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Electronic supplementary Information

Controlling electron and energy transfer paths by selective excitation in a zinc porphyrin-BODIPY-C_{60} multi-modular triad

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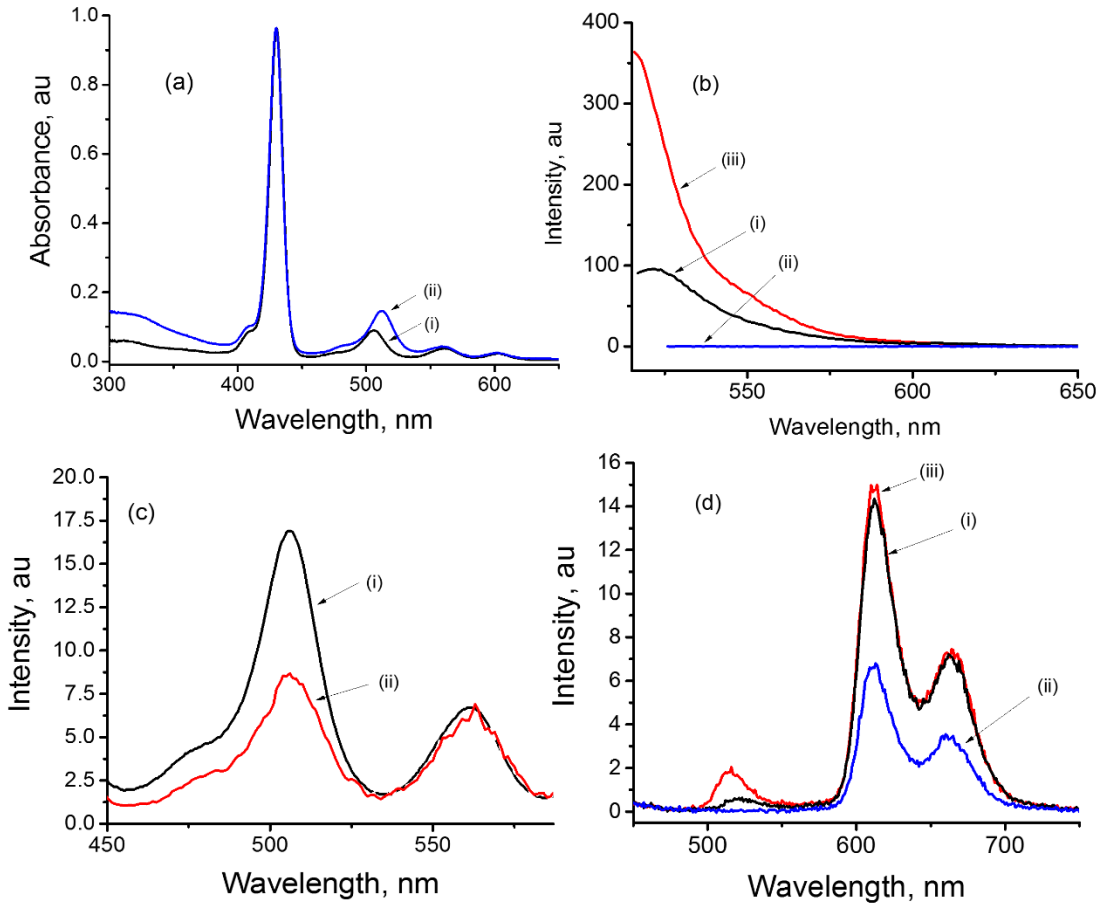


Figure S1. (a) Absorption (normalized to the ZnP Soret peak maxima) and (b) fluorescence spectra of (i) ZnP-BODIPY dyad, (ii) ZnP-BODIPY-C_{60} triad, and (iii) 1:1 mixture of ZnP and BODIPY in benzonitrile. The samples were excited at BODIPY peak maxima/maximum (505 nm for dyad and 512 nm for triad). (c) (i) Absorption and (ii) excitation spectrum of the dyad (normalized to ZnP 550 nm peak) in benzonitrile. The excitation spectrum was collected by holding the excitation wavelength at 600 nm corresponding to ZnP emission while scanning the excitation wavelength monochromator. (d) Fluorescence spectra of (i) ZnP-BODIPY dyad, (ii) ZnP-BODIPY-C_{60} triad, and (iii) 1:1 mixture of ZnP and BODIPY in benzonitrile. The samples were excited at 430 nm, corresponding to ZnP Soret band.

