Supporting Information

An Investigation into the Solar Light-Driven Enhanced Photocatalytic Properties of Graphene Oxide–SnO_2-TiO_2 Ternary Nanocomposite

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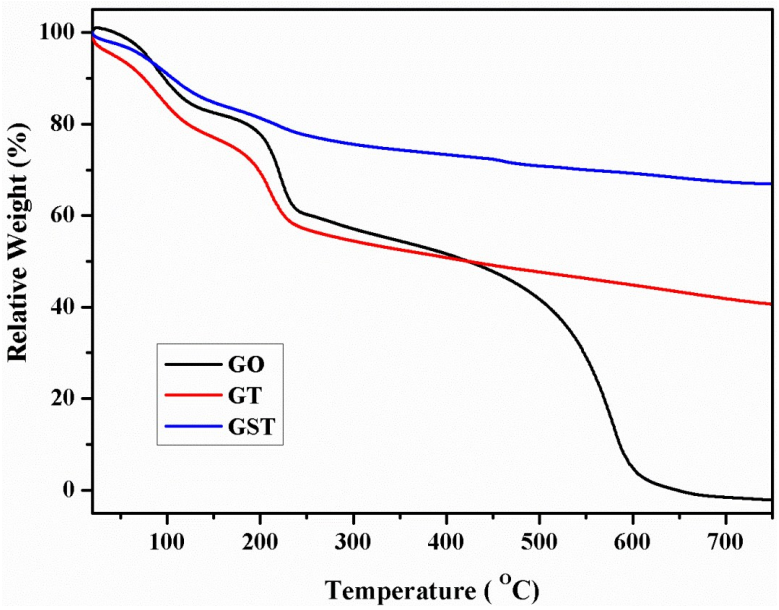


Fig. S1. TGA curve of GO, GT and GST nanocomposite.

