

Supporting Information

Reaction of water-soluble fullerenes with $O_2^{\cdot-}$ and other reactive radical species

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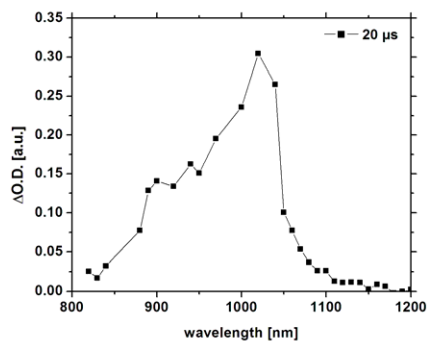


Figure S1: Differential absorption spectrum of **1** (5×10^{-5} M) upon pulse radiolysis in N_2 saturated aqueous solution pH = 7.2 upon adding 10 vol % 2-propanol 20 μ s after the electron pulse.

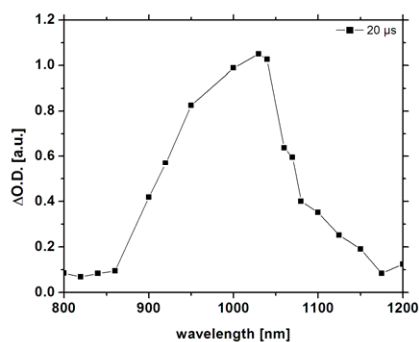


Figure S2: Differential absorption spectrum of **2** (5×10^{-5} M) upon pulse radiolysis in N_2 saturated aqueous solution pH = 8.2 upon adding 10 vol % 2-propanol 20 μ s after the electron pulse.

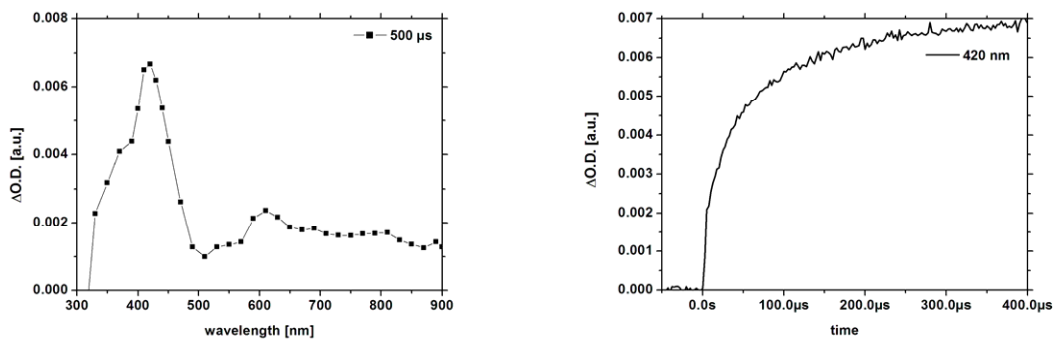


Figure S3: Differential absorption spectrum of **2** (2×10^{-5} M) upon pulse radiolysis in N_2O saturated aqueous solution pH = 8.2 upon adding 5 vol % DMSO 500 μ s after the electron pulse (left) and the corresponding time absorption profile at 420 nm (right).

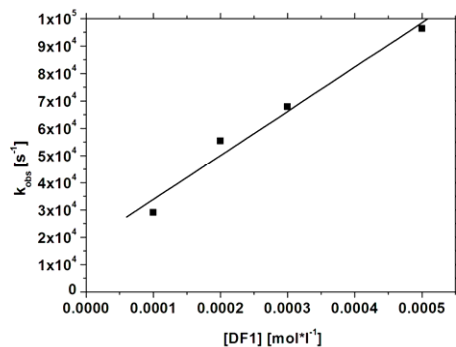


Figure S4: Stern-Volmer plot of **1** in aqueous N_2O and O_2 saturated buffer solution pH = 7.2 with an addition of 5 vol % DMSO.

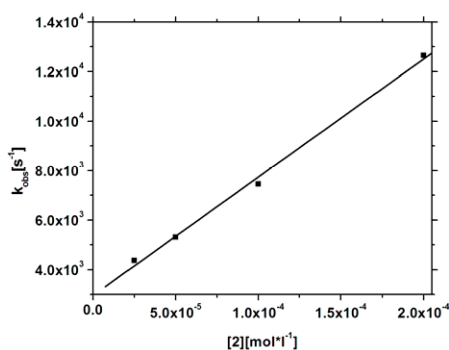


Figure S5: Stern-Volmer plot of **2** in aqueous N_2O saturated buffer solution pH = 8.2 with an addition of 5 vol % DMSO.

