

Synthesis of Novel Benzenesulfonamide-Bearing Functionalized Imidazole Derivatives as Novel Candidates Targeting Multidrug-Resistant *Mycobacterium abscessus* complex

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NMR data

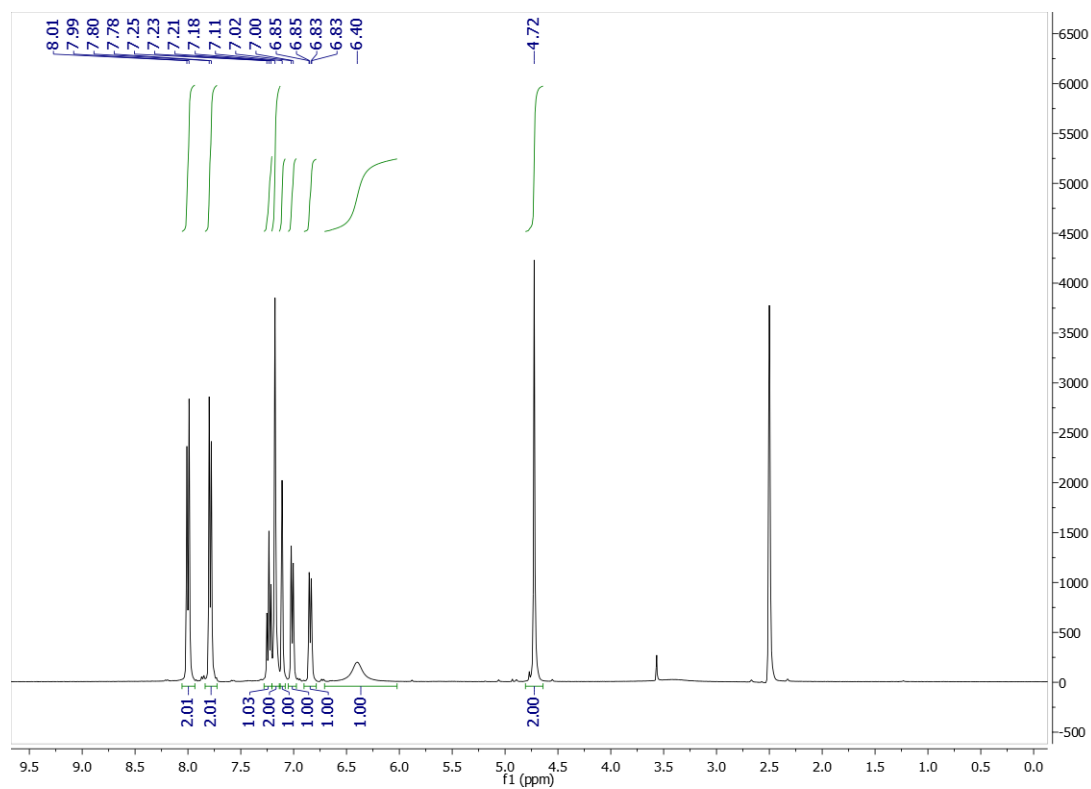


Figure S1. ¹H NMR of compound 3 at 400 MHz (DMSO-*d*₆)

