

Electronic Supplementary Information

Bifunctional $\text{TiO}_2/\text{Ag}_3\text{PO}_4/\text{Graphene}$ composites with superior visible light photocatalytic performance and synergistic inactivation of bacteria

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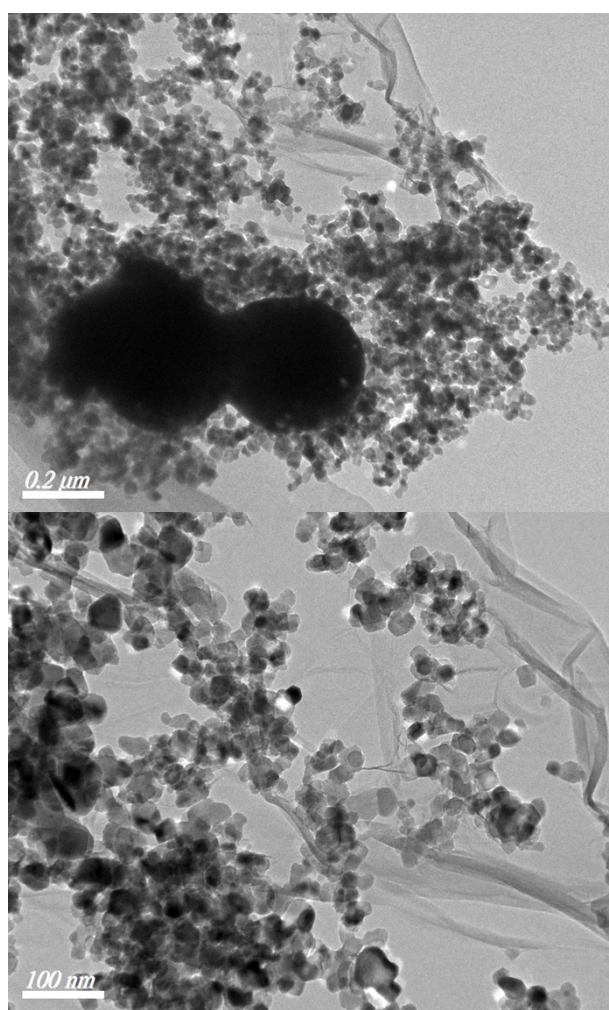


Fig. S1 TEM image of $\text{TiO}_2/\text{Ag}_3\text{PO}_4/\text{GR}$ composites where larger particles represent Ag_3PO_4 and smaller particles stand for nanosized TiO_2 (top); wrinkled graphene sheets were clearly observed in the enlarged image (bottom).

