

Electronic Supplementary Information

A Novel photosensitizer based on a ruthenium(II) phenanthroline bis(perylene-diimide) dyad: synthesis, generation of singlet oxygen and *in vitro* photodynamic therapy

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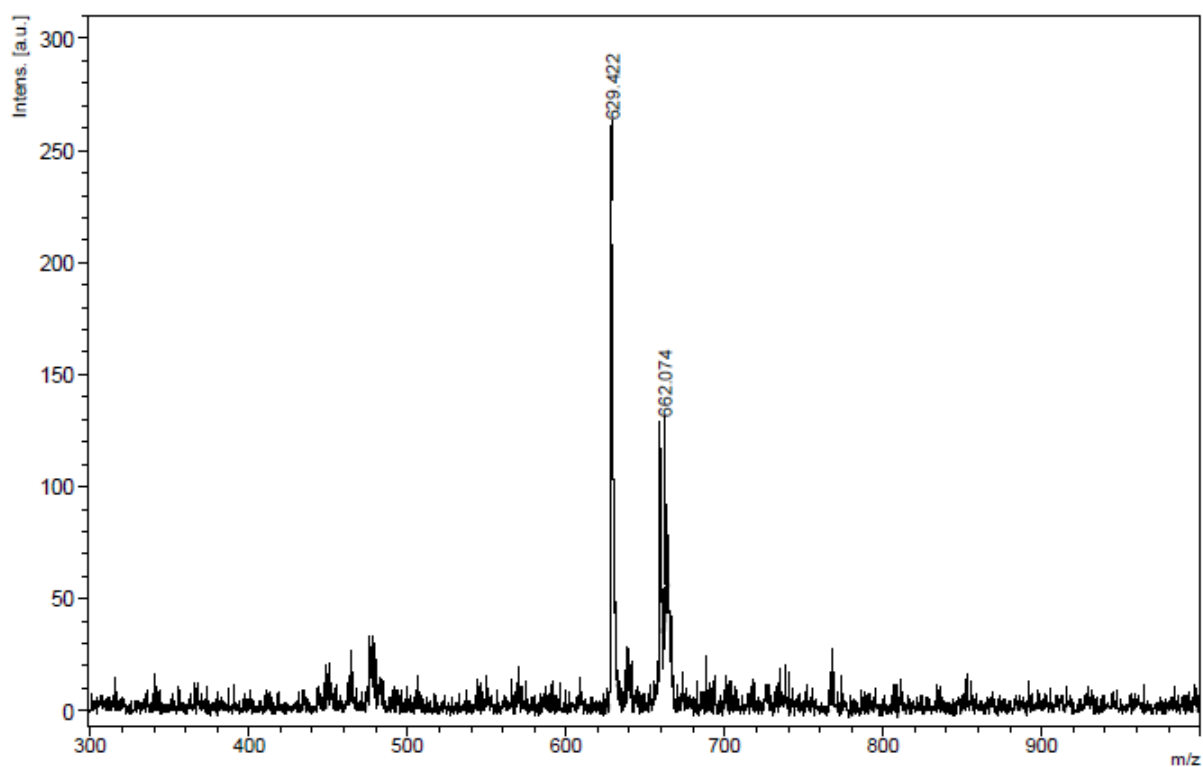


Fig. S1 MALDI-TOF spectrum of 7.

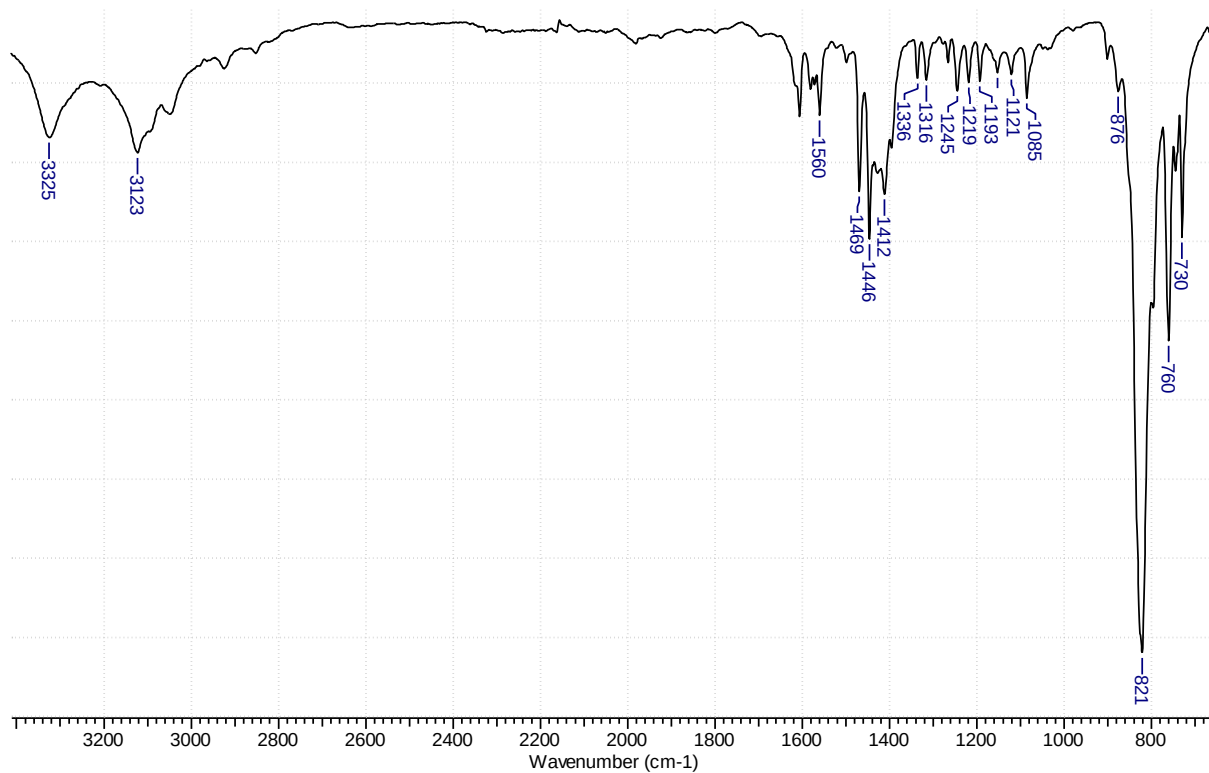


Fig. S2 FT-IR spectrum of 7.

