

MOF-templated in-situ fabrication of surface modified Ni/graphitic carbon nitride with enhanced photocatalytic hydrogen evolution

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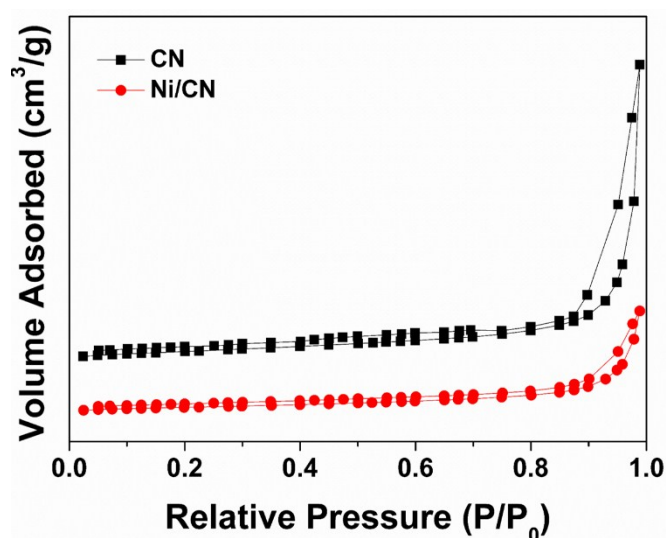


Fig. S1 N₂ adsorption-desorption isotherms

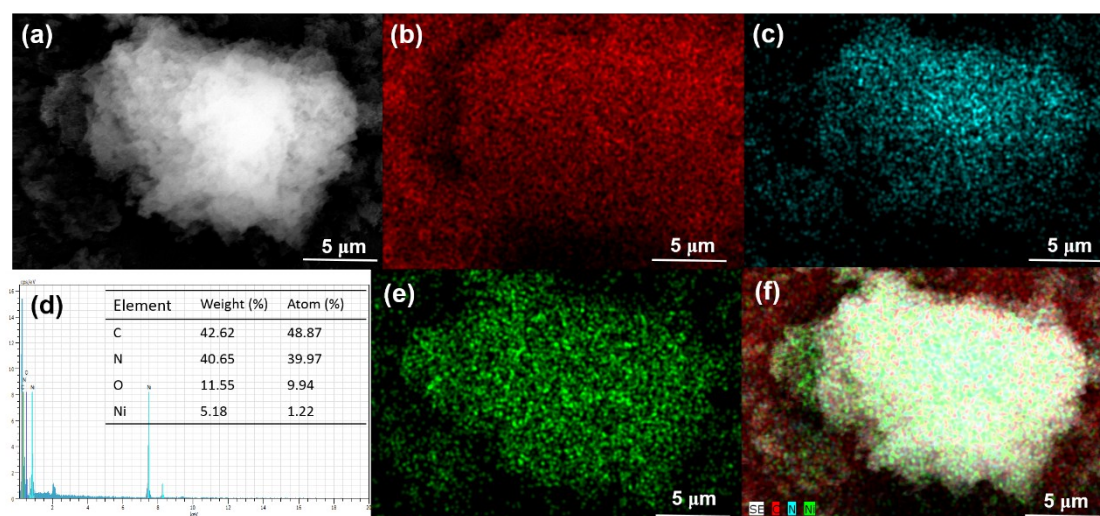


Fig. S2 (a) SEM image and (d) EDS of the Ni/CN sample, the corresponding element mappings of (b) C, (c) N, (e) Ni, and (f) merged elements picture.

