Supplementary Information

In situ growth of copper(II) phthalocyanine sensitizing electrospun CeO_2/Bi_2MoO_6 nanofibers: a highly efficient photoelectrocatalyst towards degradation of tetracycline

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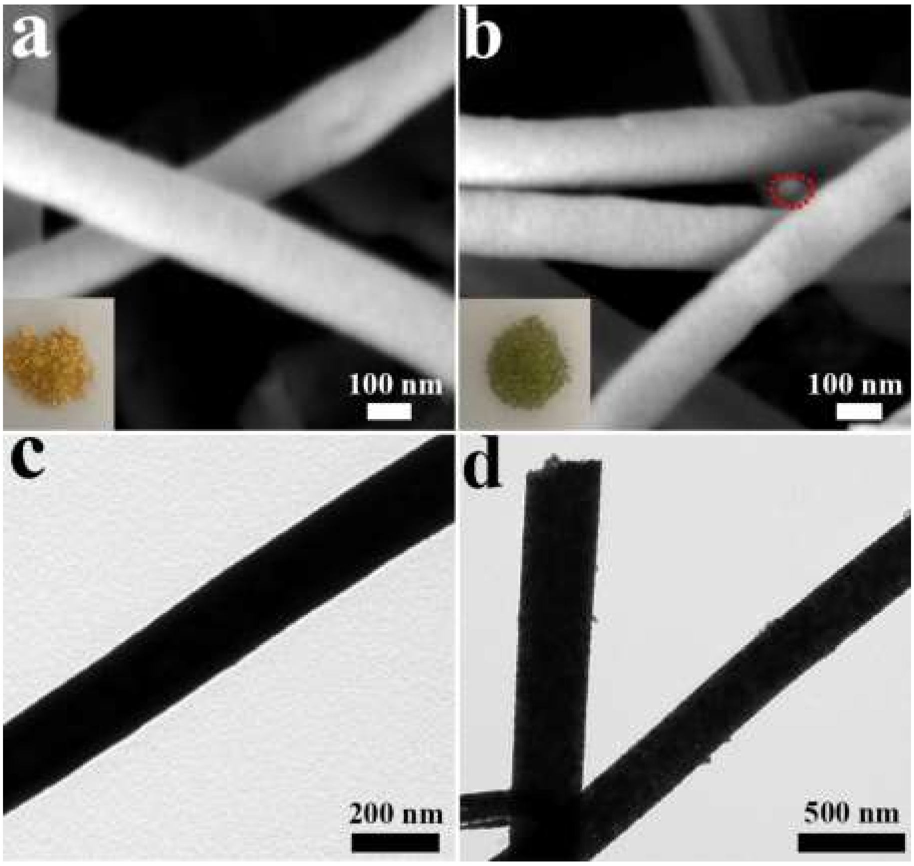

Fig. S1 SEM images of (a) original CeO_2/Bi_2MoO_6 nanofibers, and (b) TNCuPc-sensitized original CeO_2/Bi_2MoO_6 nanofibers. TEM images of (c) original CeO_2/Bi_2MoO_6 nanofibers, and (d) TNCuPc-sensitized original CeO_2/Bi_2MoO_6 nanofibers.

