Efficient Solar Light Driven Degradation of Tetracycline by Fe-EDTA Modified g-C_3N_4 Nanosheets

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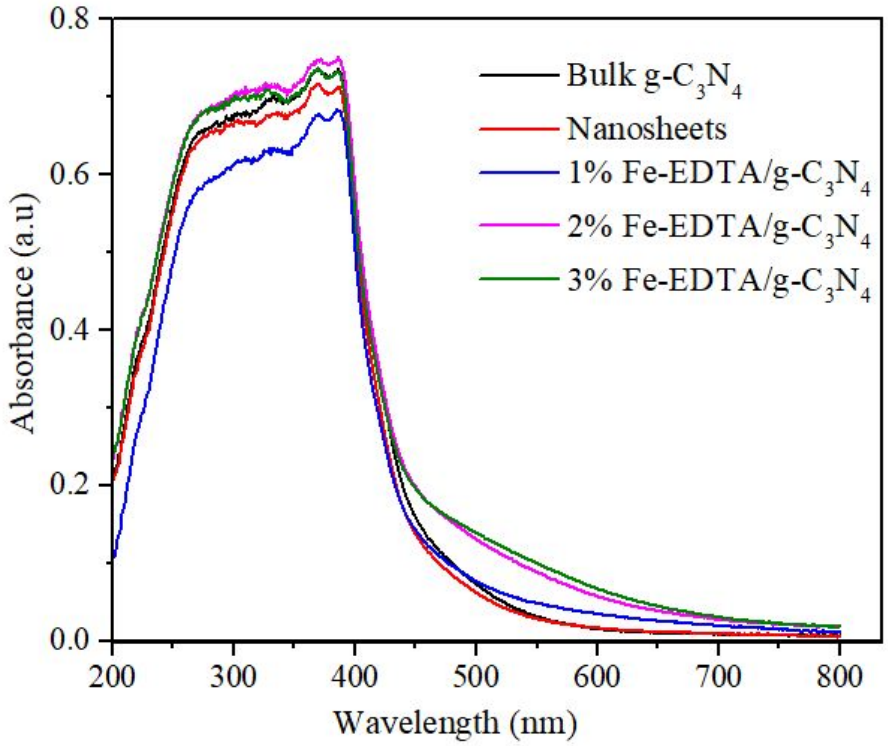

Figure S1. UV-vis-NIR diffuse reflectance spectra of the as-prepared samples.

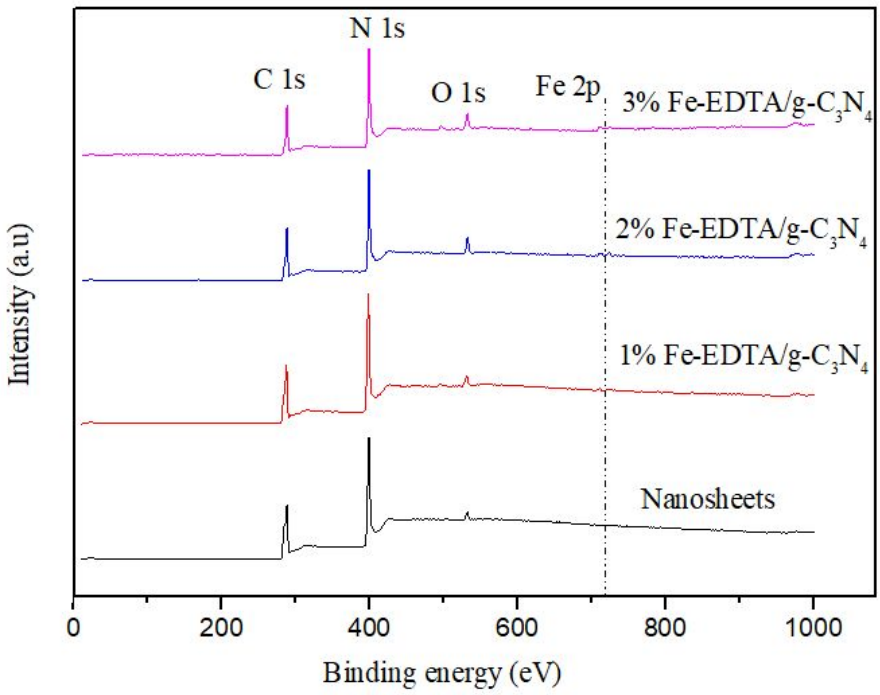

Figure S2. XPS survey spectra of as-prepared samples.