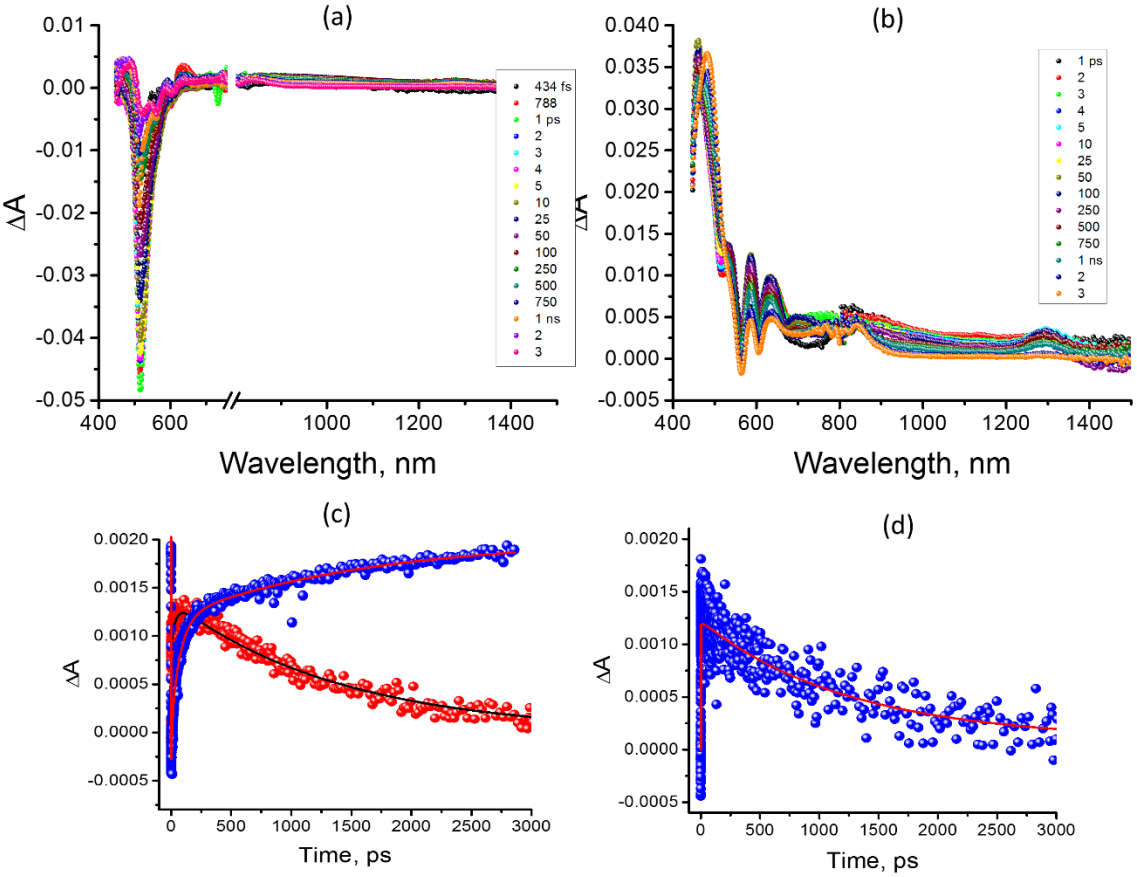
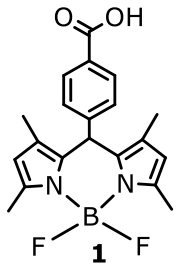


Figure S2. Femtosecond transient spectra (100 fs pulse width) of the ZnP-BODIPY dyad at the excitation wavelenth of (a) 510 nm and (b) 400 nm in Ar-saturated benzonitrile at the indicated delay times. The time profiles of the peak corresponding to ground state bleaching of ^{1}BODIPY* at 517 nm (red line) and ^{1}ZnP* peak at 1284 nm (blue line) are shown in figure c (at 510 nm excitation) and d (at 400 nm excitation).



