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SUPPLEMENTARY INFORMATION

Constructing a novel family of halogen doped covalent triazine-based frameworks as efficient metal-free photocatalysts for hydrogen production

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Fig. S1 SEM images of (a) CTF-1, (b) CTFF, (c) CTFCl and (d) CTFBr.



Fig. S2 N_2 adsorption-desorption isotherms of CTF-1 and CTFX samples and table of the specific surface areas and pore volumes (inset).



Fig. S3 PXRD patterns of CTF-1 and CTFX samples.



Fig. S4 N 1s XPS spectra of CTF-1 and CTFX samples.



Fig. S5 Electrochemical Mott-Schottky plots of (a) CTF-1, (b) CTFF, (c) CTFCl and (d) CTFBr.



Fig. S6 EPR spectra of (a) CTFF, (b) CTFCl and (c) CTFBr in the dark and after visible light irradiation.



Fig. S7 H_2 evolution rates of CTF-1 and CTFX-m (X=F, Cl and Br).



Fig. S8 (a) FT-IR spectra and (b) Cl 2p XPS spectra of CTFCl before and after catalytic reaction.