

Supporting Information

for

Design and Investigation of Photoactivatable Platinum(IV) Prodrug Complexes of Cisplatin

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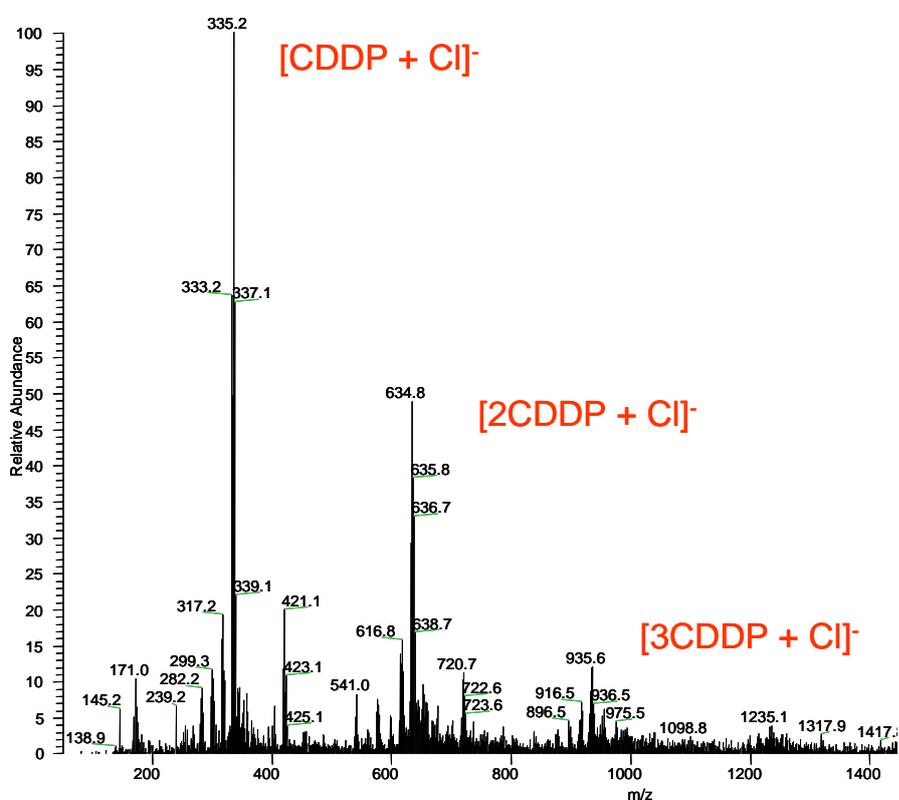


Figure S1. ESI-MS spectra (-ve mode) of the aqueous solution of the precipitate formed after photoreduction of **5** (in acetone).

