Electronic Supplementary Information

Electrospun CuAl$_2$O$_4$ hollow nanofibers as visible light photocatalyst with enhanced activity and excellent stability under acid and alkali conditions

Jian Zhang, Changlu Shao,* Xinghua Li,* Jiayu Xin, Shu Yang, Yichun Liu *

*Center for Advanced Optoelectronic Functional Materials Research, Key Laboratory of UV-Emitting Materials and Technology (Northeast Normal University), Ministry of Education, 5268 Renmin Street, Changchun 130024, People’s Republic of China

Corresponding Authors

*Email: clshao@nenu.edu.cn; Tel. 8643185098803.
*Email: lixh781@nenu.edu.cn; Tel. 8643185098803.
Fig. S1 TG-DSC curves of thermal decomposition of pure PVP NFs (A) and PVP/Cu(NO$_3$)$_2$/Al(NO$_3$)$_3$ composite NFs (B) at the heating rate of 10 °C/min in air.
Fig.S2 FT-IR spectra of PVP/Cu(NO$_3$)$_2$/Al(NO$_3$)$_3$ composite nanofibers and S6-S9.
Fig. S3 Nitrogen adsorption-desorption isotherms (A) and pore size distribution (B) of S6 - S9.
Fig. S4 Absorption of RhB and MO solution with the samples in the dark.
Fig. S5 XPS valence band spectrum of as-prepared CuAl$_2$O$_4$ HNFs (S8). The insert is the enlarged spectrum from the region noted by dotted box.
Fig. S6 TEM image (A) and XRD pattern (B) of S8 after photodegradation of MO.