Single-Wall Carbon Nanotubes Bearing Covalently Linked Phthalocyanines – Photoinduced Electron Transfer.

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Supporting Information

Absorption and fluorescente spectra of **1** titrated with variable concentrations of SWNT. (Figure S1); absolute spectra of **ZnPc-SWNT-(2)** in the ground and reduced state (Figure S2); differential absorption spectra of **ZnPc-SWNT-(2)** in the visible and NIR upon femtosecond flash photolysis (660 nm) and their time-absorption profiles at different wavelengths (Figure S3); differential absorption spectra of **ZnPc-SWNT-(1)** in the visible and NIR upon femtosecond flash photolysis (660 nm) (Figure S4) and full Raman spectra of pristine SWNT and nanotubes functionalized with phthalocyanines [ZnPc-SWNT-(2)] and [ZnPc-(SWNT)-(1)].

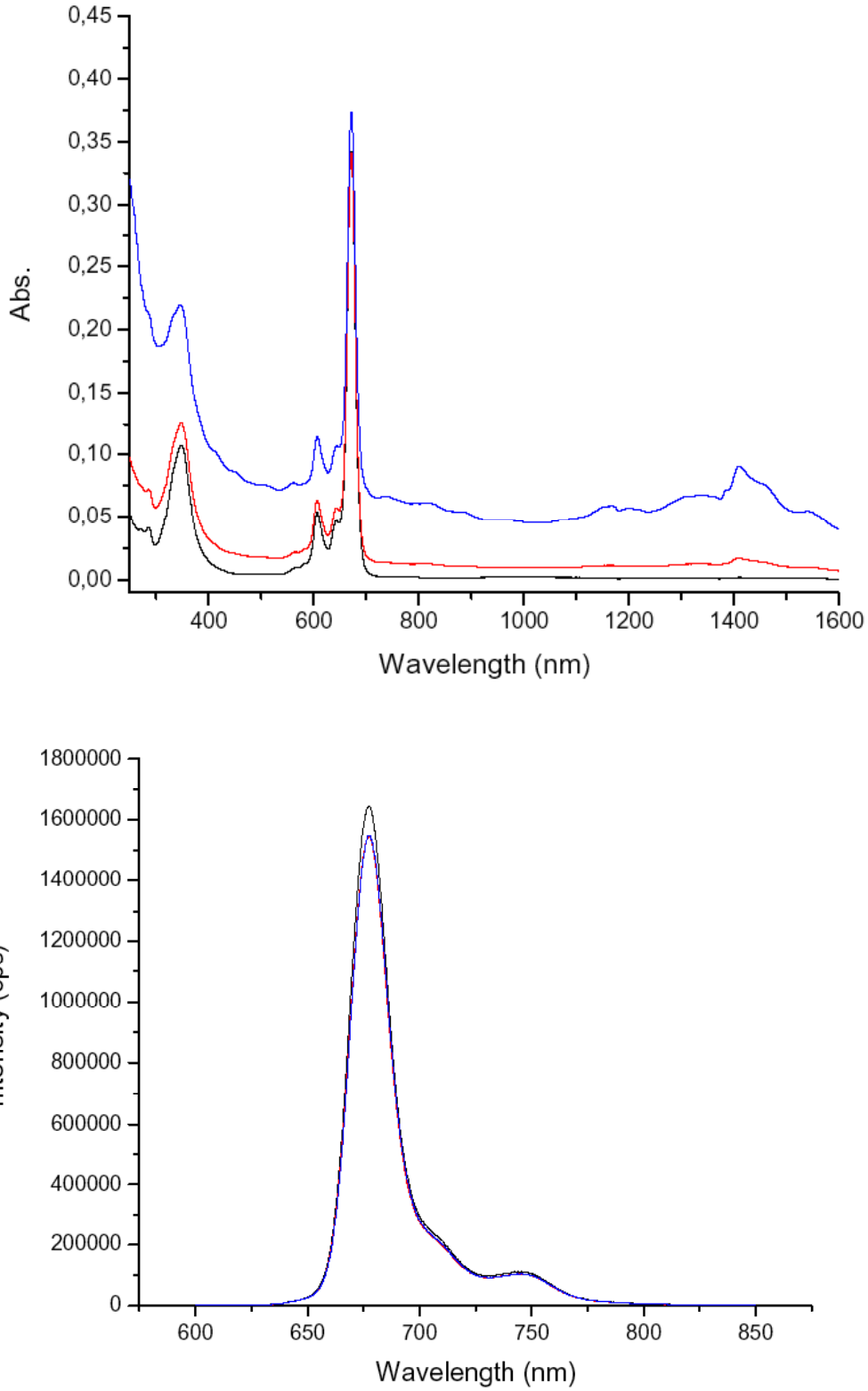


Figure S1: Absorption – upper figure – and fluorescence spectra – lower figure – of **1** titrated with variable concentrations of SWNT in THF. Photoexcitation was performed at 350 nm.