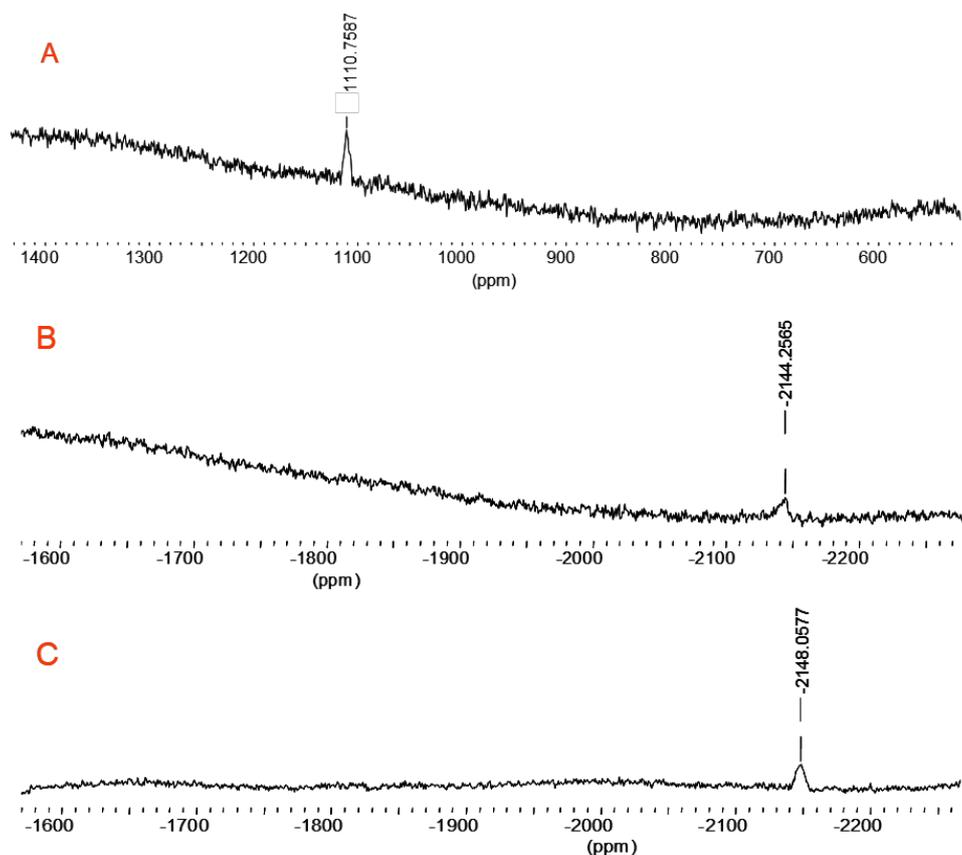


Figure S2. $^{195}\text{Pt}\{^1\text{H}\}$ NMR of A) **5** (acetone- d_6) before UV irradiation; B) precipitate formed after UV irradiation on **5** (D_2O); C) cisplatin (D_2O). Selected regions of $^{195}\text{Pt}\{^1\text{H}\}$ NMR spectra are shown.

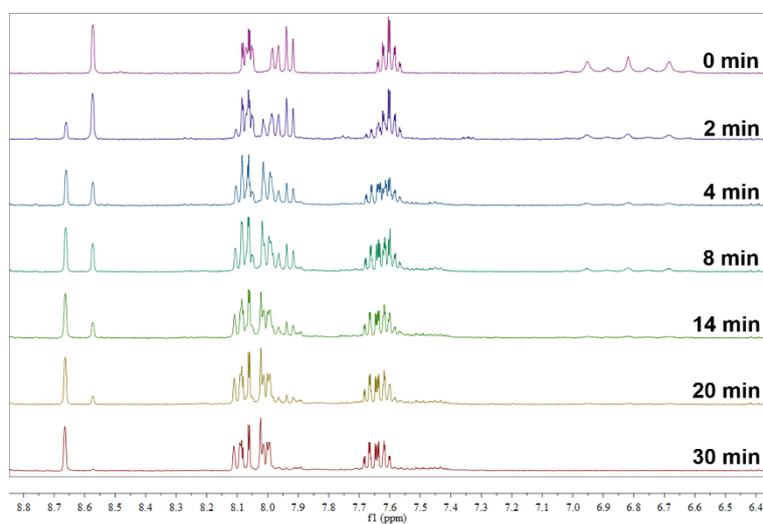


Figure S3. Time-course ^1H NMR experiment on **6** after 0, 2, 4, 8, 14, 20, 30 min of UV irradiation at 365 nm.

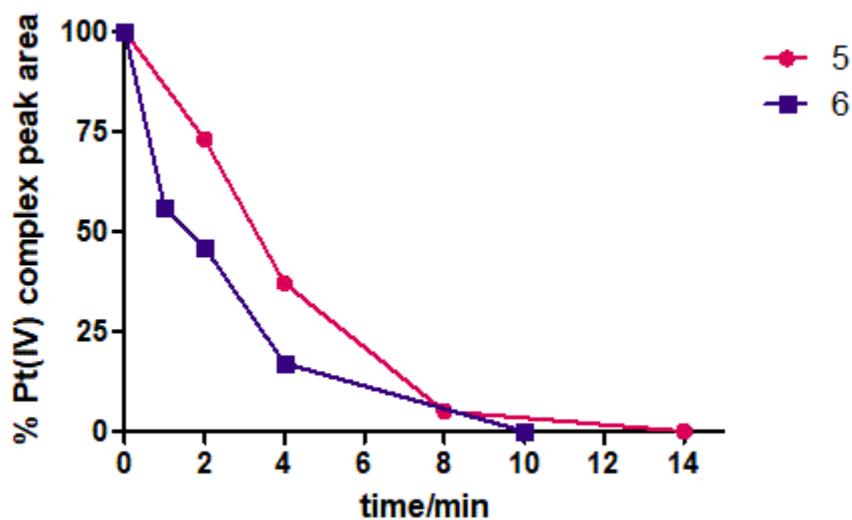


Figure S4. Comparing residual peak areas on RP-HPLC chromatograms of **5** and **6** dissolved in DMSO following UV irradiation at 365 nm.

