

SUPPORTING INFORMATION

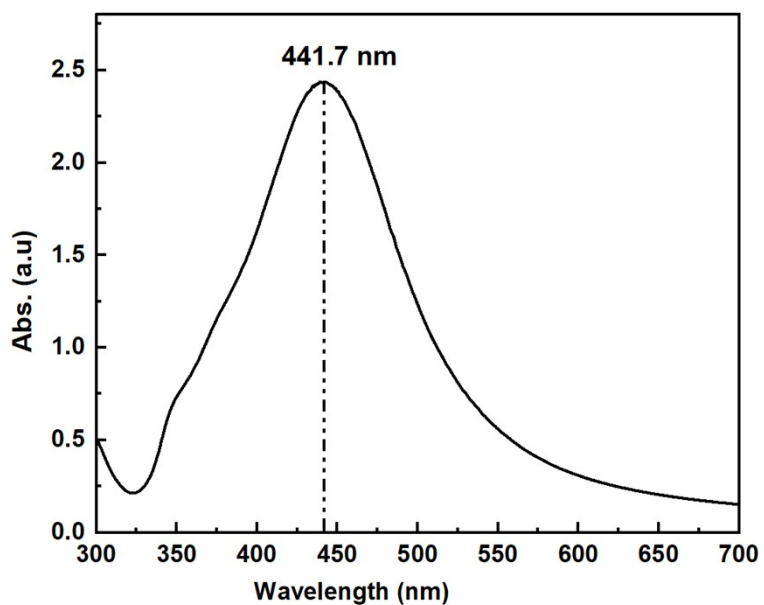


Fig. S1 UV-vis absorption spectrum of AgNPs in solution

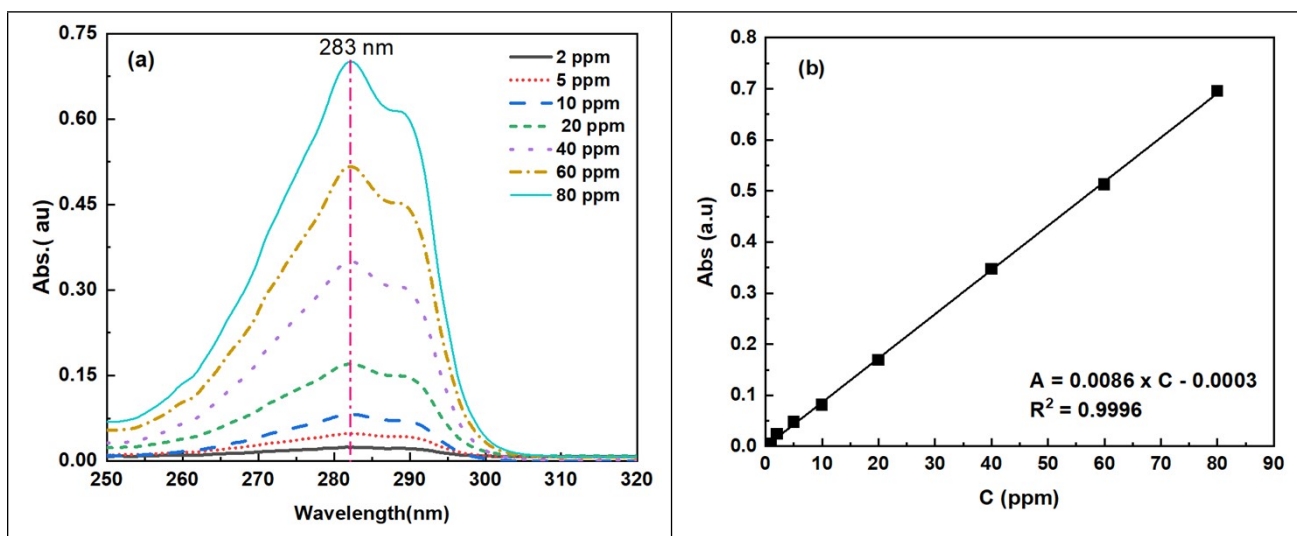


Fig. S2 (a) UV-vis spectra of 2,4- D standard aqueous solution; (b) calibration curve and fitted linear equation for 2,4-D at $\lambda = 283$ nm

