

Supporting Information

Cubic Mesoporous Carbon Nitride Polymers with Large Cage Type Pores for Visible Light Photocatalysis

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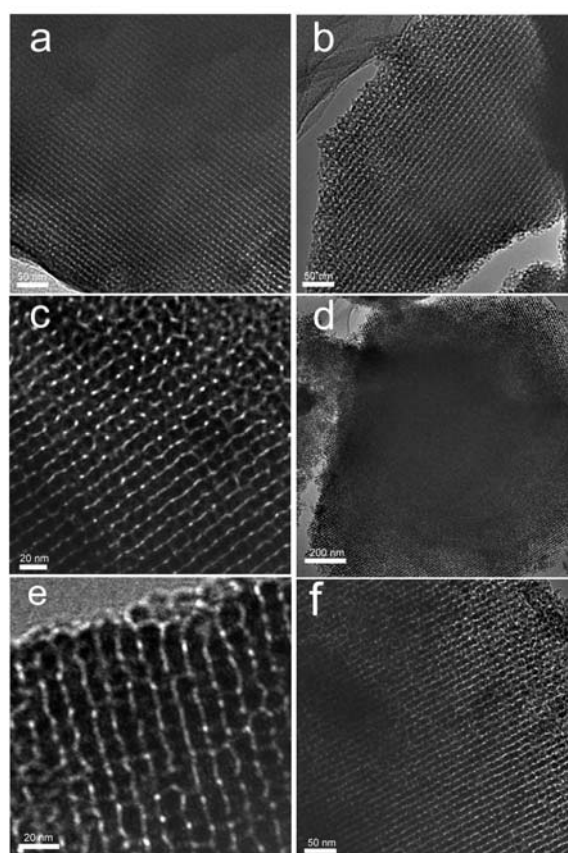


Fig. S1 TEM images of (a, b) SBA-16-100, (c, d) SBA-16-180 and (e, f) SBA-16-200 samples.

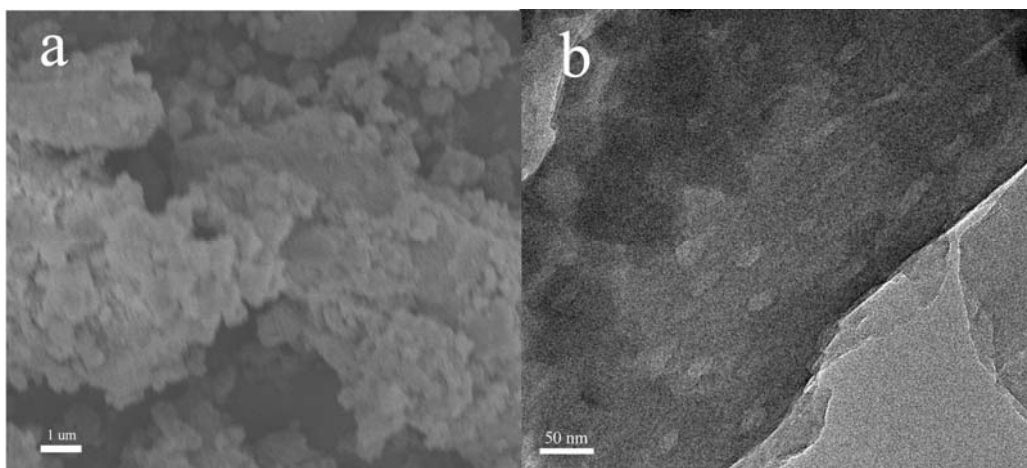


Fig. S2 SEM (a) and TEM (b) image of CN-SBA-16-100 sample.

