

## Electronic supplementary information for

Photodegradation of sulfamethazine in aqueous solution by bismuth molybdate photocatalyst

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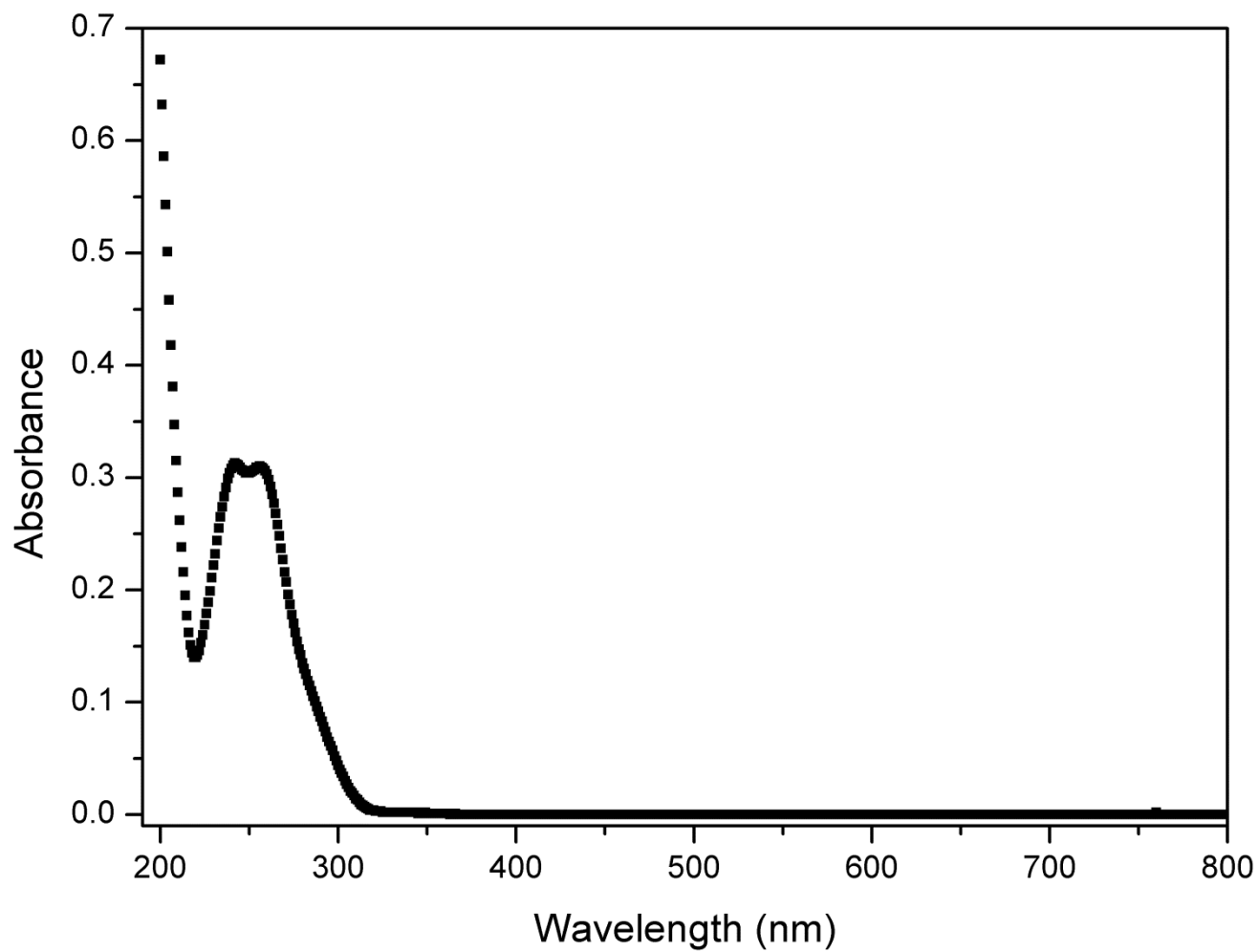


