Electronic Supplementary Material (ESI) for Physical Chemistry Chemical Physics.

Supporting information

Singlet oxygen quenching as a probe of cytochrome *c* molten globule state formation

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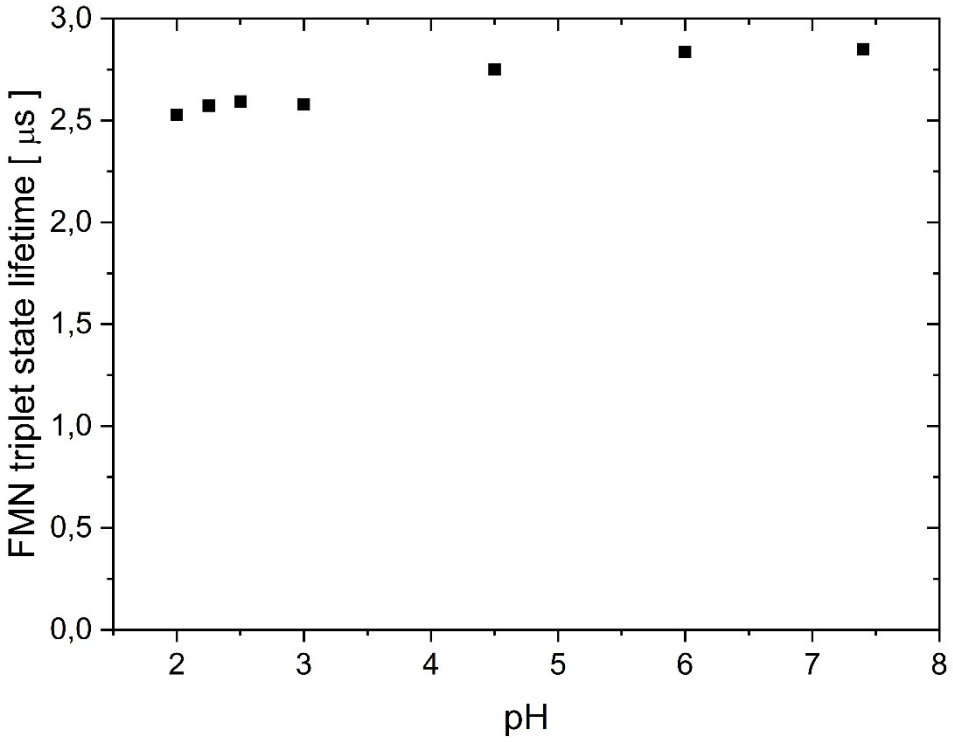

Figure S1. The pH dependence of FMN triplet state lifetime indicates slight changes, decreasing from τ_{FMN} = 2.8 μs at pH 7 to τ_{FMN} = 2.5 μs at pH 2.

Table S1. The values of τ_{FMN} and τ_{Δ} obtained in the presence and in the absence of cytochrome c in the presence of 300 mM salts at pH 2.

No salt			300 mM Na_2SO_4			300 mM NaCl			300 mM $NaClO_4$		
cyt *c* (μM)	τ_{FMN} (μs)	τ_{Δ} (μs)	cyt *c* (μM)	τ_{FMN} (μs)	τ_{Δ} (μs)	cyt *c* (μM)	τ_{FMN} (μs)	τ_{Δ} (μs)	cyt *c* (μM)	τ_{FMN} (μs)	τ_{Δ} (μs)
0	2.5	3.4	0	3	3.3	0	2.5	3.5	0	2.8	3.4
100	1.4	1.6	100	2.4	2.9	100	1.8	2.6	25	2.4	3.2

