

## Electronic Supplementary Information

### Ultrasonic-Assisted Rational Design of Uniform Rhombus-Shaped ZnMoO<sub>x</sub> on Graphene for Advanced Sunlight-Driven Photocatalysts, Functionable Supercapacitor Electrodes, and Antibacterial Platforms

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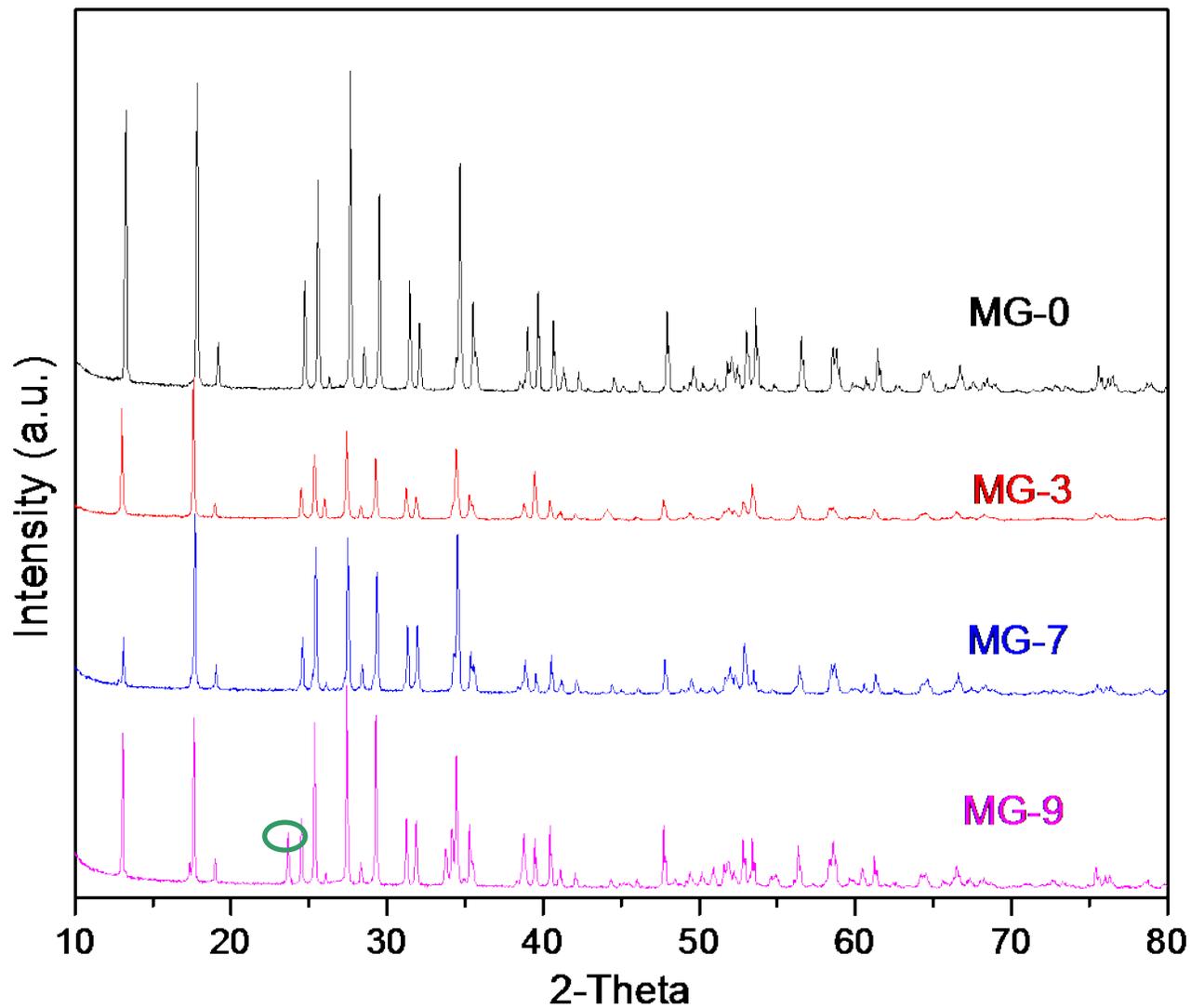
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**Figure S1. Photograph showing the appearance of pure ZnMoO<sub>x</sub> (MG-0) and ZnMoO<sub>x</sub>/RGO composites (MG-3).**



