Electronic Supplementary Material (ESI) for Polymer Chemistry
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SUPPORTING INFORMATION

Hydrosoluble Dendritic Poly(ethylene oxide)s with Zinc Tetraphenylporphyrin Branching Points as Photosensitizers.

Anne-Laure Wirotius[1,2], *Emmanuel Ibarboure*[1,2], *Luca Scarpantonio*[3], *Michel Schappacher*[1,2], *Nathan D. McClenaghan*[3] *and Alain Deffieux*[1,2]*

[1] Univ. Bordeaux, LCPO, CNRS UMR 5629, F-33600 Pessac, France.

[2] CNRS, LCPO, UMR 5629, F-33600, Pessac, France.

[3] Univ. Bordeaux, ISM, CNRS UMR 5255, 351 cours de la libération, F-33400 Talence, France.

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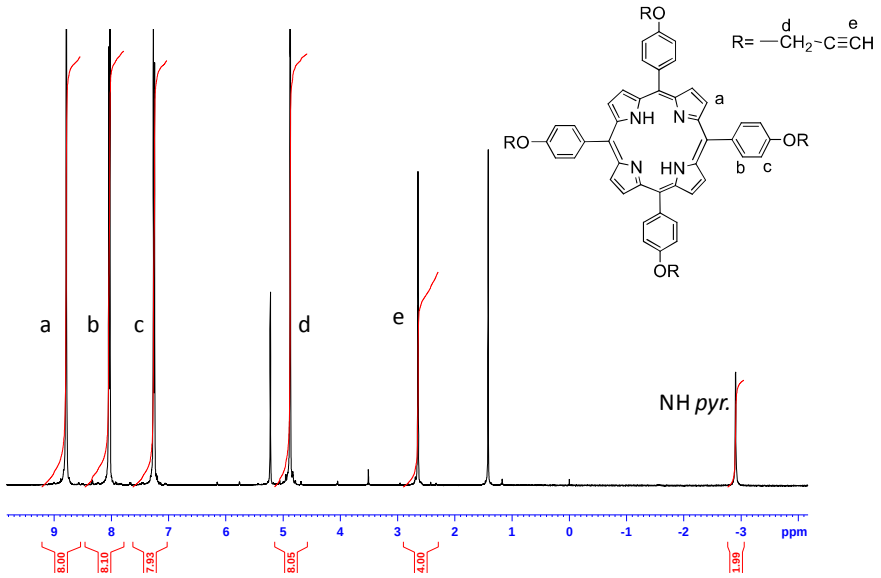

Figure S1. ^{1}H NMR spectrum of tetraphenylporphyrin **2a** in $CDCl_3$.

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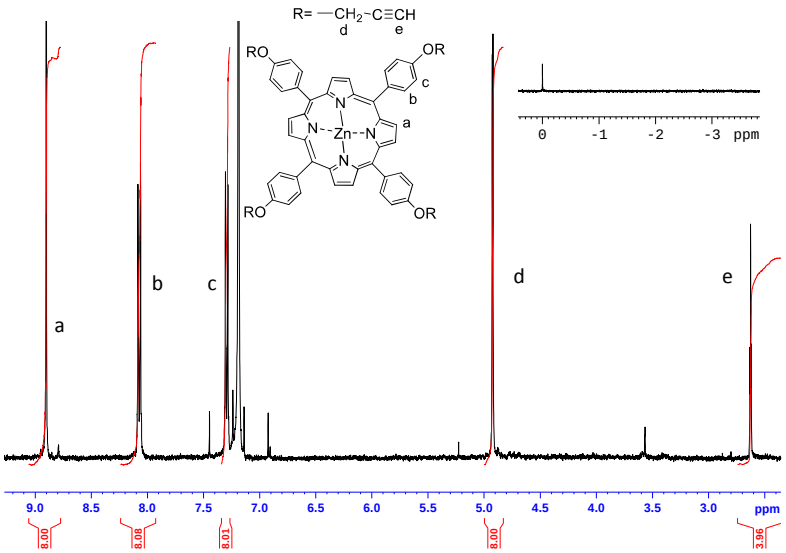

Figure S2. ^{1}H NMR spectrum of tetraphenylporphyrin **3a** in $CDCl_3$.

