

Fig. S1. EDS point scan energy spectrum of BWO/BOB/1-RGO.

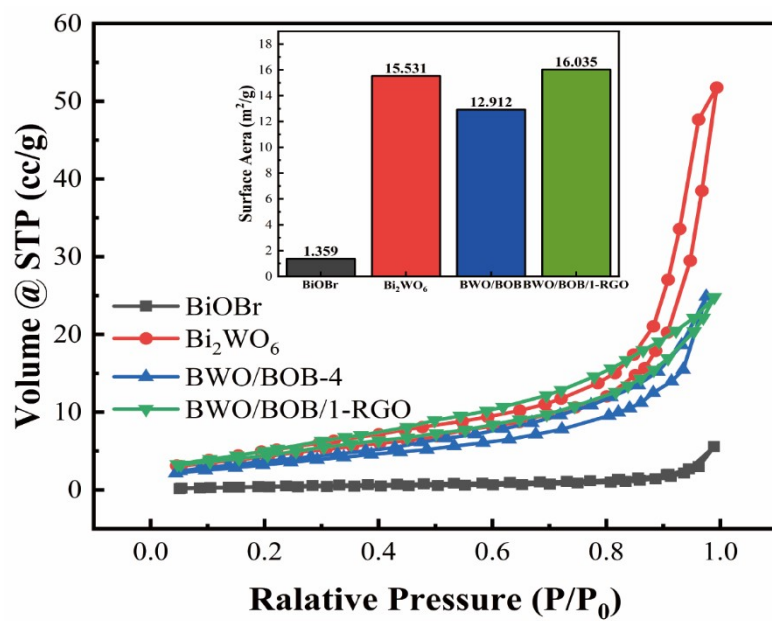


Fig. S2. N<sub>2</sub> adsorption-desorption isotherms and their specific surface areas of BiOBr, Bi<sub>2</sub>WO<sub>6</sub>, BWO/BOB-4 and BWO/BOB/1-RGO.

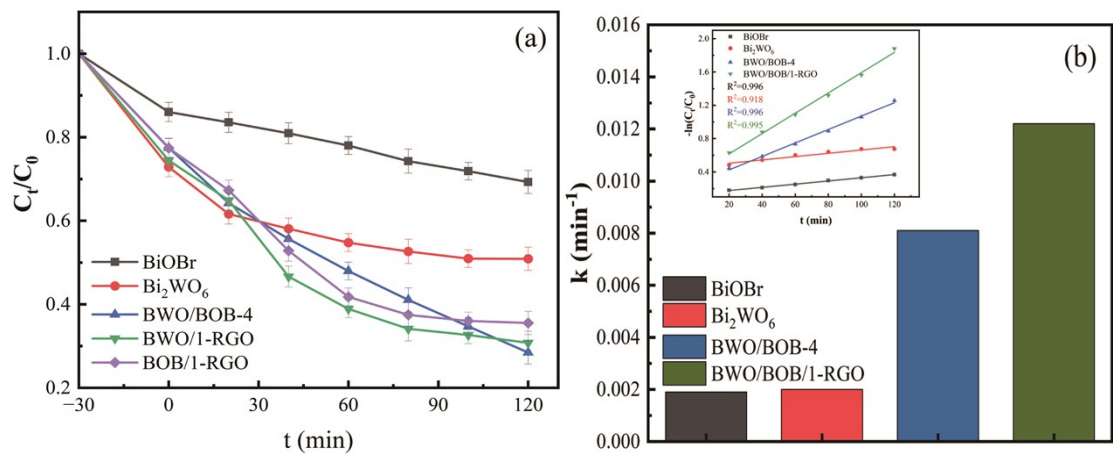


Fig. S3. (a) Comparison of degradation time curves between different binary catalysts and  $\text{Bi}_2\text{WO}_6$  and BiOBr; (b) pseudo-first-order kinetic fitting curve of BiOBr,  $\text{Bi}_2\text{WO}_6$ , BWO/BOB-4 and BWO/BOB/1-RGO and reaction rate constant.