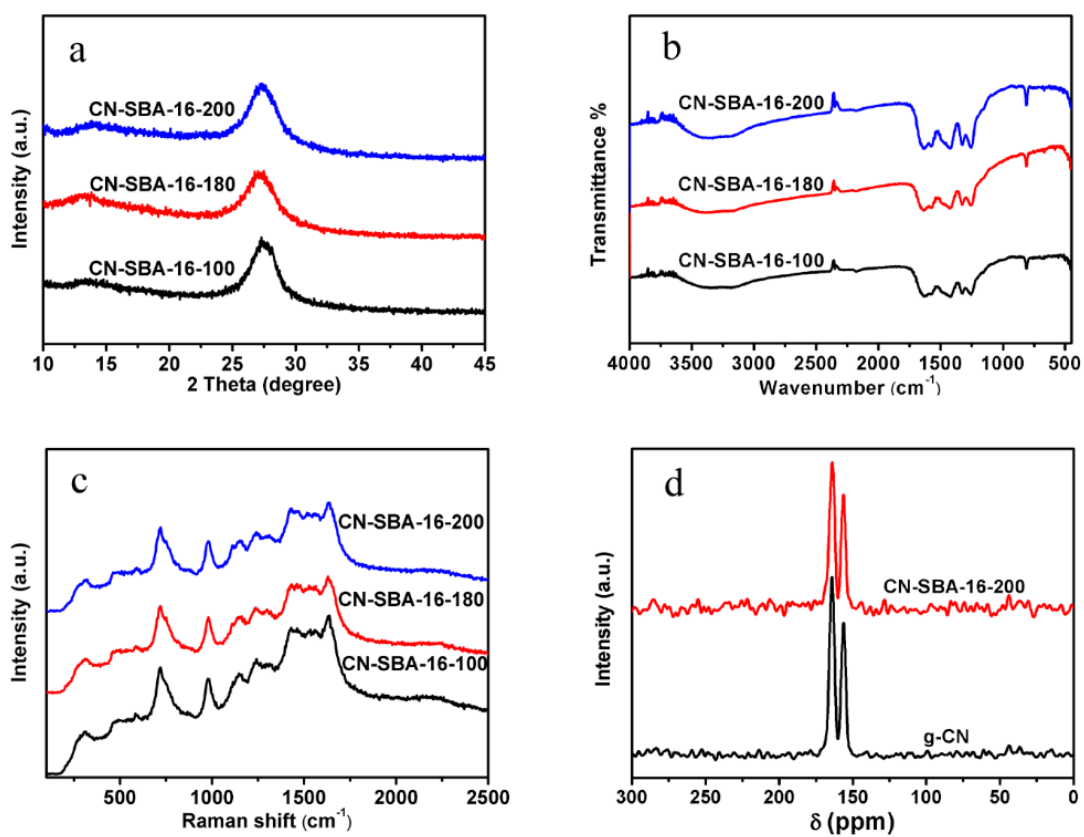


Fig. S3 (a) Wide-angle powder XRD patterns, (b) FT-IR spectra, (c) UV Raman spectra, (d) Solid-state ^{13}C NMR spectra for CN-SBA-16-T samples.

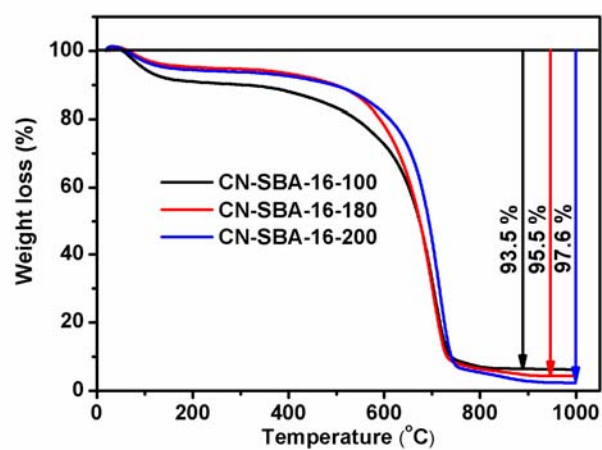


Fig. S4 TGA curves of CN-SBA-16-T samples.