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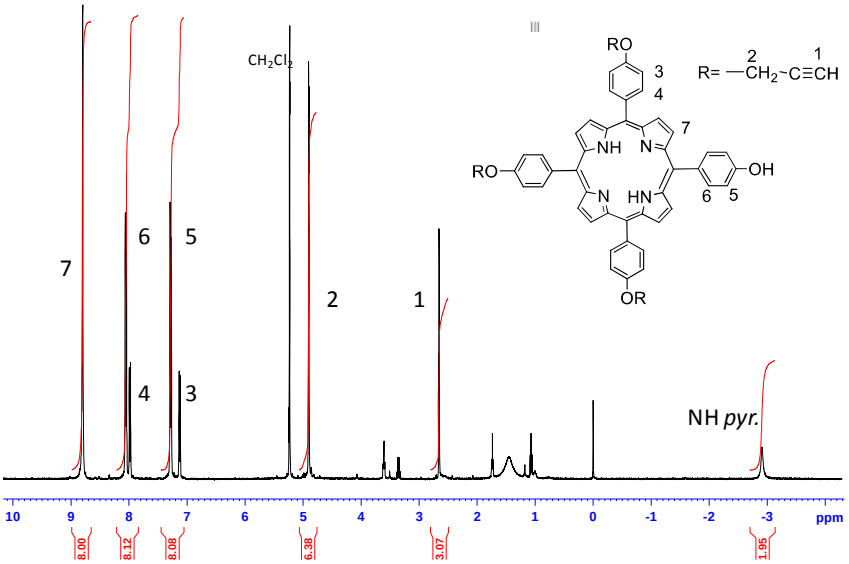

Figure S3. ^{1}H NMR spectrum of tetraphenylporphyrin **2b** in $CDCl_3$.

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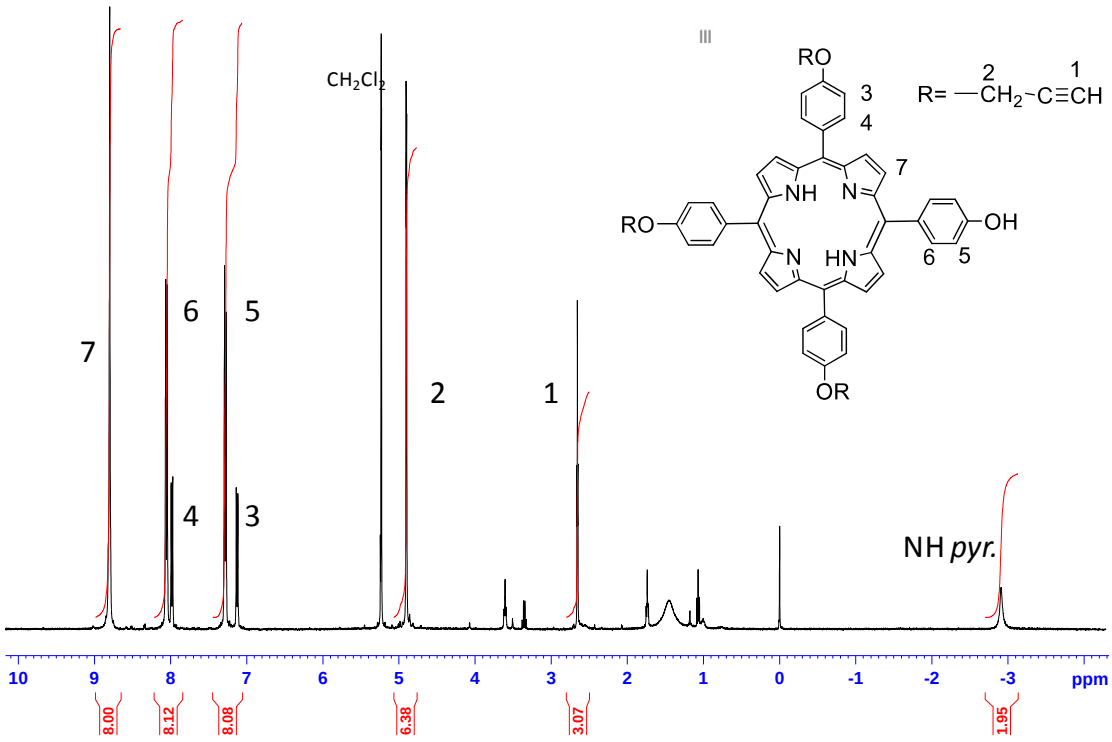

