

Electronic Supplementary Information (ESI) For

Metal-free Photocatalytic Degradation of 4-Chlorophenol in Water

by Mesoporous Carbon Nitride Semiconductors

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Figure S1. LC-MS chromatograms of 2,4-DCP solution (left) and 2,6-DCP solution (right) degraded by mpg-CN_{0.4} under visible light irradiation at different irradiation intervals: (a) original 2,4-DCP / 2,6-DCP solution after adsorption-desorption equilibrium in the dark; (b) 2,4-DCP / 2,6-DCP solution after 60 min of irradiation.

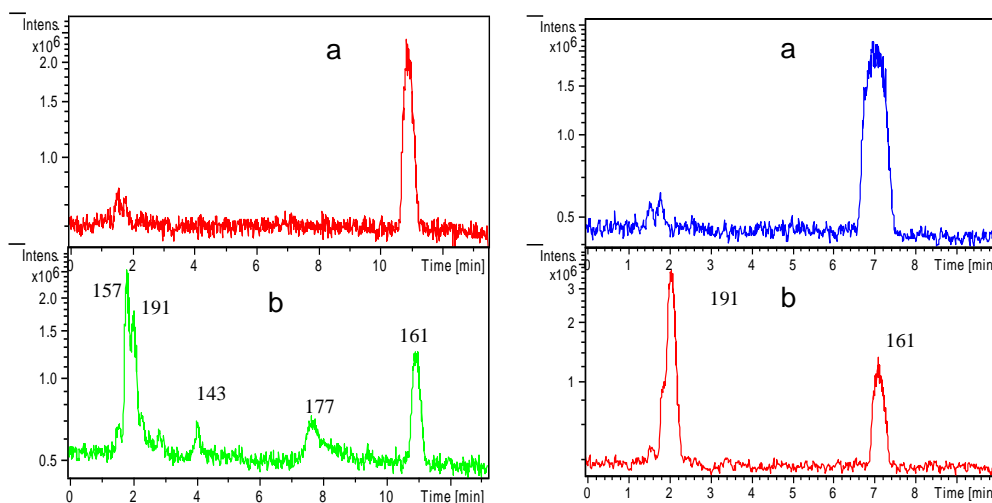


Figure S2. Plots of the induced fluorescence intensity (426 nm) against visible light irradiation time. (Inset: Fluorescence spectra of terephthalic acid solution for mpg-CN_{0.4})

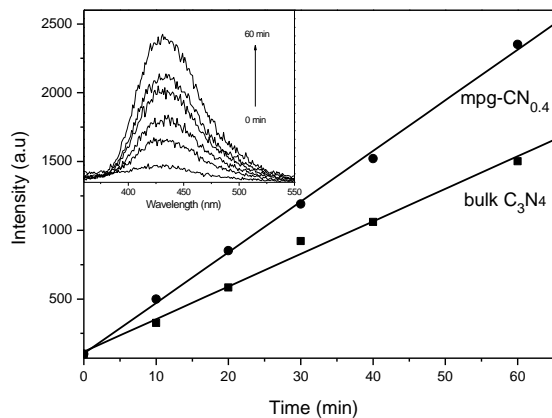


Figure S3. Mott-Schottky plots and band structure (inset: CB: conduction band, VB: valence band) of bulk C₃N₄ (◆) and mpg-CN_{0.4} (■).

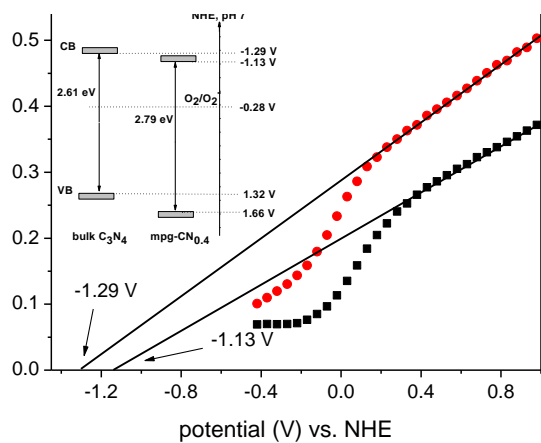


Table S1. Removal (%) of the Parent Substrate (a), TOC (b) and Generated Cl⁻ Concentration (c) under Visible Light Irradiation.

Substrate	^a 100 × $\Delta[C]/[C]_0$	^b 100 × $\Delta[TOC]/[TOC]_0$	^c [Cl ⁻] mg/L
4-CP	94	56	4.1
2,6-DCP	72	41	7.6
2,4-DCP	61	40	8.2

^a after 60min of irradiation; ^{b,c} after 180 min irradiation.

Scheme S1. Proposed early steps in the transformation pathways of 2,4-DCP under visible light irradiation.

