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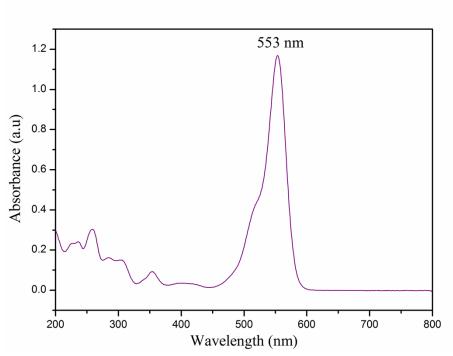


Fig. S1. Absorption curve of RhB

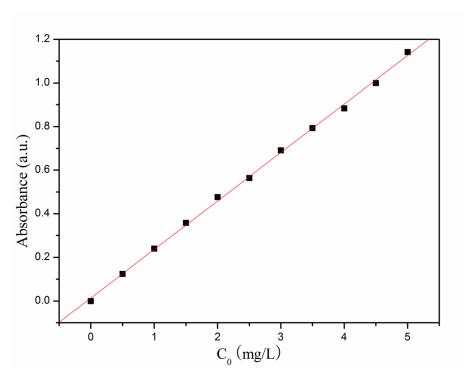


Fig. S2. Linear calibration of absorbance against concentration

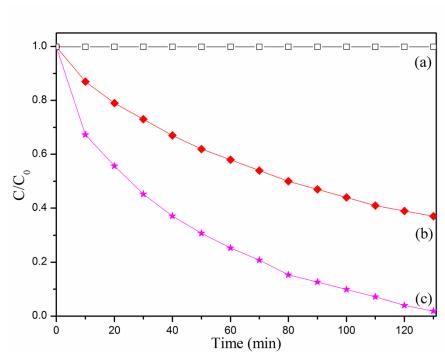


Fig. S3. The photocatalytic activity comparisons of RhB for blank experiment (a),  $Bi_2S_3\&g-C_3N_4-4$  (b, prepared by mechanical mixing method) and  $Bi_2S_3/g-C_3N_4-4$  (c, prepared by hydrothermal method) samples

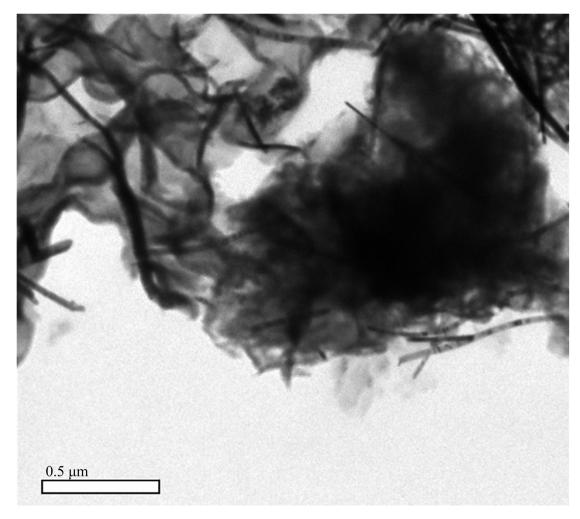


Fig. S4. TEM image of  $Bi_2S_3/g$ - $C_3N_4$ -5

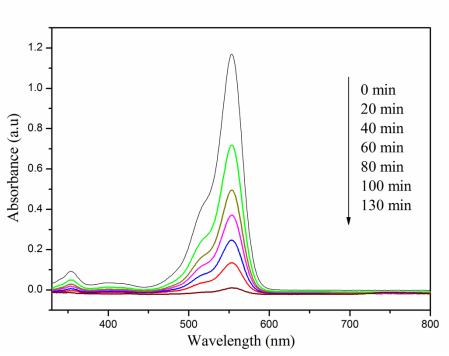


Fig. S5. Evolutions of absorption spectra of RhB with different time

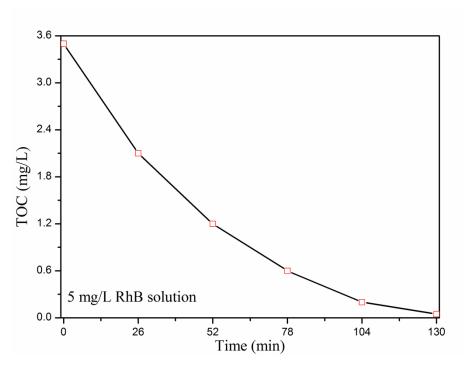


Fig. S6. TOC evolution versus irradiation time in the photocatalytic reaction