**Figure S2. Comparison of the XRD spectra of the as-synthesized pure ZnMoO<sub>x</sub> and ZnMoO<sub>x</sub>/RGO composites with different RGO loadings.**

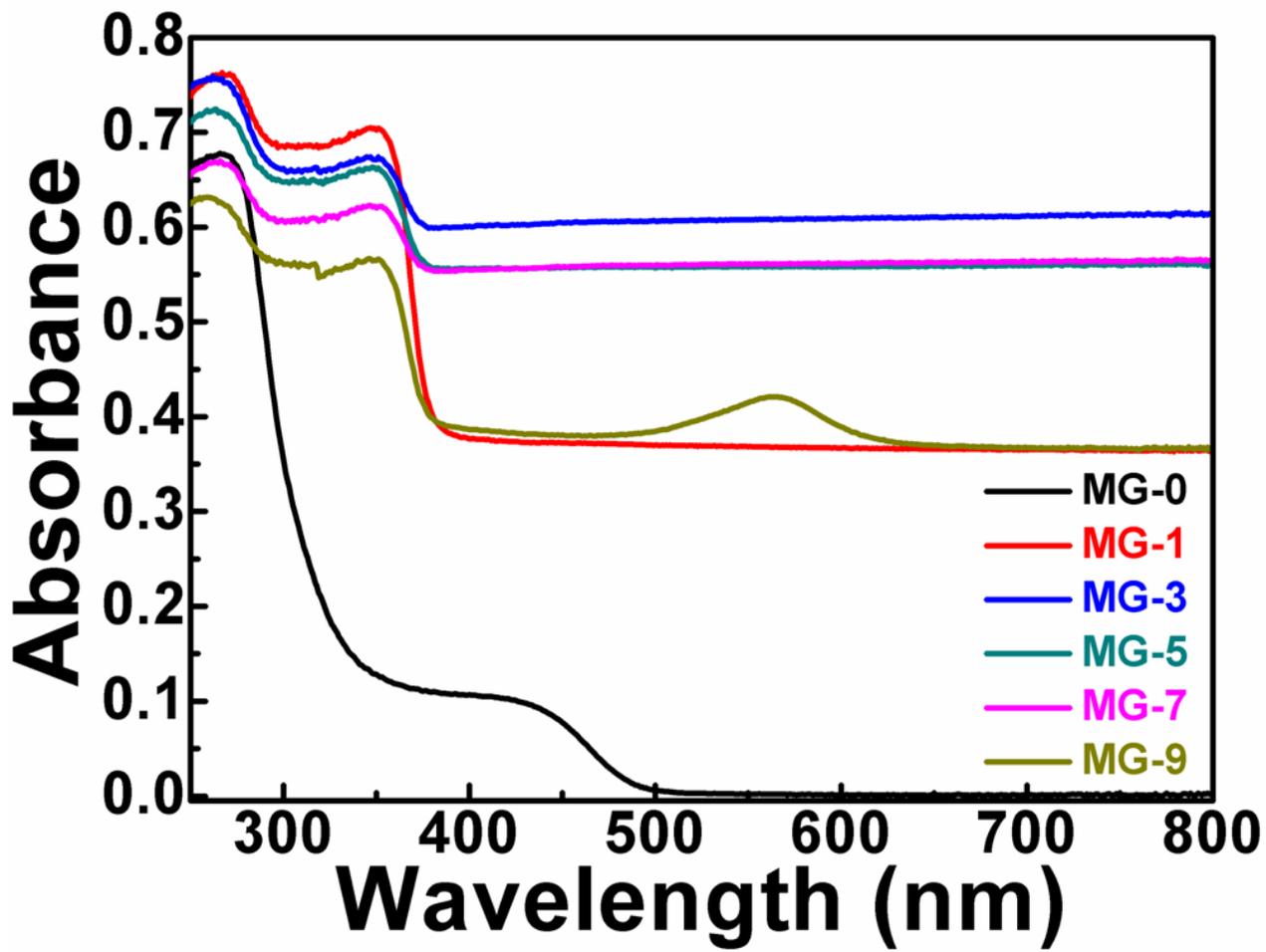


Figure S3. Comparison of the UV-vis DR spectra of the as-synthesized pure ZnMoO<sub>x</sub> and ZnMoO<sub>x</sub>/RGO composites with different RGO loadings.

