

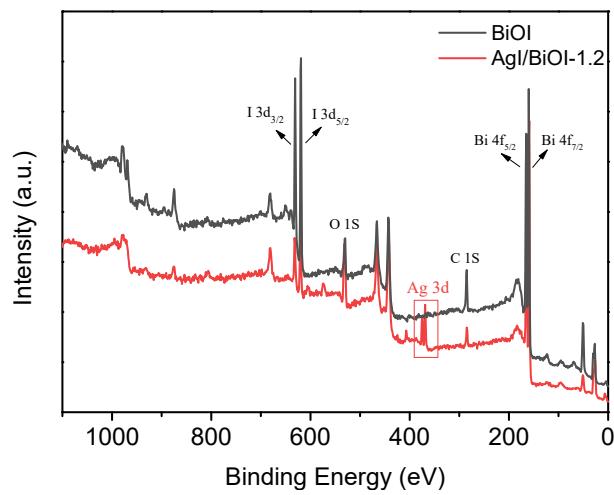
## Supporting Information

### **Synthesis of a novel AgI/BiOI nanocomposites and their high-efficiency visible-light driven photocatalytic degradation performance for norfloxacin**

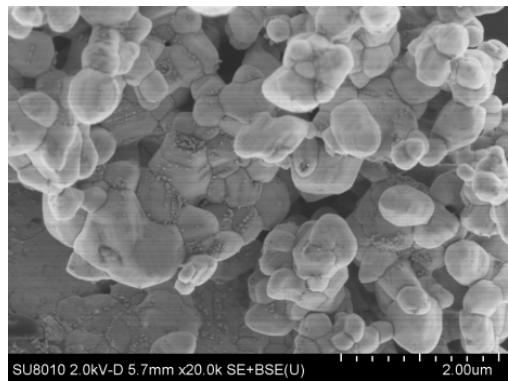
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Education, College of Chemistry and Materials Science, South-central Minzu  
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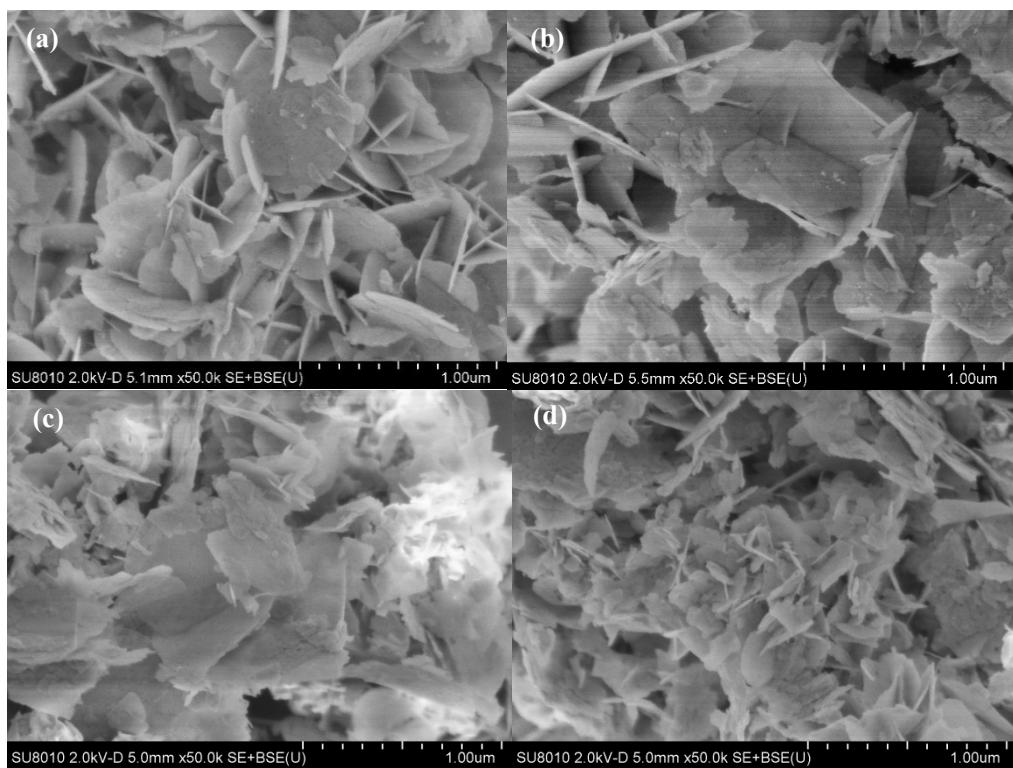
\*Correspondence E-mail: huangt208@163.com



