

Electronic Supplemental Information for

**Urea-induced Supramolecular Self-assembled Strategy to Synthesize  
Wrinkled Porous Carbon Nitride Nanosheets for Highly-efficient Visible-  
light Photocatalytic Degradation**

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## Table of Contents

**Fig. S1. Pictures of UD3, UD0 and DCN.**

**Fig. S2. FTIR spectra and XRD patterns of raw DCDA and obtained intermediates.**

**Table S1. TOC data during degradation.**

**Fig. S3. XRD and FTIR of UD3 before and after photocatalytic experiment.**

**Fig. S4. SEM and TEM images of UD1, UD2 and UD4.**

**Table S2.  $S_{\text{BET}}$ , BJH average pore diameter and BJH pore volume of DCN, UD0 and UD3 samples.**

**Fig. S5. XRD patterns and FTIR spectra of DCN, UD0 and UD3.**

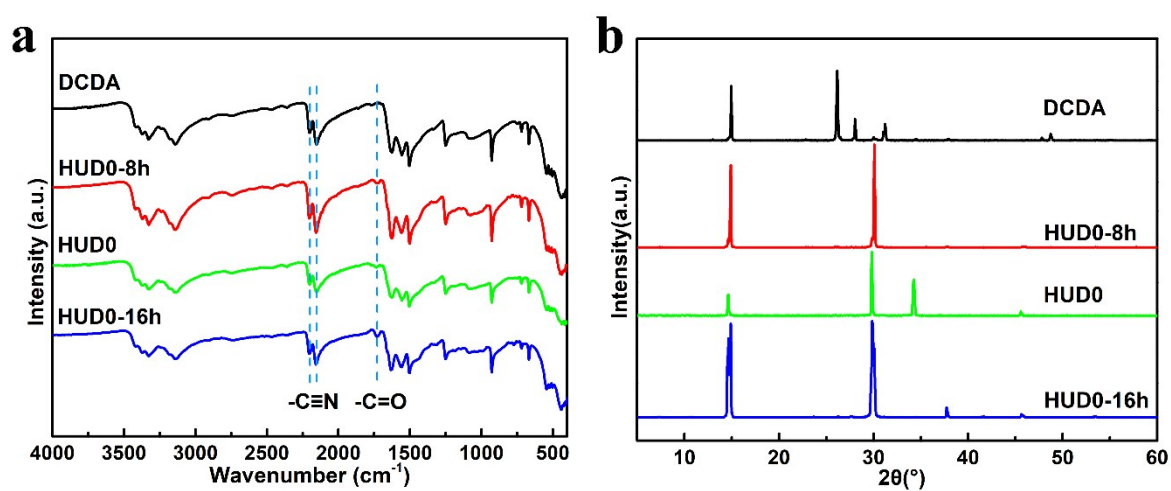
**Fig. S6. High-resolution XPS spectra and solid-state  $^{13}\text{C}$  NMR spectra for DCN, UD0 and UD3.**

**Fig. S7. Near surface region chemical compositions of DCN, UD0 and UD3 determined from XPS survey spectra.**

**Table S3. The fluorescent lifetime of DCN, UD0 and UD3.**



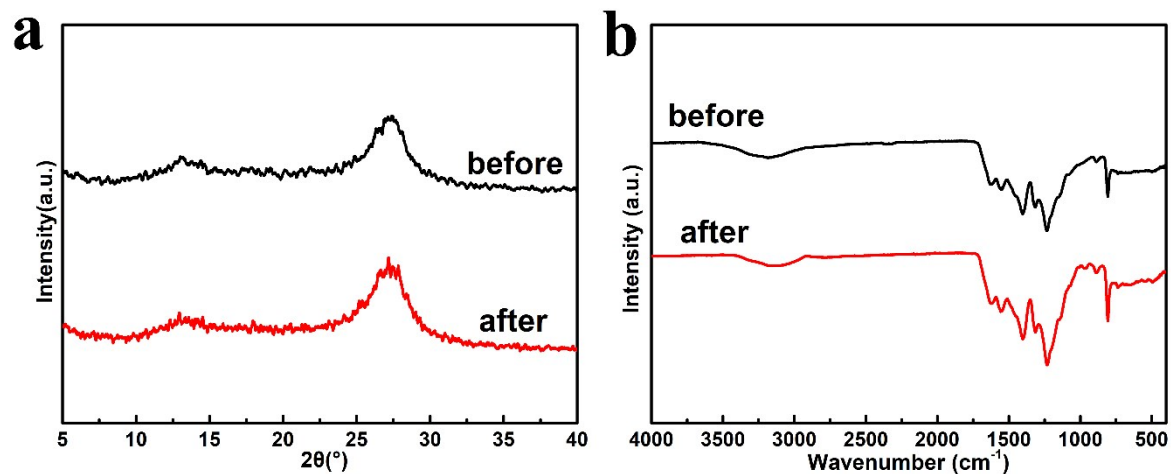
**Fig. S1.** (a) Light-yellow powder of UD3. Yellow blocky solid of (b) UD0 and (c) DCN before grinding.



