

Supporting Information for

Triplet state dynamics of a metalloporphyrin photosensitiser (PtTMPyP4) in the presence of halides and 5'-purine mononucleotides

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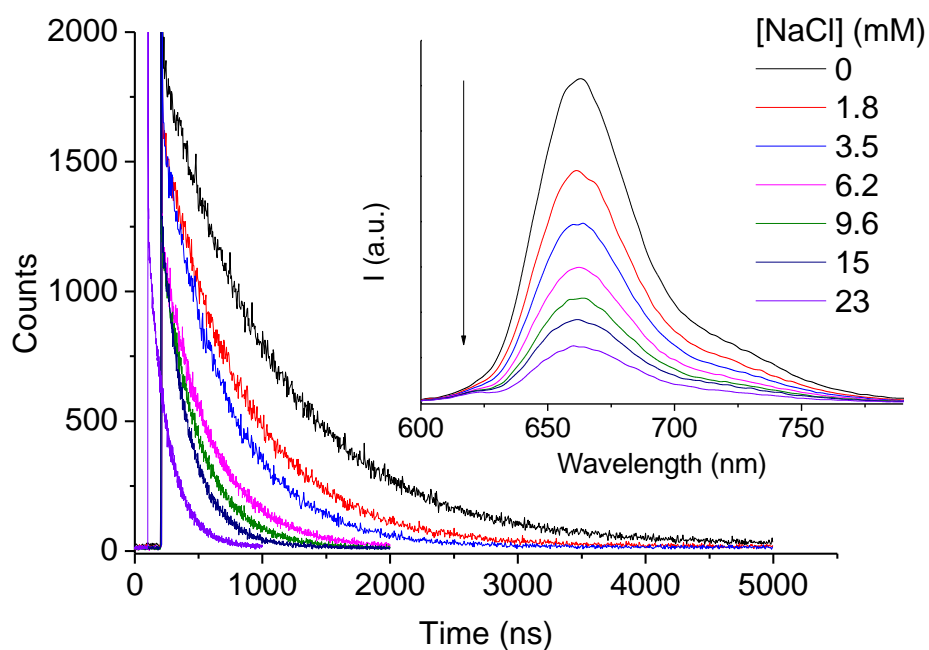


Fig S1: Single-photon counting decays ($\lambda_{\text{exc}} = 371 \text{ nm}$, $\lambda_{\text{em}} = 665 \text{ nm}$). and inset: steady-state spectra for quenching of $5 \mu\text{M}$ PtTMPyP4 by NaCl ($\lambda_{\text{exc}} = 513 \text{ nm}$) in aerated 50 mM phosphate buffer