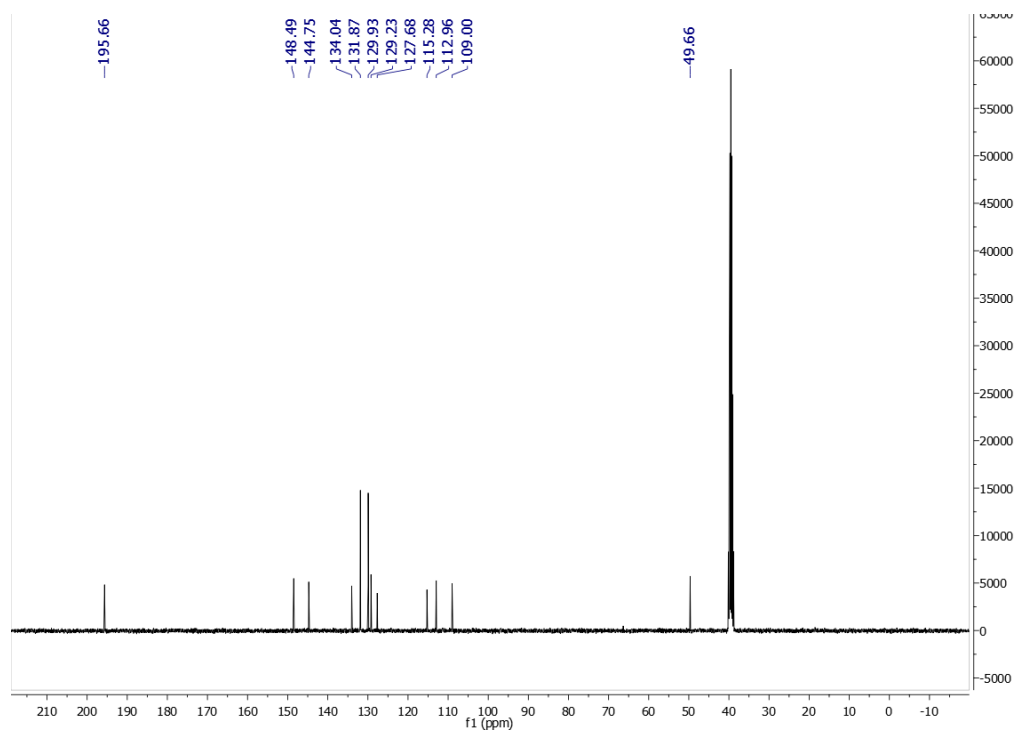


Figure S2. ¹³C NMR spectrum of compound 3 at 101 MHz (DMSO-*d*₆)

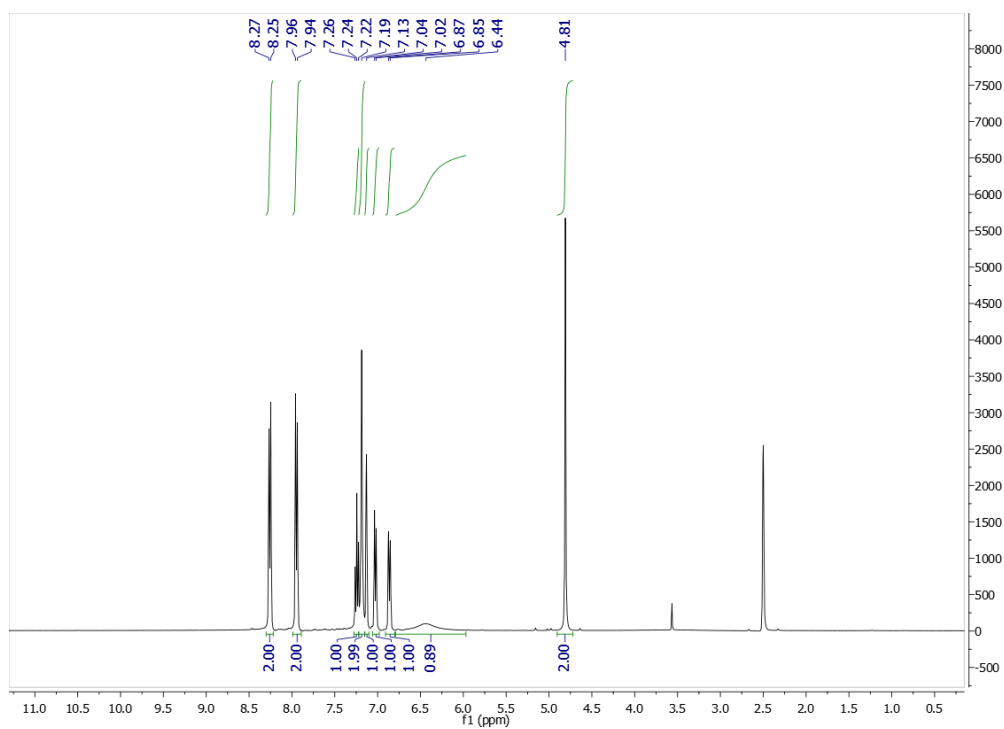


Figure S3. ¹H NMR of compound 6 at 400 MHz (DMSO-*d*₆)