Fig. S1 UV-vis spectrum of the sulfamethazine

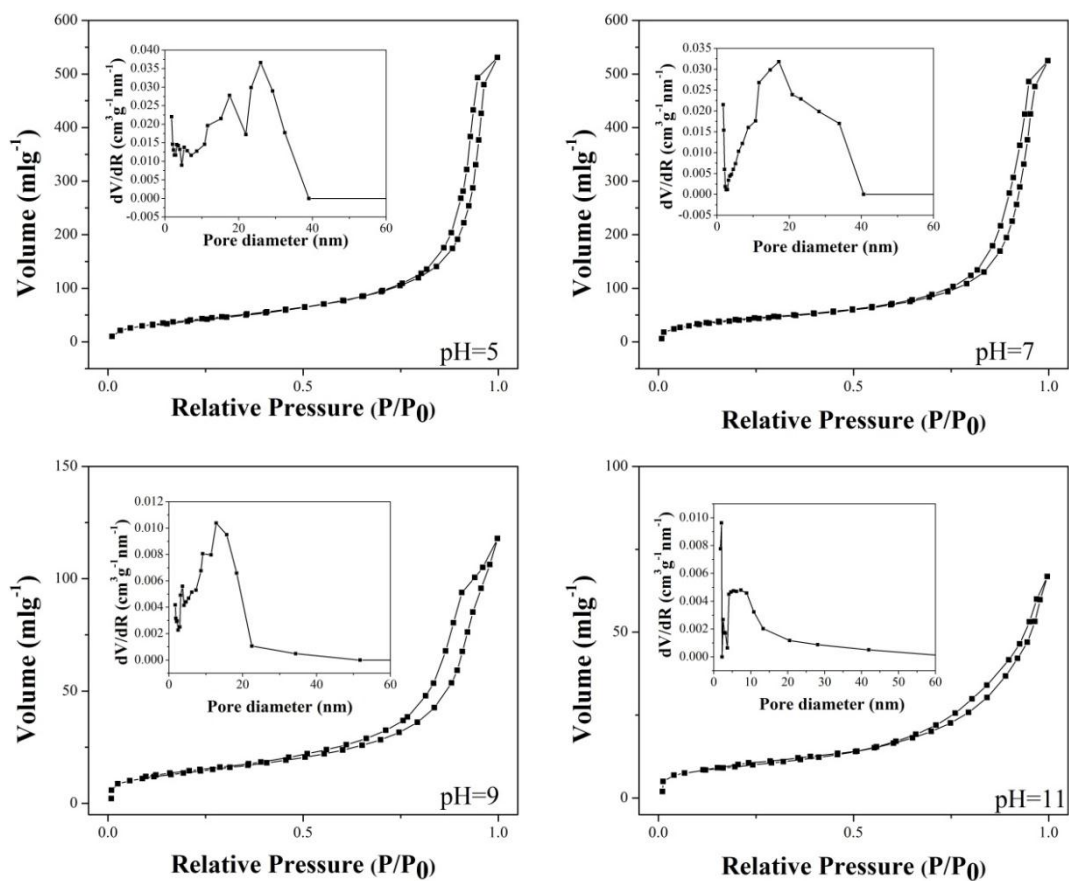


Fig. S2 N<sub>2</sub> adsorption–desorption isotherm curves and pore size distribution (insets) of the samples.

