

Supporting Information for

Ruthenium(II) Polypyridyl Complexes with Visible Light Enhanced Anticancer Activity and Multimodal Cell Imaging

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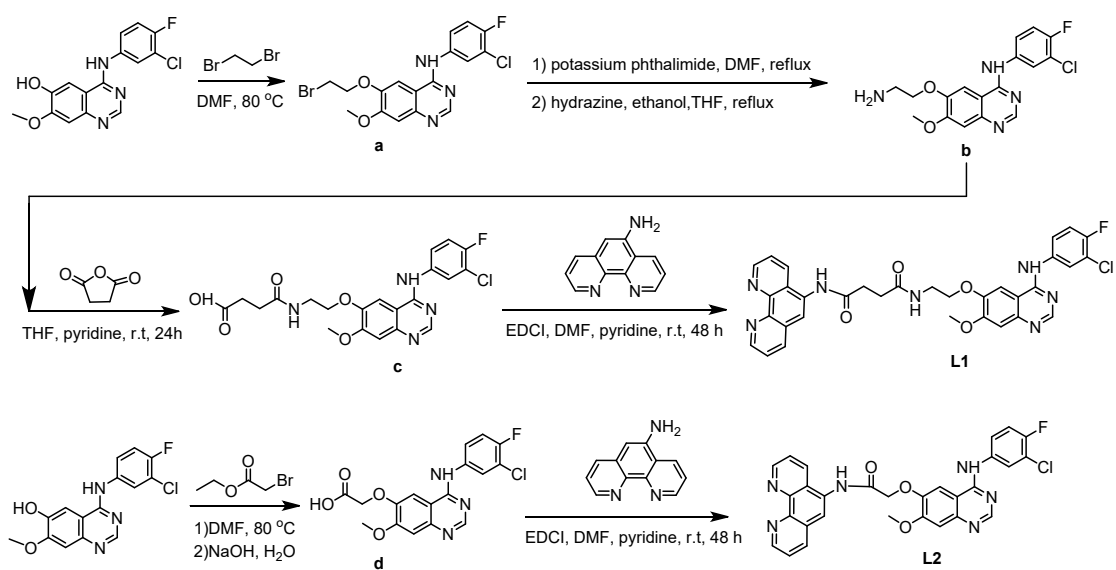
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Scheme S1. Synthetic steps of ligand **L1** and **L2**.

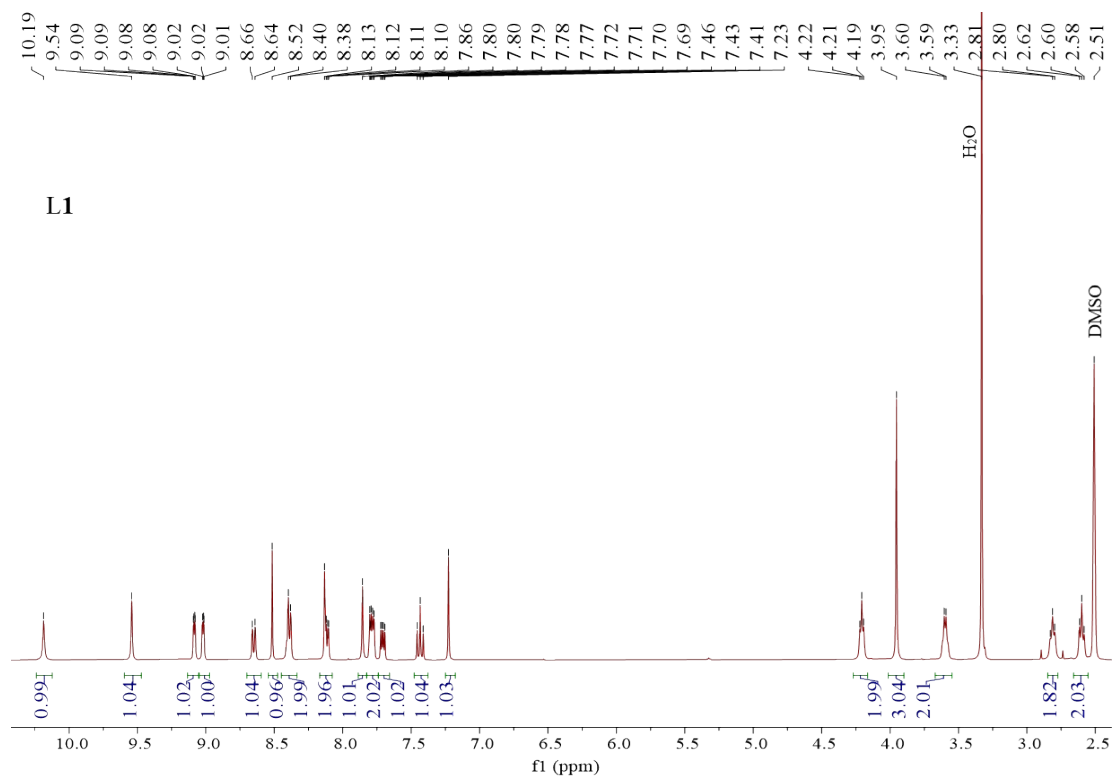


Figure S1. ¹H NMR spectrum of **L1** in DMSO-*d*⁶.

