

Supplementary Information

Photoinduced electron transfer in a clicked fullerene-porphyrin conjugate

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Fig. S1. 2D NOESY spectrum of **F-P-F** recorded in CDCl_3 at room temperature.

Fig. S2. OSWVs (cathodic and anodic scans) of compound **F** on a Pt electrode in $\text{CH}_2\text{Cl}_2 + 0.1 \text{ M } n\text{Bu}_4\text{NBF}_4$ at room temperature.

Fig. S3. OSWVs (cathodic and anodic scans) of compound **12** on a Pt electrode in $\text{CH}_2\text{Cl}_2 + 0.1 \text{ M } n\text{Bu}_4\text{NBF}_4$ at room temperature.

Fig. S4. Corrected singlet oxygen luminescence spectra of air-equilibrated solution containing **P** (black), **F** (gray) and **F-P-F** (light gray). a) toluene: $\lambda_{\text{exc}} = 550 \text{ nm}$, $A = 0.300$. b) benzonitrile: $\lambda_{\text{exc}} = 560 \text{ nm}$, $A = 0.300$.

Fig. S5. Top: differential transient absorption spectra of **P** (grey dots), **F** (grey triangles, $0.7 \times 10^{-4} \text{ M}$) and **F-P-F** (black) obtained at 100 ns after nanosecond laser pulse per pulse irradiation at 560 nm in deaerated benzonitrile at 298 K; inset: time profile of differential transient absorption spectra for **F-P-F** obtained at 0-3.5 μs time intervals monitoring at 650 nm ($\lambda_{\text{exc}} = 560 \text{ nm}$). Bottom: differential transient absorption spectra of **P** (grey dots), **F** (grey triangles) and **F-P-F** (black) obtained at 100 ns after nanosecond laser pulse irradiation at 560 nm in deaerated toluene at 298 K; the energy of the laser used was 0.25, 1 and 2 mJ per pulse for **P**, **F** and **F-P-F** respectively. The intensity of the signals is not directly comparable because the intensity of the laser and/or the concentration of the solution were adjusted to observe the features of charge separation in **F-P-F** which are intrinsically weaker than the triplet features of **F** and **P**, which also may undergo triplet-triplet annihilation phenomena at high concentration or under high excitation power.

Fig. S1 (A)