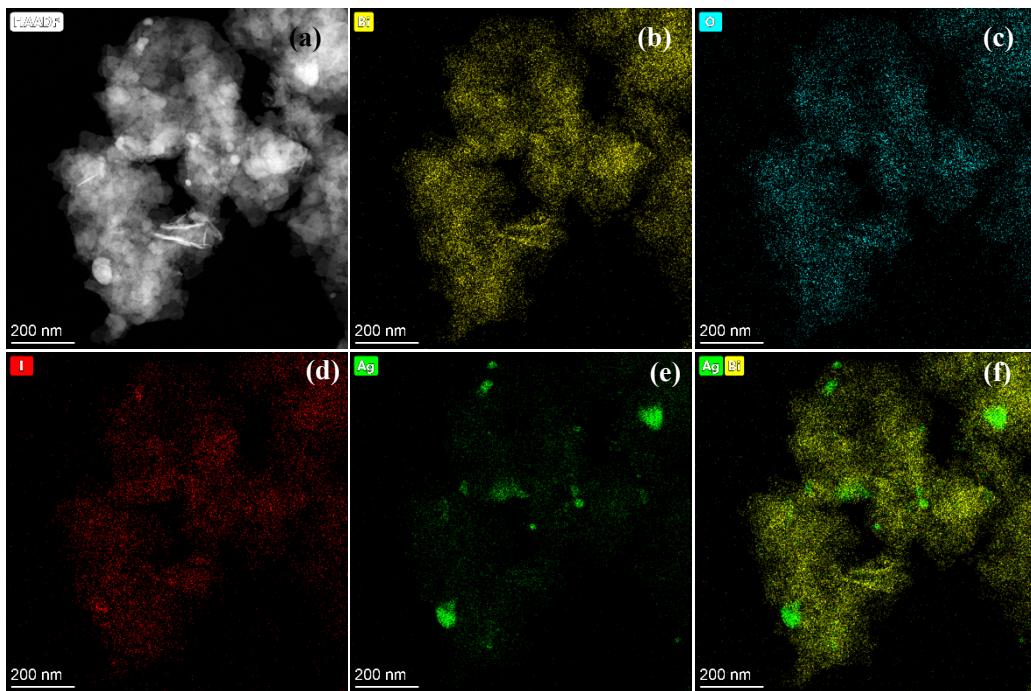
**Figure S1.** The full-scale XPS spectra of AgI/BiOI-1.2 and BiOI samples



