**Electronic Supplementary Information**

# Synthesis of quinone imine and sulphur-containing compounds with antitumor and trypanocidal activities: Redox and biological implications

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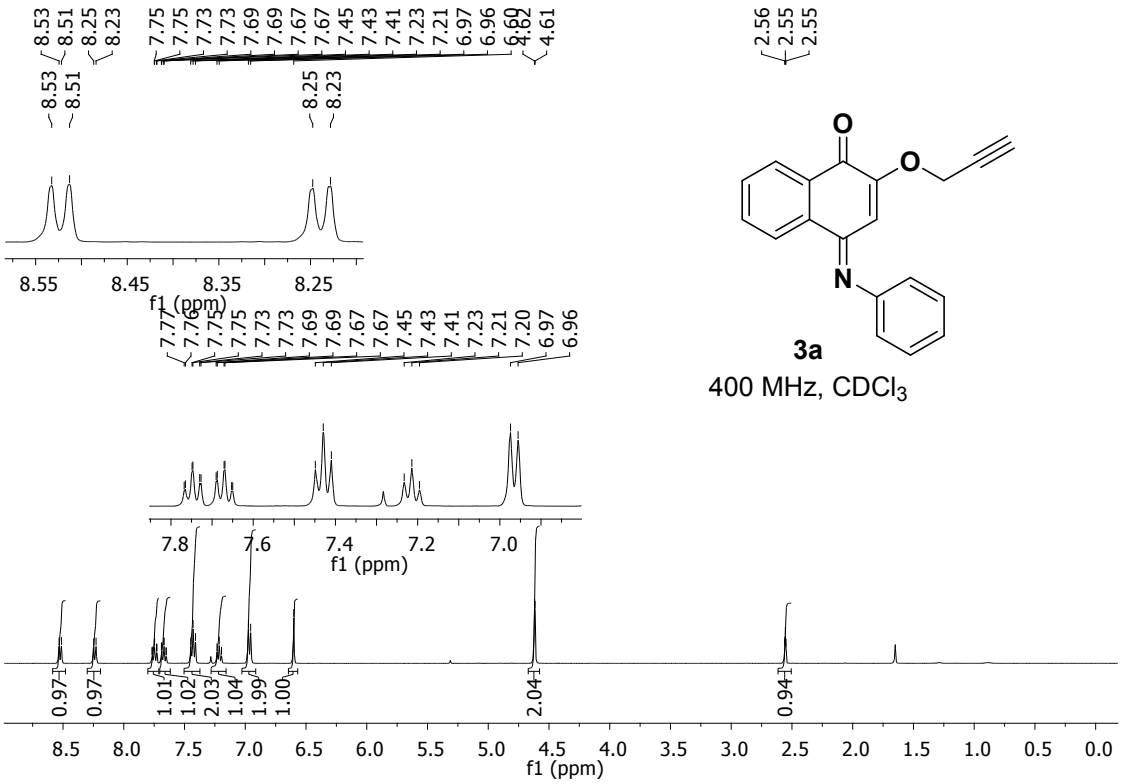