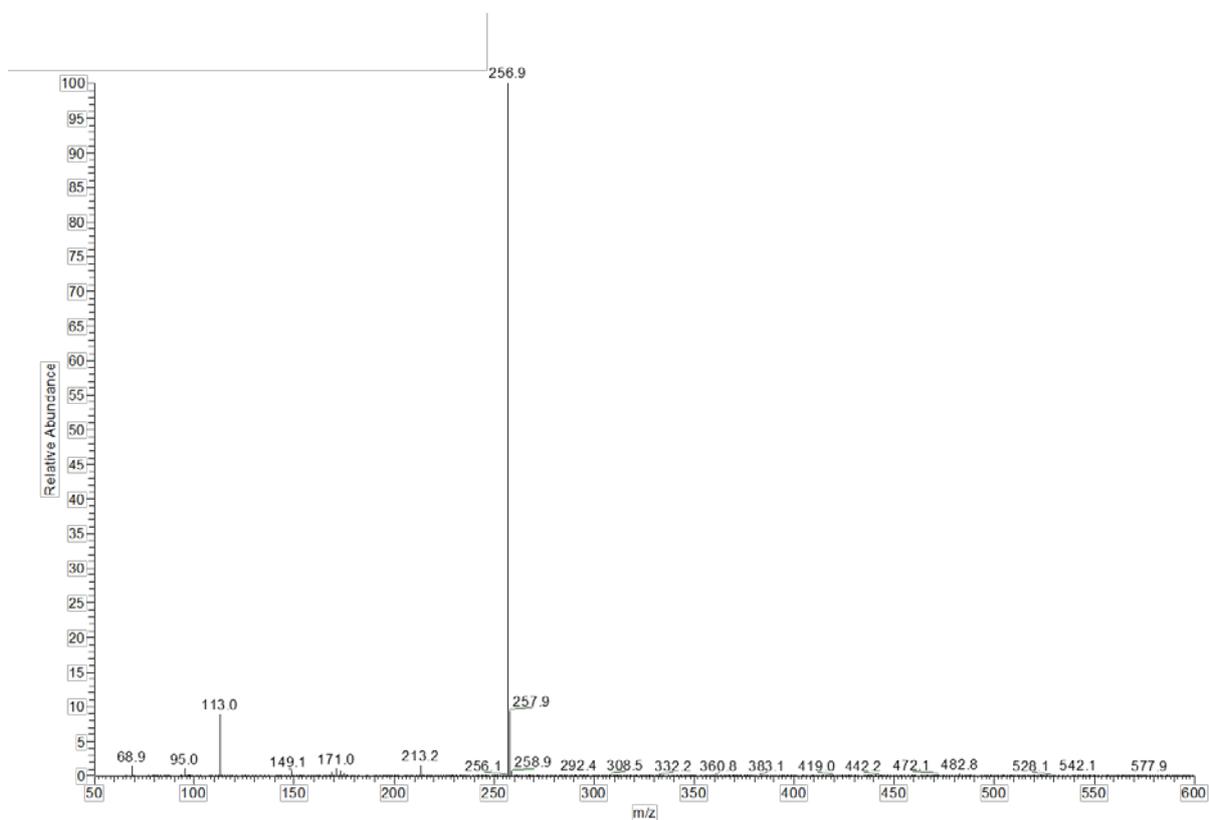


Figure S5. ESI-MS (-ve mode) analysis for complex **7** after exposure to UV radiation for 2 h

