Controllable Synthesis of Nanotube-type Graphitic C$_3$N$_4$ and Their Visible-light Photocatalytic and Fluorescent Properties

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**Figure S1.** Panorama view of nanotube-type g-C$_3$N$_4$: (a) bulk phase; (b) surface parts; TEM images of nanotube-type g-C$_3$N$_4$: (c) formed in bulk phase; (d) formed on the surface.
Figure S2. A magnified view of tube-like formed on the surfaces
Figure S3. Raman spectrum of as-synthesized nanotube-type g-C₃N₄.
Figure S4. XPS spectrum of nanotube-type g-C$_3$N$_4$. 
Figure S5. (a) Nitrogen adsorption-desorption isotherm; (b) the corresponding pore size distribution curve.
**Figure S6.** SEM images of g-C$_3$N$_4$ samples with different packing compact degree: (a-b) loosely packed; (c-d) tightly packed
**Figure S7.** FE-SEM images of as-synthesized nanotube-type g-C₃N₄ ultrasonic treated with water (a) surface parts; (b) bulk phase
**Figure S8.** FE-SEM images of as-synthesized nanotube-type g-C₃N₄ by pasting melamine syrup on the wall of crucible: (a) an overall view; (b-c) magnified views.
Figure S9. Tauc plot of as-synthesized nanotube-type g-C$_3$N$_4$. 