

## Supplementary Material

### **Flexible core-shell difunctional nanoreactor CsPbBr<sub>3</sub>@Bi<sub>2</sub>MoO<sub>6</sub>-CuS/PAN for real-time monitoring photocatalysis**

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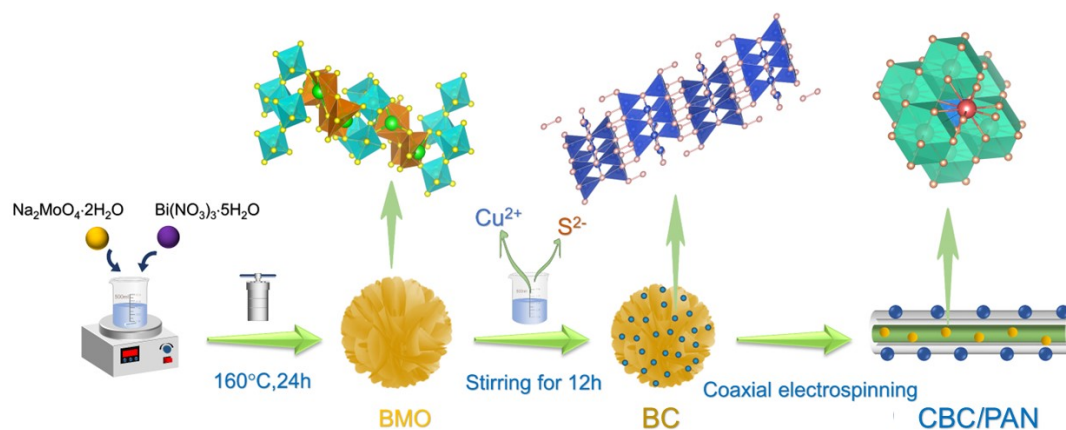
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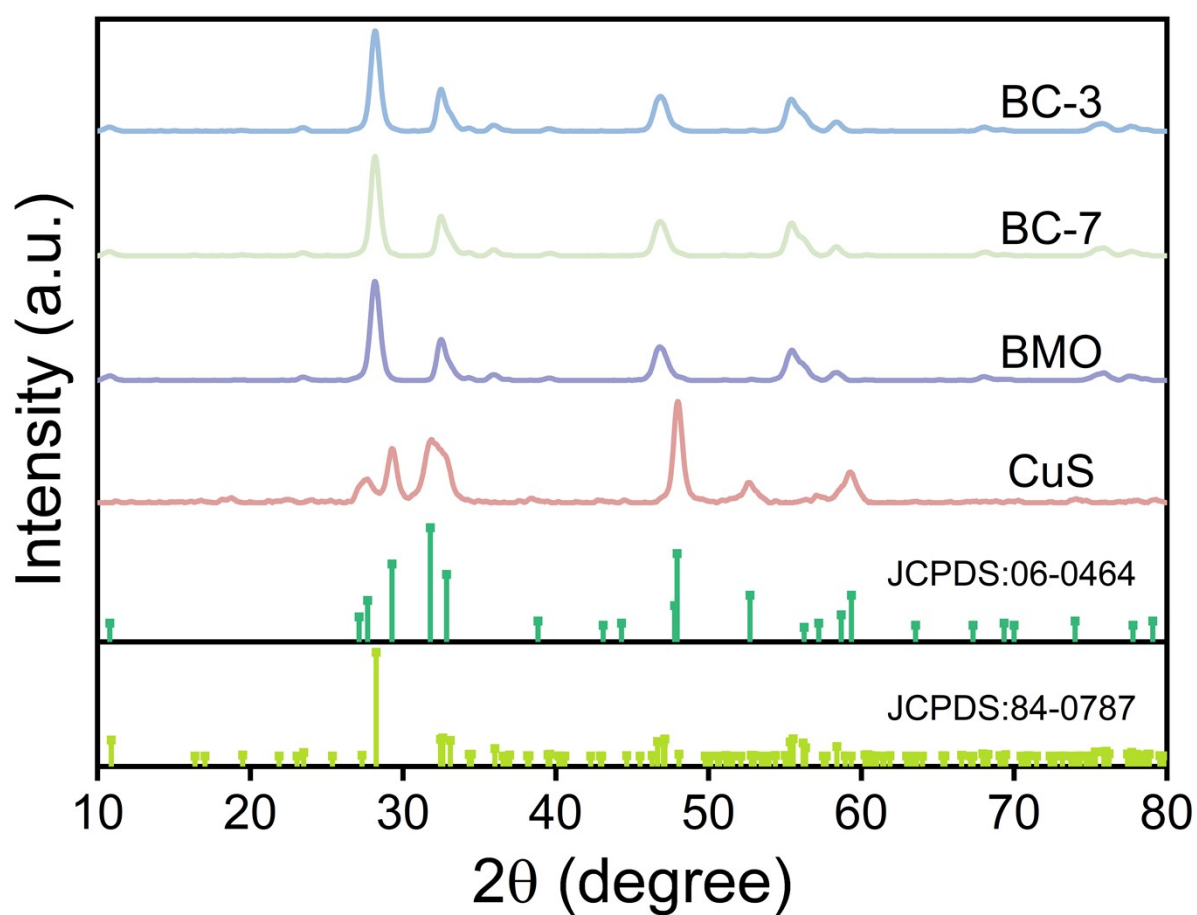
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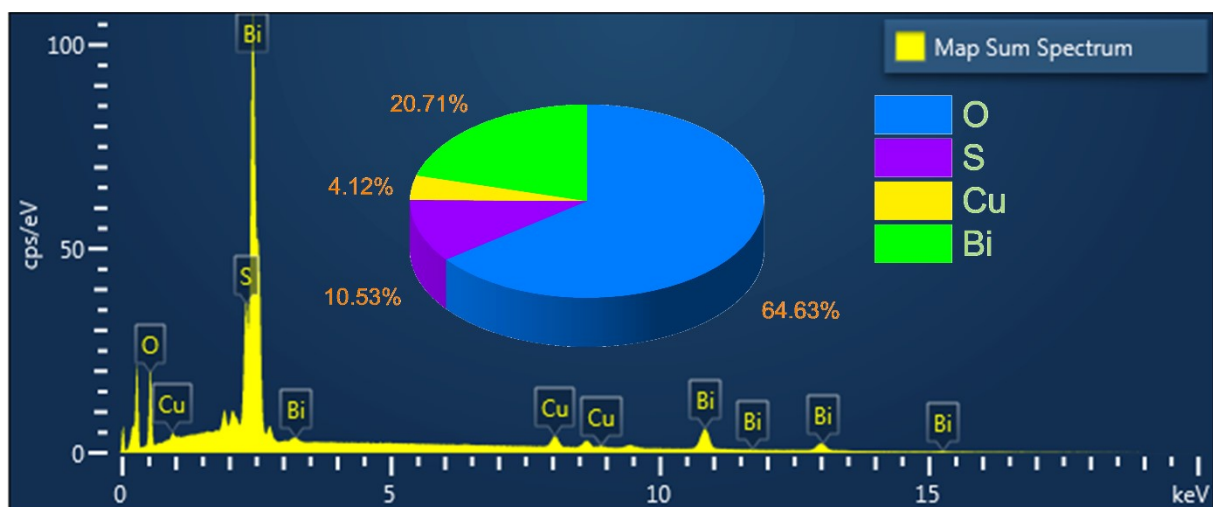
<sup>†</sup> These authors contributed equally to this work.