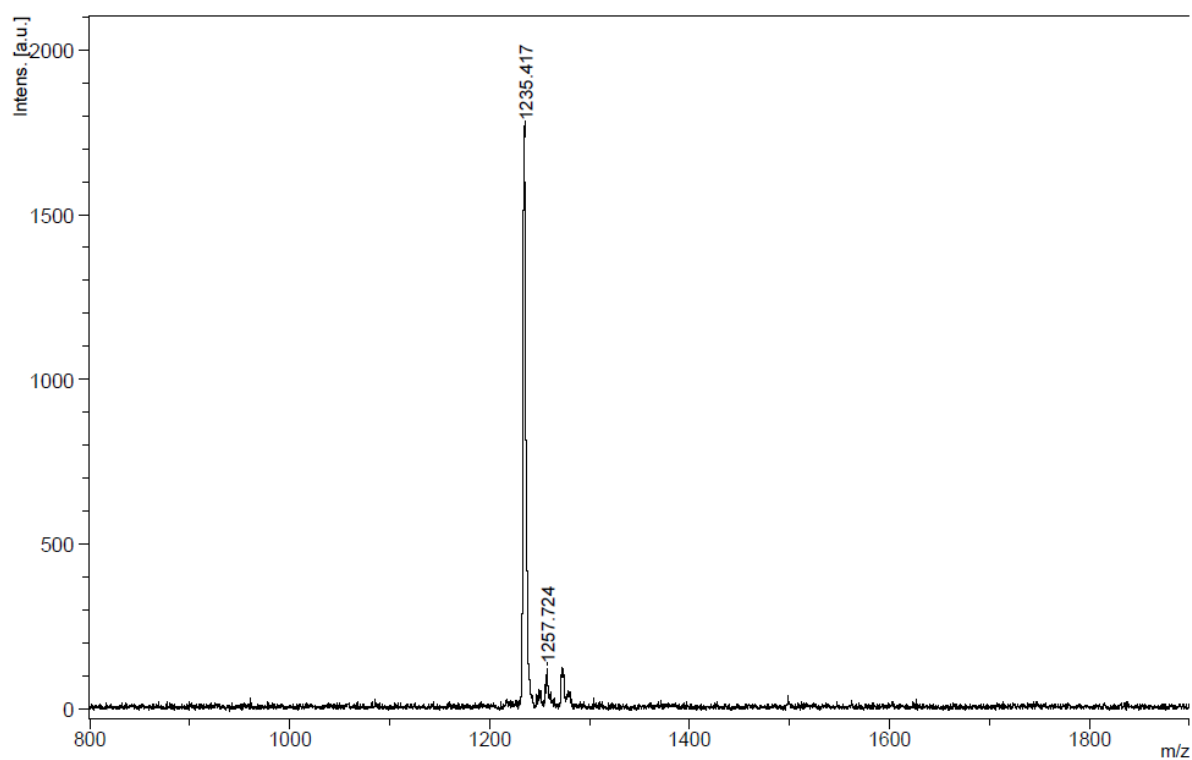


Fig. S3 MALDI-TOF spectrum of **P6**.

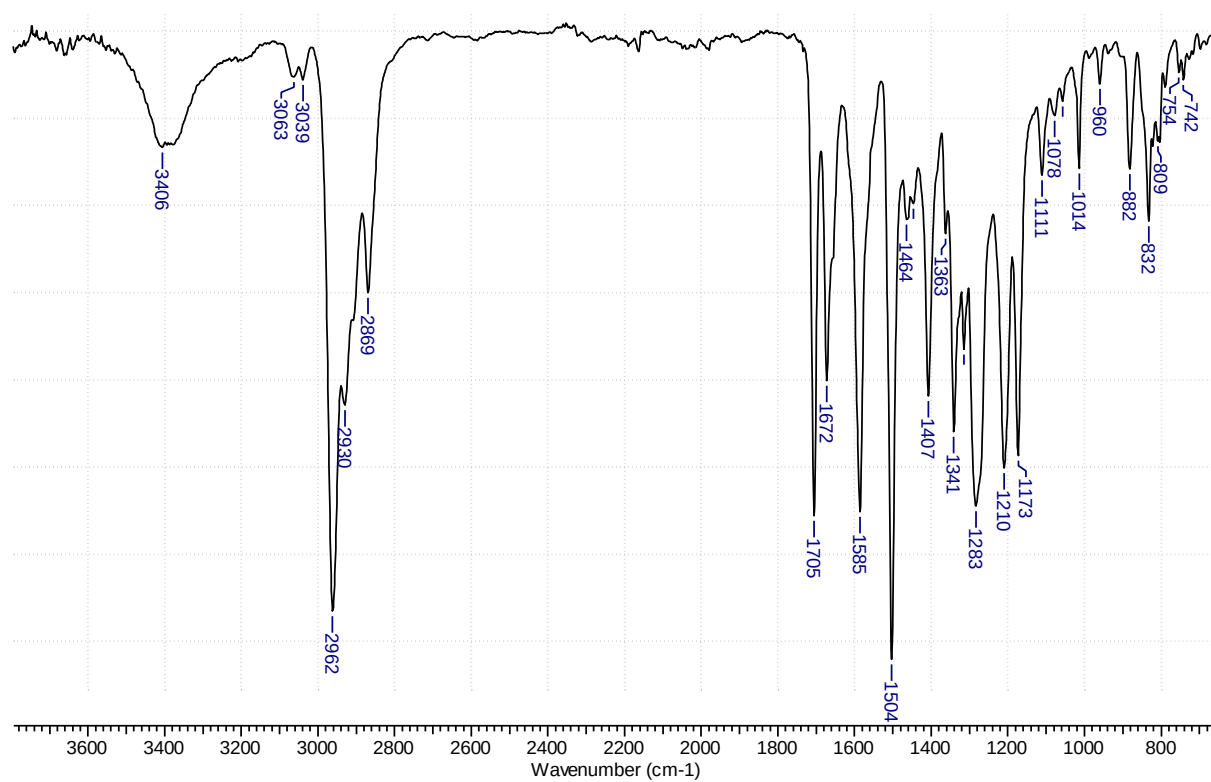


Fig. S4 FT-IR spectrum of **P6**.

