Electronic Supplementary Information

Effects of symmetry and carboxyl anchoring group of zinc phthalocyanine derivatives on g-C_3N_4 for the photosensitized H_2 production

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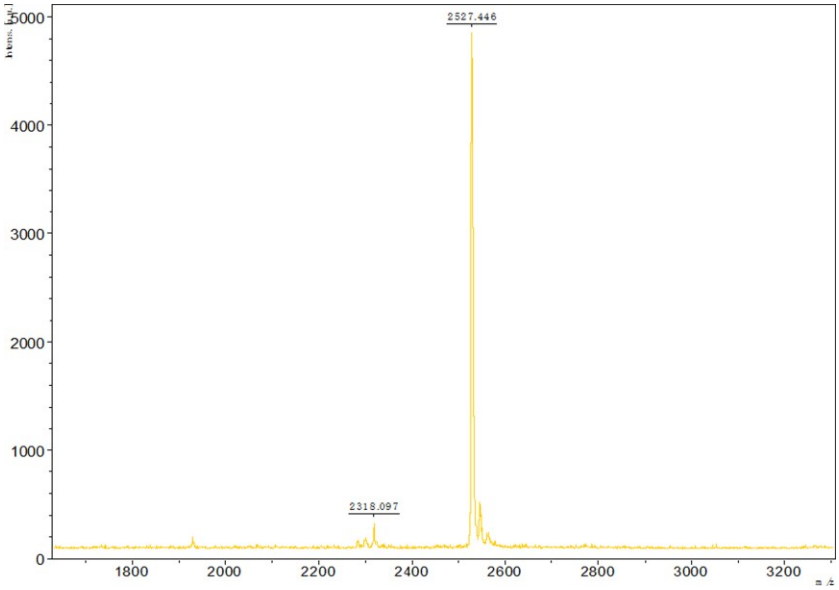

Fig. S1 MALDI-TOF mass spectrum of Zn-*tetrad*-Pc-1.

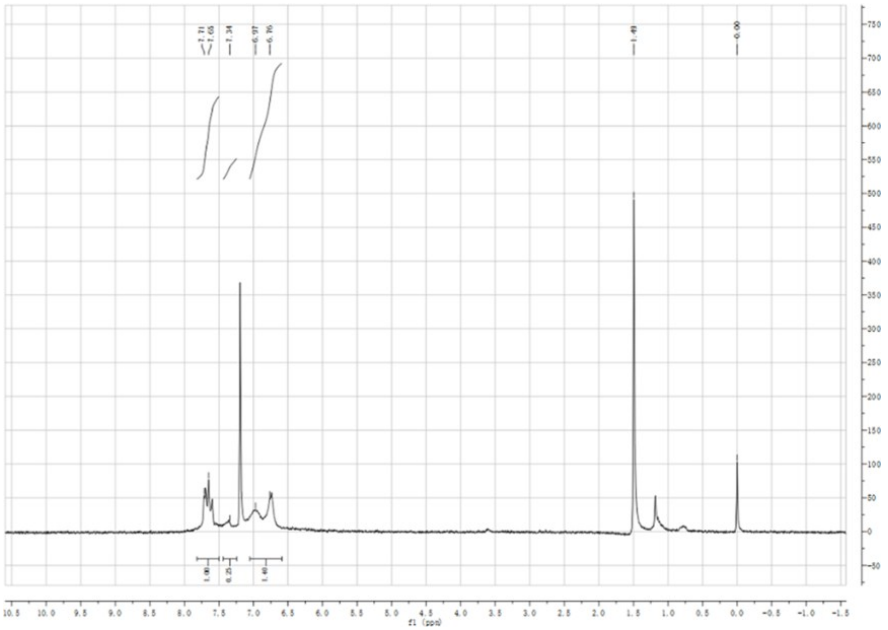

Fig. S2 ^{1}H NMR (in $CDCl_3$) spectra of Zn-*tetrad*-Pc-1.

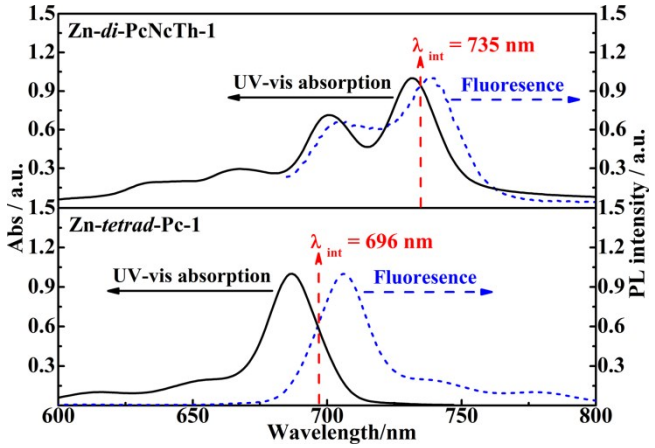

Fig. S3 Fluorescence emission and UV-vis absorption spectra of Zn-*di*-PcNcTh-1 and Zn-*tetrad*-Pc-1 in DCM solution with excitation fixed at 666 and 650 nm, respectively.

