

### Supplementary material

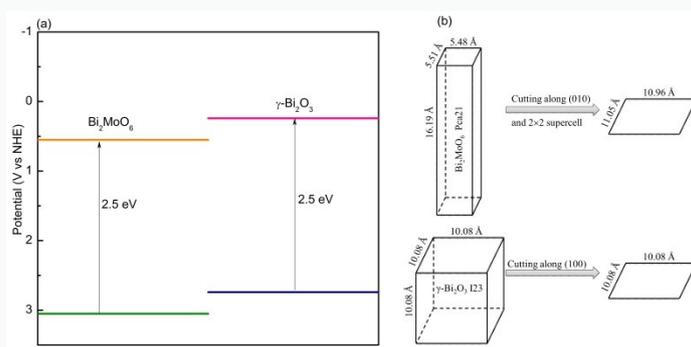


Figure S1 Energy band using the semi empirical method (a) and lattice constants (b)

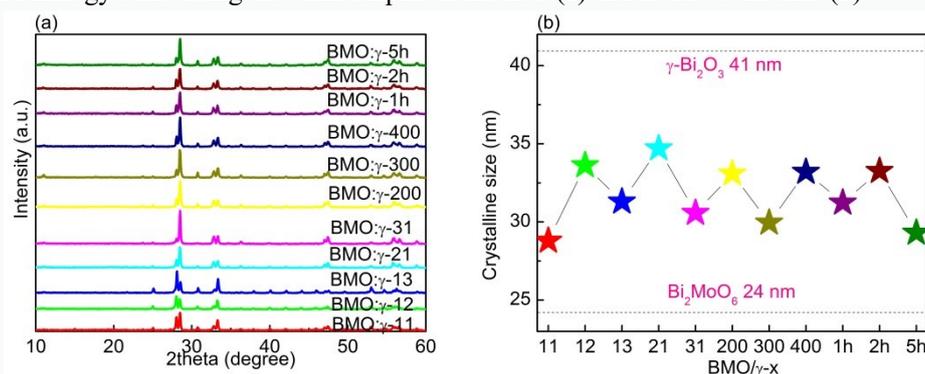


Figure S2 XRD patterns of other heterojunction sample

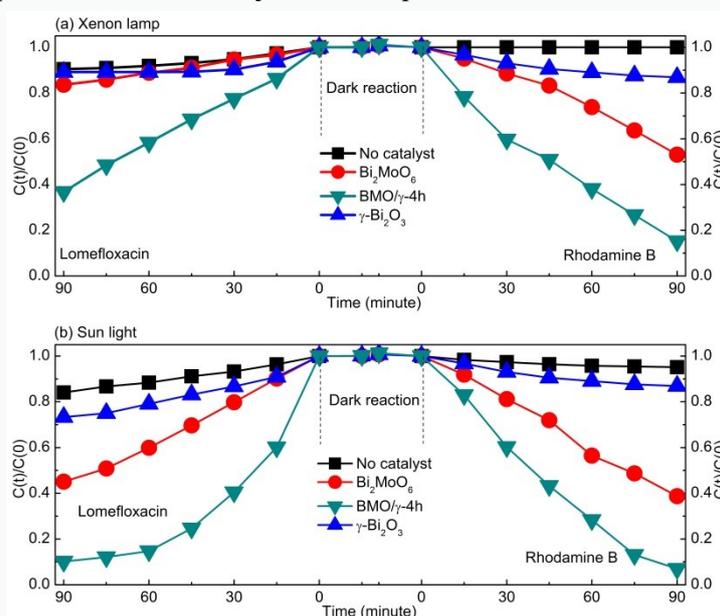


Figure S3 Photocatalytic degradation curves of lomefloxacin and rhodamine B under the irradiation of xenon lamp (a) and sun light (b)

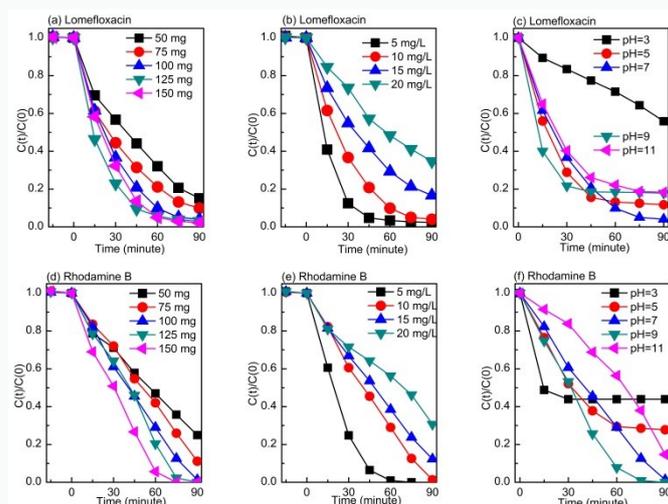


Figure S4 Degradation behaviors of the lomefloxacin (a-c) and the rhodamine B (d-f) under different conditions