**Figure S1.** $^{1}H$ NMR spectrum (400 MHz, $CDCl_3$) of compound **3a**.

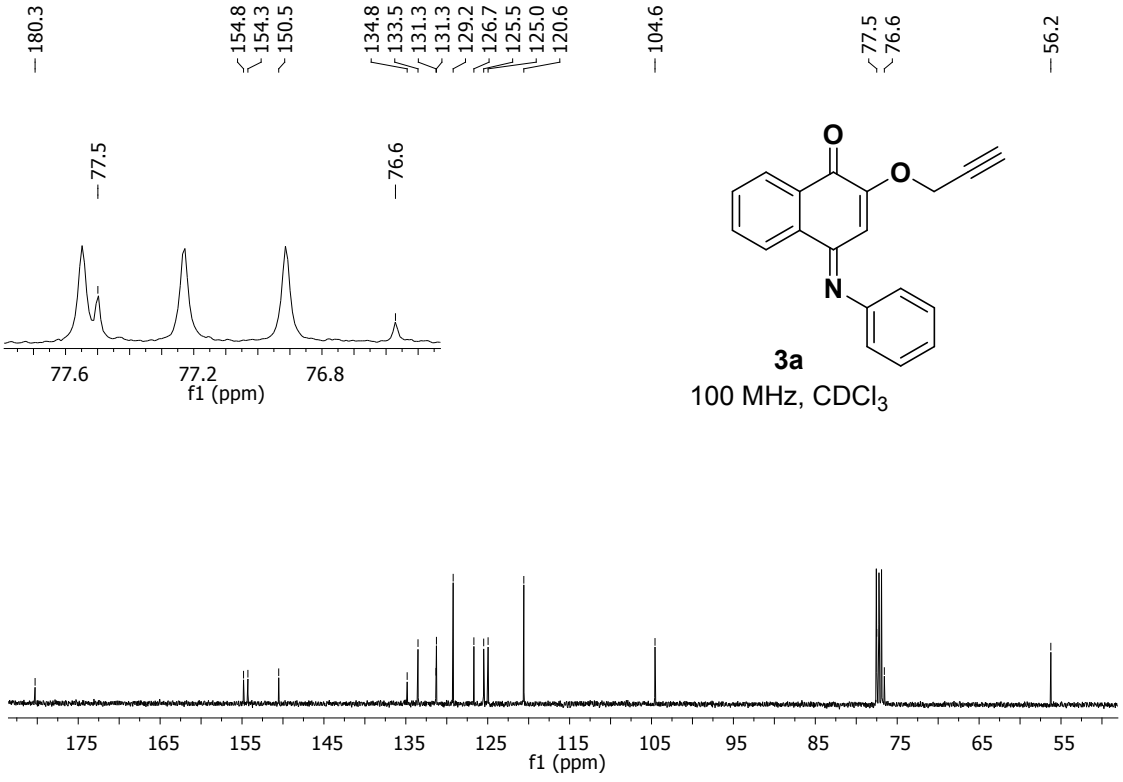


**Figure S2.** $^{13}C$ NMR spectrum (100 MHz, $CDCl_3$) of compound **3a**.

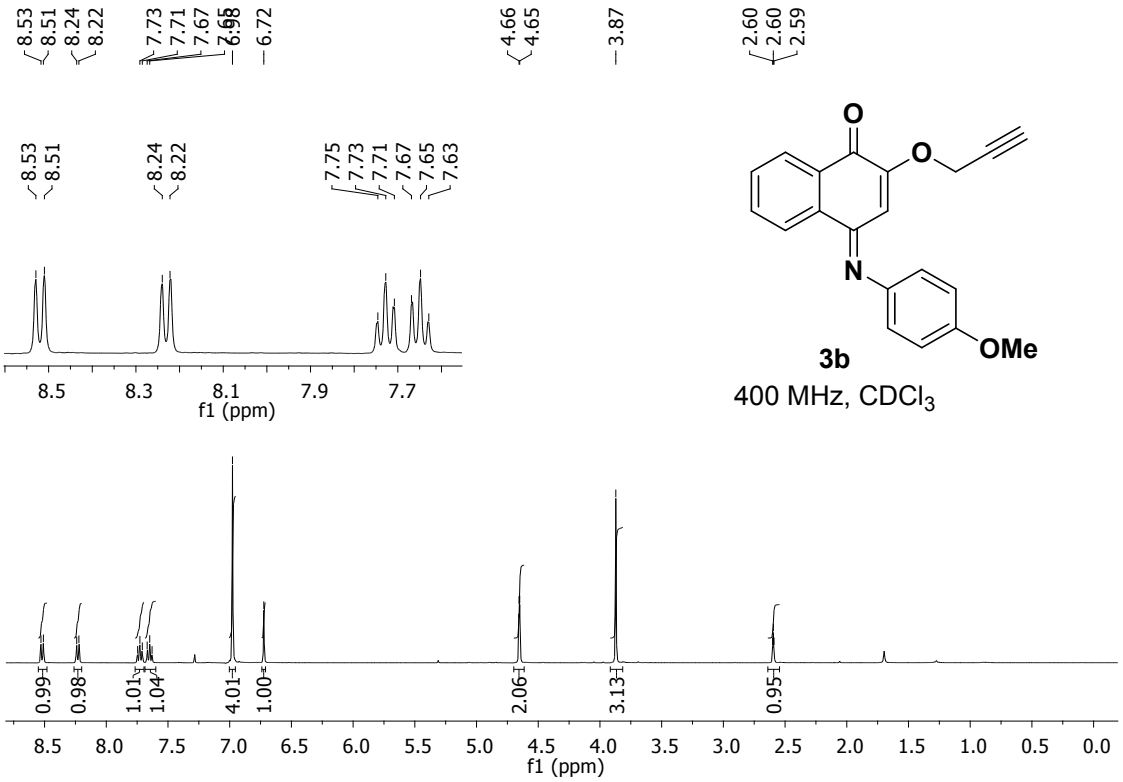


**Figure S3.** $^{1}$H NMR spectrum (400 MHz, $CDCl_3$) of compound **3b**.

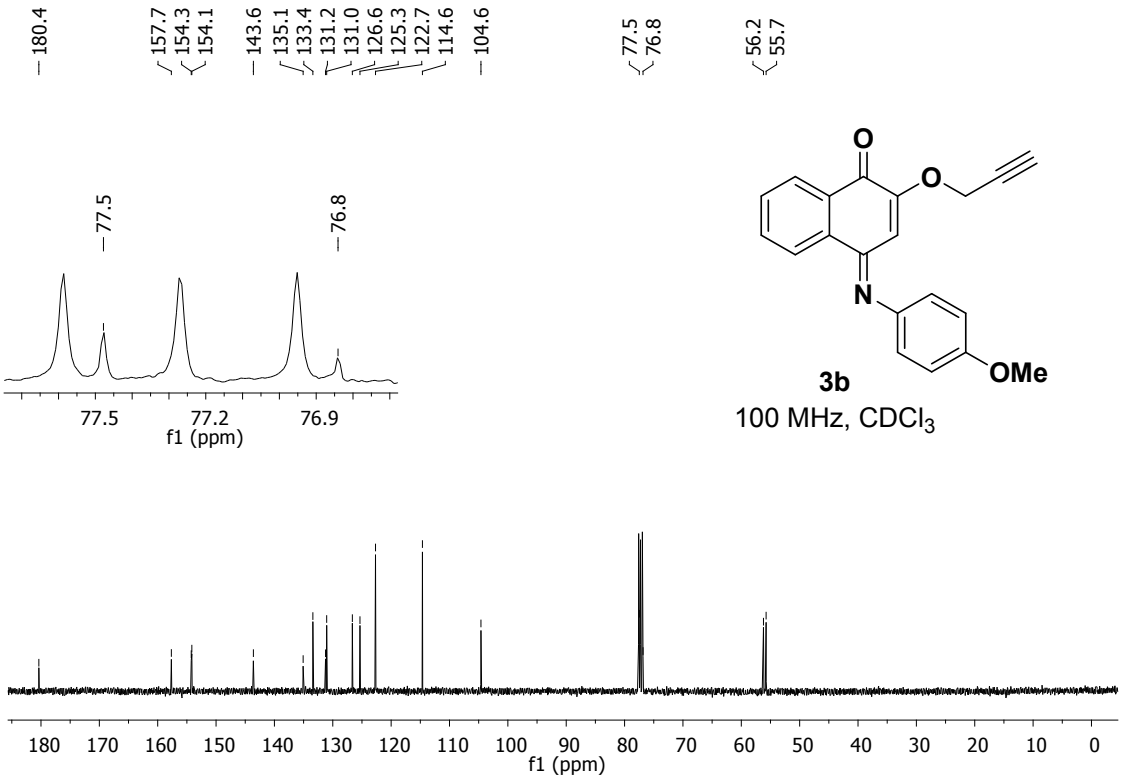


**Figure S4.** $^{13}$C NMR spectrum (100 MHz, $CDCl_3$) of compound **3b**.

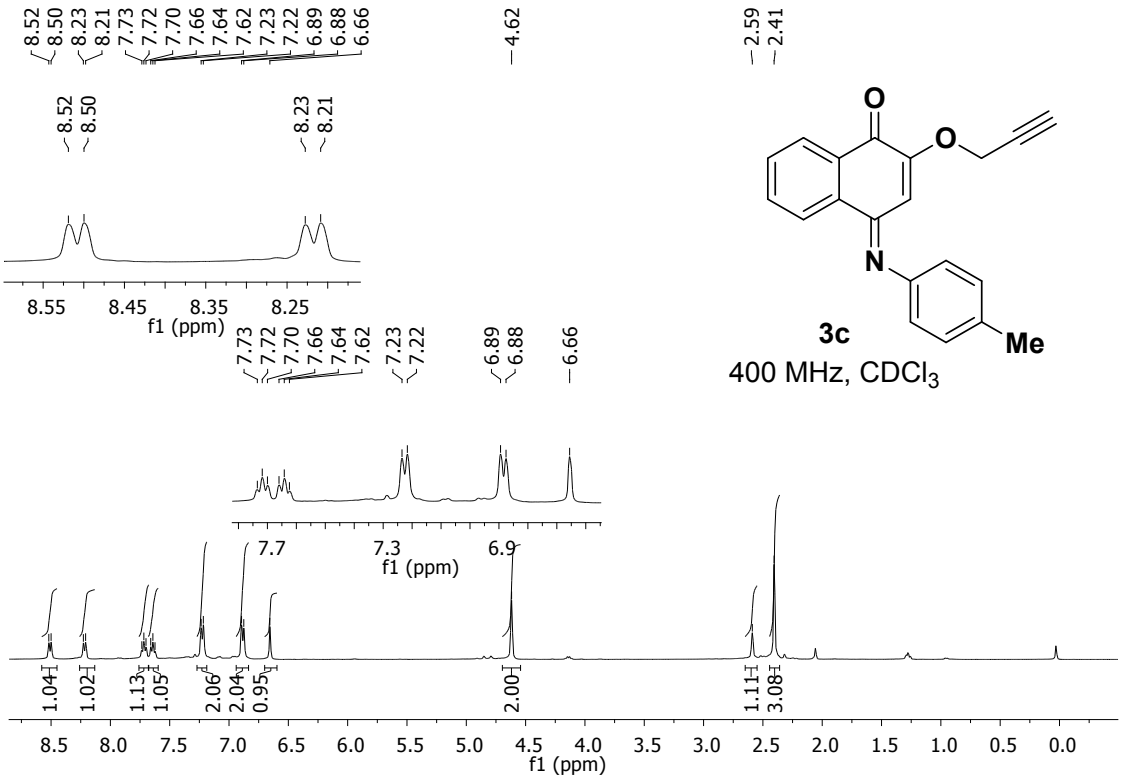


**Figure S5.** $^{1}$H NMR spectrum (400 MHz, $CDCl_3$) of compound **3c**.

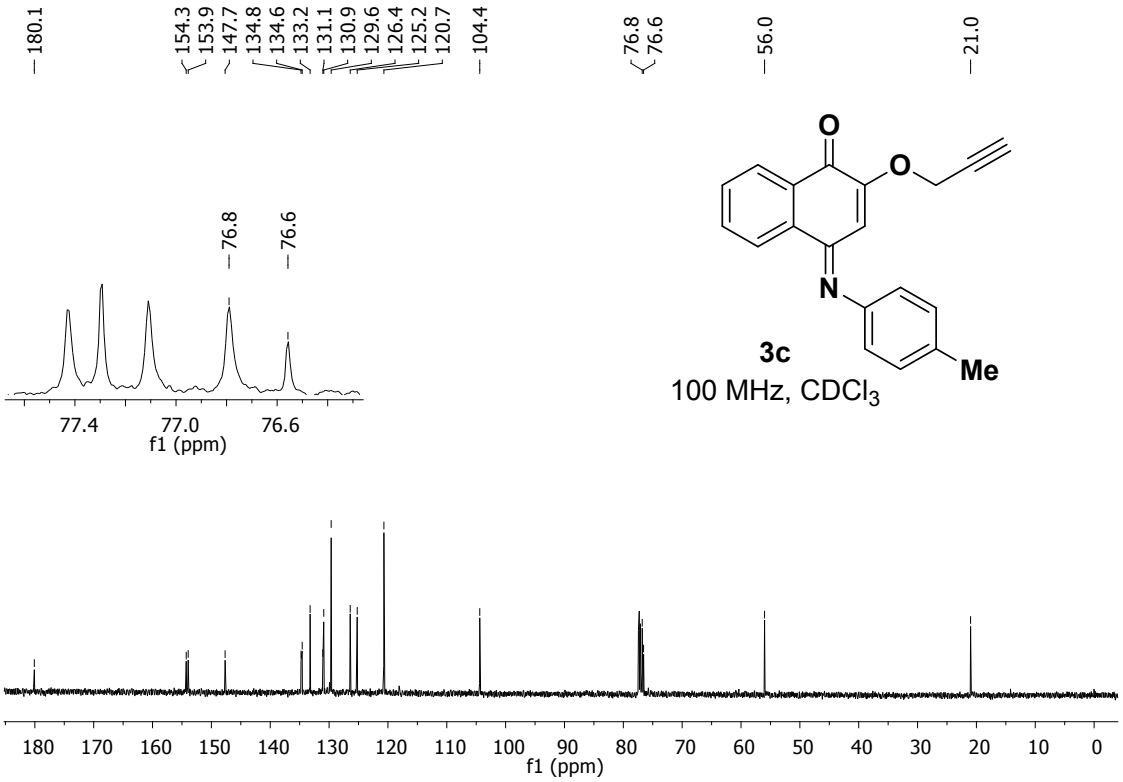


**Figure S6.** $^{13}$C NMR spectrum (100 MHz, $CDCl_3$) of compound **3c**.

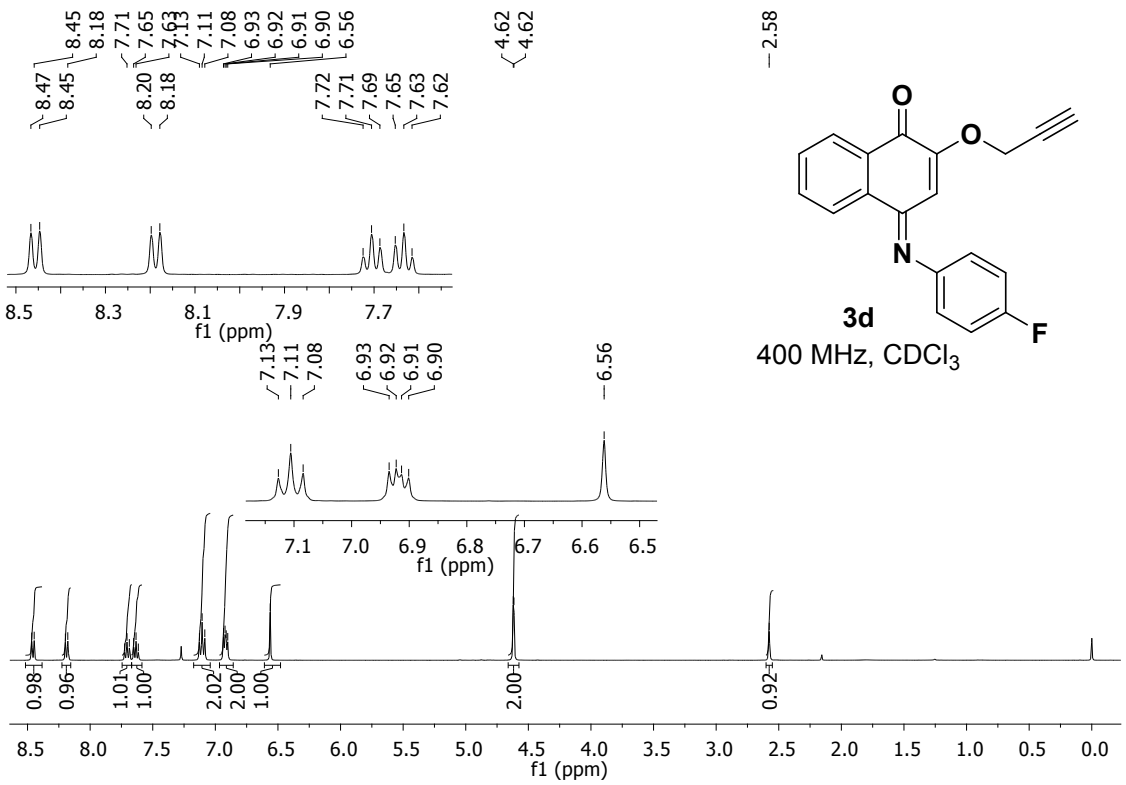