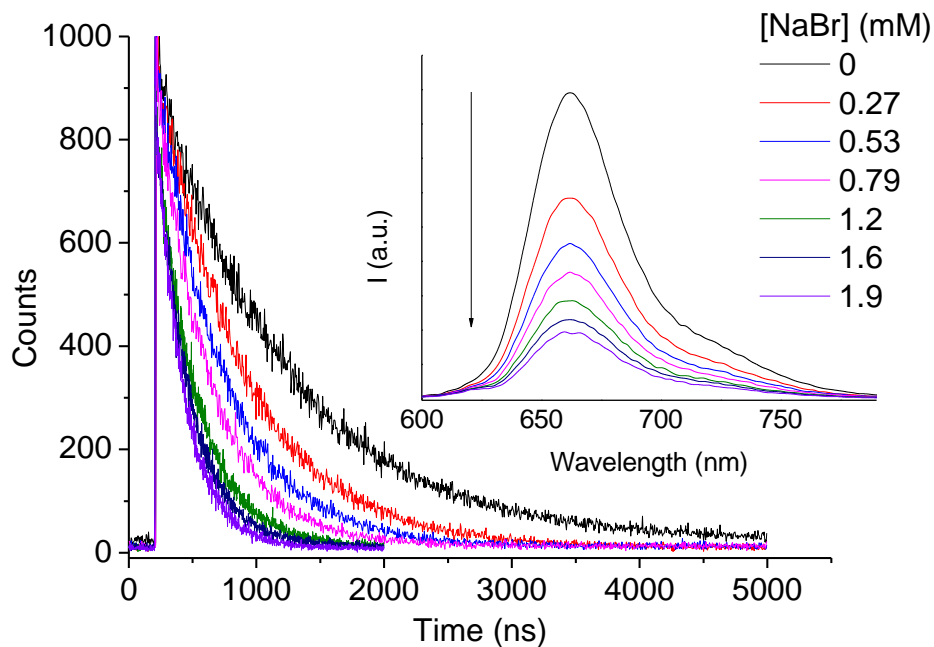


Fig S2: Single-photon counting decays ($\lambda_{\text{exc}} = 371 \text{ nm}$, $\lambda_{\text{em}} = 665 \text{ nm}$). and inset: steady-state spectra for quenching of $5 \mu\text{M}$ PtTMPyP4 by NaBr ($\lambda_{\text{exc}} = 513 \text{ nm}$) in aerated 50 mM phosphate buffer

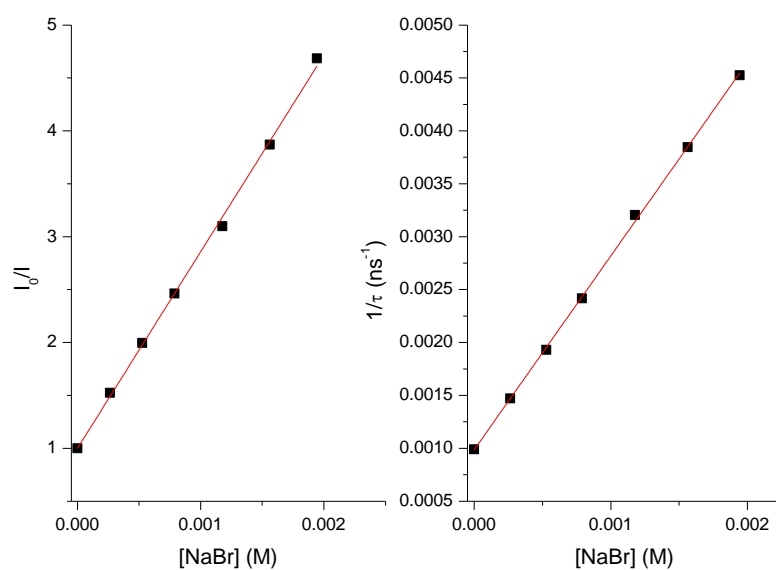


Fig. S3: Stern-Volmer plots for phosphorescence of PtTMPyP4 in the presence of NaBr in 50 mM phosphate buffer for (a) steady-state ($\lambda_{\text{exc}} = 513$ nm, $\lambda_{\text{em}} = 665$ nm) and (b) time-resolved data ($\lambda_{\text{exc}} = 371$ nm, $\lambda_{\text{em}} = 665$ nm).