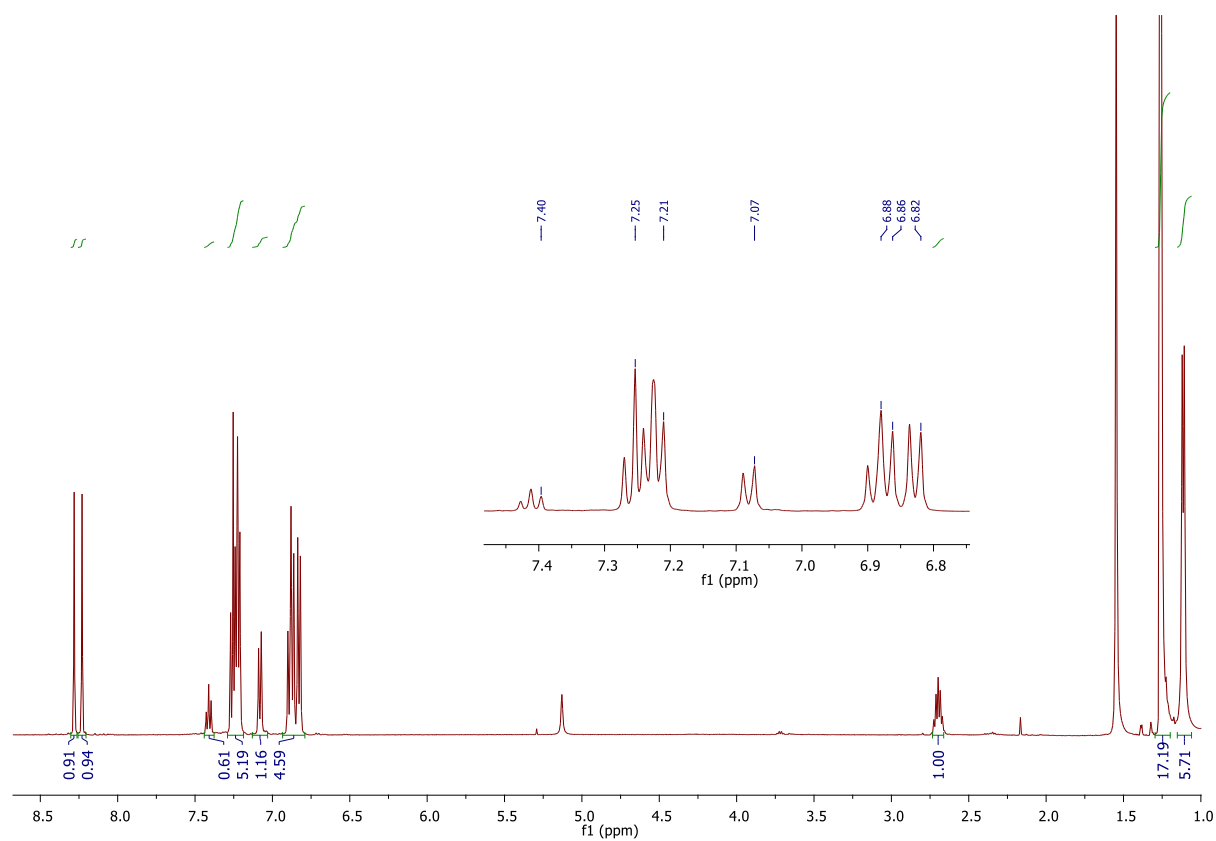


Fig. S5 ^1H -NMR spectrum of **P6**.

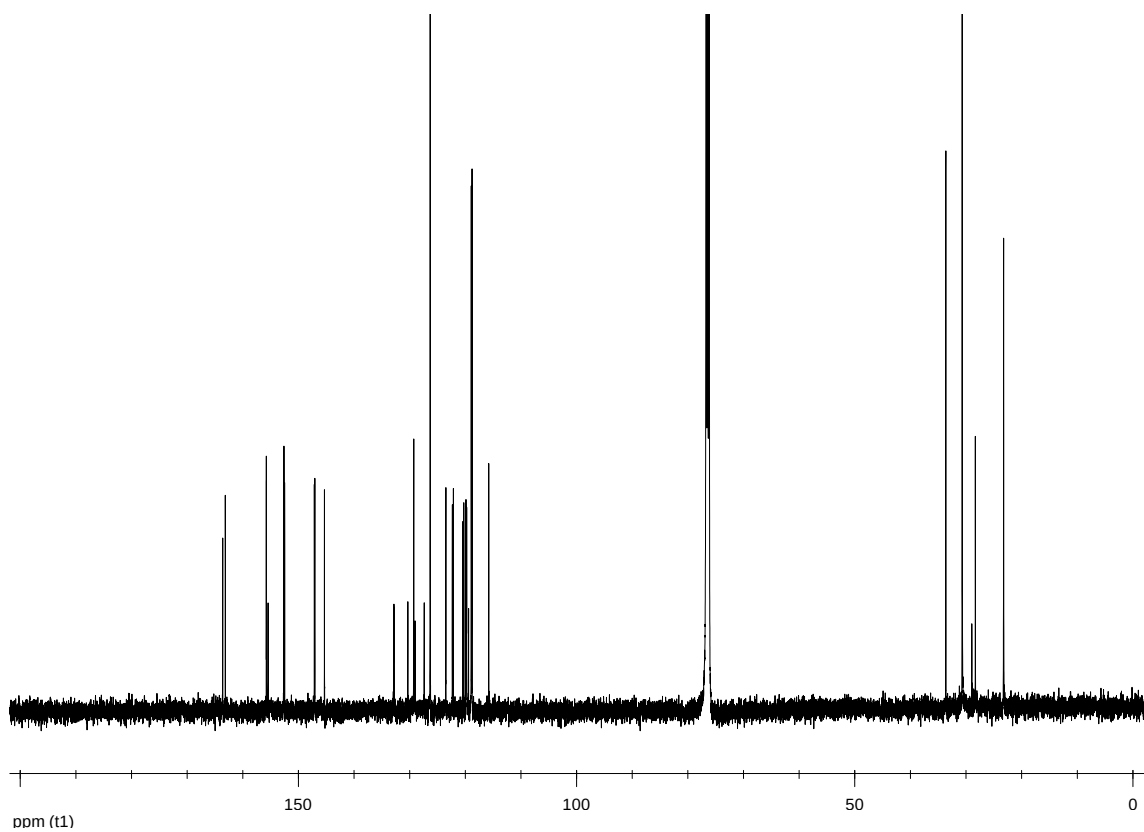


Fig. S6 ^{13}C -NMR spectrum of **P6**.