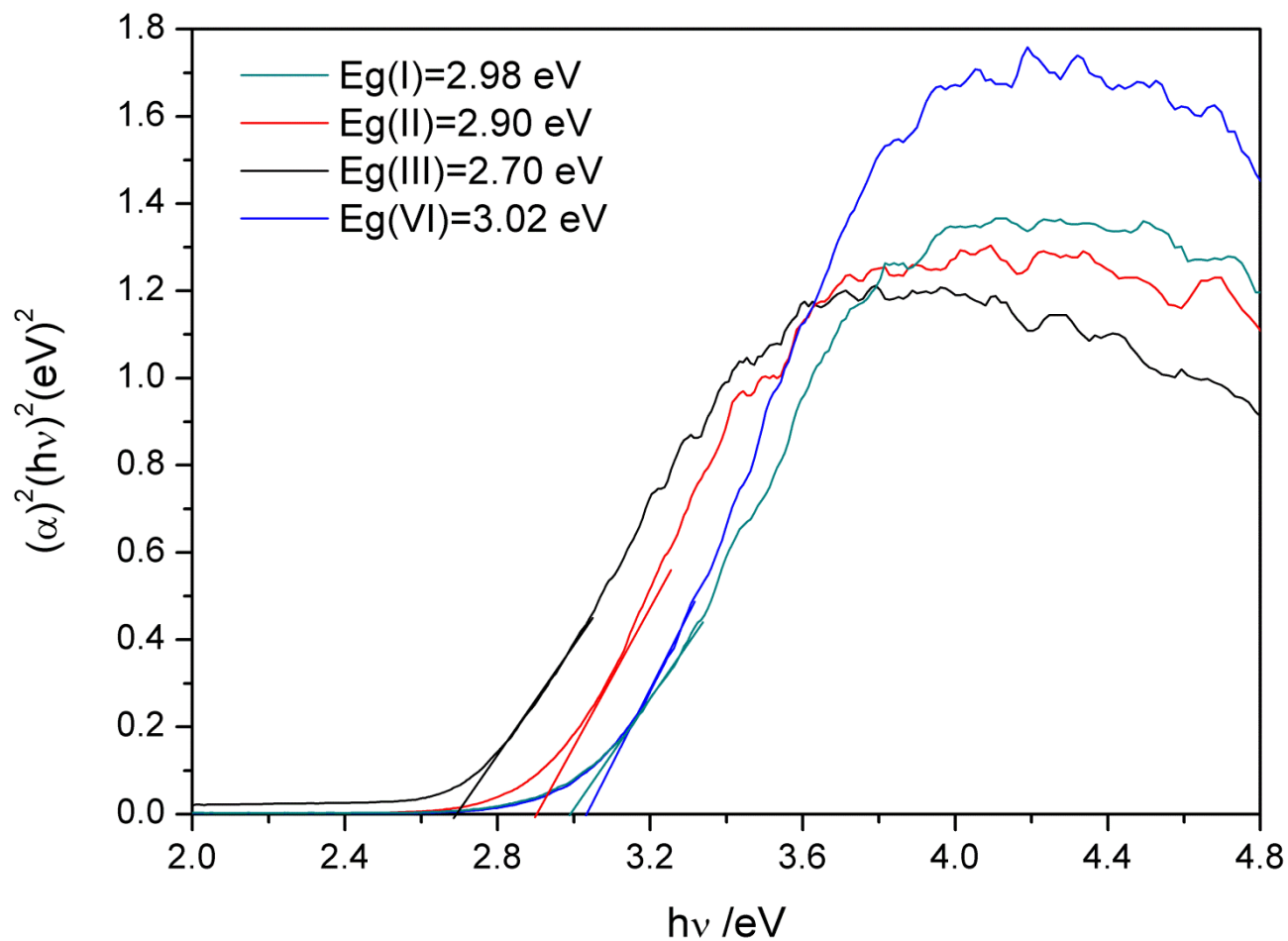


Fig. S3 Plots of  $(\alpha h\nu)^2$  versus photon energy ( $h\nu$ ) for the band gap energies of  $\text{Bi}_2\text{MoO}_6$  powders.