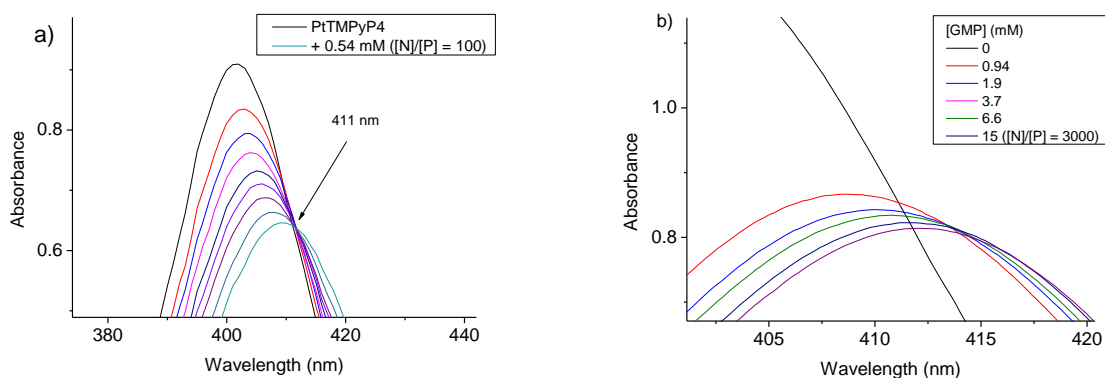


Fig. S4: UV/vis absorption spectra of Soret region of PtTMPyP4 in the presence of GMP in 50 mM phosphate buffer (a) at low GMP conc. (b) at high GMP conc.

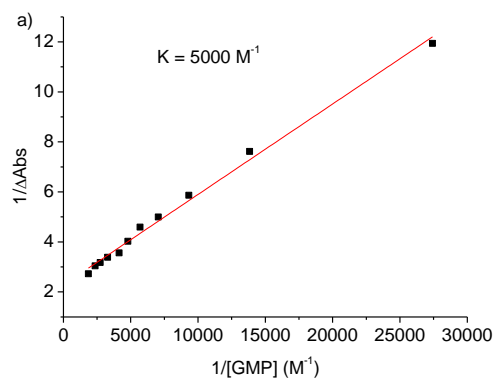


Fig. S5: Benesi-Hildebrand fits to UV/vis absorption spectra of PtTMPyP4 in the presence of low GMP concentrations ($< 0.5 \text{ mM}$) in 50 mM phosphate buffer.

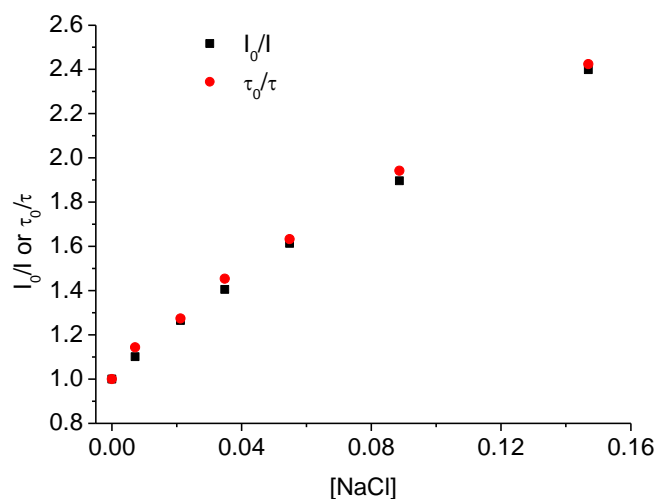


Fig. S6: Combined steady-state ($\lambda_{\text{exc}} = 517 \text{ nm}$) and lifetime ($\lambda_{\text{exc}} = 370 \text{ nm}$, $\lambda_{\text{em}} = 675 \text{ nm}$) Stern-Volmer plots for PtTMPyP4-AMP complex in presence of NaCl in aerated 50 mM phosphate buffer solution. $[\text{PtTMPyP4}] = 5 \text{ }\mu\text{M}$, $[\text{AMP}] = 15 \text{ mM}$.