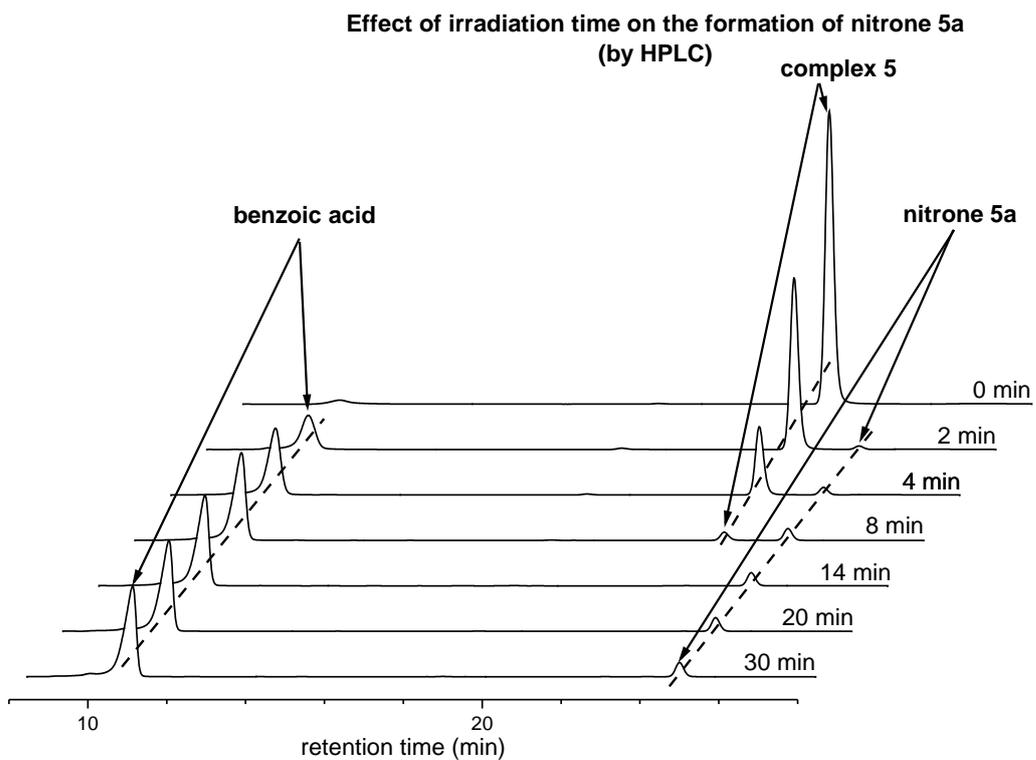
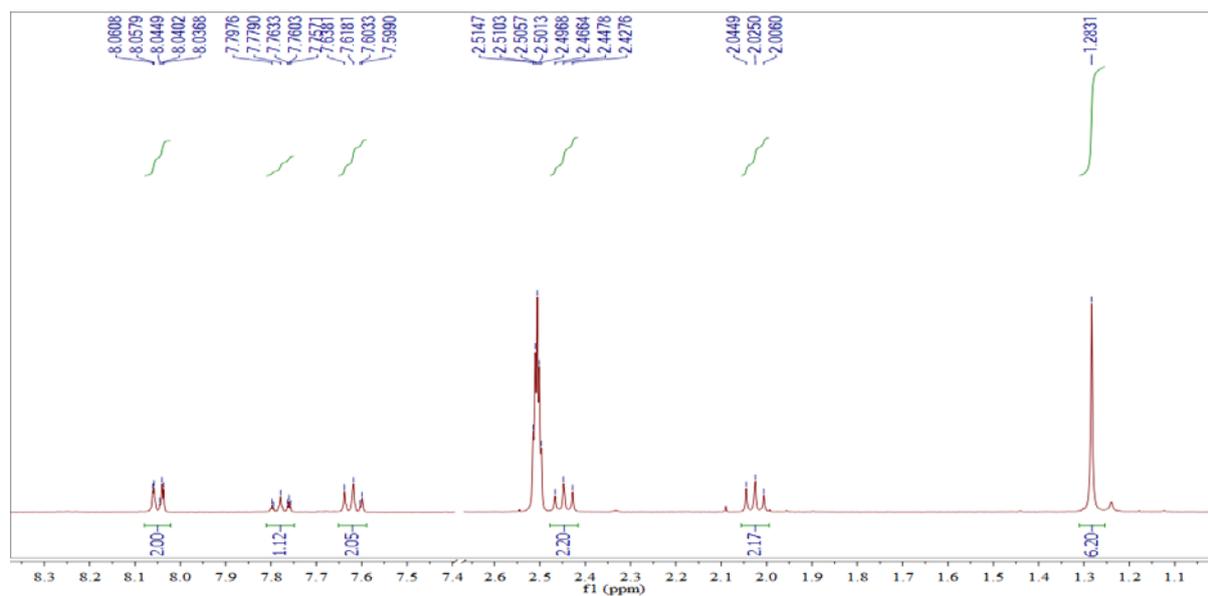


Figure S6. HPLC chromatograms showing the formation of nitrone **5a** after 0, 2, 4, 8, 14, 20, 30 min UV irradiation at 365 nm.

(A)



(B)