Figure S4. ^{1}H NMR spectrum of tetraphenylporphyrin **3b** in $CDCl_3$.

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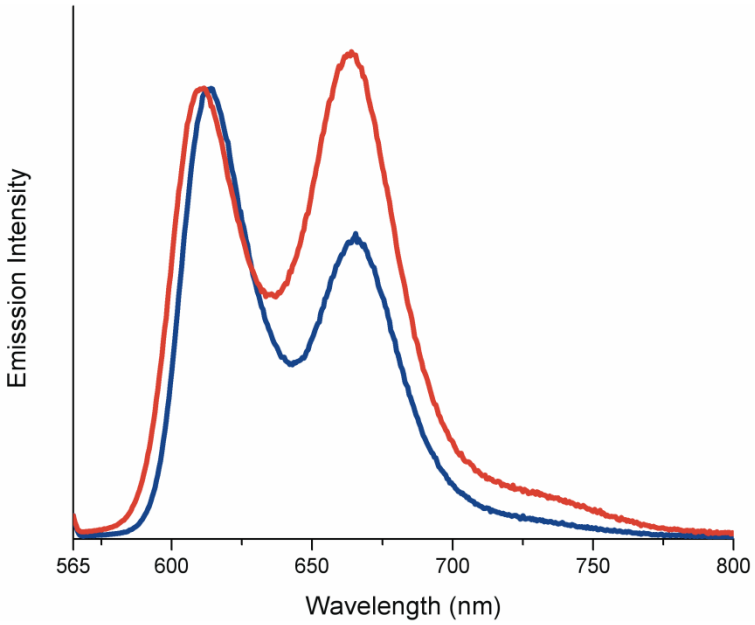

Figure S5. Fluorescence emission spectra of dendritic porphyrin **4** in CH_2Cl_2 (red) and water (blue), λ_{ex}= 560 nm.

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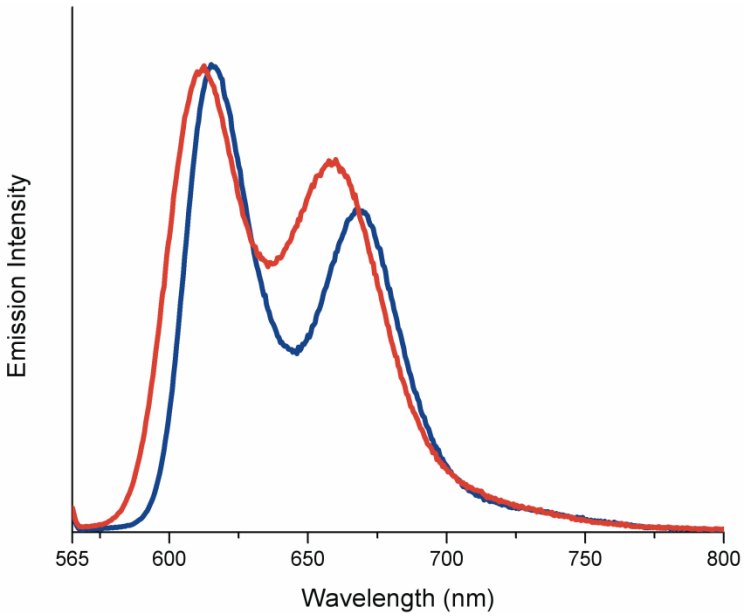

Figure S6. Fluorescence emission spectra of dendritic porphyrin **7** in CH_2Cl_2 (red) and water (blue), λ_{ex}= 560 nm.