**Figure S7.** $^{1}$H NMR spectrum (400 MHz, $CDCl_3$) of compound **3d**.

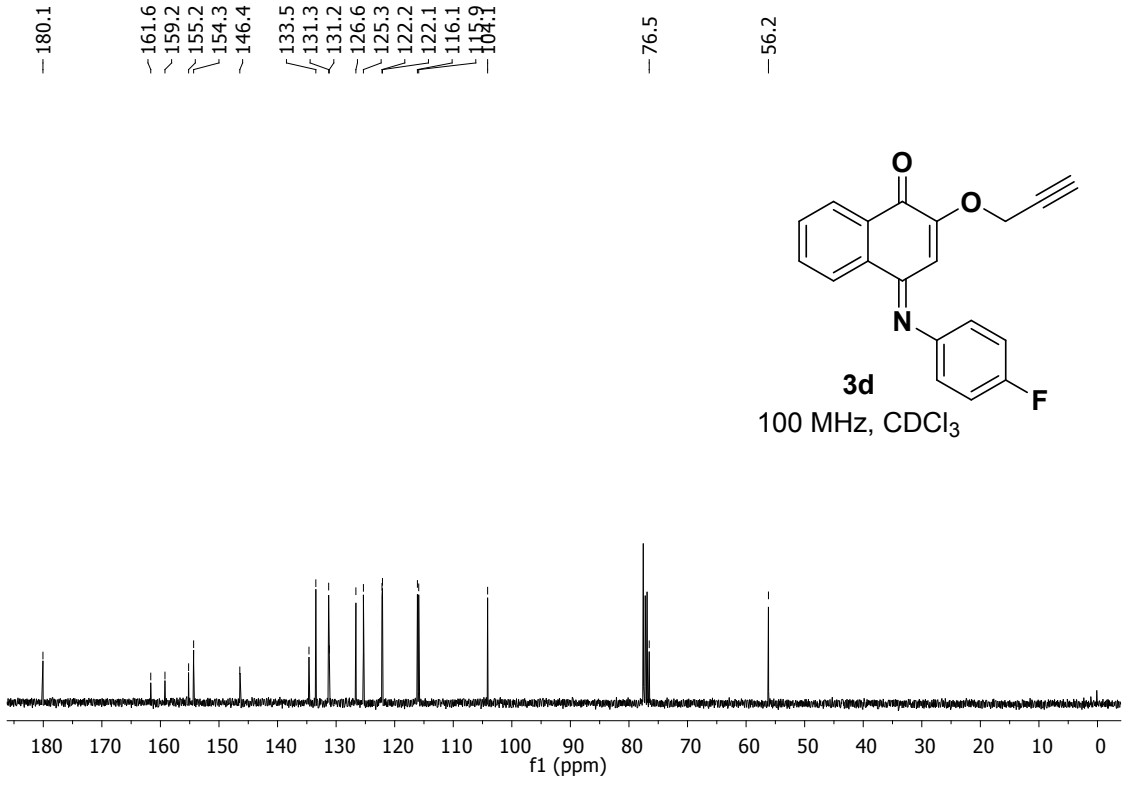


**Figure S8.** $^{13}$C NMR spectrum (100 MHz, $CDCl_3$) of compound **3d**.

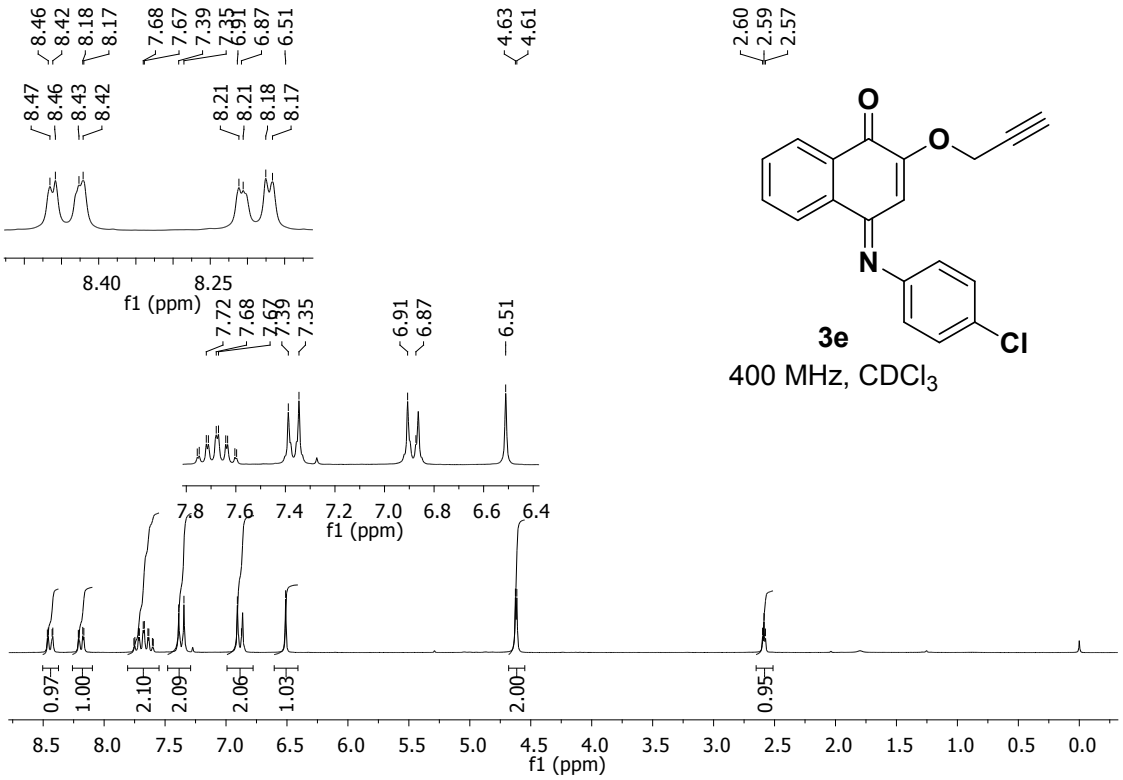


**Figure S9.** $^{1}H$ NMR spectrum (400 MHz, $CDCl_3$) of compound **3e**.

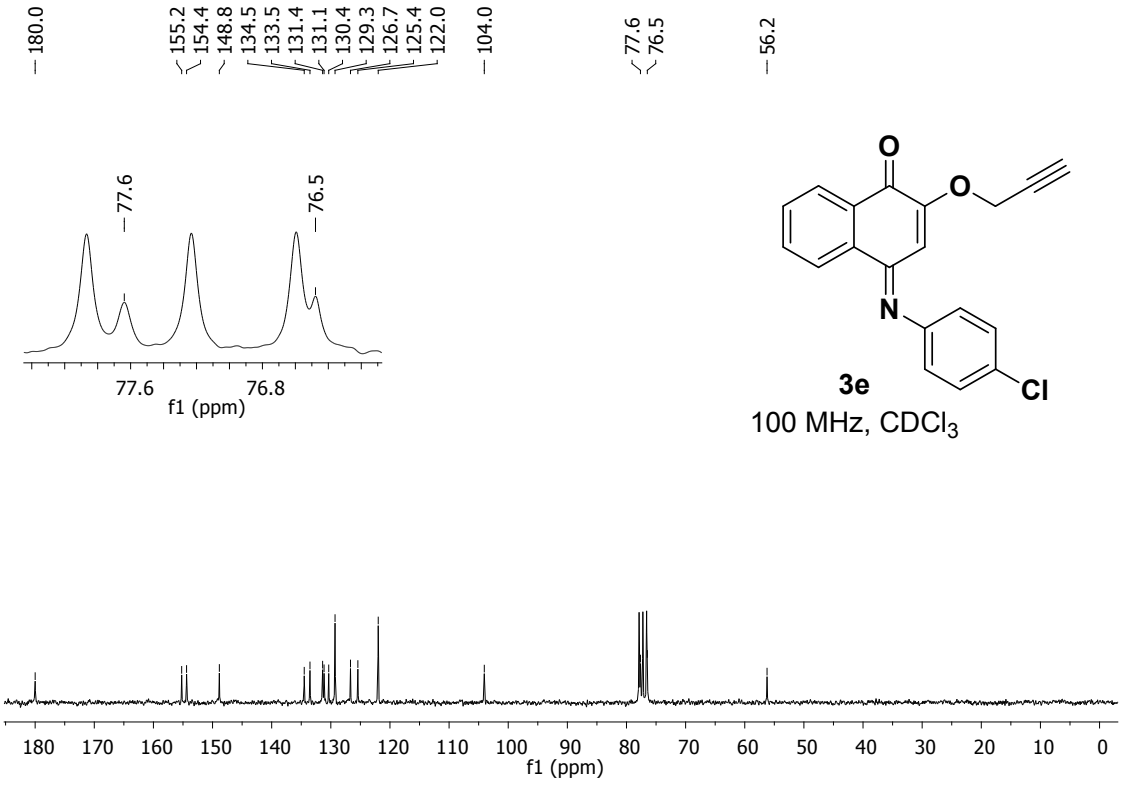


**Figure S10.** $^{13}C$ NMR spectrum (100 MHz, $CDCl_3$) of compound **3e**.

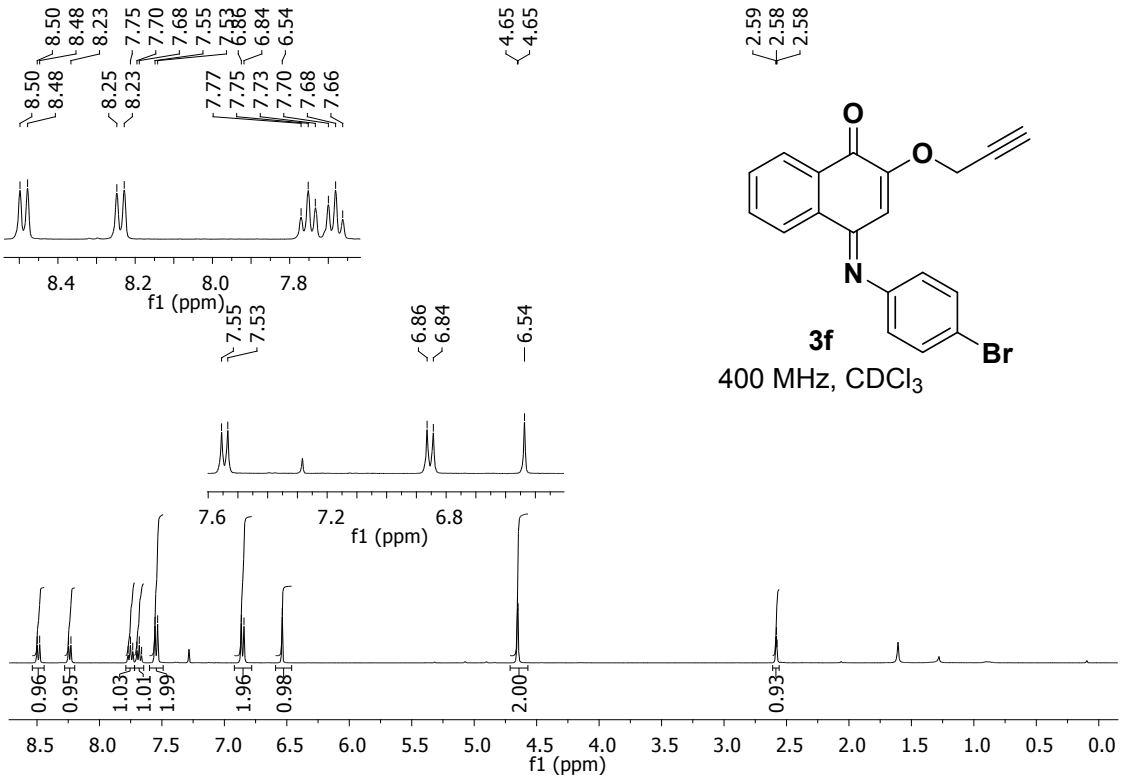


**Figure S11.** $^{1}$H NMR spectrum (400 MHz, $CDCl_3$) of compound **3f**.

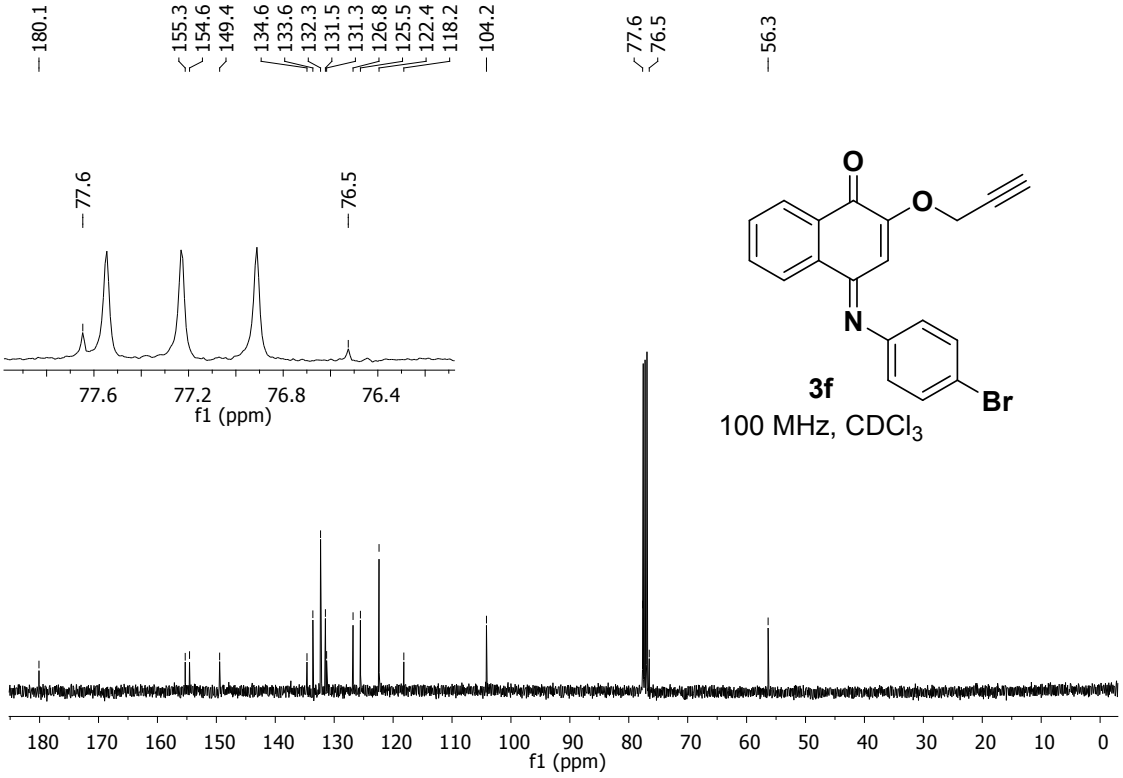


**Figure S12.** $^{13}$C NMR spectrum (100 MHz, $CDCl_3$) of compound **3f**.

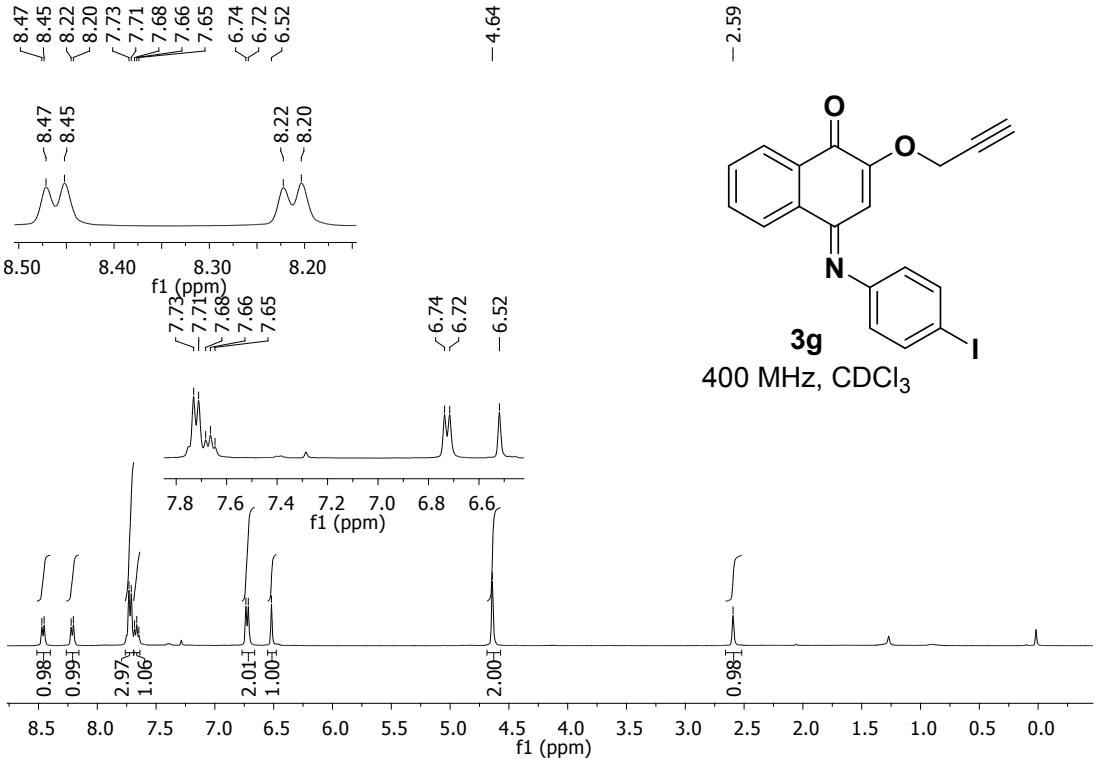