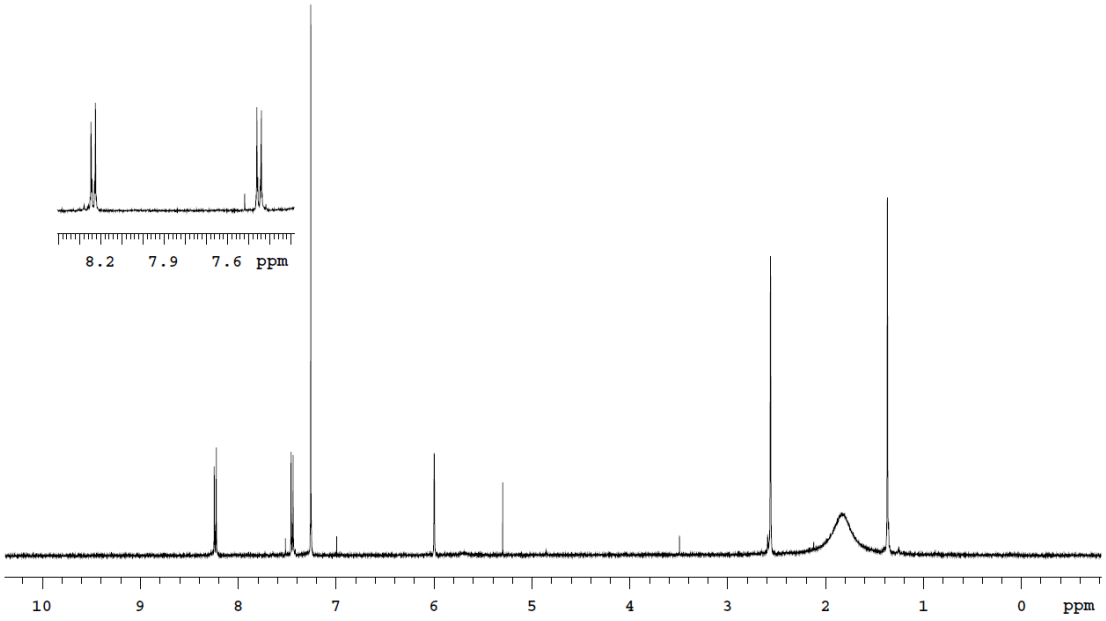
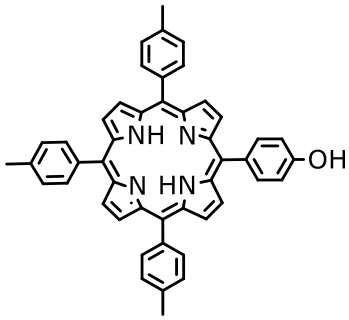


Figure S3: ^{1}H NMR of Compound **1, Acid-BODIPY** in $CDCl_3$



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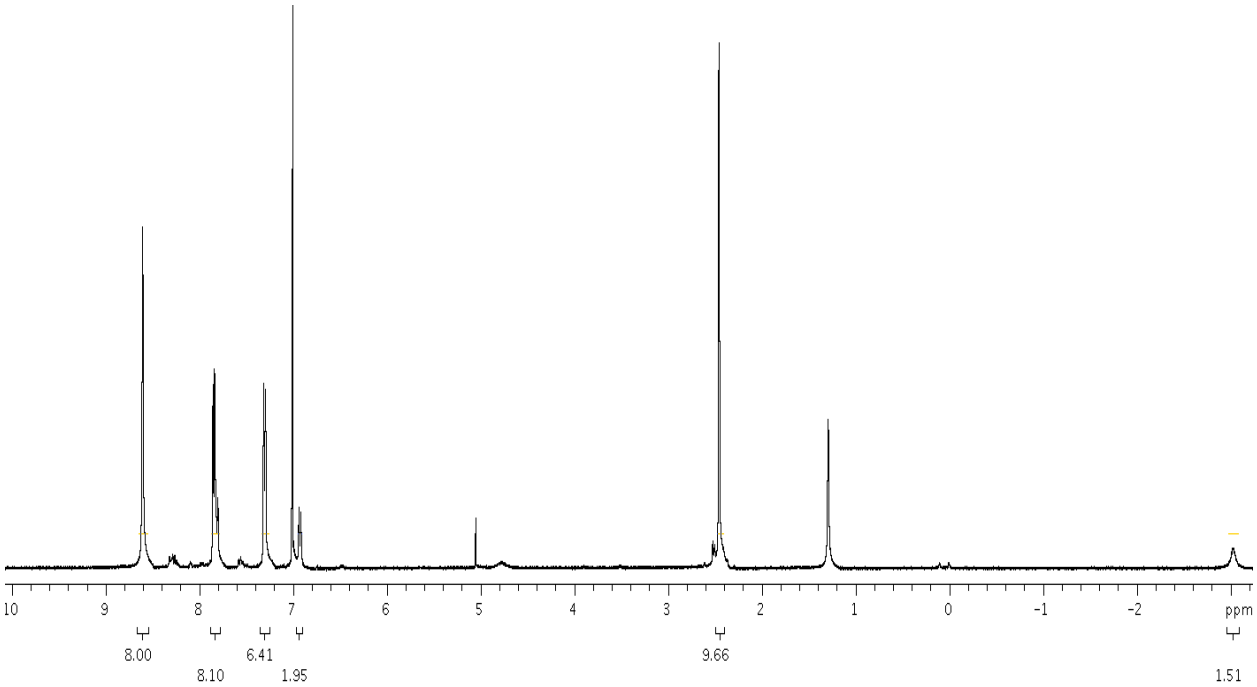
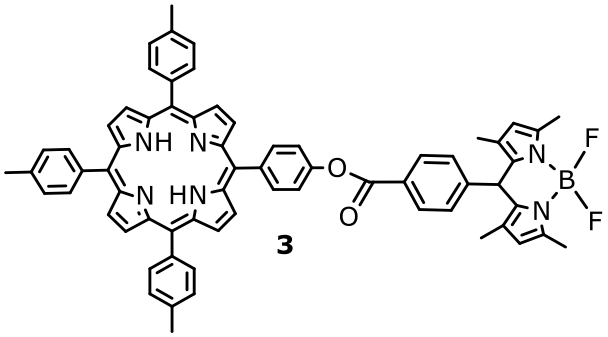


