Supporting Information

Construction of Bi_2MoO_6/CoO_x/Au system with dual-channel charge transfer path for enhanced tetracycline degradation

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Photocatalyst	Concentration (TC, mg/L)	Dosage (g/L)	Time (min)	Removal (%)	Rate (min^{-1})	Light Source	Ref.
$CuBi_2O_4/Bi_2MoO_6$	20	0.3	60	72.8	0.02142	300W XL ($\lambda \geq$ 420 nm)	[1]
WO_3/Bi_2MoO_6	20	0.6	180	85.9	0.0089	500W XL ($\lambda \geq$ 400nm)	[2]
$CuInS_2/Bi_2MoO_6$	15	0.6	120	84.7	0.015	300W XL ($\lambda \geq$ 420 nm)	[3]
$Gd/Pt\text{-}Bi_2MoO_6$	20	1	90	77.6	——	400W XL ($\lambda \geq$ 420 nm)	[4]
$N\text{-}GNDs/Ag/BiVO_4$	20	0.5	80	85.4	0.02433	300W XL ($\lambda \geq$ 420 nm)	[5]
$CDs/g\text{-}C_3N_4/MoO_3$	20	0.6	90	88.4	0.0231	350W XL ($\lambda \geq$ 420 nm)	[6]
$Ag/g\text{-}C_3N_4/Bi_2WO_6$	15	0.5	60	81.4	0.02822	300W XL ($\lambda \geq$ 420 nm)	[7]
$Bi_2WO_6/C@Cu_2O$	10	0.4	180	88	0.0105	300W XL ($\lambda \geq$ 420 nm)	[8]
$BMO/CoO_x/1.5Au$	**10**	**0.2**	**25**	**73.5**	**0.0607**	**300W XL ($\lambda \geq$ 420nm)**	**Our work**

Table. S1. Comparison of pollutant degradation studies with our work.

Table. S2. Fitted parameters from time-resolved PL spectra of BMO, BMO/CoO_x, BMO/1.5Au, and BMO/CoO_x/1.5Au.

Samples	τ_1 (ns)	A_1 (%)	τ_2 (ns)	A_2 (%)	τ_{avg} (ns)
BMO	0.41	29.64	1.48	70.36	1.37
BMO/CoO_x	1.47	79.79	4.86	20.21	3.02
BMO/1.5Au	0.54	35.61	1.83	64.39	1.65
BMO/CoO_x/1.5Au	1.68	36.27	5.63	63.73	5.06

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