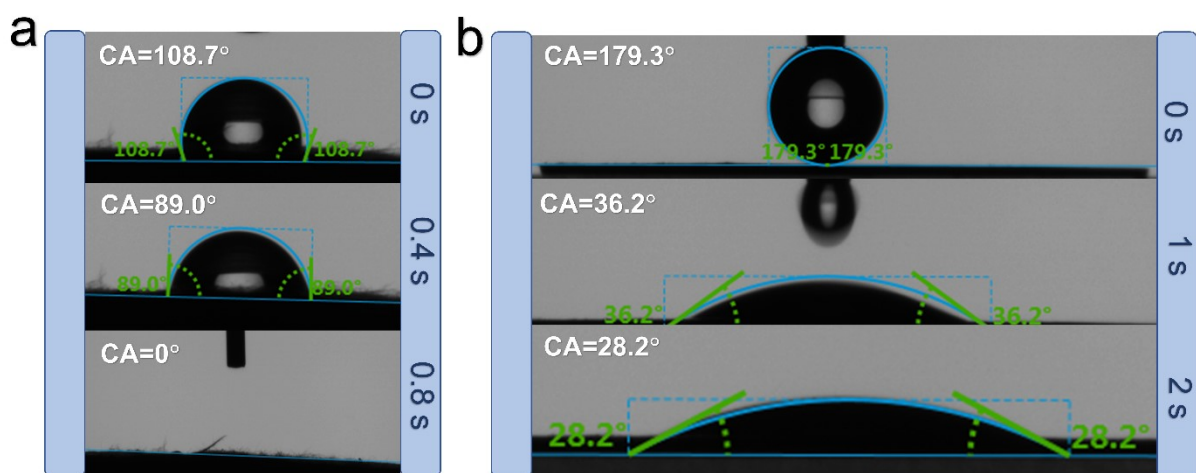
**Fig. S1** The preparation process of CPB@CuS/BMO.



