

Interactions in SWNT / pyrene / porphyrin nanohybrids

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Supporting Information

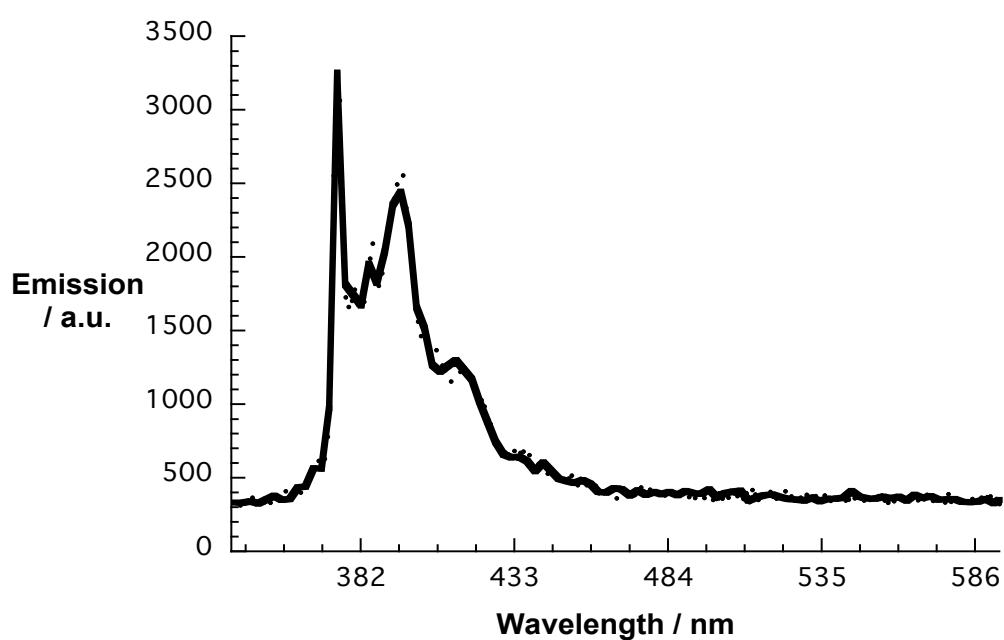
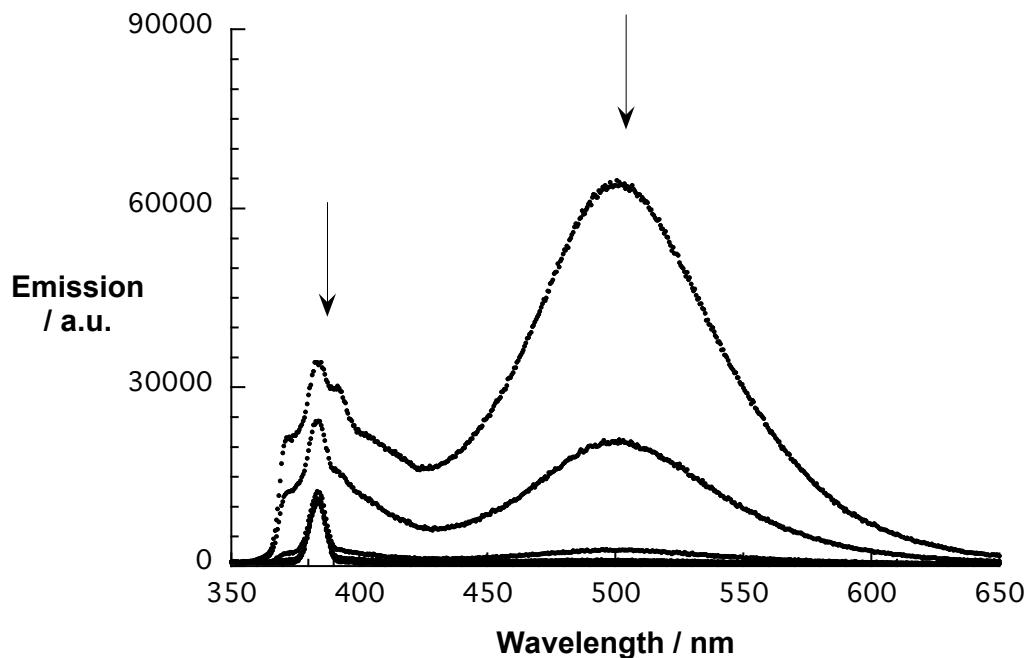