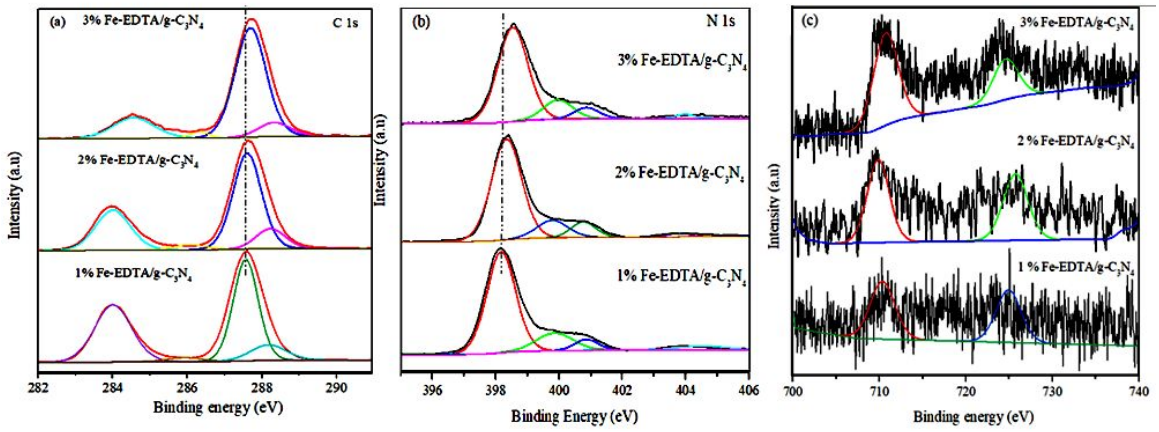

Figure S3. (a) C1s, (b) N1s and (c) Fe 2p spectra for 1 % Fe-EDTA/g-C_3N_4, 2% Fe-EDTA/g-C_3N_4 and 3% Fe-EDTA/g-C_3N_4.