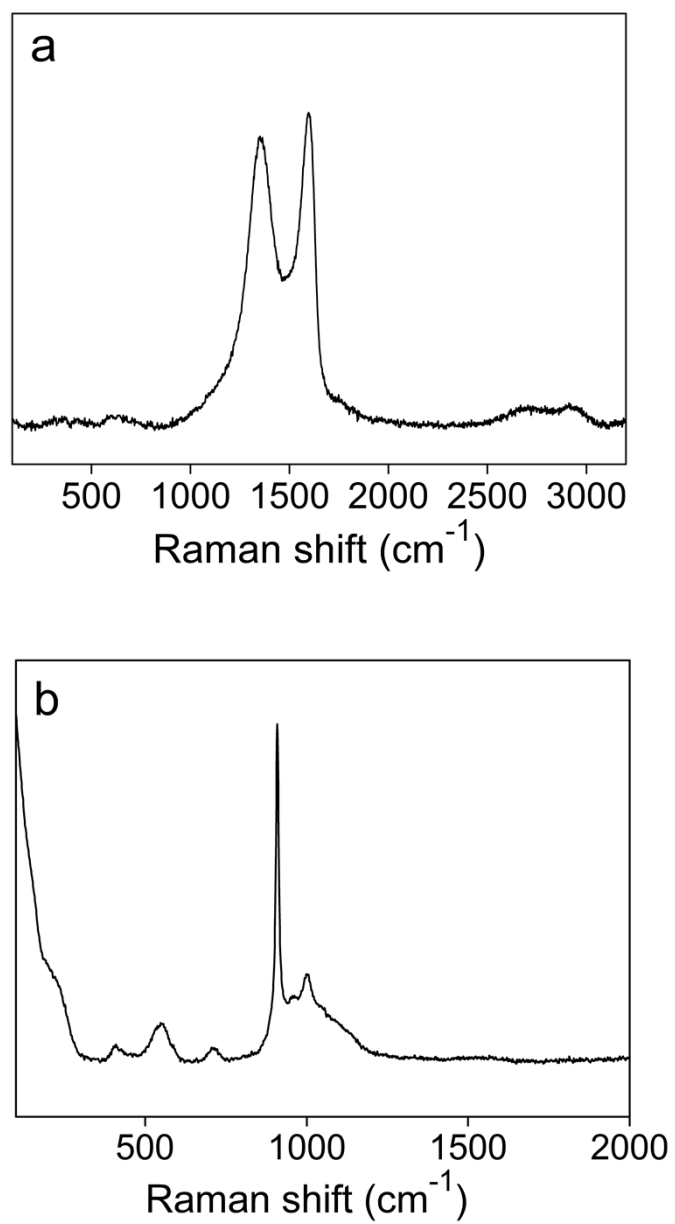


Fig. S2 Raman spectra of GO (a), Ag_3PO_4 (b)

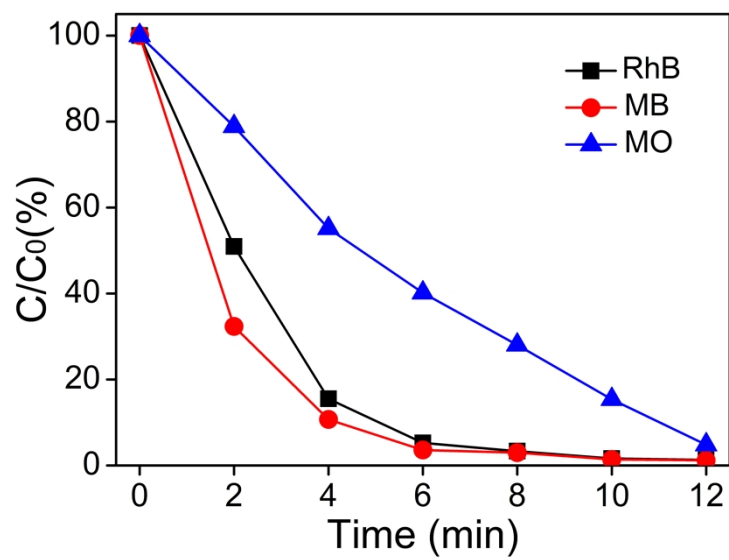


Fig. S3 Visible light photocatalytic activities of the S0.8 toward different dye molecules.

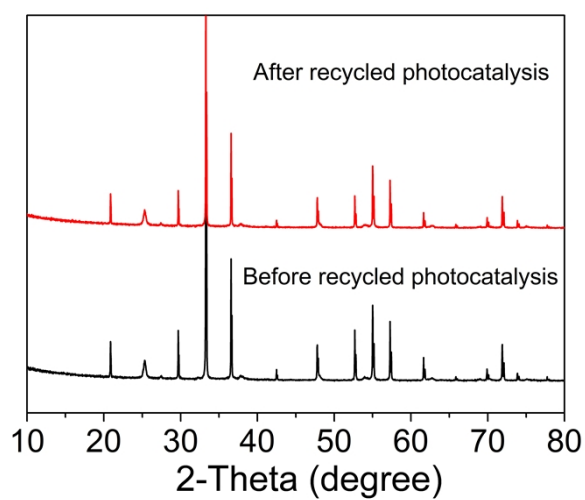
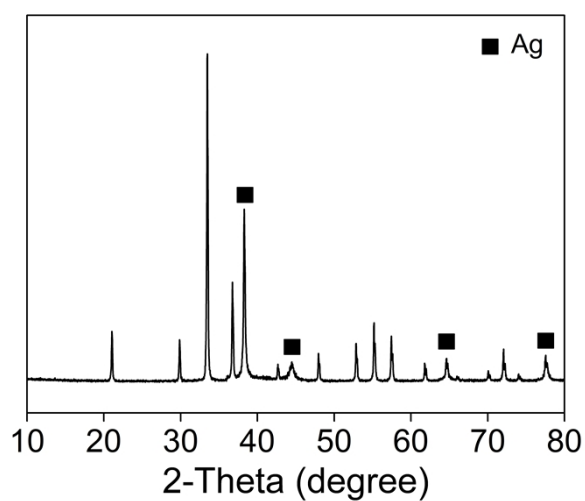
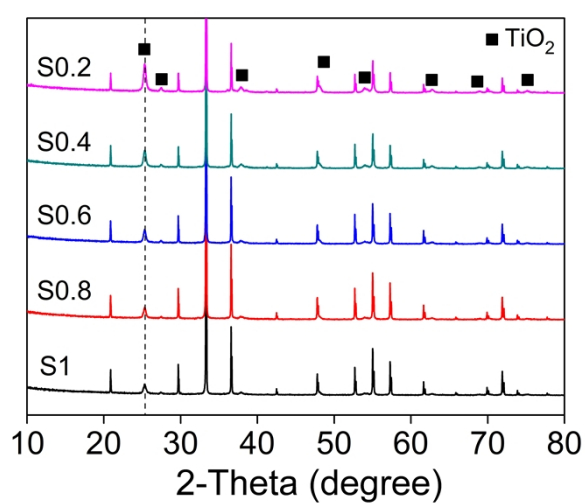


