

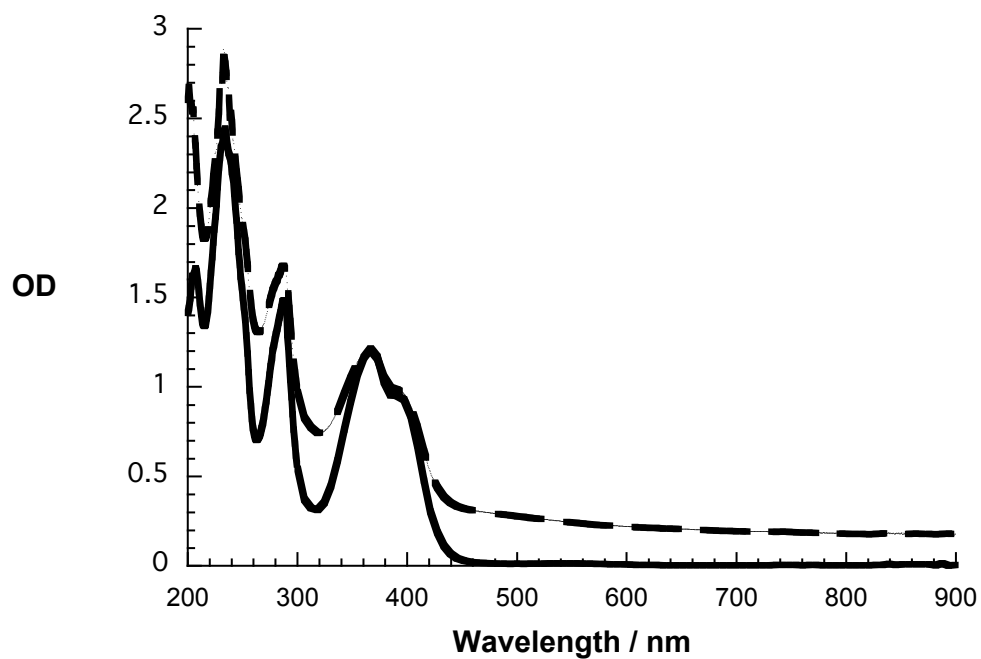


Figure S1: Absorption spectra of pyrene⁺ (solid line) and MWNT / pyrene⁺ (dashed line) in H₂O in the 200 – 900 nm range.

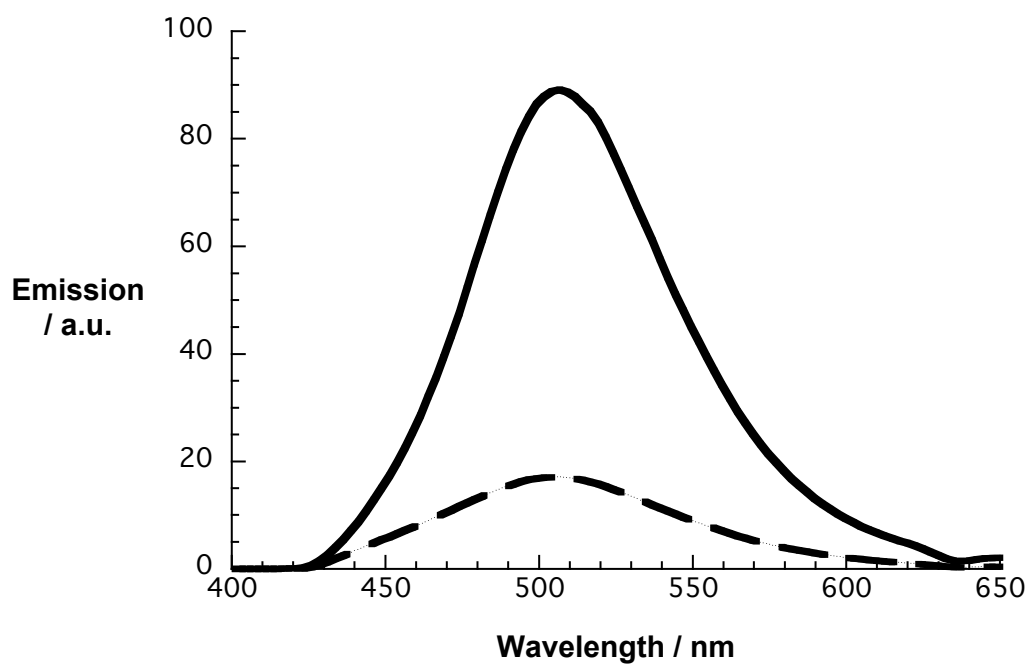


Figure S2: Fluorescence spectra of pyrene⁺ (solid line) and MWNT / pyrene⁺ (dashed line) in water with matching absorption at the 360 nm excitation wavelength - $OD_{360\text{ nm}} = 0.5$.