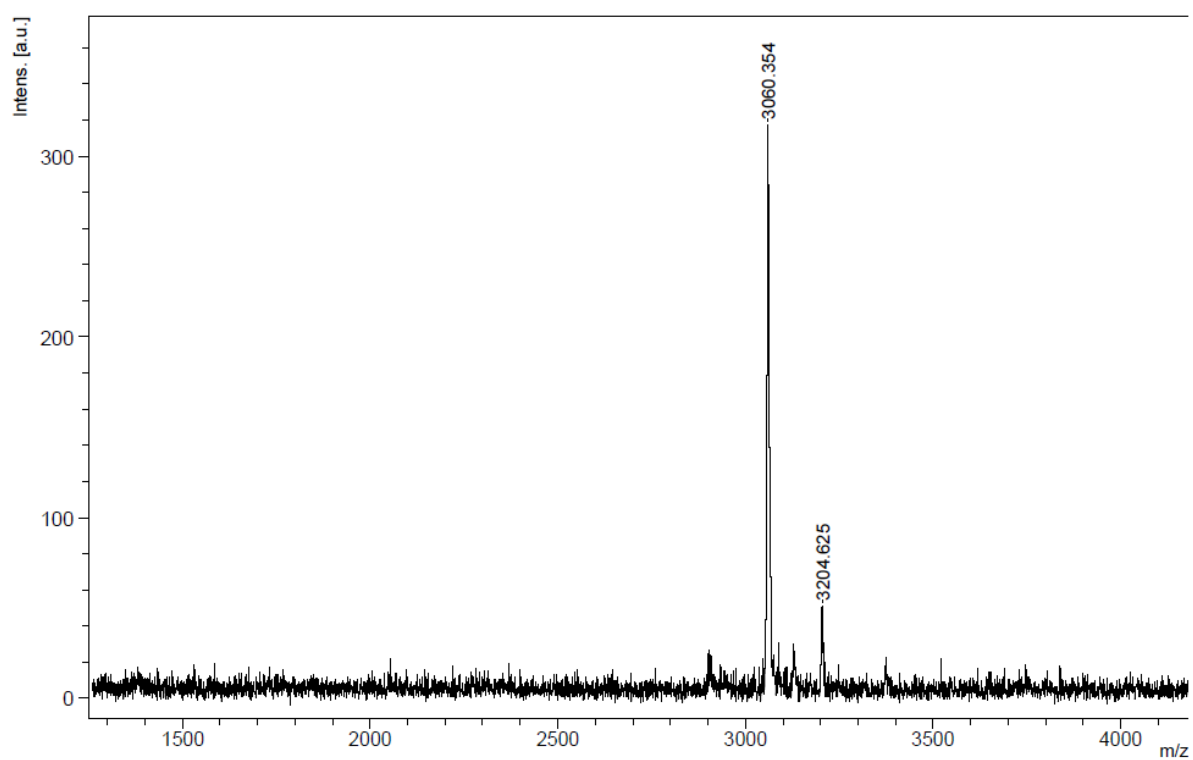


Fig. S7 MALDI-TOF spectrum of Ru-BP.

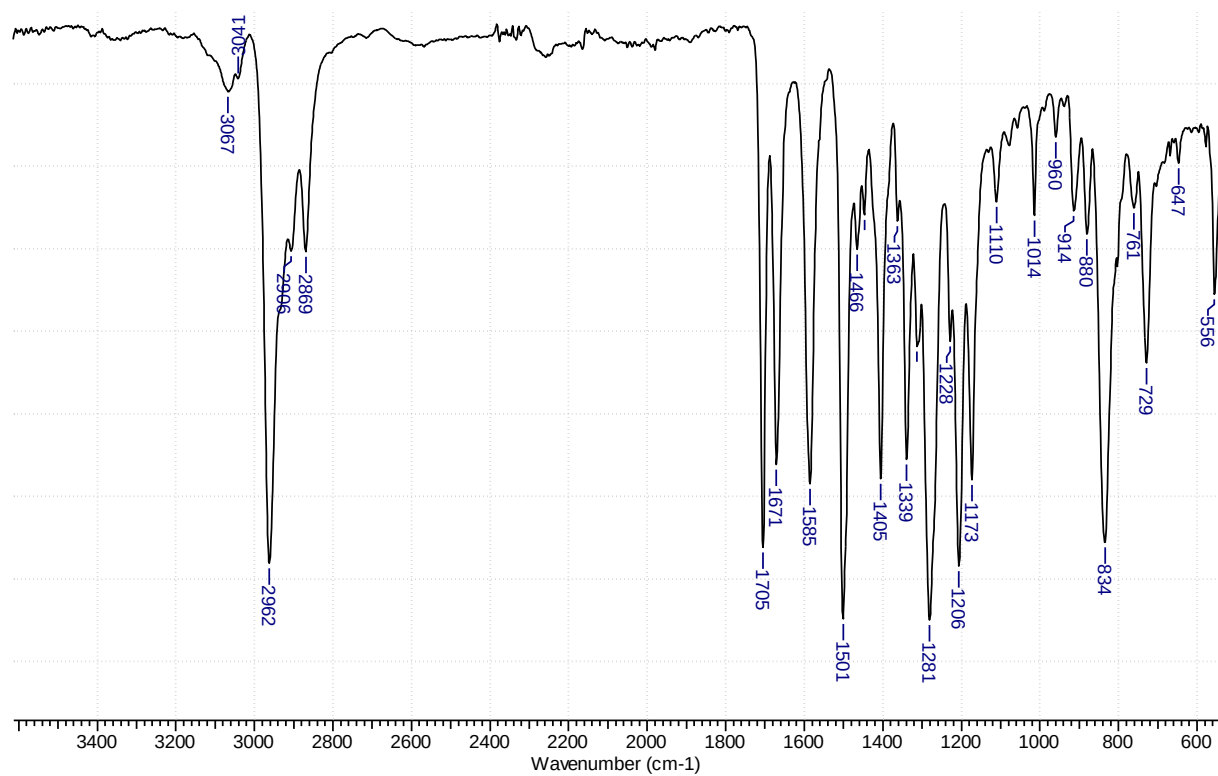


Fig. S8 FT-IR spectrum of Ru-BP.