**Figure S13.** $^{1}$H NMR spectrum (400 MHz, $CDCl_3$) of compound **3g**.

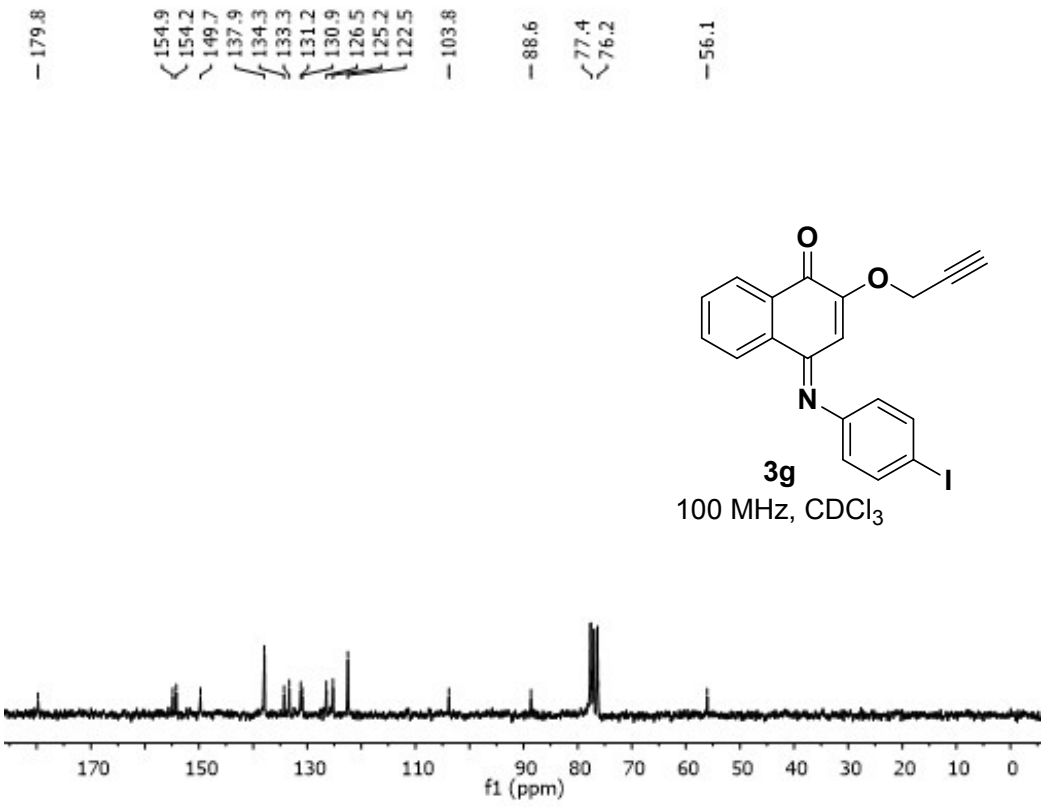


**Figure S14.** $^{13}$C NMR spectrum (100 MHz, $CDCl_3$) of compound **3g**.

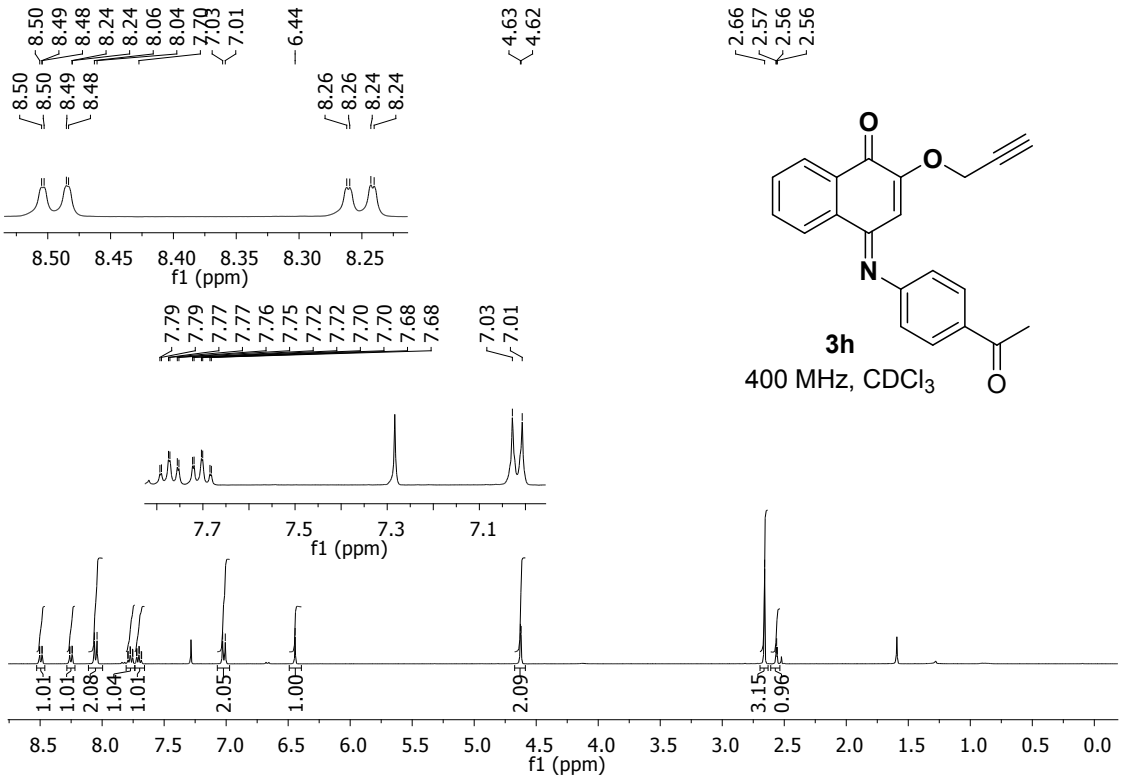


**Figure S15.** $^{1}H$ NMR spectrum (400 MHz, $CDCl_3$) of compound **3h**.

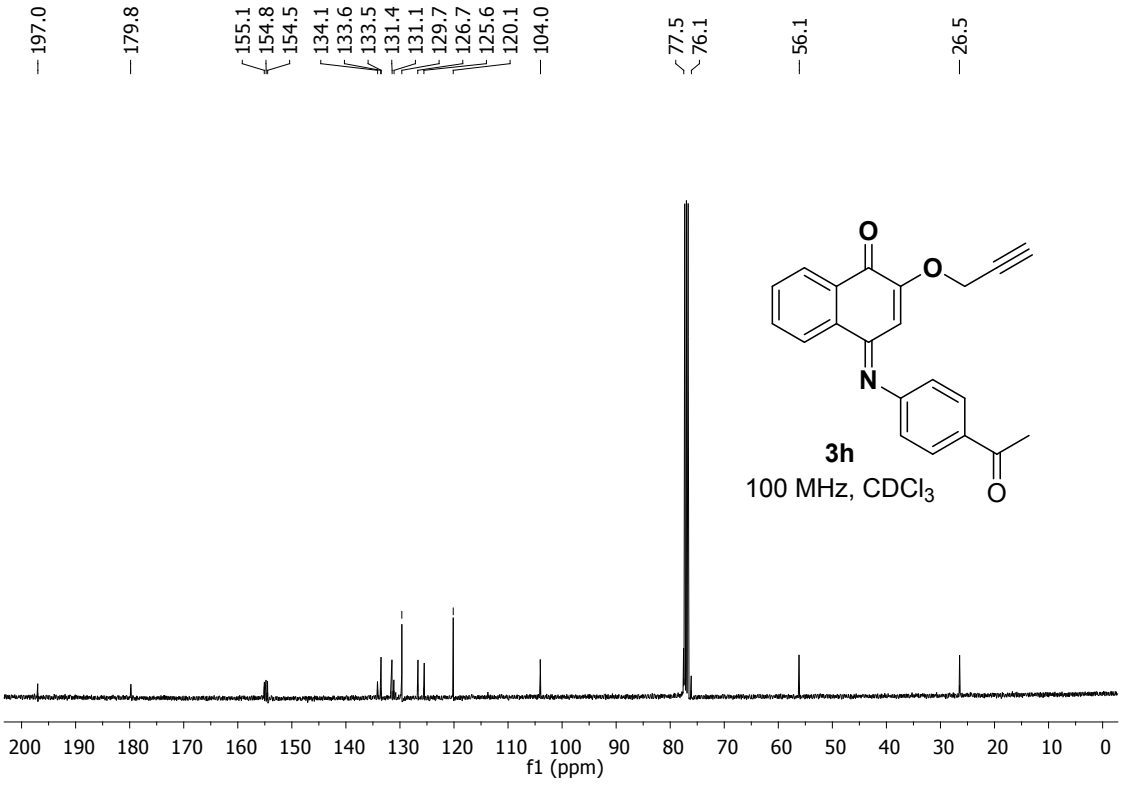


**Figure S16.** $^{13}C$ NMR spectrum (100 MHz, $CDCl_3$) of compound **3h**.

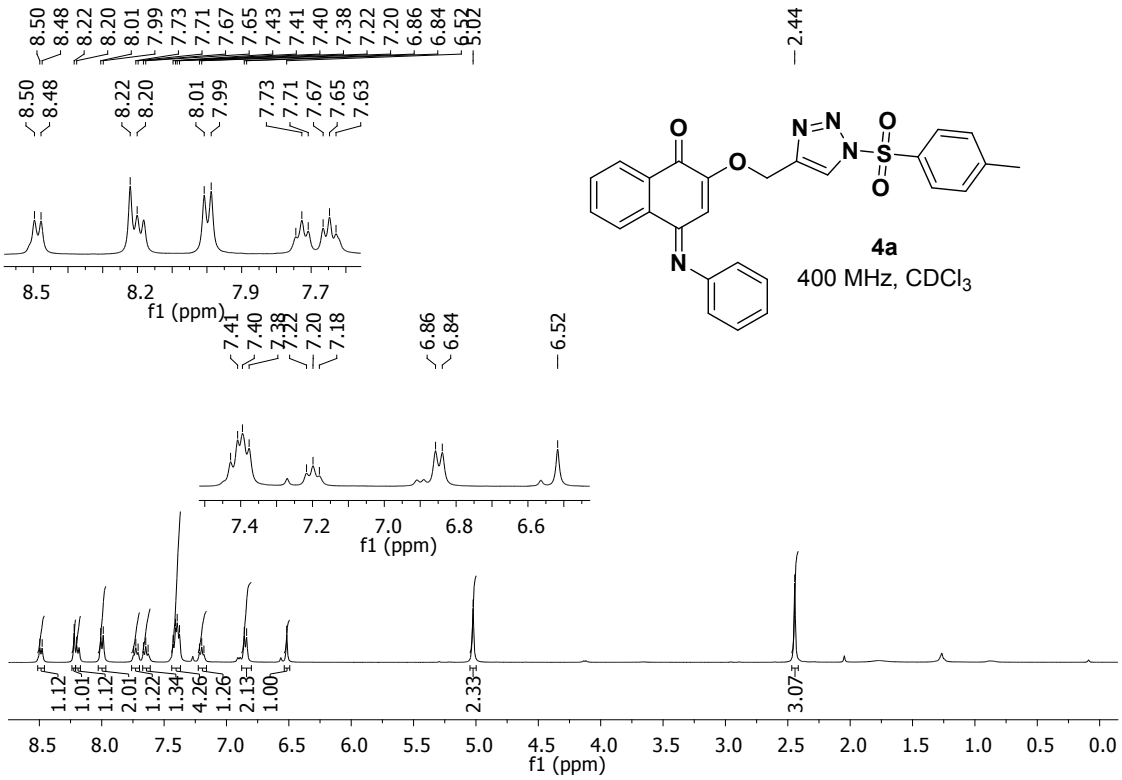


**Figure S17.** $^{1}$H NMR spectrum (400 MHz, $CDCl_3$) of compound **4a**.

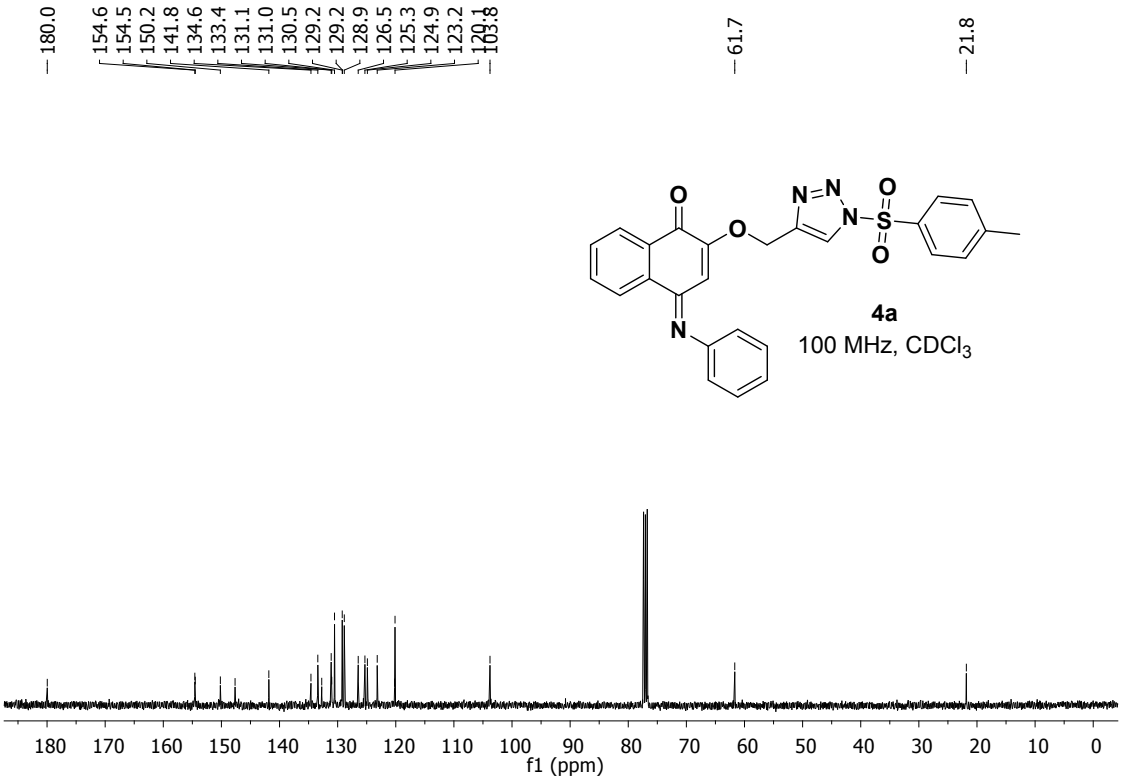


**Figure S18.** $^{13}$C NMR spectrum (100 MHz, $CDCl_3$) of compound **4a**.

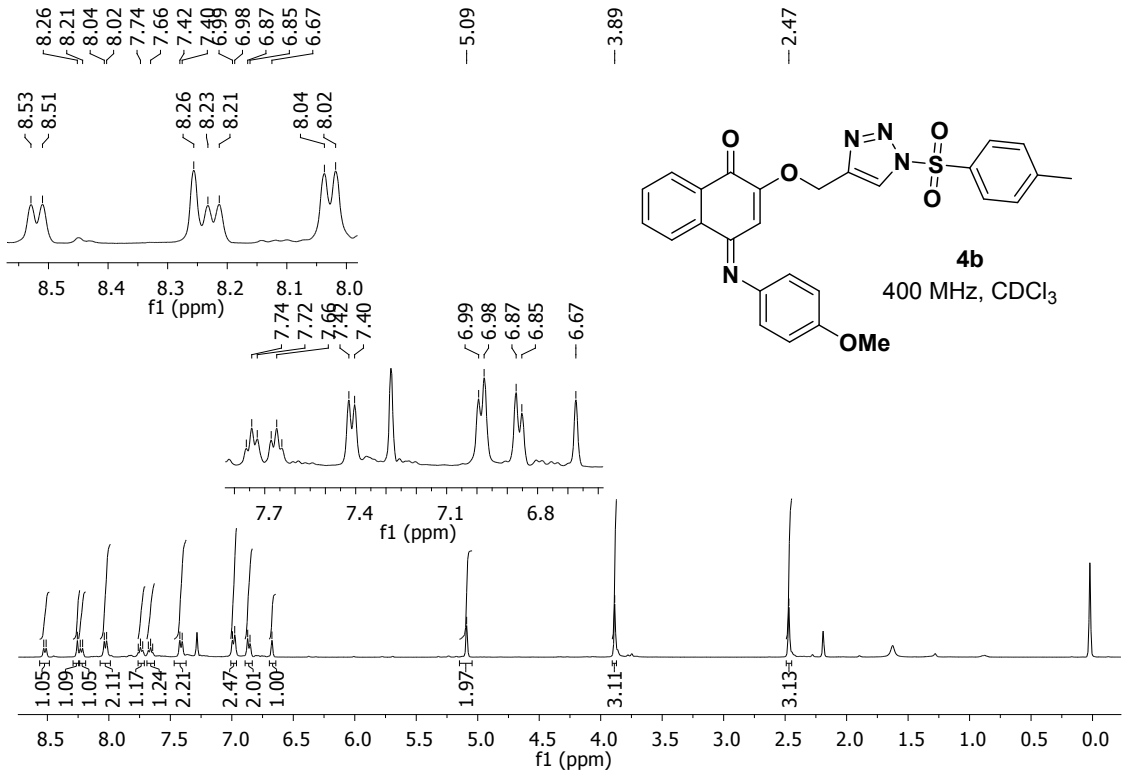