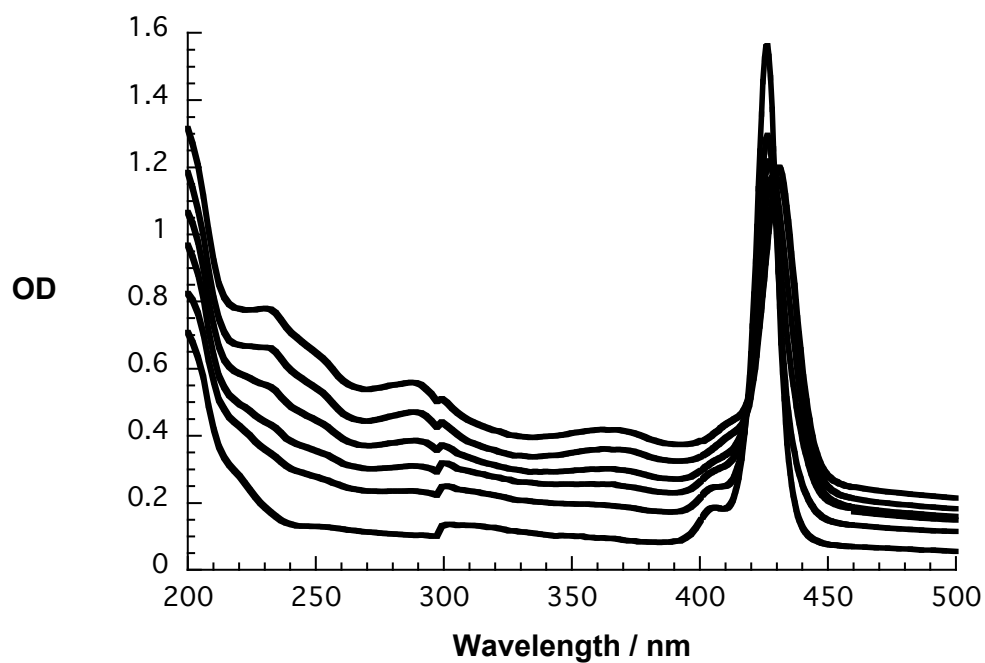


Figure S3: Absorption spectra of a dilute aqueous solution of ZnP^{8-} ($2.9 \times 10^{-6} \text{ M}$) upon adding several concentrations of MWNT / pyrene $^{+}$.