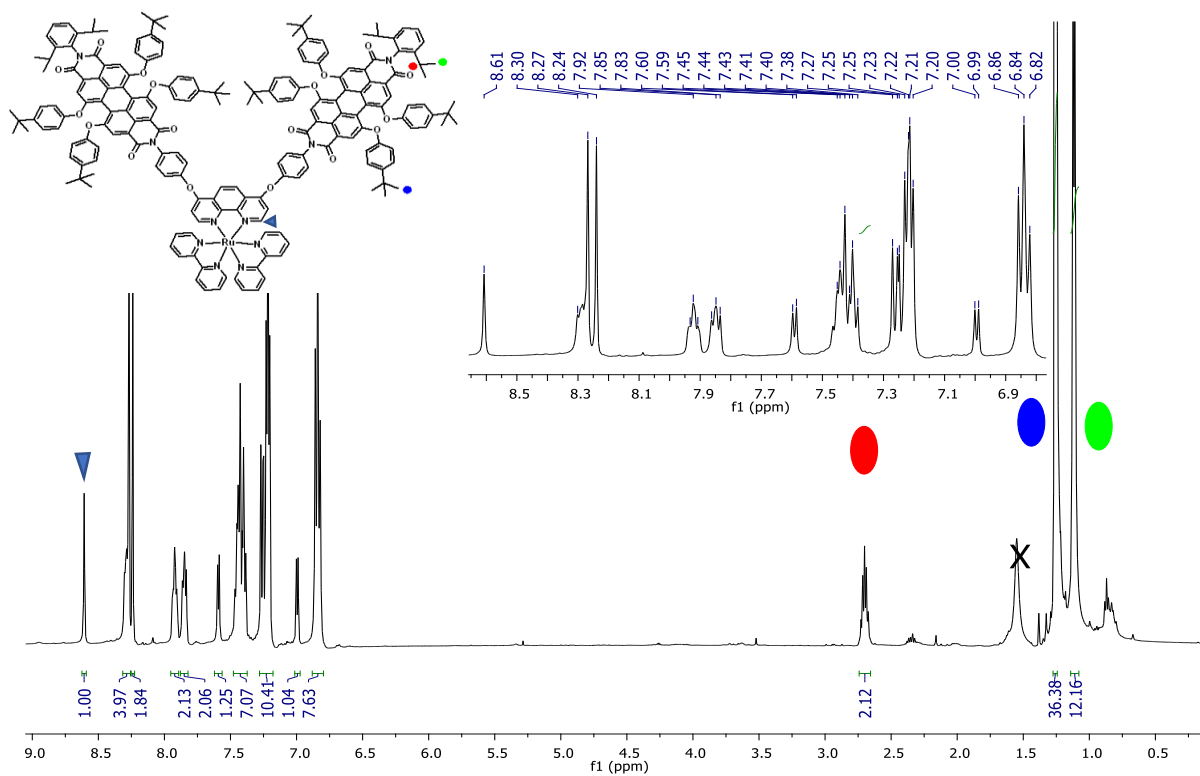


Fig. S9 ^1H -NMR spectrum of Ru-BP.

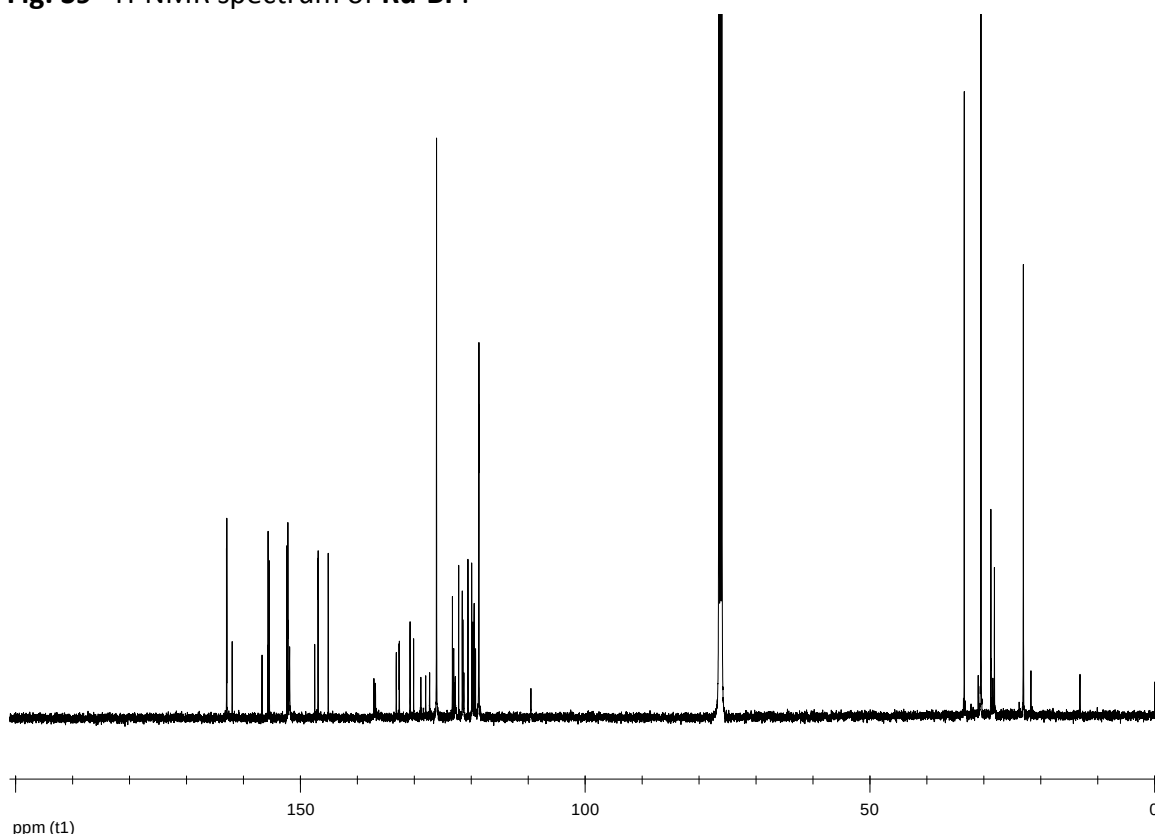


Fig. S10 ^{13}C -NMR spectrum of Ru-BP.

