

## Electronic Supplementary Information (ESI)

### Synthesis of highly efficient and recyclable visible-light responsive mesoporous g-C<sub>3</sub>N<sub>4</sub> photocatalyst via facile template-free sonochemical route

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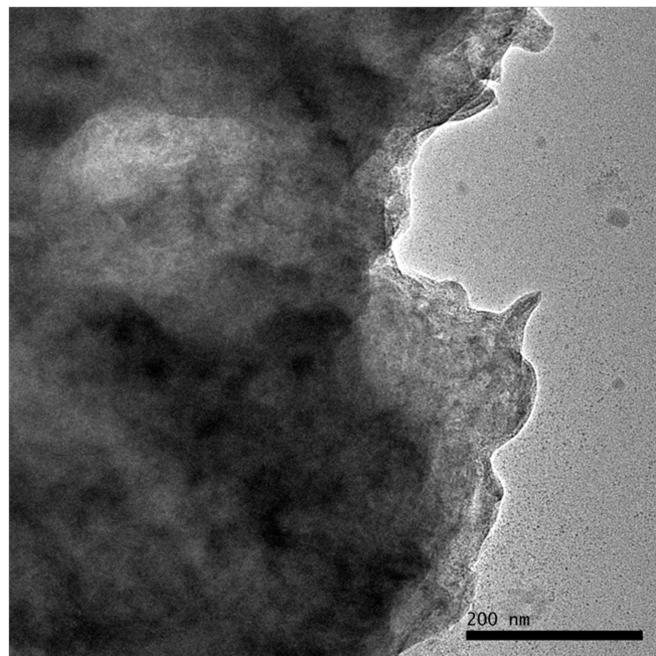


Fig. S1 TEM image of bulk g-C<sub>3</sub>N<sub>4</sub>

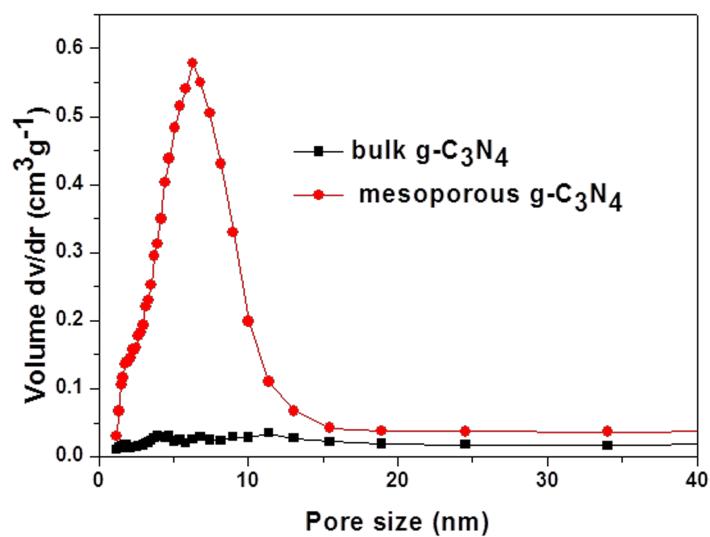


Fig. S2 Pore size distribution of bulk g-C<sub>3</sub>N<sub>4</sub> and mesoporous g-C<sub>3</sub>N<sub>4</sub>.

