Supplementary Material

Degradation of norfloxacin by sulfate radical-based visible light-Fenton by copper-doped Bi2WO6

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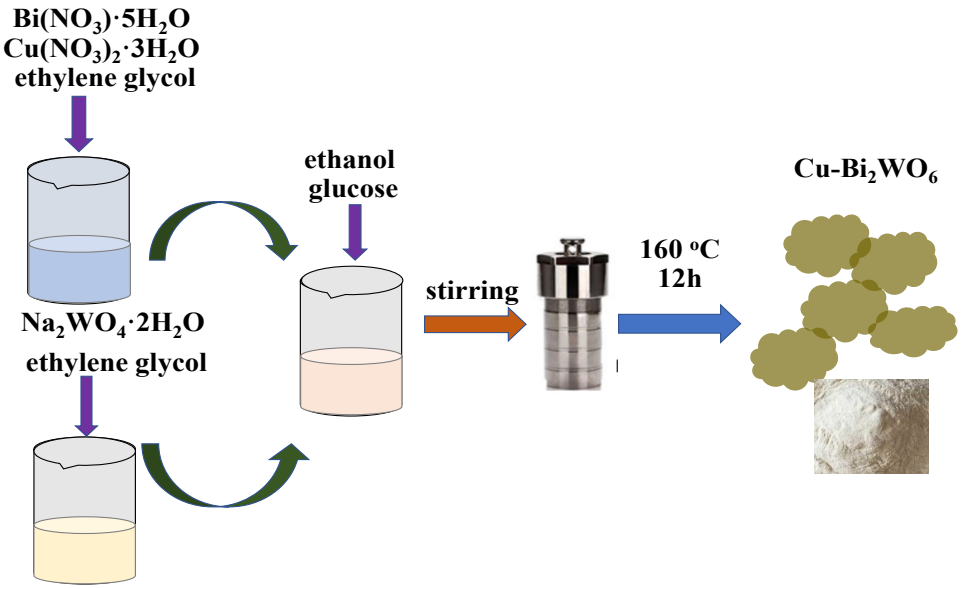

Figure S1 Schematic diagram of Cu-Bi_2WO_6 synthesis process.

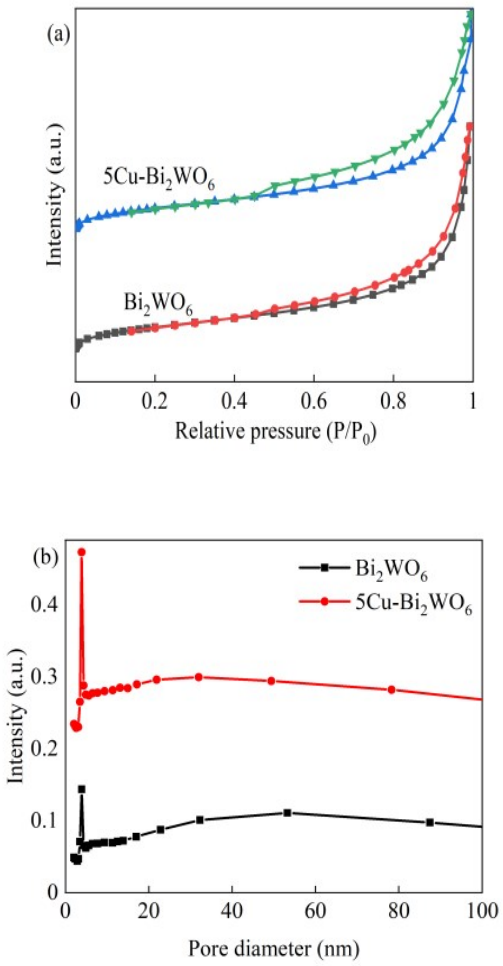

Figure S2 (a) N_2 adsorption–desorption isotherms and (b) pore size distribution of Bi_2WO_6 and 5Cu-Bi_2WO_6.

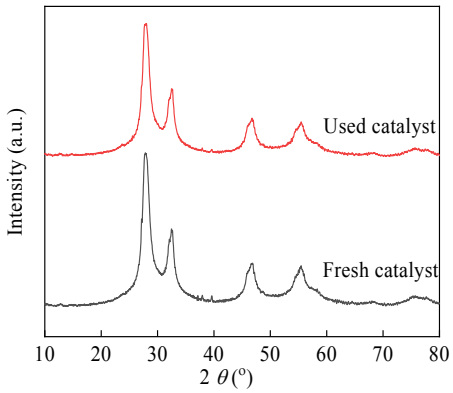

Figure S3 XRD spectra of 5Cu-Bi_2WO_6 before and after reaction.