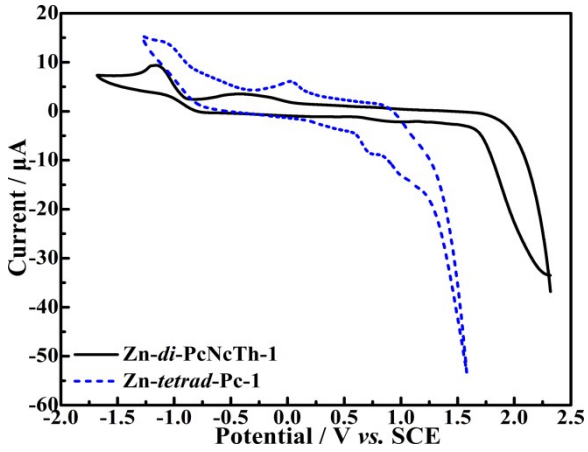

Fig. S4 Typical cyclic voltammogram (CV) curves of Zn-*di*-PcNcTh-1 and Zn-*tetrad*-Pc-1 in DCM solution containing 0.1 M $[NBu_4][ClO_4]$ at a scan rate of 20 $mV \cdot S^{-1}$.

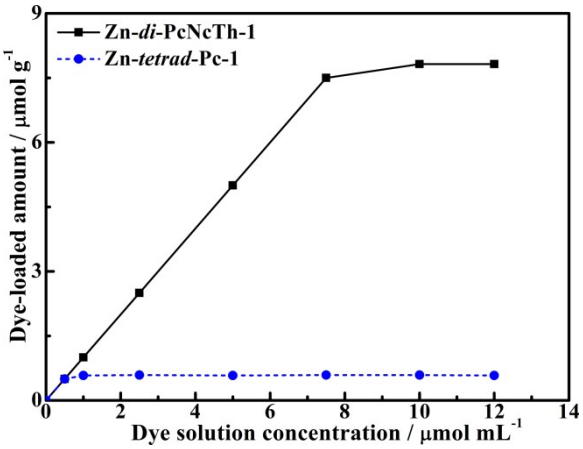

Fig. S5 Adsorption curves of Zn-*di*-PcNcTh-1 and Zn-*tetrad*-Pc-1 in 5.0 mL $CHCl_3$ solution containing 0.1 g Pt/g-C_3N_4.

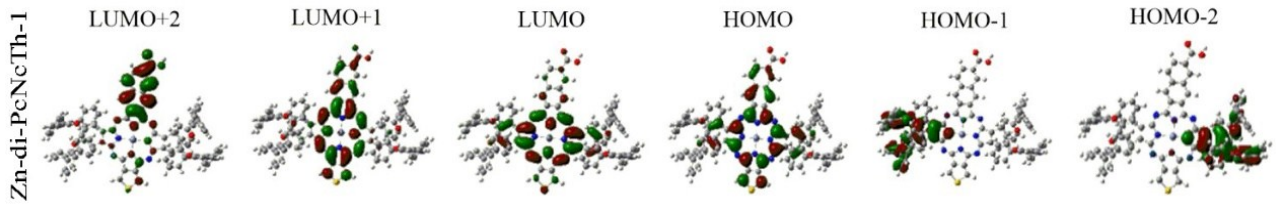

Fig. S6 The frontier molecular orbitals of Zn-*di*-PcNcTh-1, full optimized at B3LYP/6-31G level.

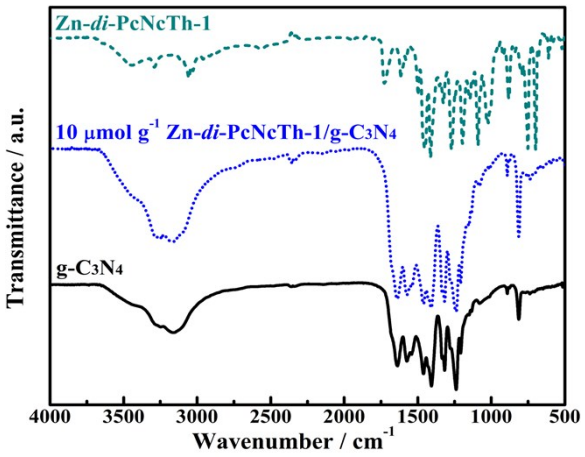

Fig. S7. FTIR spectra of g-C_3N_4, Zn-*di*-PcNcTh-1, and Zn-*di*-PcNcTh-1/g-C_3N_4 with dye-loaded amount of 10 μmol g^{-1}.