

## Electronic Supplementary Information

Synthesis of iso-type graphitic carbon nitride heterojunction derived from oxamide and urea in molten salt for high-performance visible-light driven photocatalysis

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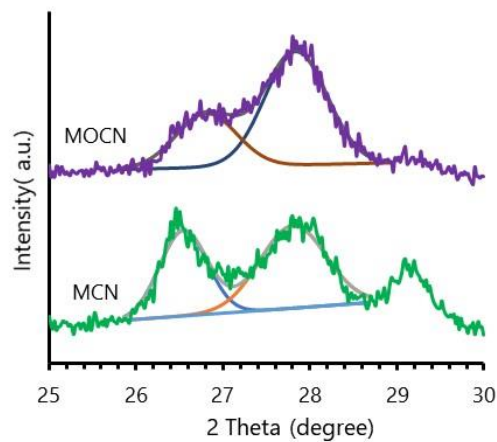


Figure S1. Enlarged XRD patterns of MCN and MOCN.

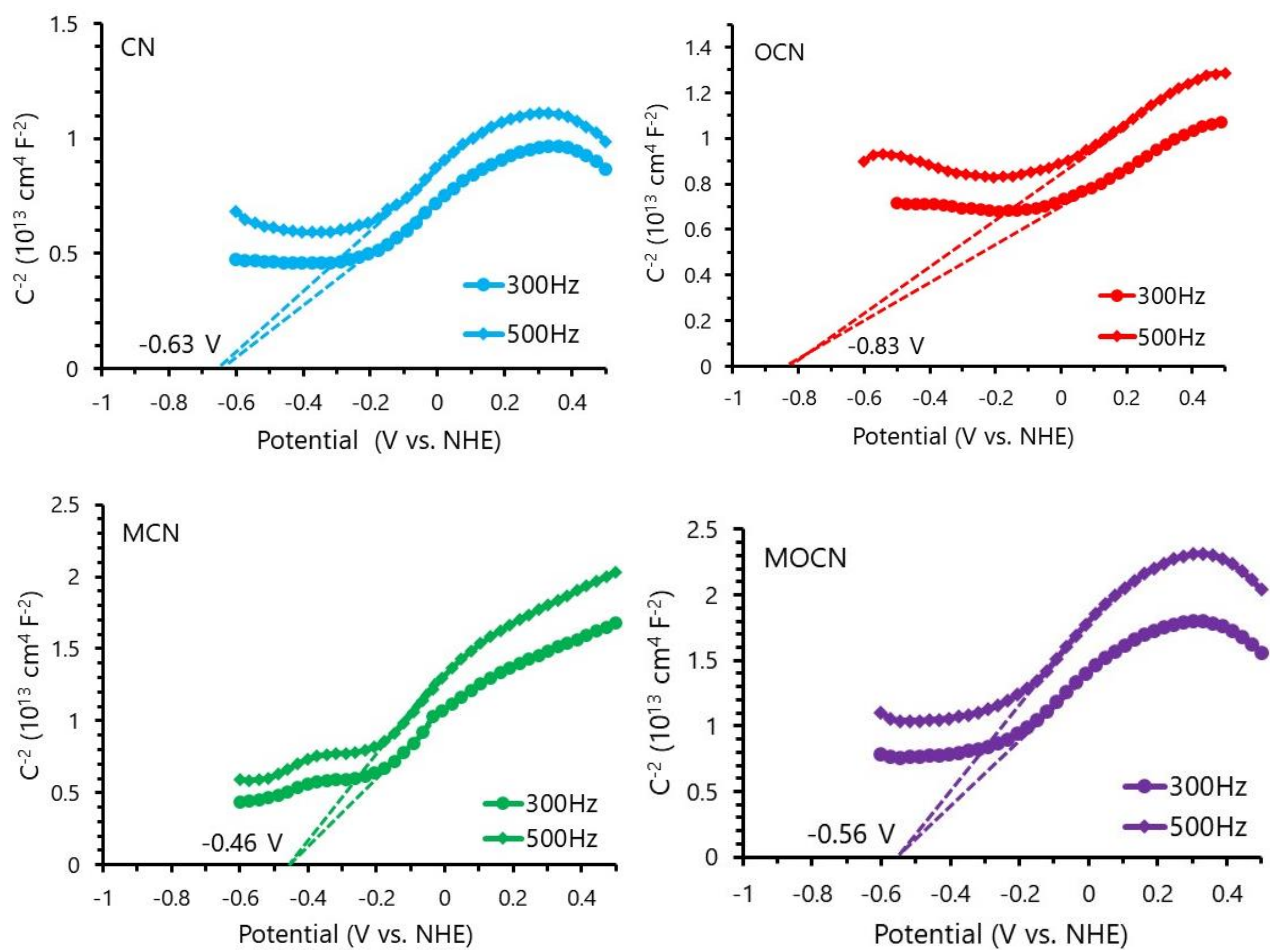


Figure S2. Mott-Schottky plots at different frequencies of CN, OCN, MCN and MOCN photocatalysts.

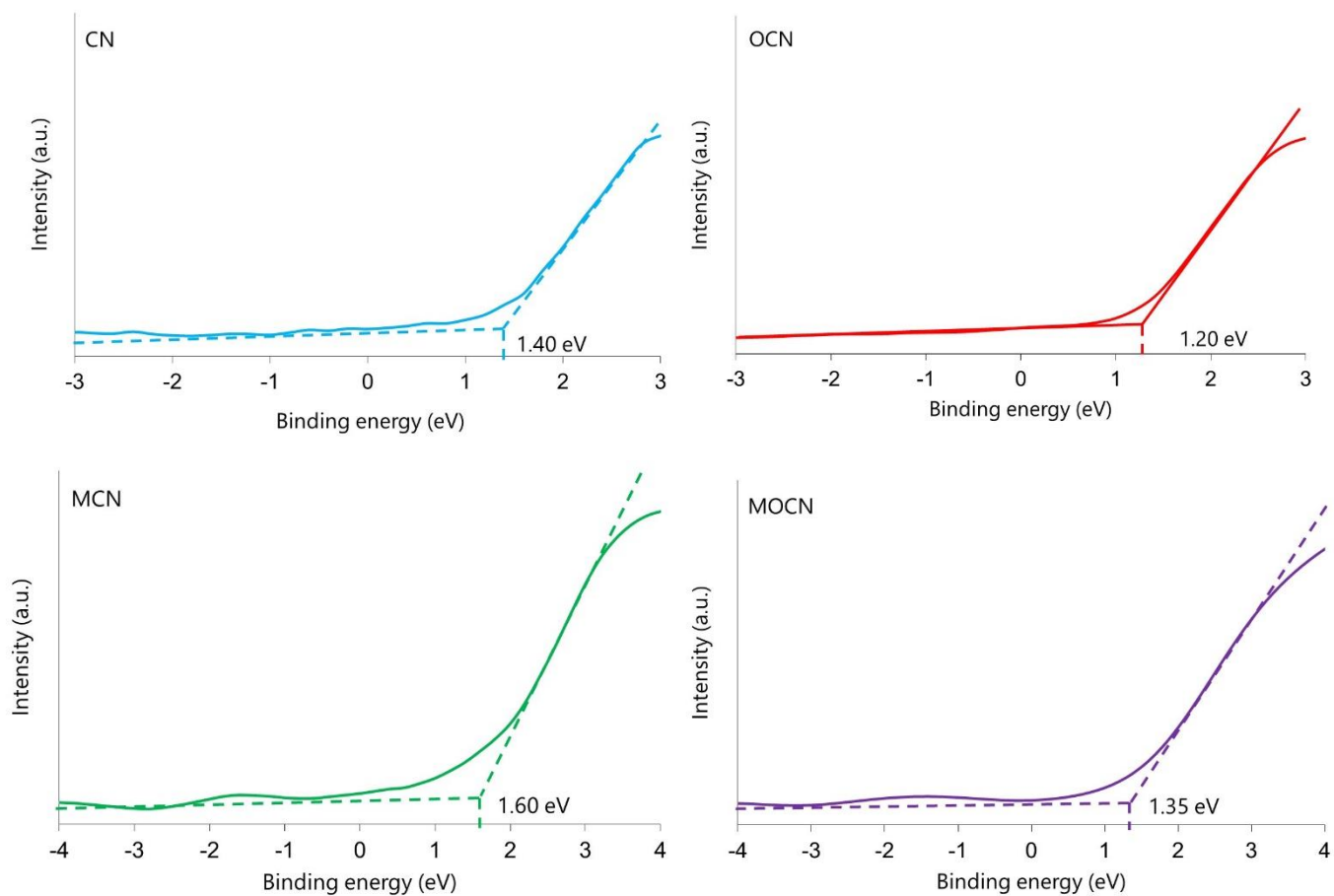


Figure S3. VB-XPS spectra of CN, OCN, MCN and MOCN photocatalysts.