Figure S1: Top: fluorescence spectra of pyrene⁺ (several concentrations between $\sim 10^{-6}$ and 10^{-7} M) in aqueous solutions at pH 6.5 – the excitation wavelength is 340 nm. Bottom: fluorescence spectrum of pyrene-methanol ($\sim 10^{-6}$ M) in THF – the excitation wavelength is 340 nm.

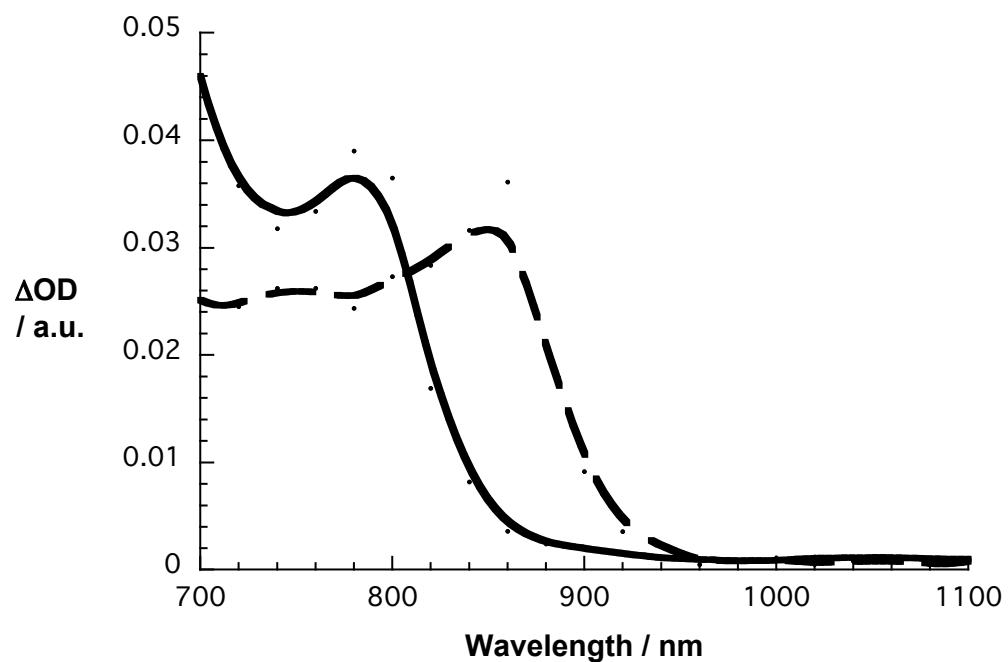


Figure S2: Differential absorption spectra obtained upon nanosecond flash photolysis (532 nm) of H_2P^{8-} (solid line) and ZnP^{8-} (dashed line) in nitrogen saturated aqueous solutions with a time delay of 100 ns.