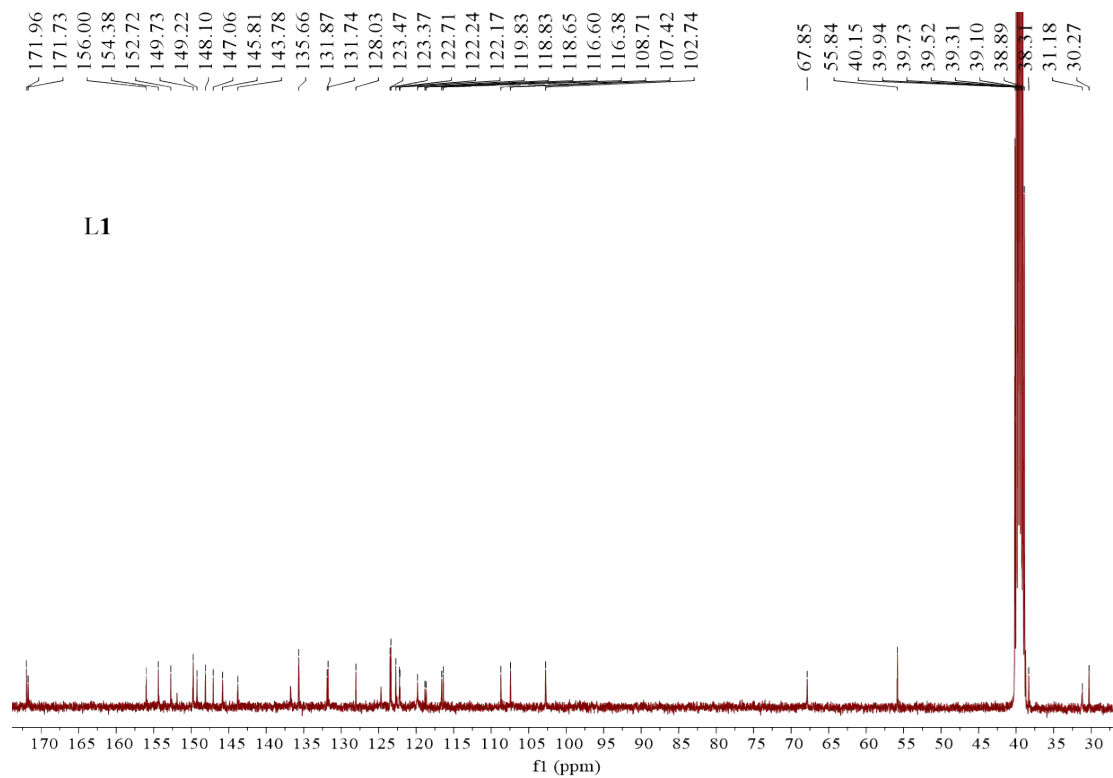


Figure S2. ¹³C NMR spectrum of **L1** in DMSO-*d*⁶.

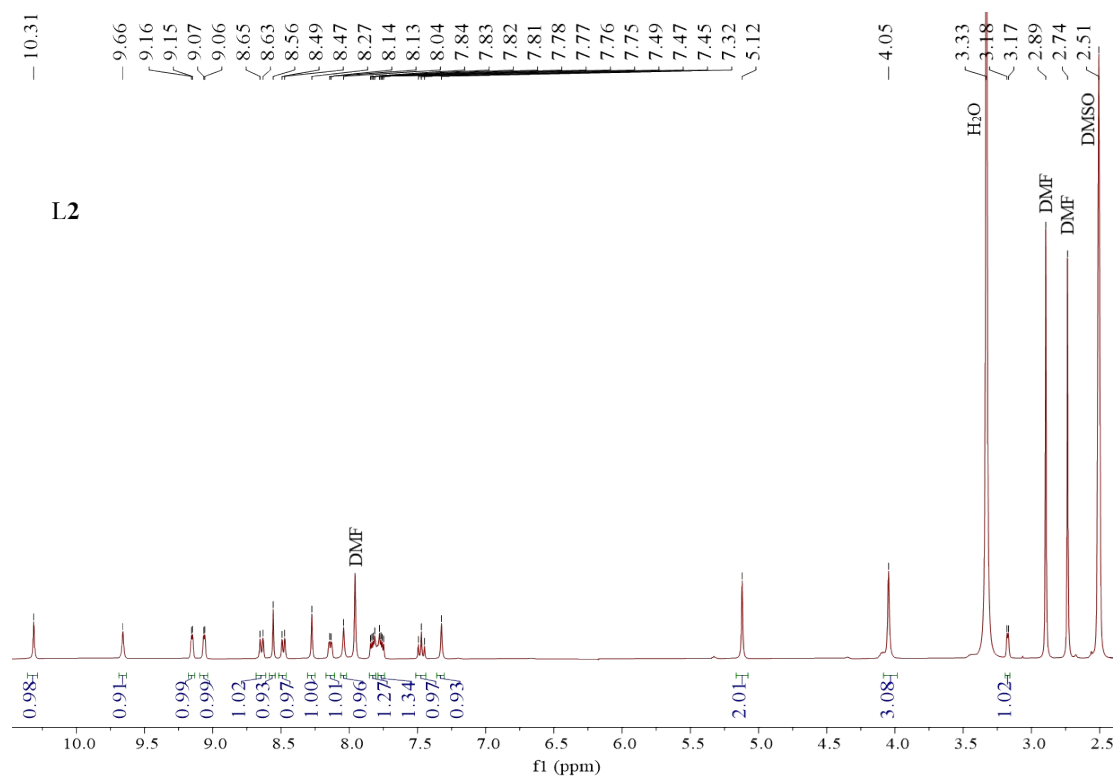


Figure S3. ¹H NMR spectrum of **L2** in DMSO-*d*⁶.

