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Supplementary Information

Atomic layer deposition with rotary reactor for uniform heterojunction photocatalyst, g-C_3N_4@TiO_2 core-shell structures

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SUPPORTING INFORMATION CONTAINS:

Fig. S1-S2

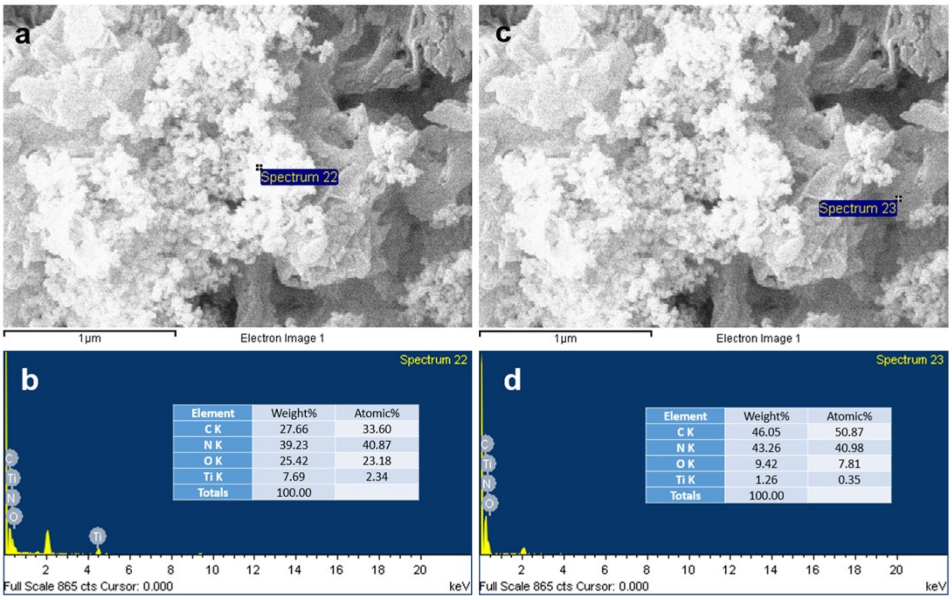

Figure S1. (a,c) SEM images of GTC with EDS point analysis on (b) TiO_2 agglomerates and (d) g-C_3N_4 sheet-like particles.

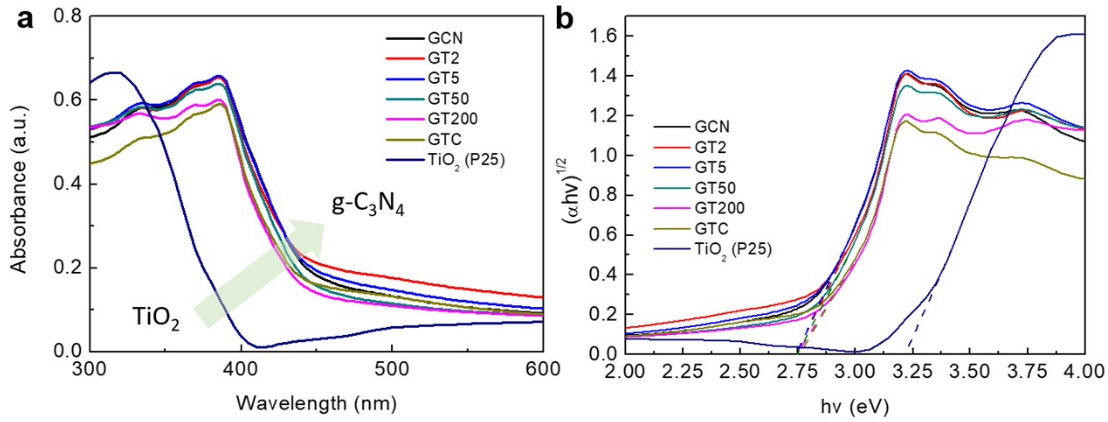

Figure S2. (a) UV-Vis diffuse reflectance spectra and (b) the band gap energies of GCN, GTs, GTC, and pure TiO_2 (P25). The following equation was used to calculate the band gap energies of each sample:

$$(\alpha h\upsilon)^{1/2} = A(h\upsilon - E_g),$$

where A, h, υ, and E_g are the absorption coefficient, Planck constant, light frequency, and band gap energy, respectively. The y-axis value of $(\alpha h\upsilon)^{1/2}$ is plotted as a function of hυ, and the band gap energy was approximated by tangent intercept with the x-axis. As a result, the band gap energies of GCN and GTs are similar (~ 2.75 eV) and the band gap energy of bare TiO_2 (P25) is ~3.21 eV.