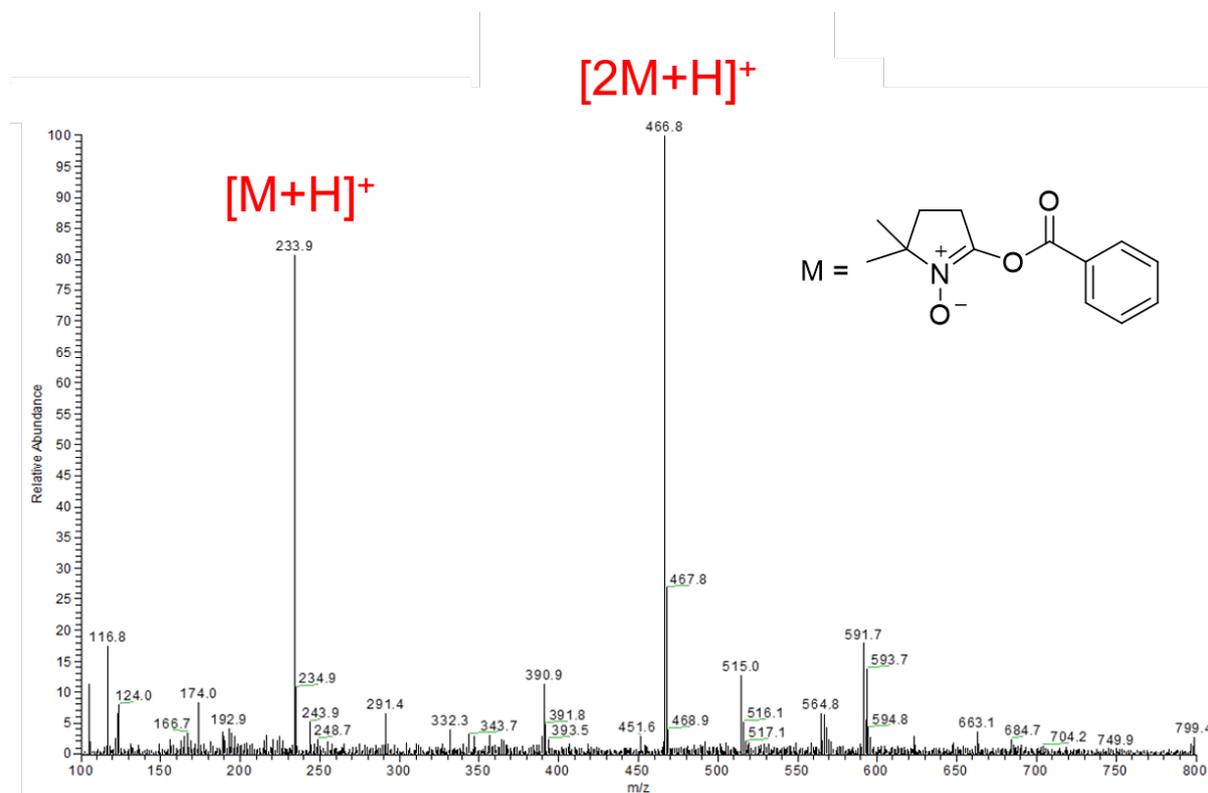
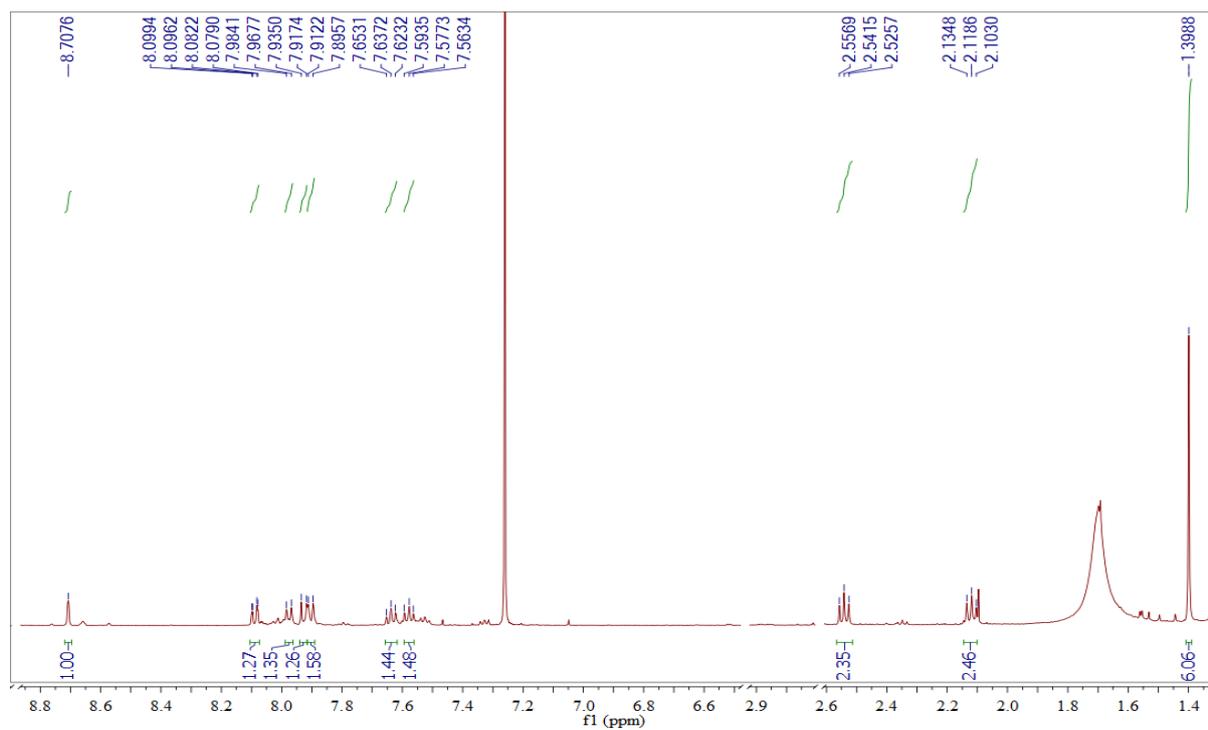


Figure S7. Characterisation of nitrone **5a**. (A) ^1H NMR ($\text{DMSO-}d_6$); (B) ESI-MS analysis (+ve mode).