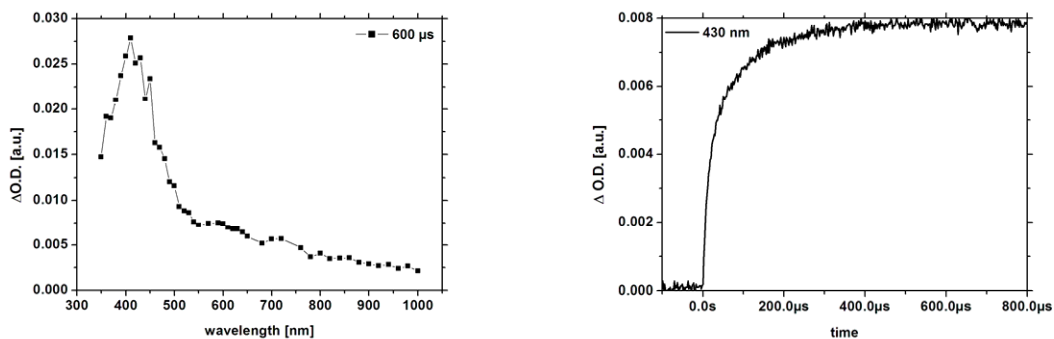


Figure S6: Differential absorption spectrum of **1** (5×10^{-5} M) upon pulse radiolysis in N_2O saturated aqueous solution pH = 7.2 upon adding 5 vol % *t*-butanole 600 μs after the electron pulse (left) and the corresponding time absorption profile at 430 nm (right).

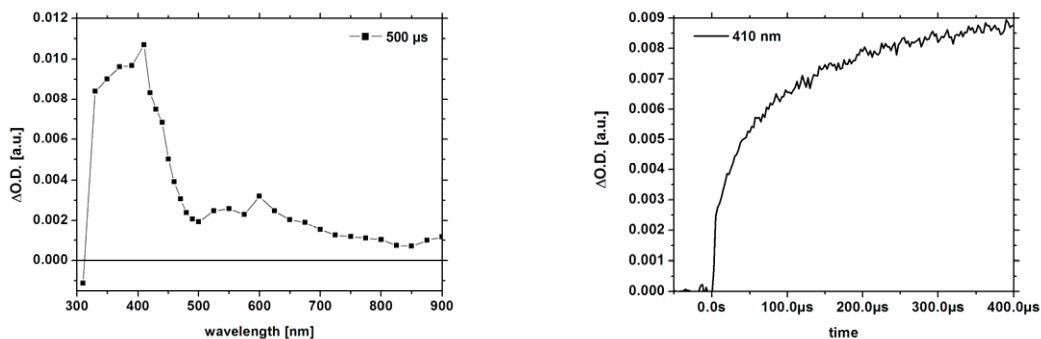


Figure S7: Differential absorption spectrum of **2** (1×10^{-4} M) upon pulse radiolysis in N_2O saturated aqueous solution pH = 8.2 upon adding 5 vol % *t*-butanole 500 μs after the electron pulse (left) and the corresponding time absorption profile at 410 nm (right).

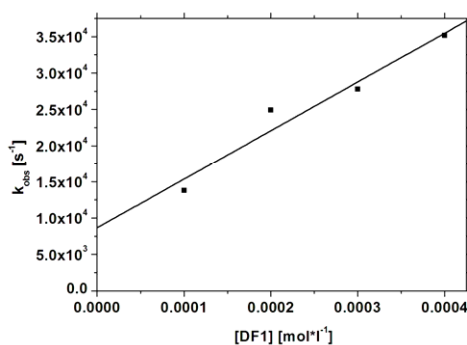


Figure S8: Stern-Volmer plot of **1** in aqueous N_2O and O_2 saturated buffer solution pH = 7.2 with an addition of 5 vol % *t*-BuOH.

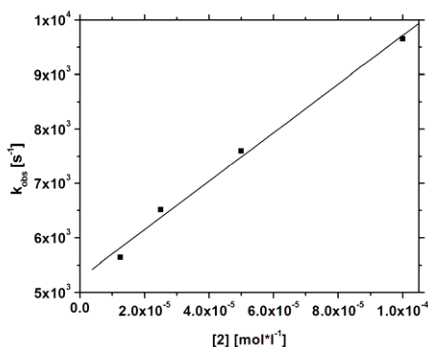


Figure S9: Stern-Volmer plot of **2** in aqueous N_2O and O_2 saturated buffer solution pH = 8.2 with an addition of 5 vol % *t*-BuOH.

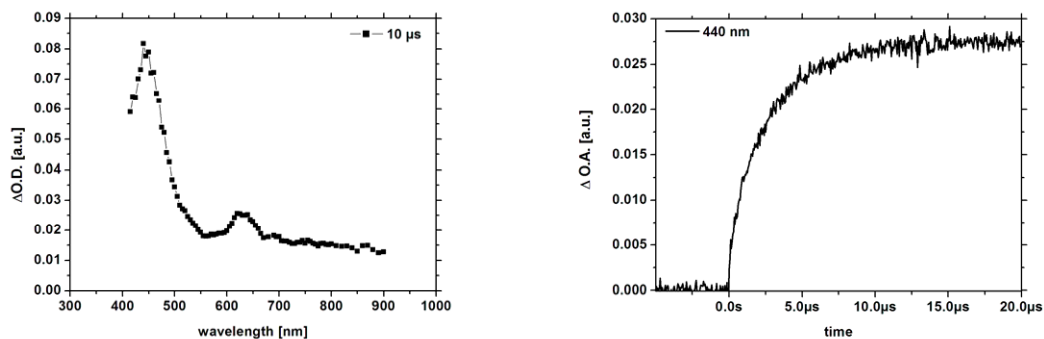


Figure S10: Differential absorption spectrum of **1** (4×10^{-4} M) upon pulse radiolysis in N_2O saturated aqueous solution pH = 7.2 with an addition of NaN_3 (1×10^{-3} M), 10 μ s after the electron pulse (left) and the corresponding time profile at 440 nm (right)