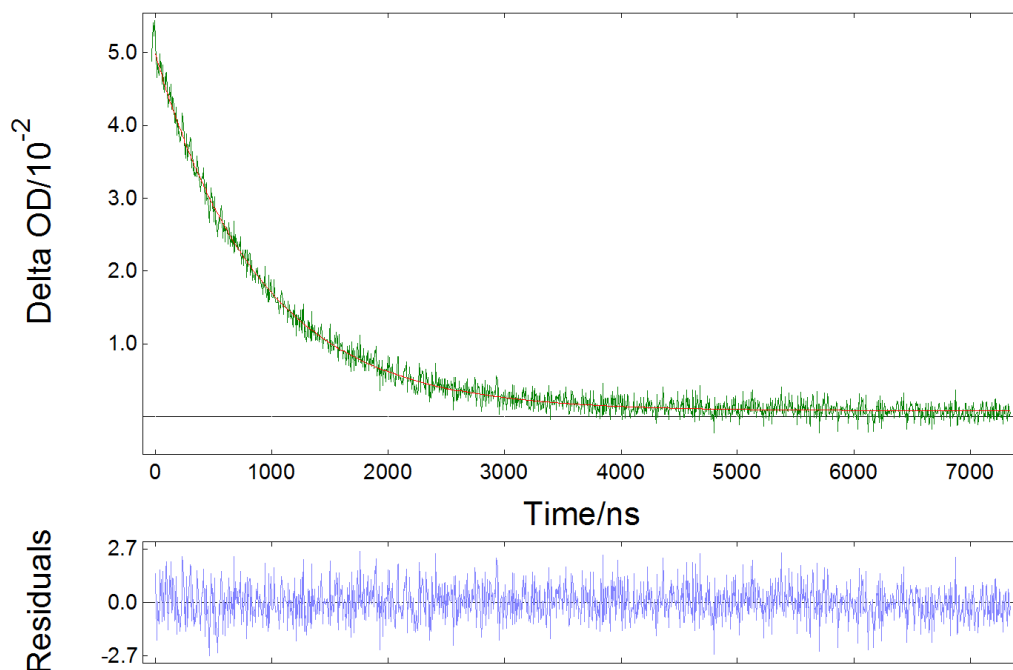


Fig. S7: Monoexponential fit of triplet-triplet absorption spectrum of 6 μM PtTMPyP4 in aerated 50 mM Na-phosphate buffer solution. Recorded at 440 nm ($\lambda_{\text{exc}} = 355$ nm) $\tau = 932$ ns.

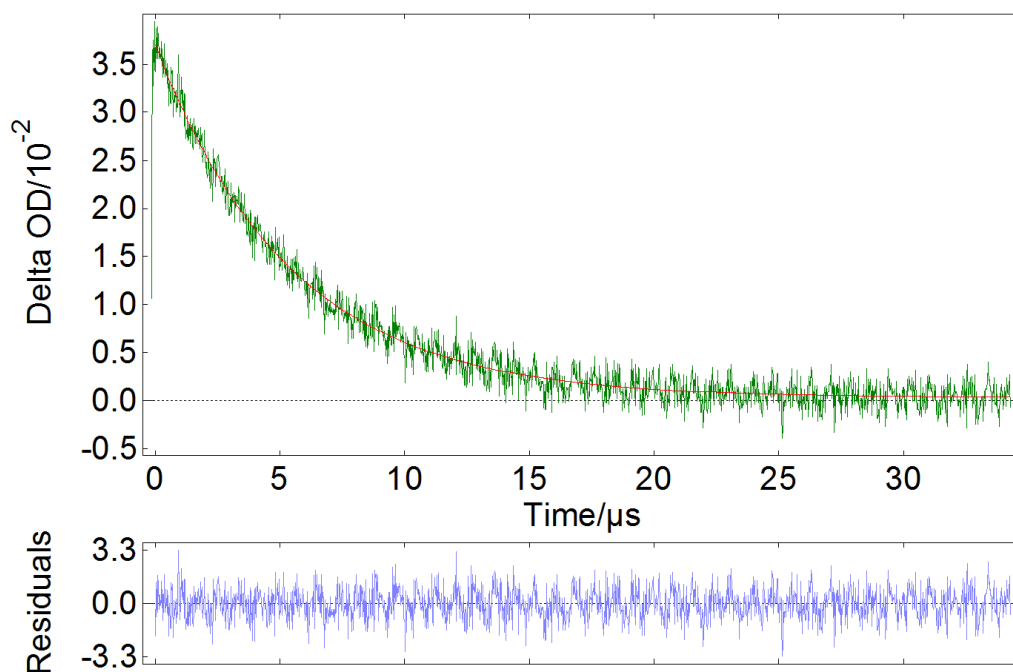


Fig. S8: Monoexponential fit of T-T absorption spectrum of 6 μM PtTMPyP4 in the presence of AMP (10 mM) in aerated 50mM Na-phosphate buffer solution. Recorded at 460 nm ($\lambda_{\text{exc}} = 355$ nm) $\tau = 5650$ ns