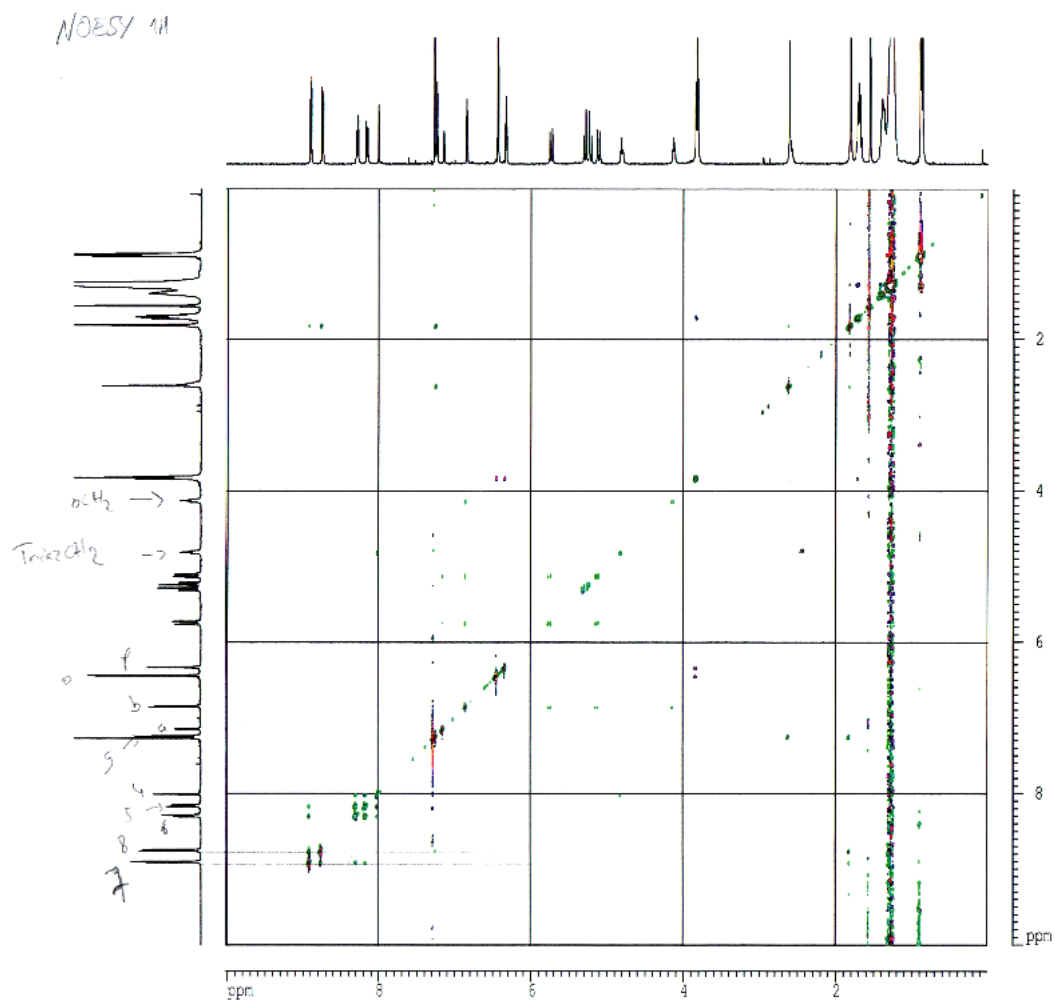


Fig. S1 (B)