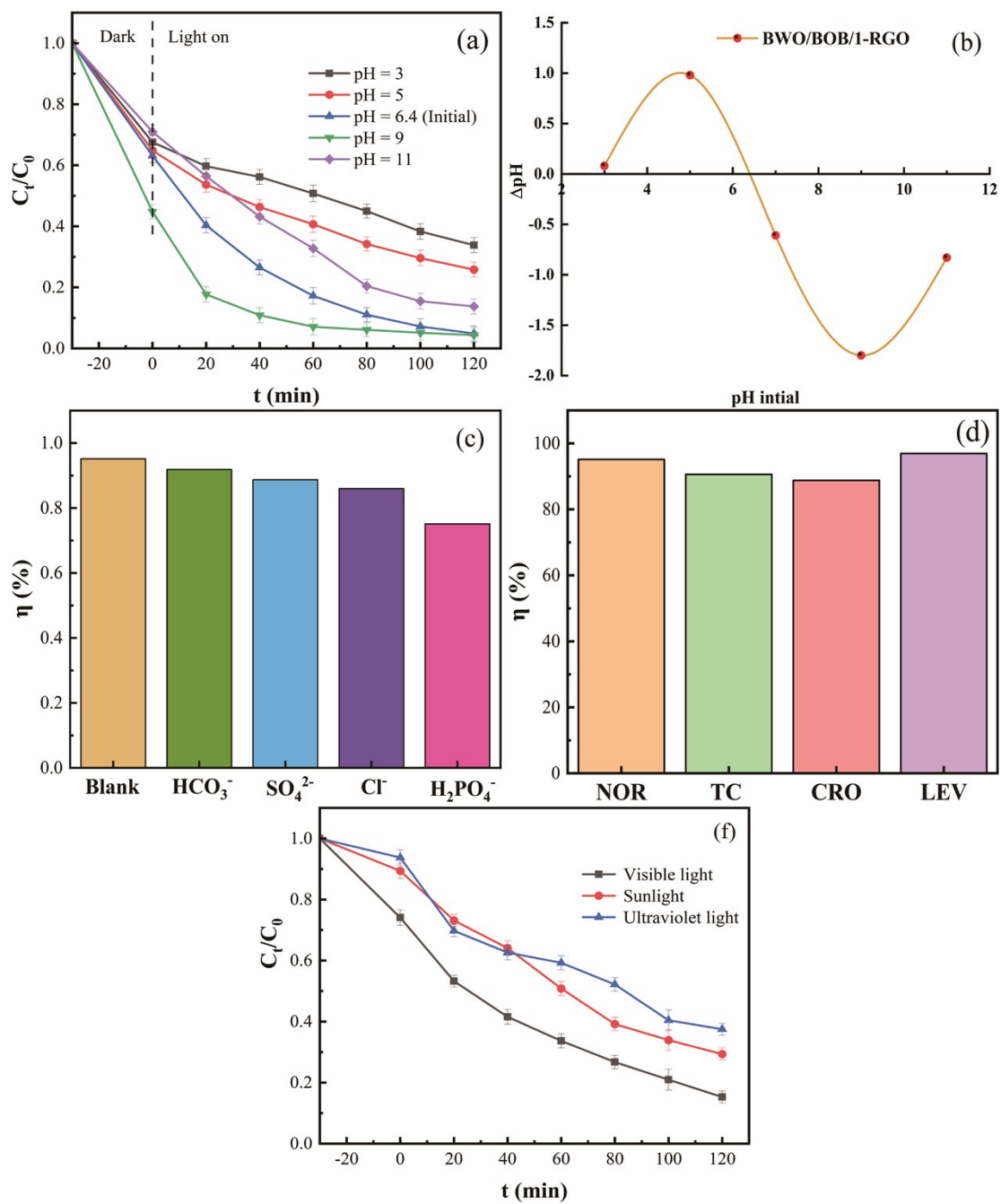


Fig. S4. (a) initial pH of NOR;(b) pH<sub>pzc</sub>; (c) effect of anions on photocatalytic degradation; (d) types of antibiotics; (e) Different wavelengths of light irradiation.

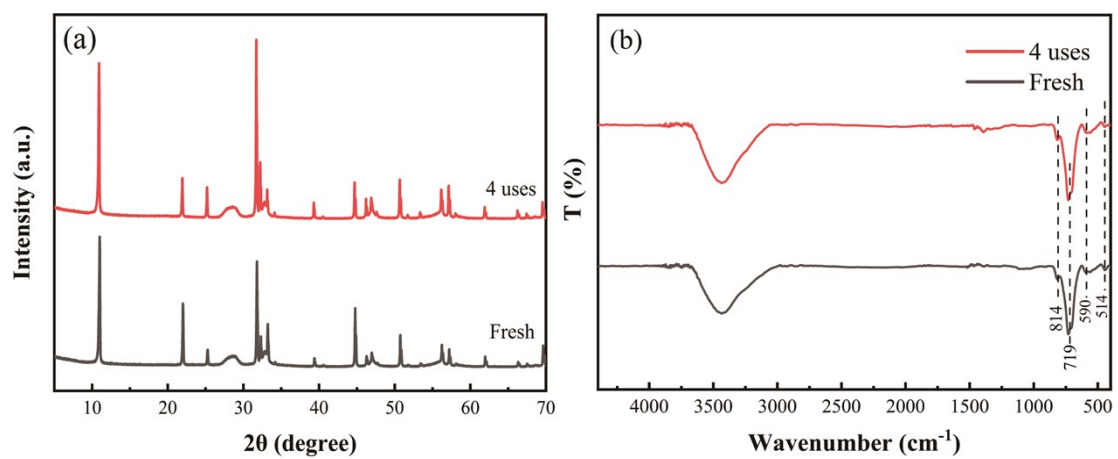


Fig.S5. (a) the XRD and (b) FT-IR spectrum of BWO/BOB/1-RGO photocatalyst after original and four times of use.

