Supplementary data

## In Situ Construction of SnO<sub>2</sub>/g-C<sub>3</sub>N<sub>4</sub>heterojunction for Enhanced Visible-Light Photocatalytic Activity

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Figure S1. Schematic representation of the in situ deposition of  $SnO_2$  nanoparticles

on the layered  $g-C_3N_4$  sheet.



Figure S1. TG analyses for pure g-C<sub>3</sub>N<sub>4</sub>, SnO<sub>2</sub>/g-CN-88.13%, SnO<sub>2</sub>/g-CN-72.12%, SnO<sub>2</sub>/g-CN-54.19%, and SnO<sub>2</sub>/g-CN-24.47%.



**Figure S2.** RhB adsorption of SnO<sub>2</sub>/g-CN-72.12% photocatalysts in the dark. Inset shows RhB adsorption and degradation in the dark and light irradiation, respectively.



Figure S3. (a) Degradation rate of RhB under visible-light irradiation (>420 nm) with the presence of pure  $g-C_3N_4$ , SnO<sub>2</sub> and SnO<sub>2</sub>/g-CN-72.12% nanocomposites.(b) a natural logarithm C<sub>0</sub>/C fitting curves of all samples.