Electronic Supporting Information

A Pure Organic Heterostructure of μ-oxo Dimeric Iron (III) Porphyrin and g-C_3N_4 for Solar H_2 Production from Water

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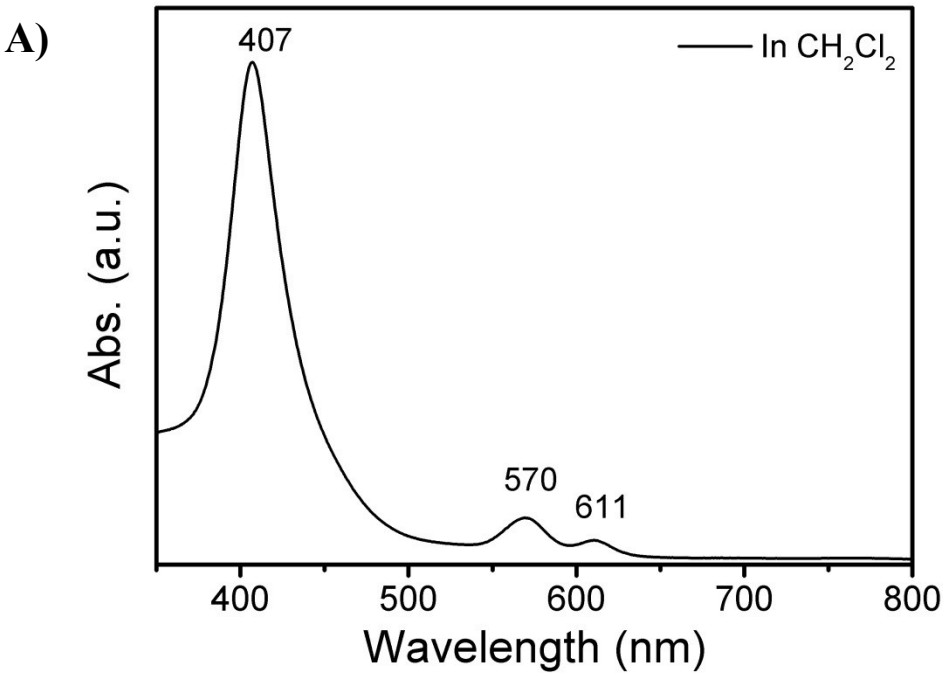

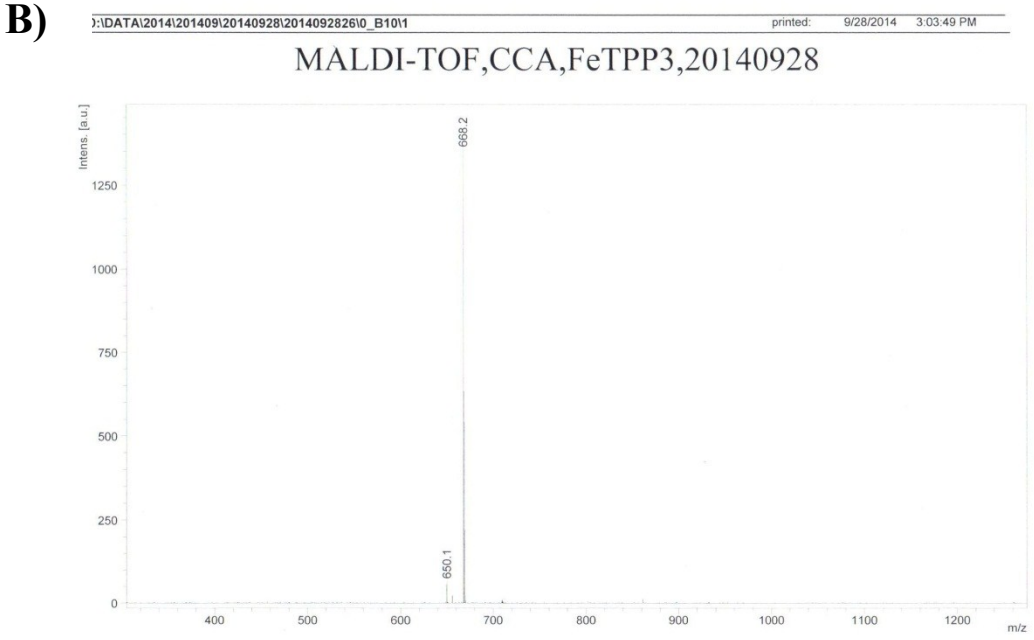

Fig. S1 A) UV-vis absorption spectrum of $(FeTPP)_2O$ solution isolated from $C_3N_4/(FeTPP)_2O$ as well as **B)** MALDI-TOF Mass Spectrometry: Calculation for $[(C_{44}H_{28}N_4)Fe]^+$ ($FeTPP^+$), m/z=667.6; found, 668.2.