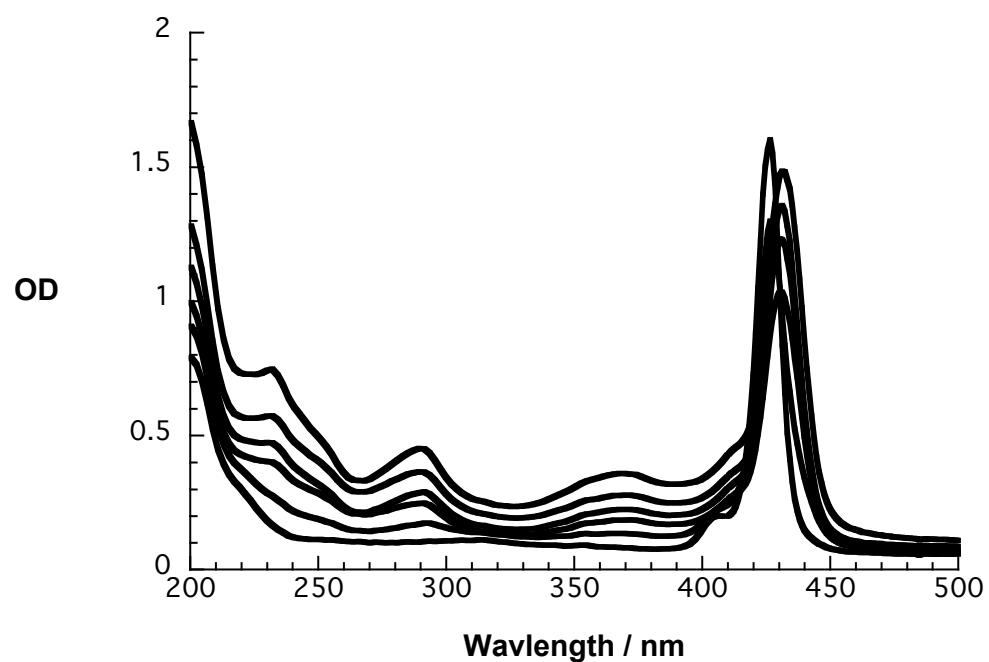


Figure S3: Absorption spectra of a dilute aqueous solution of **ZnP**⁸⁻ (3.2×10^{-6} M) with several concentrations of **pyrene**⁺.

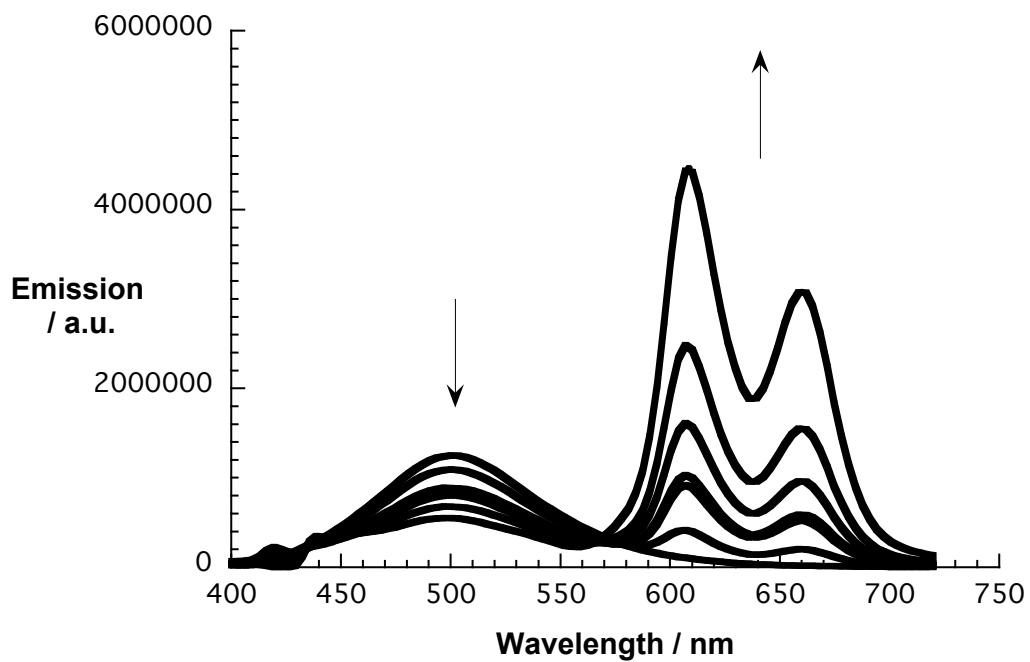


Figure S4: Fluorescence spectra of a dilute aqueous solution of **pyrene**⁺ with several concentrations of ZnP^{8-} ($0 - 6.14 \times 10^{-5}$ M).