**Figure S19.** $^{1}$H NMR spectrum (400 MHz, $CDCl_3$) of compound **4b**.

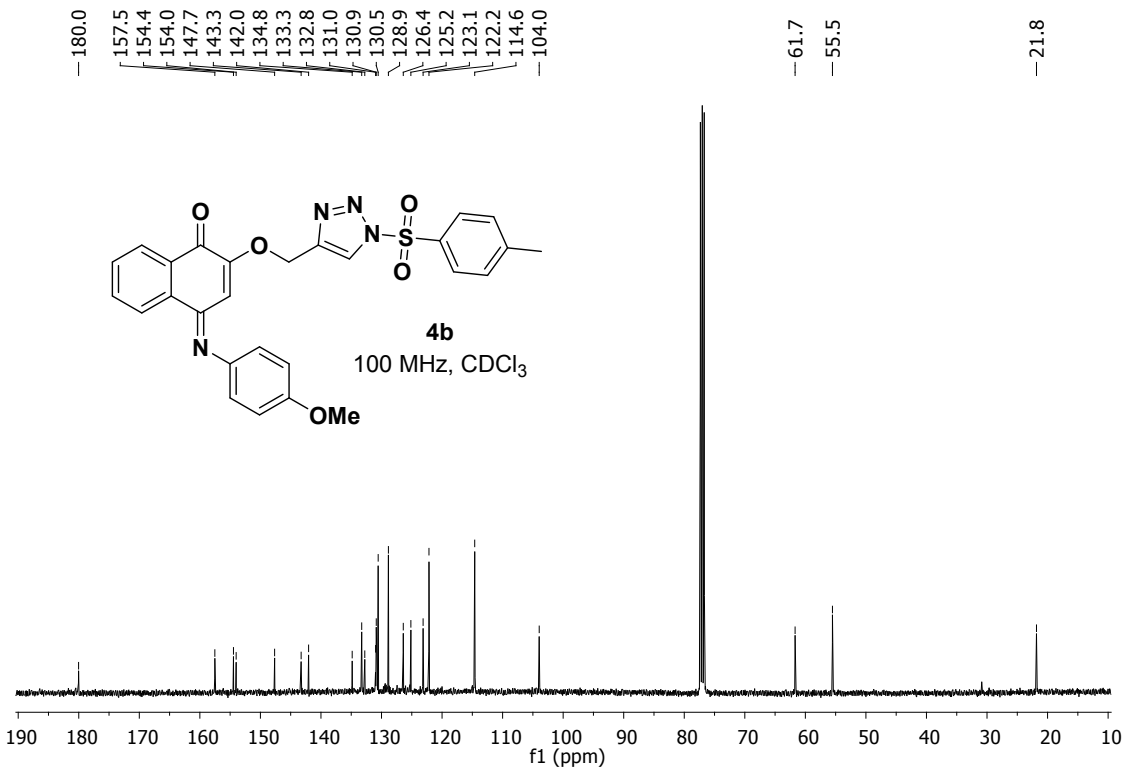


**Figure S20.** $^{13}$C NMR spectrum (100 MHz, $CDCl_3$) of compound **4b**.

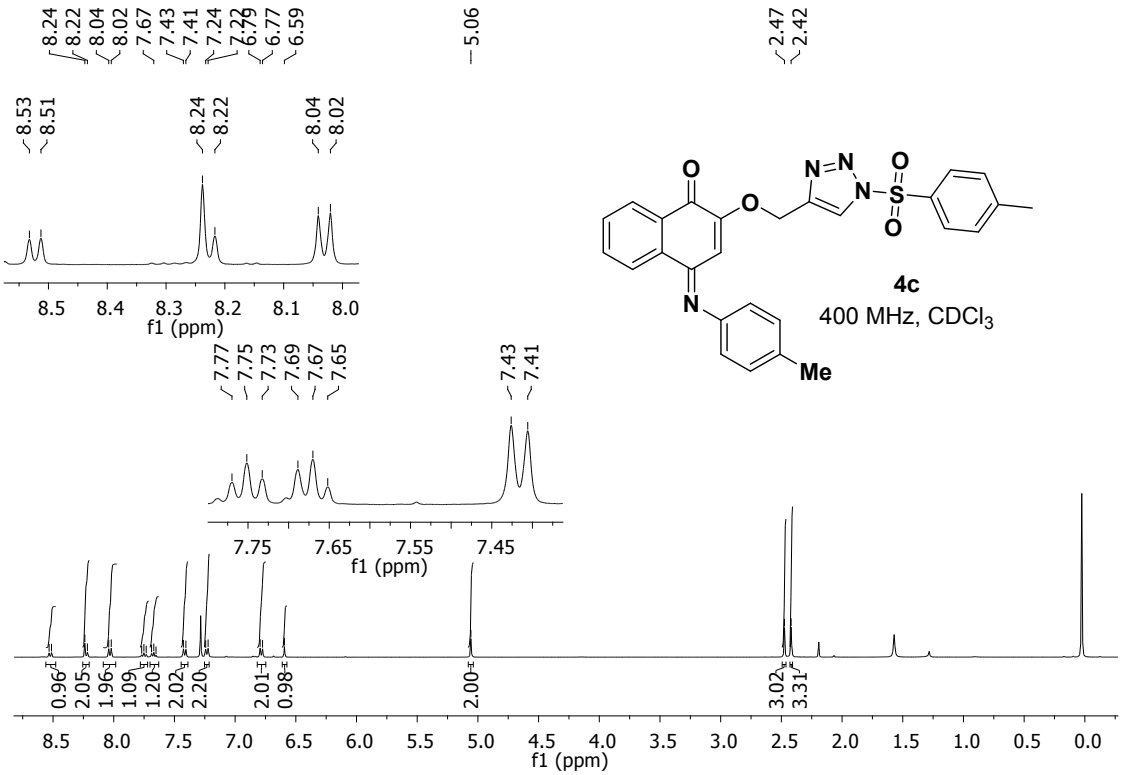


**Figure S21.** $^{1}$H NMR spectrum (400 MHz, $CDCl_3$) of compound **4c**.

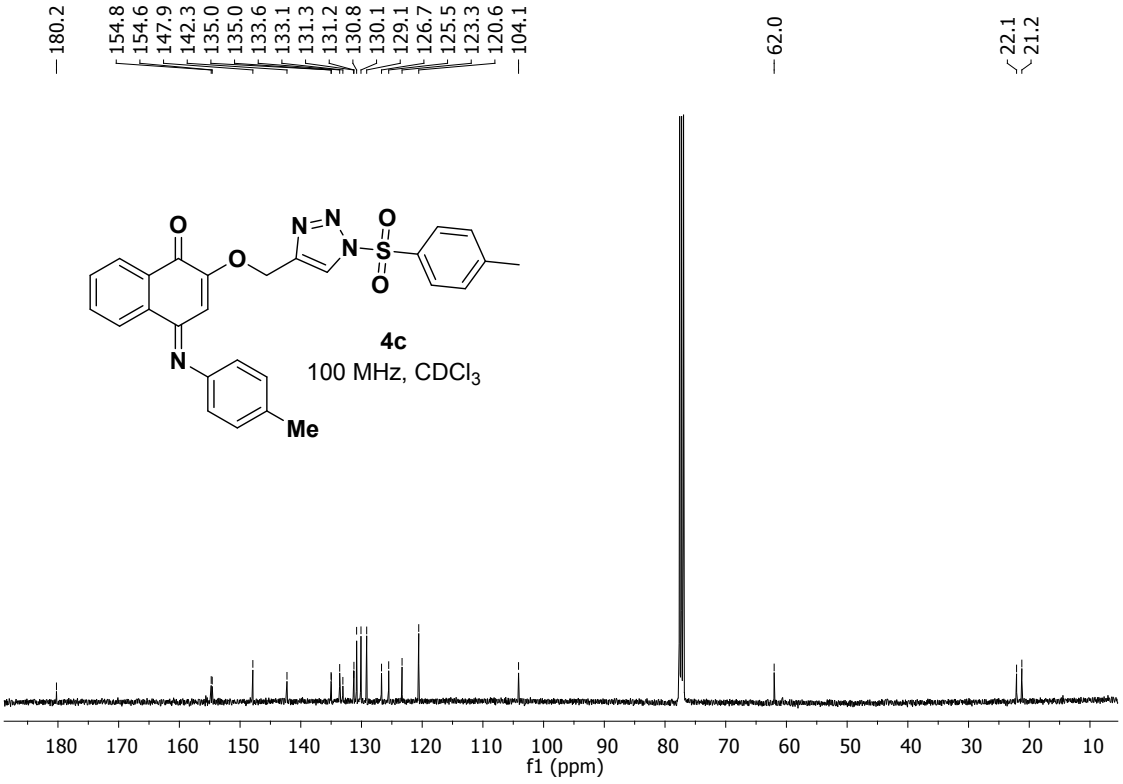


**Figure S22.** $^{13}$C NMR spectrum (100 MHz, $CDCl_3$) of compound **4c**.

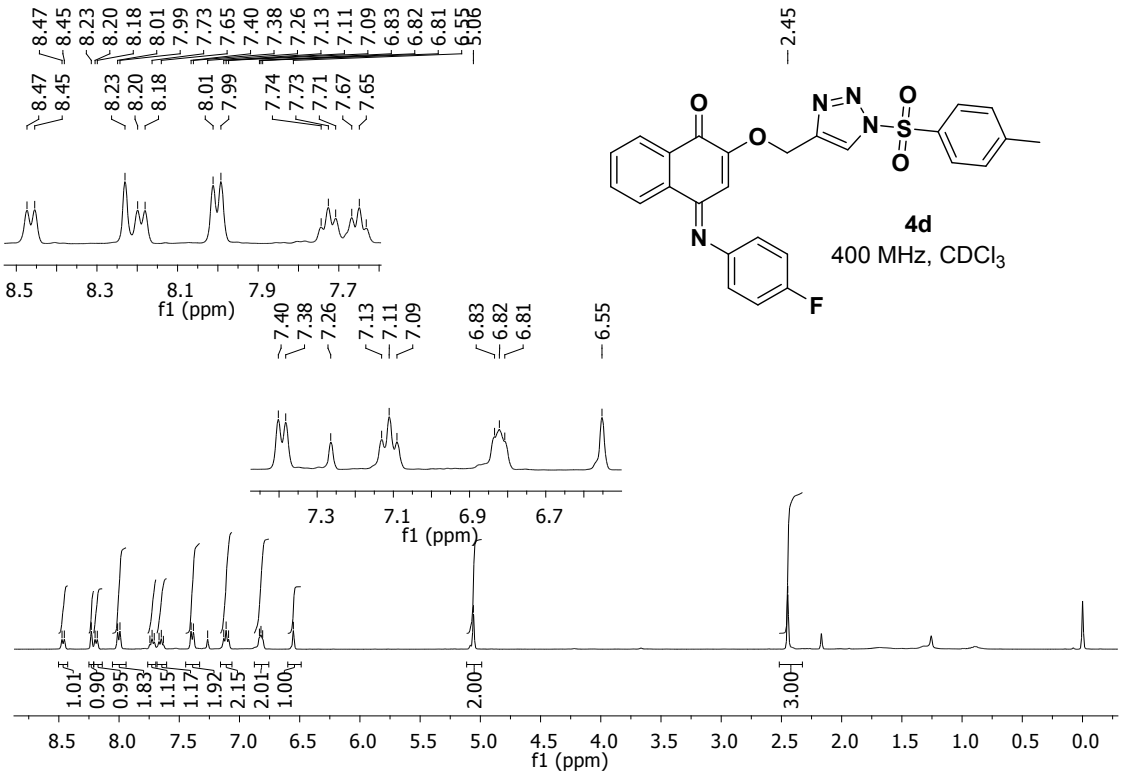


**Figure S23.** $^{1}$H NMR spectrum (400 MHz, $CDCl_3$) of compound **4d**.

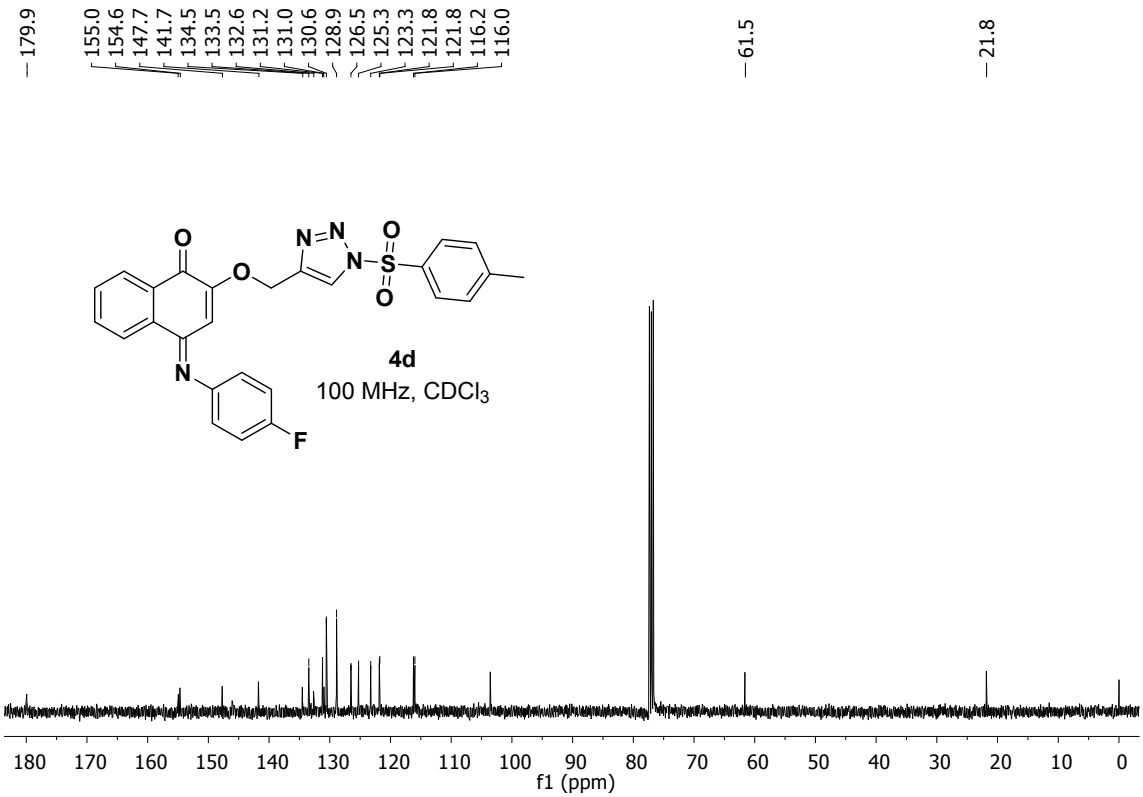


**Figure S24.** $^{13}$C NMR spectrum (100 MHz, $CDCl_3$) of compound **4d**.

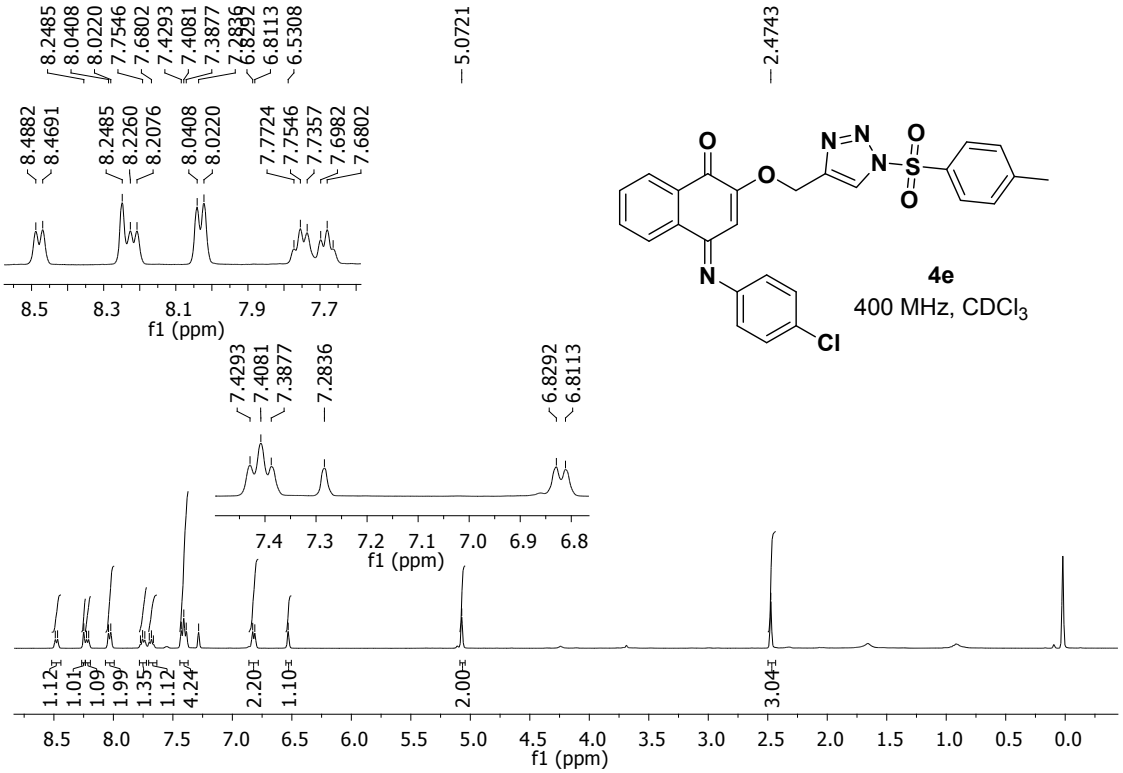


