Supporting Information

MOFs derived hetero-ZnO/Fe_2O_3 nanoflowers with enhanced photocatalytic performance towards efficient degradation of organic dyes

Fakhr uz Zaman, Bing Xie, Jinyang Zhang, Tianyu Gong, Kai Cui, Linrui Hou,* Jiali Xu, Zhirou Zhai, Changzhou Yuan*

School of Materials Science & Engineering, University of Jinan, Jinan 250022, P. R. China

*Corresponding authors: mse_houlr@ujn.edu.cn; houlr629@163.com (*Prof.* Hou). mse_yuancz@ujn.edu.cn (*Prof.* Yuan).

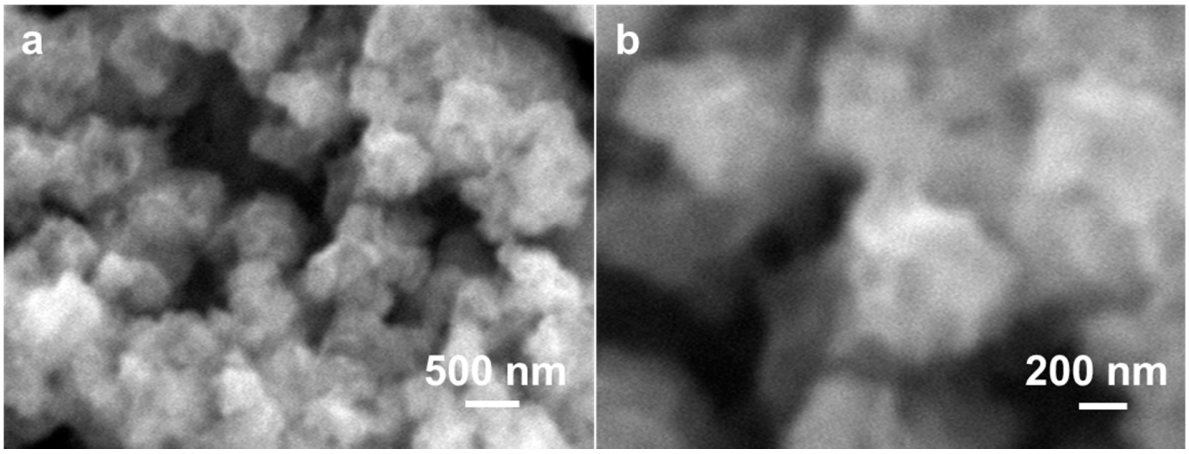

Figure S1. SEM of the sample before annealing for synthesizing ZnO /Fe_2O_3 NFs.