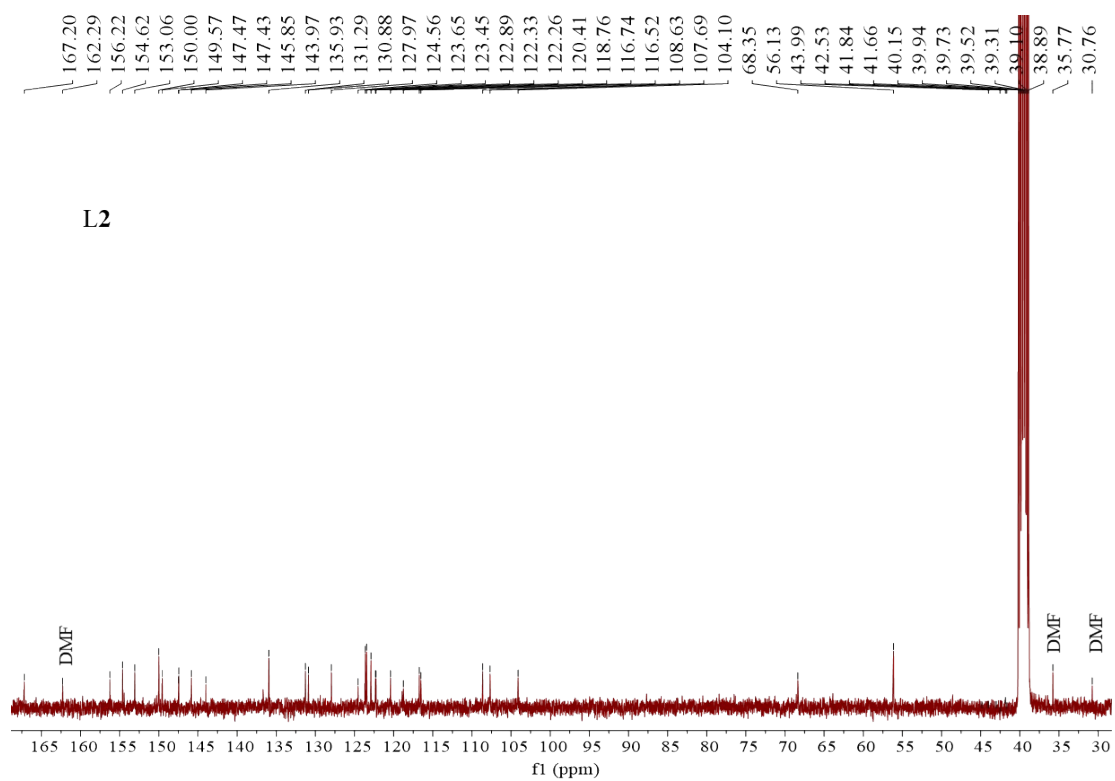


Figure S4. ¹³C NMR spectrum of **L2** in DMSO-*d*⁶.

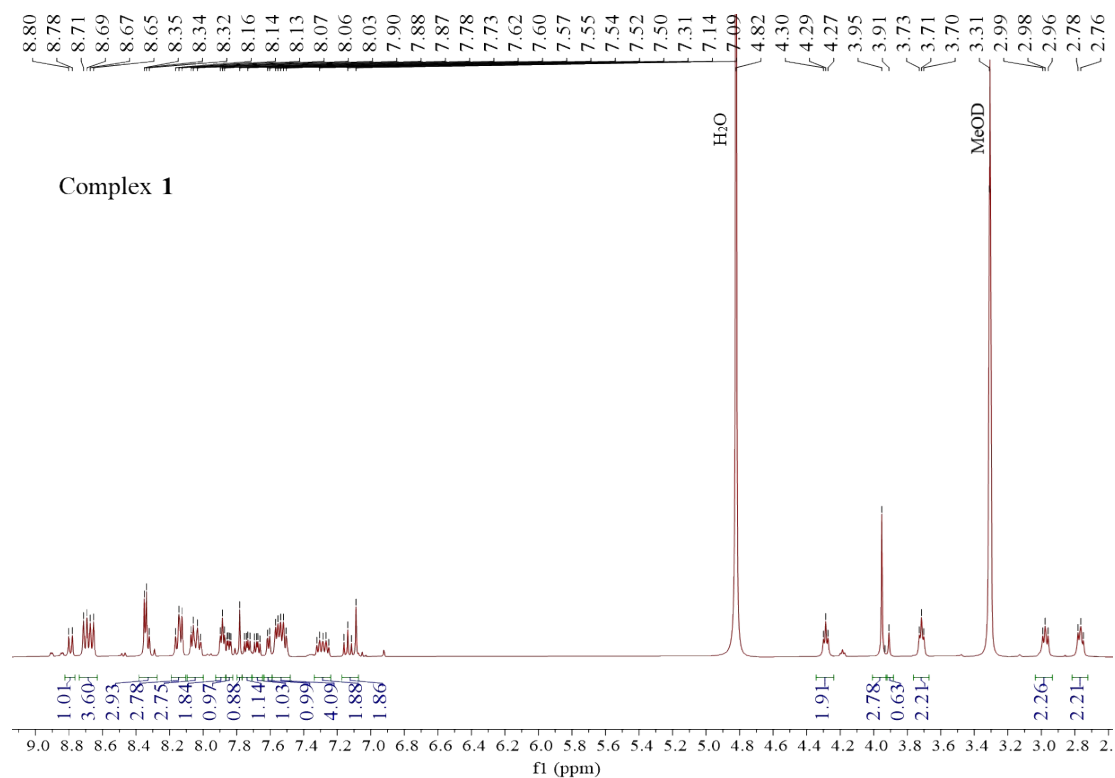


Figure S5. ¹H NMR spectrum of Complex 1 in MeOD-*d*⁴.

