

Supplementary Material

Nitrogen–fluorine-codoped TiO₂/Zn based MOF binary composites for efficient removal of bisphenol A under visible light

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Table S1. Details of reagents

Reagent name	Purity	Manufacturer
Tetrabutyl titanate	Chemically Pure	Lingfeng Chemical Reagent Co., Ltd
Ethyl Alcohol	Analytical Reagent	Sinopharm Chemical Reagent Co., Ltd
Nitric acid	Analytical Reagent	Sinopharm Chemical Reagent Co., Ltd
Urea	Analytical Reagent	Lingfeng Chemical Reagent Co., Ltd
Ammonium fluoride	Analytical Reagent	Sinopharm Chemical Reagent Co., Ltd
Zinc nitrate hexahydrate	Analytical Reagent	Sinopharm Chemical Reagent Co., Ltd
2-Methylimidazole	98%	Aladdin Industrial Company
2,2-Di-(4-hydroxyphenyl)propane	Chemically Pure	Sinopharm Chemical Reagent Co., Ltd
Methanol absolute	Analytical Reagent/ HPLC	Sinopharm Chemical Reagent Co., Ltd

Table S2. Details of equipment and instruments

Name of equipments and instruments	model	Manufacturer
Electronic balance	BSA124-CW	Sartorius
Photochemical Reaction Apparatus	YM-GHX-V	Shanghai Yuming Instrument Co., Ltd.
Digital display electric mixer	JJ-1	Shanghai Lichen Technology Co., Ltd.
Magnetic stirrer	ZNCL-BS	Shanghai Lingke Industrial Development Co., Ltd.
Centrifuge	H1850	Hunan Xiangyi Laboratory Instrument Development Co., Ltd.
Electric heating blast drying oven	DHG-9076A	Shanghai Jinghong Experimental Equipment Co., Ltd.
Ultrasonic cleaner	KQ-400E	Kunshan Ultrasonic Instrument Co., Ltd.
Box type electric furnace	SX2-25-10	Shanghai Yuejin Medical Equipment Factory
Multi-parameter water	5B-6C(V8)	Lanzhou Lianhua

quality tester		Environmental Protection Technology Co., Ltd.
Transparency disk	/	Xiamen Dengxun Instrument Equipment Co., Ltd.
Portable turbidity meter	2100Q	HACH
Underwater illuminance meter	ZDS-10W	Shanghai Jiading Xuelian Instrument Factory
YSI	Pro20i	WeiSai

Table S3. Water quality of collected water samples

Water quality index	Value	Unit
Transparency	38	cm
Turbidity	33.9	NTU
Pressure	757.5	mmHg
DO	189.3	%
DO	14.98	mg/L
pH	8.63	/
ORP	169.9	mV
Illuminance (0.5m)	1029	/
COD	24.29	mg/L
Chl.a	20.07	µg/L

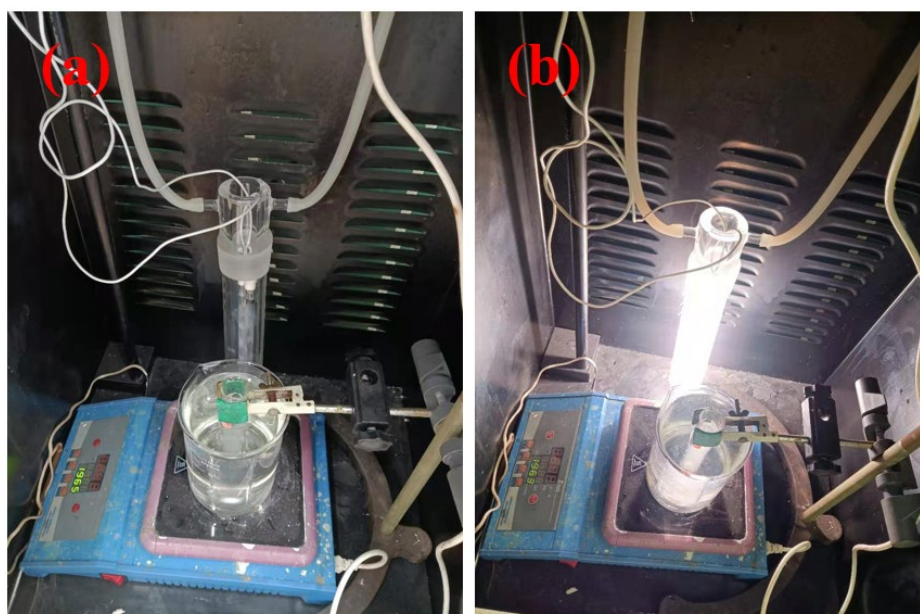


Fig. S1 (a) experimental setup before photocatalytic degradation (b) experimental setup during photocatalytic degradation

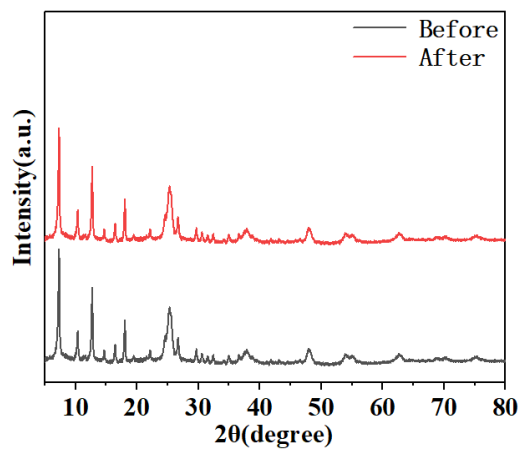


Fig. S2 XRD of N-F-TiO₂/ZIF-8 (7:3) before and after Re-Cycling experiments.

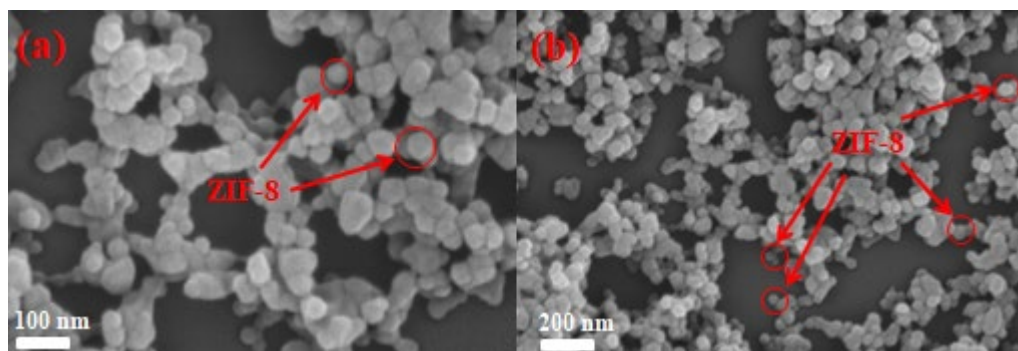


Fig. S3 (a-b) SEM images of N-F-TiO₂/ZIF-8 (7:3) after reaction.