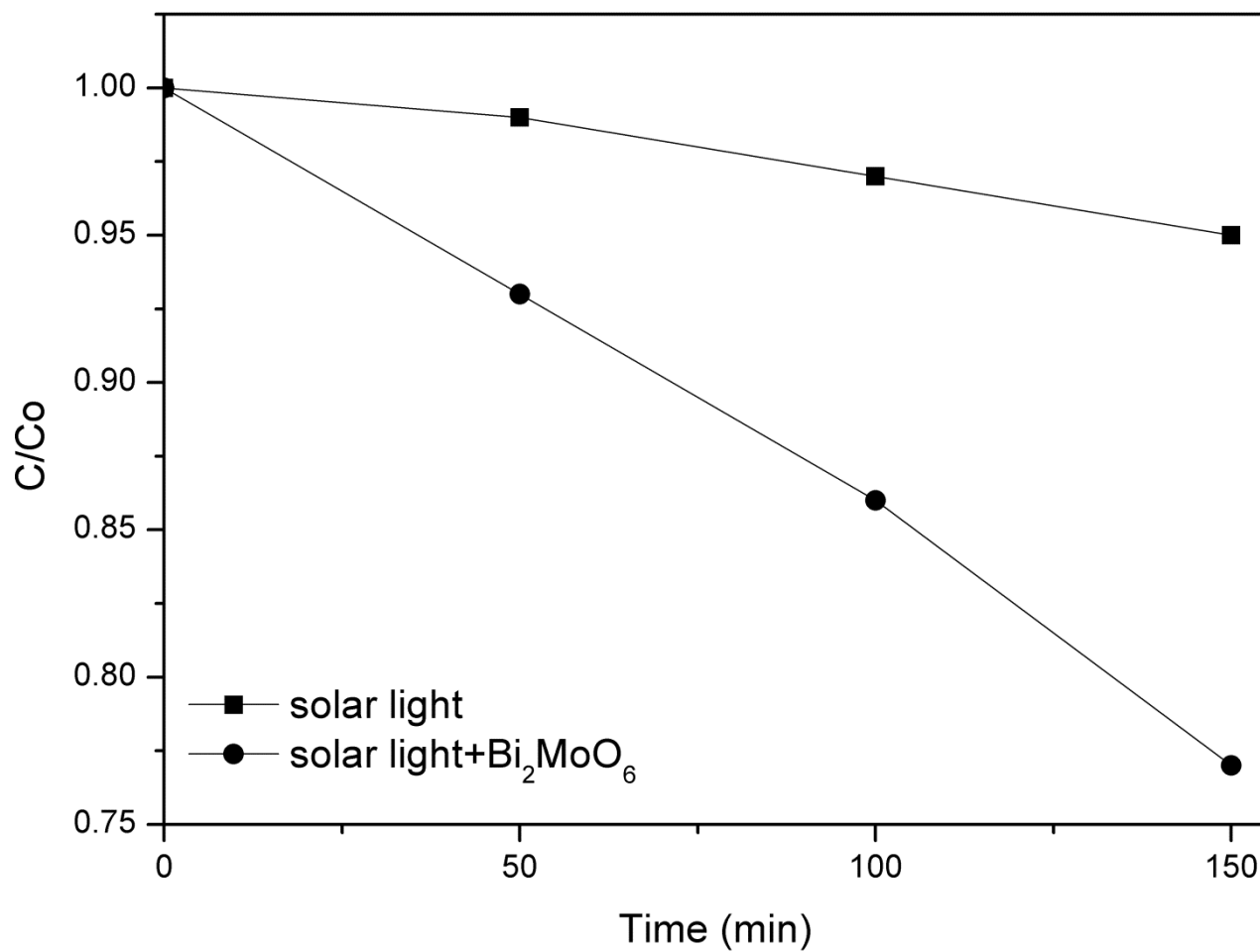


Fig. S4 TOC evolution with the reaction time in the presence of Bi<sub>2</sub>MoO<sub>6</sub> under simulated solar light irradiation