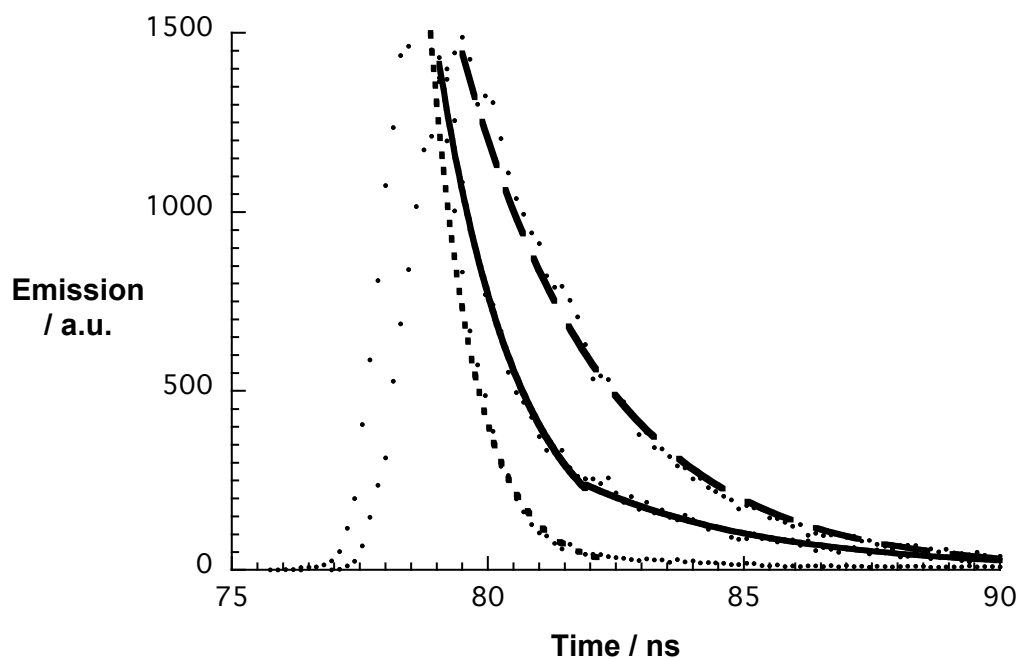


Figure S4: Time resolved fluorescence decay of ZnP^{8-} (dashed line), MWNT / pyrene⁺ / ZnP^{8-} (solid line), and laser scatterer (dotted line) in room temperature solutions (2.9×10^{-6} M) – 337 nm excitation wavelength and 615 nm monitoring wavelength.

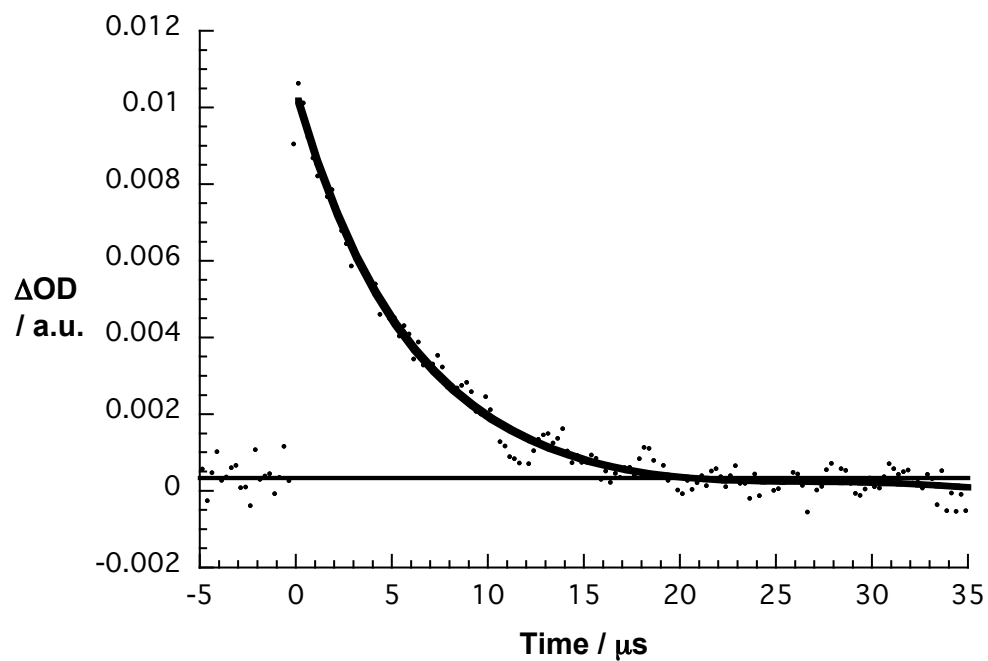


Figure S5: Time-absorption profile for the electron transfer product at 750 nm – see Figure 3.

Table S1: Fluorescence related data in MWNT / pyrene⁺ / ZnP⁸⁻ nanohybrids – sample composition (*i.e.*, concentration is constant – 2.9×10^{-6} M) correspond to the spectra shown in Figure 2.

MWNT / pyrene ⁺	pre- exponential factor 1	pre- exponential factor 2	lifetime 1	lifetime 2	χ^2 -value
0.0 ml	0.681		2.35		0.9
0.2 ml	0.591	1.131	2.29	0.169	0.7173
0.4ml	0.541	1.441	2.17	0.221	1.095
0.6 ml	0.427	1.901	2.33	0.203	0.9459
0.8 ml	0.243	3.025	2.57	0.182	0.9761
1.0 ml	0.139	3.063	3.2	0.199	0.9701