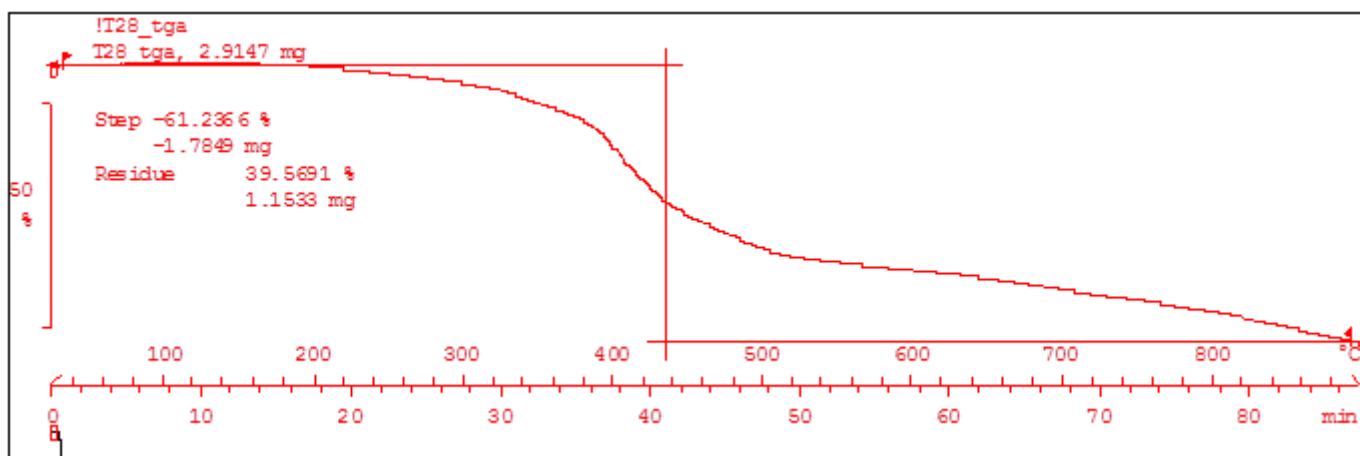


Fig. S11 Thermogravimetric analysis (TGA) of **Ru-BP**.

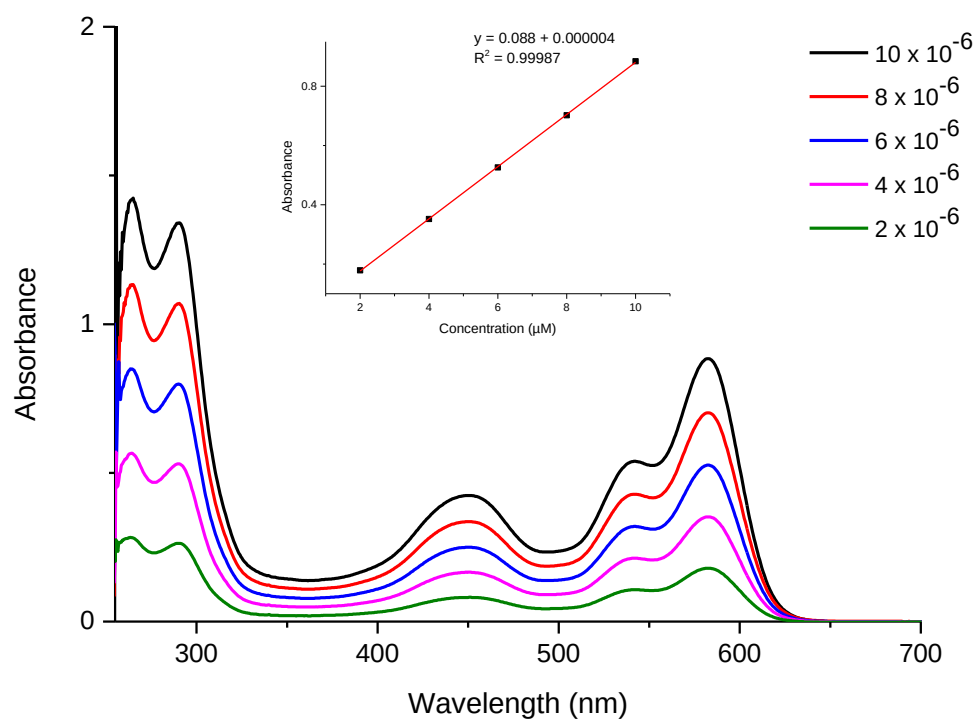


Fig. S12 UV-vis spectra of **Ru-BP** in DMSO at different concentrations between 2×10^{-6} M and

10^{-5} M.

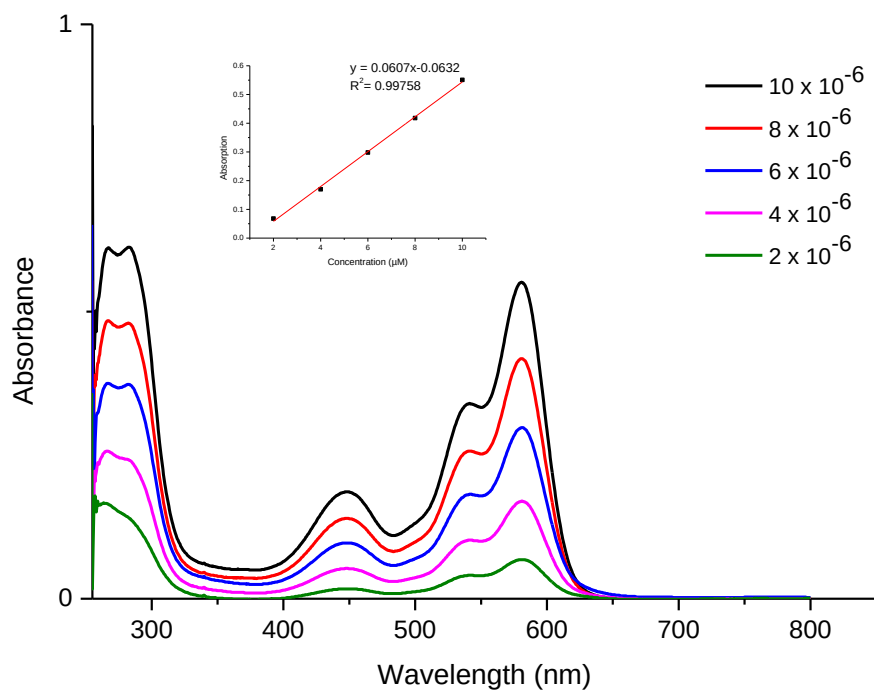


Fig. S13 UV-vis spectra of **P6** in DMSO at different concentrations between 2×10^{-6} M and 10^{-5} M.

