

SUPPORTING INFORMATION

EXTENDED ANTIMICROBIAL PROFILE OF CHROMONE-BUTENAFINE HYBRIDS

Francesca Bonvicini ^{1*}, Lisa Menegaldo ², Rebecca Orioli ³, Federica Belluti³, Giovanna Angela Gentilomi^{1,4}, Silvia Gobbi³, and Alessandra Bisi^{3*}

¹ Department of Pharmacy and Biotechnology, Alma Mater Studiorum-University of Bologna, Via Massarenti 9, 40138 Bologna, Italy;

² Department of Chemistry “G. Ciamician”, Alma Mater Studiorum-University of Bologna, Via Gobetti 85, 40129 Bologna, Italy;

³ Department of Pharmacy and Biotechnology, Alma Mater Studiorum-University of Bologna, Via Belmeloro 6, 40126 Bologna, Italy;

⁴ Microbiology Unit, IRCCS Azienda Ospedaliero-Universitaria di Bologna, Via Massarenti 9, 40138 Bologna, Italy;

* Correspondence: alessandra.bisi@unibo.it; (A.B.)

* Correspondence: francesca.bonvicini4@unibo.it; (F.Bonvicini)

Table S1. MIC values of the reference drug controls ($\mu\text{g/mL}$)

Table S2. Percentage values of cell viability and hemolytic activity at $100\ \mu\text{M}$

Figures S1-S10. ^1H and ^{13}C NMR spectra of the final compounds

Figures S11-S13. ^1H and ^{13}C NMR spectra of intermediates **8** and **6**

Table S1. MIC values of the reference drug controls ($\mu\text{g/mL}$)

Species	Fluconazole ¹	Gentamicin ²
<i>C. albicans</i>	25	n.d. ³
<i>C. glabrata</i>	25	n.d.
<i>C. auris</i>	>50	n.d.
<i>C. kruzei</i>	50	n.d.
<i>C. tropicalis</i>	1.56	n.d.
<i>C. neoformans</i>		n.d.
<i>S. aureus</i>	n.d.	0.31
<i>S. epidermidis</i>	n.d.	0.31
<i>E. faecalis</i>	n.d.	>2.5
<i>E. coli</i>	n.d.	0.62
<i>K. pneumoniae</i>	n.d.	0.62
<i>P. aeruginosa</i>	n.d.	0.156

¹ tested range concentration: 50 – 0.31 $\mu\text{g/mL}$; ² tested range concentration: 2.5 - 0.039 $\mu\text{g/mL}$; ³ n.d., not determined

Table 2. Percentage values of cell viability and hemolytic activity at 100 μM (mean and standard deviation).

Compound	HEL 299	hRBCs
1a	62.26 \pm 5.42	< 5
1b	6.72 \pm 0.80	< 5
2a	1.07 \pm 0.31	< 5
2b	1.48 \pm 0.15	< 5
3	0.82 \pm 0.19	< 5
CP¹	0.36 \pm 0.11	n.d. ²
Triton X-100³	n.d.	100 \pm 2.6

¹ CP, cisplatin at 166.6 μM ; ² n.d., not determined; ³ Triton X-100 at 1%.