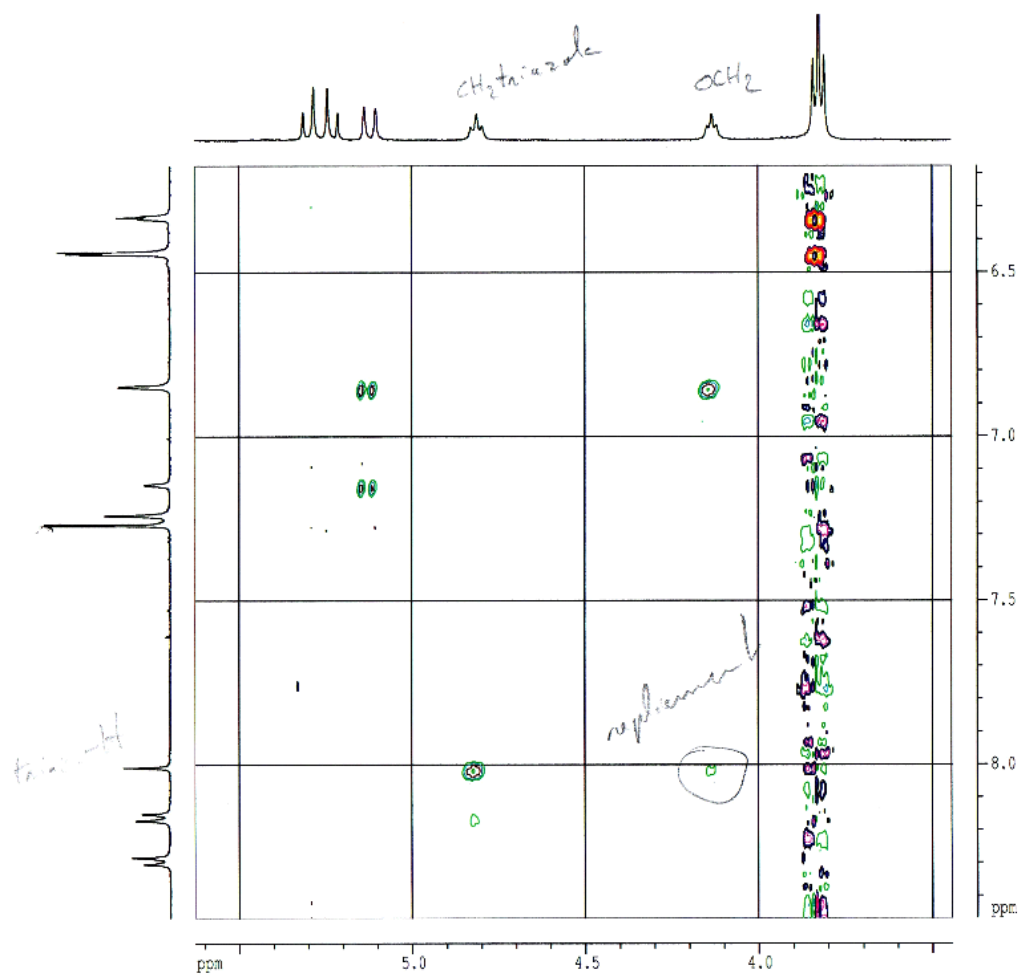


Fig. S1 (C)