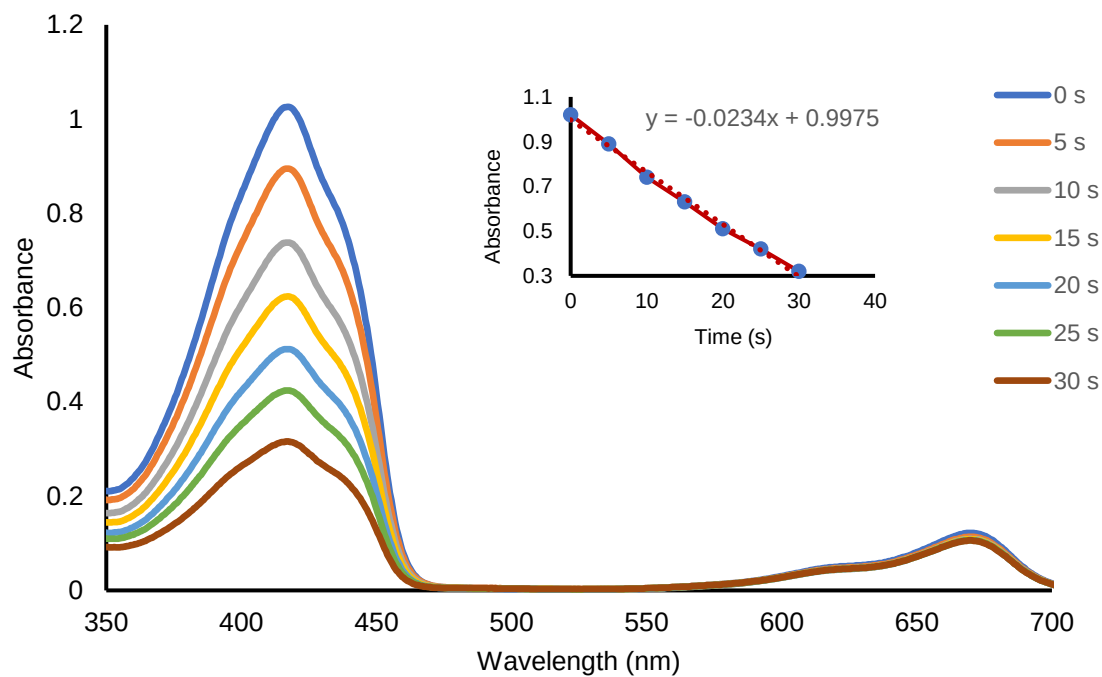


Fig. S14 UV-vis spectrum of methylene blue

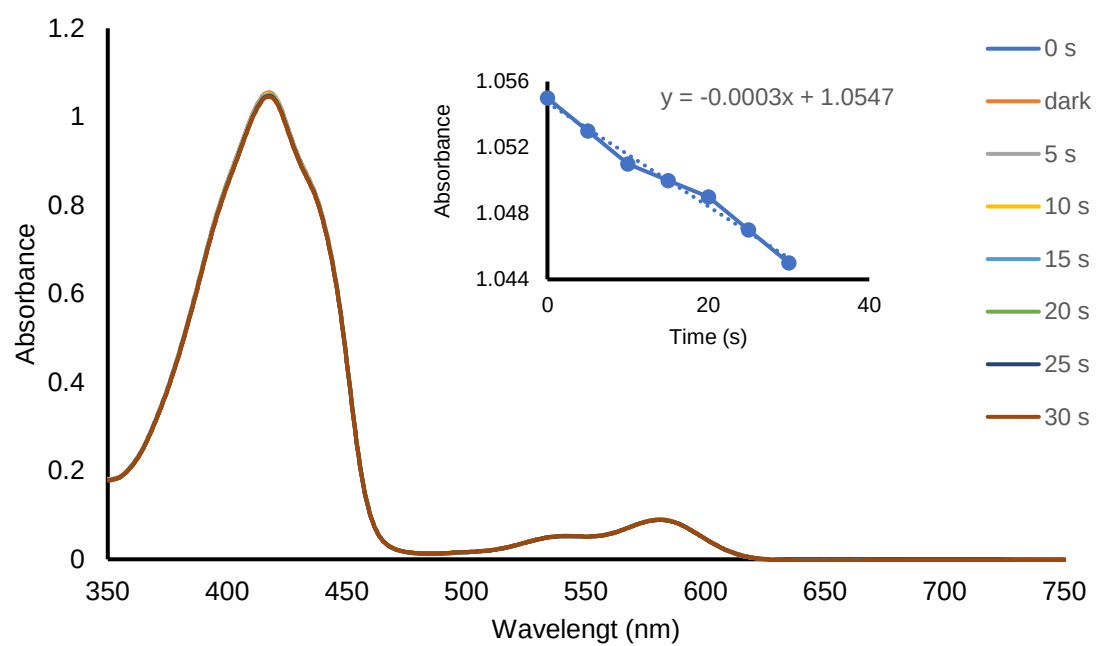


Fig. S15 UV-vis spectrum of **P6**.