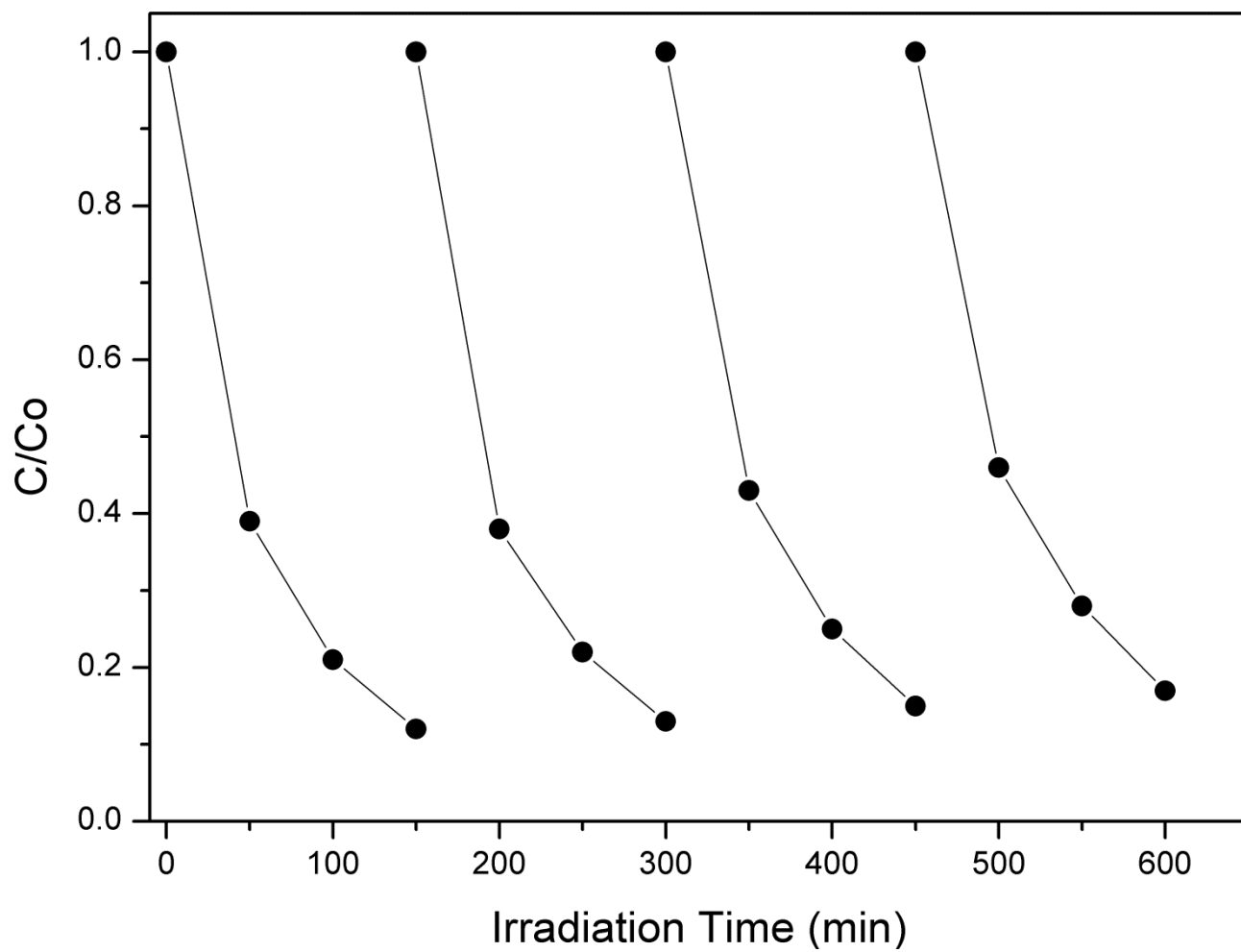


Fig. S5 Cycling runs of Bi<sub>2</sub>MoO<sub>6</sub> for the degradation of SMZ under simulated solar light irradiation.