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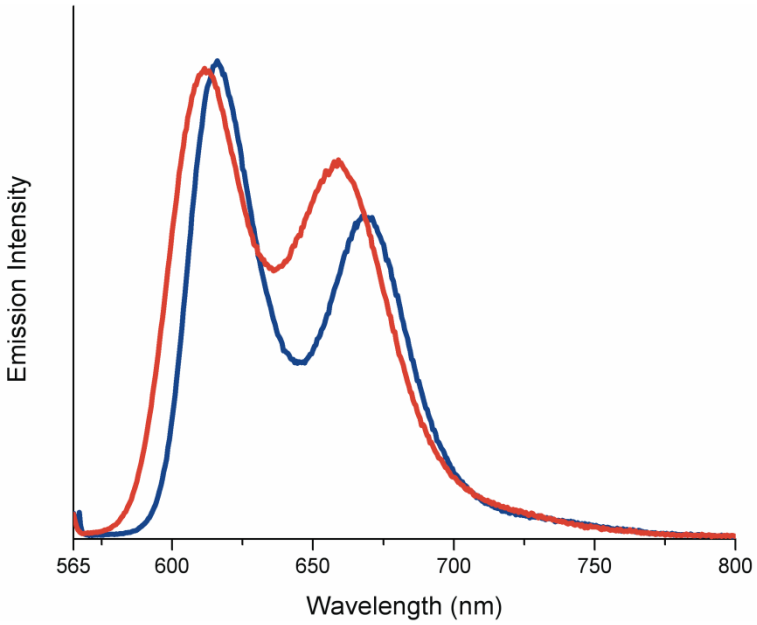

Figure S7. Fluorescence emission spectra of dendritic porphyrin **10** in CH_2Cl_2 (red) and water (blue), λ_{ex}= 560 nm.

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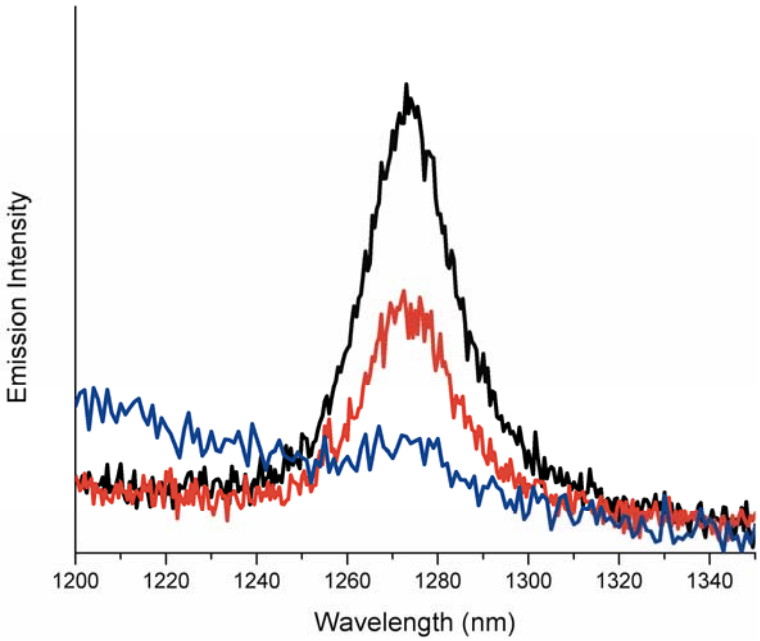

Figure S8. Emission spectra of singlet oxygen generated by dendritic porphyrin photosensitizer **4** (3.7×10^{-5} M) in D_2O (black), in presence of $^1O_2$ quencher DABCO: 1eq (red) and 0.1 M (blue). Excitation at 560 nm.

