Insights into Atomic Level Defect Commanding coupling with n-π^* Excitation in Carbon Nitride for enhanced photocatalytic Hydrogen Production and CO_2 reduction

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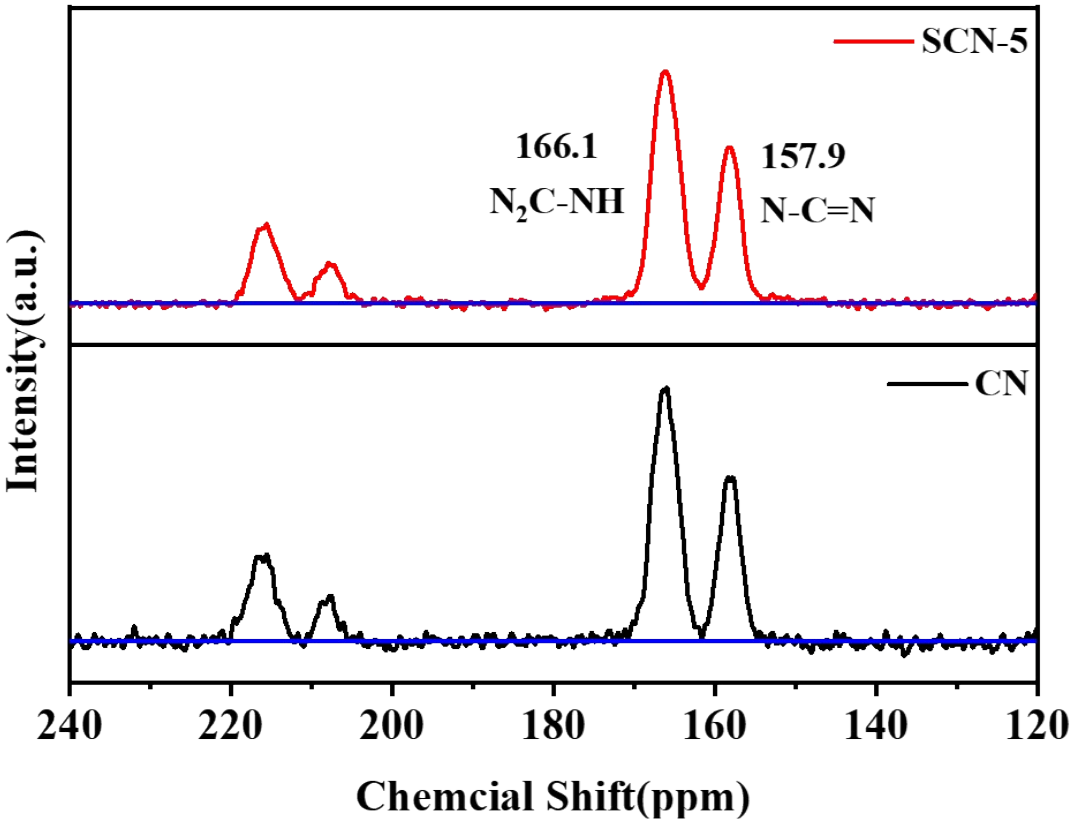

Figure S1. 13C solid-state NMR spectra of CN and SCN samples.