Figure S4: ^{1}H NMR of Compound **2, H_2TTP-OH** in $CDCl_3$



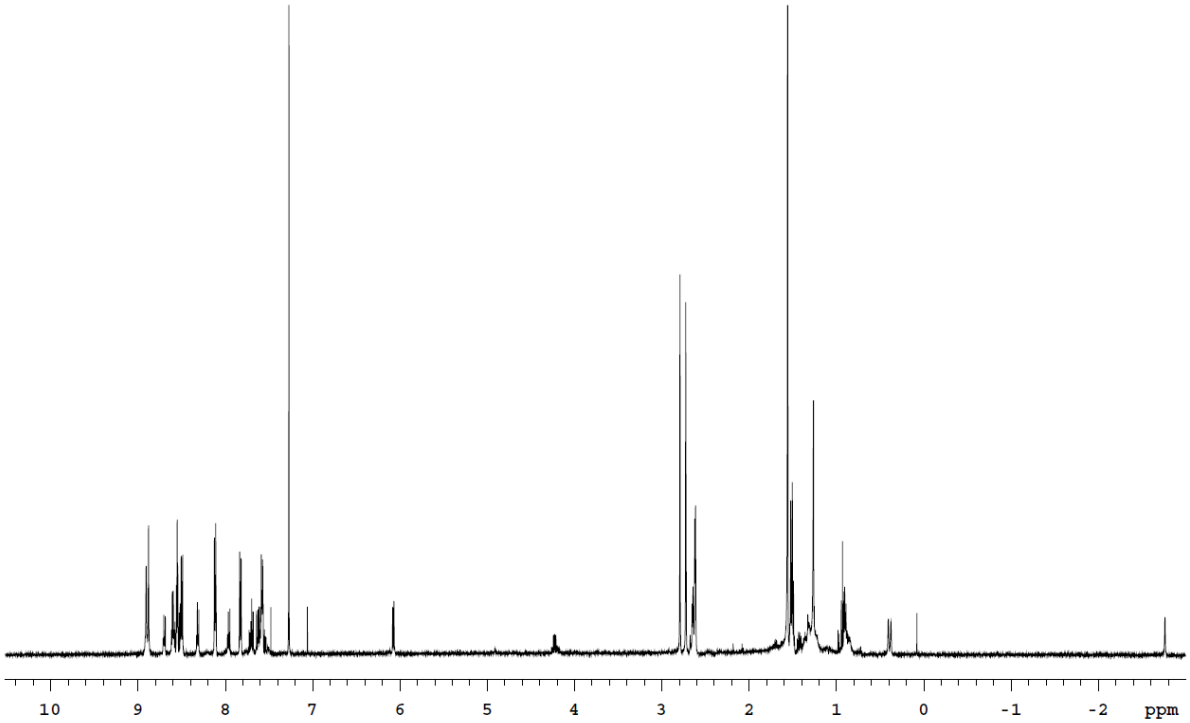
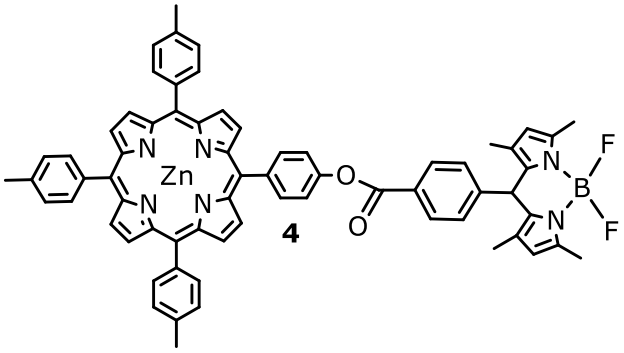