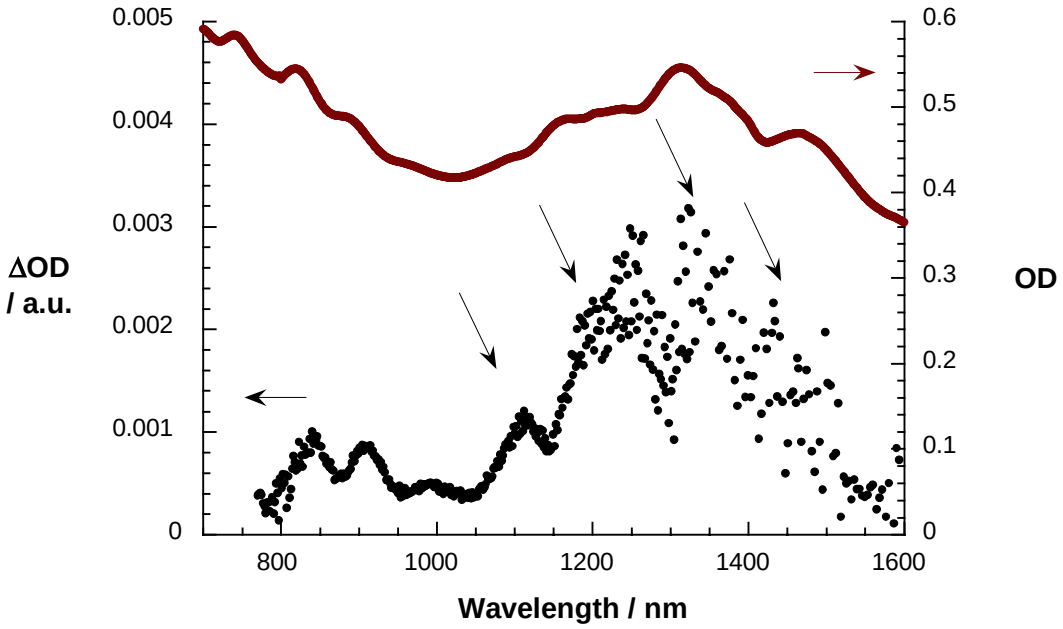
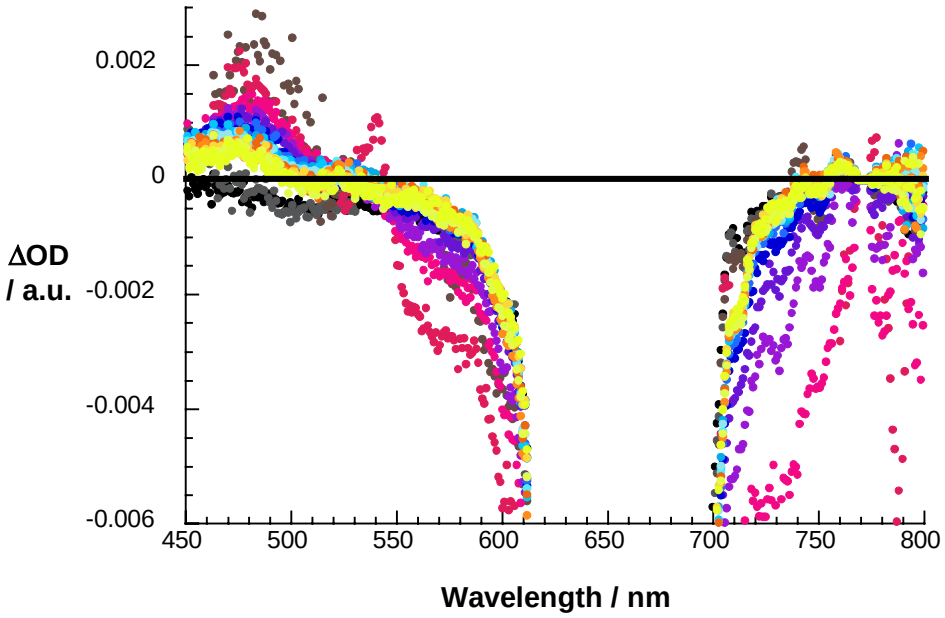