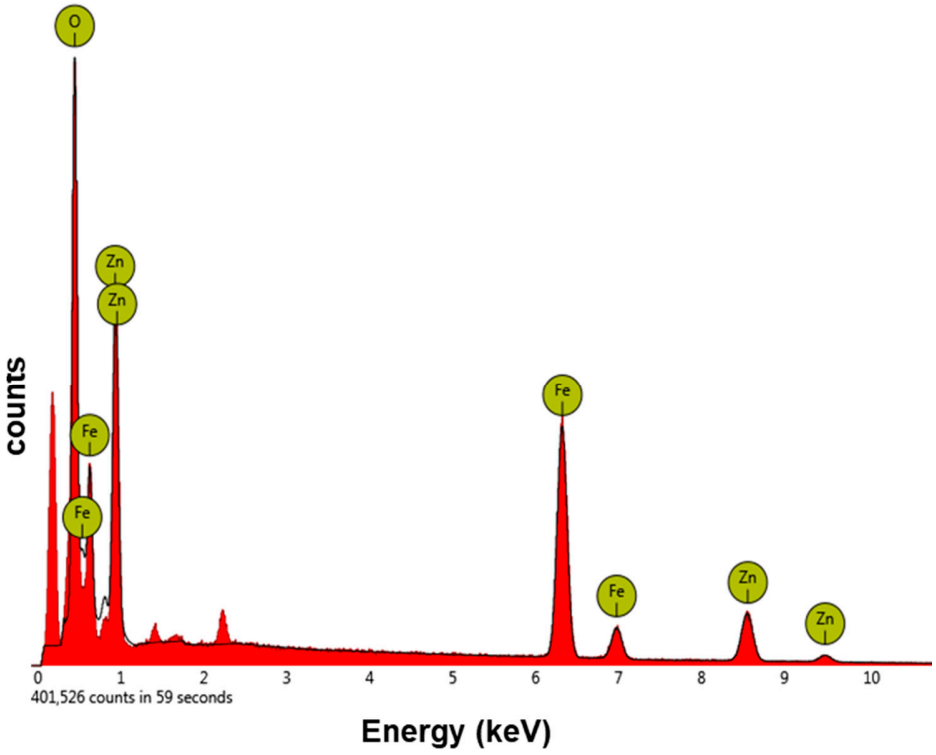

Figure S2. EDX spectrum of ZnO/Fe_2O_3 NFs.

Table S1 The elemental composition of Zn, O, and Fe in the ZnO/ Fe_2O_3 NFs.

Element Symbol	Element Name	Weight Conc.
O	Oxygen	30.88
Fe	Iron	42.01
Zn	Zinc	27.11

Table S2. Comparison in degradation efficiency of MB and MO dyes using the ZnO/Fe_2O_3 NFs as electrocatalyts with other catalysts.

composite	Light	Dyes		Irradiation time(min)	Percent Degradation	Ref
		MB	MO			
ZnO/Fe_2O_3	UV	/	MO	140 min	70%	1
ZnO/Fe_2O_3	Visible	MB	MO	50 and 80 min	95 and 82.5%	2
ZnO-modified g-C_3N_4	200W	MB	/	120 min	90%	3
ZnO/MOS_2	UV-vis	MB	/	80 min	81%	4
Cu-ZnO/S-gC_3N_4	UV	MB	/	90 min	93%	5
Ag/ZnO	UV	MB	/	60 min	60%	6
ZnO/Cu_2O	UV	/	MO	180 min	73%	7
ZnO/SnO_2	UV	/	MO	100 min	56%	8
ZnO/Eu	Sun	/	MO	150 min	62%	9
Graphene/ZnO	Sun	/	MO	360 min	96%	10
ZnO/Fe_2O_3 NFs	UV	MB	MO	90 and 150 min	100 and 96%	This work

Table S3 Values of *k* for MB and MO dyes using different photocatalysts

Dyes	**Sample**	**ZnO**	**Fe_2O_3**	**ZnO/Fe_2O_3**
MB	k $(min)^{-1}$	0.0109	0.015	0.034
MO	k $(min)^{-1}$	0.006	0.0095	0.024

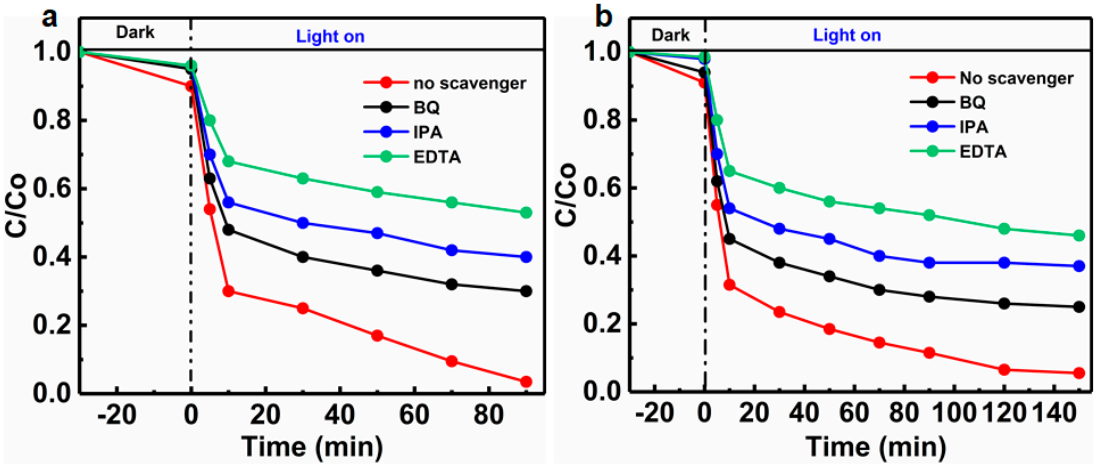

Figure S3. Active species trapping experiments using the ZnO/Fe_2O_3 NFs as the photocatalyst under UV light irradiation: (a) MB (1 mg L^{-1}) and (b) MO (1 mg L^{-1}).

References

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