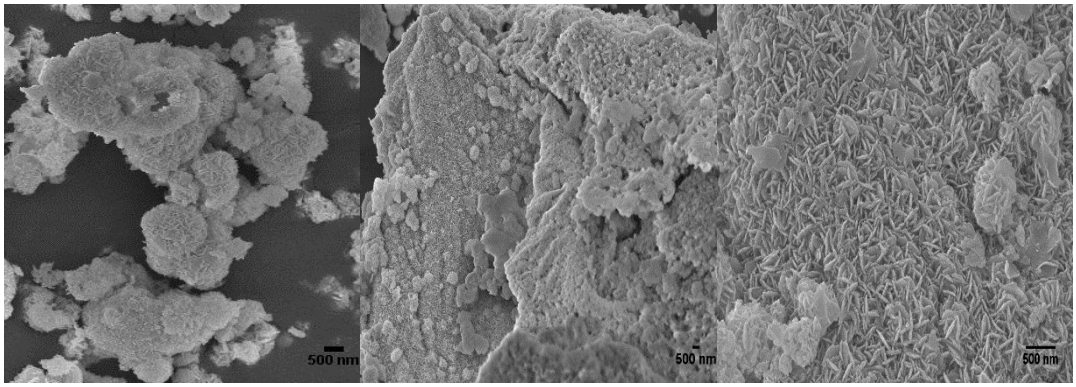

Figure S4 SEM images of 5Cu-Bi_2WO_6 after reaction.

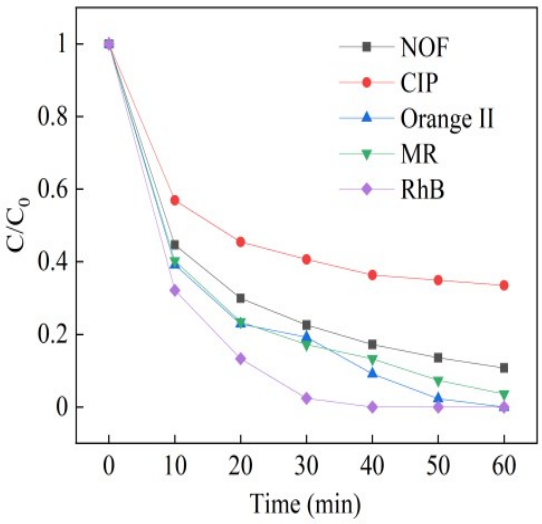

Figure S5 Degradation of different contaminant by 5Cu-Bi_2WO_6.

Table S1 Studies on of photocatalysts in the catalyst/PMS/PS/Vis reactions

No.	Systems	Light source	Target pollutant	Reaction time and efficiency	Operation parameters
1	PMS/$CuBi_2O_4$/VL	300W xenon lamp	TC 50 mg/L	Nearly complete removal 60 min	[PMS]= 0.125 mg/mL [catalyst]=0.5 g/L
2	PMS/Co-$BiVO_4$/VL	xenon lamp	Tetracycline hydrochloride 40 mg/L	Nearly complete removal 25 min	[PMS]= 5 mM [catalyst]=0.2 g/L
3	MIL-53(Fe)/PS/VL	300W xenon lamp	tetracycline hydrochloride 300 mg/L	99.6% TC 60 min	[PMS]= 8 mM [catalyst]=0.2 g/L
4	solar/MOFs@COFs/PS	500 W Xenon lamp	bisphenol A 50 mg/L	82% 120 min	[PMS]= 0.5g /L [catalyst]=0.25 g/L
5	Vis/TiO_2/PMS	300 W Xenon lamp	Perfluorooctanoic 50 mg/L	100% 9 h	[PMS]= 0.75 g L^{-1} [TiO_2] = 0.25 g L−1
6	Vis/Fe(II)/V(IV) self-doped $FeVO_4$/PMS	300 W Xenon lamp	Sulfamethoxazole 0.02 mM	96.6% 60 min	[catalyst] = 0.5 g L^{-1}, [PMS] = 0.406 mM
7	Vis/MoS_2/Ag/g-C_3N_4/PMS	300 W Xenon lamp	Tetracycline 20 mg/L	79.7% 50 min	[PMS]= 0.1 mM [catalyst]=0.2 g/L
8	Vis/ Fe/C_3N_4/PS	350 W Xenon lamp	rhodamine B 20 mg/L	100% 40 min	[catalyst] = 400 ppm, [PS] = 3 mM pH = 3.5
This work	Cu-Bi_2WO_6+Vis+PMS	30 W LED lamp	Norfloxacin 20 mg/L	89.27% 60 min	[catalyst]=0.5 g/L [PS]=0.4 mM Neutral pH

