

Electronic Supplementary Information(ESI)

An investigation of ligand effect on visible light-induced formation of porphyrin-iron(IV)-oxo intermediates

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Contents

Figure S1 and S2.....	Page 2
Figure S3 and S4.....	Page 3

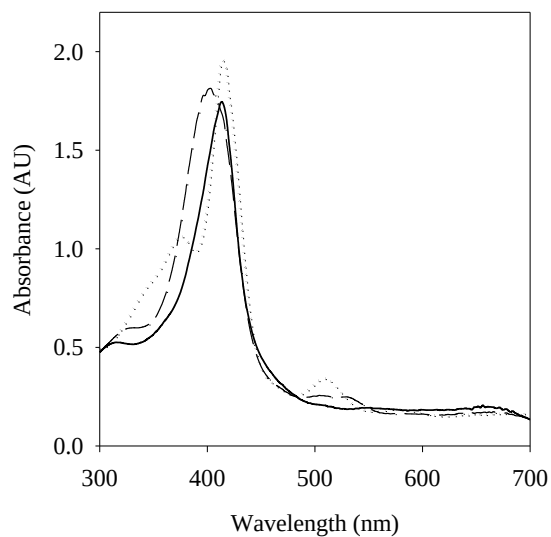


Figure S1. UV-visible spectra of $[\text{Fe}^{\text{III}}(\text{TMP})(\text{BrO}_3)]$ (**2a**, solid lines) and $[\text{Fe}^{\text{III}}(\text{TMP})(\text{ClO}_3)]$ (dashed lines) and $[\text{Fe}^{\text{III}}(\text{TMP})\text{Cl}]$ (**1a**, dotted line) in CH_3CN

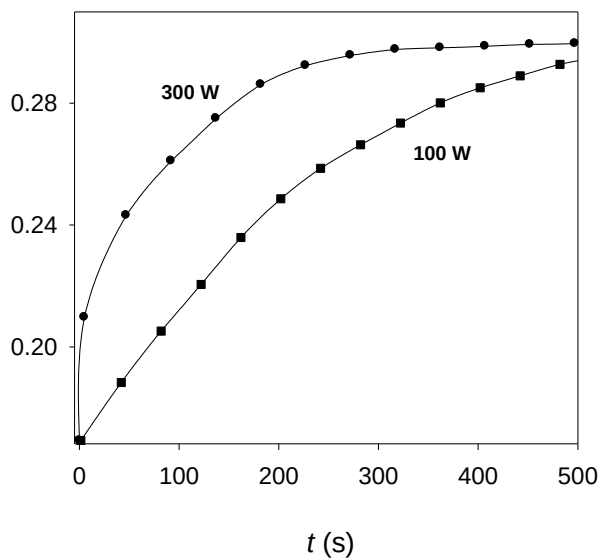


Fig. S2. Kinetic traces monitored at 656 nm of **3a** with different power of visible lights.

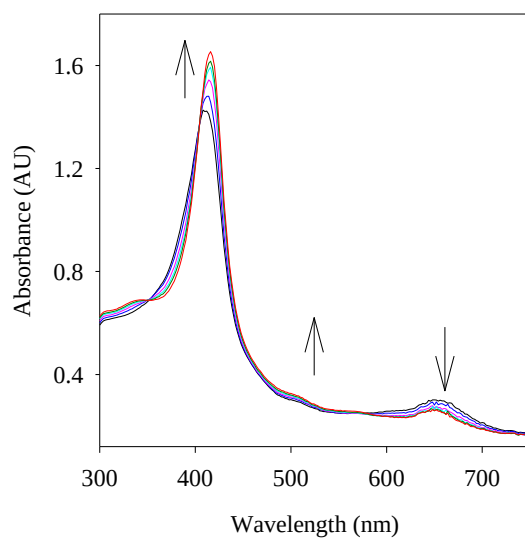


Fig. S3. Time-resolved spectra of **3a** (1.0×10^{-5} M) in the presence of *cis*-cyclooctene (1 mM) over 50 s.

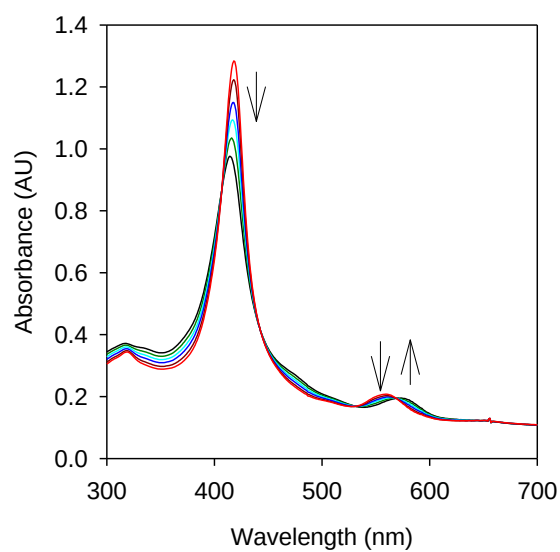


Fig. S4. Time-resolved spectra of **4e** (1.0×10^{-5} M) in the presence of *cis*-stilbene (25 mM) over 5 min.