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})

![Image of Figure S2](image.png)

**Figure S3.** Mott-Schottky plots and band structure (inset: CB: conduction band, VB: valence band) of bulk C_{3}N_{4} (◆) and mpg-CN_{0.4} (■).

![Image of Figure S3](image.png)
**Table S1.** Removal (%) of the Parent Substrate (a), TOC (b) and Generated Cl⁻ Concentration (c) under Visible Light Irradiation.

<table>
<thead>
<tr>
<th>Substrate</th>
<th>$\Delta [\text{C}]/[\text{C}]_0$</th>
<th>$\Delta [\text{TOC}]/[\text{TOC}]_0$</th>
<th>mg/L</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-CP</td>
<td>94</td>
<td>56</td>
<td>4.1</td>
</tr>
<tr>
<td>2,6-DCP</td>
<td>72</td>
<td>41</td>
<td>7.6</td>
</tr>
<tr>
<td>2,4-DCP</td>
<td>61</td>
<td>40</td>
<td>8.2</td>
</tr>
</tbody>
</table>

$a$ after 60 min 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.