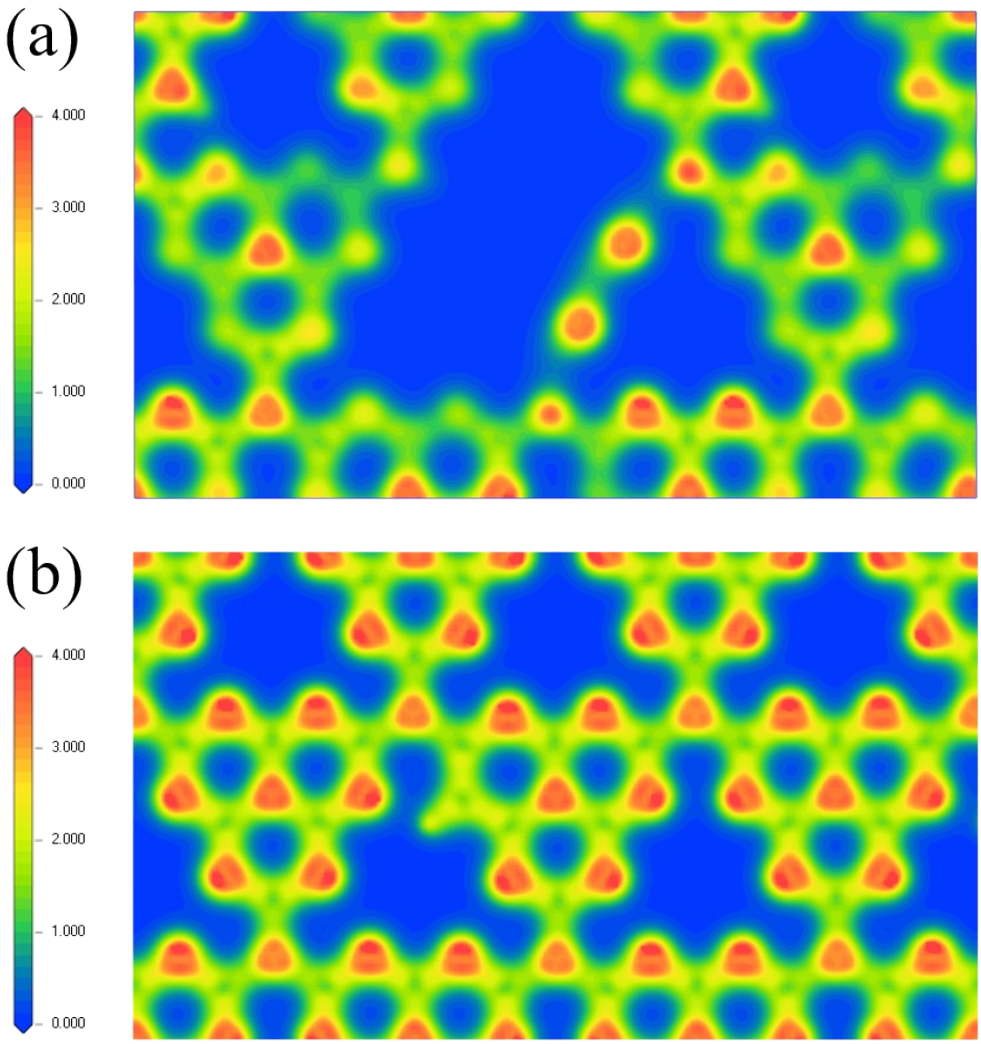

Figure S2. The electron densities of the (a) CN and (b) SCN.