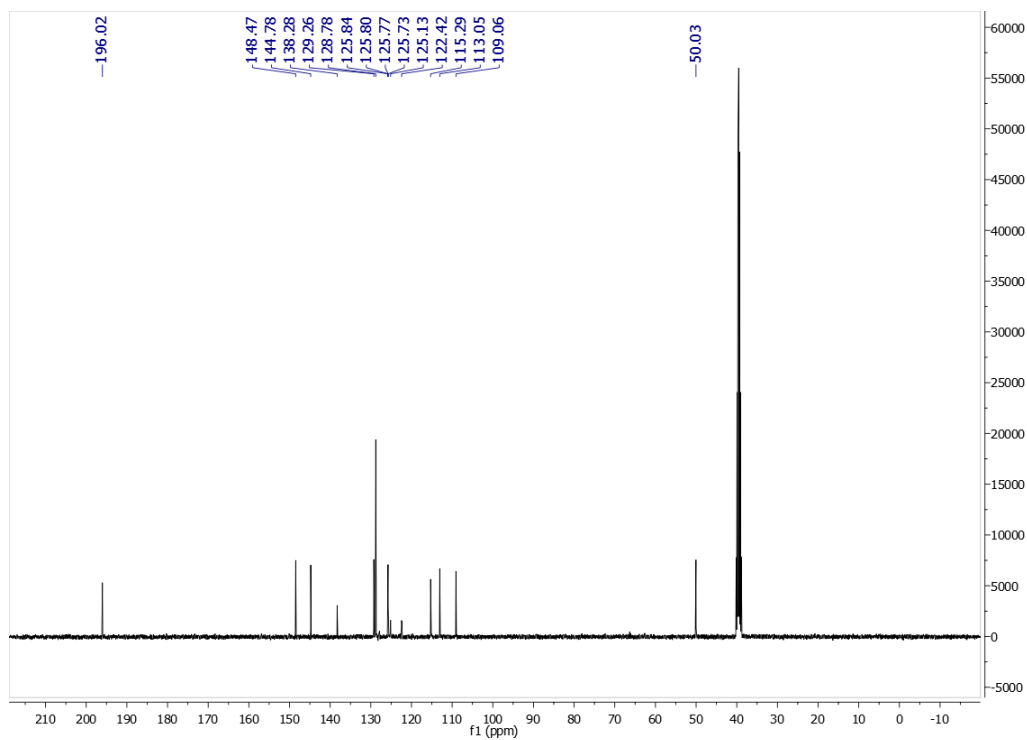


Figure S4. ¹³C NMR spectrum of compound 6 at 101 MHz (DMSO-*d*₆)