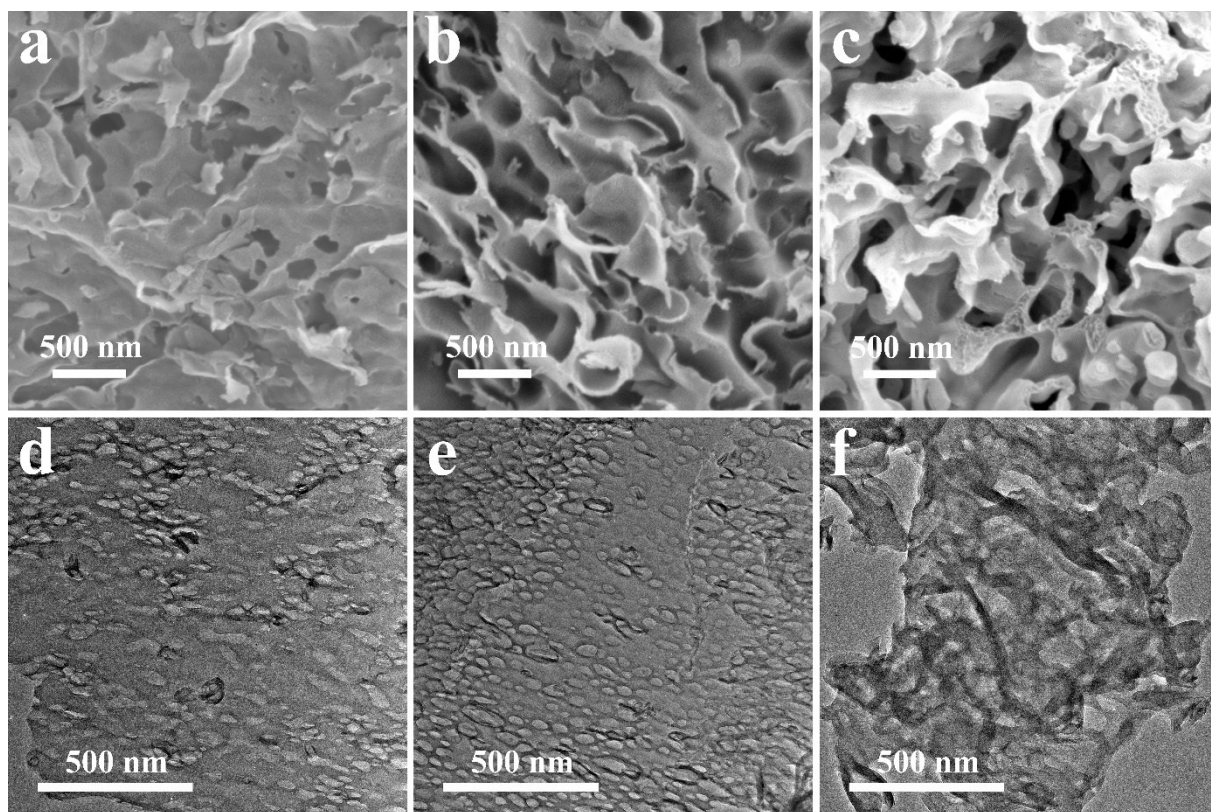
**Fig. S2.** (a) FTIR spectra and (b) XRD patterns of raw DCDA and obtained intermediates.