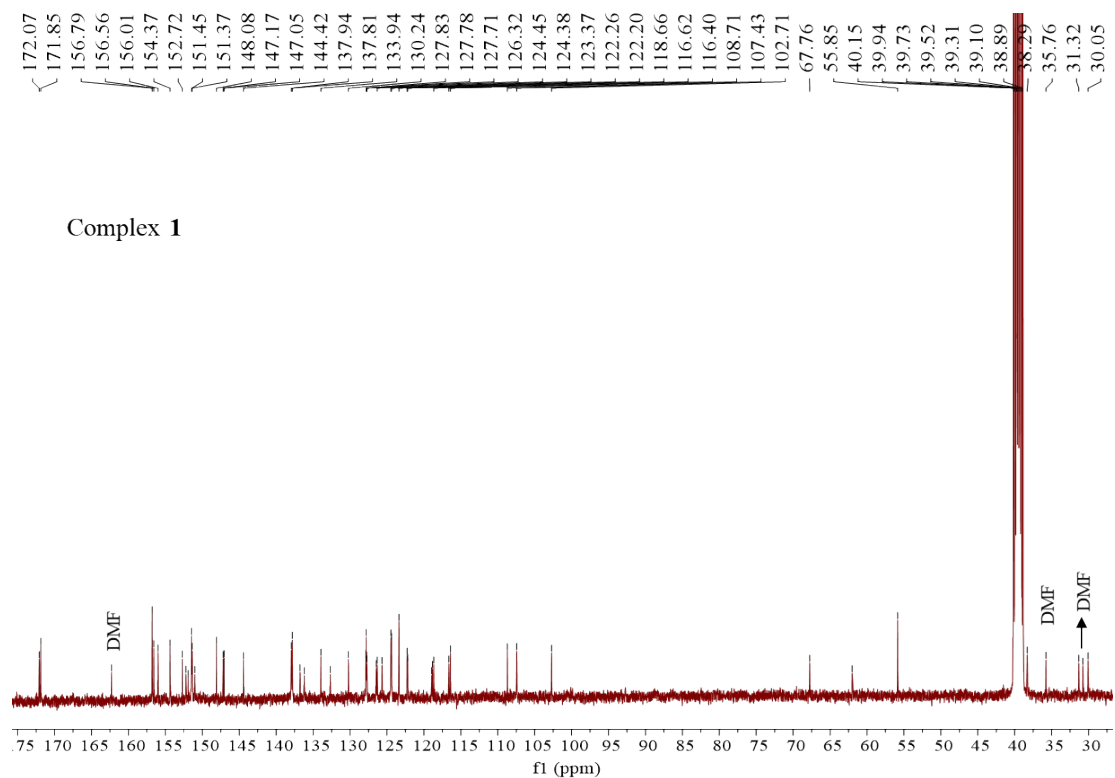


Figure S6. ¹³C NMR spectrum of Complex 1 in DMSO-*d*⁶.