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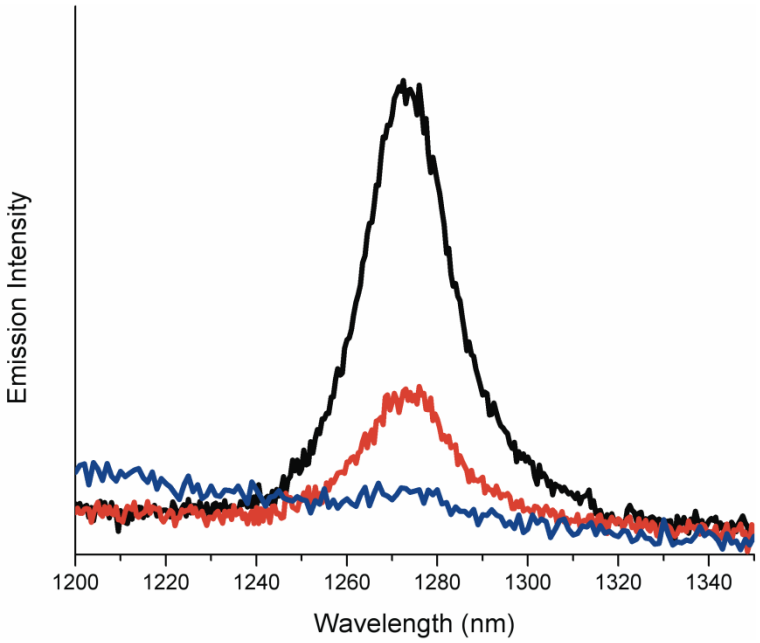

Figure S9. Emission spectra of singlet oxygen generated by dendritic porphyrin photosensitizer ***(7)*** (8.7×10^{-6} M) in D_2O (black), in presence of $^1O_2$ quencher DABCO: 1eq (red) and 0.1M (blue). Excitation at 560 nm.

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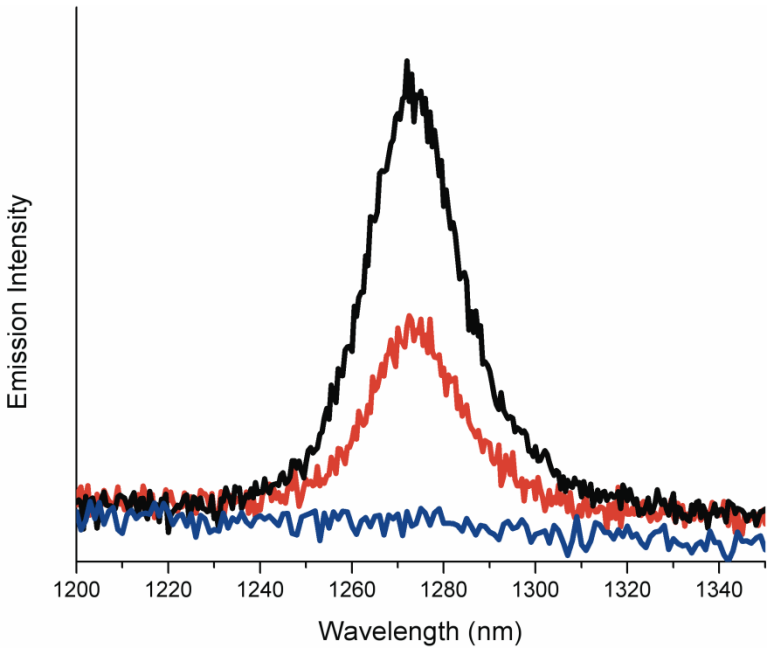

Figure S10. Emission spectra of singlet oxygen generated by dendritic porphyrin photosensitizer ***(10)*** (2.7×10^{-6} M) in D_2O (black), in presence of $^1O_2$ quencher DABCO: 1eq (red) and 0.1M (blue). Excitation at 560 nm.