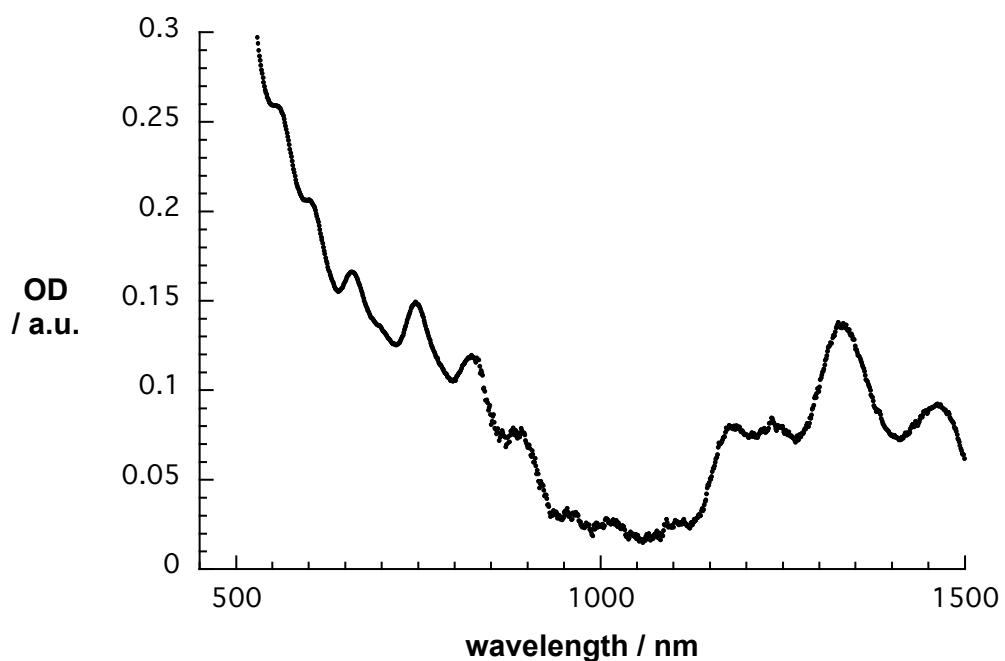
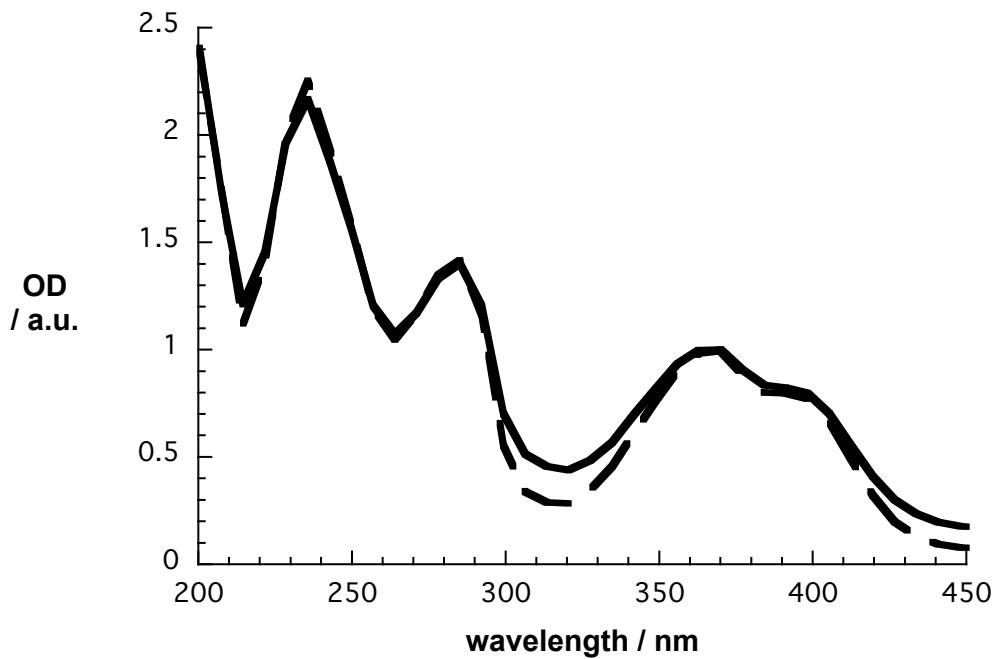