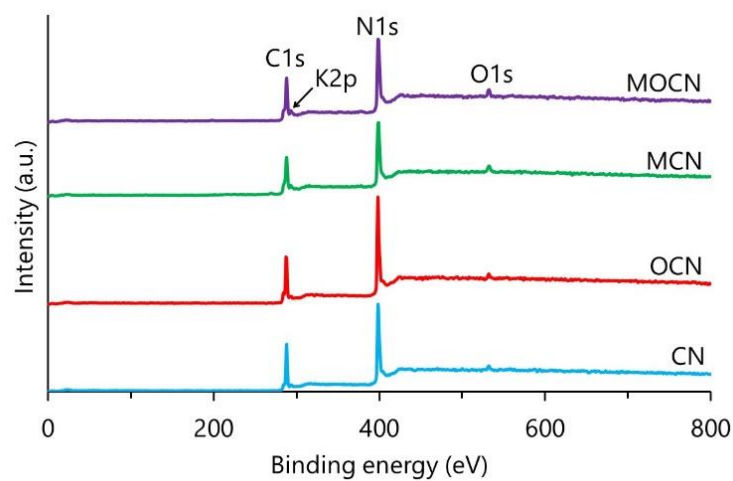


Figure S4. Survey XPS spectra of CN, OCN, MCN and MOCN photocatalysts.