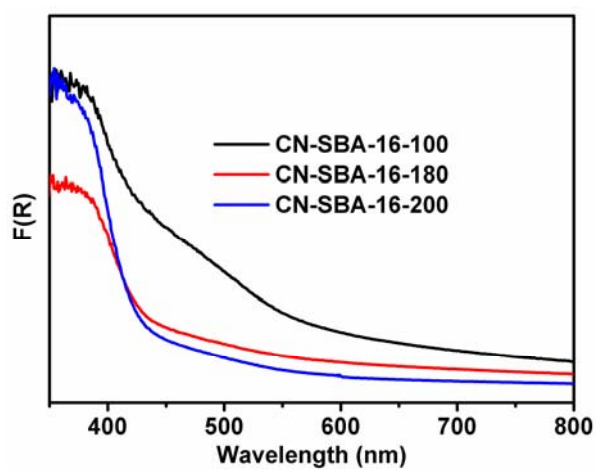


Fig. S5 UV-vis spectra of the CN-SBA-16-T samples.

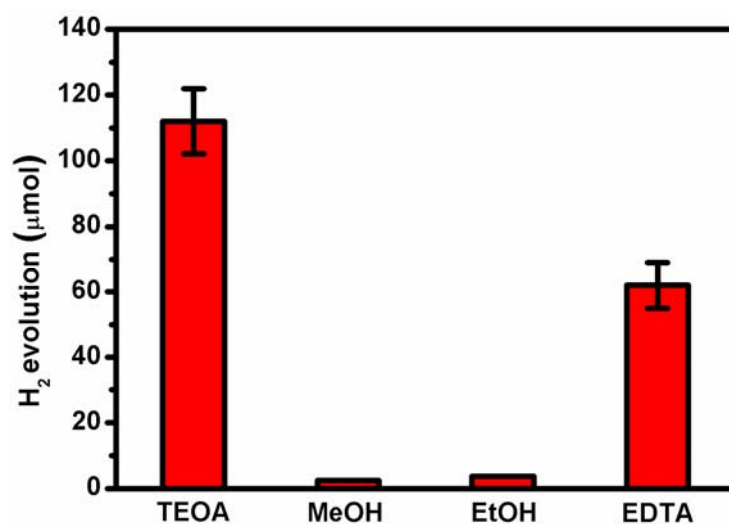


Fig. S6 The photocatalytic hydrogen activities of CN-SBA-16-200 sample over different sacrificial reagents.

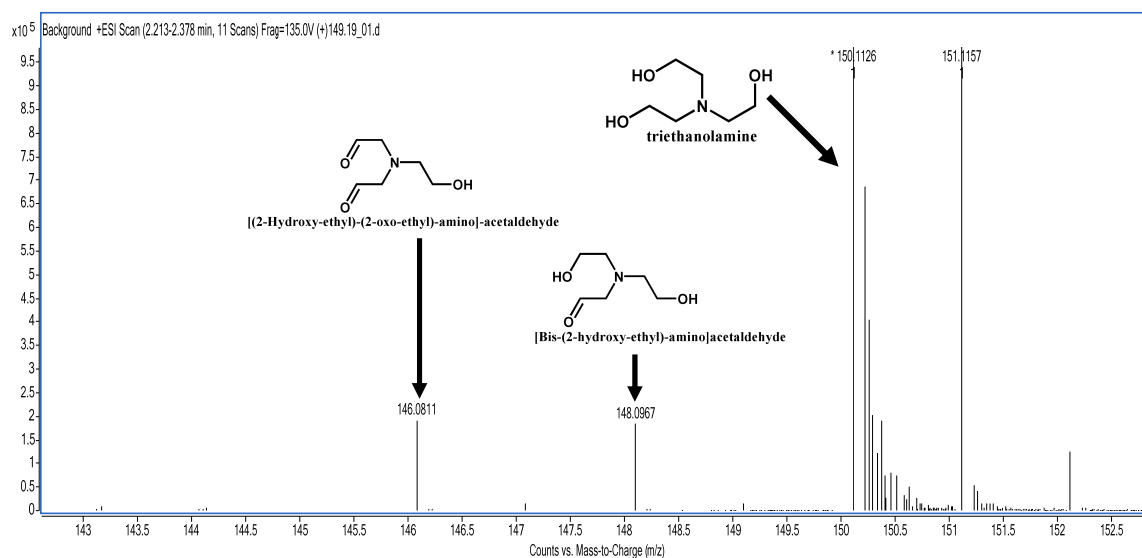
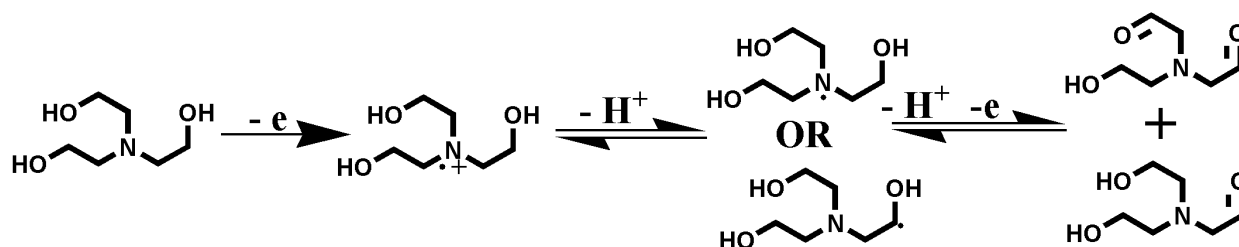
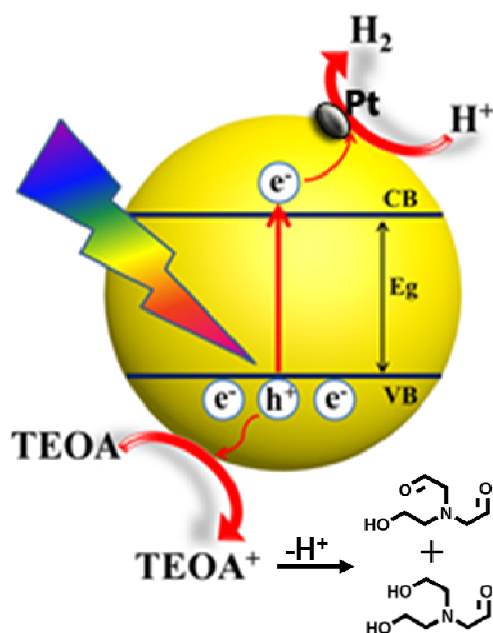