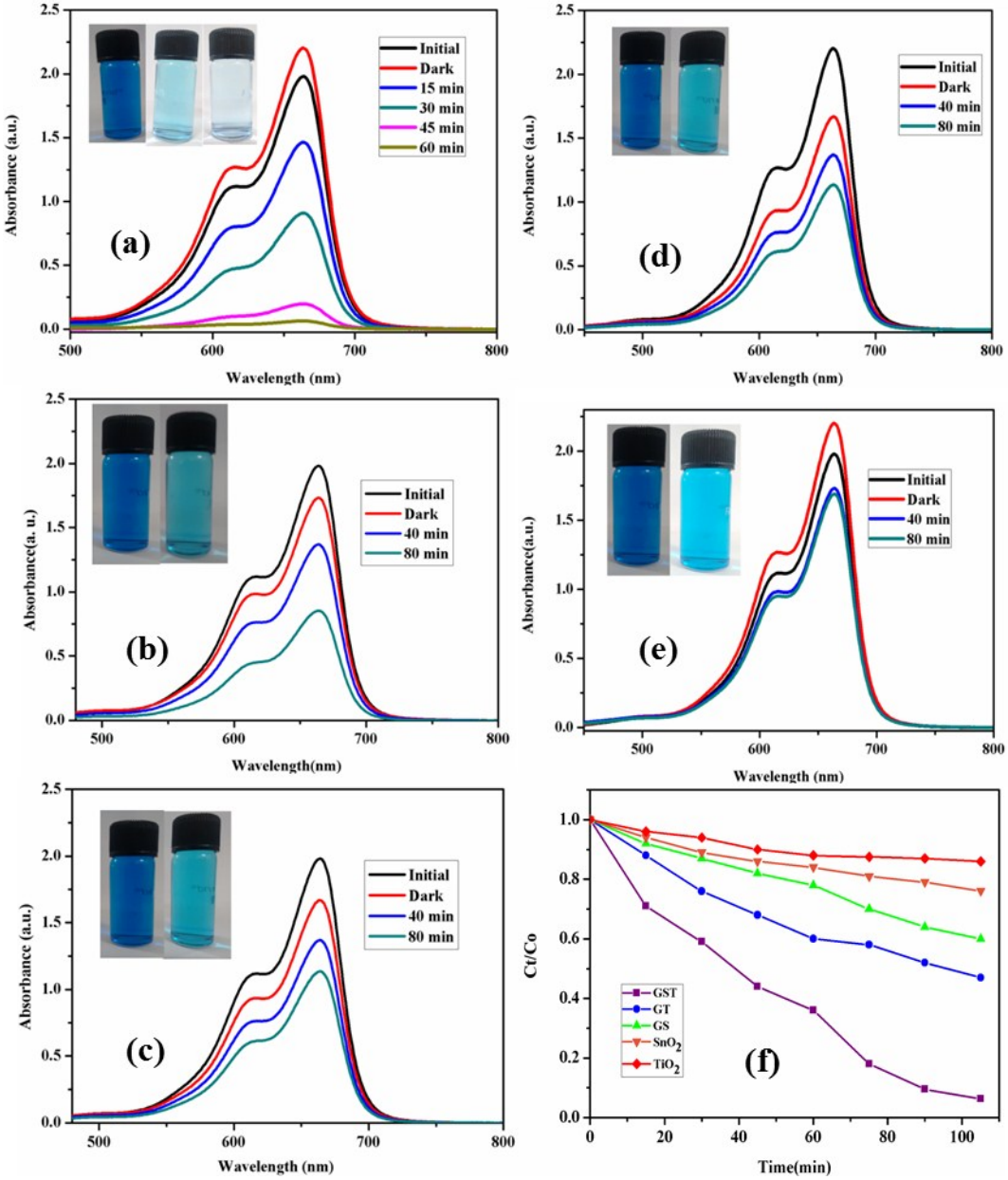


Fig. S2. Adsorption spectra of methylene blue solution under sunlight in the presence of (a) GST nanocomposite, (b) GT (c) GS(d) TiO_2, (e) SnO_2 and (f) Degradation rates for 20 mg L^{-1} solution at different time intervals for as-prepared samples.