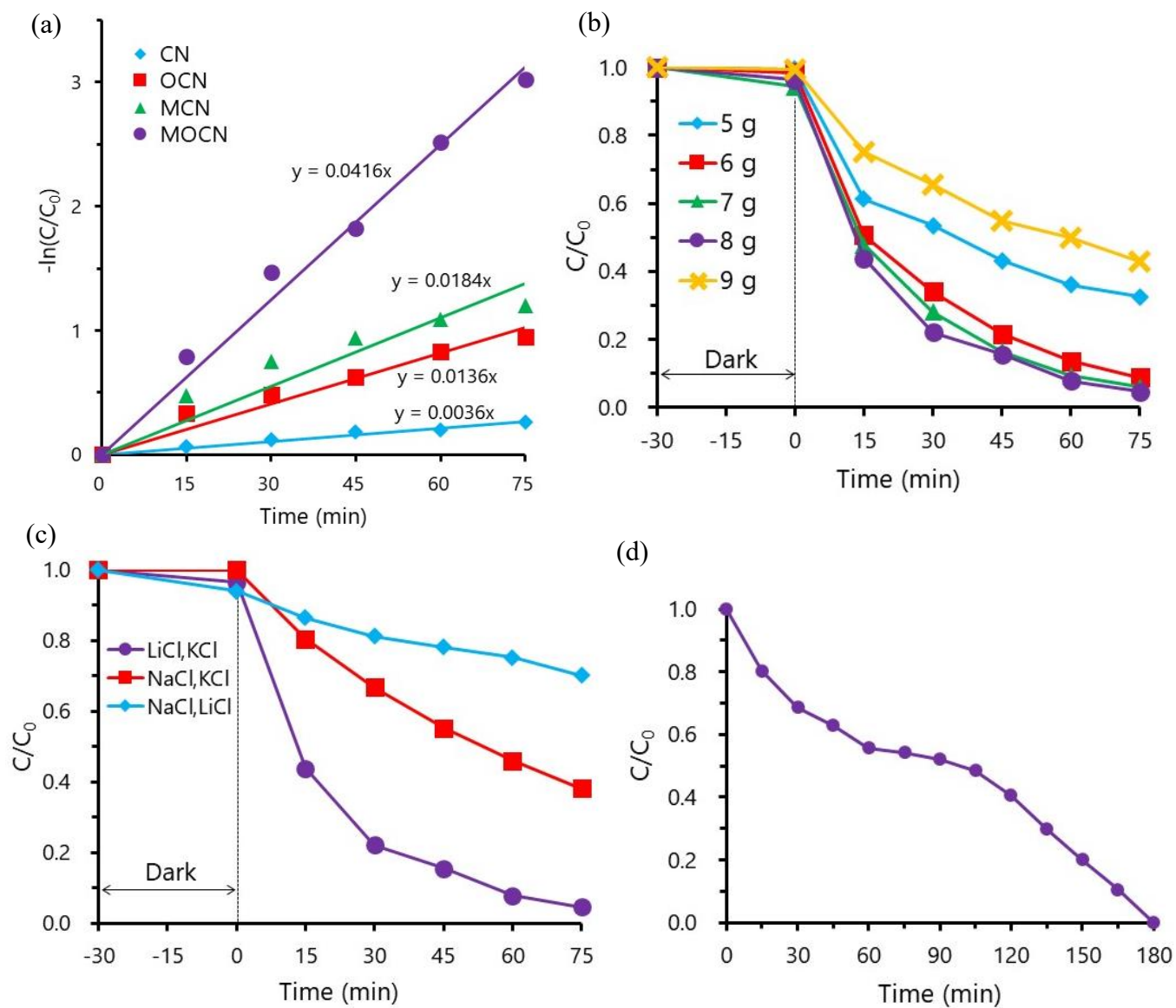


Figure S5. (a)  $-\ln(C/C_0)$  plots, (b) effect of molten salt amounts on the degradation of BPA, (c) effect of kinds of molten salts on the degradation of BPA, and (d) decrease of TOC with MOCN photocatalyst.

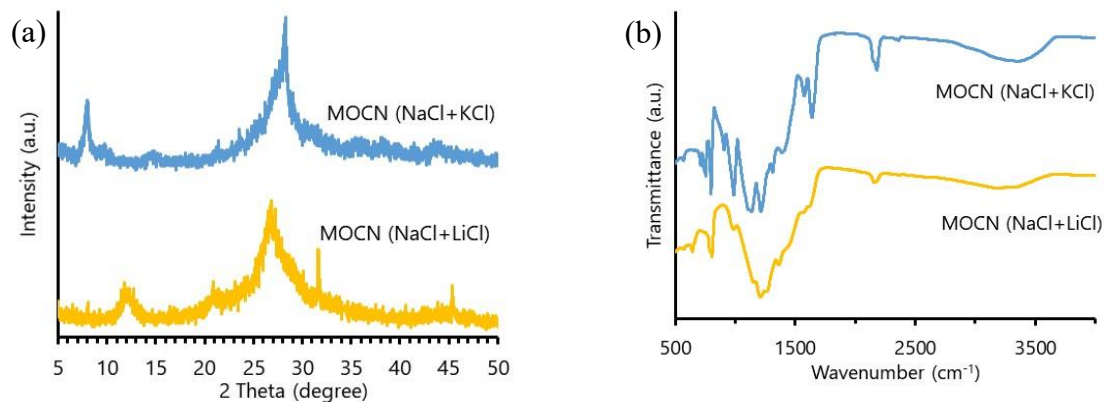


Figure S6. (a) XRD patterns and (b) FT/IR spectra of MOCN (NaCl+KCl) and MOCN (NaCl+LiCl).

