

Supporting information

TiO₂-graphene composites with exposed {001} facets produced by a one-pot solvothermal approach for high performance photocatalyst

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Supporting information:

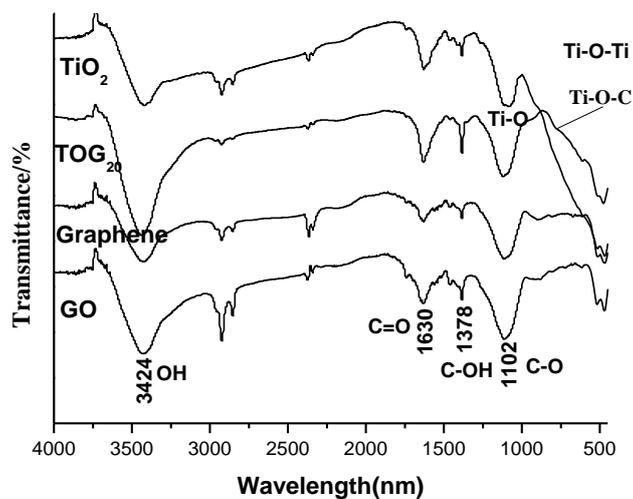


Figure S1. FTIR spectra of GO, graphene, TiO₂ and TOG₂₀ composites

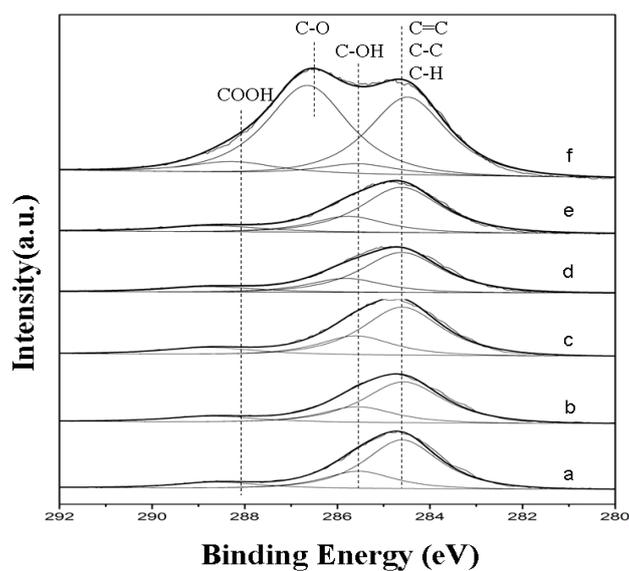


Figure S2. High-resolution XPS spectra of C 1s (a: TOG₁, b: TOG₅, c: TOG₁₀, d: TOG₁₅, e: TOG₂₀, f: GO)