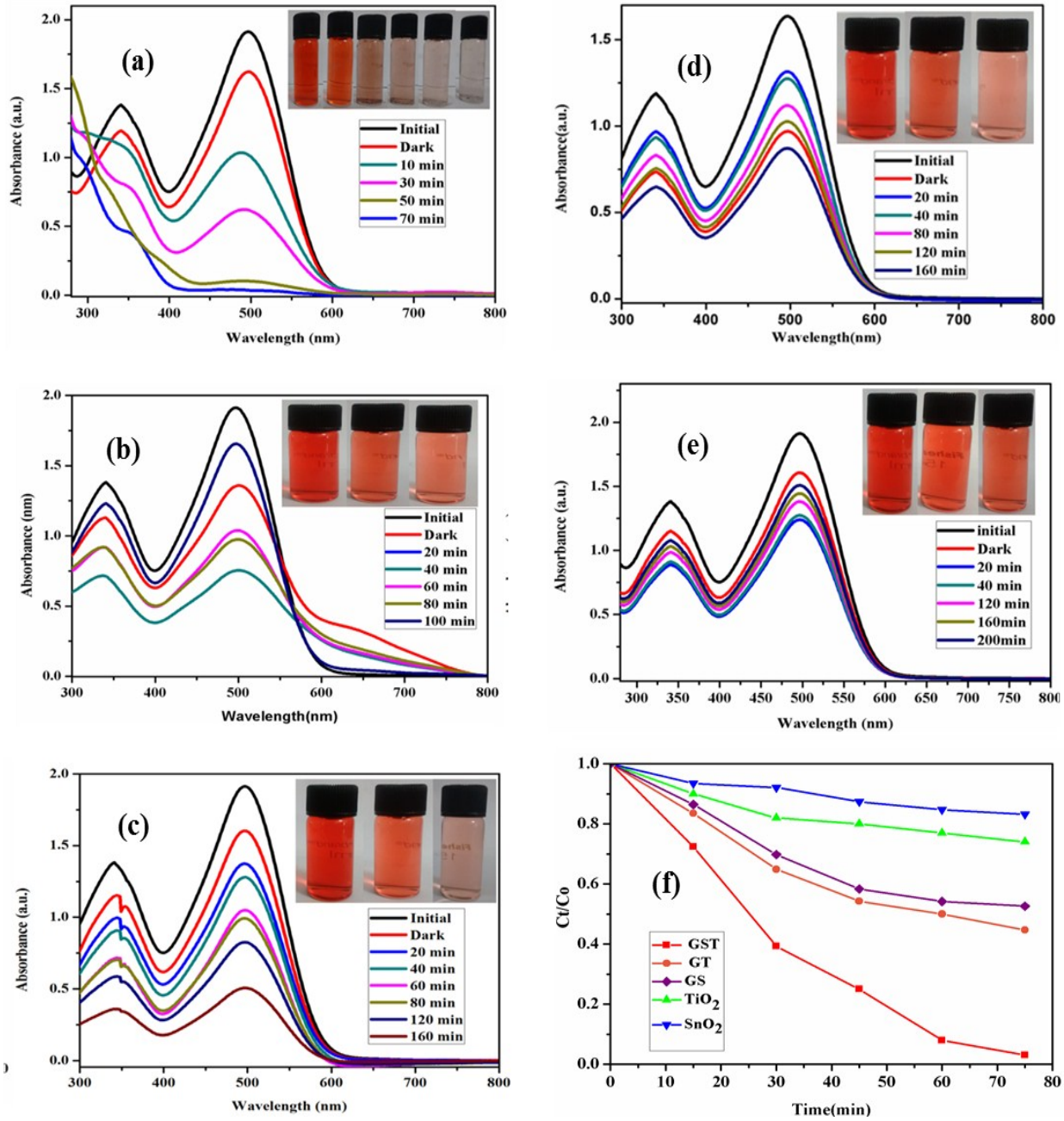


Fig.S3. Adsorption spectra of Congo red solution under sunlight in the presence of (a) GST nanocomposite, (b) GT (c) GS(d) TiO_2, (e) SnO_2 and (f) Degradation rates for 20 mg L^{-1} solution at different time intervals for as-prepared samples.