Figure S5: Top: absorption spectra of pyrene⁺ (dashed line) and SWNT / pyrene⁺ (solid line) in H₂O at pH 6.5 in the 200 – 450 nm range. Bottom: absorption spectrum of SWNT / pyrene⁺ in D₂O in the 450 – 1500 nm range.

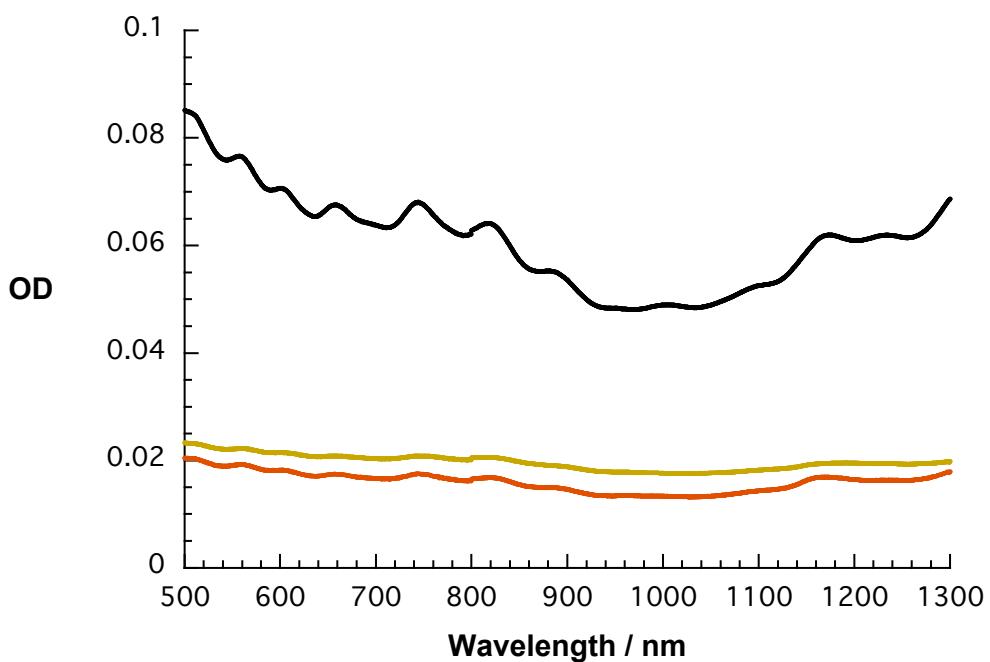
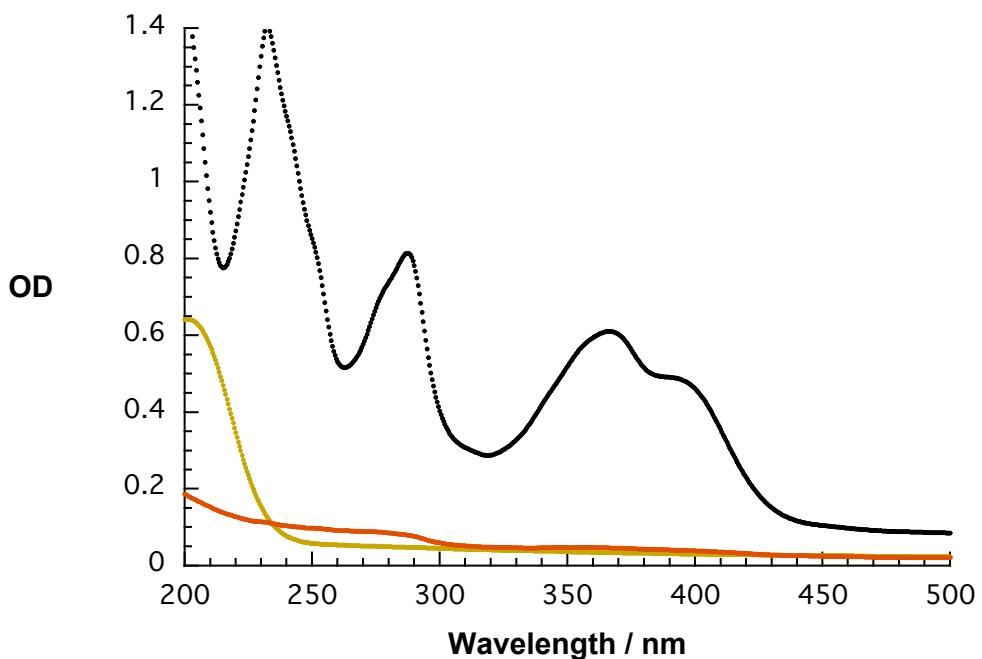