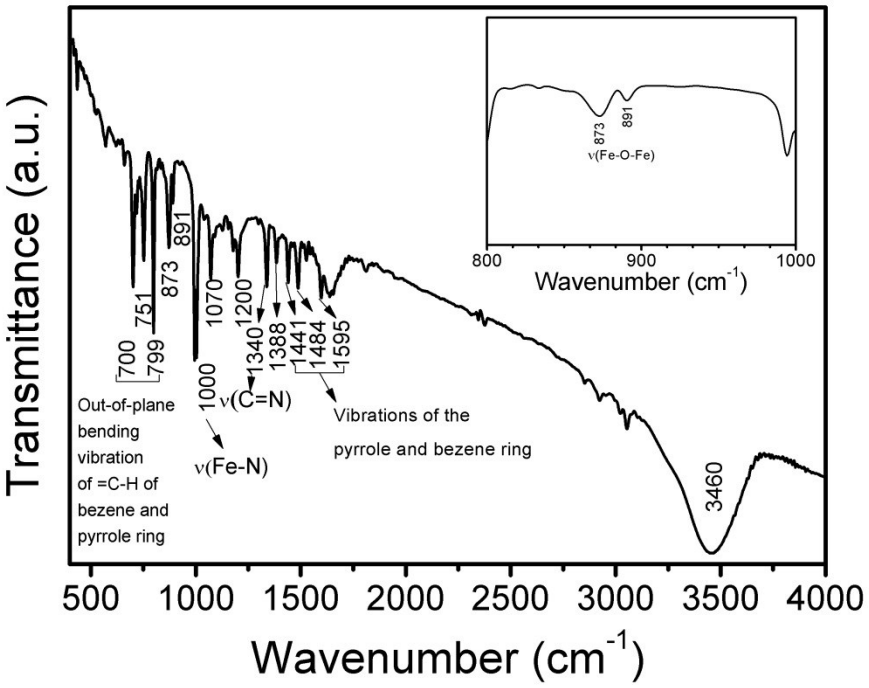

Fig. S2 FT-IR spectrum of $(FeTPP)_2O$.

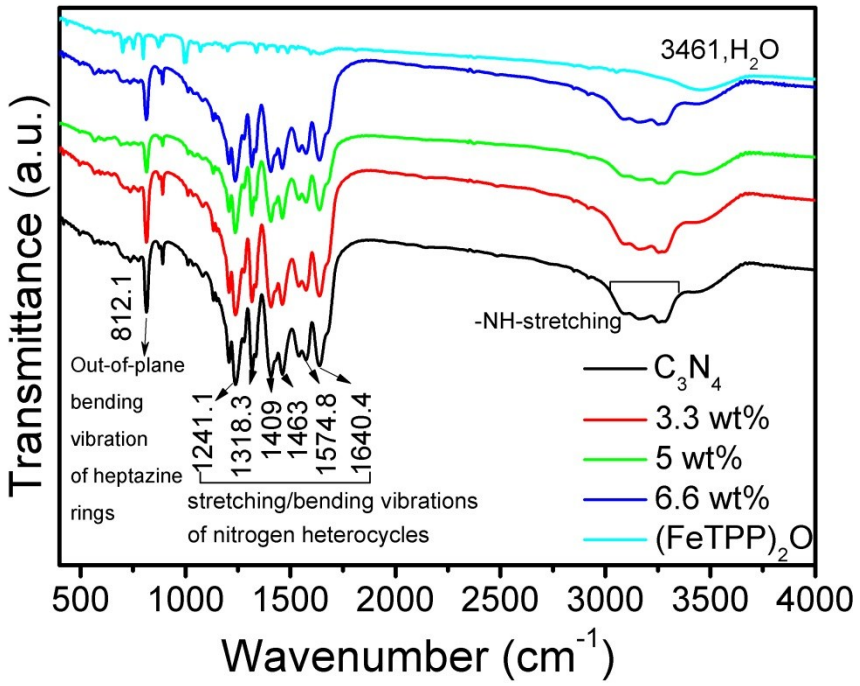

Fig. S3 FT-IR spectra of g-C_3N_4, $(FeTPP)_2O$ and g-C_3N_4/$(FeTPP)_2O$ composites with different $(FeTPP)_2O$ content (3.3 wt%, 5 wt% and 6.6 wt%).