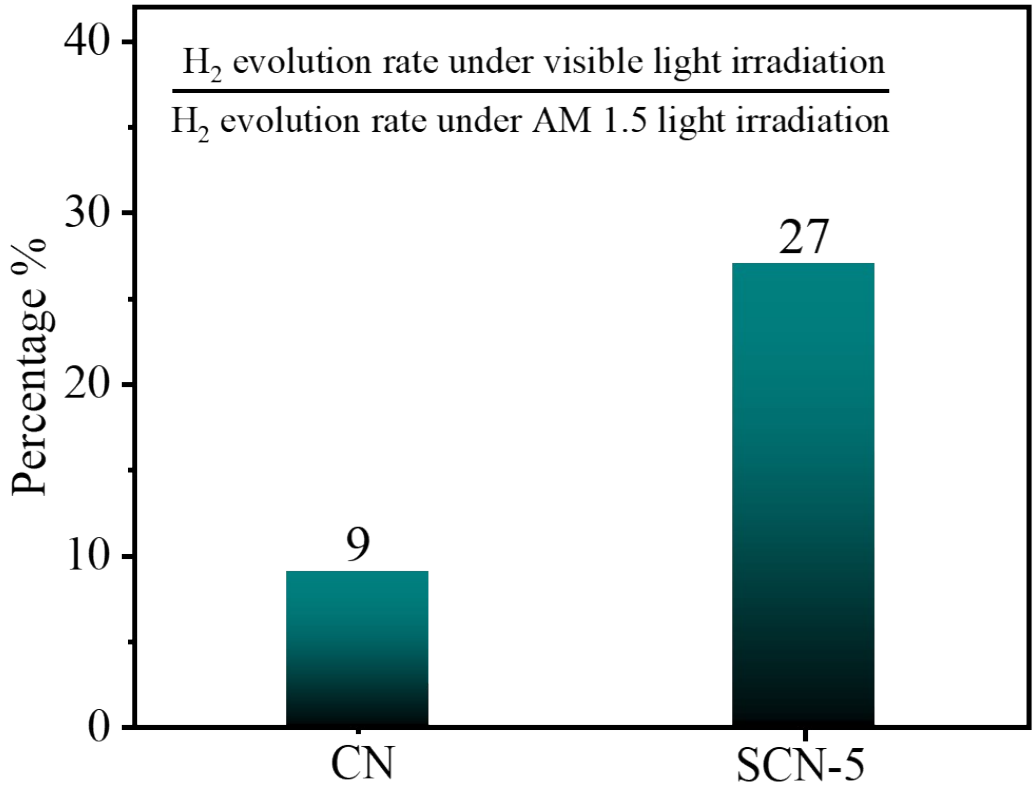

Figure S3. The contribution of visible light in photocatalytic H_2 production reactions.

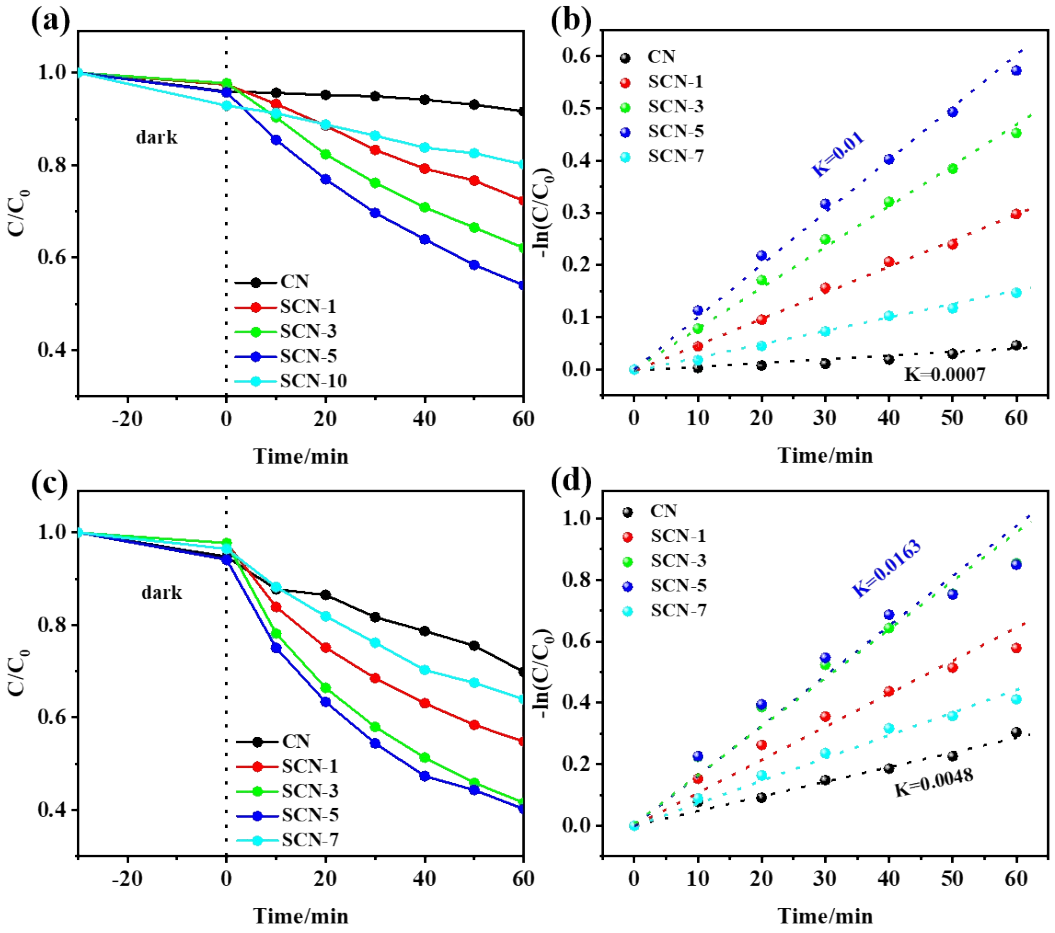

Figure S4. The degradation of tetracycline hydrochlorideunder visible light irradiation and the degradation kinetics of (a, b) photocatalytic degradation and (c, d) persulfate activation experiment.