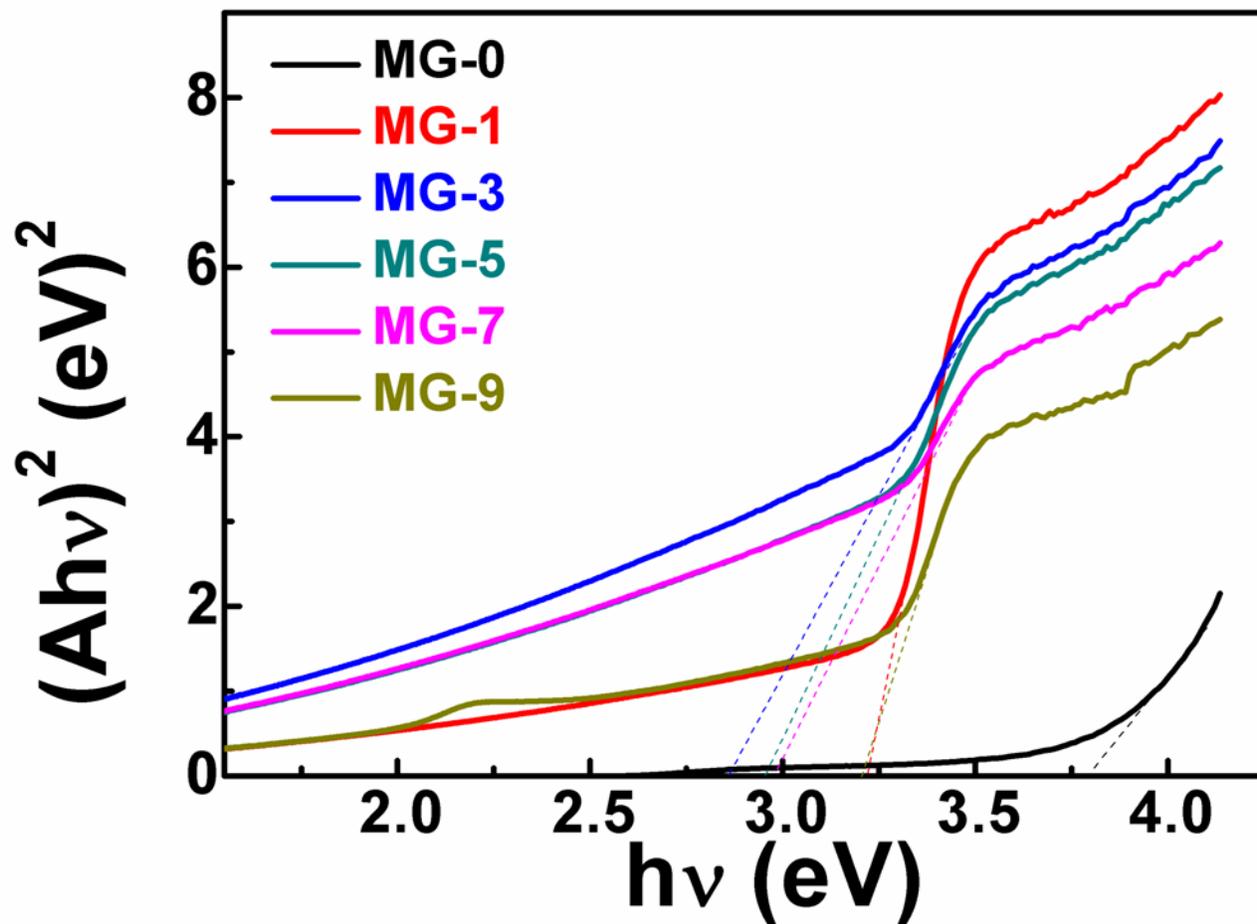
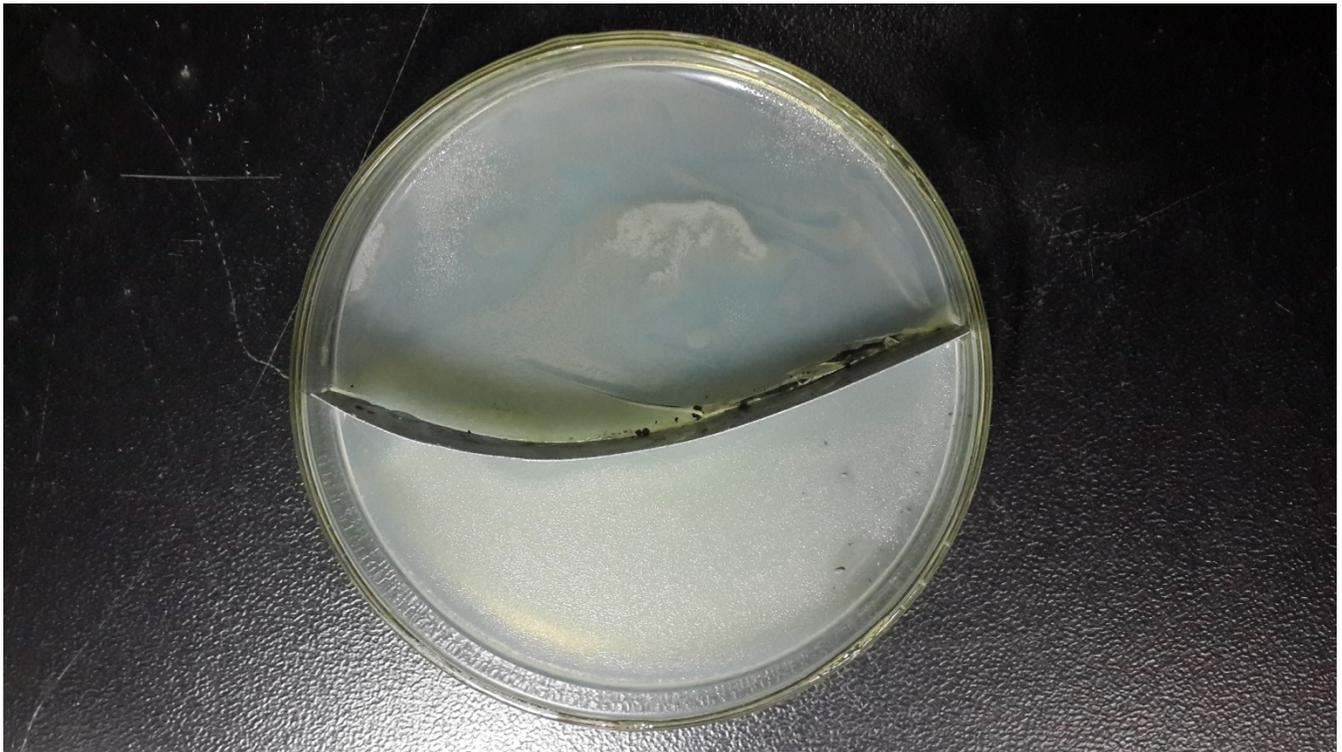


Figure S4. Comparison of the relationship between  $(Ah\nu)^2$  and the photon energy ( $h\nu$ ) of the as-synthesized pure  $\text{ZnMoO}_x$  and  $\text{ZnMoO}_x/\text{RGO}$  composites with different RGO loadings.



**Figure S5. Photograph showing the appearance of *E. Coli* growth at the separated MG-0 (bottom) and MG-3 (top) samples.**