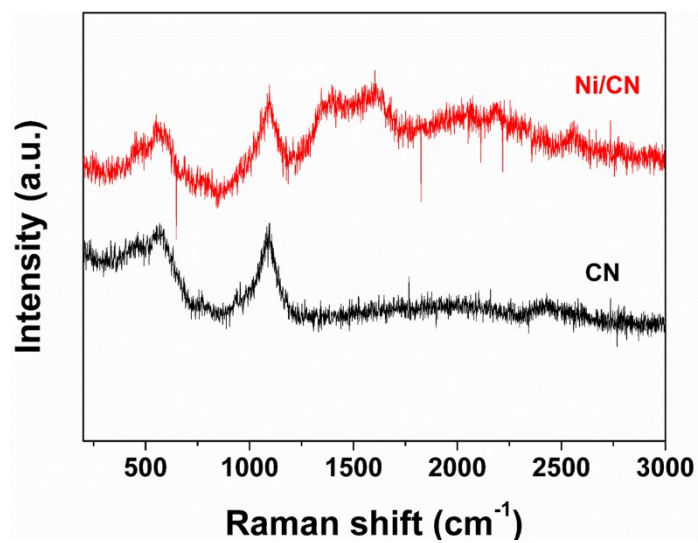


Fig. S3 Raman spectra of CN and Ni/CN

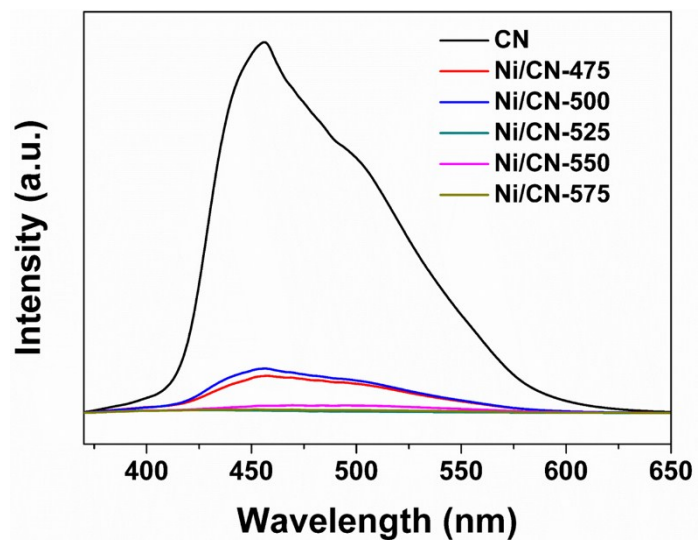


Fig. S4 Steady-state photoluminescence spectra of the samples prepared at different temperatures

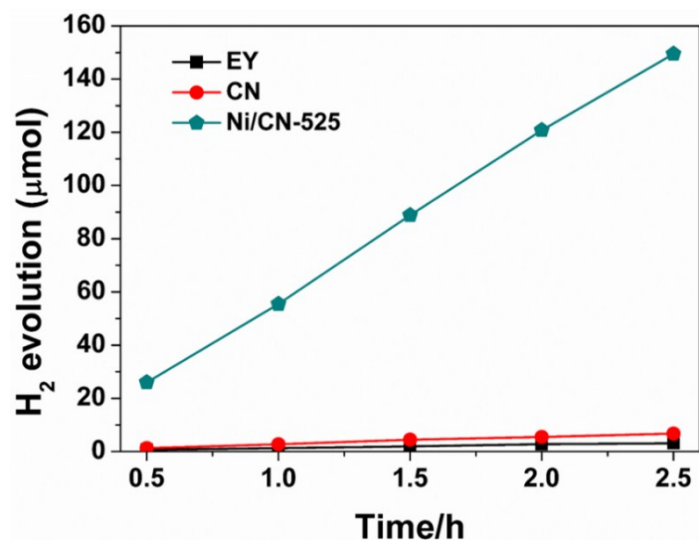


Fig. S5 H₂ evolution under different reaction system: in the absence of photocatalyst (EY), over pristine graphitic carbon nitride (CN) and the optimized sample Ni/CN-525.