**Table S1.** TOC data during degradation.

t/min	TOC (mg/L)	TOC removal rate (%)
0	162.3	0
60	8.4	94.8



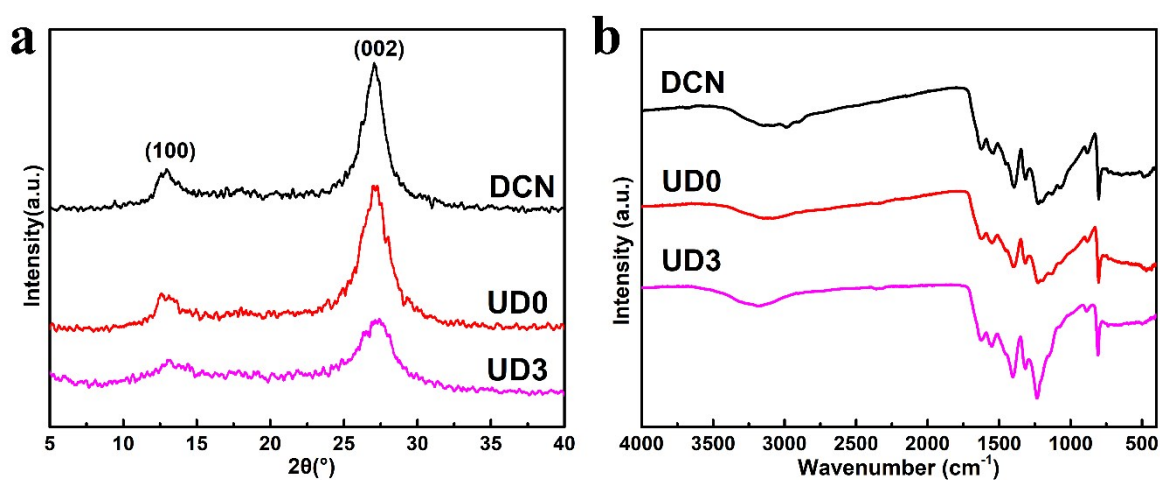
**Fig. S3.** (a) XRD patterns and (b) FTIR spectra of UD3 before and after photocatalytic experiment.



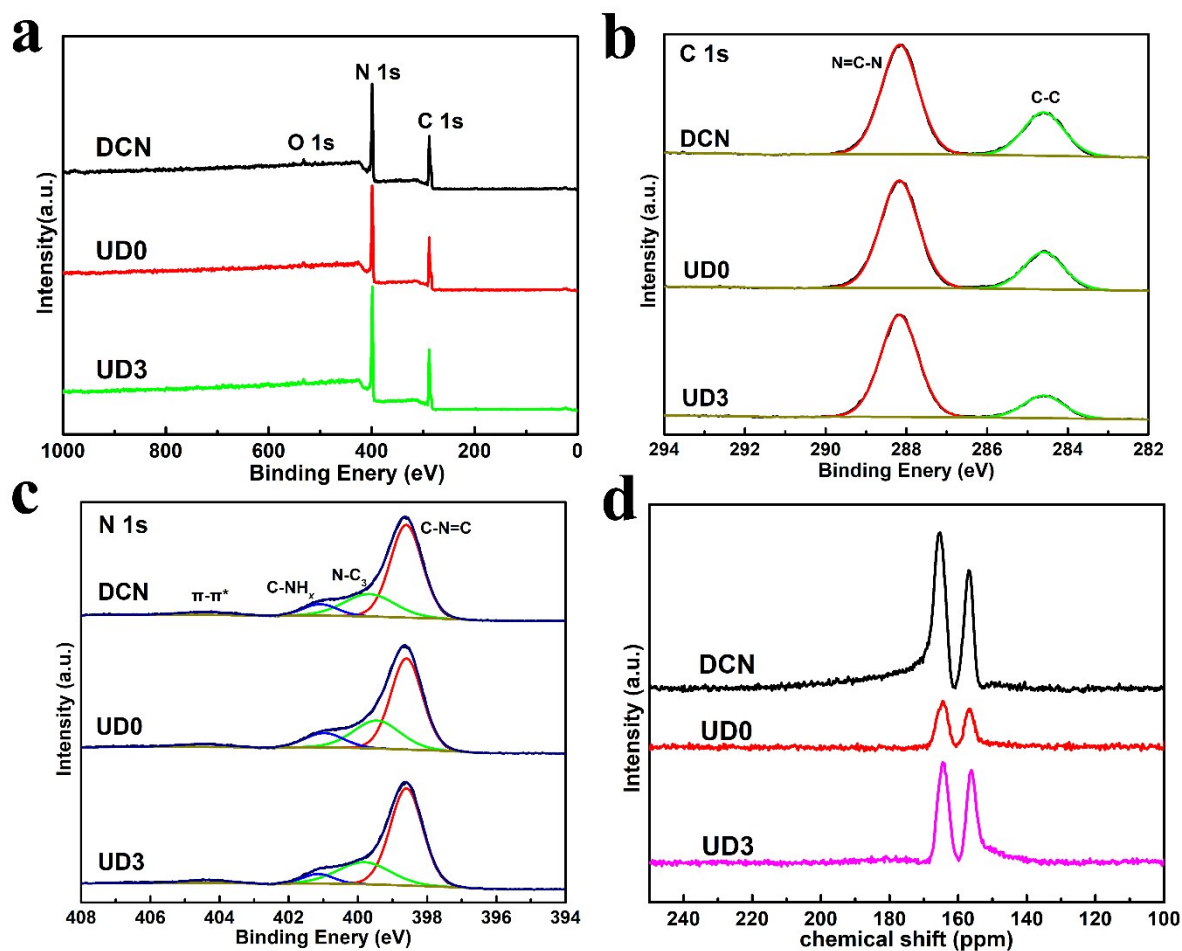
**Fig. S4.** SEM images of (a) UD1, (b) UD2, (c) UD4 and TEM images of (d) UD1, (e) UD2, (f) UD4.