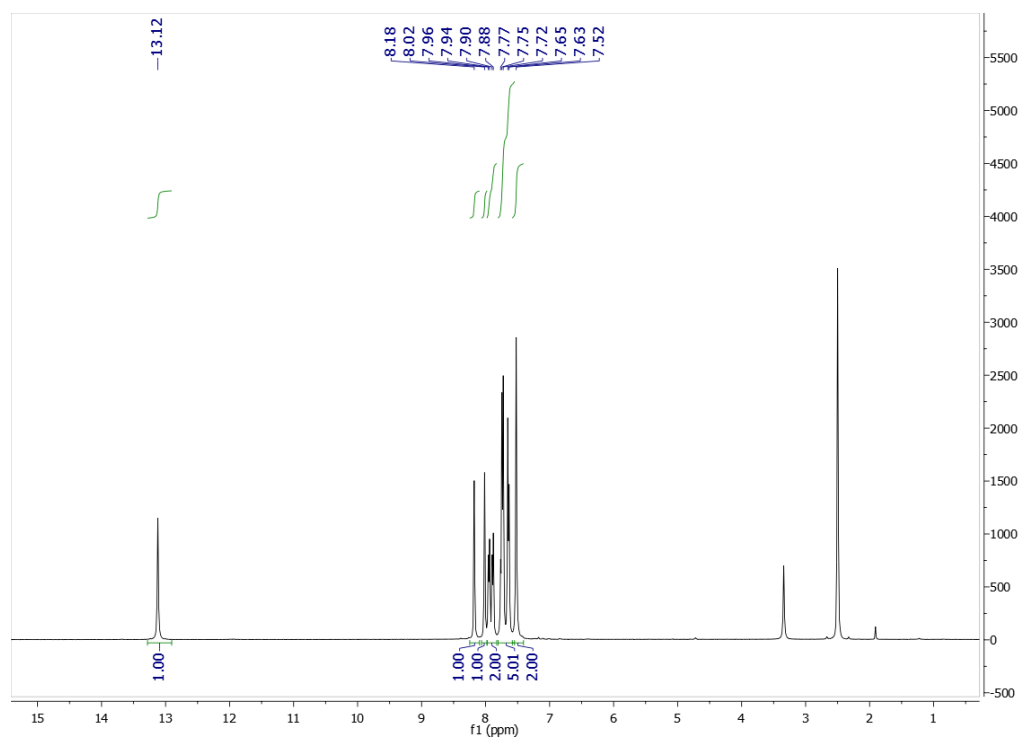


Figure S5. ¹H NMR of compound **10** at 400 MHz (DMSO-*d*₆)

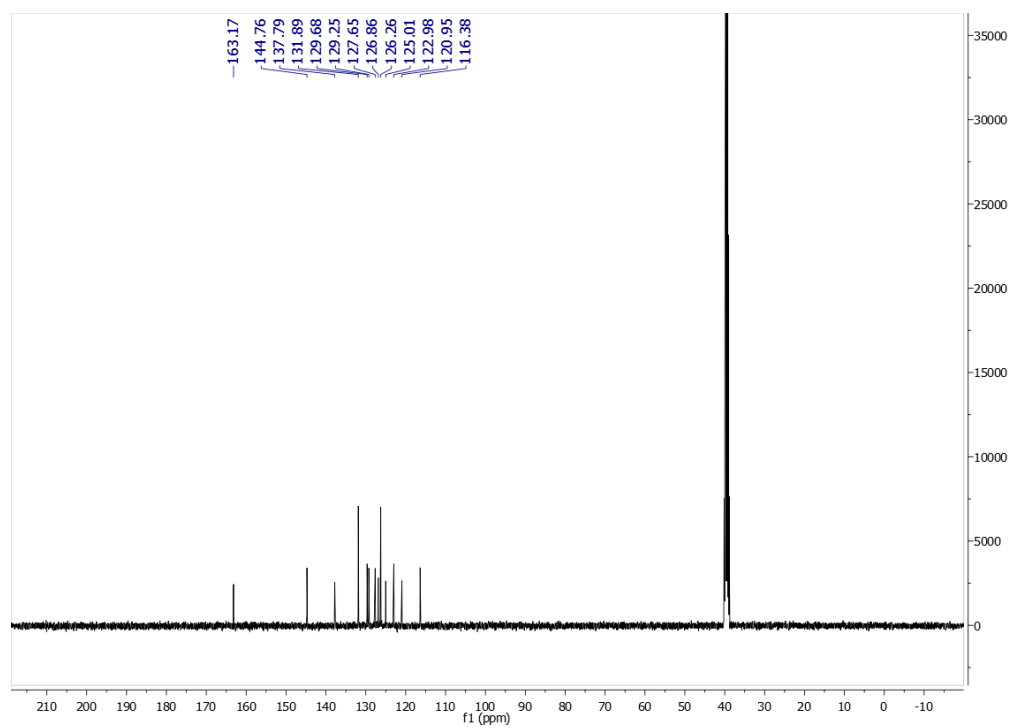


Figure S6. ¹³C NMR spectrum of compound **10** at 101 MHz (DMSO-*d*₆)