Figure S5: ^{1}H NMR of Compound **3**, H_2**TTP-BDPY** in $CDCl_3$



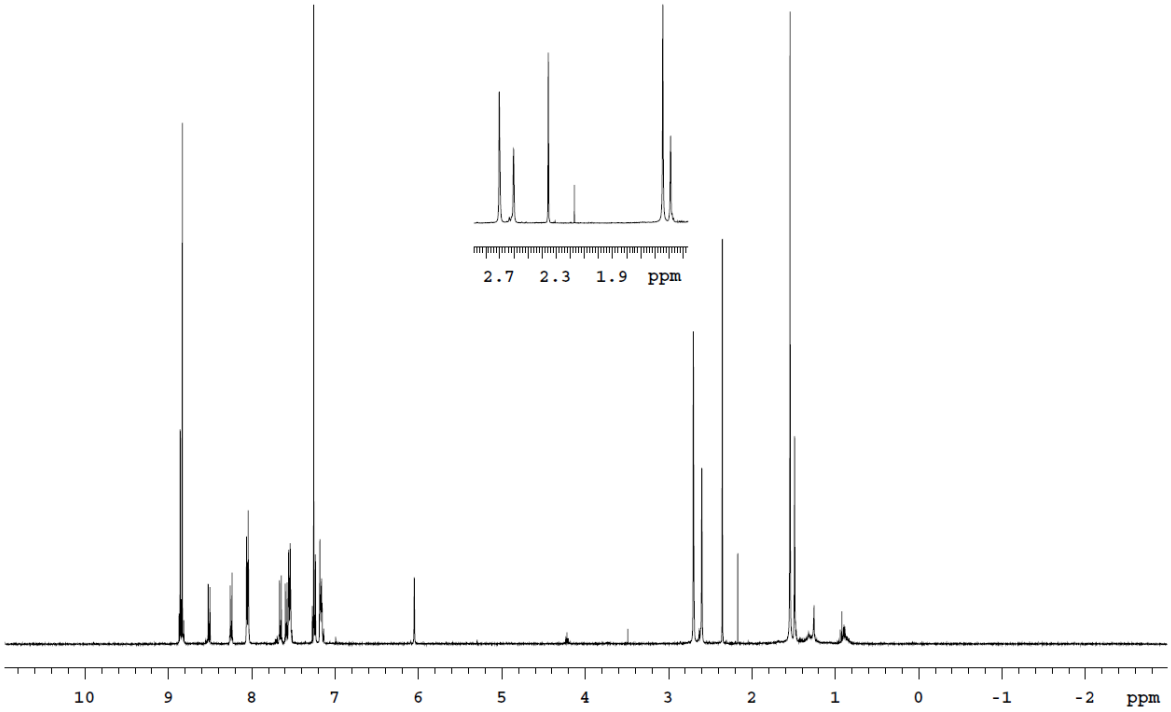
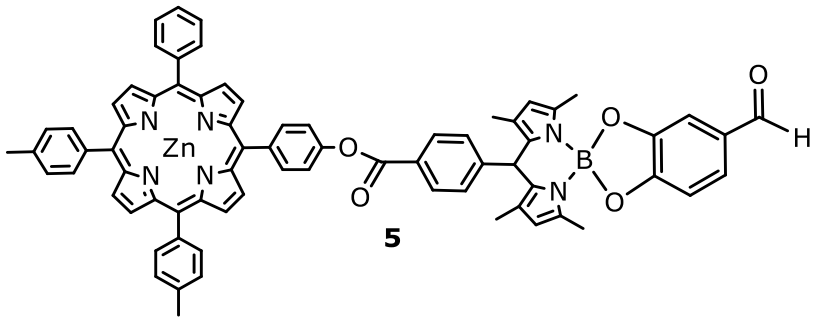