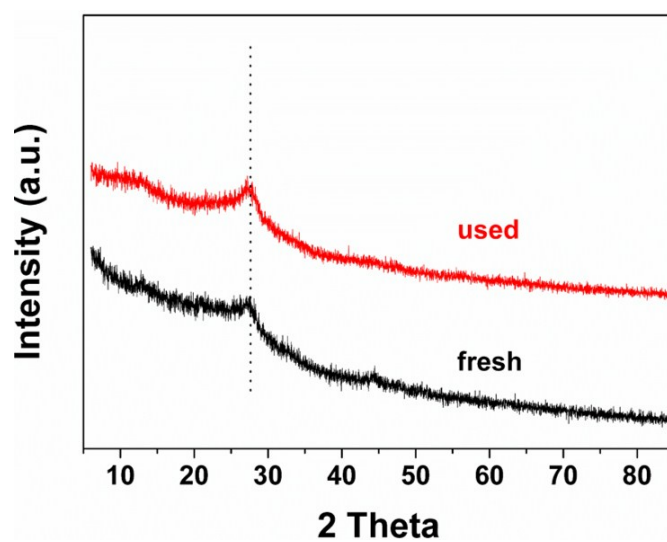


Fig. S6 XRD patterns for fresh and used Ni/CN-525 sample.

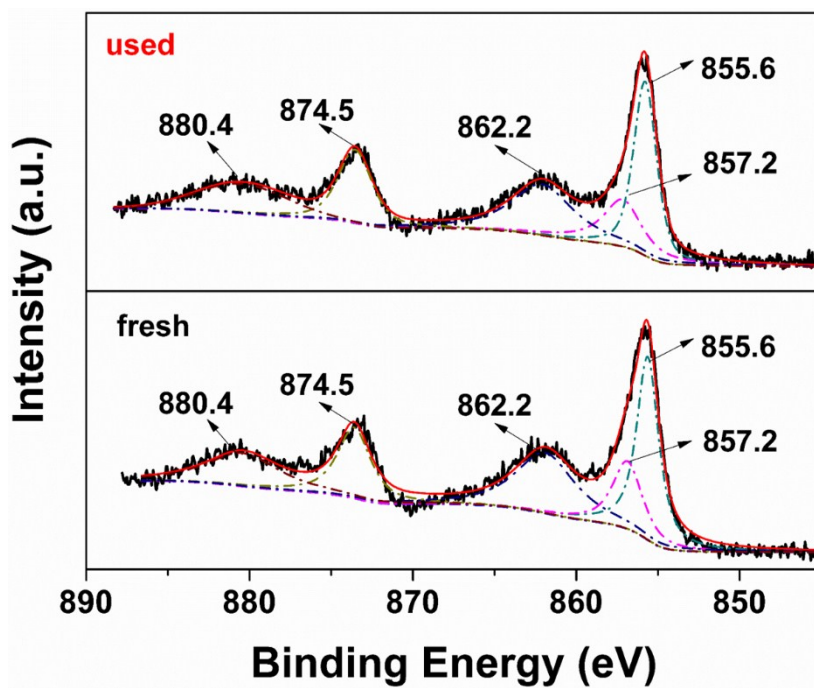


Fig. S7 High-resolution XPS spectra of used and fresh Ni/CN-525.

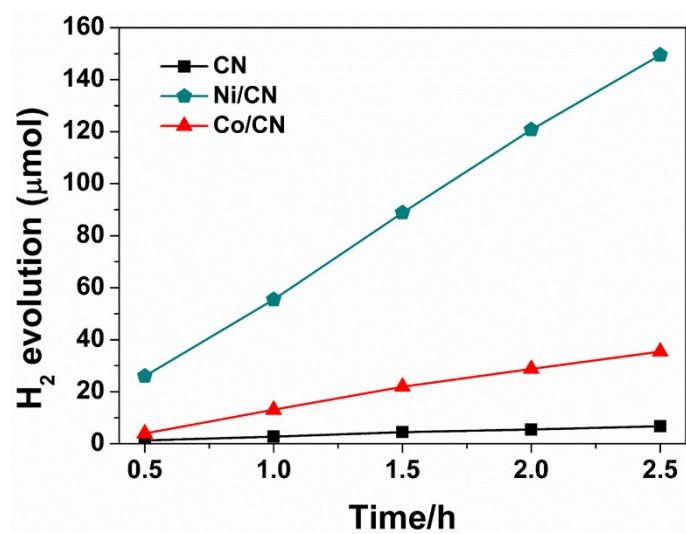


Fig. S8 Photocatalytic H₂ production on CN, Ni/CN and Co/CN.