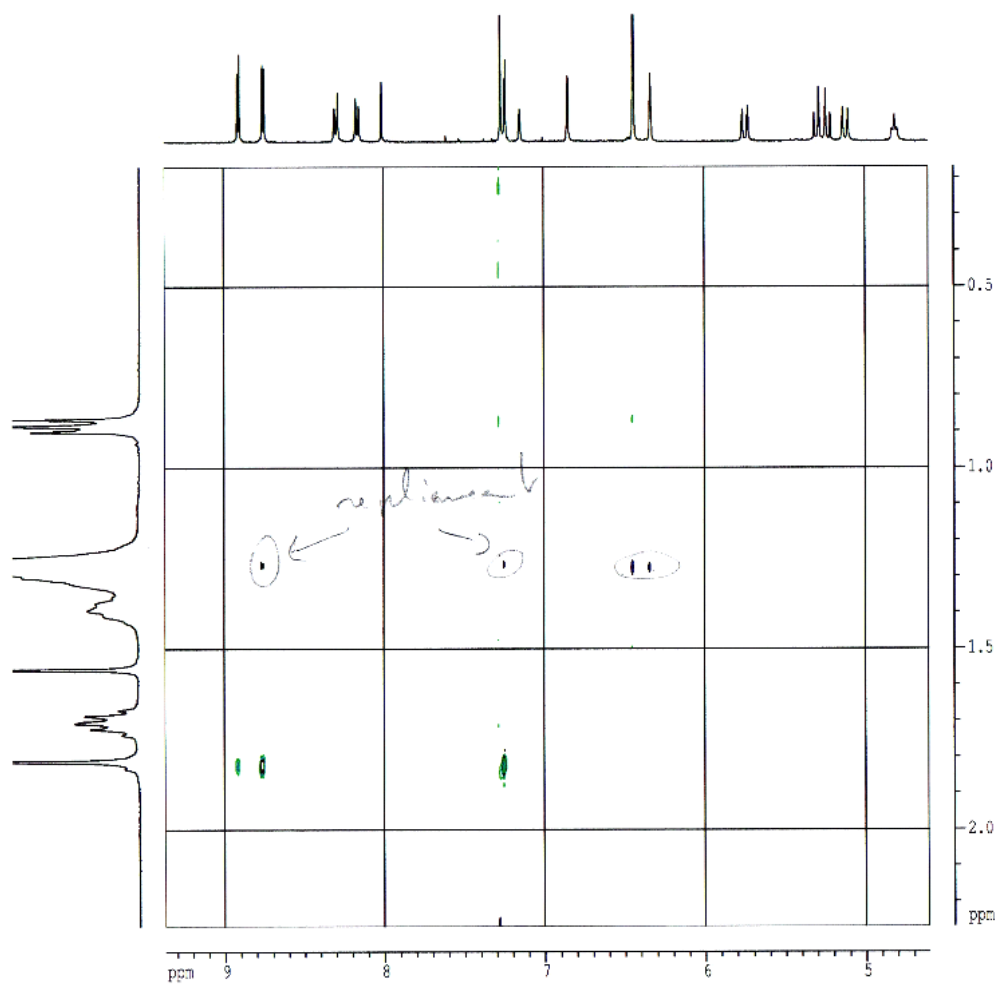


Fig. S2

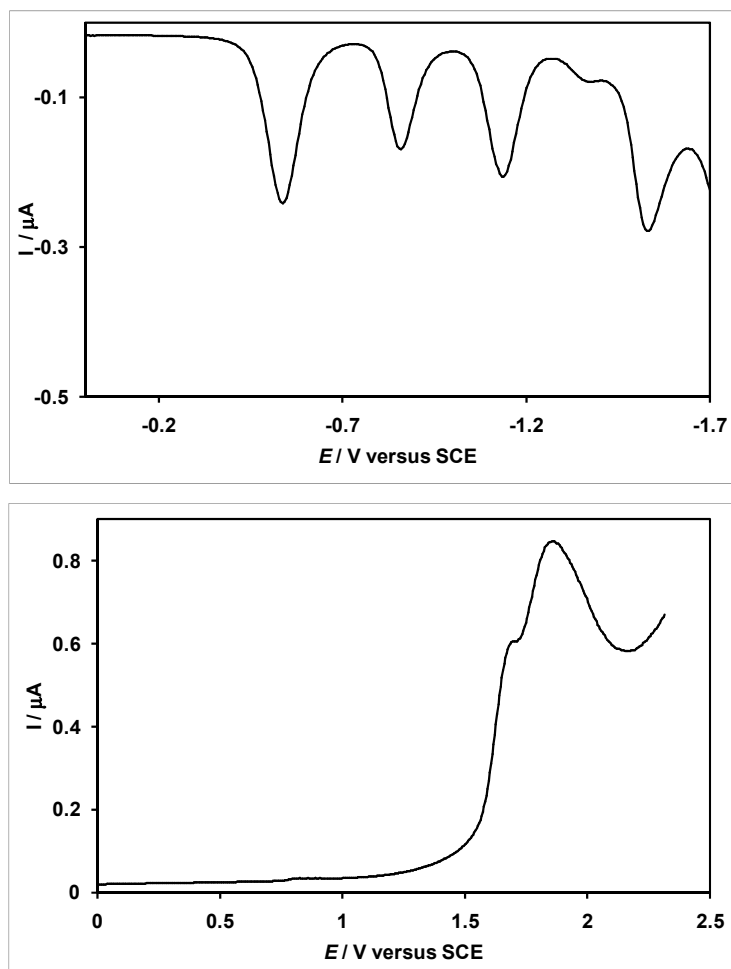


Fig. S3