(A)



(B)

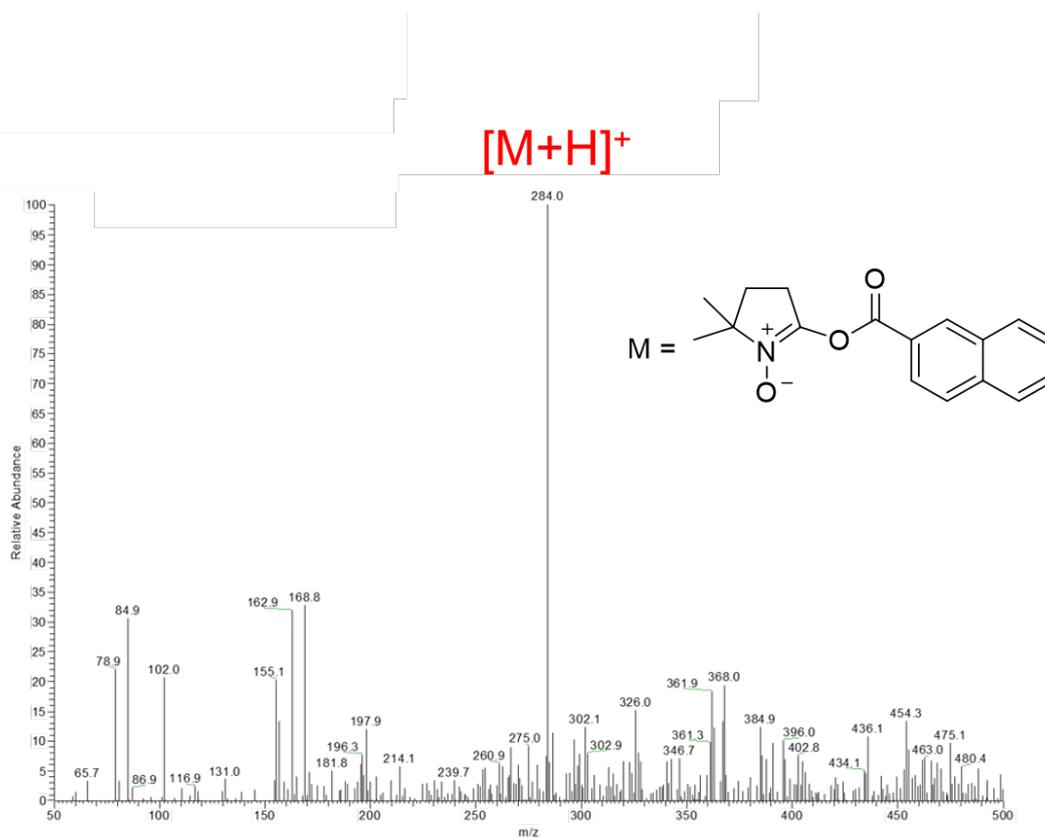


Figure S8. Characterisation of nitron 6a. (A) ¹H NMR (DMSO-*d*₆); (B) ESI-MS analysis (+ve mode).