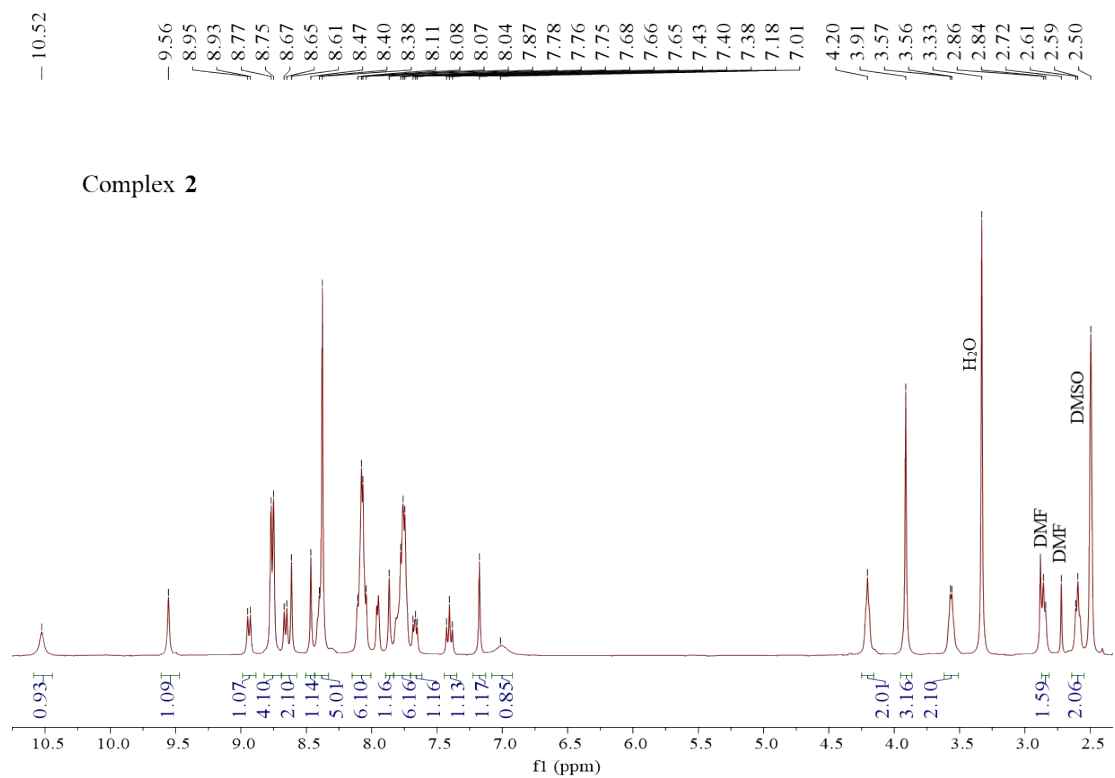


Figure S7. ^1H NMR spectrum of Complex 2 in $\text{DMSO-}d^6$.

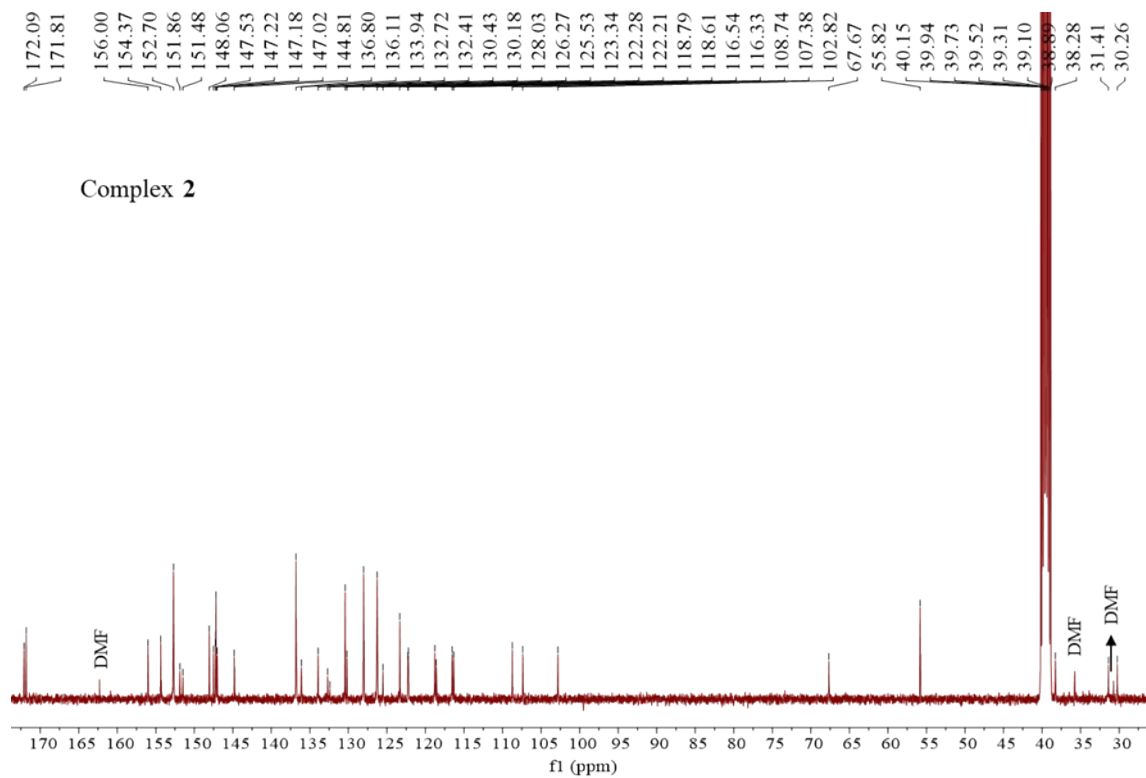


Figure S8. ^{13}C NMR spectrum of Complex 2 in $\text{DMSO-}d^6$.