Figure S2: Absolute spectra of **ZnPc-SWNT-(2)** ground (i.e., red spectrum) and reduced (i.e., black spectrum) state in THF – please note the different y-axis scales.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450
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650
700
750
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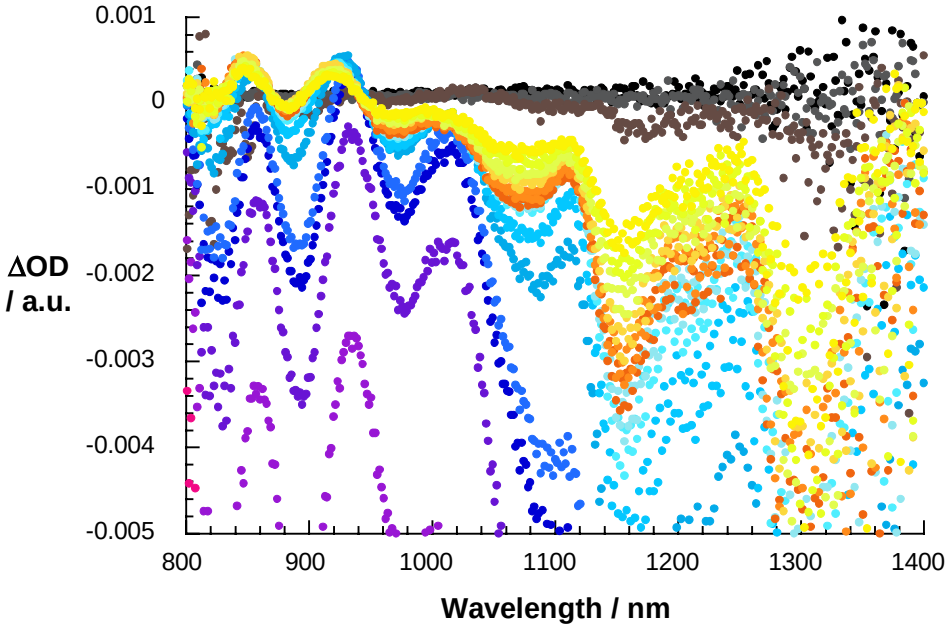
Wavelength / nm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1400
Wavelength / nm

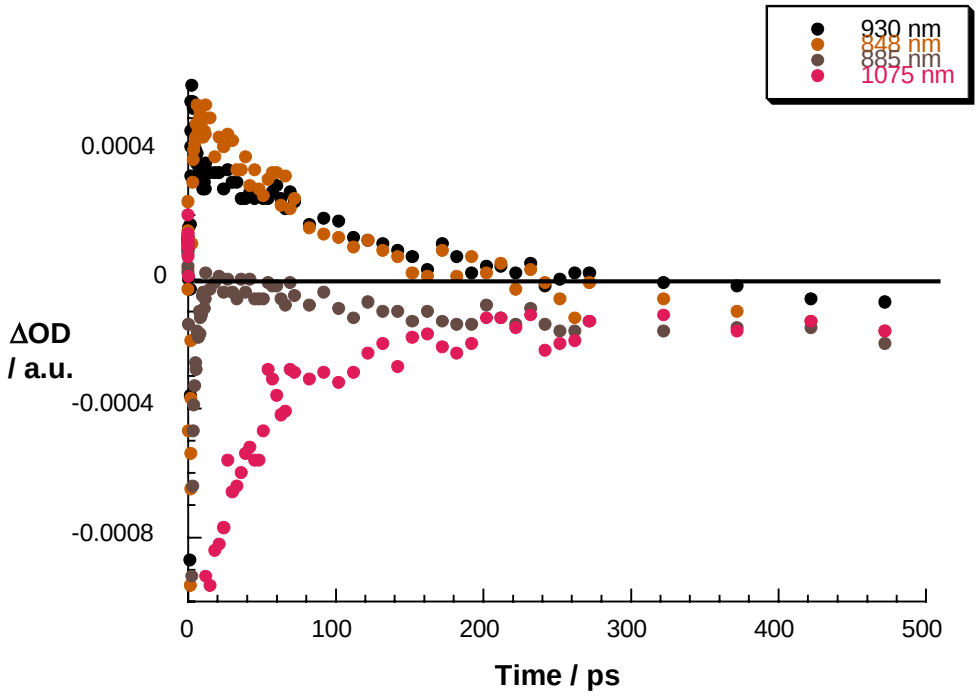

Figure S3: Top: differential absorption spectra (visible) obtained upon femtosecond flash photolysis (660 nm) of ZnPc-SWNT-(2) in nitrogen saturated DMF solutions with several time delays between 0 and 500 ps at room temperature. Center: differential absorption spectra (near-infrared) obtained upon femtosecond flash photolysis (660 nm) of ZnPc-SWNT-(2) in nitrogen saturated DMF solutions with several time delays between 0 and 500 ps at room temperature. Bottom: time-absorption profile of the spectra shown above at 848, 885, 930 and 1075 nm – see legend for details.