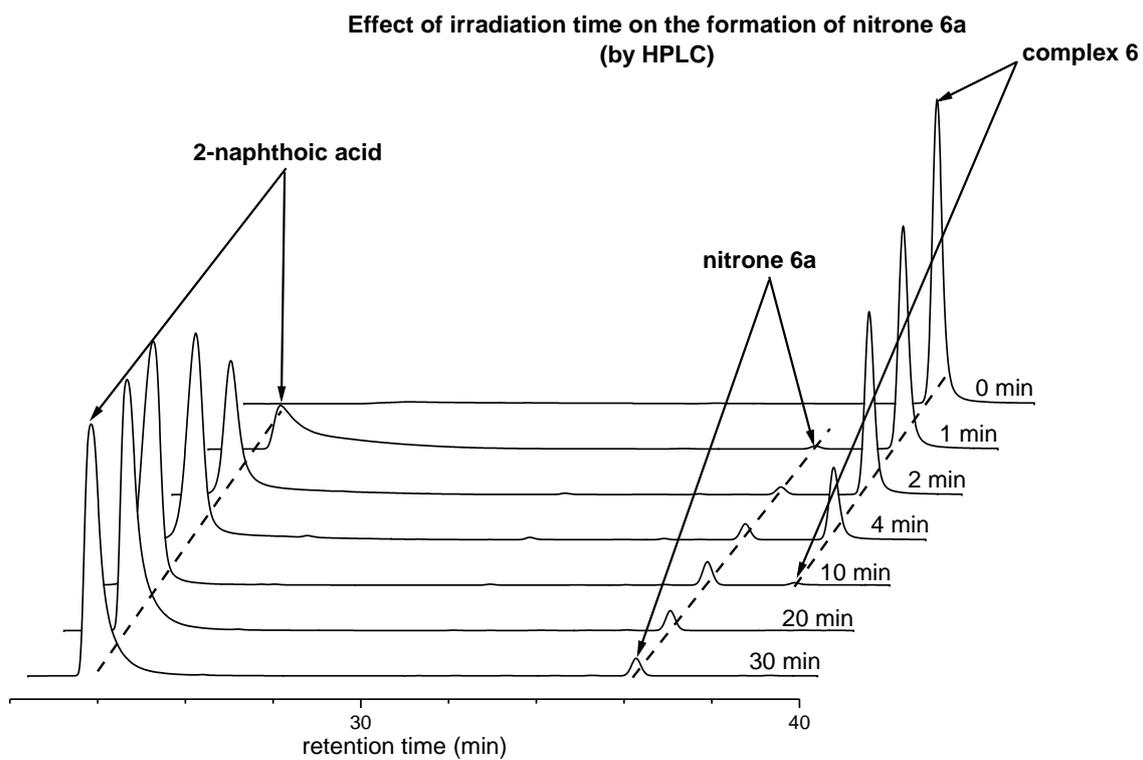


Figure S9. HPLC chromatograms showing the formation of nitrone **6a** after 0, 1, 2, 4, 10, 20, 30 min of UV irradiation at 365 nm.

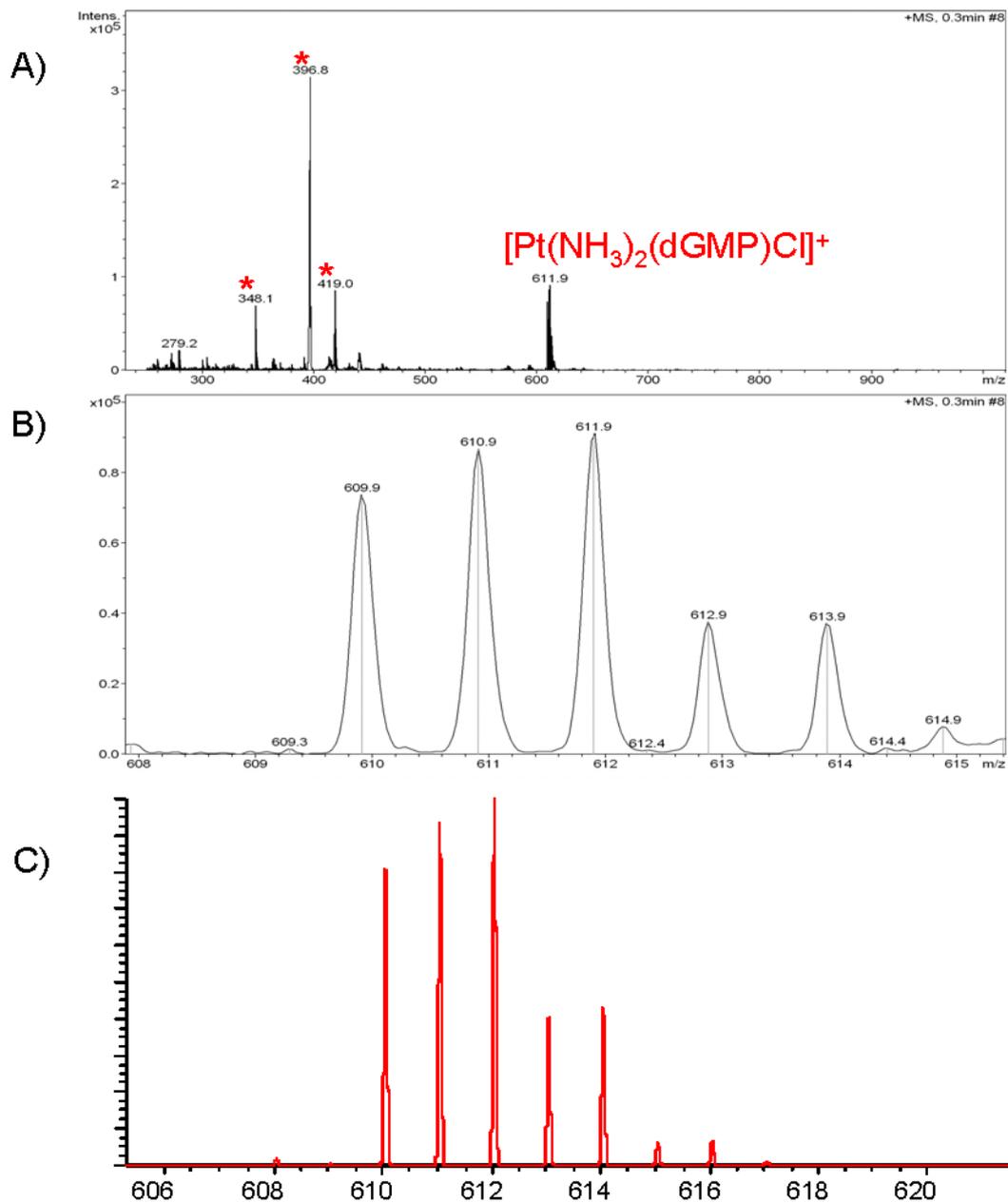


Figure S10. ESI-MS analysis (+ve mode) of isolated HPLC fraction at $R_t = 6.1$ min; a) full scan mode (background contaminants indicated by *); b) zoom scan centred on m/z 612; c) simulated isotopic pattern for $[\text{Pt}(\text{NH}_3)_2(\text{dGMP})\text{Cl}]^+$.