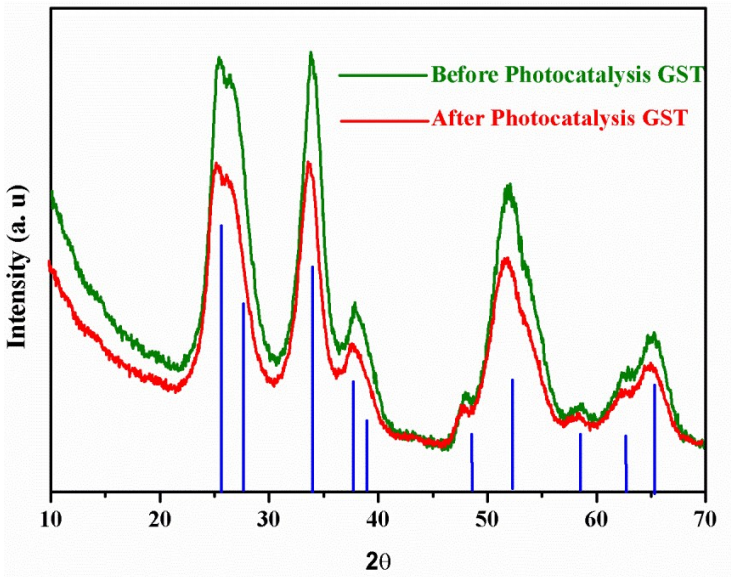
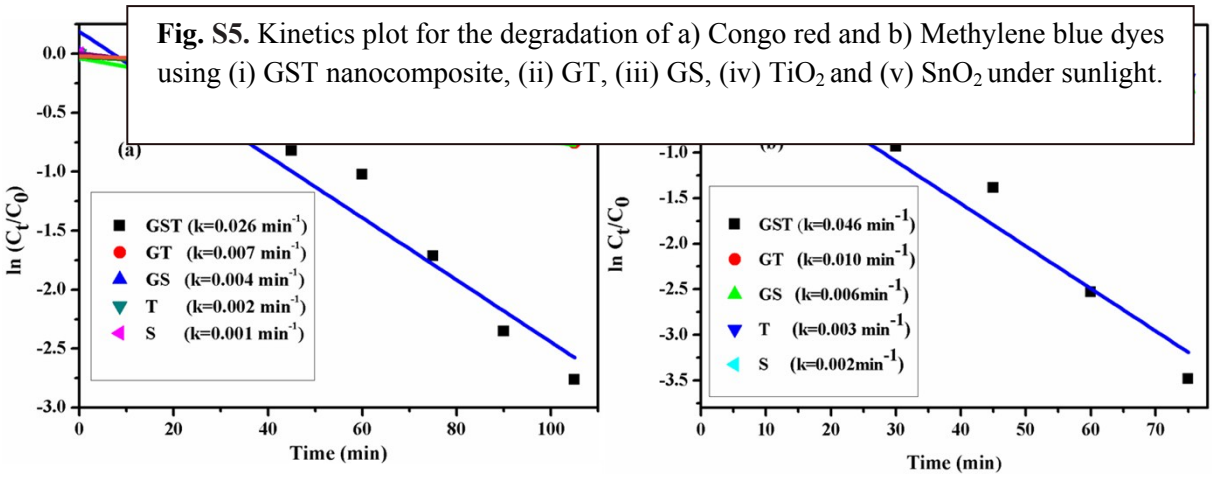


Fig. S4. XRD patterns of GST nanocomposite before and after the photocatalysis.

Fig. S5. Kinetics plot for the degradation of a) Congo red and b) Methylene blue dyes using (i) GST nanocomposite, (ii) GT, (iii) GS, (iv) TiO_2 and (v) SnO_2 under sunlight.



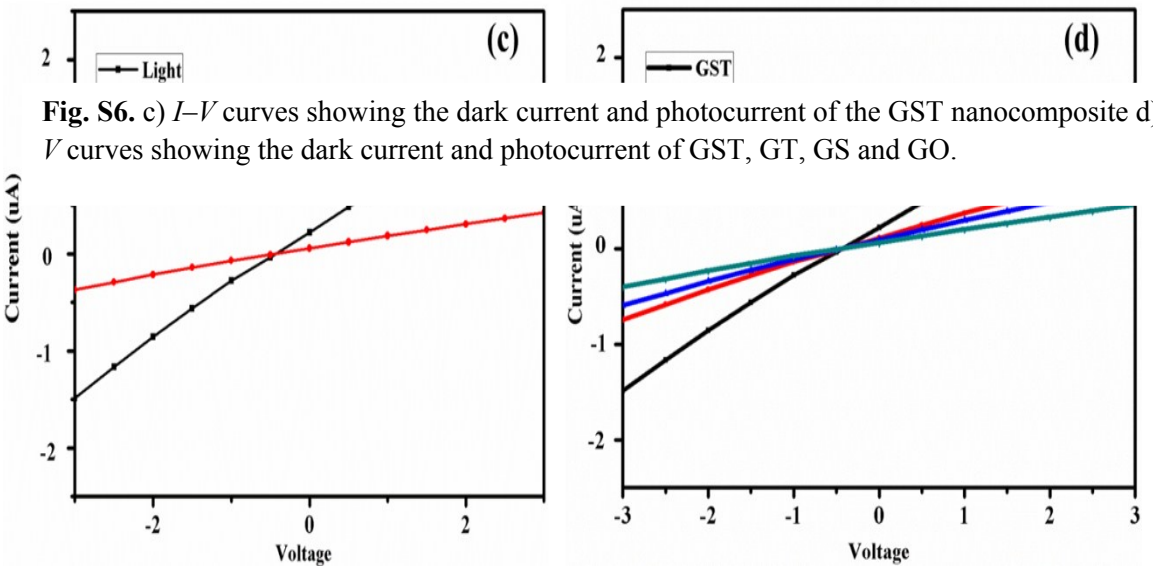
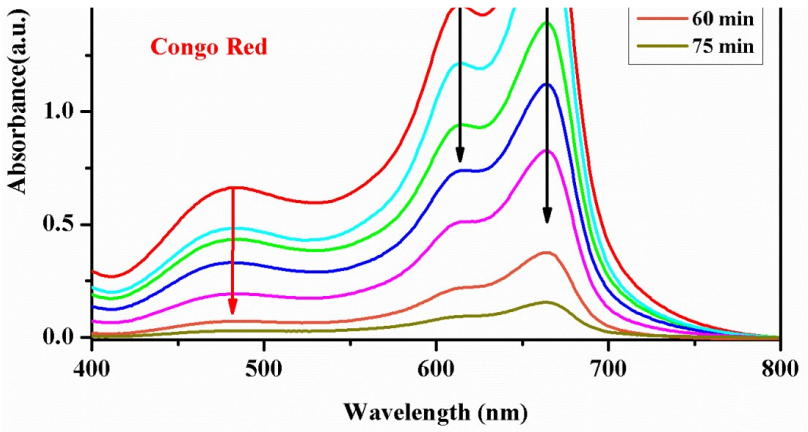