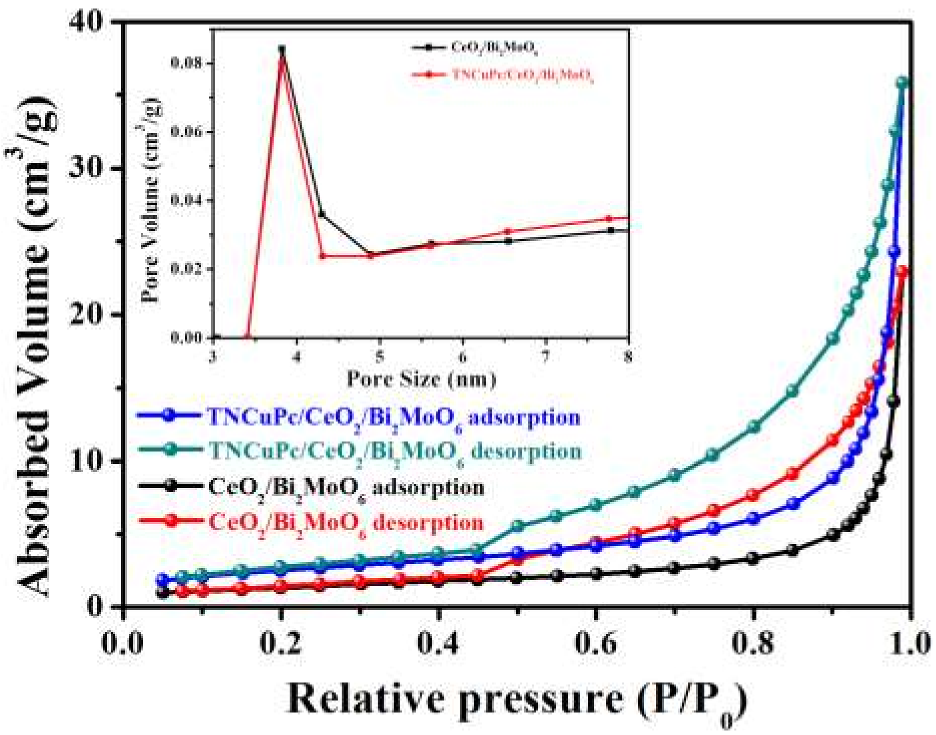

Fig. S2 Nitrogen adsorption–desorption isotherms and corresponding pore size distribution curves (inset) of CeO_2/Bi_2MoO_6 nanofibers and TNCuPc/CeO_2/Bi_2MoO_6 nanofibers.

As can be seen in Fig. S2, the nitrogen adsorption-desorption isotherms show type IV feature. The specific surface area of CeO_2/Bi_2MoO_6 nanofibers and TNCuPc/CeO_2/Bi_2MoO_6 nanofibers calculated by the multipoint Brunauer–Emmett–Teller (BET) method is 11.8 and 17.9 m^2/g, respectively.

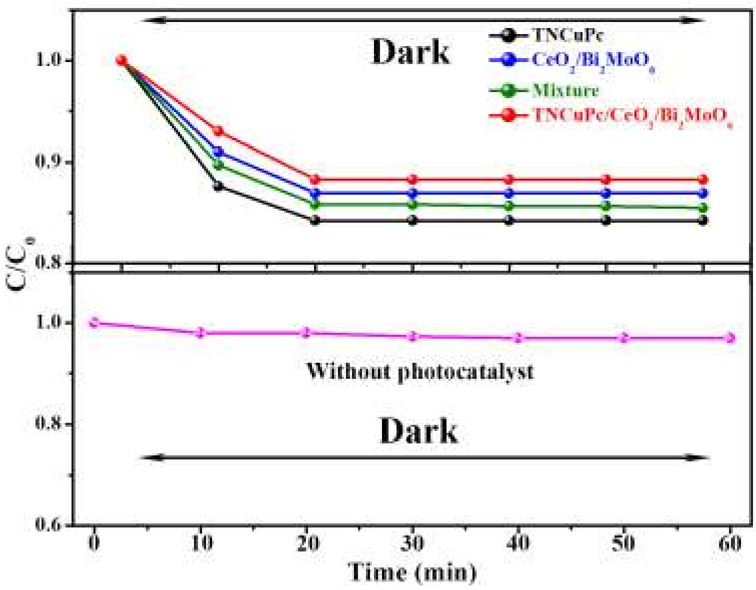

Fig. S3 Degradation curves of TC over different photocatalysts in darkness.

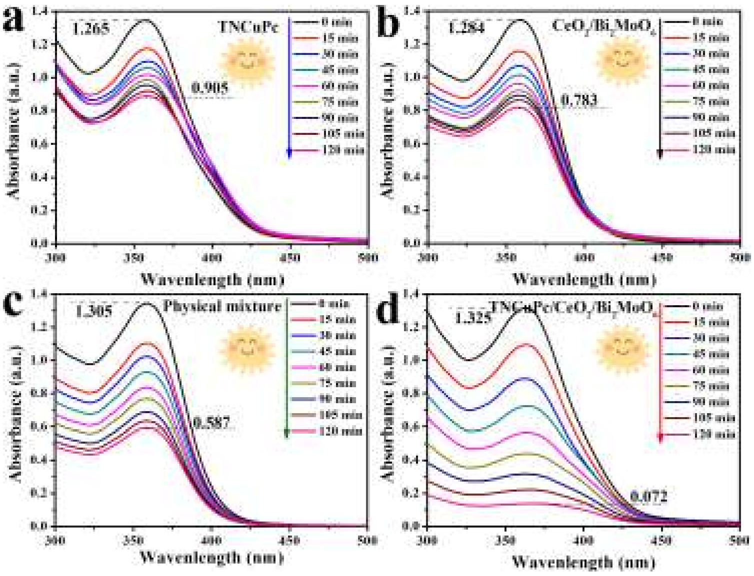

Fig. S4 Photocatalytic degradation of TC (50 mg/L) over different photocatalysts under simulated solar light irradiation.