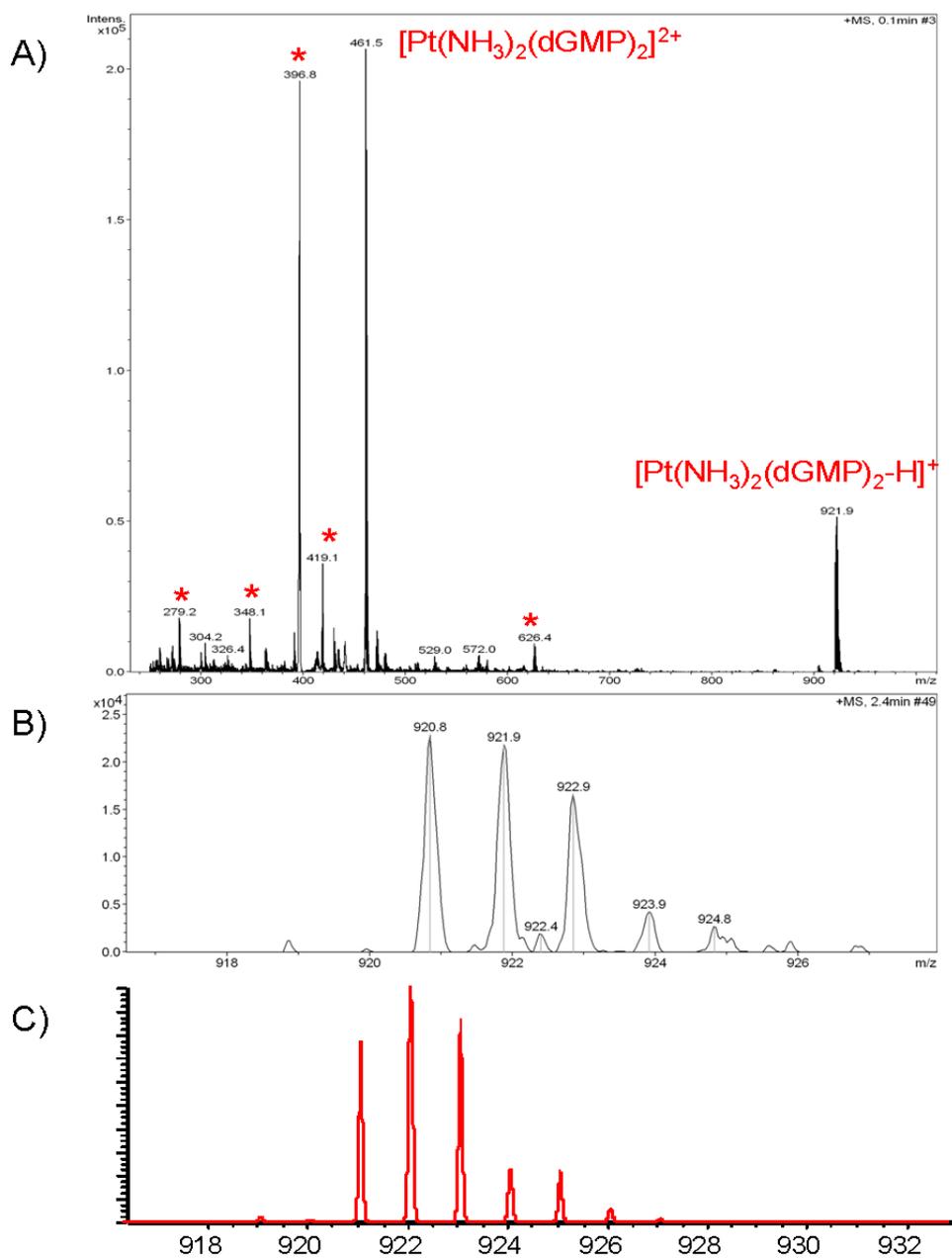


Figure S11. ESI-MS analysis (+ve mode) of isolated HPLC fraction at $R_t=10.9$ min; a) full scan mode (background contaminants indicated by *); b) zoom scan centred on m/z 922; c) simulated isotopic pattern for $[\text{Pt}(\text{NH}_3)_2(\text{dGMP})_2\text{-H}]^+$.