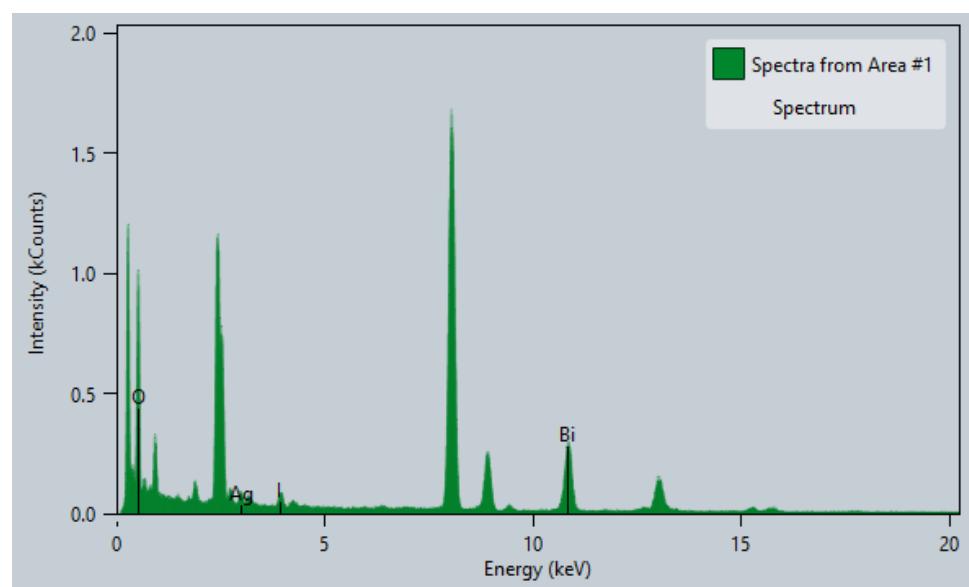
**Figure S2.** SEM image of AgI sample.



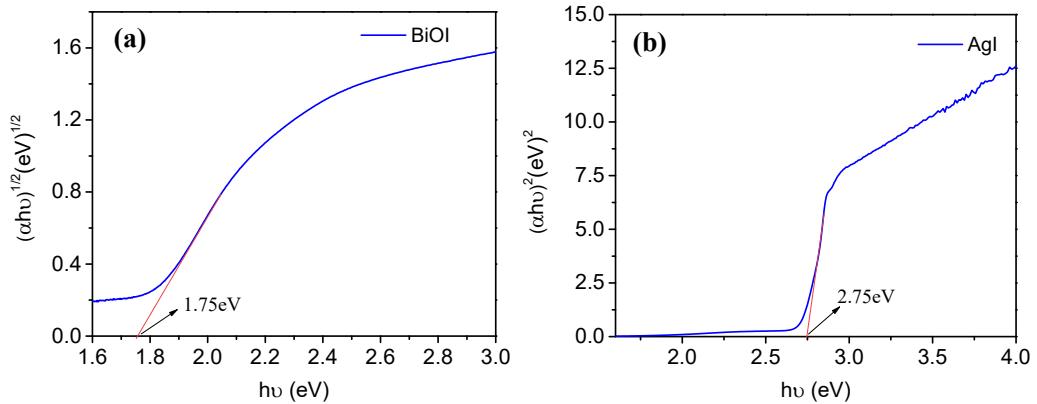
**Figure S3.** SEM images of AgI/BiOI composites with different Ag/Bi molar ratios. (a) 0.8; (b)1; (c)1.4; (d)1.6.