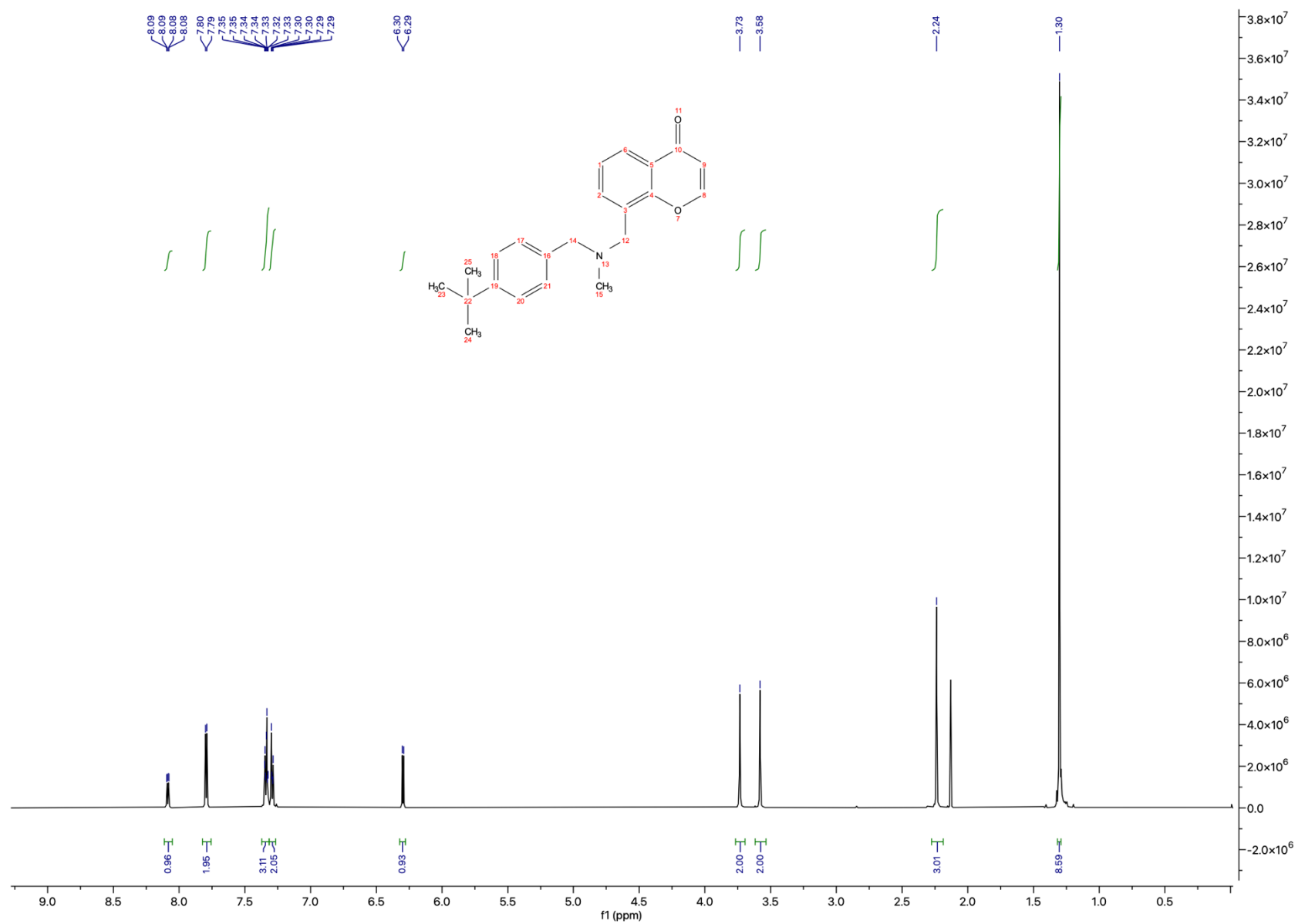


Figure S1: ^1H -NMR Spectra of compound **1a**

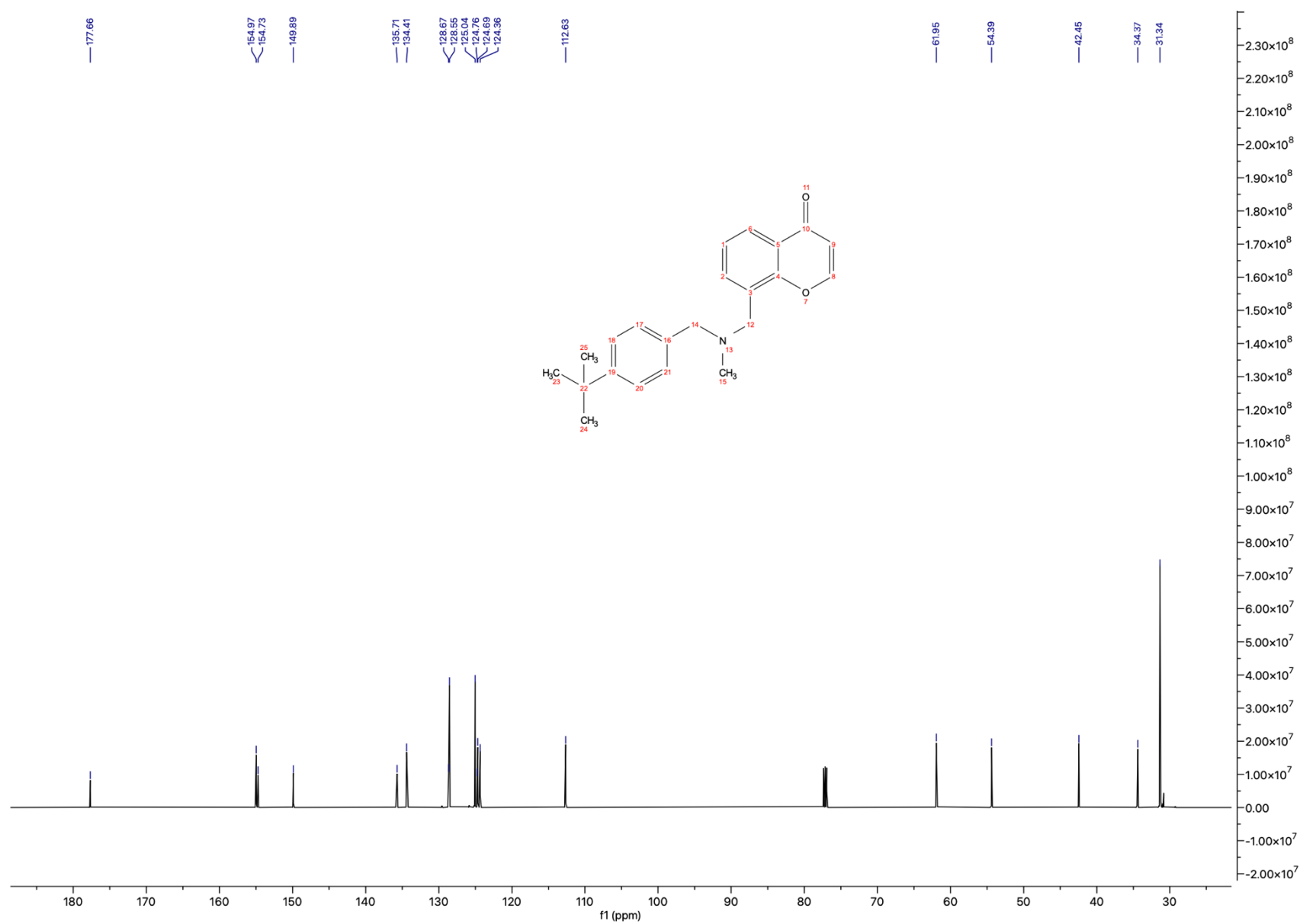


Figure S2: ^{13}C -NMR Spectra of compound **1a**