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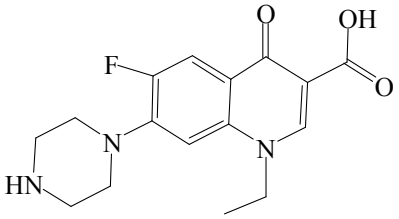
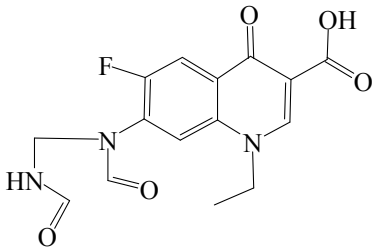
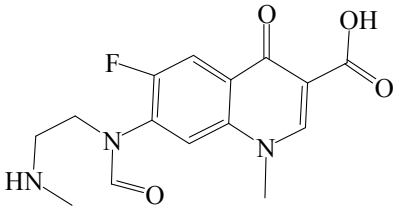
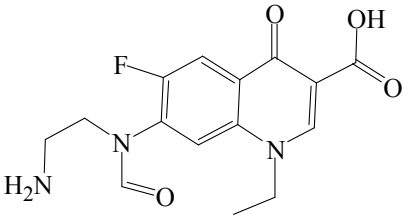
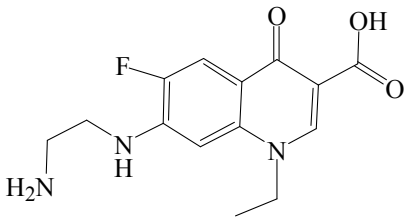
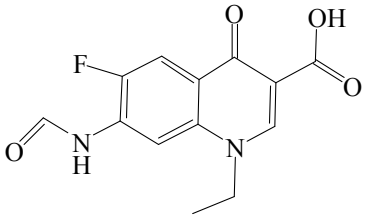
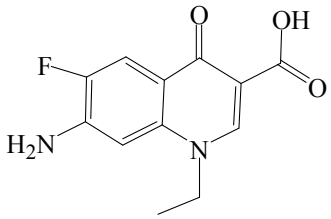
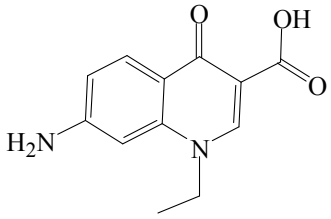
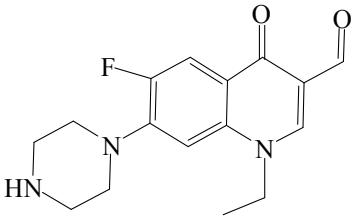
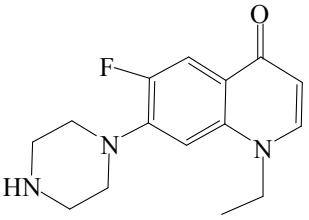
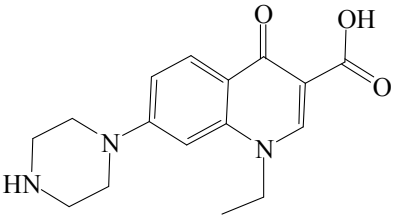
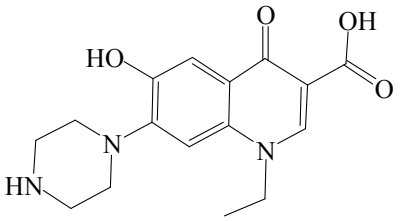
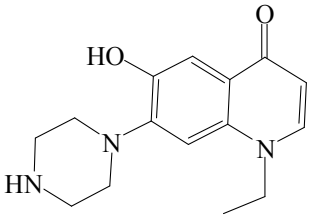
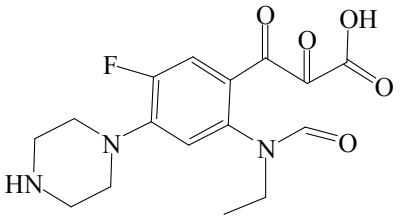
Table S2 Possible intermediates of NOF during the reaction

Name	m/z	Structure
NOF	m/z=320	
N1	m/z=350	
N2	m/z=336	
N3	m/z=322	

N4	m/z=294	
N5	m/z=279	
N6	m/z=251	
N7	m/z=233	
N8	m/z=304	
N9	m/z=276	
N10	m/z=302	

N11	m/z=318	
N12	m/z=274	
N13	m/z=352	
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