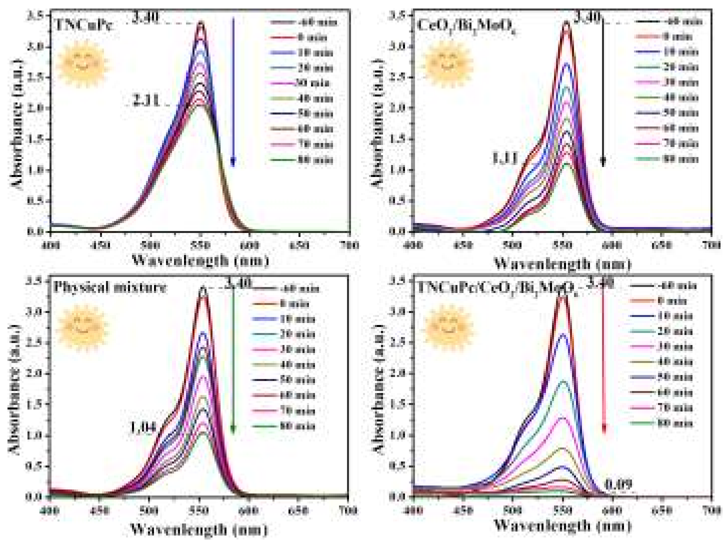

Fig. S5 Photocatalytic degradation of RhB (20 mg/L) over different photocatalysts under simulated solar light irradiation.

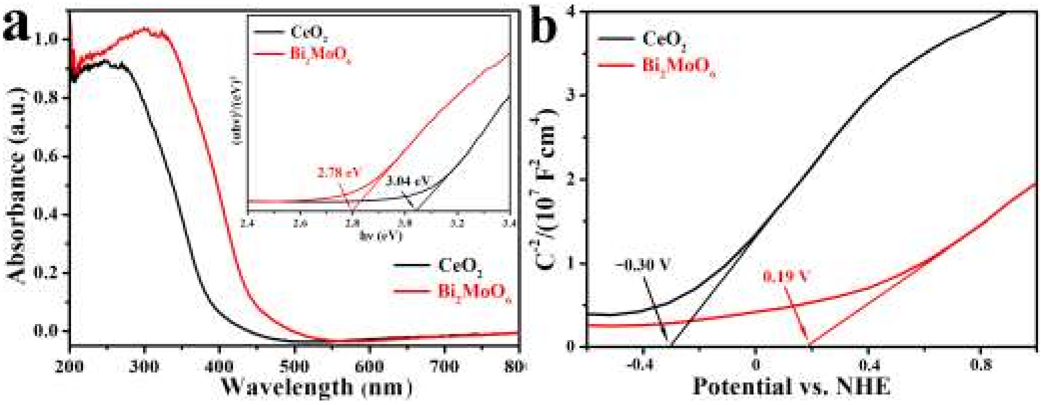

Fig. S6 (a) UV-vis diffuse reflectance spectra, and (b) Mott-Schottky plots at pH = 7 over CeO_2, and Bi_2MoO_6 nanofibers.

Table S1 Comparison of degradation rate of TC and RhB over different photocatalysts of TNCuPc, CeO_2/Bi_2MoO_6 nanofibers, physical mixture of TNCuPc with CeO_2/Bi_2MoO_6 (molar ratio is 11:100) and TNCuPc/CeO_2/Bi_2MoO_6 nanofibers.

Samples	Pollutants	Pollutants concentration (mg/L)	Irradiation time (min)	Degradation rate (%)
TNCuPc	TC	50	120	28.4
CeO_2/Bi_2MoO_6	TC	50	120	39.0
Physical mixture	TC	50	120	55.6
TNCuPc/CeO_2/Bi_2MoO_6	**TC**	**50**	**120**	**94.6**
TNCuPc	RhB	20	80	37.9
CeO_2/Bi_2MoO_6	RhB	20	80	67.3
Physical mixture	RhB	20	80	69.4
TNCuPc/CeO_2/Bi_2MoO_6	**RhB**	**20**	**80**	**97.3**

Table S2 Comparison of irradiation time and degration rate for the degration of different pollutants over Bi_2MoO_6-based nanomaterials.

Photocatalysts	**Pollutants**	**Pollutants concentration (mg/L)**	**Degradation rate (%)**	**Irradiation time (min)**	**Reference**
$CuAl_2O_4/Bi_2MoO_6$	RhB	10	98.6	90	1
$g\text{-}C_3N_4/Bi_2MoO_6$	RhB	10	98	70	2
Ta_3N_5/Bi_2MoO_6	RhB	5	99.5	60	3
Bi_2S_3/Bi_2MoO_6	RhB	10	100	60	4
Bi_2S_3/Bi_2MoO_6	4-CP	5	98.7	90	4
WS_2/Bi_2MoO_6	RhB	10	98	90	5
WS_2/Bi_2MoO_6	CIP	10	76	90	5
B doped Bi_2MoO_6	RhB	5	89	50	6
Te doped Bi_2MoO_6	MB	10	97.5	150	7
In_2O_3/Bi_2MoO_6	4-NP	20	95.9	240	8
TNCuPc/CeO_2/Bi_2MoO_6	**TC**	**50**	**94.6**	**120**	**Our work**
TNCuPc/CeO_2/Bi_2MoO_6	**RhB**	**20**	**97.3**	**80**	**Our work**

Supplementary references

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