Figure S6: ^{1}H NMR of Compound **4** in $CDCl_3$



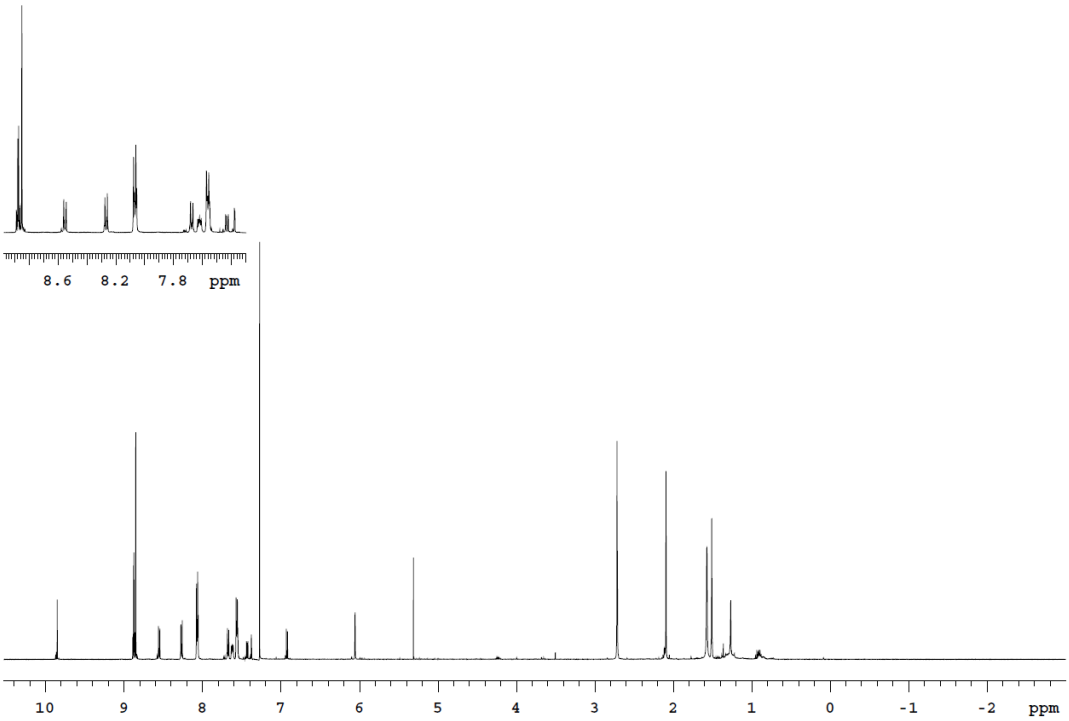
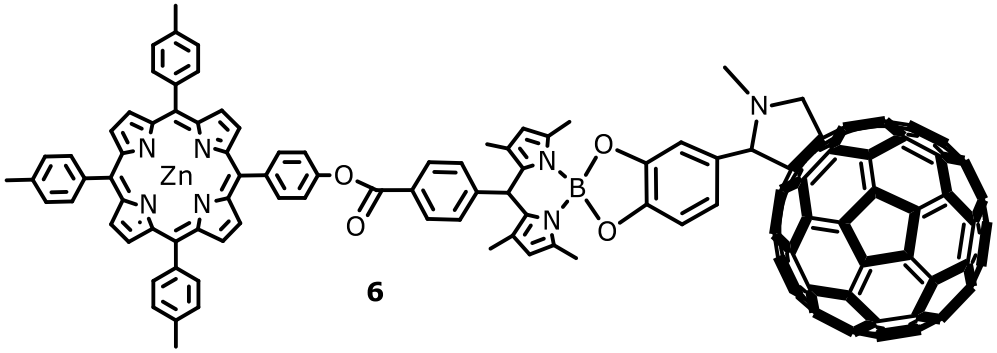