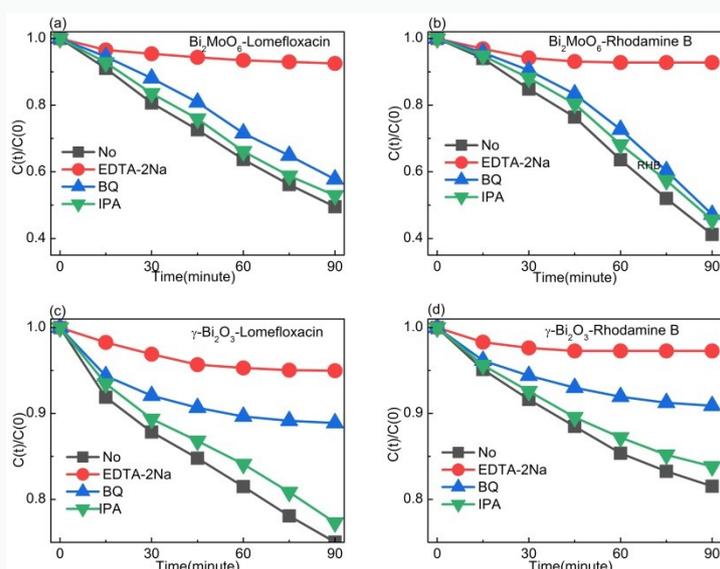


Figure S5 Sacrificial agent for  $\text{Bi}_2\text{MoO}_6$ -lomefloxacin (a),  $\text{Bi}_2\text{MoO}_6$ -rhodamine (b),  $\gamma\text{-Bi}_2\text{O}_3$ -lomefloxacin (c), and  $\gamma\text{-Bi}_2\text{O}_3$ -rhodamine (d)

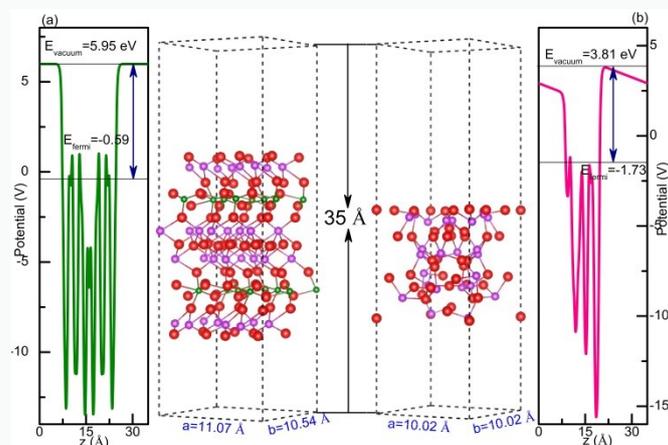


Figure S6 Surface model after optimized and electronic potential of (a)  $\text{Bi}_2\text{MoO}_6$  and (b)  $\gamma\text{-Bi}_2\text{O}_3$

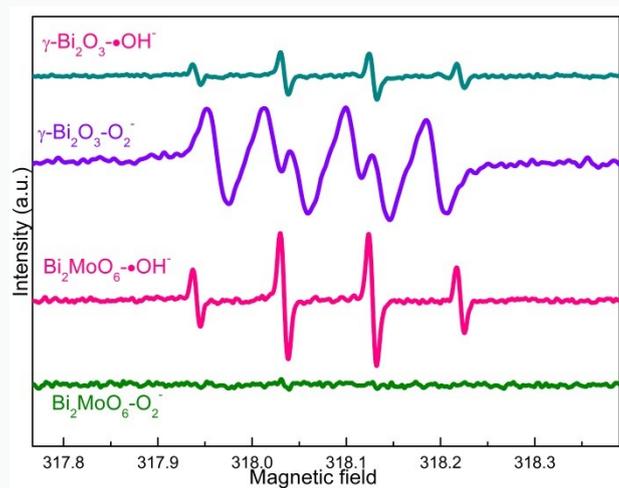


Figure S7 Radical test results of  $\text{Bi}_2\text{MoO}_6$  and  $\gamma\text{-Bi}_2\text{O}_3$  after 10 minutes light irradiation