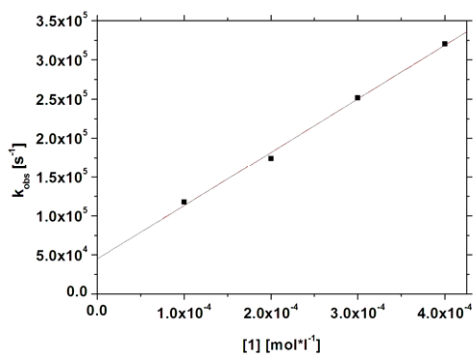


Figure S11: Stern – Volmer-Plot of **1** in aqueous N_2O saturated buffer solution pH = 7.2 with an addition of NaN_3 (1×10^{-3} M).

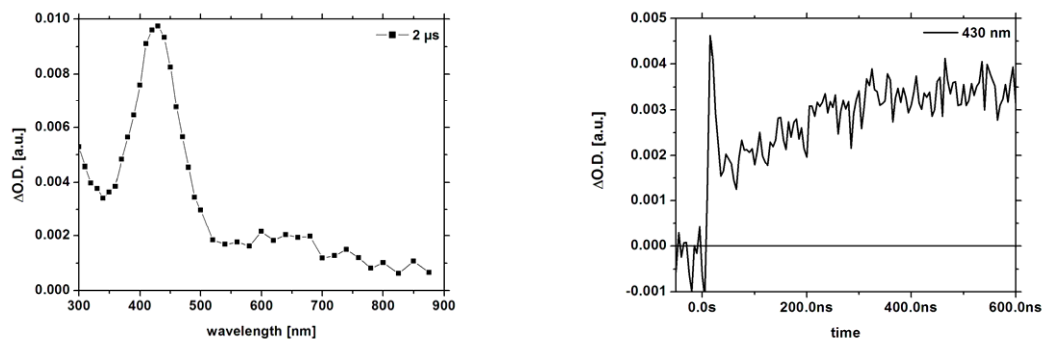


Figure S12: Differential absorption spectrum of **2** (2×10^{-4} M) upon pulse radiolysis in N_2O , O_2 saturated aqueous solution pH = 8.2 with an addition of $HCOOK$ (5×10^{-3} M), 2 μ s after the electron pulse (left) and the corresponding time profile at 430 nm (right).

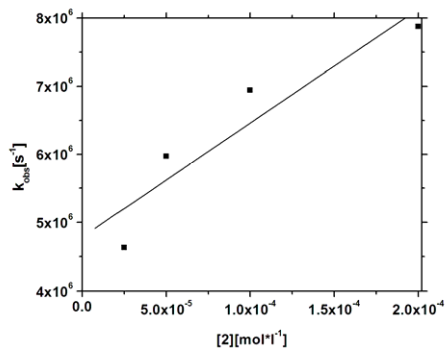


Figure S13: Stern-Volmer plot of **2** in aqueous N_2O and O_2 saturated buffer solution pH = 8.2 with an addition of HCOOK (5×10^{-3} M).

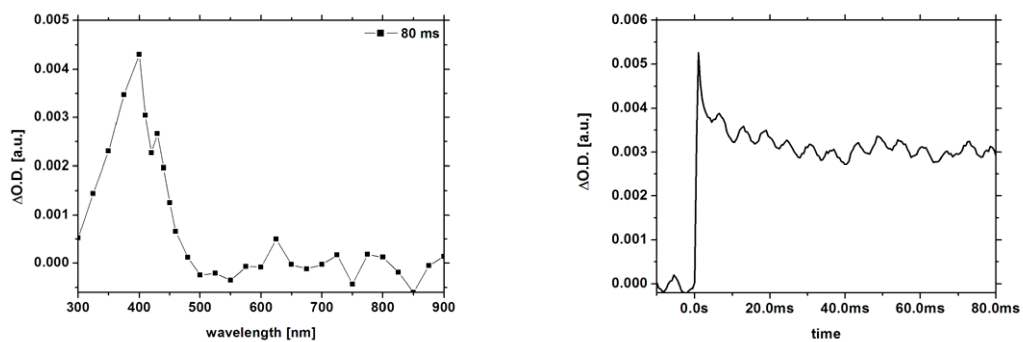


Figure S14: Differential absorption spectrum of **2** (2×10^{-4} M) upon pulse radiolysis in N_2O / O_2 saturated aqueous solution pH = 8.2 with an addition of HCOOK (5×10^{-3} M), 80 ms after the electron pulse (left) and the corresponding time profile at 400 nm (right).