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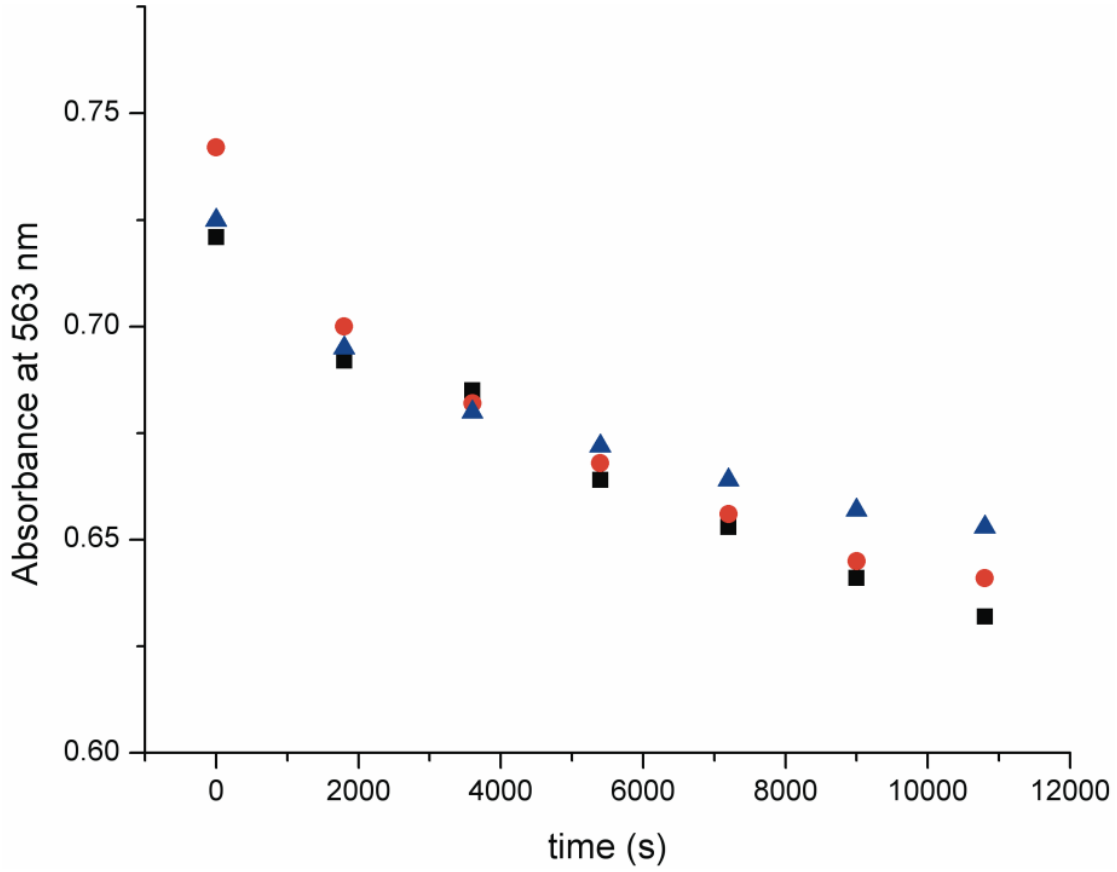

Figure S11. Advancement of photodegradation of (4 ■) , (7 ●) and (10▲) in air-equilibrated D_2O on a long timescale (in seconds) upon irradiation at 532 nm. (Laser power = 3.7mW)

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Table of photodegradation data corresponding to the average degradation of individual chromophores within the dendrimers based on initial mean absorptivity.

ref	Φ	half□life□□s□
4	2.8E-07	9.4E+04
7	3.3E-07	9.3E+04
10	4.1E-07	9.6E+05
Iodo-BODIPY	1.83E-05	1.82E+03