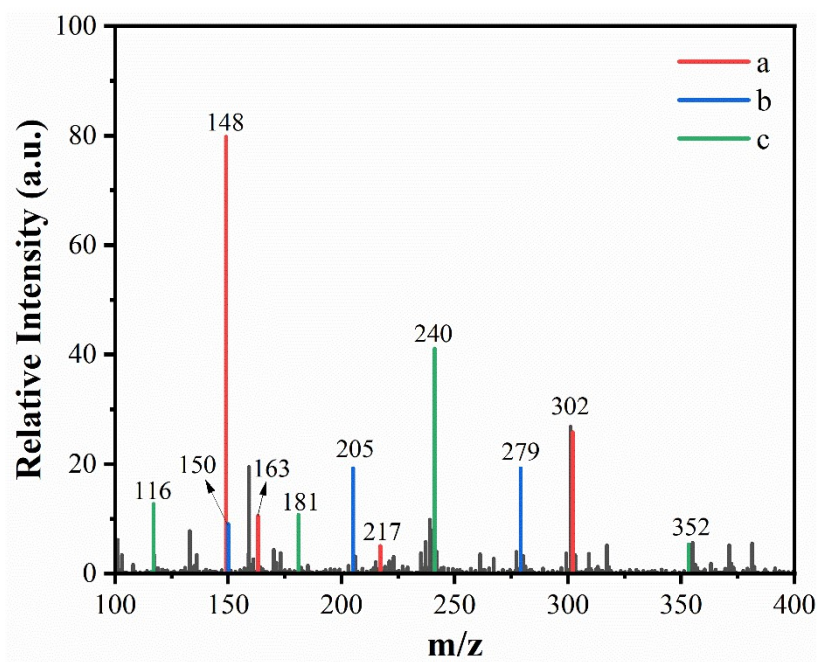


Fig. S6. TIC-MS diagram of NOR 40 min degradation catalyzed by BWO/BOB/1-RGO under visible light.