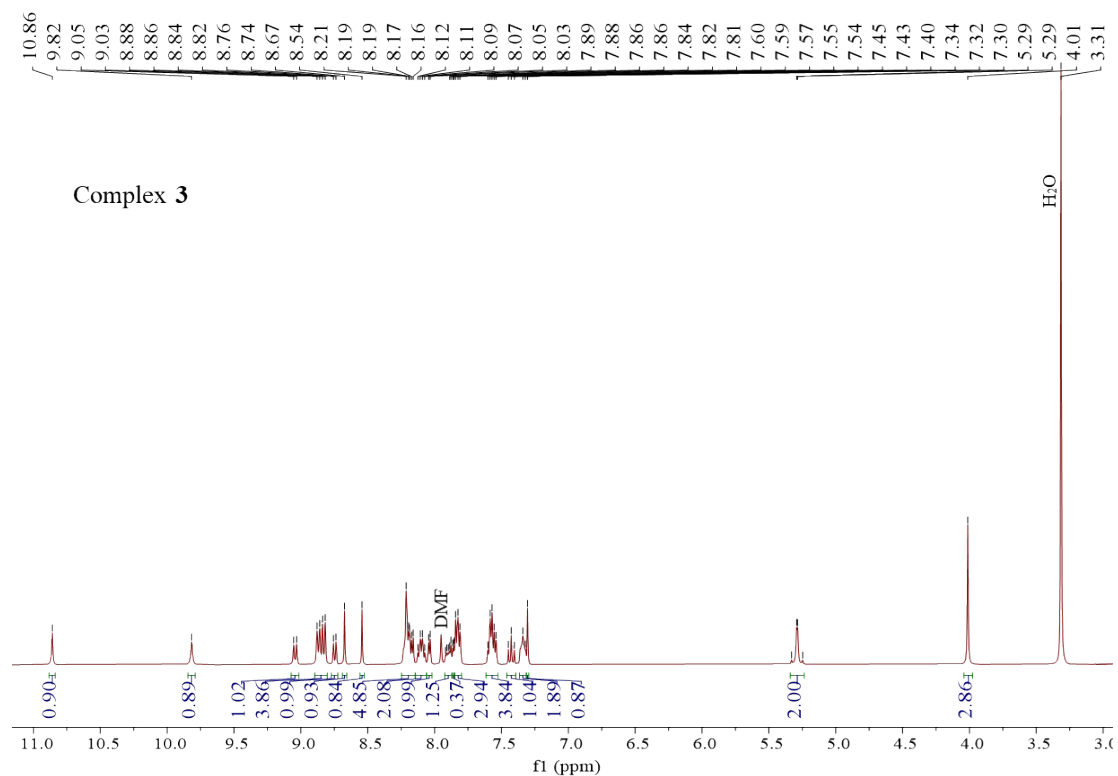


Figure S9. ¹H NMR spectrum of Complex 3 in DMSO-*d*⁶.

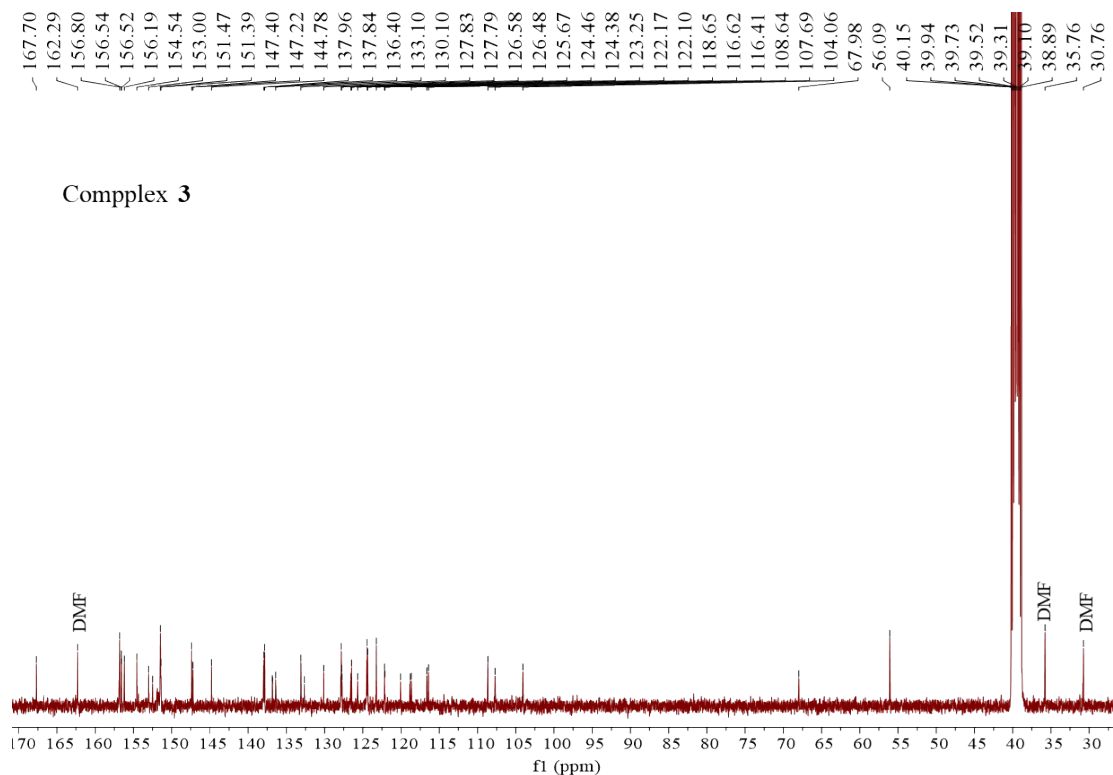


Figure S10. ¹³C NMR spectrum of Complex 3 in DMSO-*d*⁶.

