

Supporting information

Photocatalytic Hydrogen Evolution on
Dye-Sensitized Mesoporous Carbon Nitride
Photocatalyst with Magnesium Phthalocyanine

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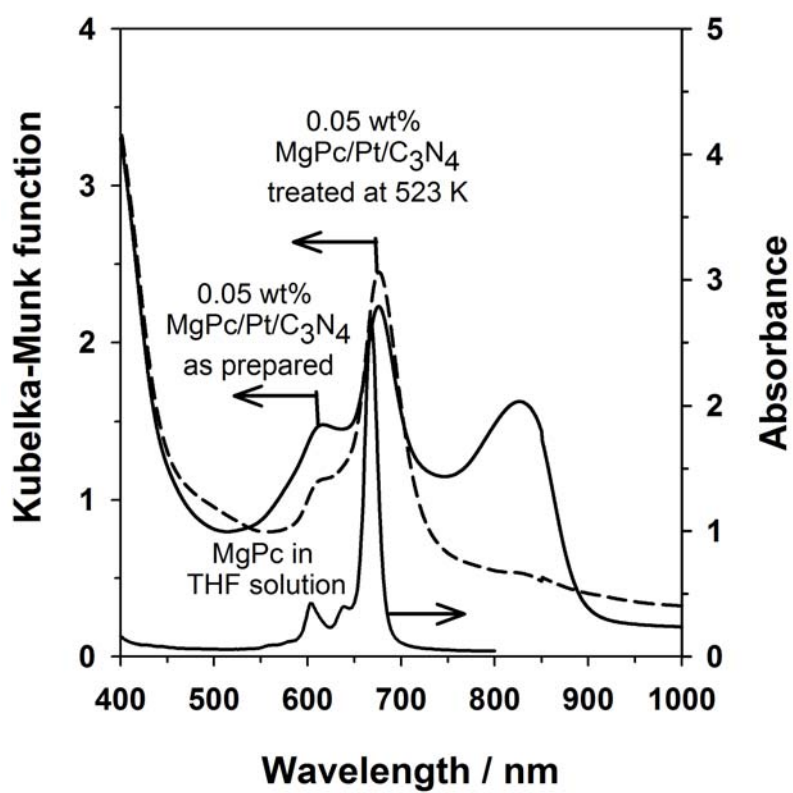


Figure S1. UV-VIS diffuse reflectance spectra for 0.05 wt% MgPc/Pt/mpg-C₃N₄ and 0.05 wt% MgPc/Pt/C₃N₄ treated at 523 K in static air, and UV-VIS absorption spectra for MgPc in THF solution.

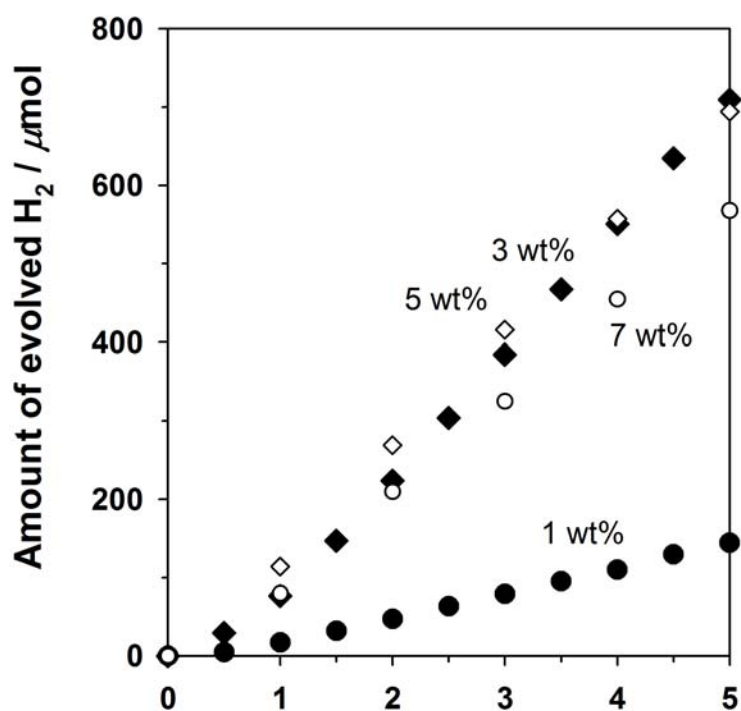


Figure S2. Amount of evolved H₂ gas using Pt/C₃N₄ photocatalysts with different Pt loadings as a function of time (0.1 g cat.; 300 W Xe lamp; 10 vol% triethanolamine aqueous solution, 100 mL; Pyrex upper-irradiation vessel).