**Figure S25.** $^{1}$H NMR spectrum (400 MHz, $CDCl_3$) of compound **4e**.

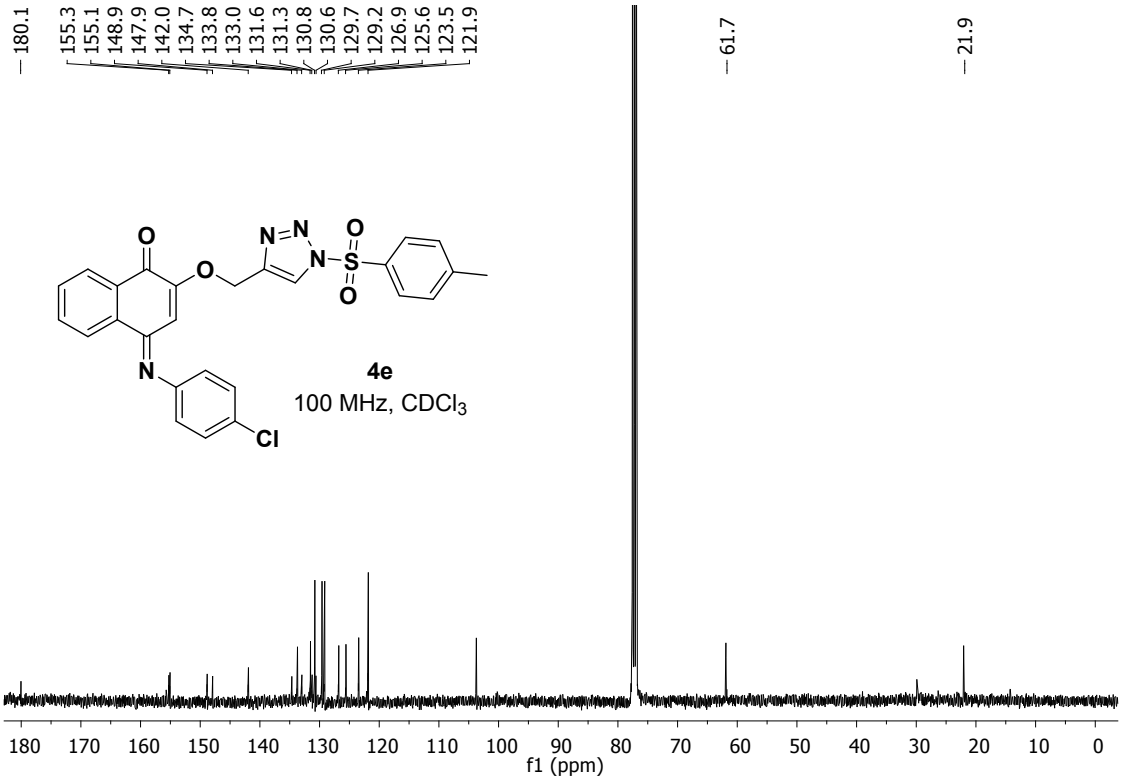


**Figure S26.** $^{13}$C NMR spectrum (100 MHz, $CDCl_3$) of compound **4e**.

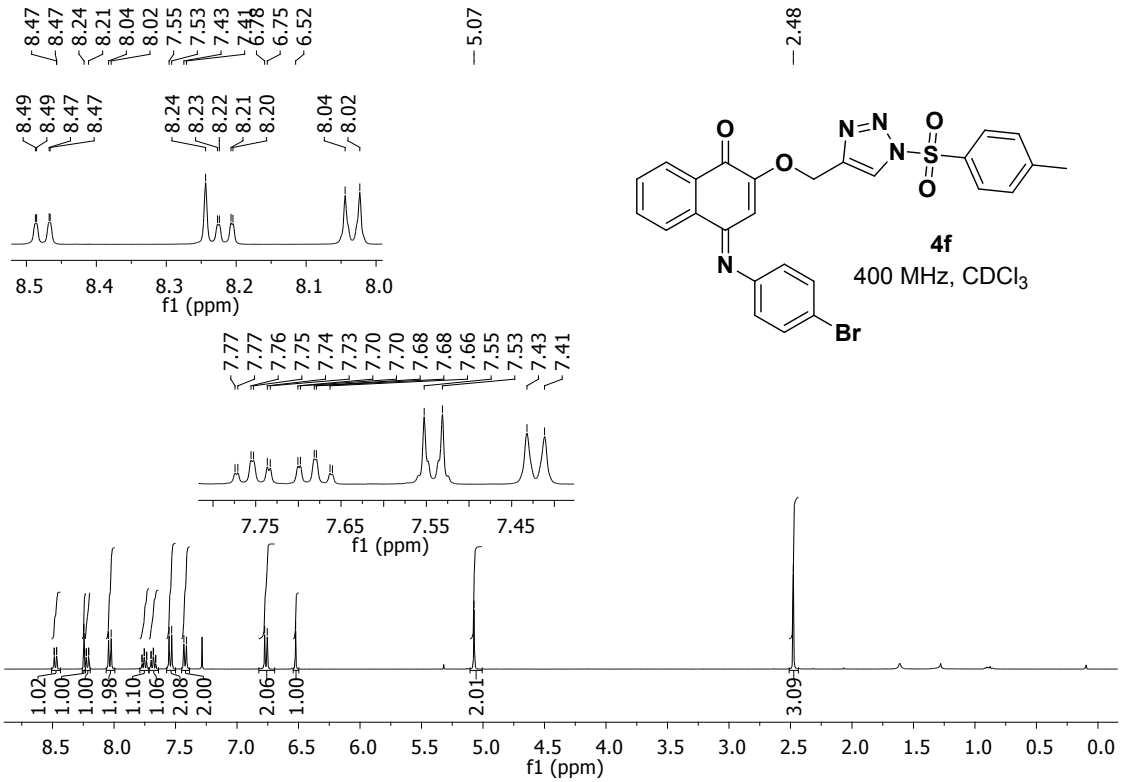


**Figure S27.** $^{1}$H NMR spectrum (400 MHz, $CDCl_3$) of compound **4f**.

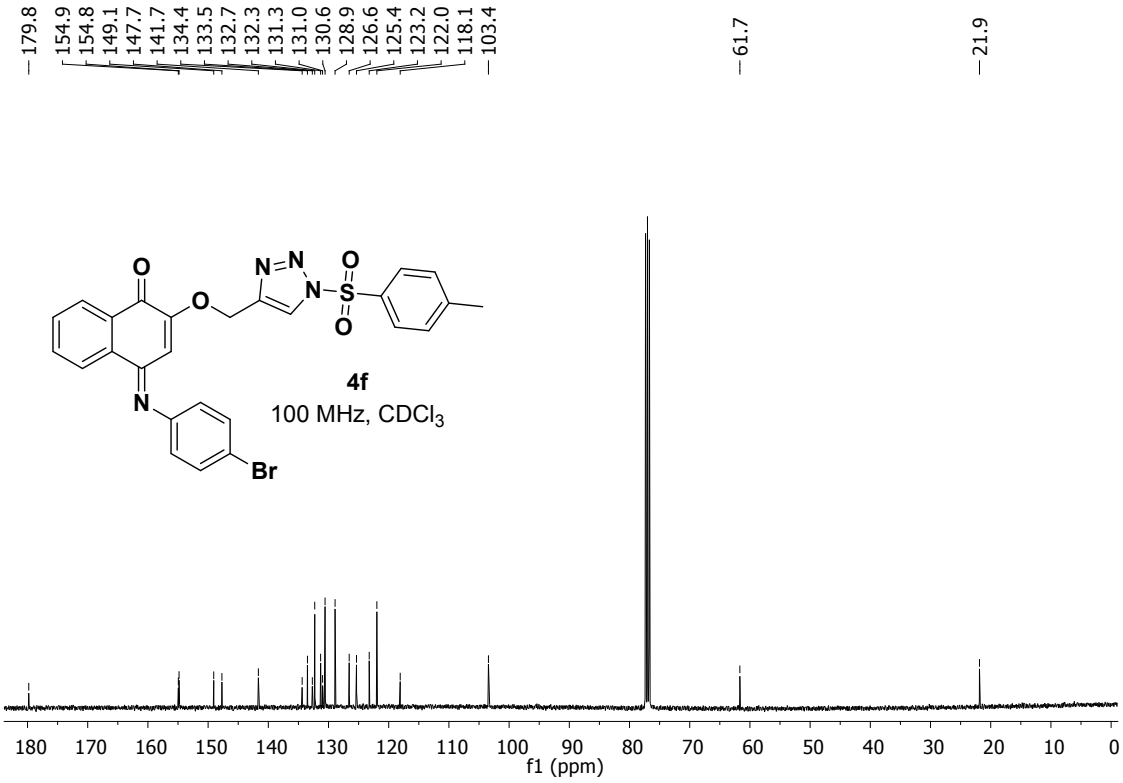


**Figure S28.** $^{13}$C NMR spectrum (100 MHz, $CDCl_3$) of compound **4f**.

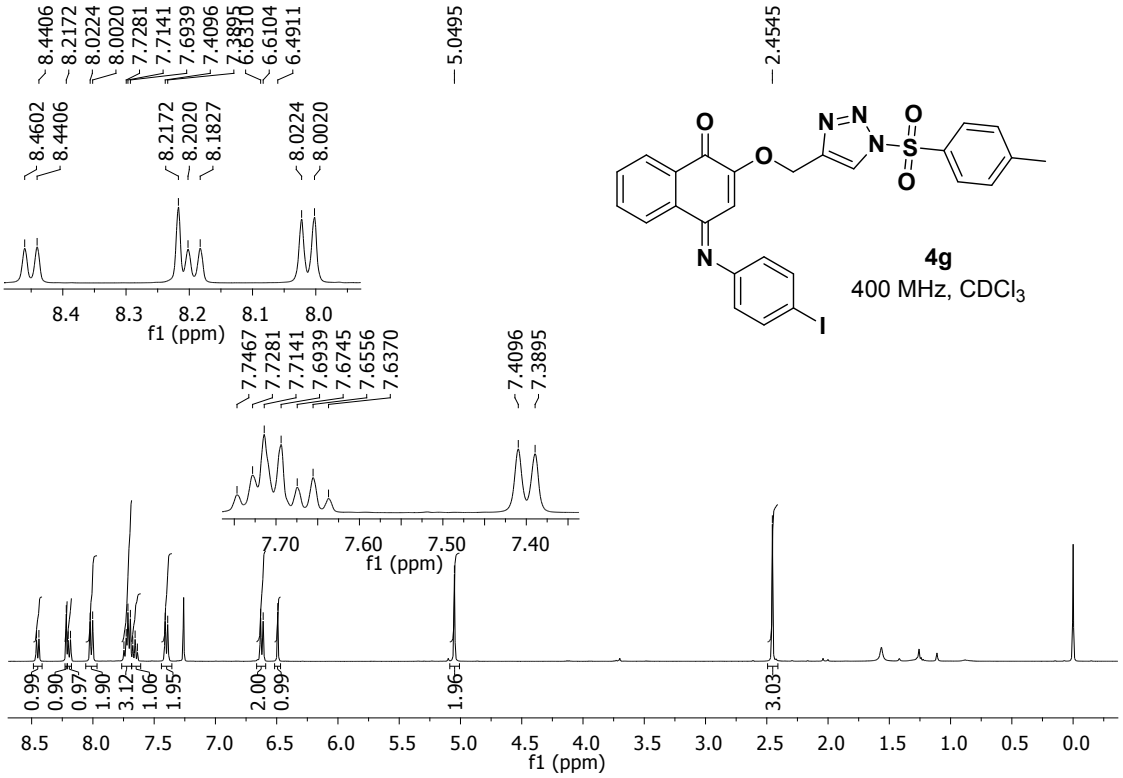


**Figure S29.** $^{1}$H NMR spectrum (400 MHz, $CDCl_3$) of compound **4g**.

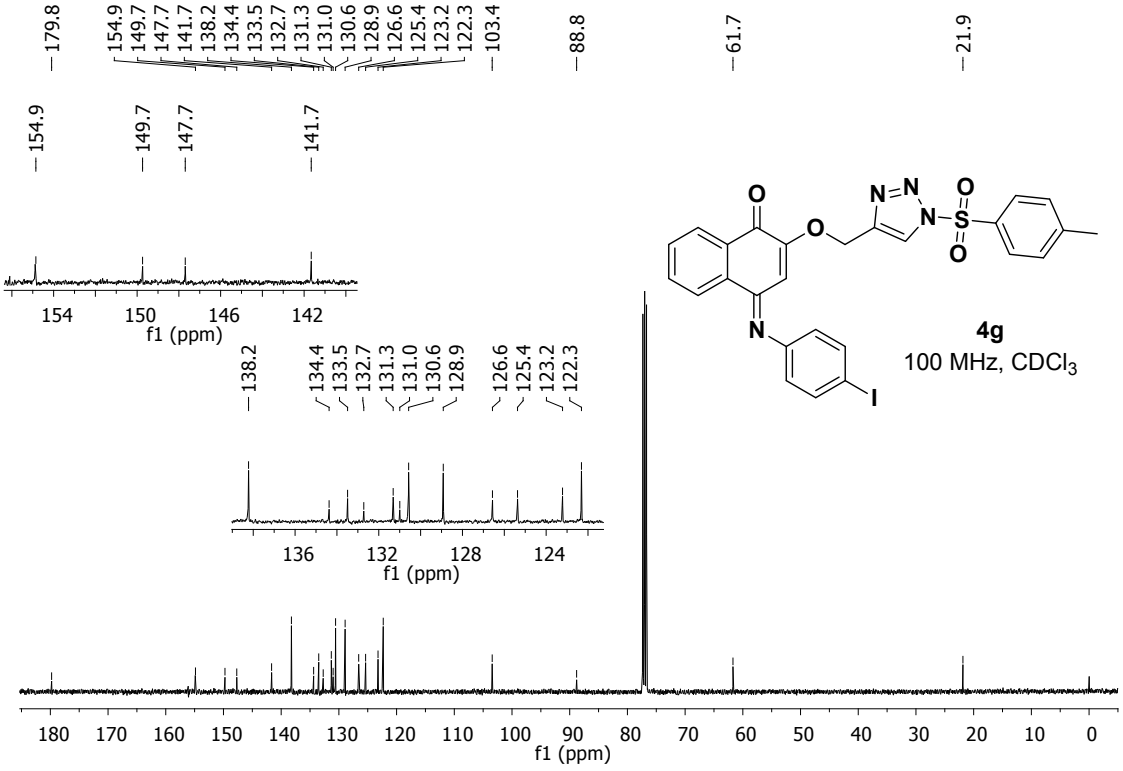