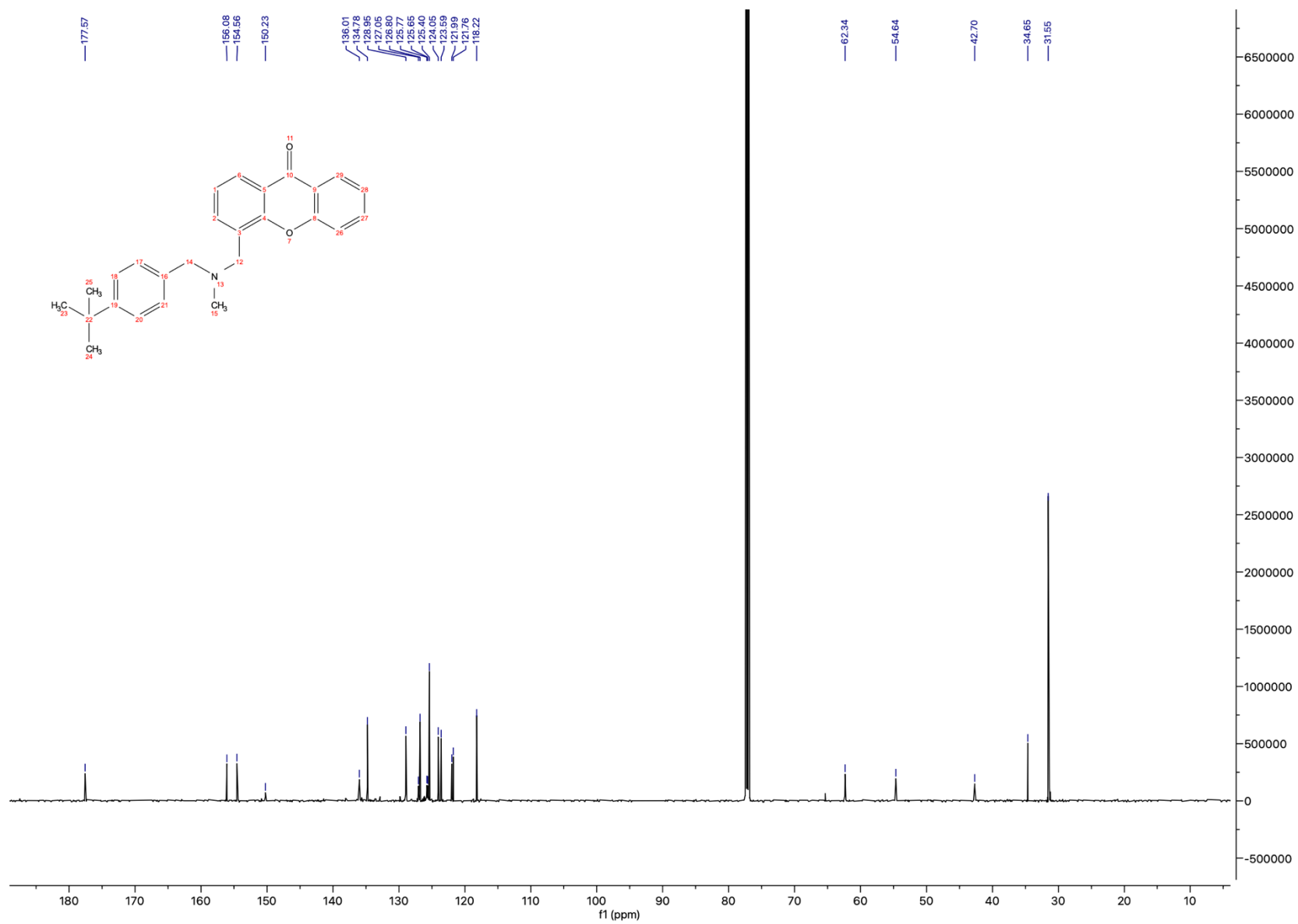


Figure S4: ^{13}C -NMR Spectra of compound **1b**

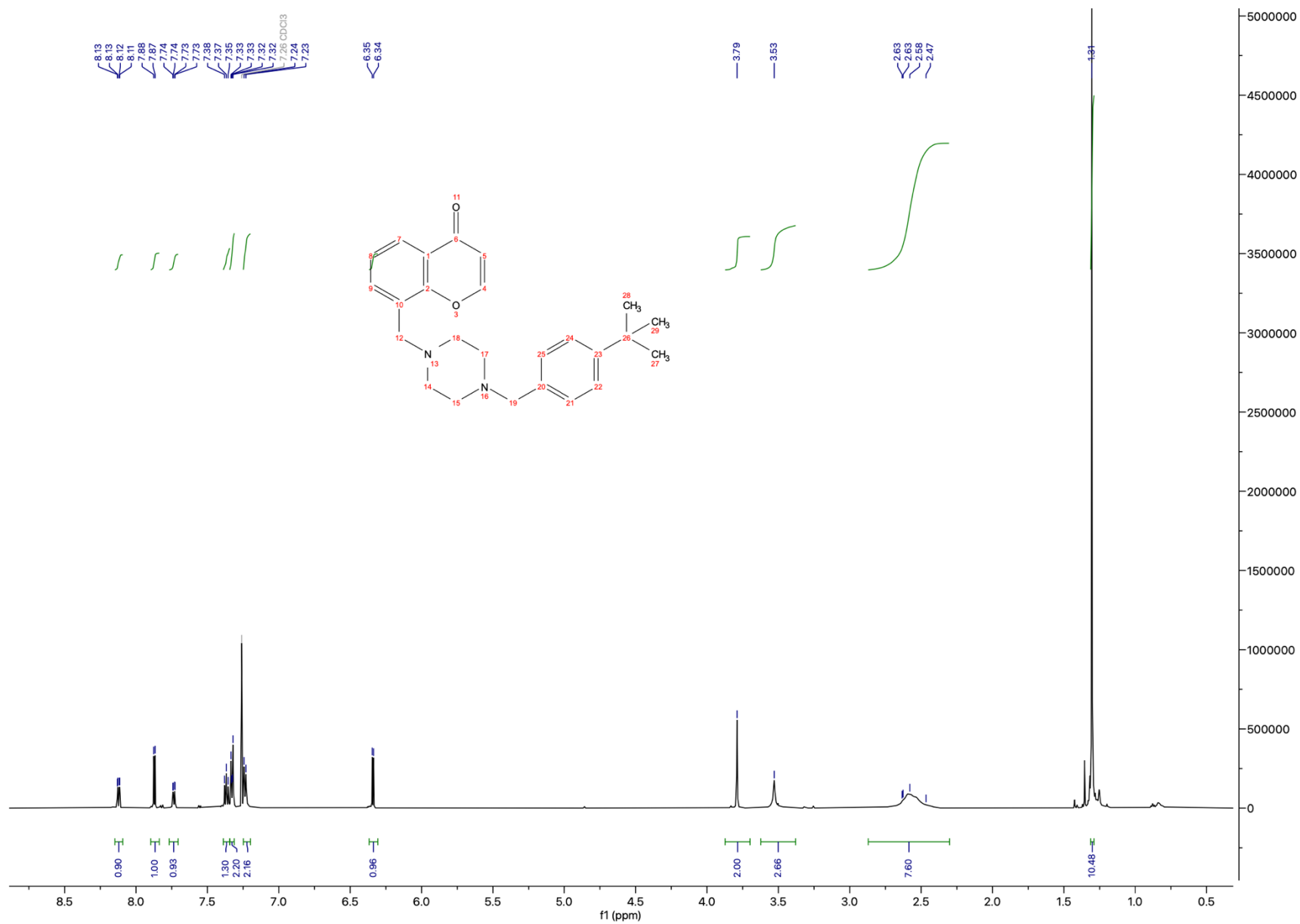


Figure S5: ¹H-NMR Spectra of compound **2a**