Figure S7: ^{1}H NMR of Compound **5** in $CDCl_3$



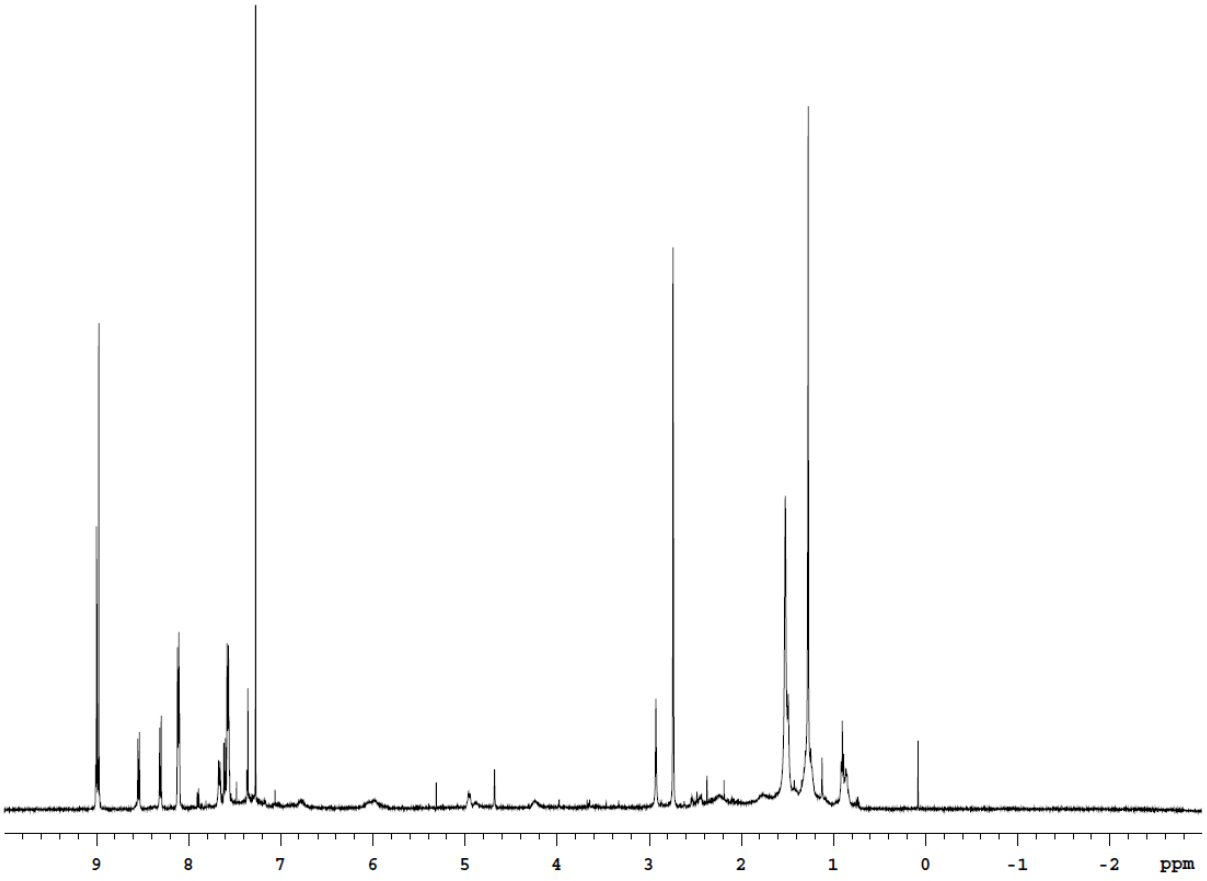
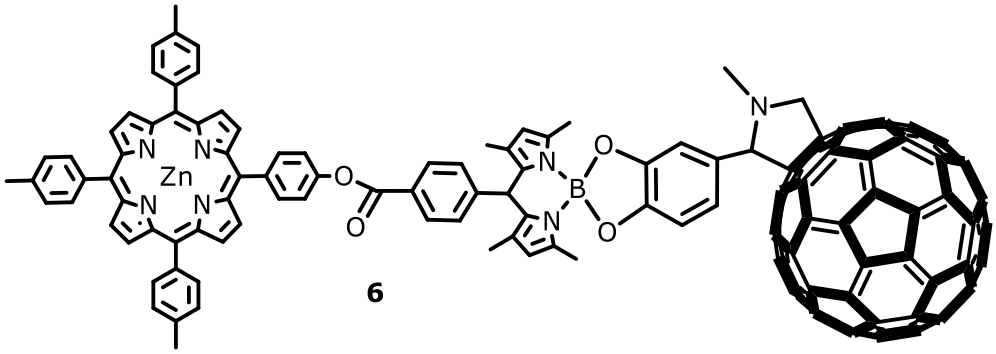


Figure S8: ^{1}H NMR of Compound **6** in $CDCl_3$.