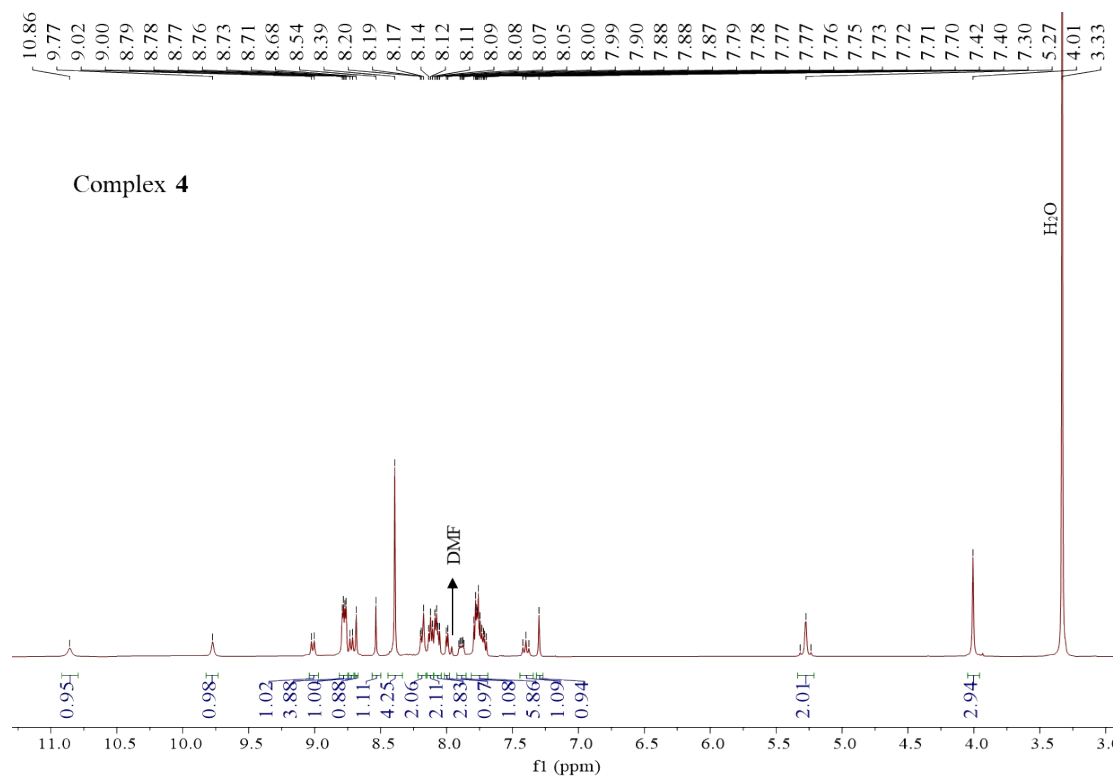


Figure S11. ¹H NMR spectrum of Complex 4 in DMSO-*d*⁶.

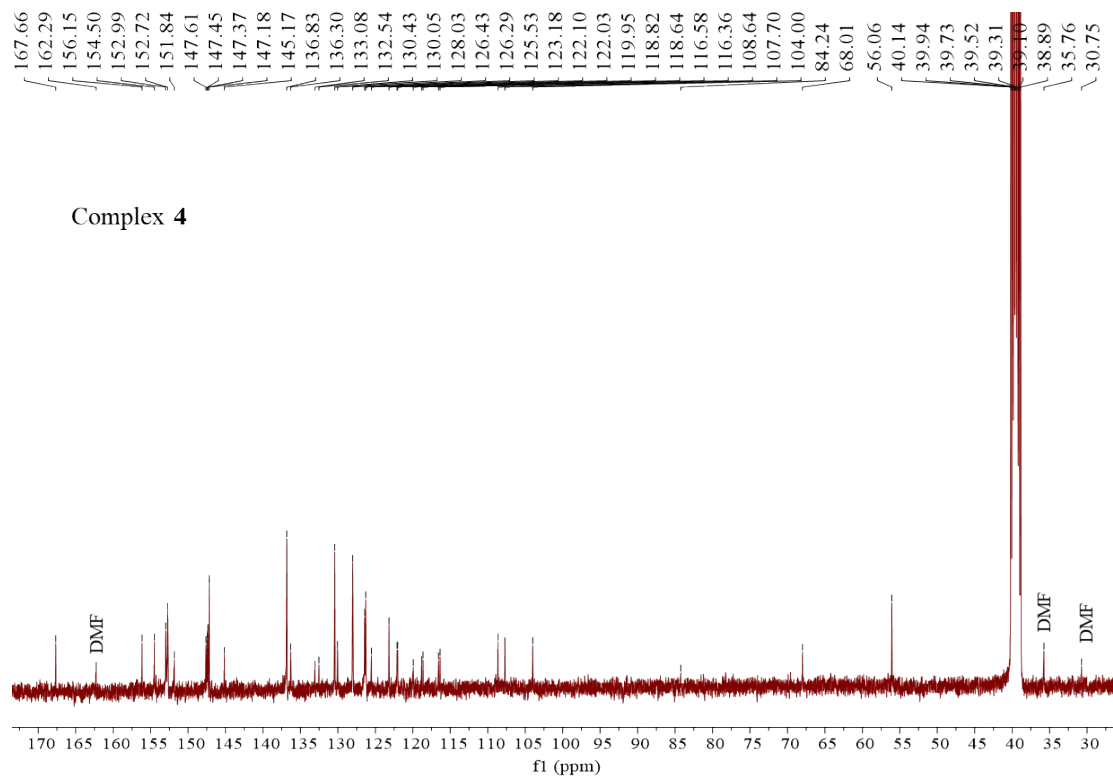


Figure S12. ¹³C NMR spectrum of Complex 4 in DMSO-*d*⁶.