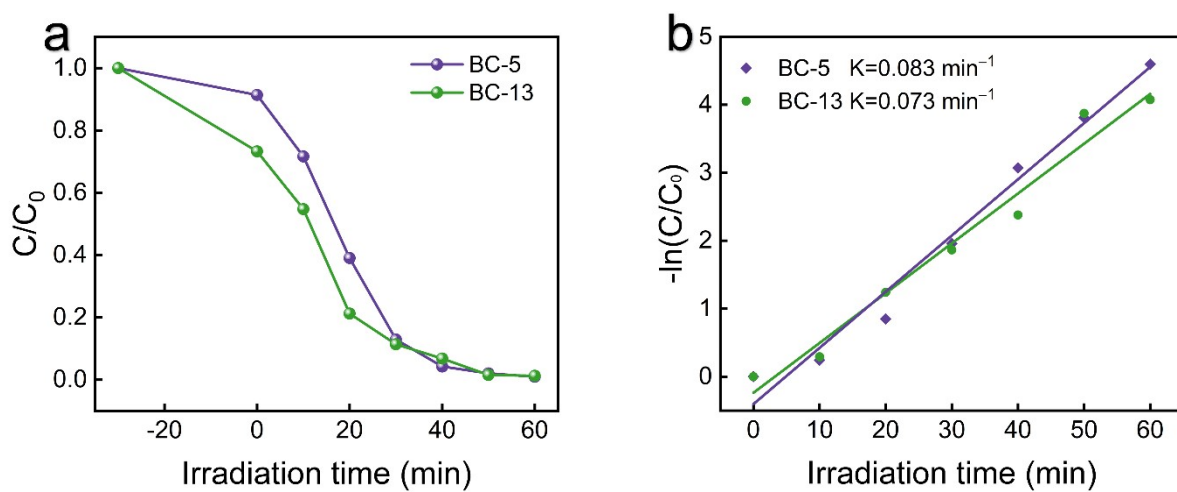
**Fig. S2** XRD patterns of BC-3, BC-7, BMO, CuS.