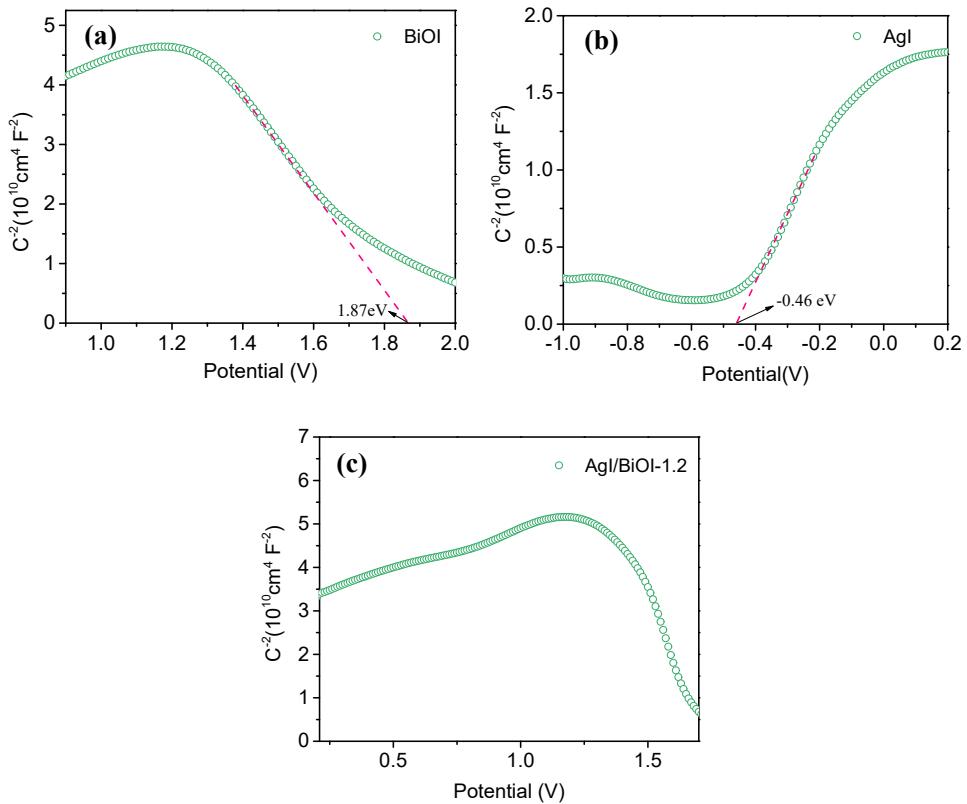
**Figure S4.** HAADF-STEM (a) and corresponding EDS mapping images of AgI/BiOI-1.2 sample (b: yellow=Bi; c: blue=O; d: red=I; e: green=Ag; f: overlap of Bi+Ag).



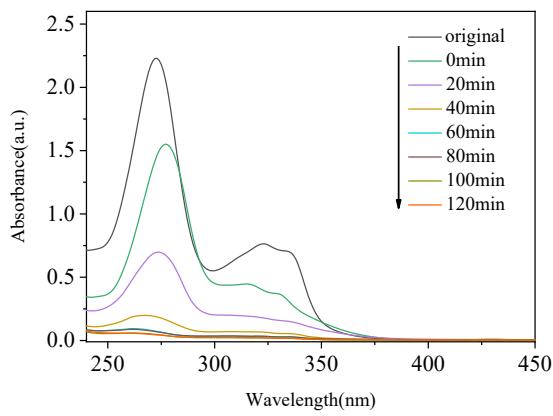
**Figure S5.** EDS spectrum of AgI/BiOI-1.2 sample.



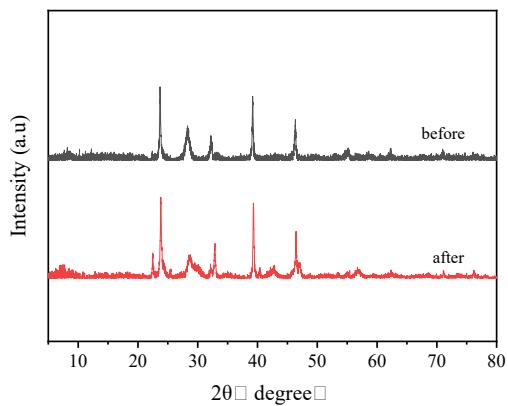
**Figure S6.**  $(\alpha h\nu)^{1/2} \sim h\nu$  plot of BiOI (a) and AgI  $(\alpha h\nu)^2 \sim h\nu$  plot of AgI (b).



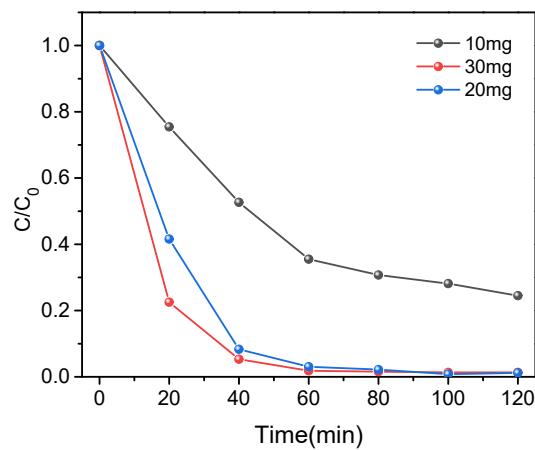
**Figure S7.** Mott-Schottky plots of BiOI (a), AgI (b) and AgI/BiOI-1.2 (c), respectively.