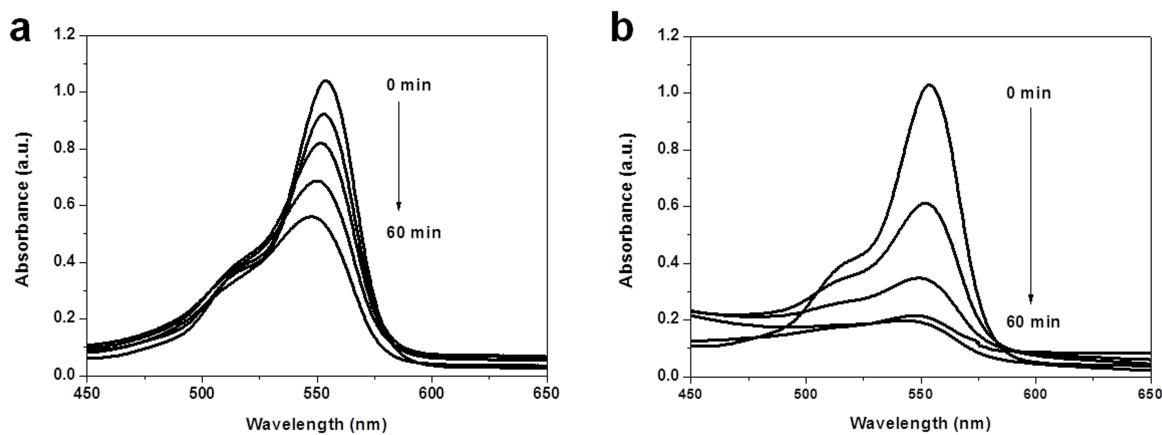


Fig. S3 Absorption spectra of RhB over bulk g-C<sub>3</sub>N<sub>4</sub> (a) and mesoporous g-C<sub>3</sub>N<sub>4</sub> (b) under visible light irradiation.

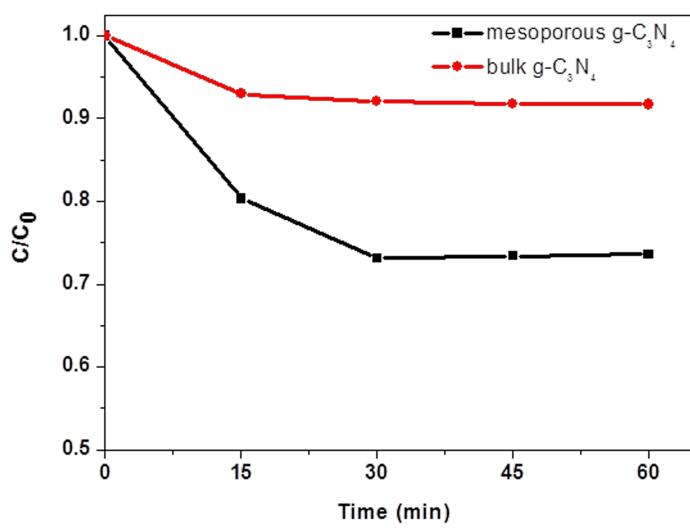


Fig. S4 Adsorption studies of RhB in aqueous solution over bulk  $\text{g-C}_3\text{N}_4$  and mesoporous  $\text{g-C}_3\text{N}_4$ .

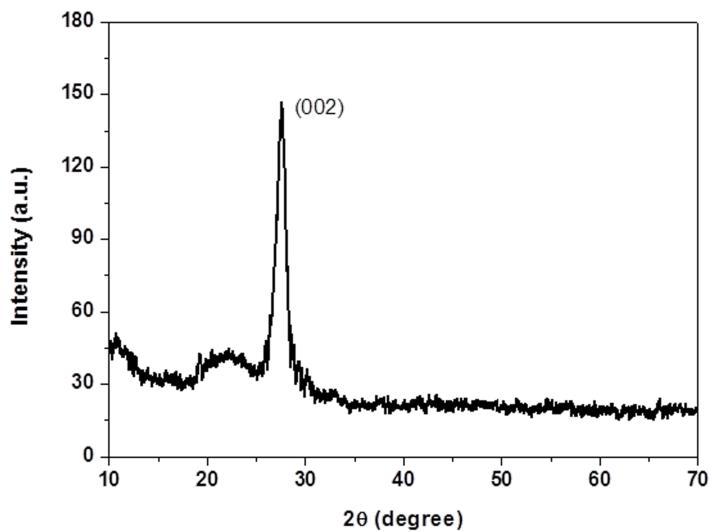


Fig. S5 XRD pattern of reused mesoporous  $\text{g-C}_3\text{N}_4$  after five successive experimental runs.