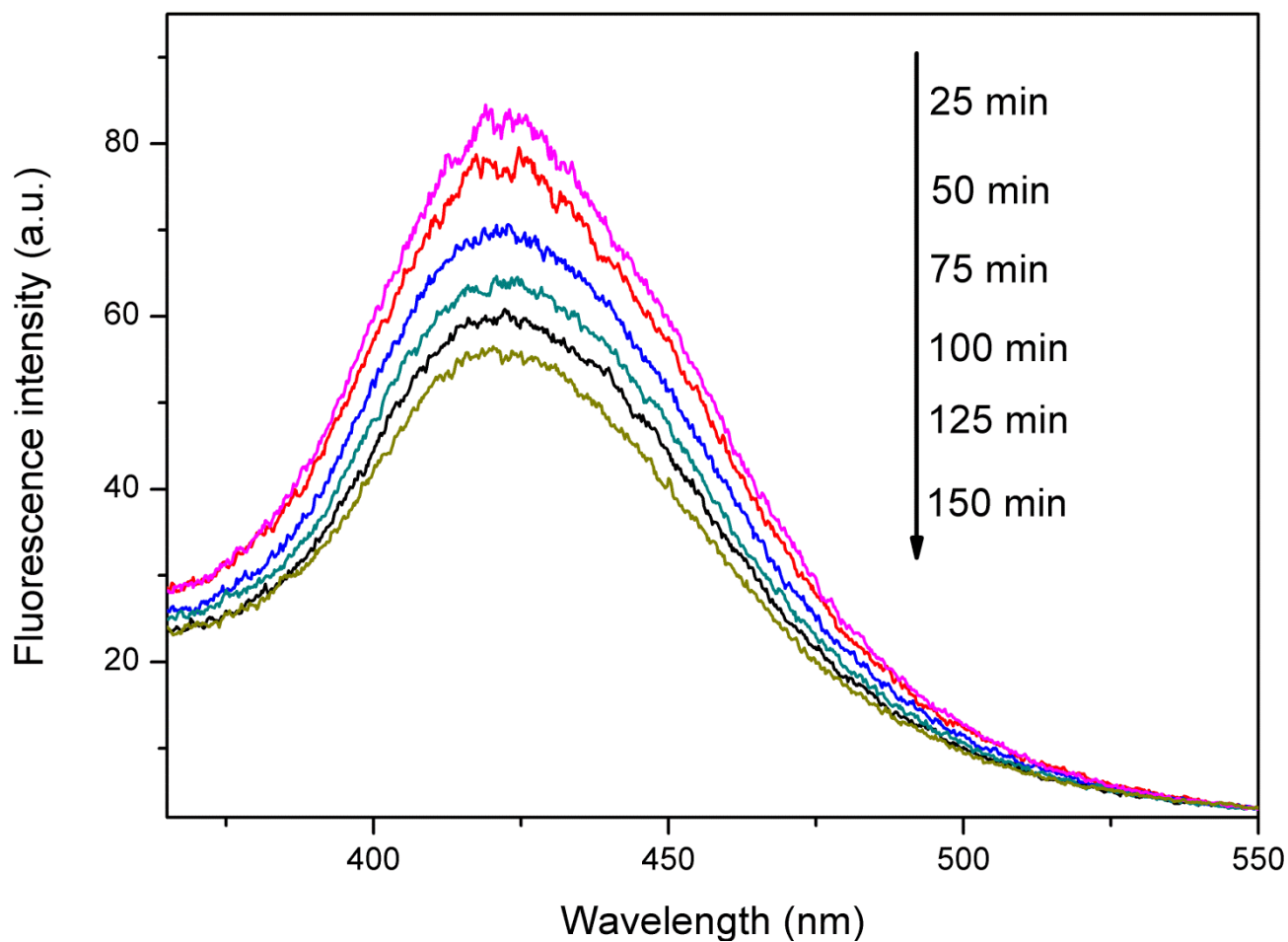


Fig. S6 Temporal photoluminescence spectral changes of  $5 \times 10^{-4}$  M terephthalic acid solution in  $2 \times 10^{-3}$  M NaOH by  $\text{Bi}_2\text{MoO}_6$  catalyst under simulated solar light irradiation.