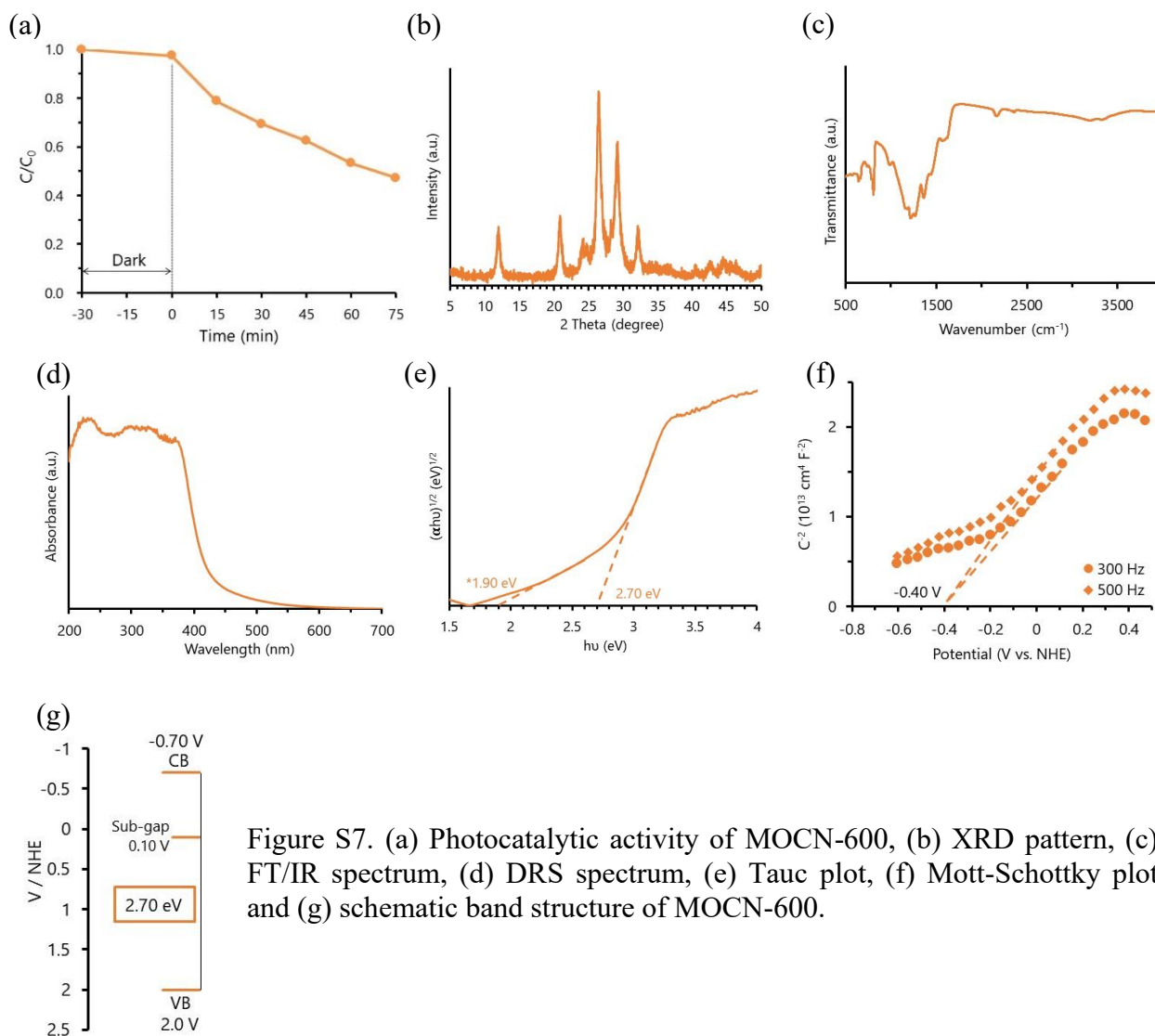


Figure S7. (a) Photocatalytic activity of MOCN-600, (b) XRD pattern, (c) FT/IR spectrum, (d) DRS spectrum, (e) Tauc plot, (f) Mott-Schottky plot and (g) schematic band structure of MOCN-600.

Table S1. Fitted parameters obtained from TRPL spectra of CN, OCN, MCN and MOCN

Photocatalyst	$\langle\tau\rangle$ (ns)	$\tau_1$ (ns) (Rel. %)	$\tau_2$ (ns) (Rel. %)	$\tau_3$ (ns) (Rel. %)
CN	4.70	0.36 (58.60)	2.17 (34.64)	9.22 (6.76)
OCN	1.89	0.28 (67.02)	1.21 (27.33)	4.13 (5.65)
MCN	3.51	0.32 (59.70)	1.74 (33.10)	6.85 (7.11)
MOCN	1.55	0.24 (72.02)	1.03 (22.60)	3.43 (5.38)

Table S2. Photocatalytic degradation kinetic parameters of BPA

Photocatalyst	Rate constant, $k$ ( $\text{min}^{-1}$ )	Correlation coefficient ( $R^2$ )	Half-life, $t_{1/2}$ (min)
CN	0.0036	0.973	192.5
OCN	0.0136	0.954	51.0
MCN	0.0184	0.875	37.7
MOCN	0.0416	0.986	16.7