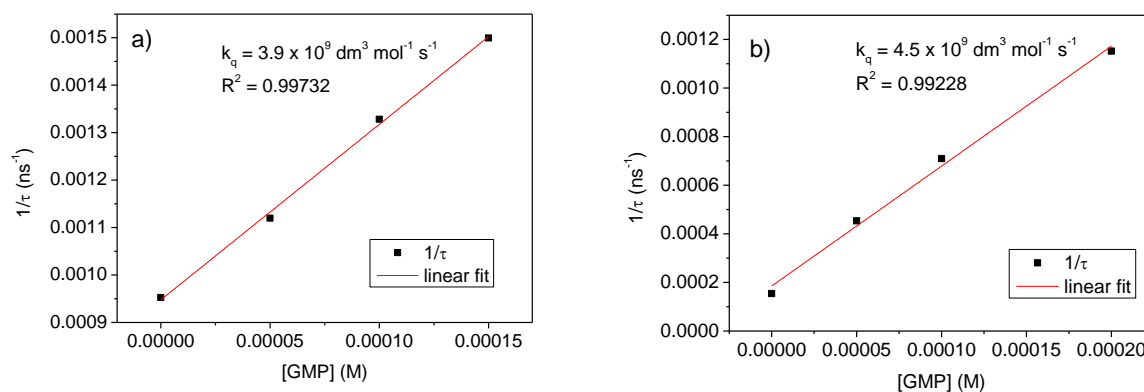


Fig. S9: Stern-Volmer plots for long lifetime component of PtTMPyP4 in presence of GMP calculated from T-T absorption decays at 450 nm in a) aerated solution b) deoxygenated solution. Both in 50 mM Na-phosphate buffer, $\lambda_{\text{exc}} = 355 \text{ nm}$