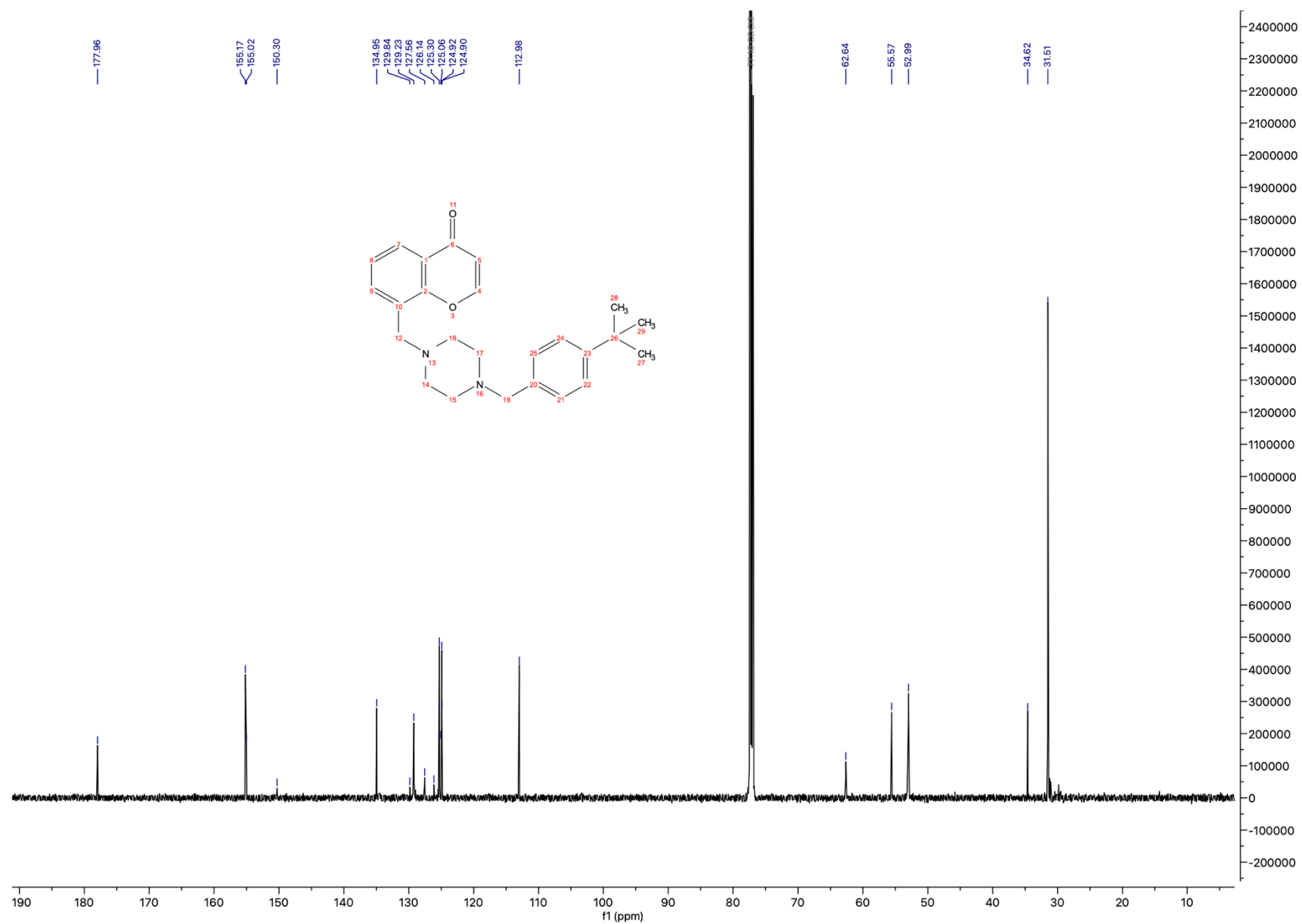


Figure S6: ^{13}C -NMR Spectra of compound **2a**

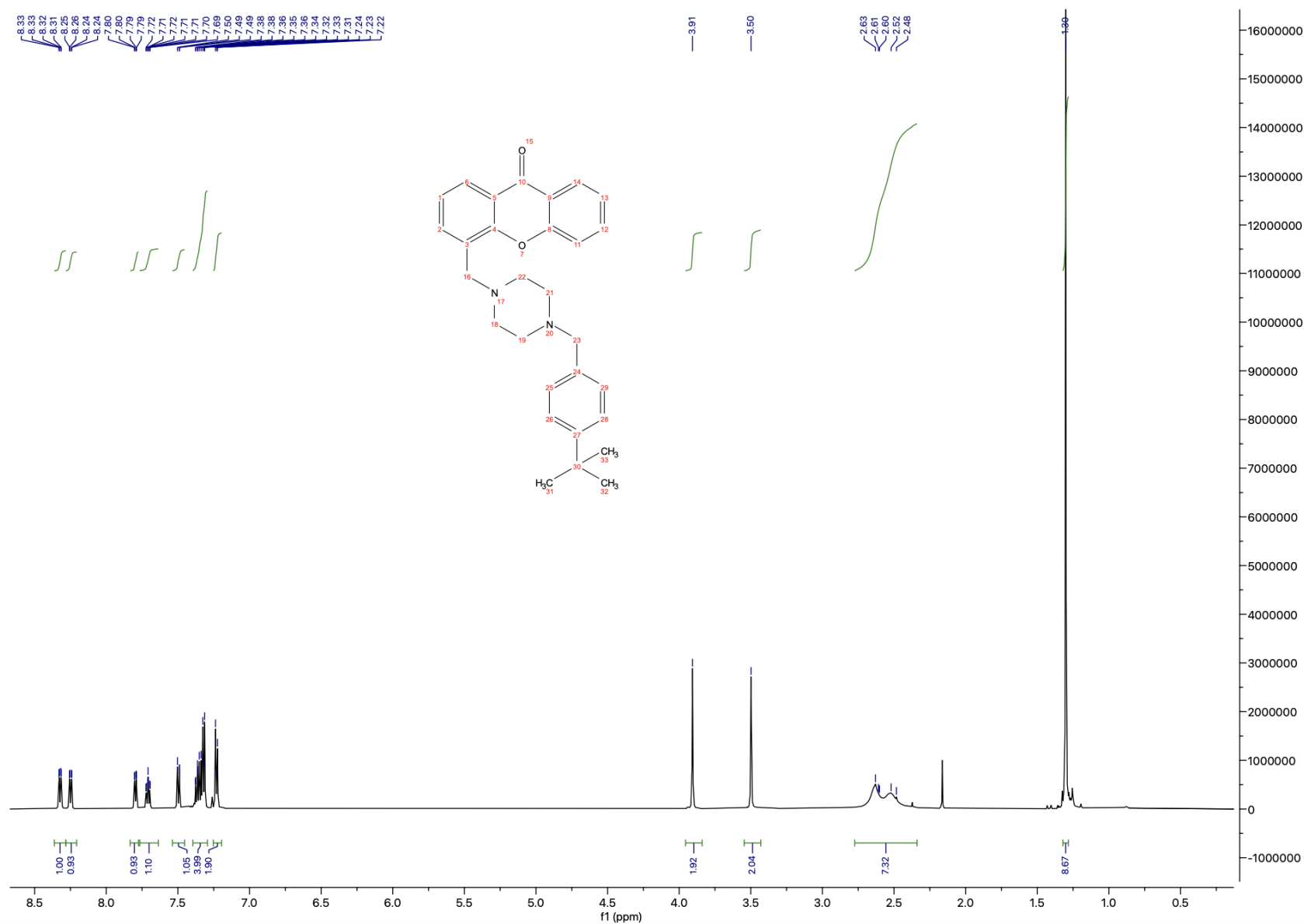