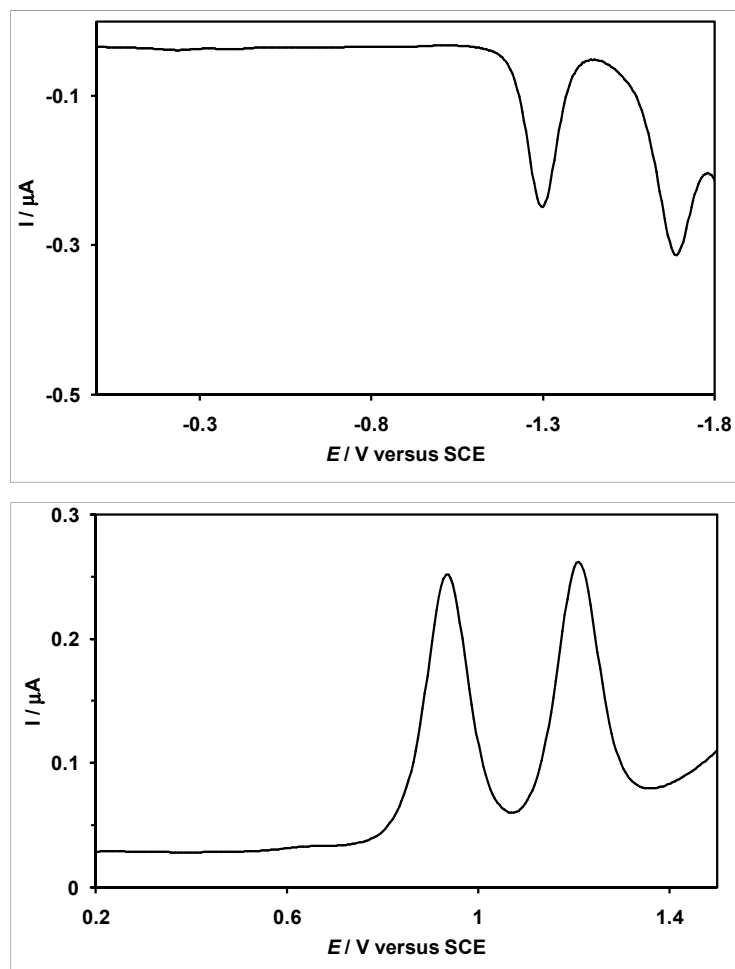


Fig. S4

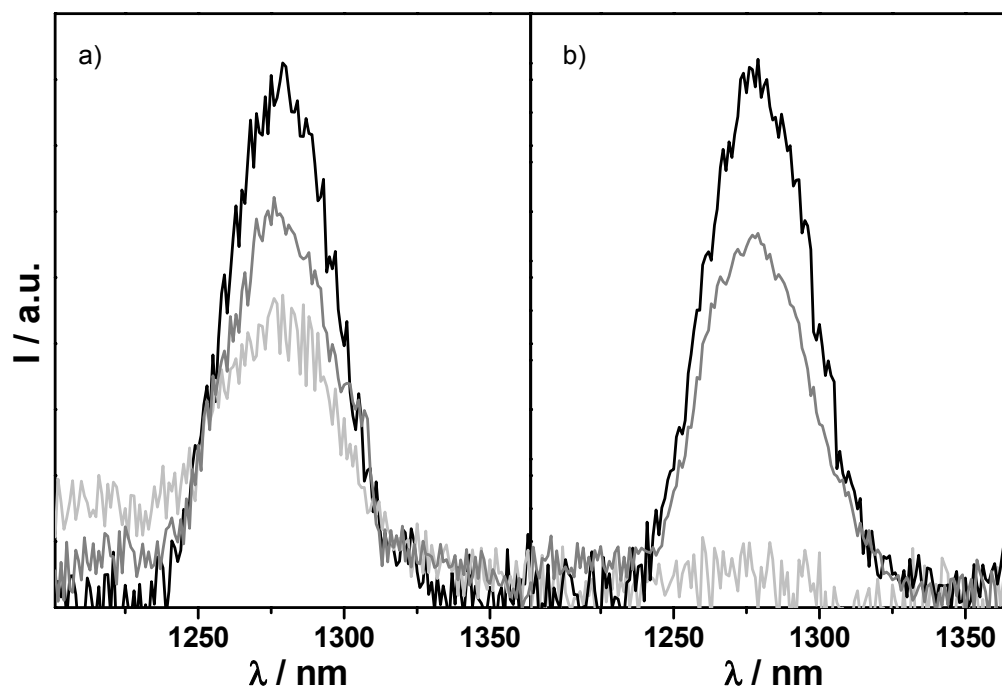


Fig. S5