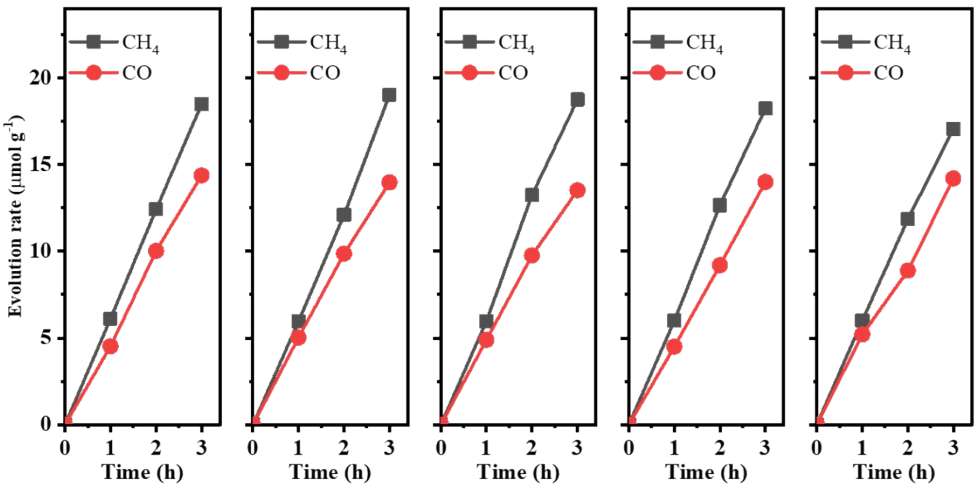

Figure S5. Stability test of photocatalytic CO2 reduction.

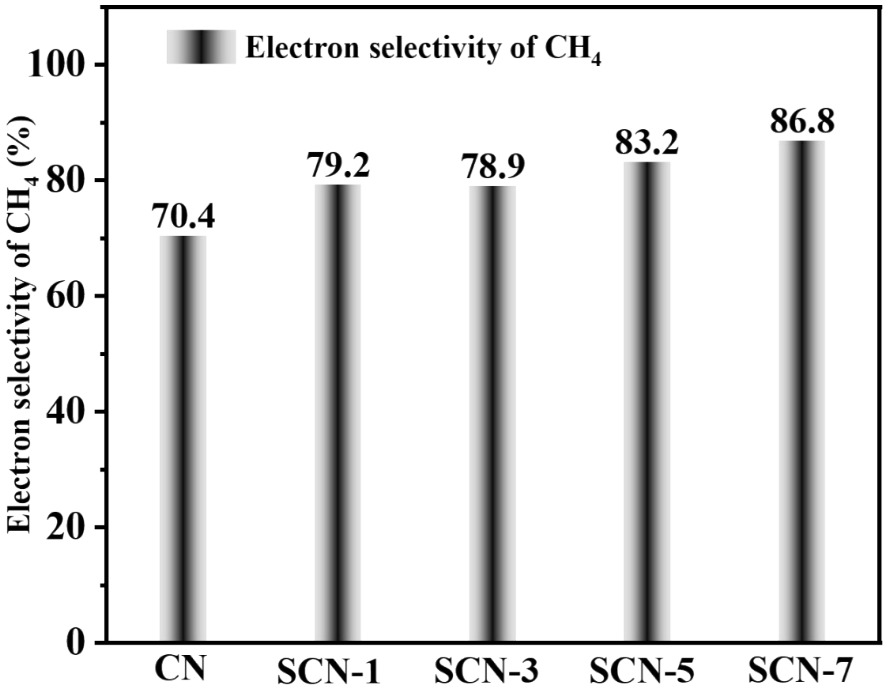

Figure S6. The CH_4 electron selectivity of the different samples.