Figure S7: ¹H-NMR Spectra of compound **2b**

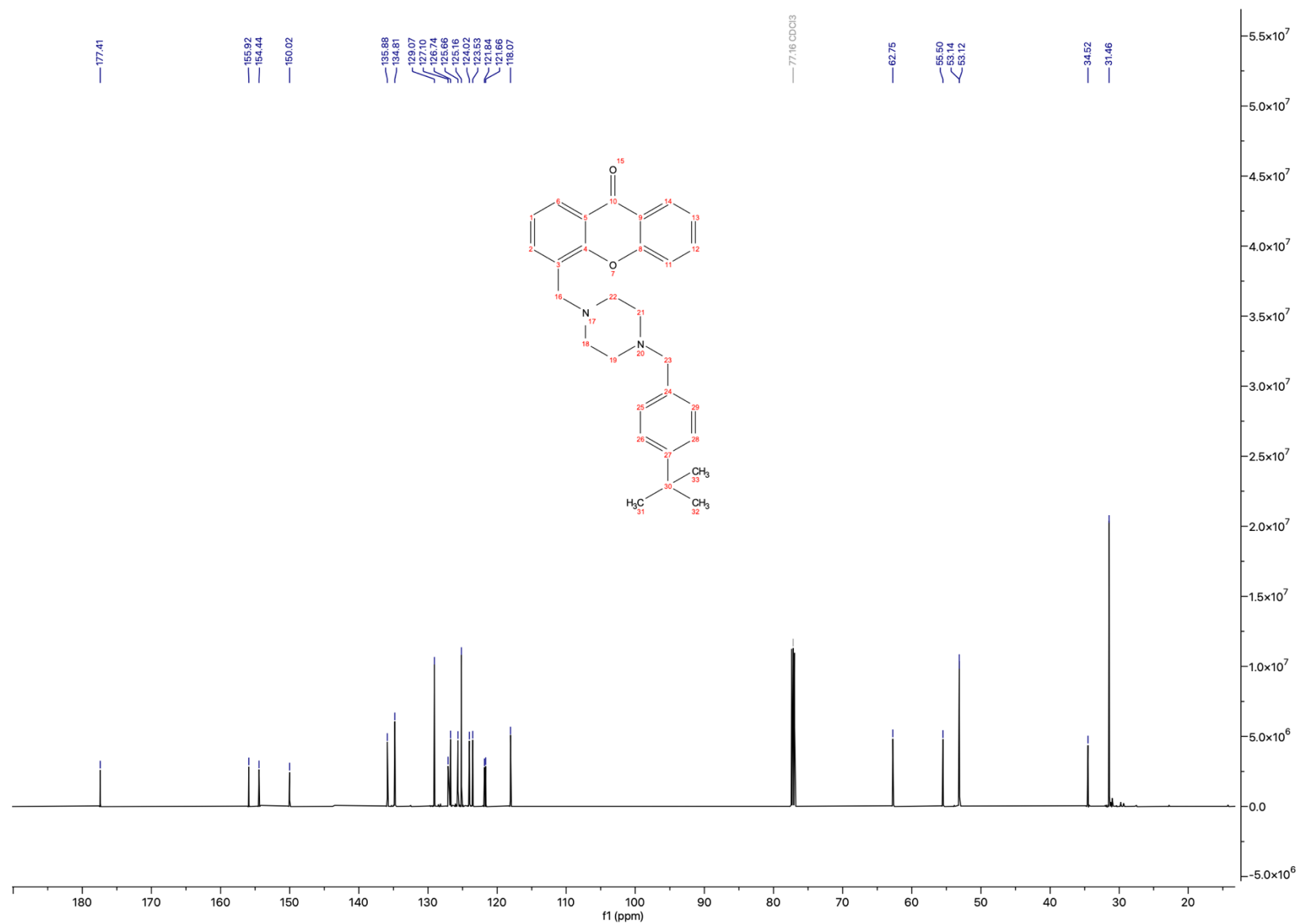


Figure S8: ^{13}C -NMR Spectra of compound **2b**

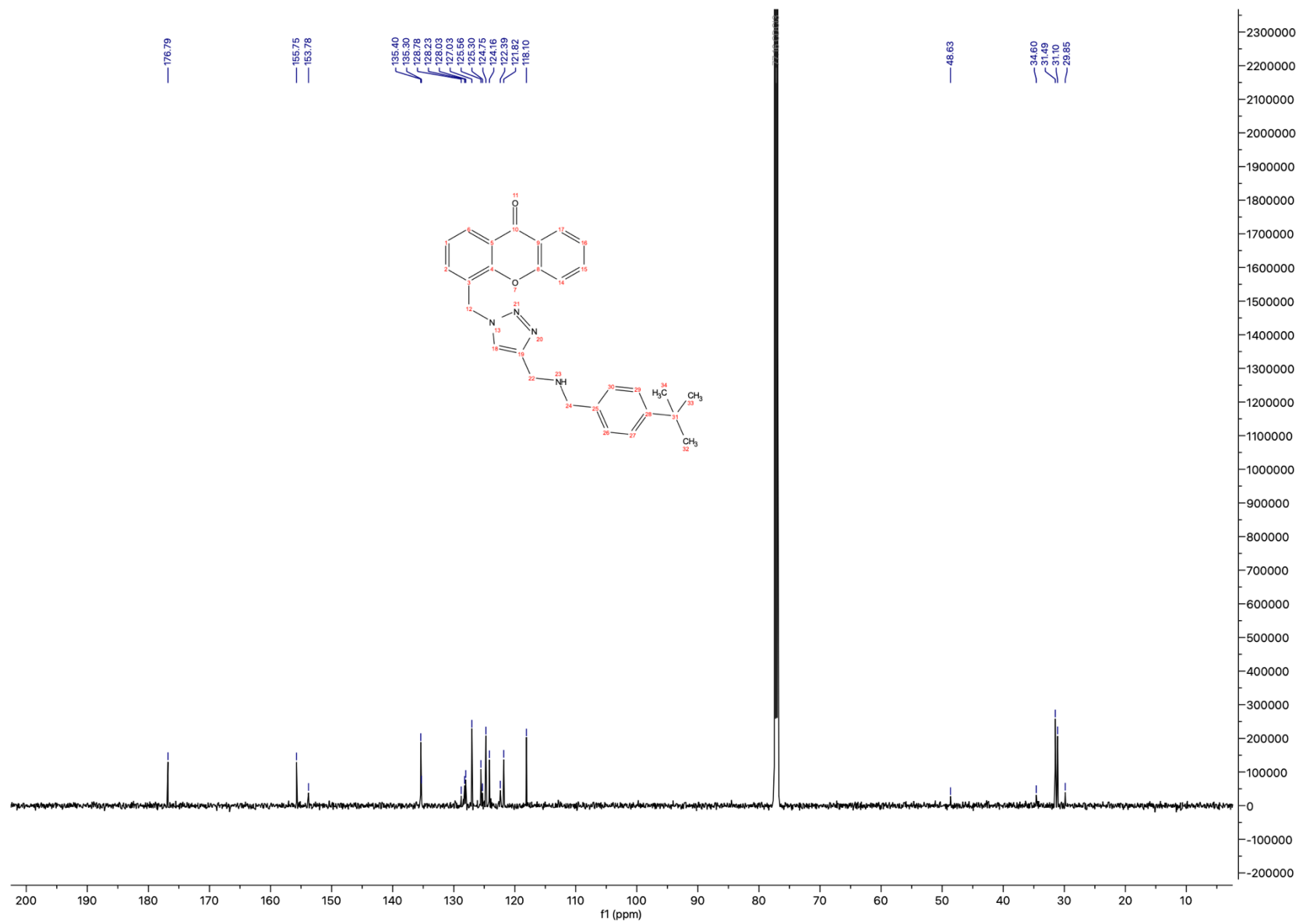