Fig. S6. c) *I–V* curves showing the dark current and photocurrent of the GST nanocomposite d) *I–V* curves showing the dark current and photocurrent of GST, GT, GS and GO.

Fig. S7. UV-vis absorbance spectra of MB and CR mixed dye solution in the presence of as-prepared GST nanocomposite under visible-light irradiation.



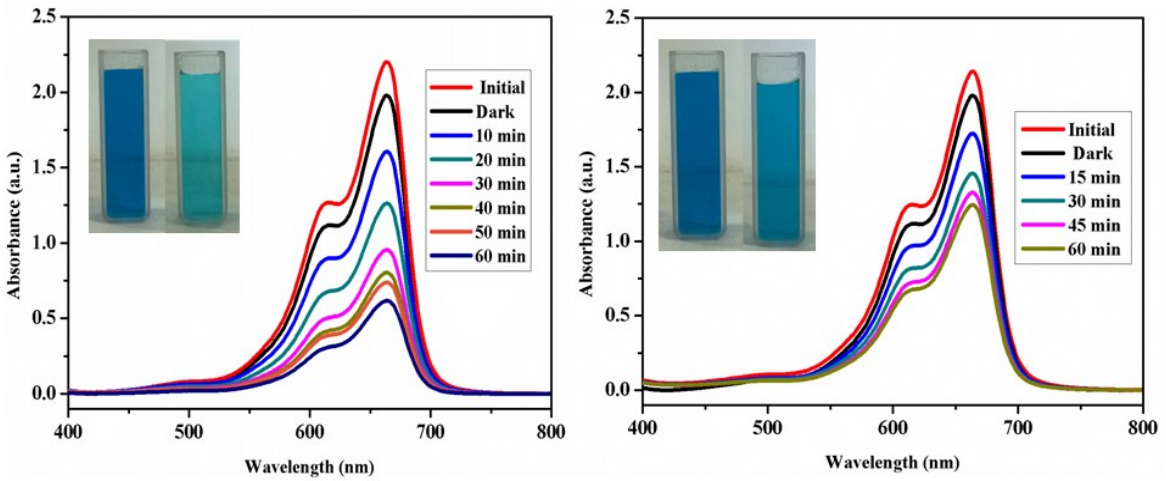


Fig. S8. Adsorption spectra of methylene blue and congo red solution under a) visible and b) UV light in the presence of GST nanocomposite