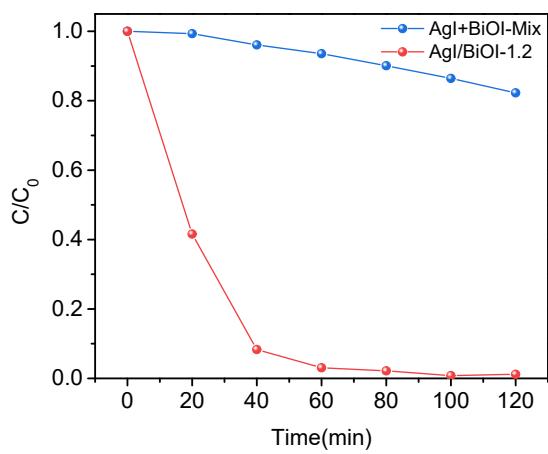
**Figure S8.** UV-vis adsorption spectra of NOR in photocatalytic degradation process in 120 min over AgI/BiOI-1.2



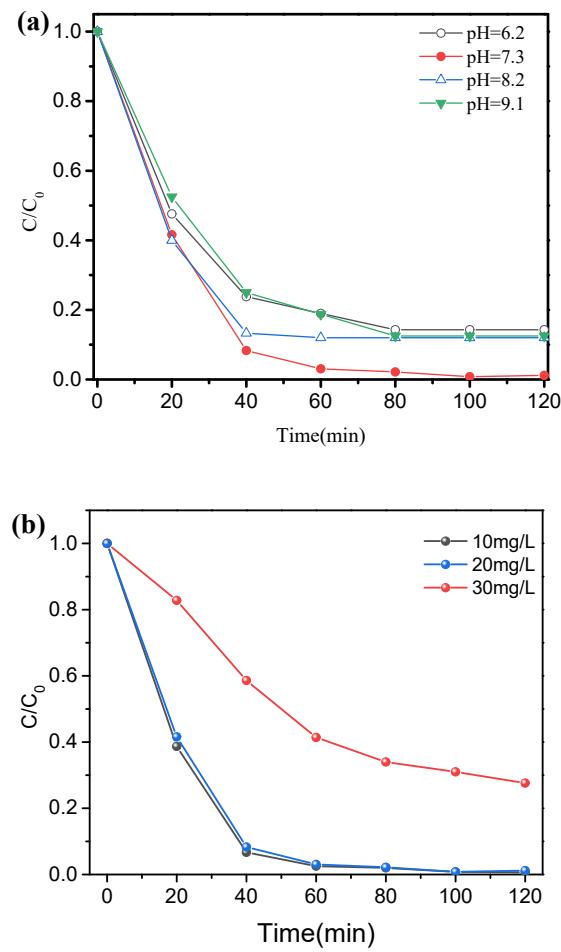
**Figure S9.** XRD comparison before and after four cycles for AgI/BiOI-1.2



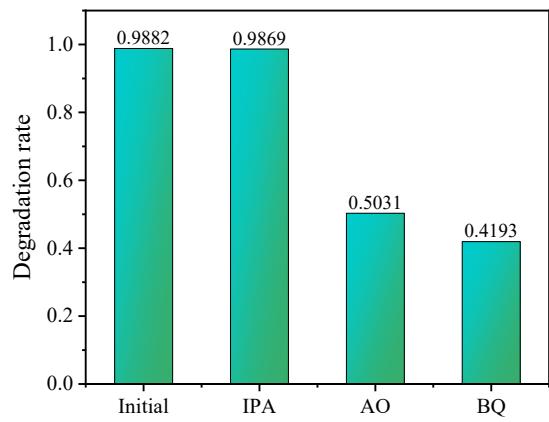
**Fig. S10.** Effect of AgI/BiOI-1.2 dosage on degradation rate of NOR