Figure S6: Absorption spectra of aqueous suspensions of **SWNT / pyrene⁺** used for the fluorescence experiments shown in Figure 5. Top: 200 to 500 nm range – bottom: 500 to 1300 nm range.

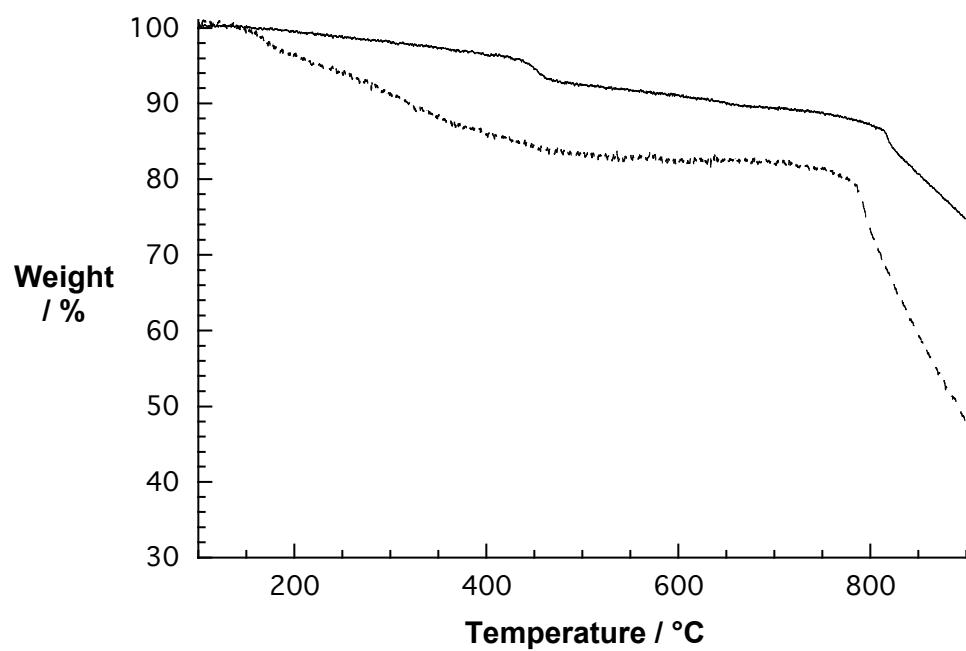


Figure S7: Thermogravimetric analysis (TGA, 10°C/min under N₂) of **pristine SWNT** (solid line) and **SWNT / pyrene⁺** (dashed line).