Figure S10: ^{13}C -NMR Spectra of compound **3**

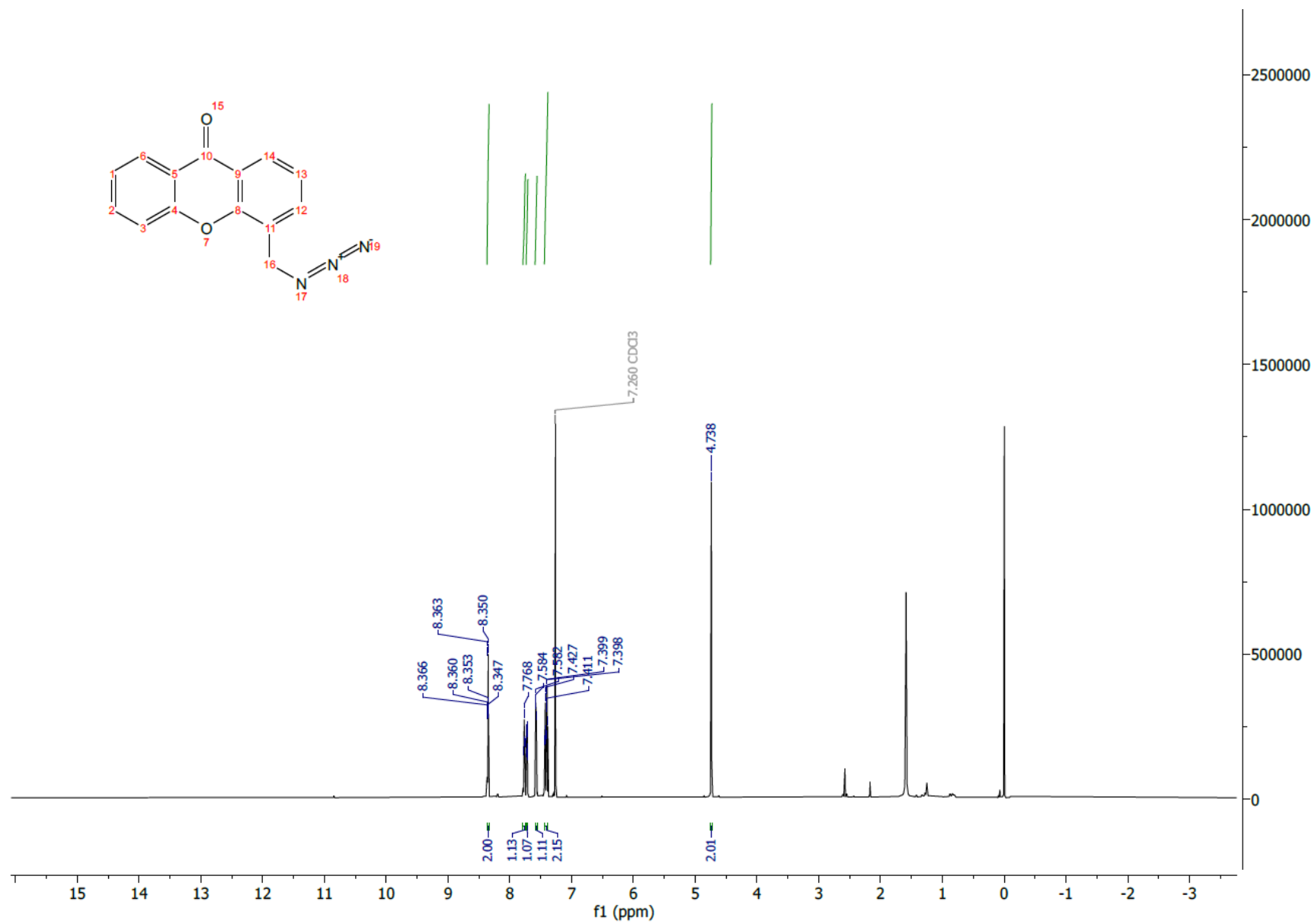


Figure S11: ¹H-NMR Spectra of intermediate **8**

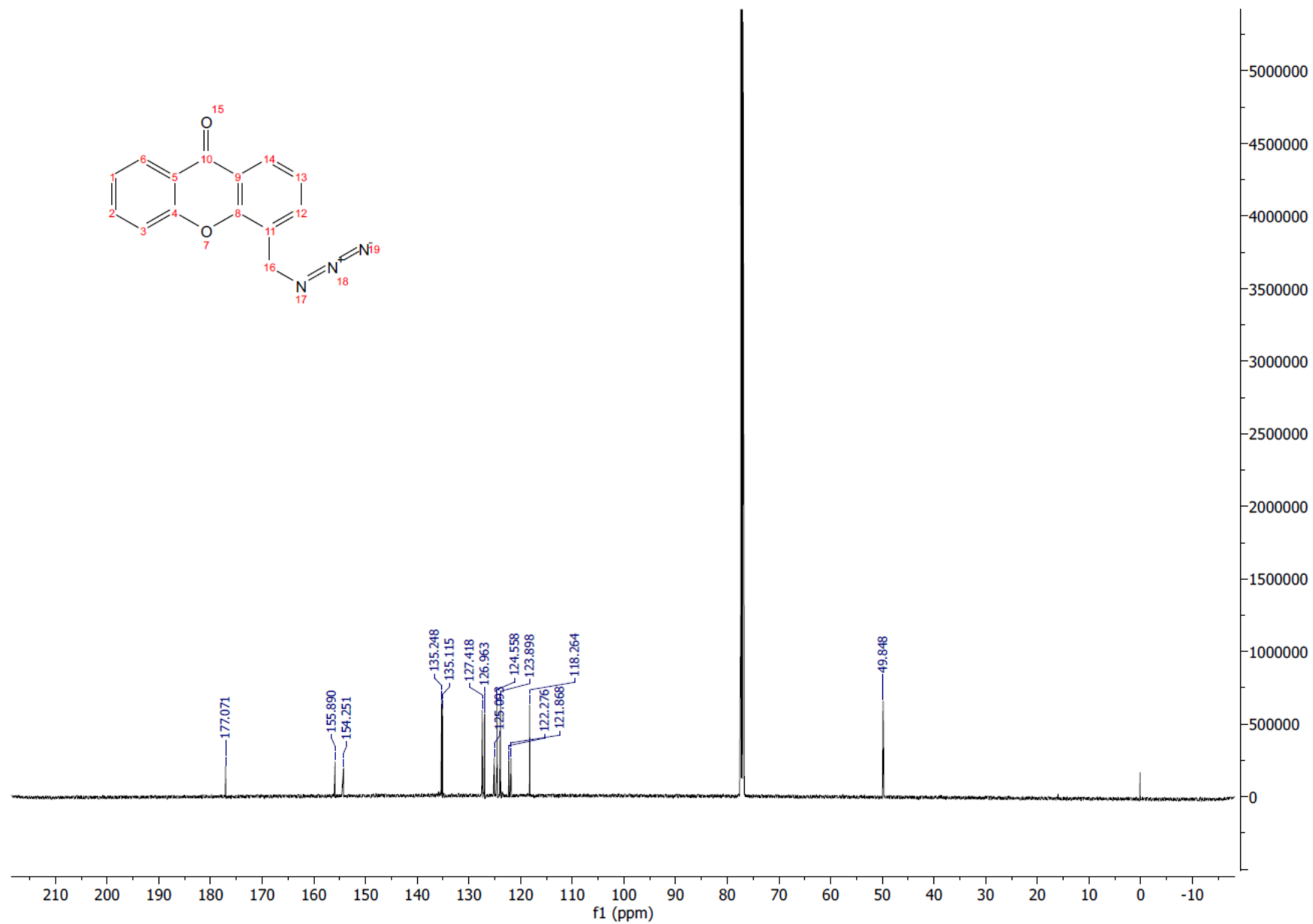