Fig. S7 Mass spectrum of the products of the aqueous after photocatalytic reaction.



Scheme S1. Possible processes of the oxidation of TEOA.



Scheme S2. Illustration for the tentative mechanism of photocatalytic hydrogen production by using TEOA as sacrificial reagent.

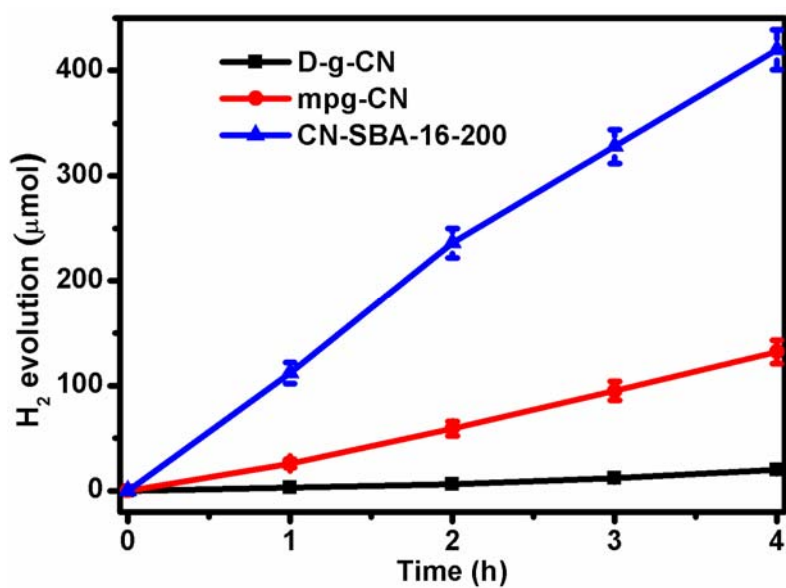


Fig. S8 The photocatalytic hydrogen activities of different carbon nitride samples as a function of photocatalytic reaction time with visible light irradiation.

References

1. J. Zhang, F. Guo and X. Wang, *Adv. Funct. Mater.*, 2013, **23**, 3008-3014.