A new and facile preparation of 3D urchin-like TiO_2@graphene core@shell SERS substrates for photocatalytic degradation of RhB

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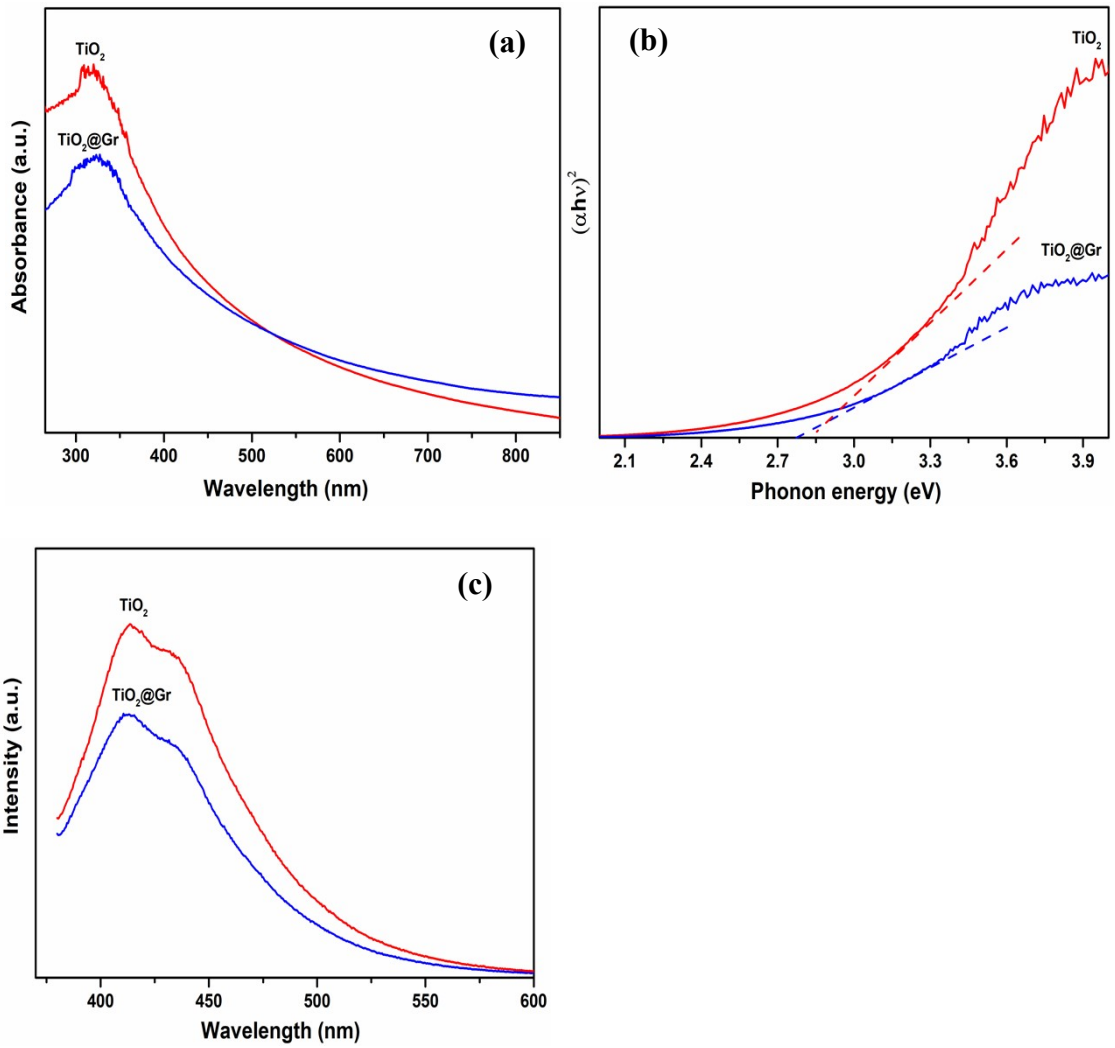

Fig. S1 (a) UV-Vis absorption spectra, (b) optical band gap, and (c) PL emission spectra of UT and UTG samples.

