

Supporting Information

Synergetic effect of photocatalysis and peroxymonosulfate activated by MIL-53Fe@TiO₂ for efficient degradation of tetracycline hydrochloride under visible light irradiation

Di Li,^{*a} Hongmiao Li,^a MingYang Long,^a Xiaojuan Bai,^c Qianqian Zhao,^a Qi Wen^a and Fang
Song^b

^a School of Chemistry and Chemical Engineering, Xi'an University of Architecture and
Technology, Xi'an, 710055, China

^b Instrument Analysis Center, Xi'an University of Architecture and Technology,
Xi'an, 710055, China

^c School of Environment and Energy Engineering, Beijing University of Civil Engineering and
Architecture, Beijing, 102616, China

Table 1 A summary of photocatalysts for photocatalytic degradation of tetracycline hydrochloride.

Sample	Catalyst(mg)	TCH(mg • L ⁻¹)	Efficiency(%)	K value(min ⁻¹)	Light source	Ref.
TiO ₂ @Ag-CuO	30	30(30mL)	82.86(180min)	0.00984	500 W(Xe lamp)	11
Cu-TiO ₂	20	20(50mL)	90(240min)	0.00978	1000 W(Xe lamp)	12
BiPO ₄ /NH ₂ -MIL-53(Fe)	80	20(80mL)	80(120min)	0.0150	500 W halogen lamp	13
MIL-53Fe@TiO ₂	50	40(100mL)	71.9(60min)	0.12245	300W halogen lamp	This work

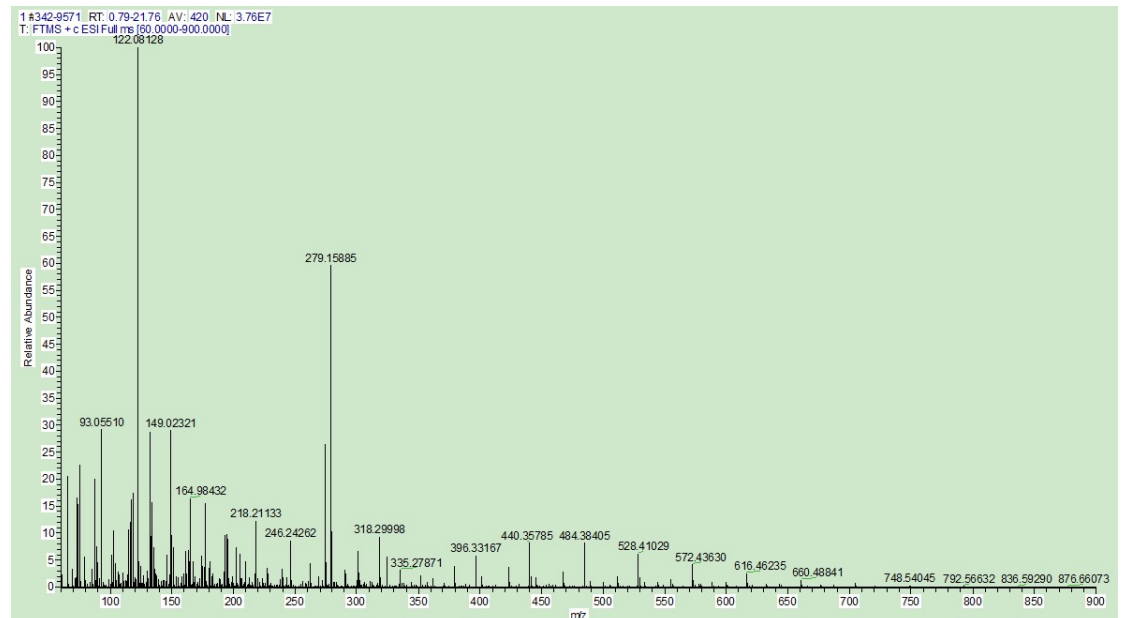
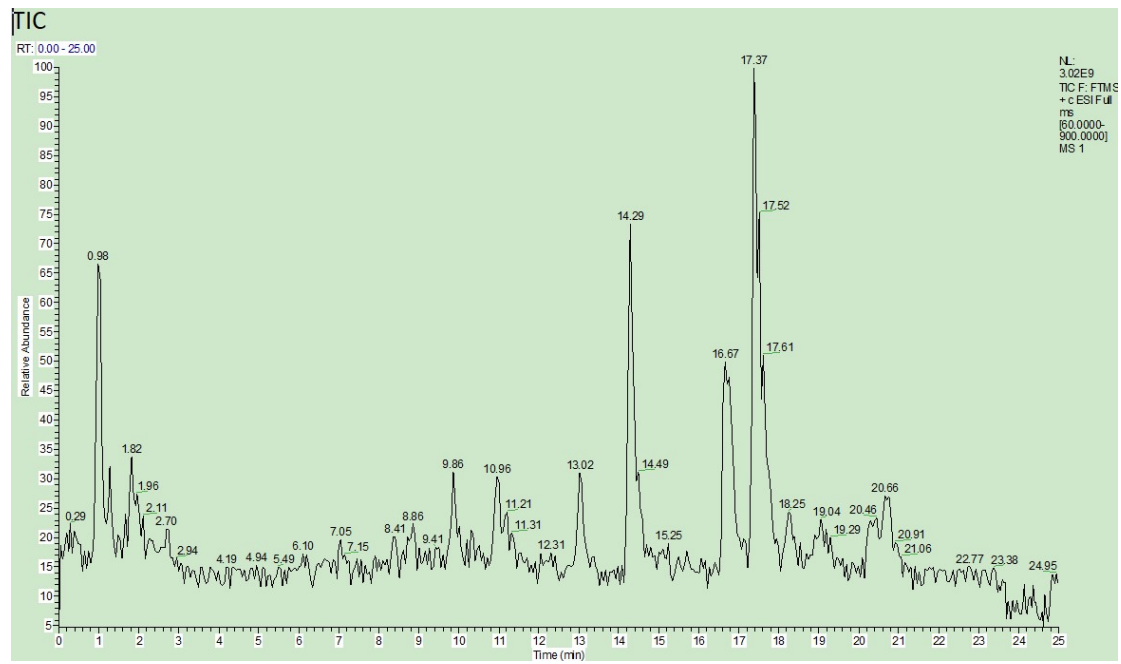


Fig. 1 UPLC–MS results of tetracycline hydrochloride degradation products [FT-2: 0.5 g L⁻¹; PMS: 2 mM; tetracycline hydrochloride: 40mg/L].