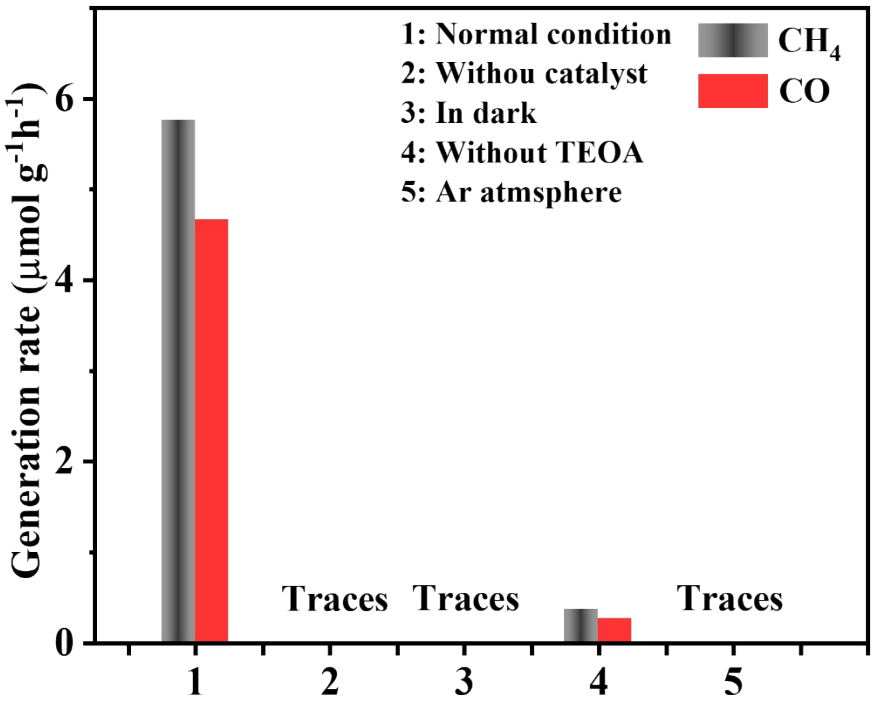

Figure S7. The comparative experiments of photocatalytic CO_2 reduction.

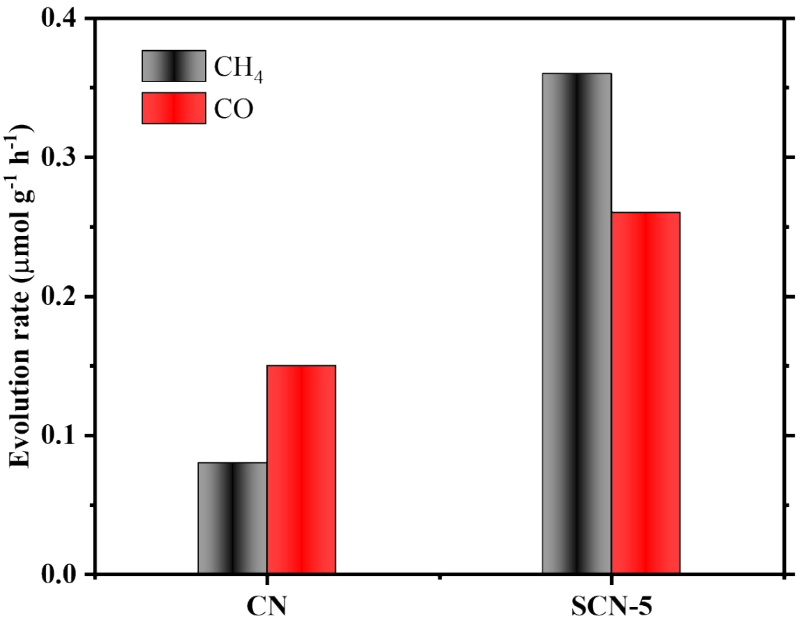

Figure S8. The photocatalytic CO_2 reduction performance in the absence of TEOA.