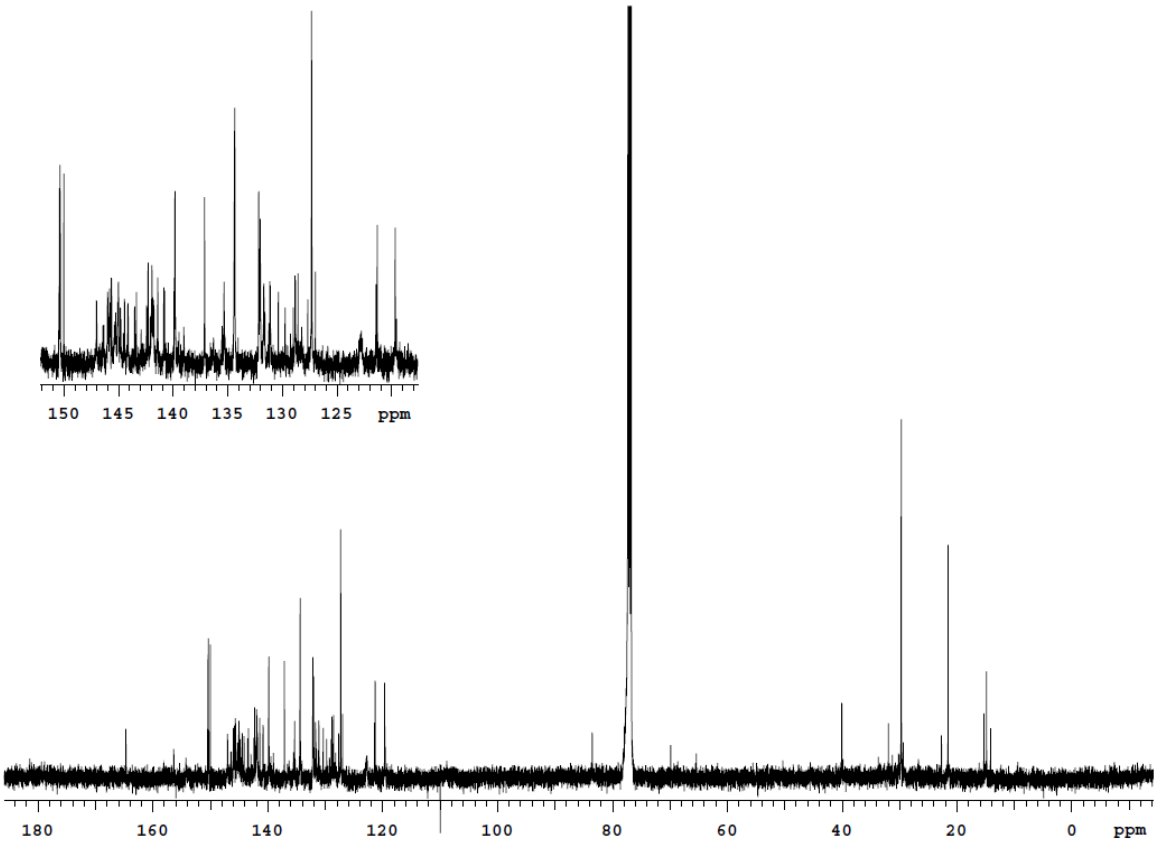


Figure S9: ^{13}C-nmr of Compound 6 in $CDCl_3$

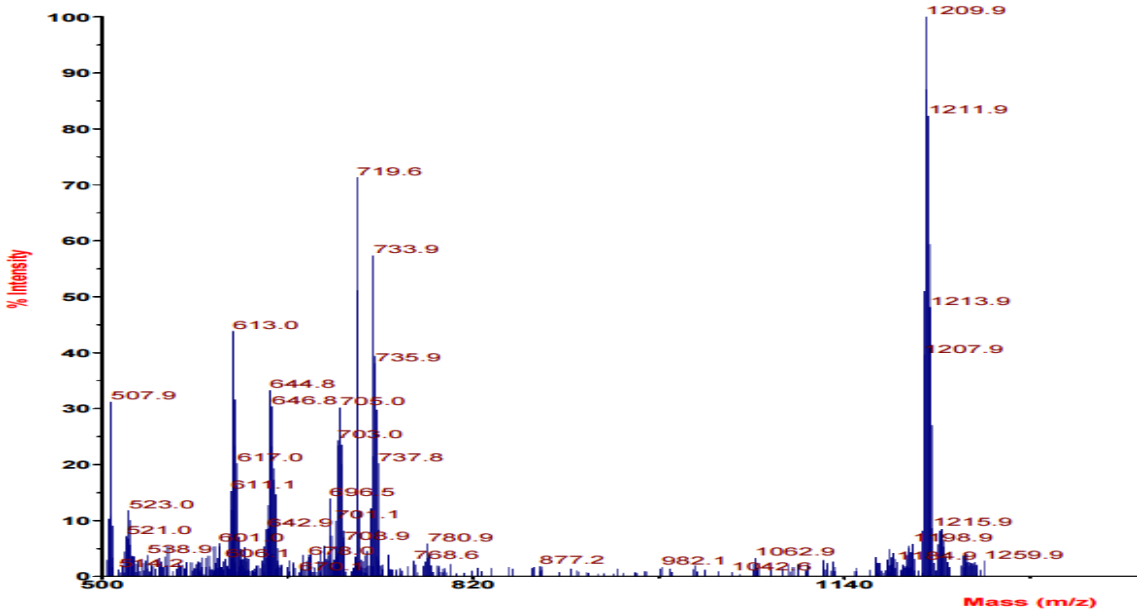


Figure S10:Mass spectrum (MALDI) of Compound 6