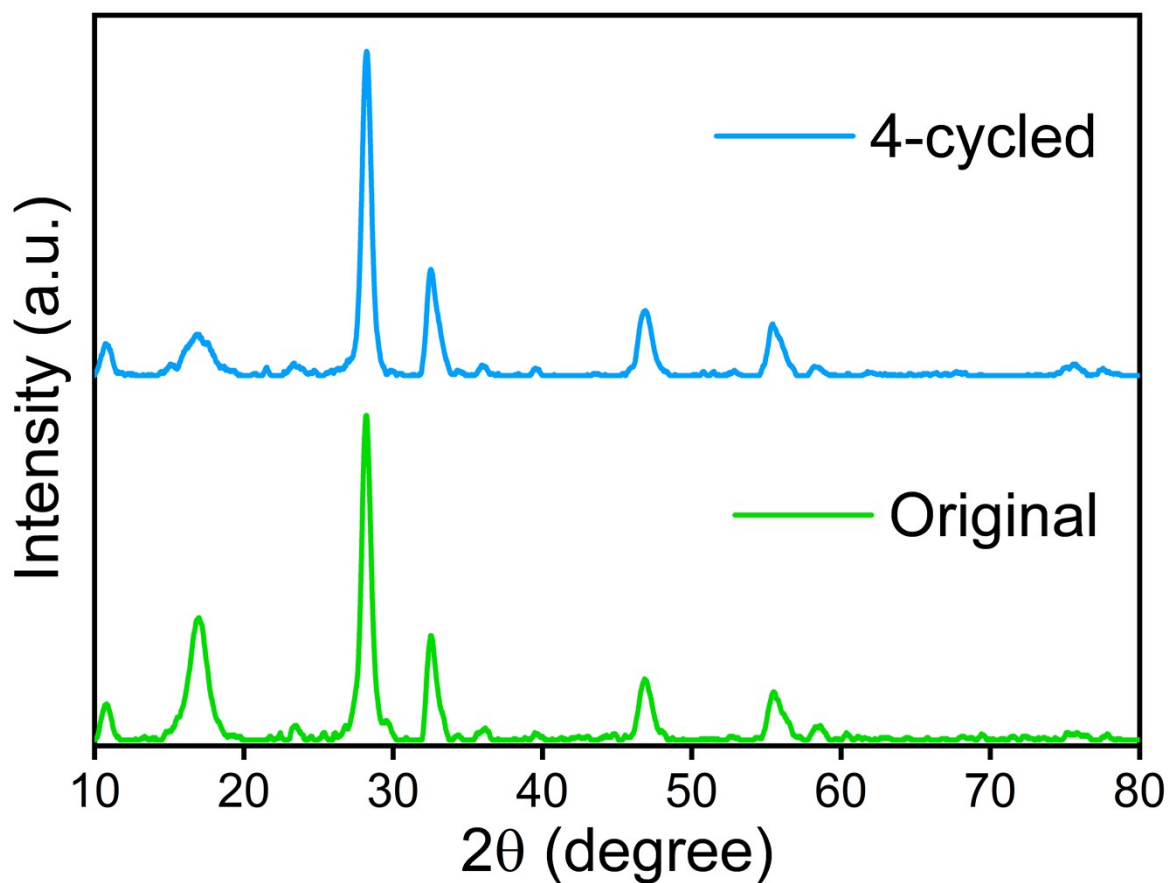
**Fig. S3** Corresponding elemental mapping images of BC-5.



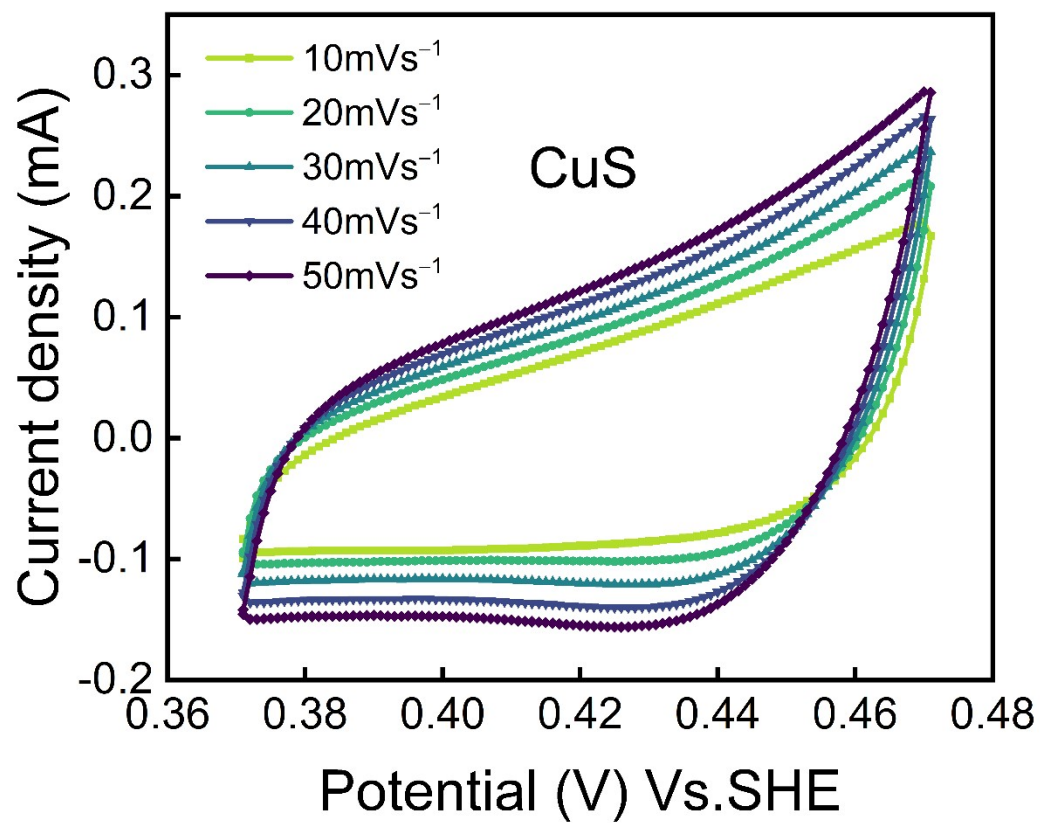
**Fig. S4** Contact angle (CA) of (a) CCB fiber and (b) BC-5 for water.