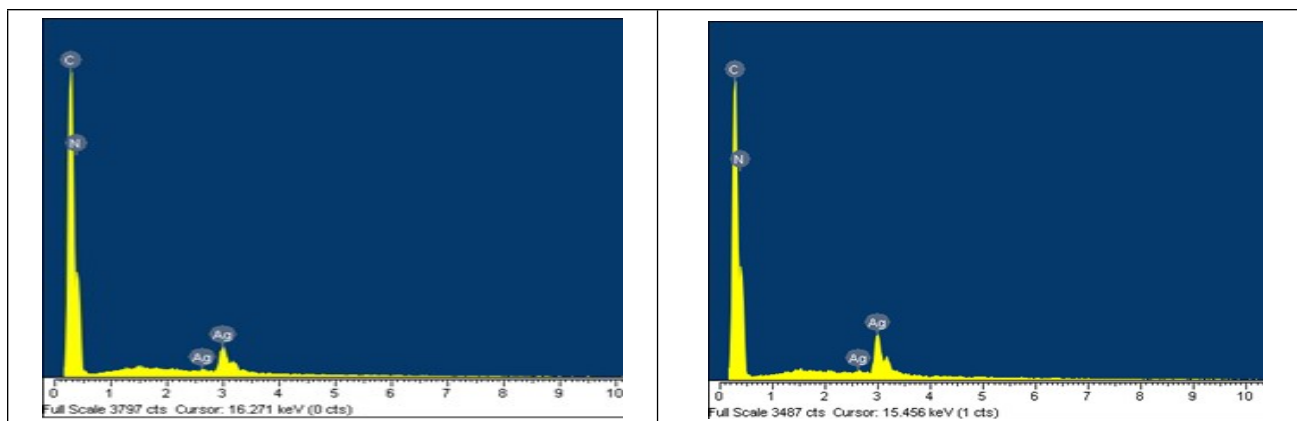


Fig. S3 EDX spectra of 3 wt% AgNPs/g-C₃N₄ (a) and 5 wt% AgNPs/g-C₃N₄ (b)

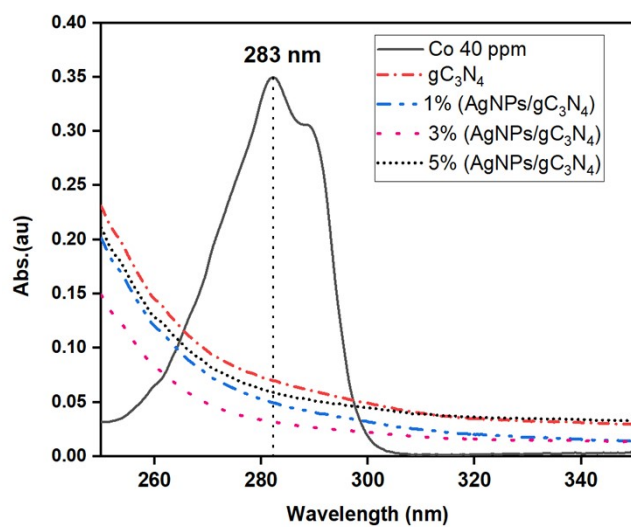


Fig. S4. UV-Vis spectra of 2,4-D solutions before adsorption and photocatalysis and after 180 min of illumination with 1 wt%, 3 wt% and 5 wt% AgNPs/g-C₃N₄

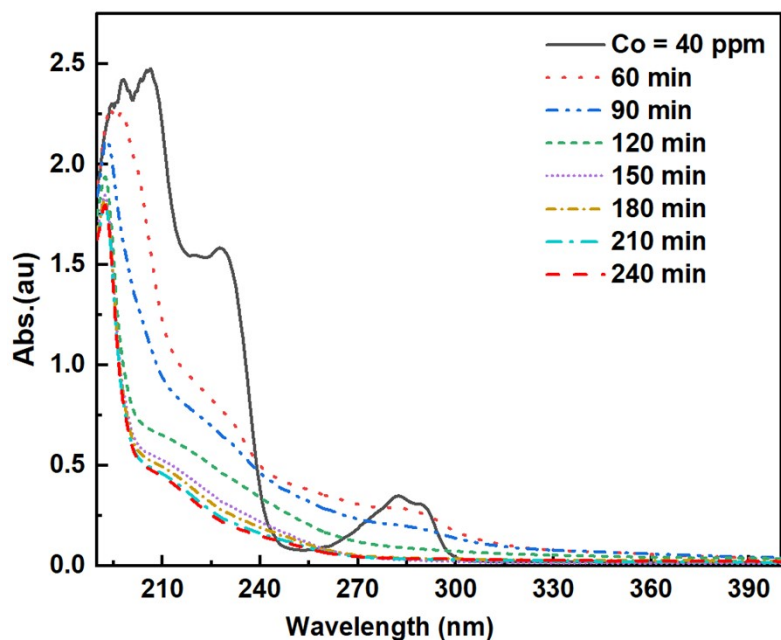


Fig. S5. UV-Vis spectra of 2,4-D solutions mixed with 3 wt% AgNPs/g-C₃N₄ at irradiation times ranging from 0 to 240 min