Figure S12: ^{13}C -NMR Spectra of intermediate **8**

Sample Name:
ST26
Data Collected on:
agilent400-vnmrs400
Archive directory:

Sample directory:

FidFile: PROTON

Pulse Sequence: PROTON (s2pul)
Solvent: cdcl3

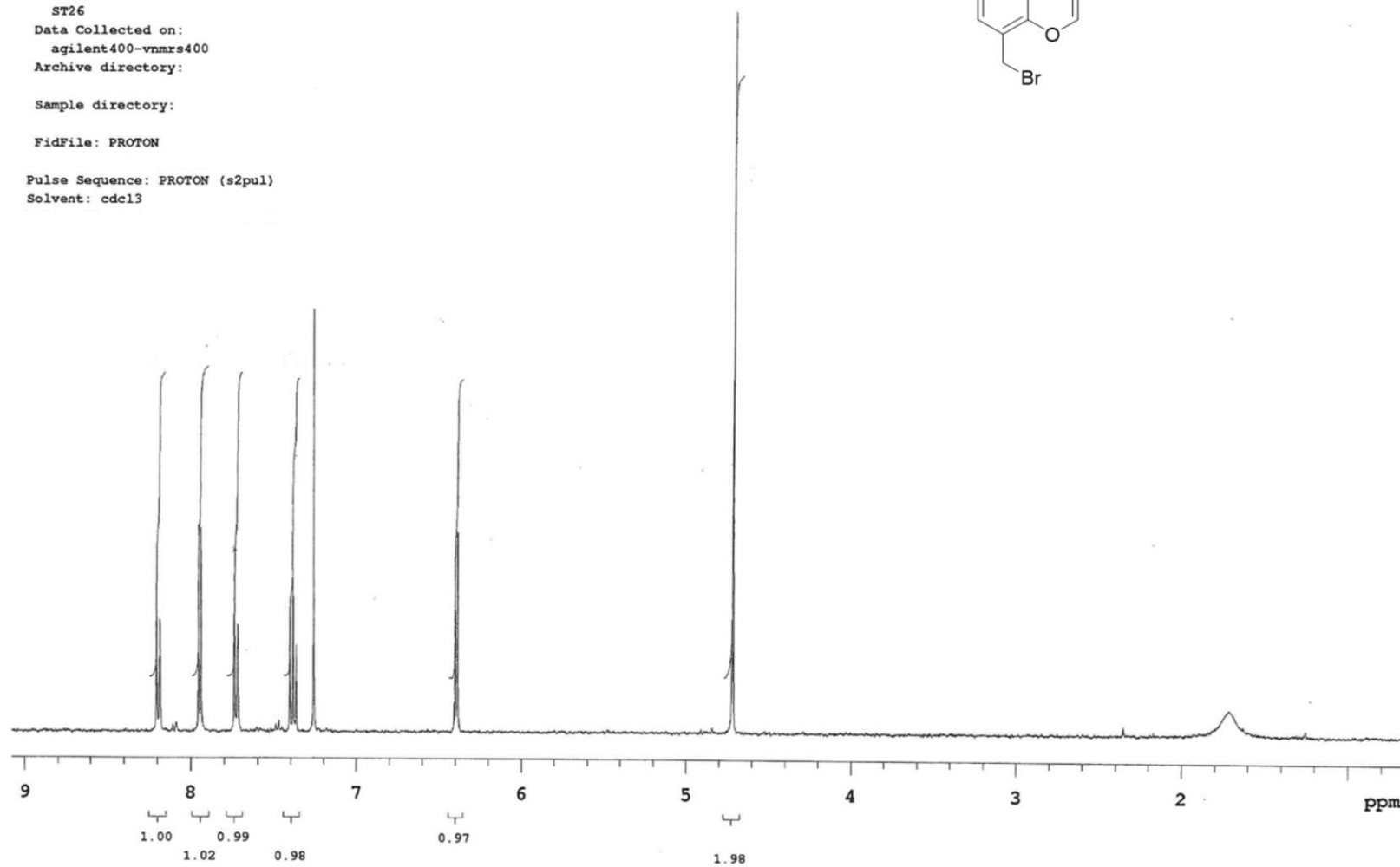
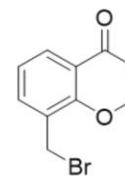


Figure S13: ¹H-NMR Spectra of intermediate 6