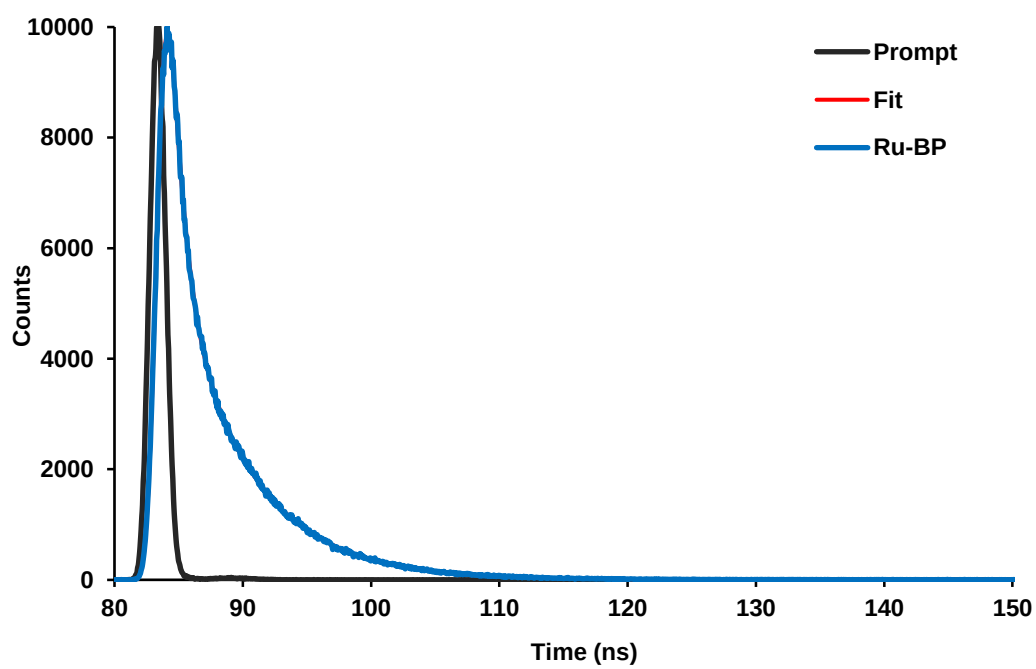
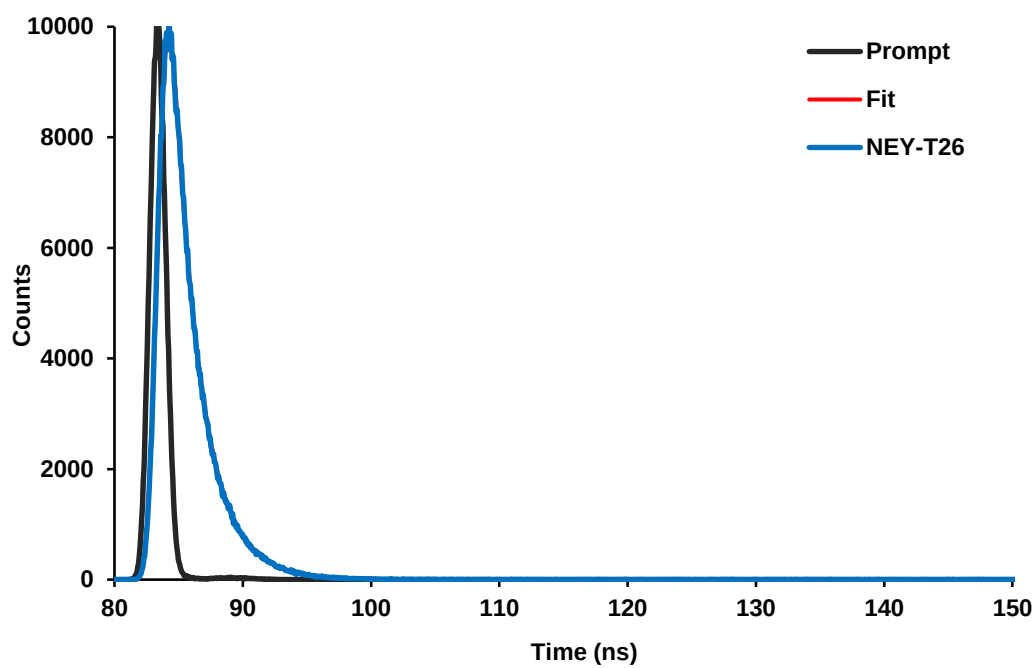


Fig. S16 Lifetime spectra of **P6** and **Ru-BP**.

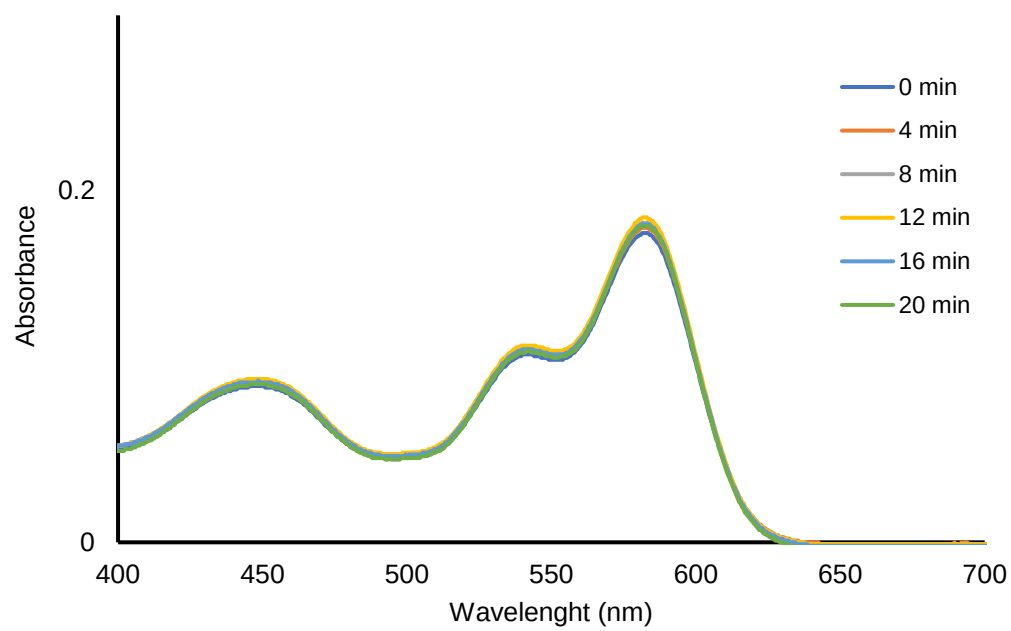


Fig. S17 Absorbance spectrum of **Ru-BP** for photodegradation study in DMSO using red LED array.