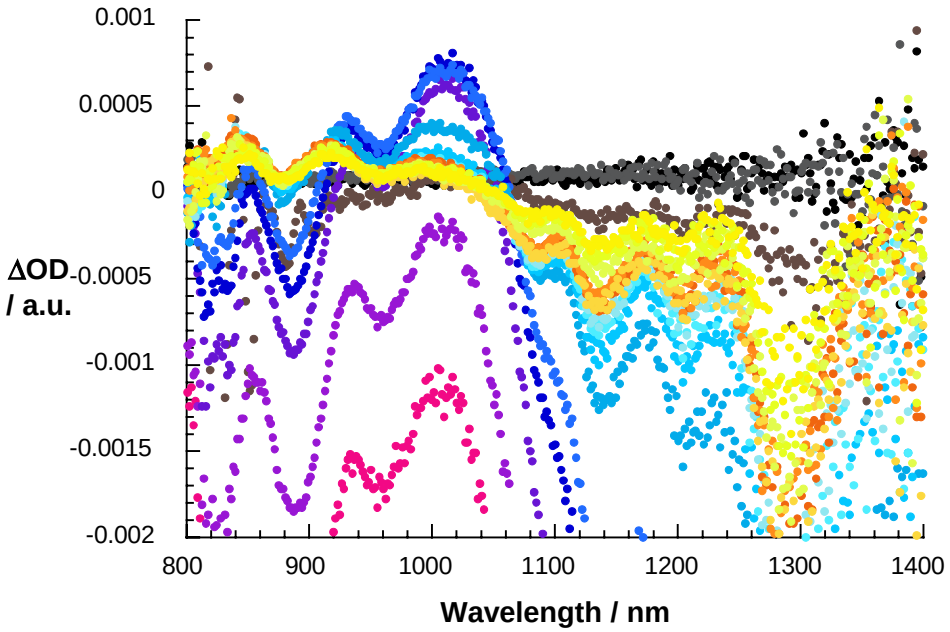

Figure S4: Differential absorption spectra (visible) obtained upon femtosecond flash photolysis (660 nm) of ZnPc-SWNT-(1) in nitrogen saturated DMF solutions with several time delays between 0 and 500 ps at room temperature.

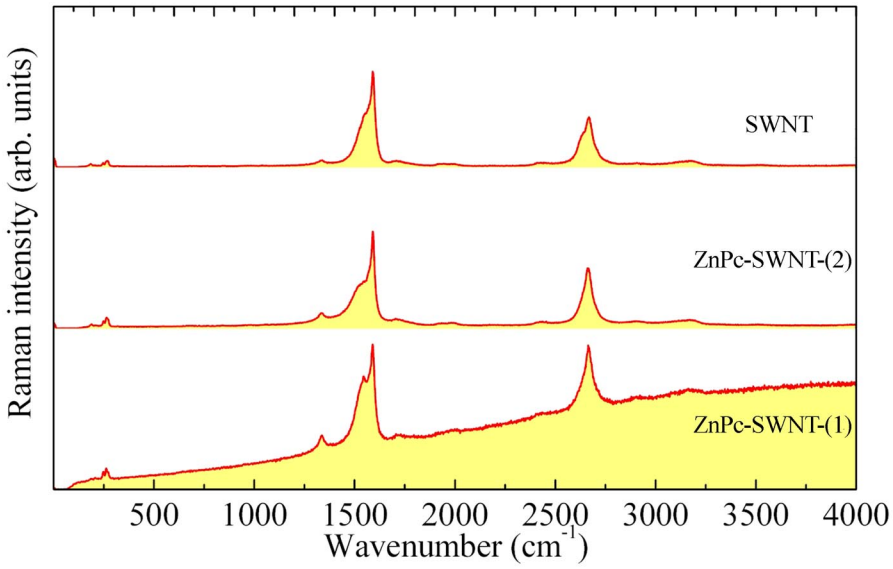

Figure S5: Full Raman spectra of pristine (SWNT) and nanotubes functionalized with phthalocyanines [ZnPc-SWNT-(2) and ZnPc-SWNT-(1)]. The vertical scales have been normalized to have approximately the same intensity at the G^+ band. The colored area under each spectrum marks the zero level.