Fig. S4 XRD patterns of (top) TiO₂/Ag₃PO₄/GR samples; (middle) recycled Ag₃PO₄ ; (bottom) TiO₂/Ag₃PO₄/GR composites before and after recycled photocatalysis.

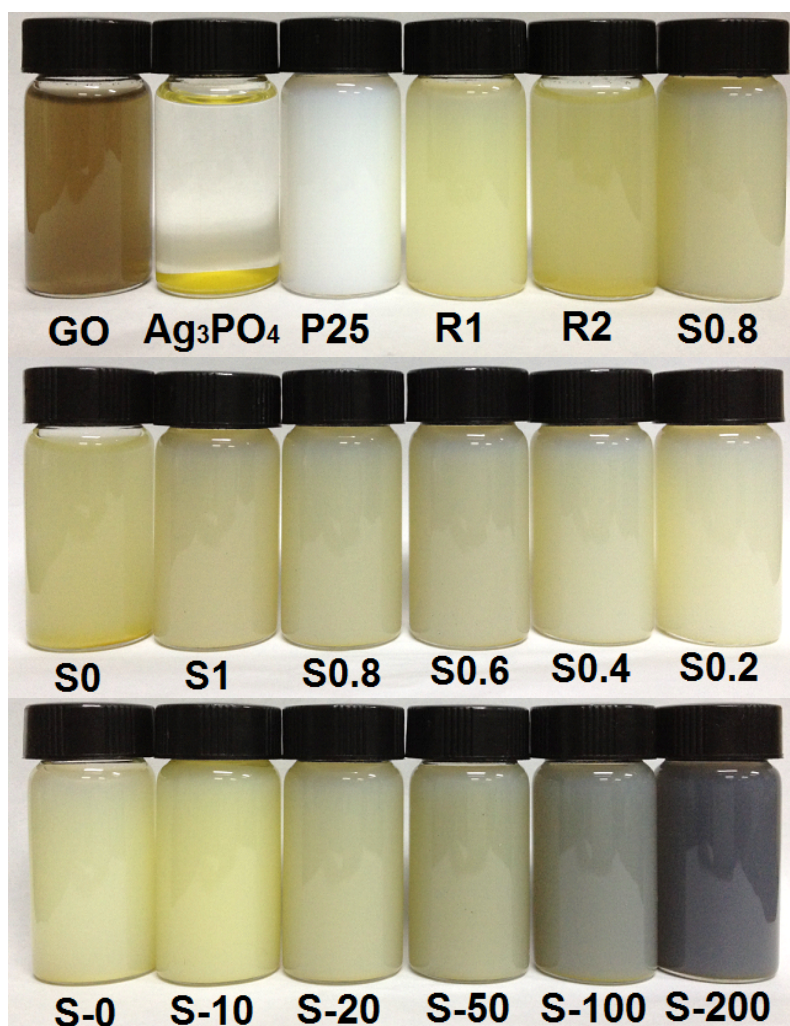


Fig. S5 Digital photos of different aqueous dispersions 24 h after ultrasonication. R1 represents GO/TiO₂ and R2 stands for GO/Ag₃PO₄ while other samples are composites indicated in Table 1. The results indicate that all the composites exhibit better solubility than bare Ag₃PO₄.