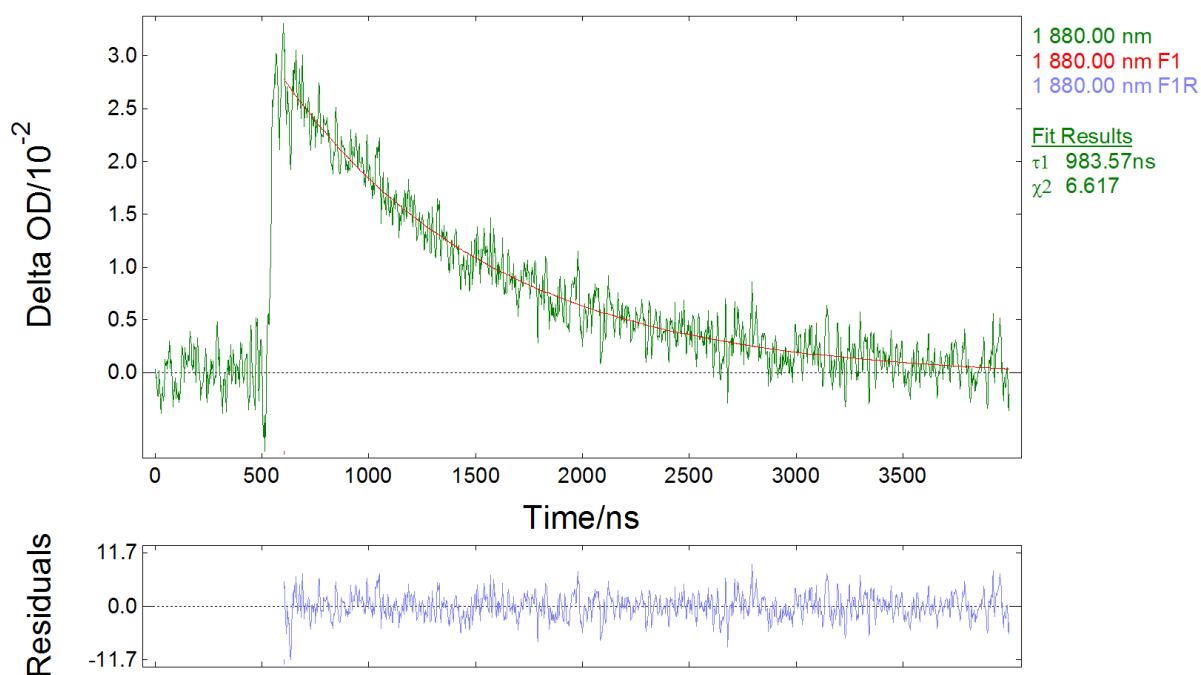


Fig. S10 Monoexponential fit of T-T absorption spectrum of 6 μM PtTMPyP4 in aerated 50 mM Na-phosphate buffer solution. Recorded at 880 nm ($\lambda_{\text{exc}} = 355 \text{ nm}$)

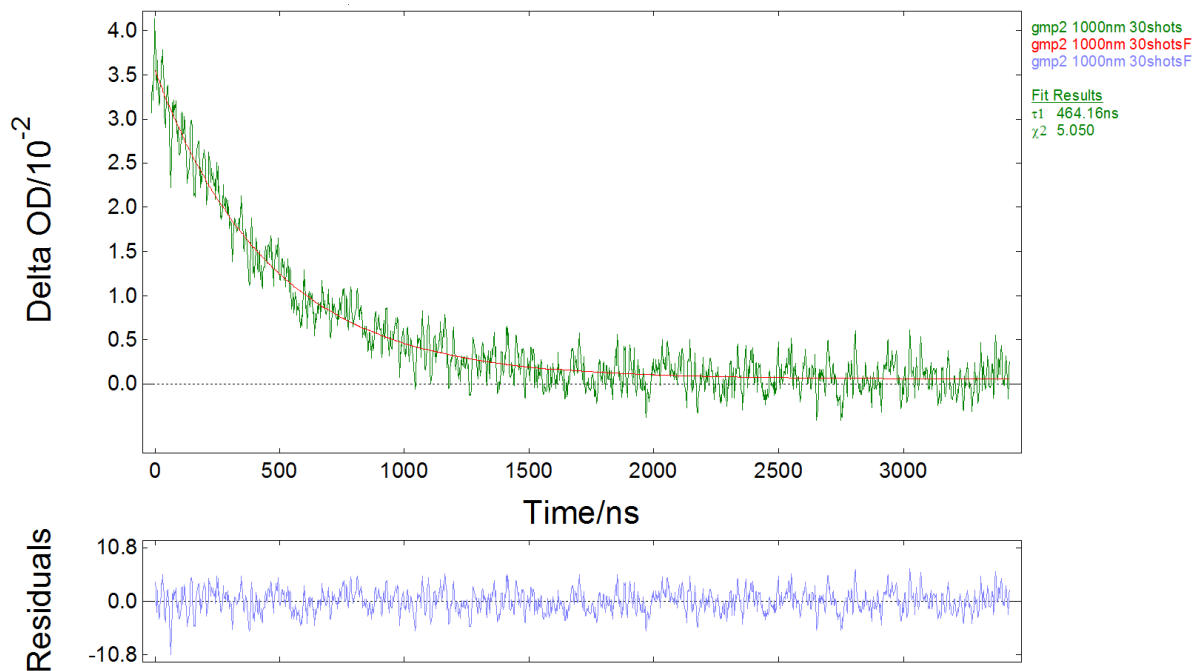


Fig. S11 Monoexponential fit of T-T absorption spectrum of 6 mM PtTMPyP4 in presence of GMP (10 mM) aerated 50mM Na-phosphate buffer solution. Recorded at 1000 nm ($\lambda_{\text{exc}} = 355$ nm)