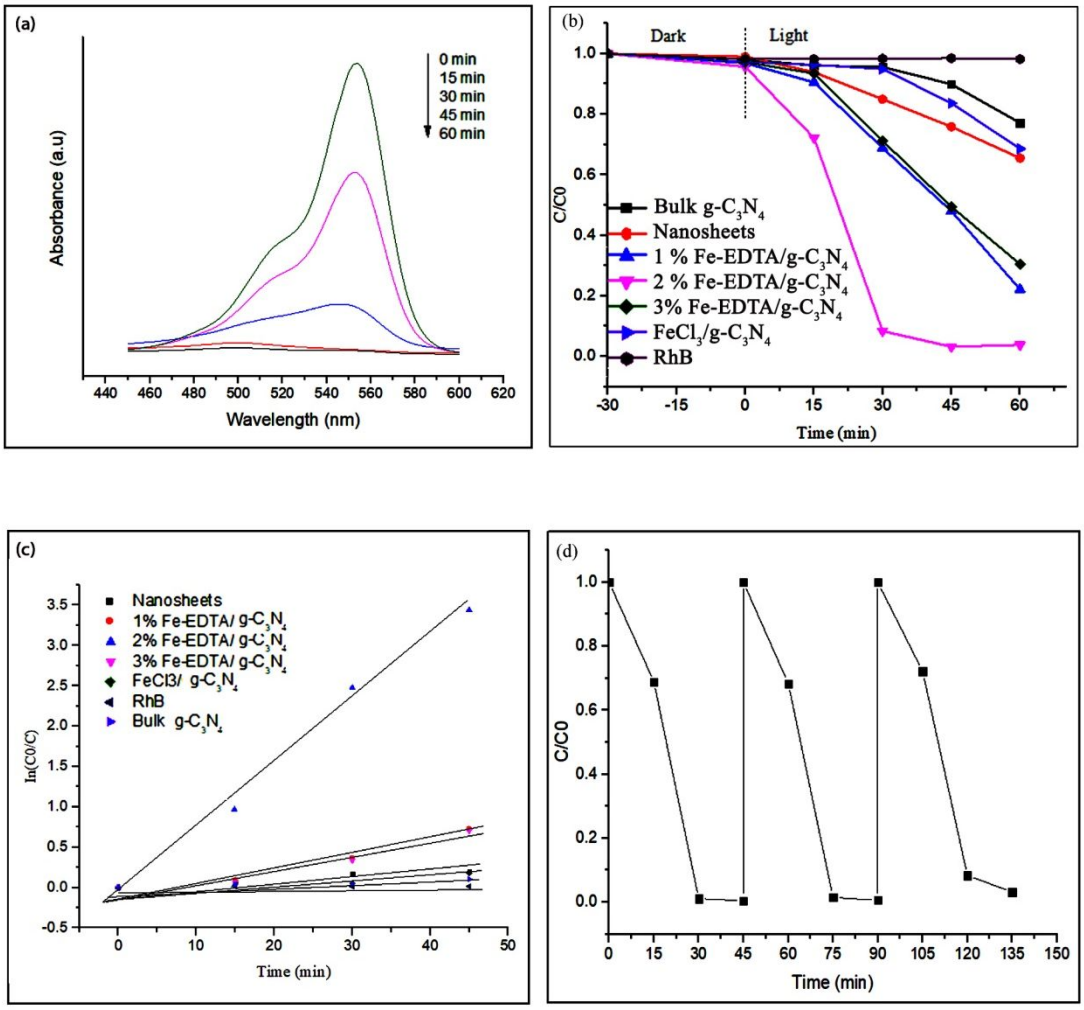

Figure S4. (a) Time-dependent absorption spectra for photodegradation of RhB,
(b) Photodegradation of RhB over different as-prepared samples under simulated solar irradiation,
(c) The corresponding first-order kinetics plots of the prepared samples for RhB degradation,
(d) Recycling experiment for RhB degradation over 2% Fe-EDTA/g-C_3N_4 (Catalyst = 10 mg, RhB = 80 mg/L).

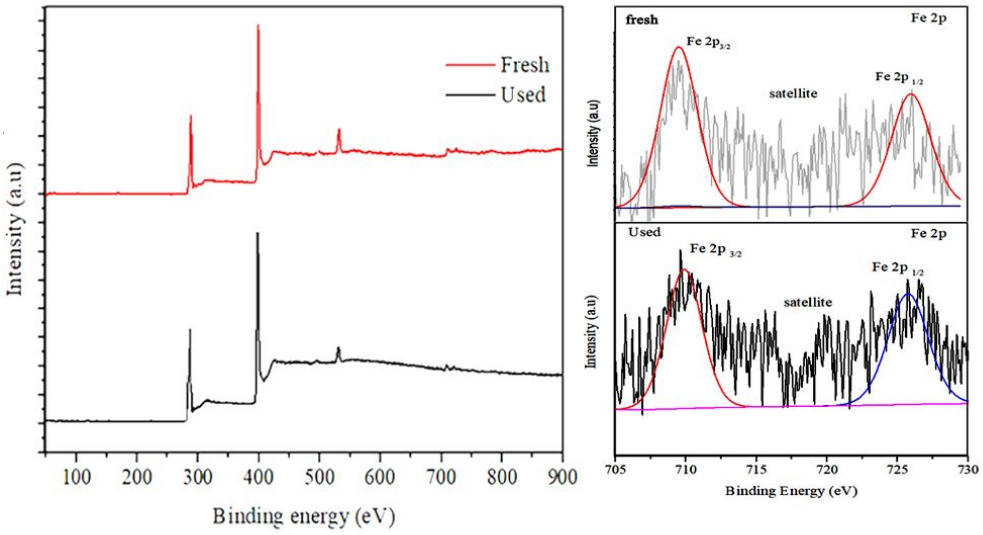

Figure S5. XPS spectra of fresh and used sample of 2% Fe-EDTA/g-C_3N_4.

Table S1. Comparison of degradation efficiencies for organic pollutants with different photocatalysts

Photocatalysts	Organic pollutant	Initial concentration	Photocatalyst dosage	Activation system	Degradation performance	Ref.
g-C_3N_4/Fe^0(1%) /TiO_2	TC	10 mgL^{-1}	1 gL^{-1}	-	90 min, 98%	1
Co3O4@CoO/g-C3N4	TC	10 mgL^{-1}	0.6 gL^{-1}	-	120 min, 97%	2
g-C_3N_4/PDI@ MOF	TC	50 mgL^{-1}	0.4 gL^{-1}	H_2O_2	1 h, 90%	3
MIL (53) Fe	TC-H	20 mgL^{-1}	0.16 gL^{-1}	-	100 min 95%	4
g-C_3N_4/K/OH/ Fe	TC	20 mgL^{-1}	0.5gL^{-1}	-	80 min, 63.7%	5
FeCNS	MB	10 mgL^{-1}	1 gL^{-1}	-	3 h	6
Fe-gC_3N_4	RhB	10 µM	0.5 gL^{-1}	H_2O_2	9 h	7
CNNSs/MIL88B	MB	10 mgL^{-1}	0.4 gL^{-1}	-	120 min,	8

(Fe)					98%	
Fe-SN	RhB	12 mgL^{-1}	0.5 gL^{-1}	-	50 min, 95%	[9]
Fe-EDTA/g-C_3N_4	TC	40 mgL^{-1}	0.5 gL^{-1}	-	45 min, 90%	Present work
Fe-EDTA/g-C_3N_4	RhB	80 mgL^{-1}	0.5 gL^{-1}	-	45 min, 99.7%	Present work

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