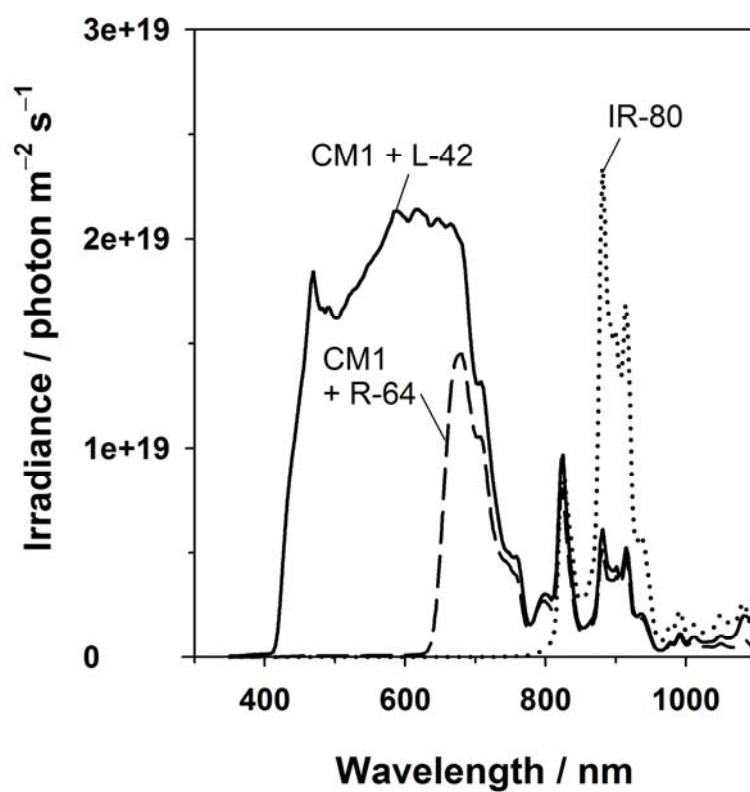
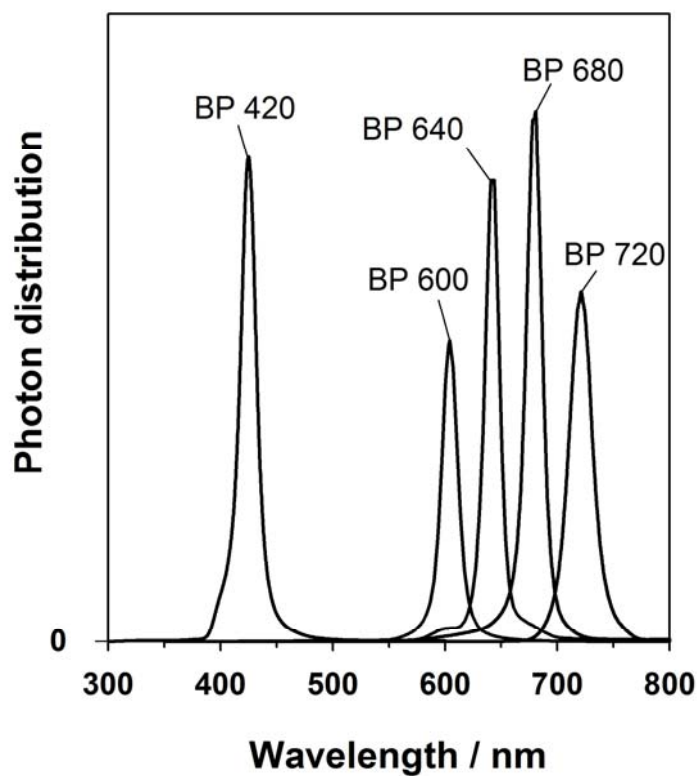


Figure S3. The number of photons as a function of wavelength for the irradiations using 300 W Xe lamp equipped with cutoff filters, CM1+L-42, CM1+R-64, and IR-80.



Band pass filter	Photon number / 10^{18} s^{-1}
BP420	6.5
BP600	4.8
BP640	3.4
BP680	1.6
BP720	1.5

Figure S4. Distribution of photons as a function of wavelengths (above) and the number of total photons (below) under irradiations by 300 W Xe lamp with band pass filters, BP420, BP 600, BP 640, BP680 and BP 720, respectively.