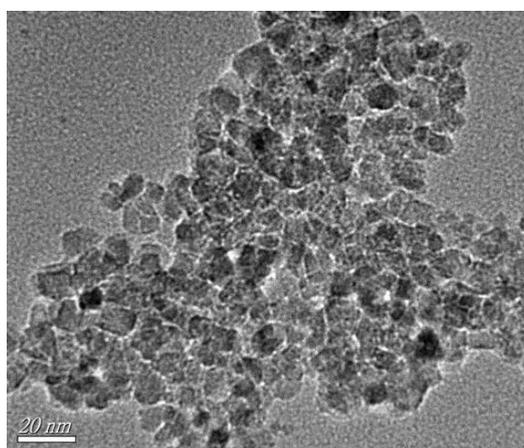


Figure S3. TEM image of bare TiO_2

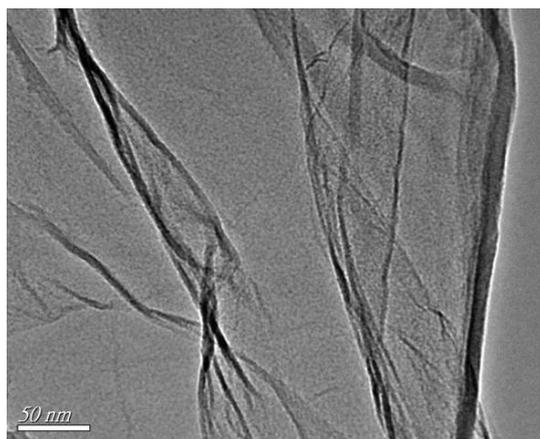


Figure S4. TEM image of GO from Hummer's method

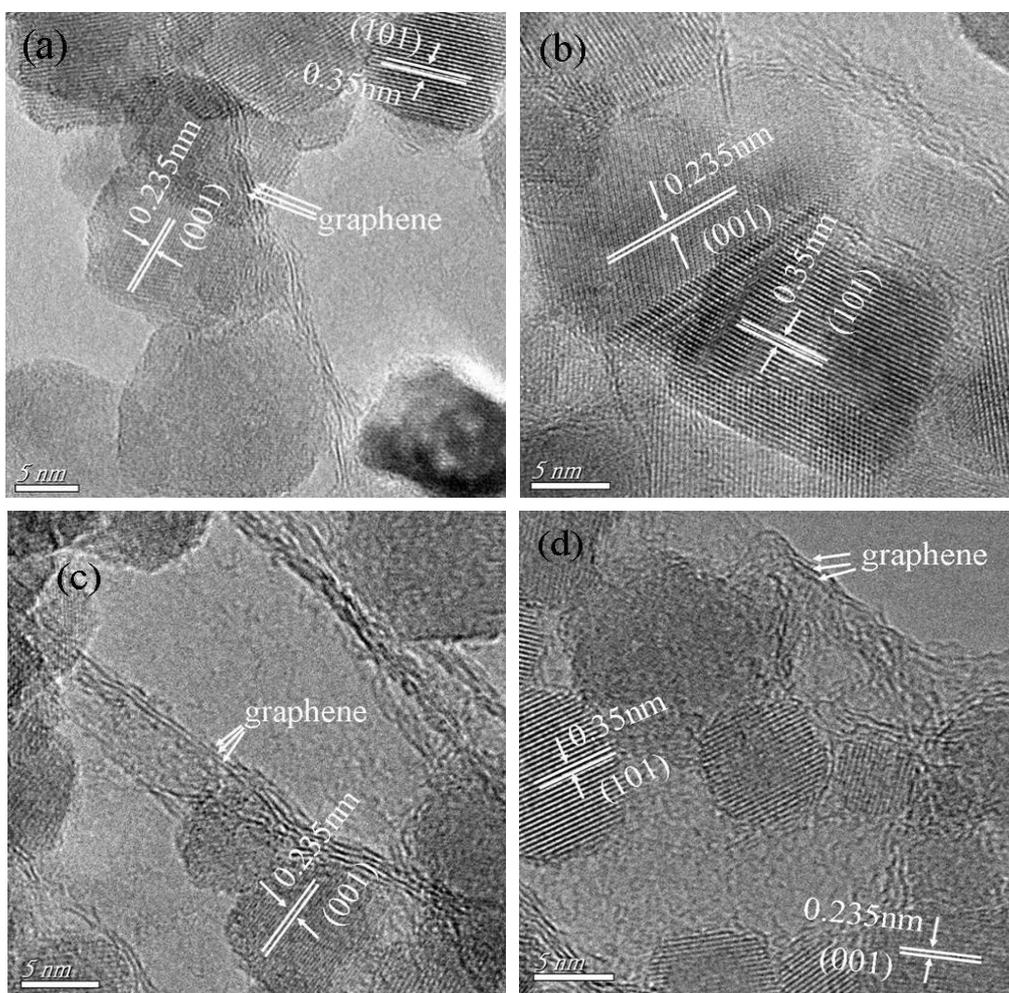


Figure S5. HRTEM images of TOG composites (a) TOG_{10} , (b, c) TOG_{15} , (d) TOG_{20}