**Table S2.**  $S_{BET}$ , BJH average pore diameter and BJH pore volume of DCN, UD0 and UD3 samples.

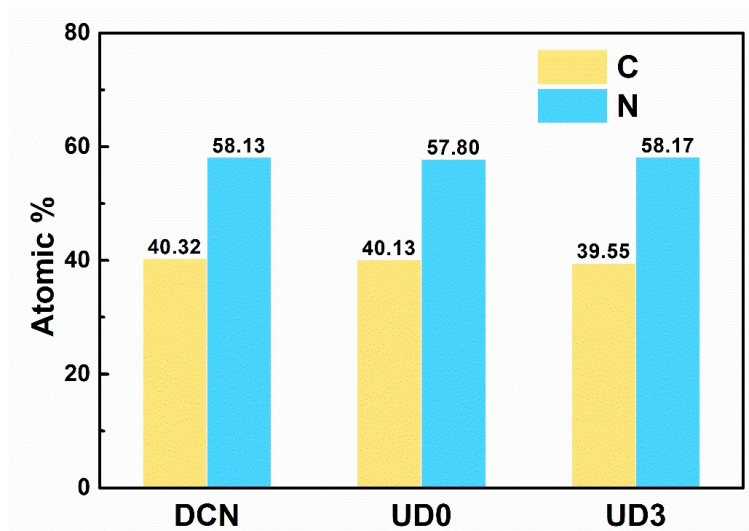
Photocatalyst	$S_{BET}$ (m <sup>2</sup> /g)	Average pore diameter (nm)	Average pore volume (cm <sup>3</sup> /g)
DCN	6.730	8.05	0.045
UD0	7.277	10.32	0.069
UD3	36.457	6.63	0.149



**Fig. S5.** (a) XRD patterns and (b) FTIR spectra of DCN, UD0 and UD3.



**Fig. S6.** High-resolution XPS spectra of (a) survey, (b) C 1s, (c) N 1s and (d) solid-state  $^{13}\text{C}$  NMR spectra for DCN, UD0 and UD3.



**Fig. S7.** Near surface region chemical compositions of DCN, UD0 and UD3 determined from XPS survey spectra and quantification procedures based on relative C 1s and N 1s peak areas, respectively.

**Table S3.** The fluorescent lifetime of DCN, UD0 and UD3.

Samples	$A_1$	$\tau_1$ (ns)	$A_2$	$\tau_2$ (ns)
DCN	6081.3	2.4	1886.6	11.5
UD0	5867.3	2.9	1996.4	14.6
UD3	7168.9	2.8	1399.6	15.4