Electronic Supplementary Material (ESI) for Environmental Science: Water Research & Technology. This journal is © The Royal Society of Chemistry 2021

Supplementary materials

Synthesis of novel $FeS_2/g-C_3N_4$ nanocomposites for the removal of tetracycline under visible-light irradiation

Shengwang Gao ^{a,b&}, Yang Liu ^{a,b,c&}, Jianchao Zhu ^{a,b}, Yaqiao Wang ^d, Xue Han ^d,

Xunfeng Xia ^{a,b*}, Xiang Zhao ^{a,b}

^a State Key Laboratory of Environmental Criteria and Risk Assessment, Chinese Research Academy of Environmental Sciences, Beijing 100012, PR China.

^b State Environmental Protection Key Laboratory of Simulation and Control of Groundwater Pollution, Chinese Research Academy of Environmental Sciences, Beijing, 100012, PR China.

^c Faculty of Civil Engineering and Architectural, Kunming University of Science and Technology, Kunming 650500, China

^d College of Environmental Science and Engineering, Taiyuan University of Technology, Taiyuan 030024, PR China

[&] These authors contributed equally to this work.

* Corresponding author. Tel: +86-10-84915289; Fax: +86-10-84915289, E-mail: xiaxunfengg@sina.com

Fig. S1. EIS changes of $g-C_3N_4$ and 20%-FC.

Fig. S2. (a) The effect of photocatalyst dosages and (b) the kinetic constants for TC removal in the presence of 20%-FC.

Fig. S3. (a) The effect of pH and (b) the kinetic constants for TC removal in the presence of 20%-FC.

Table S1. The S_{BET} , average pore diameter of FeS_2 and as-prepared samples.



Fig. S1. EIS changes of $g-C_3N_4$ and 20%-FC.



Fig. S2. (a) The effect of photocatalyst dosages and (b) the kinetic constants for TC removal in the presence of 20%-FC.



Fig. S3. (a) The effect of pH and (b) the kinetic constants for TC removal in the presence of 20%-FC.

Samples	$S_{BET}\left(m^{2}/g ight)$ a	Pore diameter (nm)	Pore	volume
			(cm^3/g)	
FeS ₂	2.61	14.11	0.0065	
g-C ₃ N ₄	53.65	15.29	0.1030	
10%-FC	34.47	15.87	0.0684	
20%-FC	69.20	14.84	0.2143	
30%-FC	34.26	13.10	0.0893	
40%-FC	31.27	13.01	0.0827	

Table S1. The $S_{\text{BET}},$ average pore diameter of FeS_2 and as-prepared samples.

a: The specific surface area was determined by the multipoint BET method.