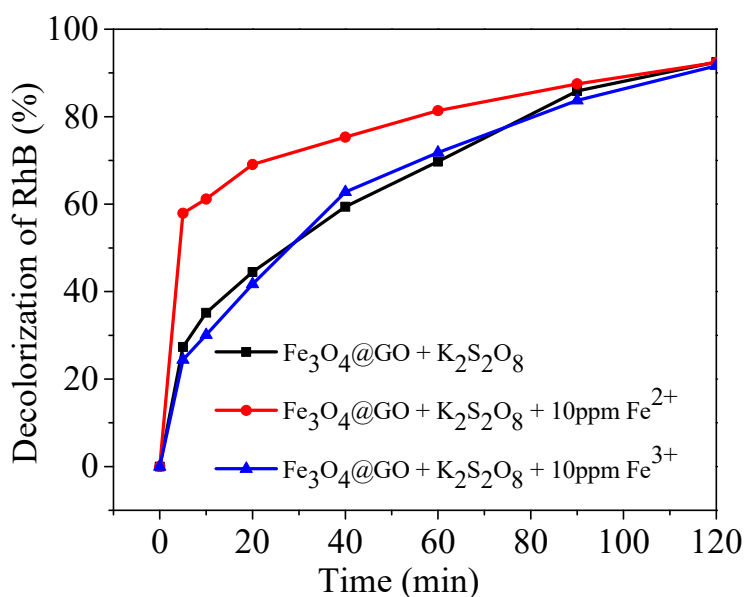


Figure S2. Effect of iron species on RhB degradation

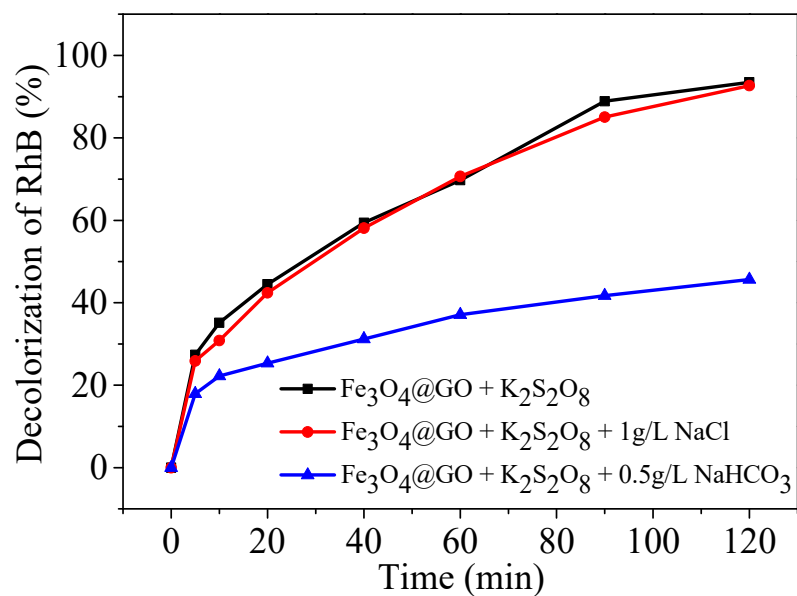


Figure S3. Effect of inorganics ions on RhB degradation

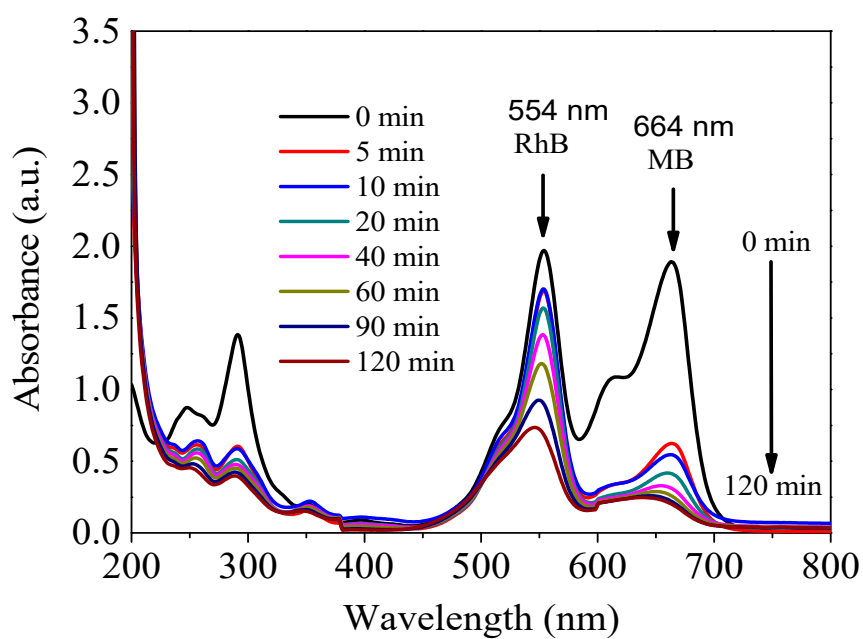


Figure S4. Effect of co-existing dyes MB on RhB degradatio

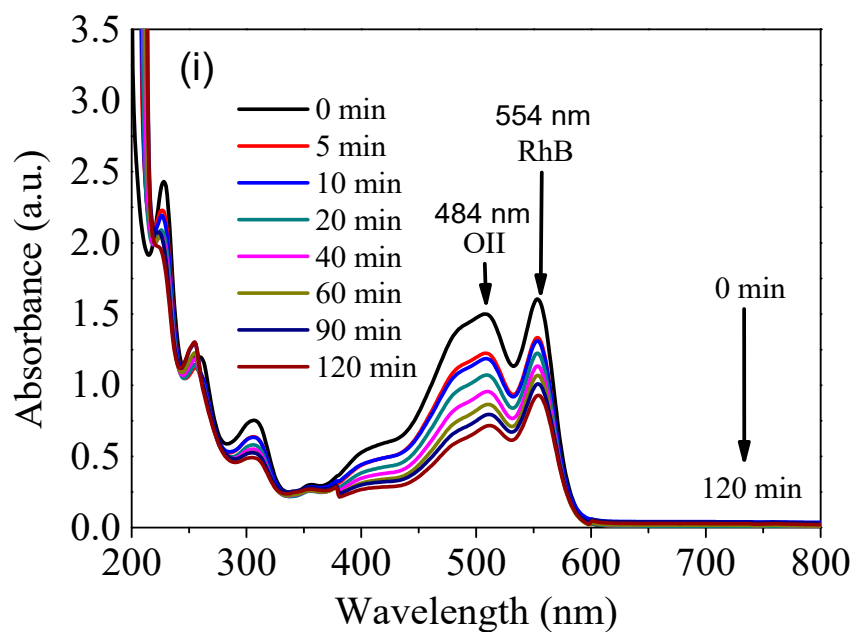


Figure S5. Effect of co-existing dyes OII on RhB degradation

Table S1 Binding energy of detected elements for Fe₃O₄@GO

Binding Energy (eV)								
	C 1s	O 1s			Fe 2p			N 1s
Before	285	531	530	529	725	711	718	400
After	285	531	530	529	725	711	718	400

Table S2 Atomic surface concentration of detected elements for Fe₃O₄@GO

Atomic Surface Concentration (%)				
	C	O	Fe	N
Before	24.39	49.11	26.21	0.29
After	24.91	49.22	25.03	0.84