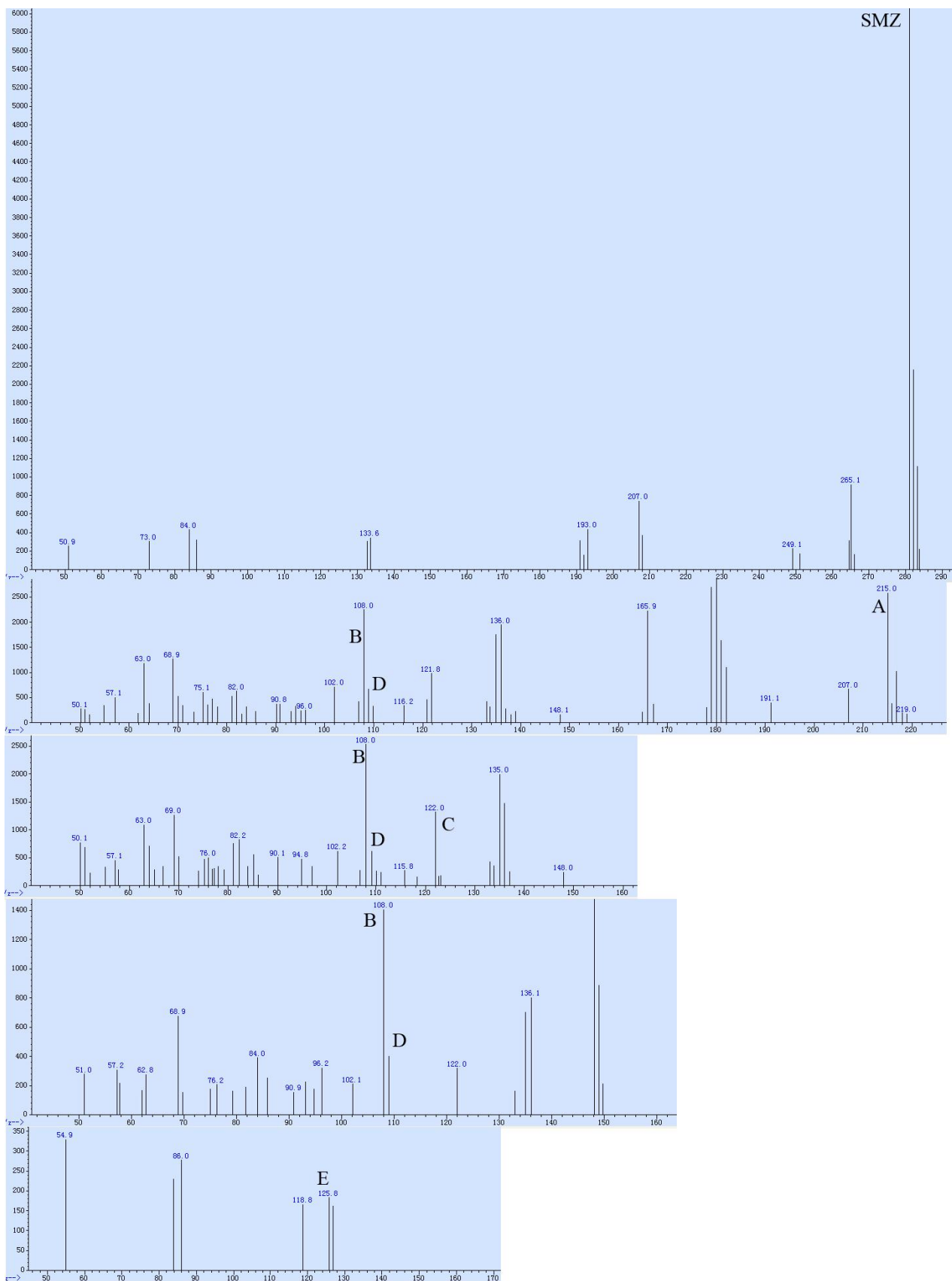


Fig. S7 MS spectra of the intermediates detected in the photocatalytic degradation of SMZ under simulated solar light irradiation.