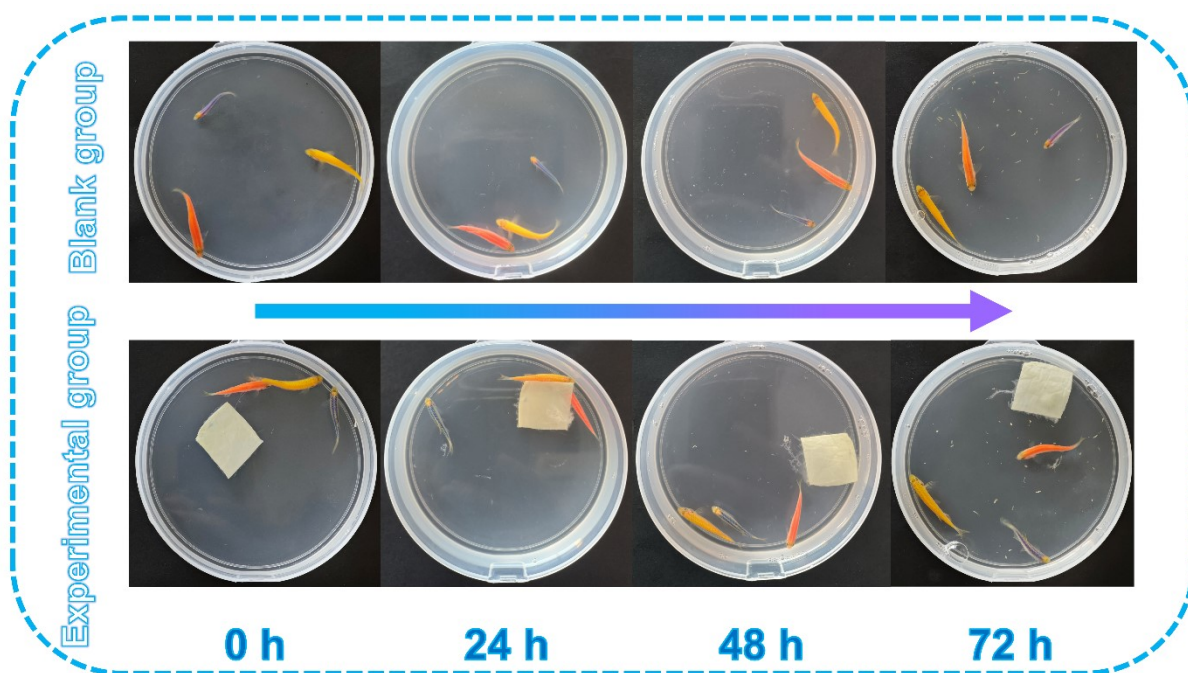
**Fig. S5** (a) Photocatalytic degradation curves of RhB by BC-5 and BC-13 under simulated sunlight irradiation. (b) First-order kinetic fitting curves of RhB by BC-5 and BC-13.



**Fig. S6** XRD patterns of CCB fiber before and after photocatalysis.



**Fig. S7** CV plots of CuS.



**Fig. S8** Digital photographs of zebrafish co-cultured with CBC/PAN fiber in water for 72 h  
(recorded every 24 h).