**Figure S30.** $^{13}$C NMR spectrum (100 MHz, $CDCl_3$) of compound **4g**.

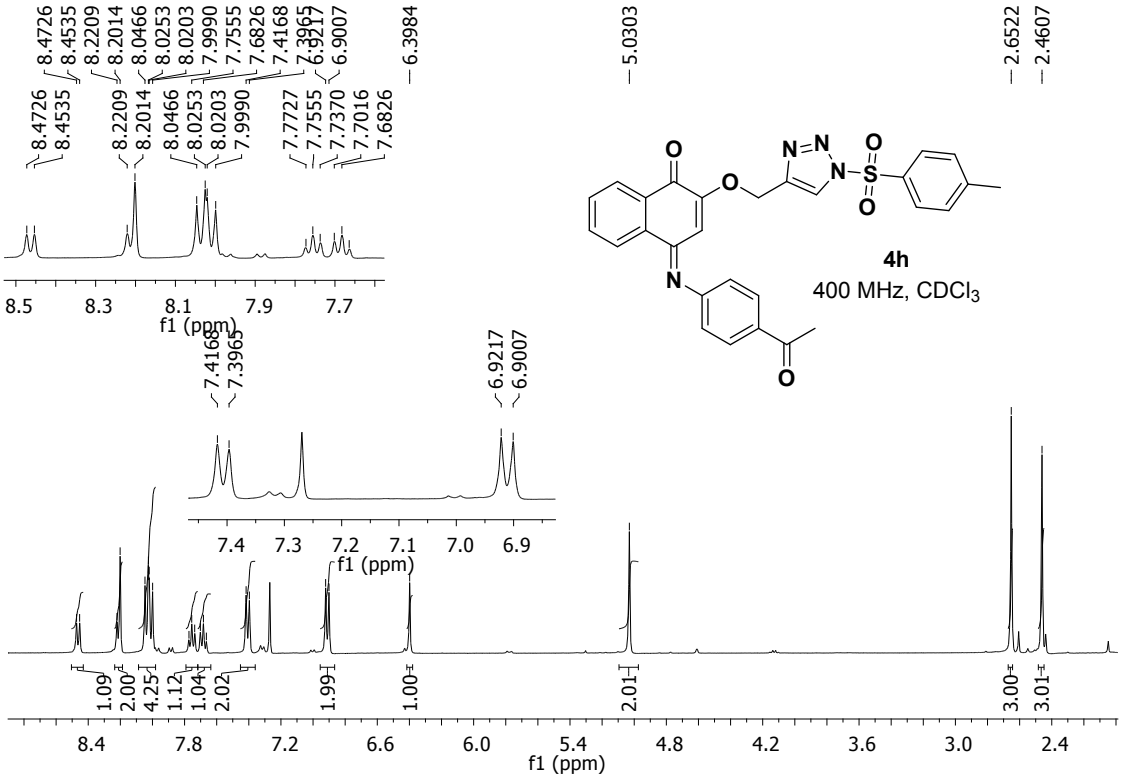


**Figure S31.** $^{1}$H NMR spectrum (400 MHz, $CDCl_3$) of compound **4h**.

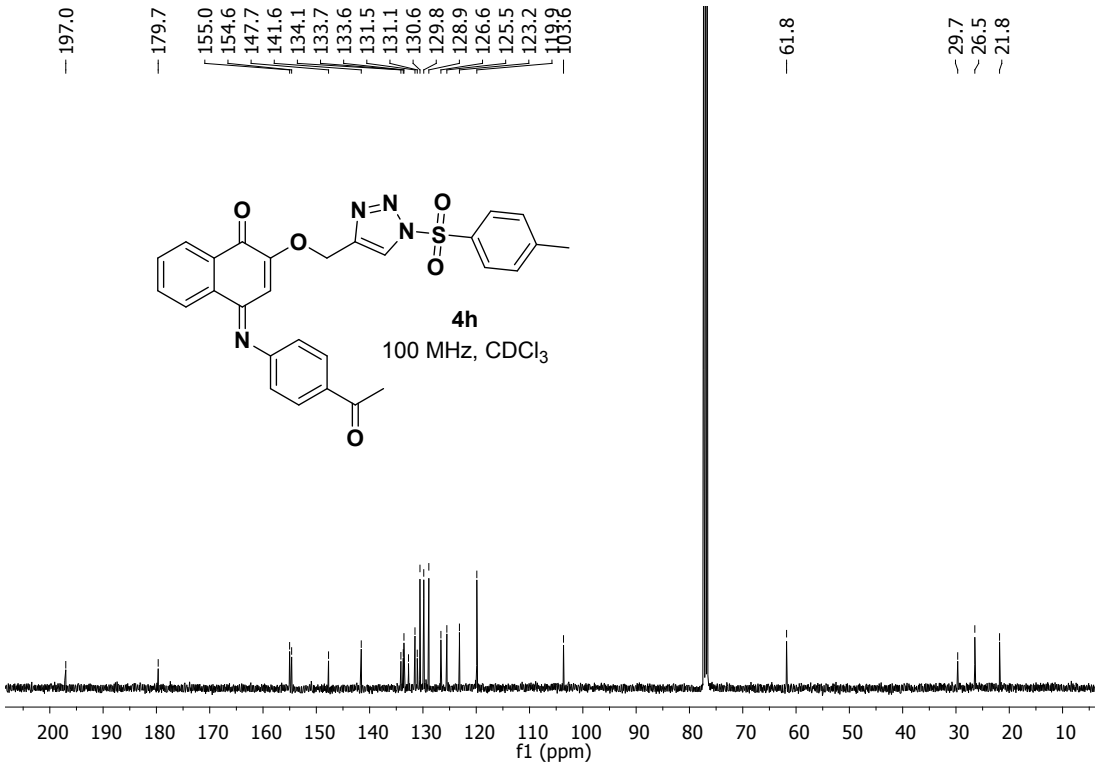


**Figure S32.** $^{13}$C NMR spectrum (100 MHz, $CDCl_3$) of compound **4h**.

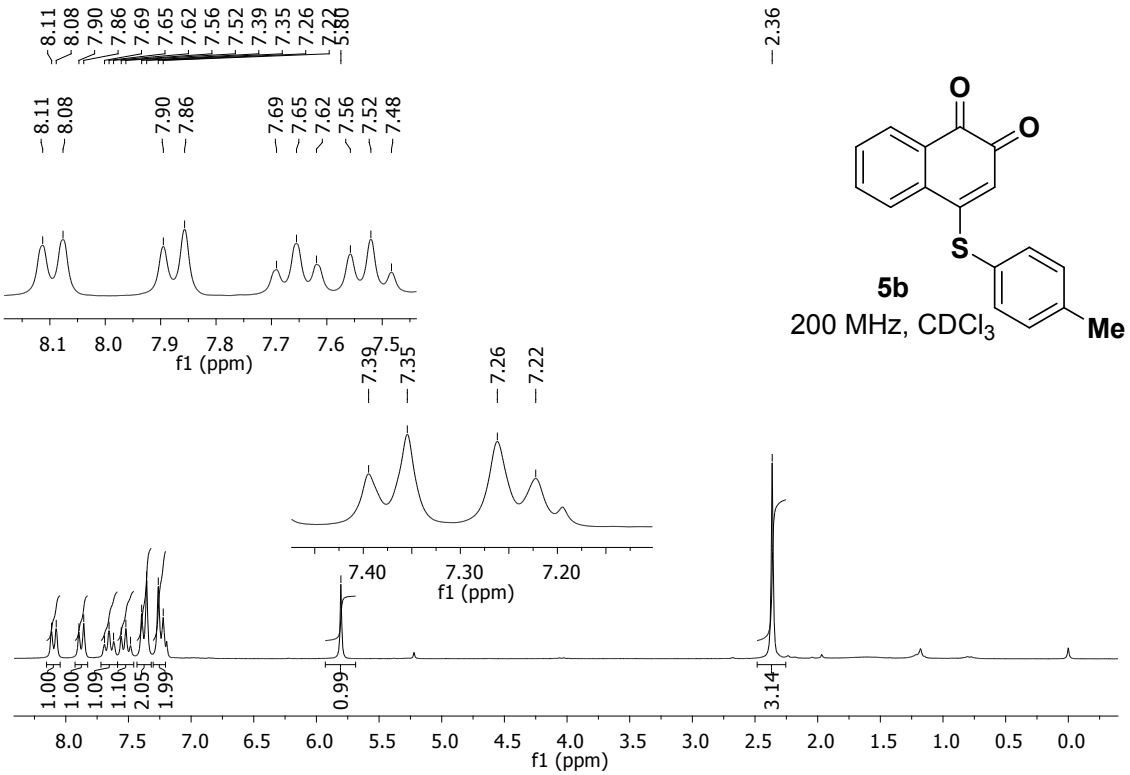


**Figure S33.** $^{1}$H NMR spectrum (200 MHz, $CDCl_3$) of compound **5b**.

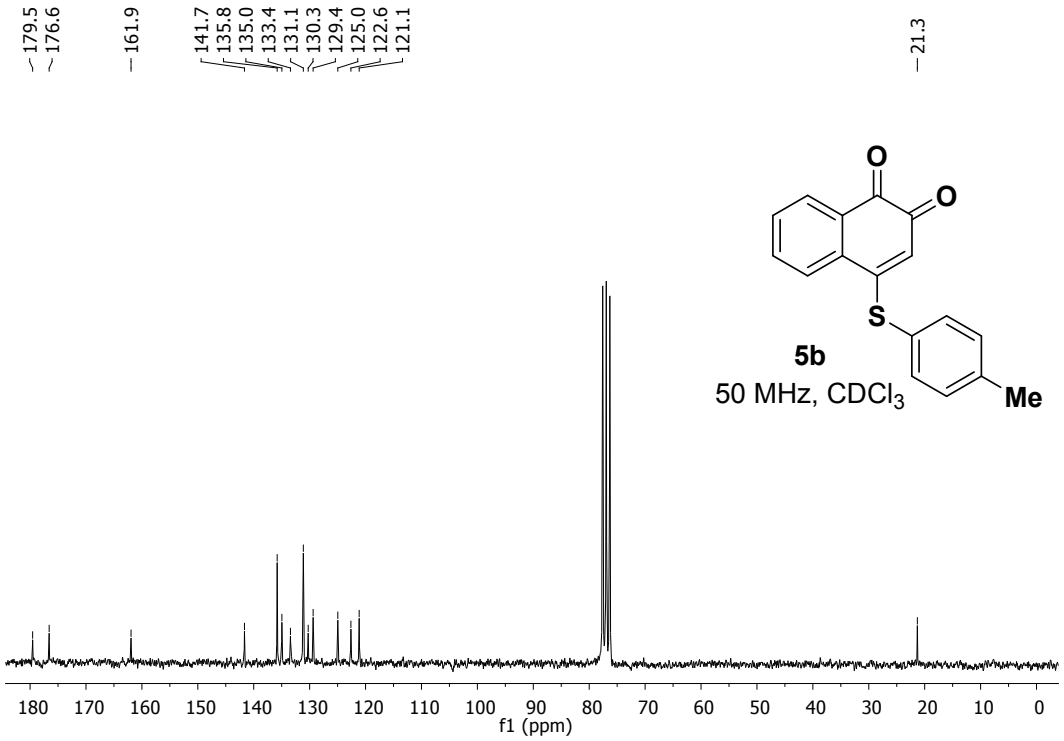


**Figure S34.** $^{13}$C NMR spectrum (50 MHz, $CDCl_3$) of compound **5b**.

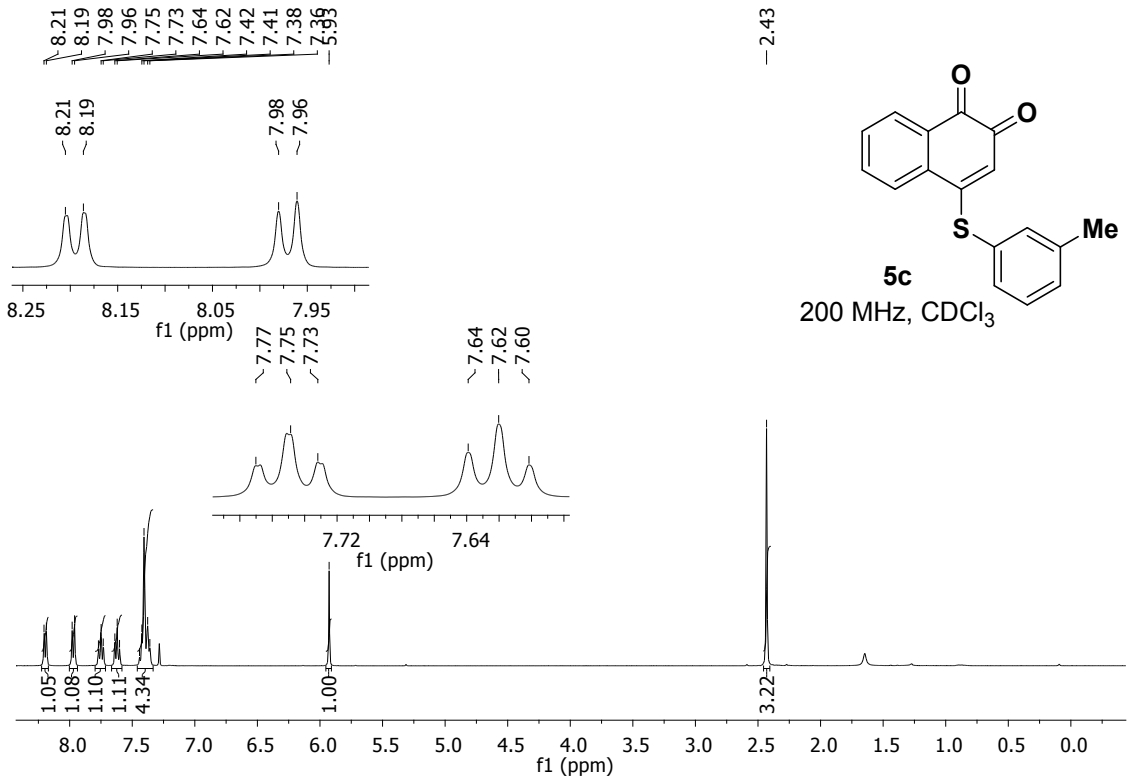


**Figure S35.** $^{1}$H NMR spectrum (200 MHz, $CDCl_3$) of compound **5c**.

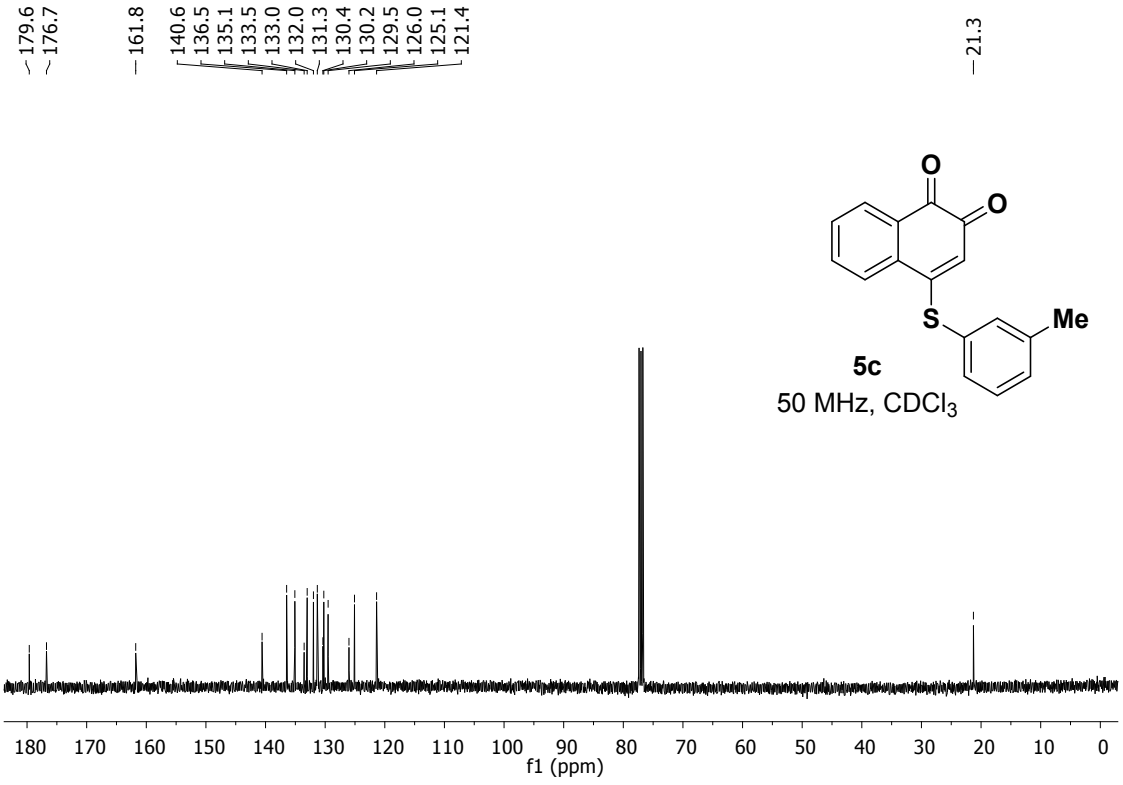