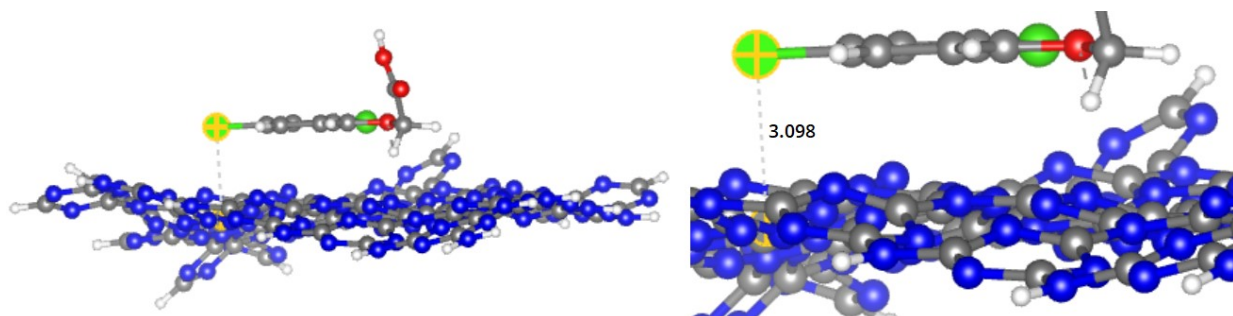


Figure S6. Optimized configuration of 2,4-D/g-C₃N₄

(color codes: grey - C; dark blue - N; white - H; green - Cl; red - O; all key distances are in Å)

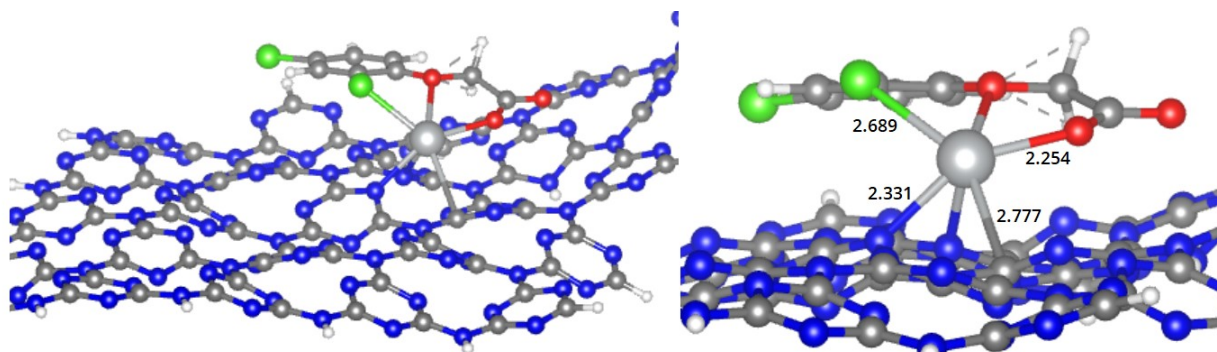


Figure S7. The optimized configuration of 2,4-D/g-C₃N₄ 2,4-D/Ag-g-C₃N₄

(color codes: grey - C; dark blue - N; white - H; green - Cl; red - O; all key distances are in Å)

Table S1. Calculated parameters for optimized adsorption configurations of 2,4-D on g-C₃N₄ and Ag/g-C₃N₄

Parameter	2,4-D/g-C ₃ N ₄	2,4-D on Ag/g-C ₃ N ₄
E _{ads} , kJ mol ⁻¹	-95,9	-271,3
d _{min} , Å	3,098	2,254 (Ag-O)
q(2,4-D), e	-0,012	-0,243
q(Ag), e	-	+0,241
Bond order (2,4-D-adsorbent)	0,000	0,780 (Ag-O: 0,377; Ag-O: 0,151; Ag-Cl: 0,252)