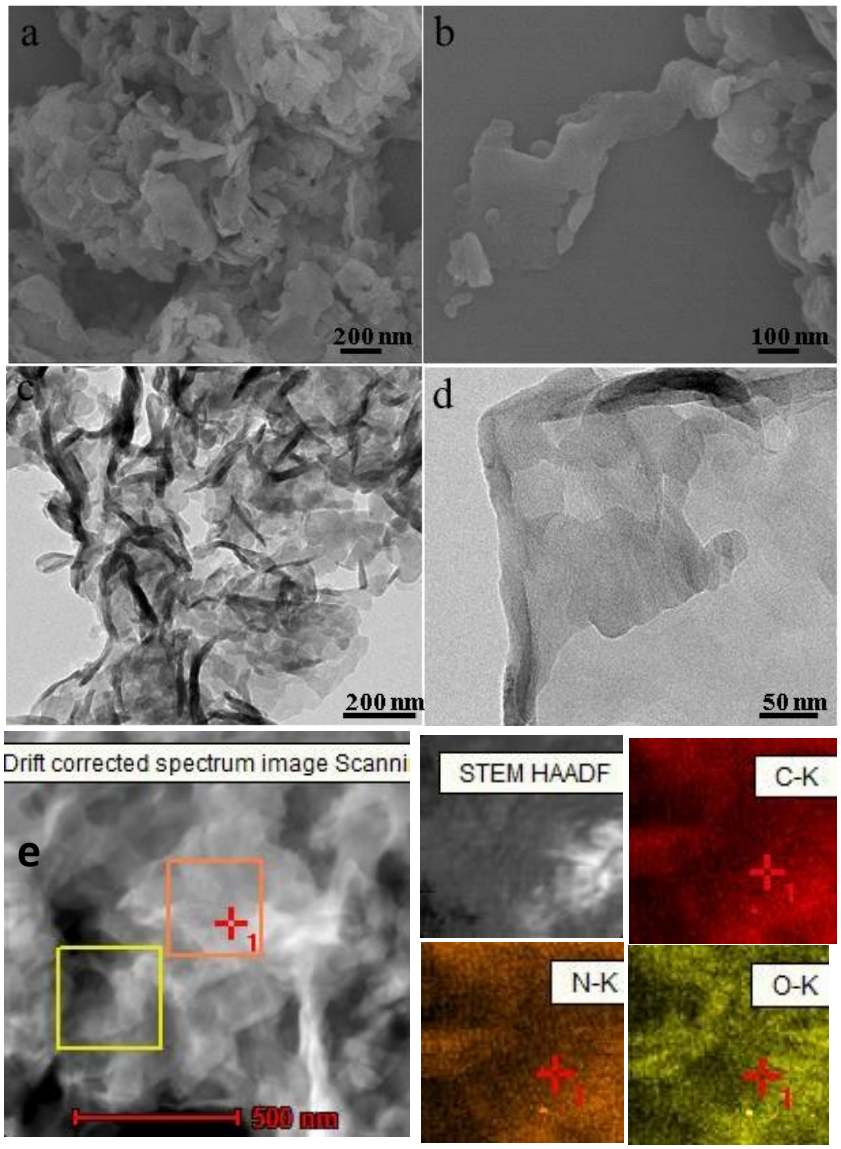

Fig. S4 SEM (a,b) , TEM (c,d) as well as (e) its mapping images of pure g-C_3N_4.