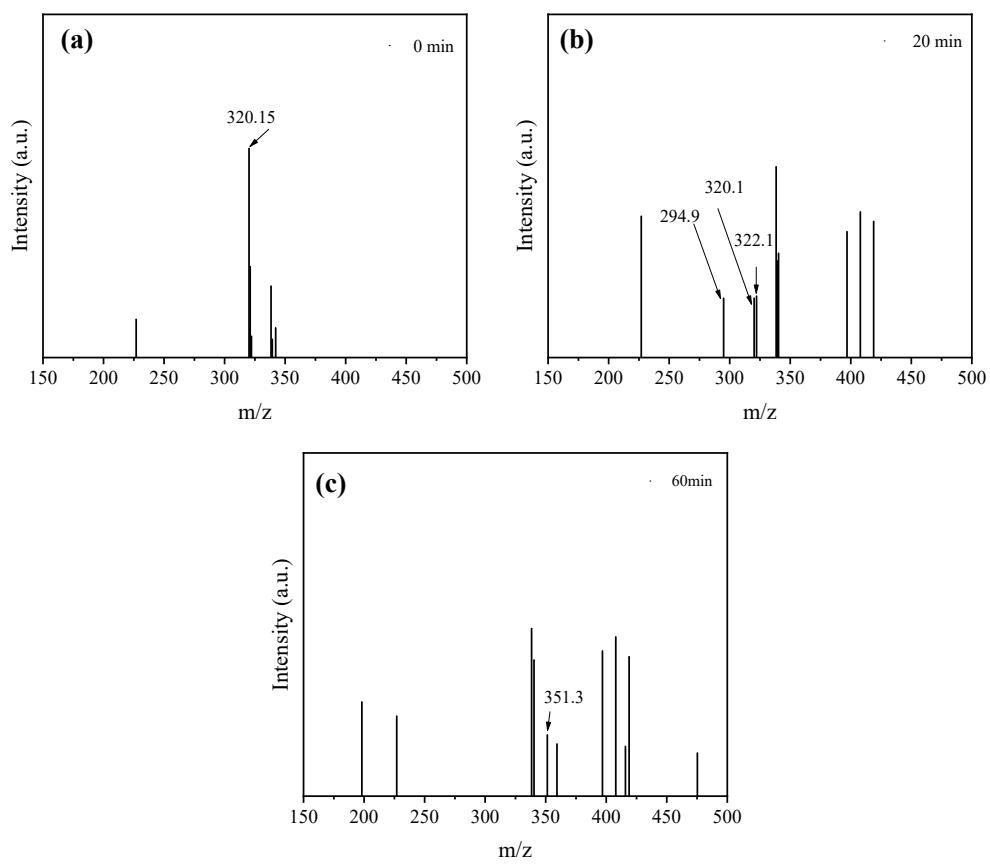
**Figure S11.** Effect of simply mixed sample on degradation rate of NOR