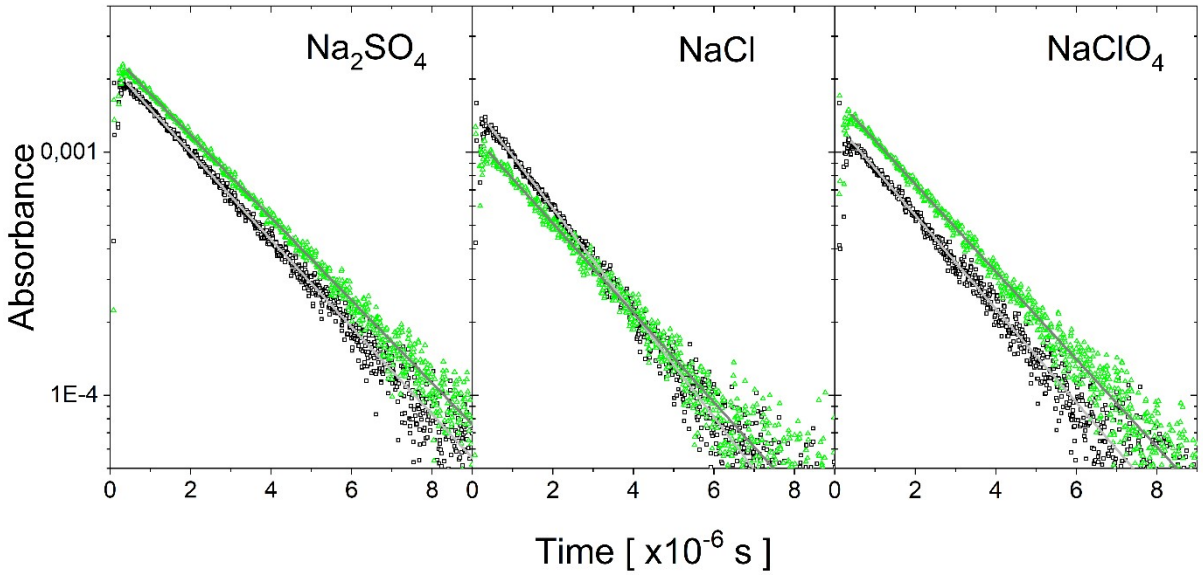

Figure S2. The moving average of 20 points of typical FMN triplet state absorbance in the presence of 20 μM cytochrome c and 10 mM salt (open **black** squares) and 100 mM salt (open **green** triangles). The light gray (10 mM salt) and gray (100 mM) curves show single exponential fit to the measured data.

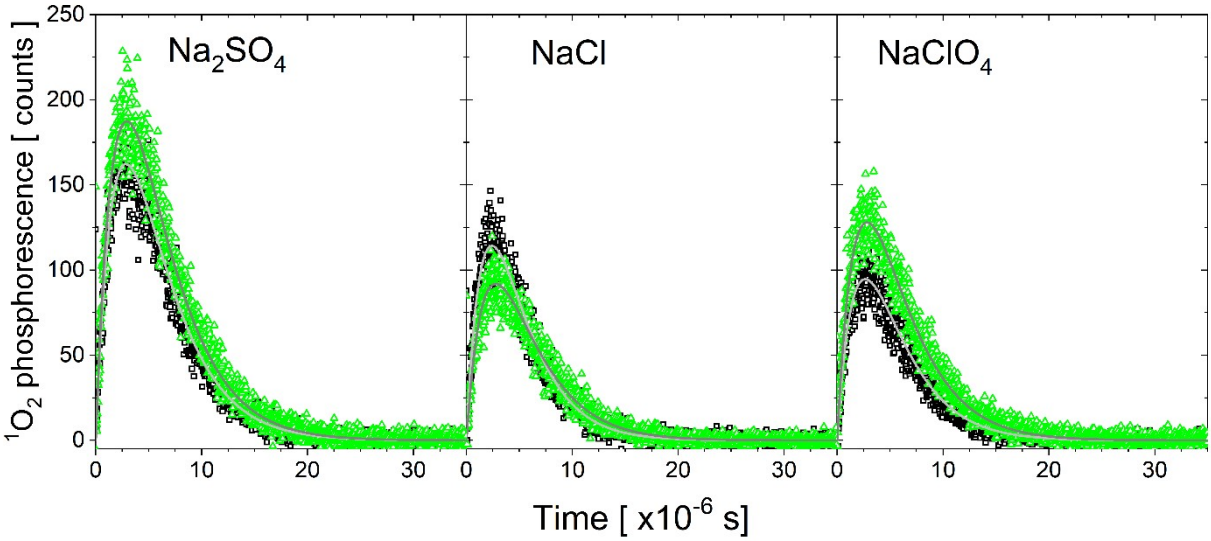

Figure S3. The typical singlet oxygen phosphorescence kinetics in the presence of 20 μM cytochrome *c* and 10 mM salt (open **black** squares) and 100 mM salt (open **green** triangles). The light gray (10 mM salt) and gray (100 mM) curves show conventional double exponential (**Equation 2** of main article) fit of the measured data.