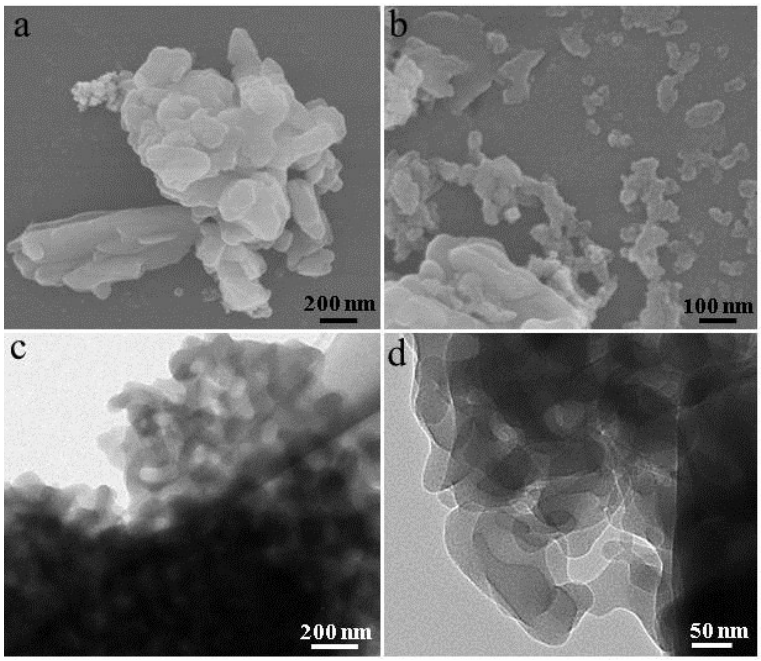

Fig. S5 SEM (a,b) and TEM (c,d) images of pure $(FeTPP)_2O$.

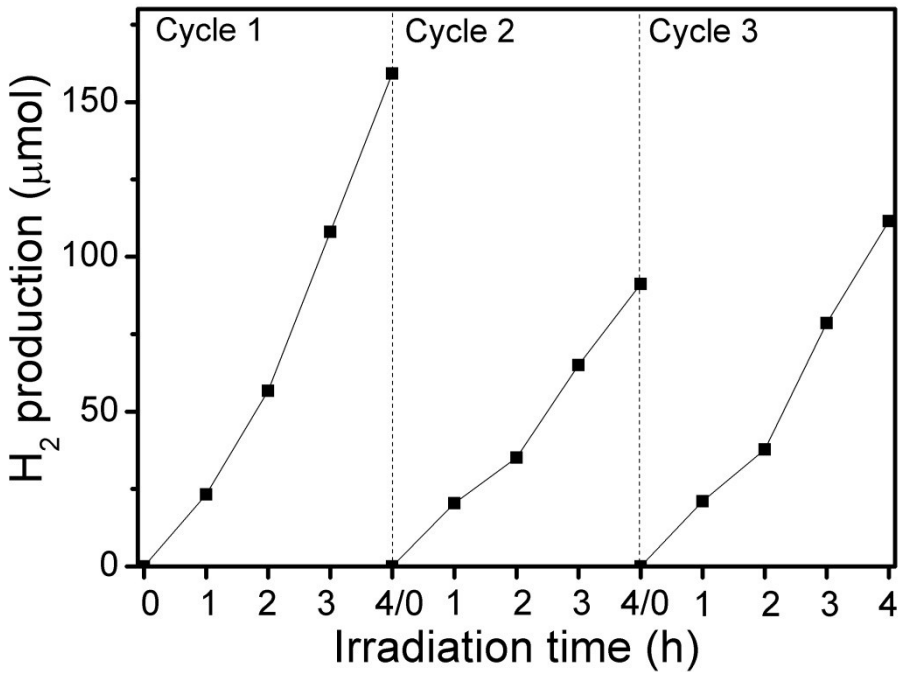

Fig. S6 Stability test of H_2 evolution (evacuation every 4h) for g-C_3N_4/$(FeTPP)_2O$ heterostructure (5 wt%) under UV-vis-light irradiation.

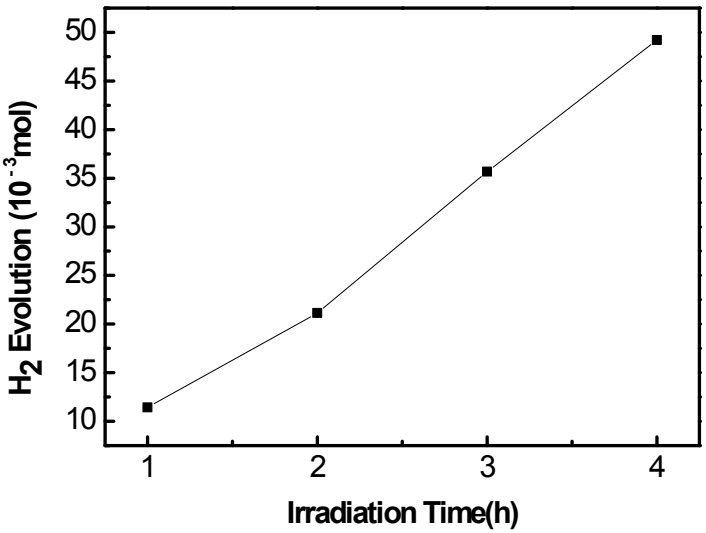

Fig. S7 Hydrogen evolution of g-C_3N_4/$(FeTPP)_2O$ (5 wt%) with irradiation time, which was measured under visible light ($\lambda > 420$ nm) generated by Xeon lamp with a UV-cutoff filter.

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