Reducing the barrier effect of graphene sheets on Ag cocatalyst to further improve the photocatalysis performance of TiO₂

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Fig. S1. AFM images of small GO sheets. White curve in Figure (b) is the height profile taken along the dotted line (scale bar, 1 nm). Samples were prepared by drop-casting dilute GO sheet dispersions onto mica plates.
Fig. S2. XRD patterns of samples. (a) TG$_{0.5}$A$_{0.5}$, (b) TA$_{0.5}$G$_{0.5}$ and (c) control TiO$_2$ spheres

Fig. S3. Raman spectra of samples. (a) TA$_{0.5}$GO$_{0.5}$, (b) TA$_{0.5}$G$_{0.5}$ and (c) TG$_{0.5}$A$_{0.5}$

Fig. S4. Thermogravimetric analysis of (a) TiO$_2$, (b) TA$_{0.5}$G$_{0.5}$ and (c) TG$_{0.5}$A$_{0.5}$ samples
Fig. S5. Yields of 4-aminophenol of recycle experiments using TG$_{0.5}$A$_{0.5}$, TA$_{0.5}$G$_{0.5}$ and TiO$_2$ as photocatalysts.

Fig. S6. Yields of 4-aminophenol using different composites. (A) TiO$_2$ with different dosage of single cocatalyst (a) Ag nanoparticles and (b) graphene; (B-D) The usage of GO sheets in each figure is fixed, which is 0.1, 0.5 and 1.0 wt % in (B), (C) and (D) respectively. While the dosage of Ag is adjusted from 0.1 to 1.0 wt % in two kinds of ternary composites: (a) TGA and (b) TAG samples.