**Figure S36.** $^{13}$C NMR spectrum (50 MHz, $CDCl_3$) of compound **5c**.

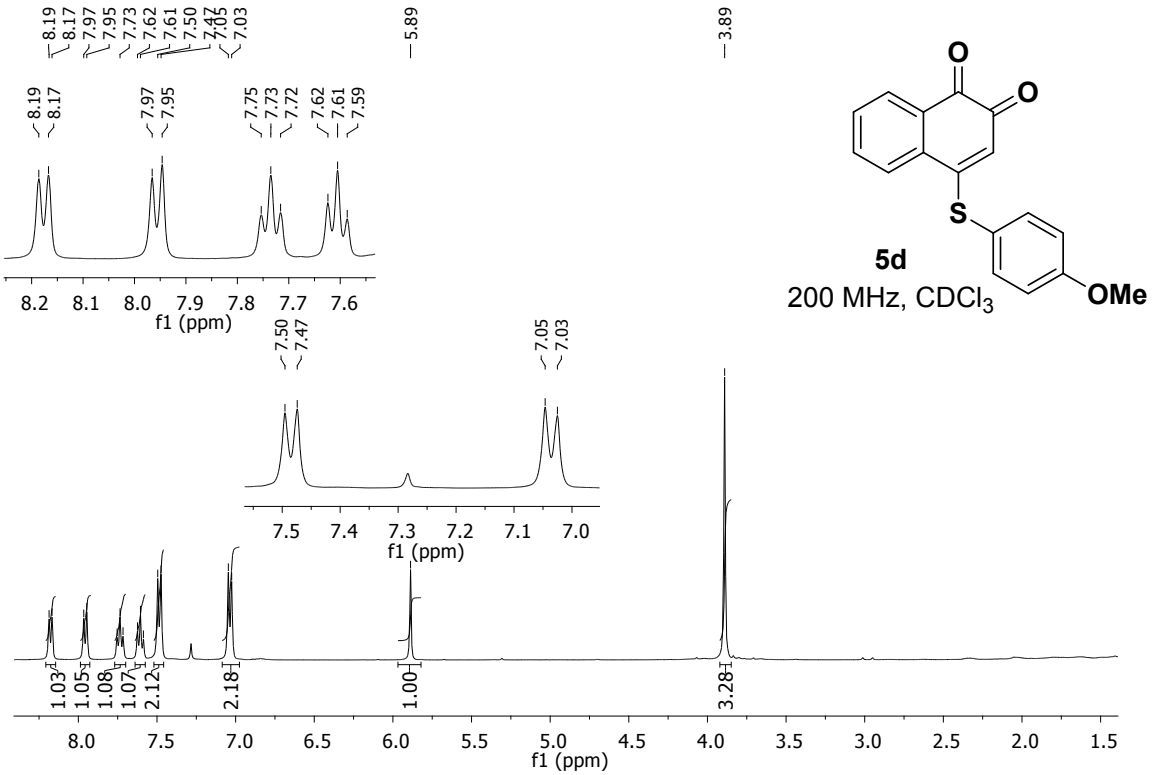


**Figure S37.** $^{1}$H NMR spectrum (400 MHz, $CDCl_3$) of compound **5d**.

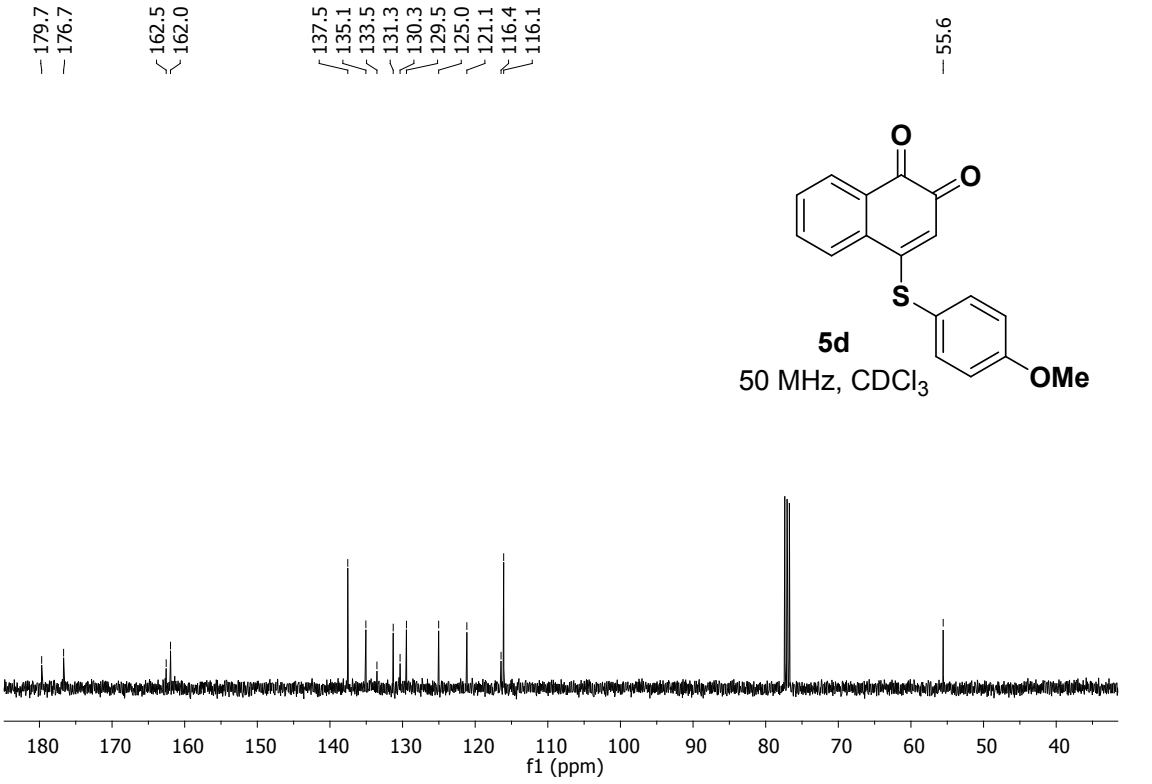


**Figure S38.** $^{13}$C NMR spectrum (50 MHz, $CDCl_3$) of compound **5d**.

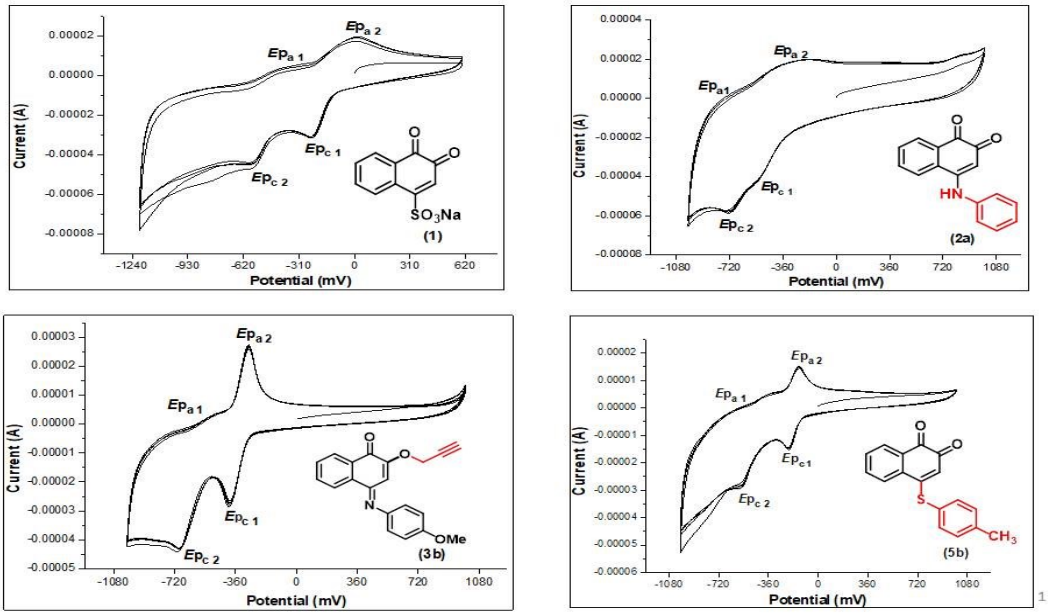


**Figure S39.** Representative cyclic voltammograms of selected compounds belonging to class 1 (insert a), class 2, class 3 (compound 3a, insert b) and class 5 (compound 5b, insert c). Phosphate buffer 0.1 M (pH 7.4) + 30% methanol; glassy carbon electrode, *E* vs. Ag/AgCl reference electrode (SSE), 200 mV $s^{-1}$. Potential range: +1.0 V to -1.0 V. Anodic direction. E initial: 0 V.