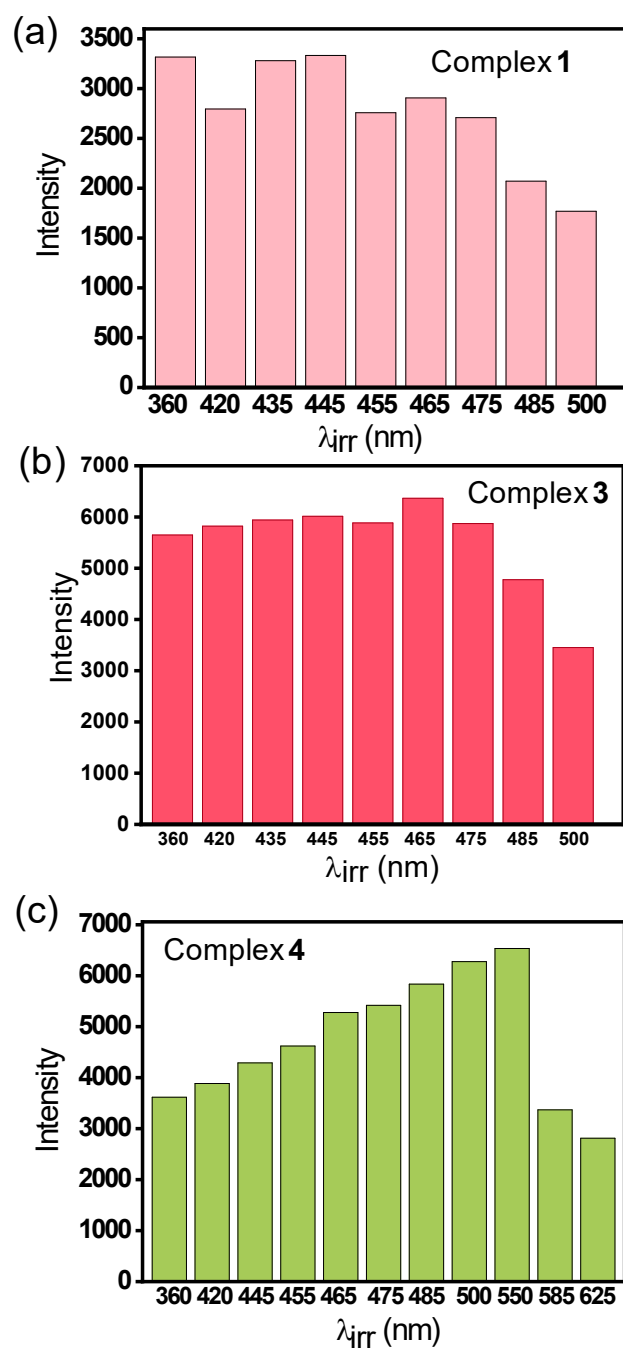


Figure S13. The intensity of fluorescence ($\lambda_{ex} = 504$ nm, $\lambda_{em} = 525$ nm) of ruthenium complexes **1** (a), **3** (b) and **4** (c) (50 μ M) in the presence of SOSG (1 μ M) in H₂O (3% acetone) upon the irradiation for 10 min. The higher intensity of fluorescence suggested higher activation wavelength for the generation of singlet oxygen.

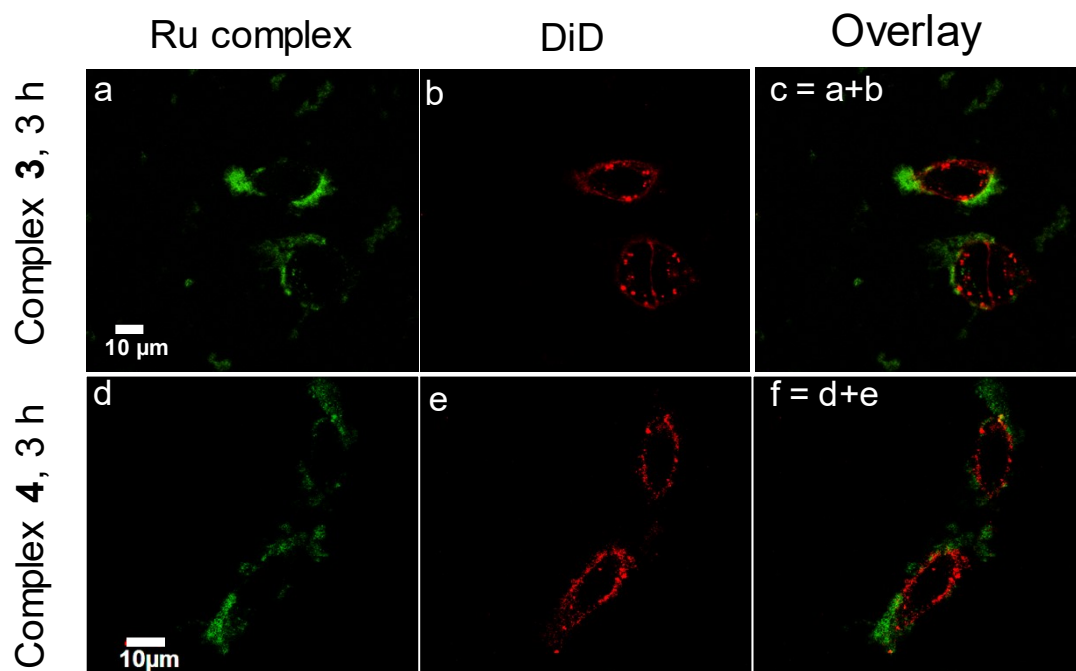


Figure S14. Fluorescence laser scan confocal microscopy images of A549 cells incubated with complexes **3** or **4** (10 μ M) at 310 K. Complex was incubated with cells for 3 h before DiD, a cell membrane dye, was incubated for 20 min. Wavelengths for complexes **3** and **4**, $\lambda_{\text{ex}} = 488$ nm, $\lambda_{\text{em}} = 600 - 630$ nm; for DiD, $\lambda_{\text{ex}} = 633$ nm, $\lambda_{\text{em}} = 650 - 680$ nm. c, merge of a and b; f, merge of d and e.