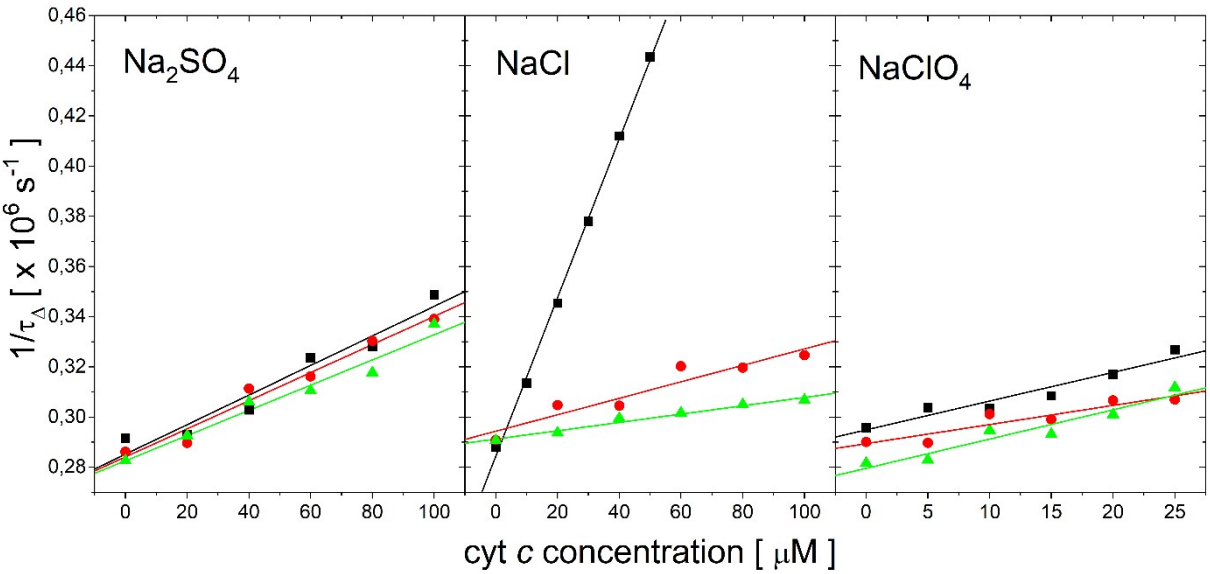

Figure S4. The inverse of singlet oxygen lifetime τ_Δ plotted against cytochrome *c* concentration with different salt concentrations – 10 mM (**black** squares), 50 mM (**red** circles) and 100 mM (**green** triangles).

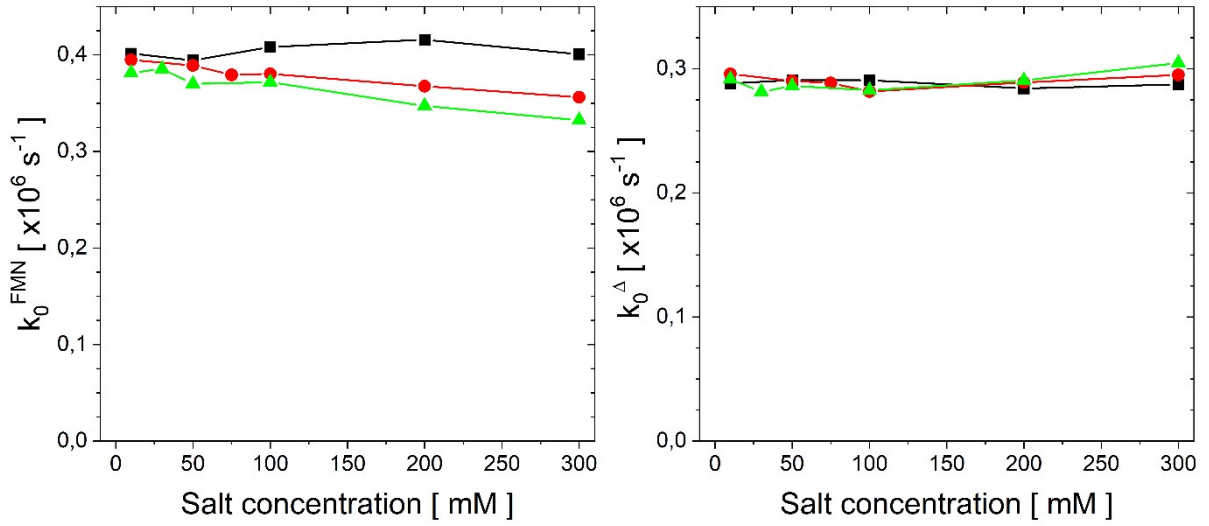

Figure S5. The salt concentration dependences of the first order rate constants for singlet oxygen and FMN triplet state quenching in the absence of cytochrome c in 5 mM glycine buffer, pH 2, in the presence of Na_2SO_4 (**green** triangles), NaCl (**black** squares), and $NaClO_4$ (**red** circles). The typical error of the presented points is around 0.003×10^6 s^{-1} for both k_0^Δ and k_0^{FMN}.