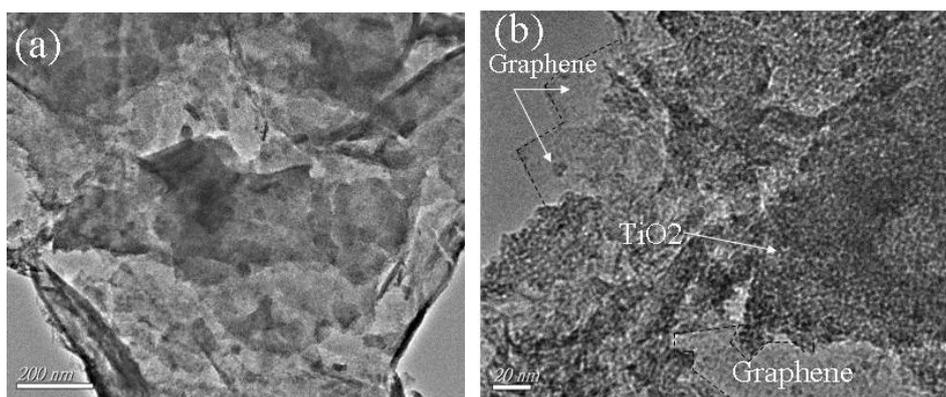
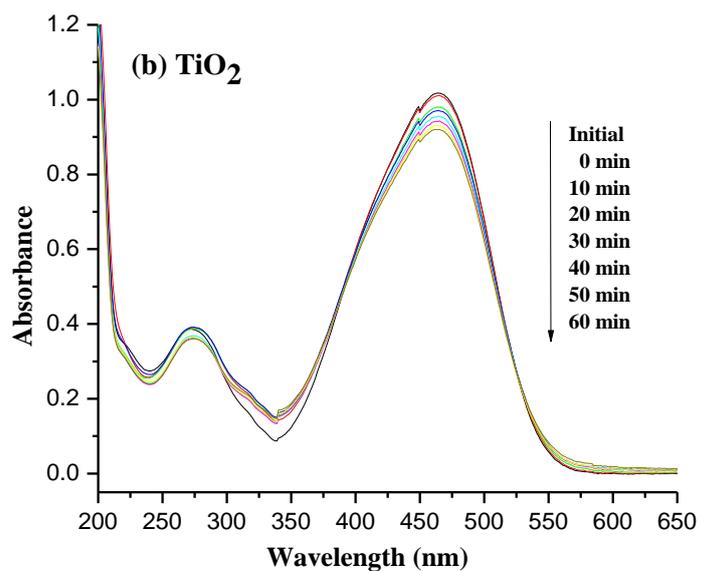
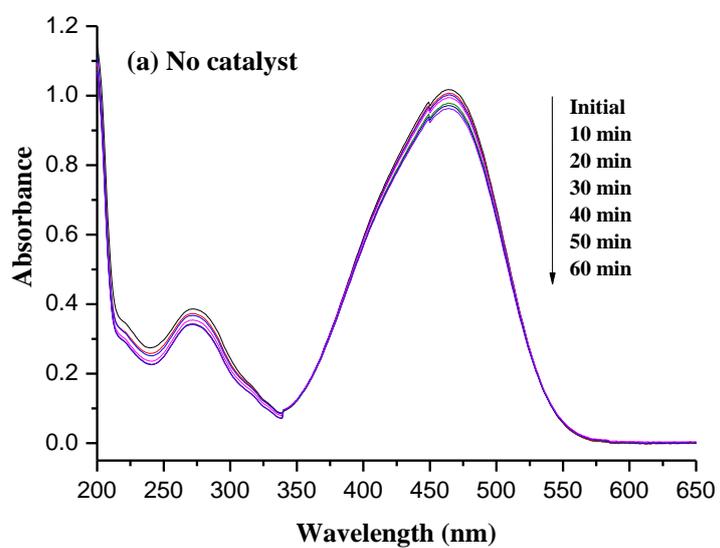


Figure S6. TEM images of TOG₂₀-C composites (a) low magnification, (b) high magnification



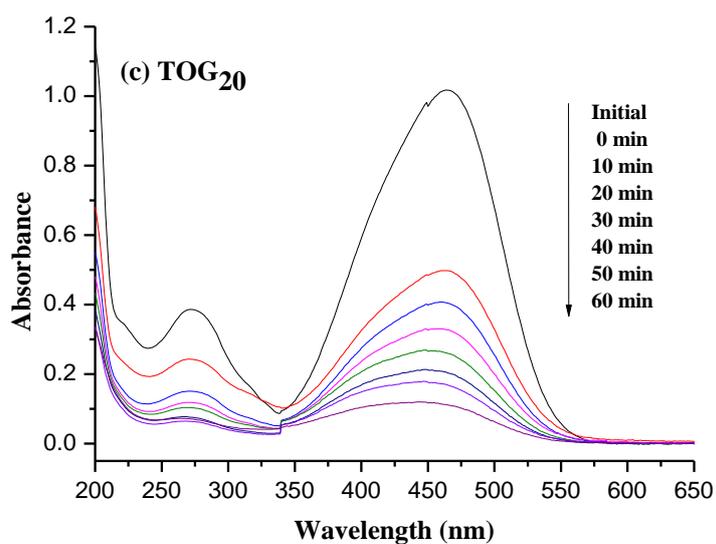


Figure S7. Time profile of MO absorbance spectrum observed during photodegradation under UV light irradiation by (a) No catalyst, (b) TiO₂, and (c) TOG₂₀.

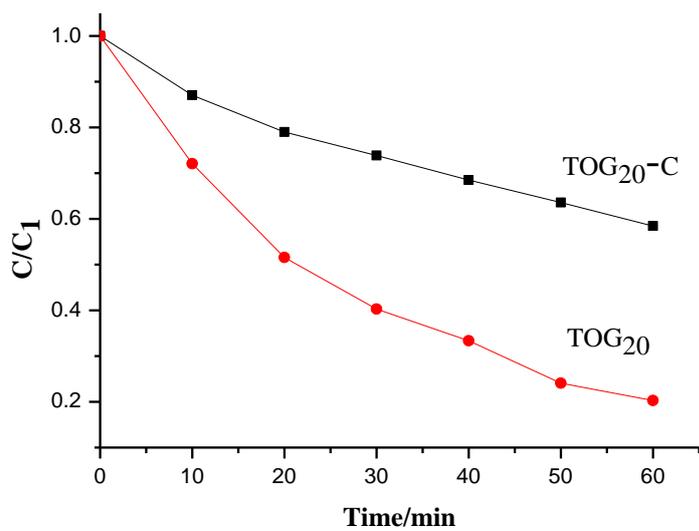


Figure S8. Photocatalysis of methyl orange (MO) under UV light irradiation over {001} facets exposed TOG₂₀ and normal TOG₂₀-C composites.