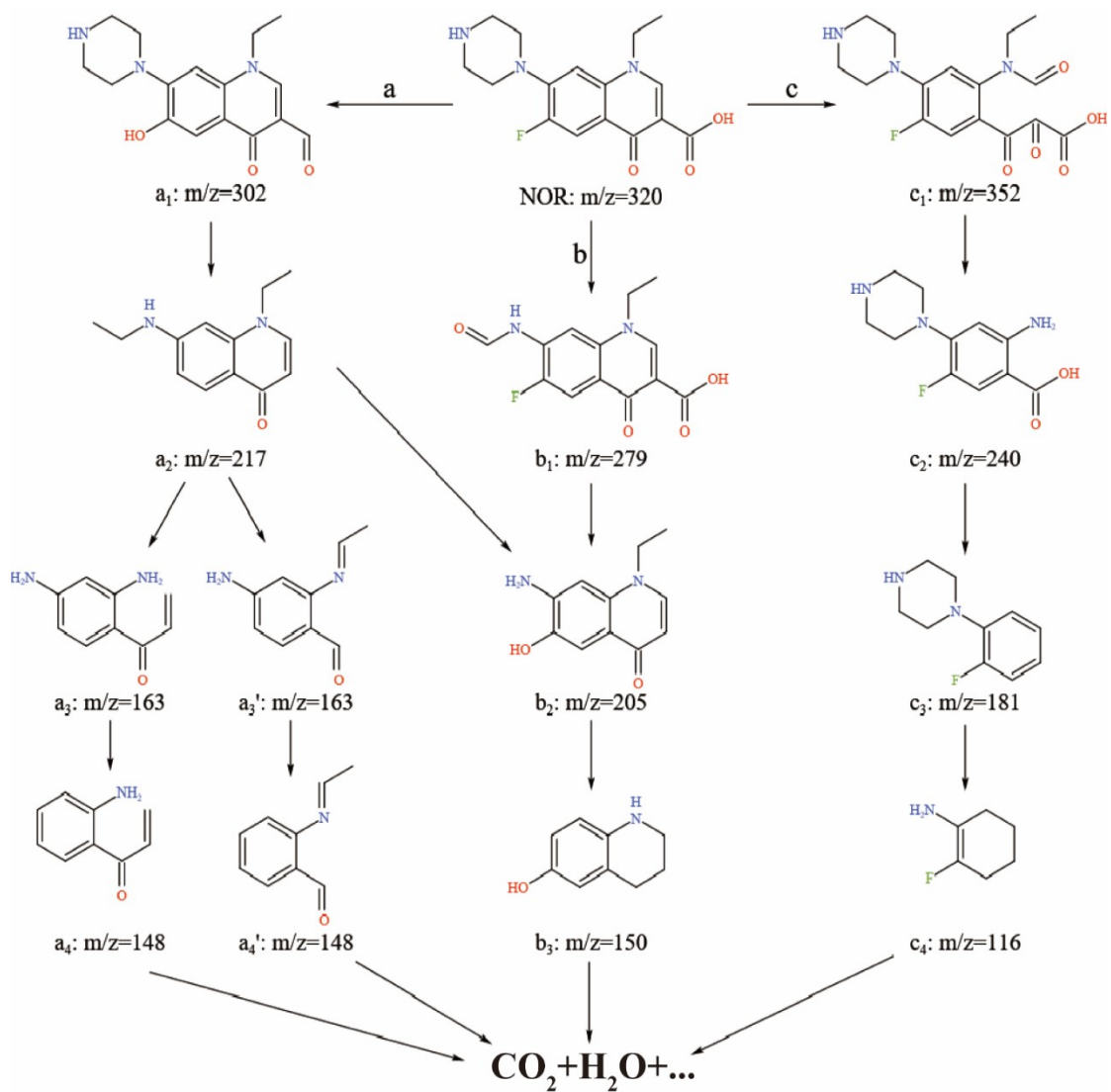


Fig. S7. Possible pathway of photocatalytic degradation of NOR by BWO /BOB/1-RGO.

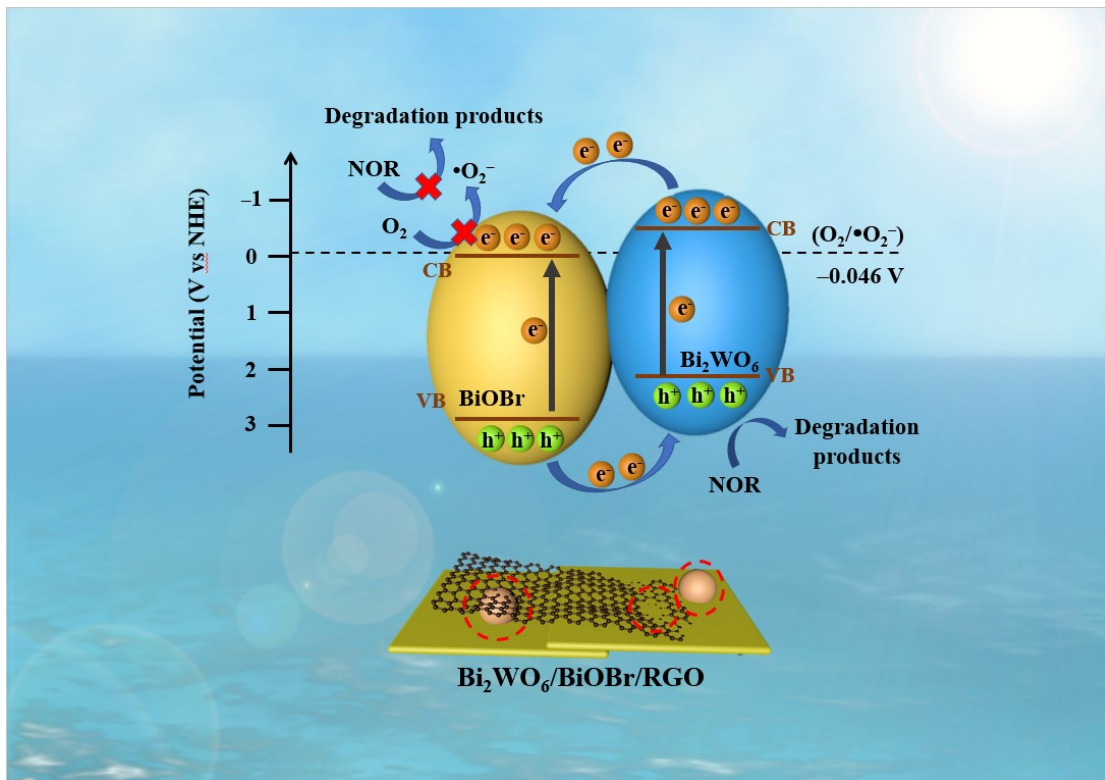


Fig.S8. Electron transfer mechanism of BWO/BOB photocatalyst: traditional type II heterojunction.