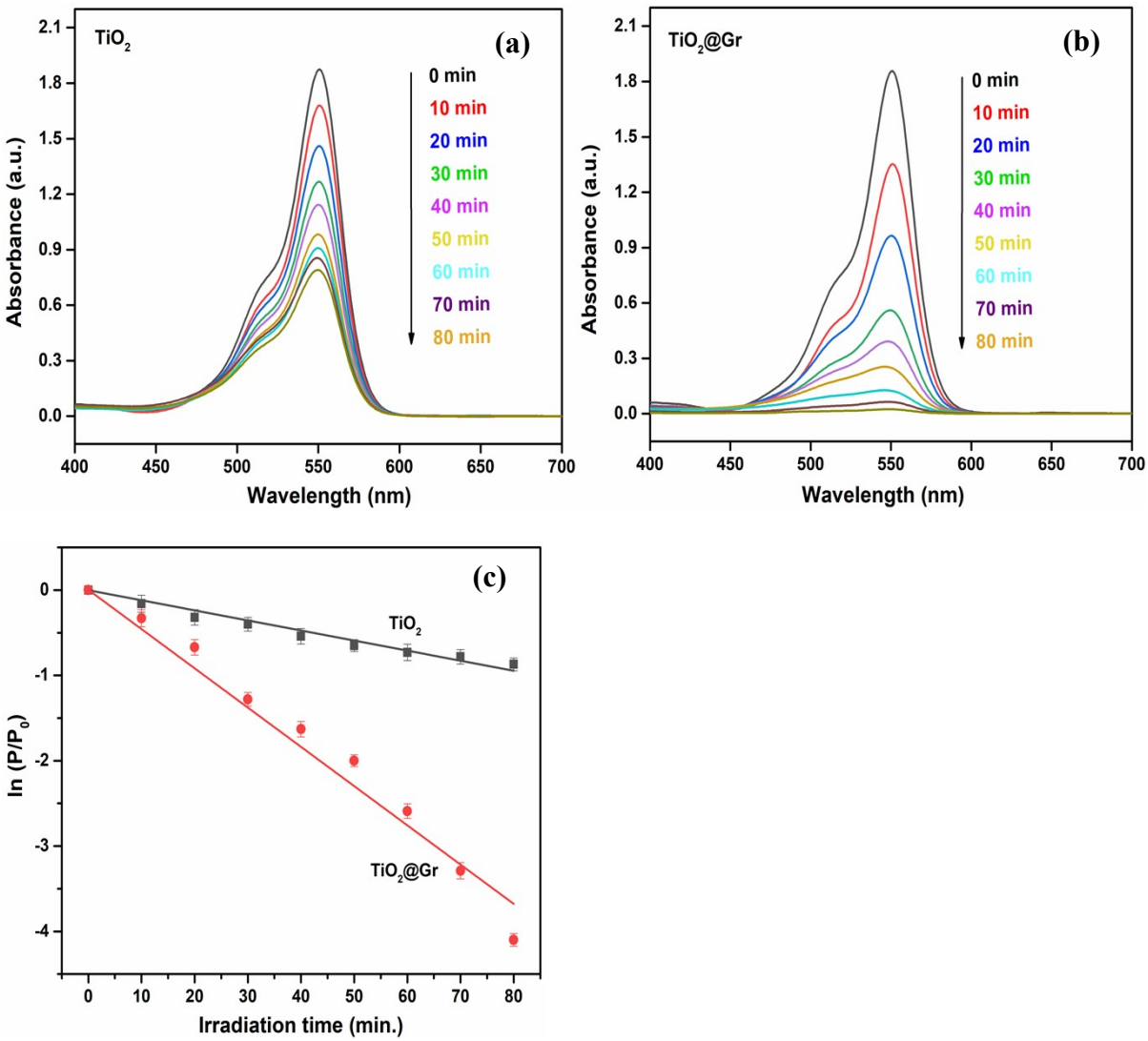

Fig. S2 (a, b) UV-Vis absorbance spectra and (c) linear relation between logarithm of peak intensites (*ln* (P/P_0)) at 550 nm versus irradiation time (min) for the degradation of RhB in the presence of UT and UTG samples.

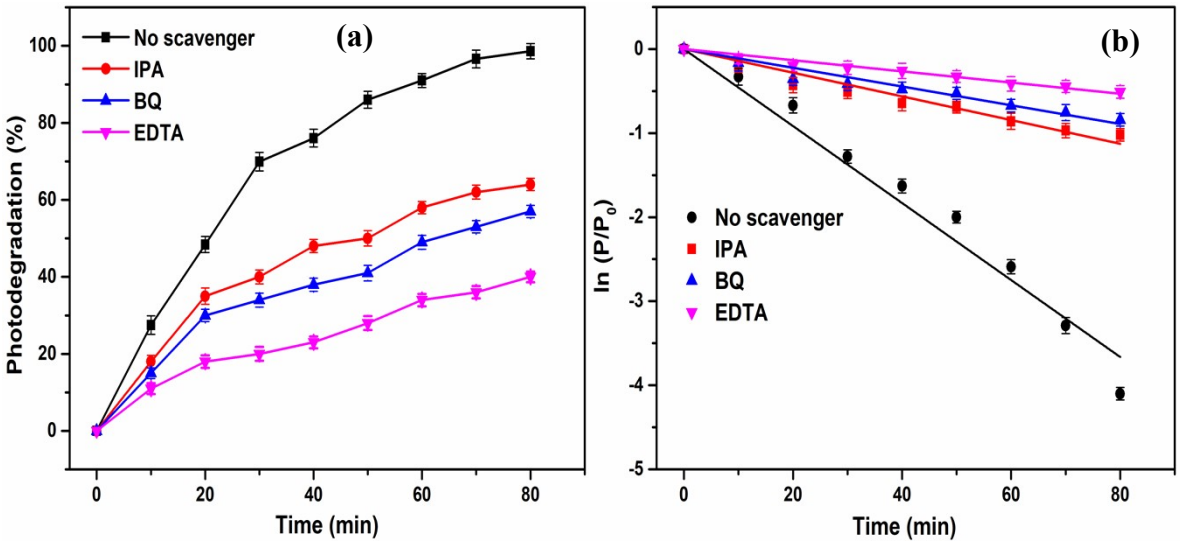

Fig. S3 (a) Trapping experiment of three radical scavengers in RhB photodegradation by UTG sample, (b) kinetic photodegradation of three radical scavengers.