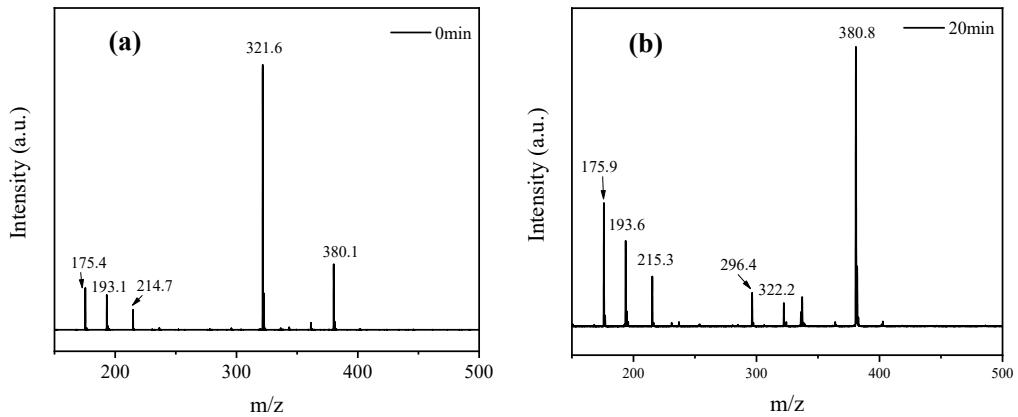
**Figure S12.** The degradation rate of NOR over AgI/BiOI-1.2 samples with different initial pH values (a) and different initial NOR concentrations (b).



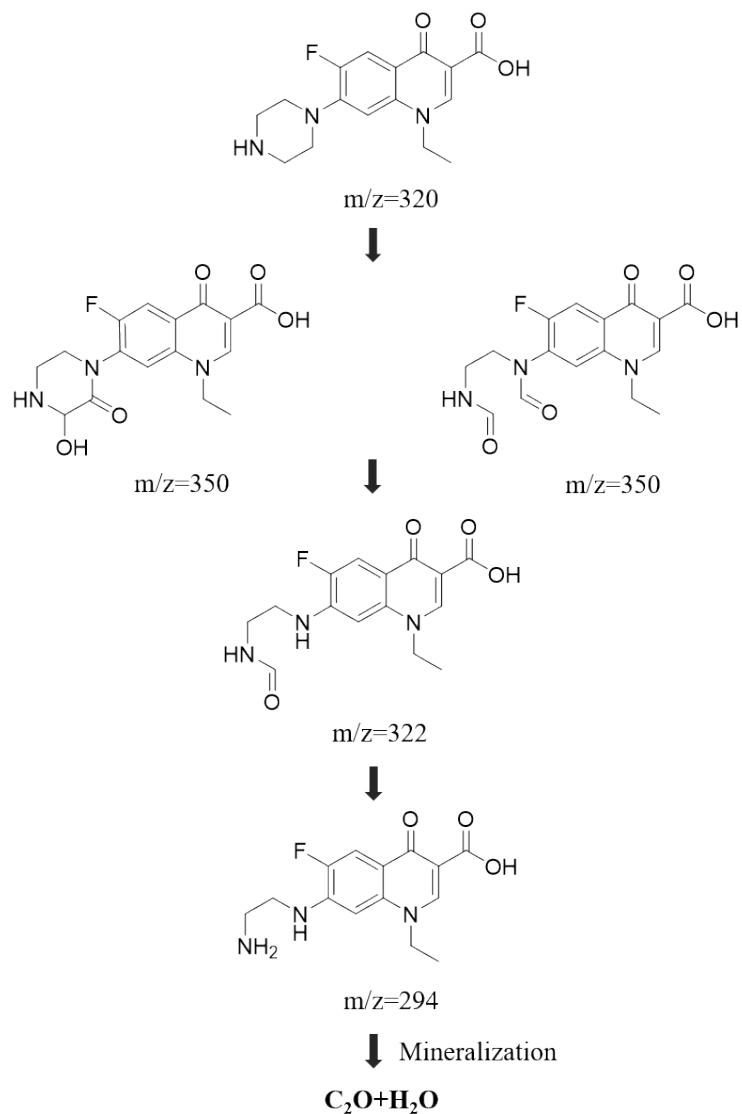
**Figure S13.** The degradation rate of NOR over AgI/BiOI-1.2 samples with different quenchers.



**Figure S14.** HPLC-MS spectrograms for the intermediate products at different degradation time.



**Figure S15.** MALDI-TOF-MS spectrograms for the intermediate products in 20-min degradation.



**Figure S16.** NOR photodegradation pathway under simulated sunlight.