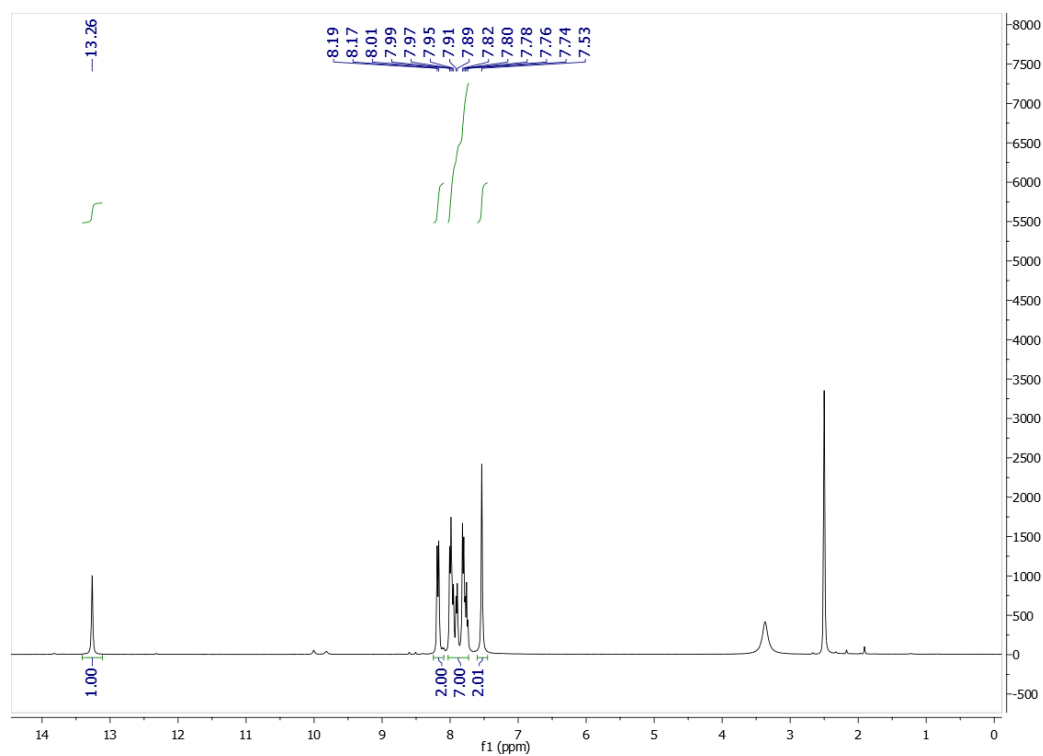


Figure S7. ¹H NMR of compound **13** at 400 MHz (DMSO-*d*₆)

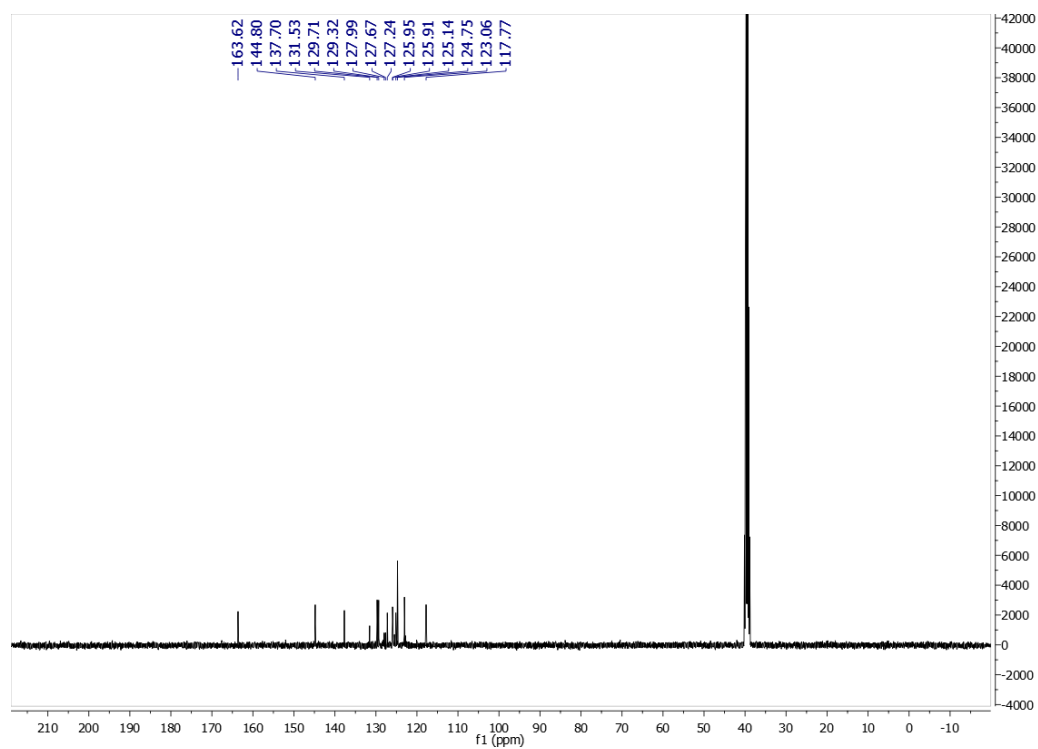


Figure S8. ¹³C NMR spectrum of compound **13** at 101 MHz (DMSO-*d*₆)

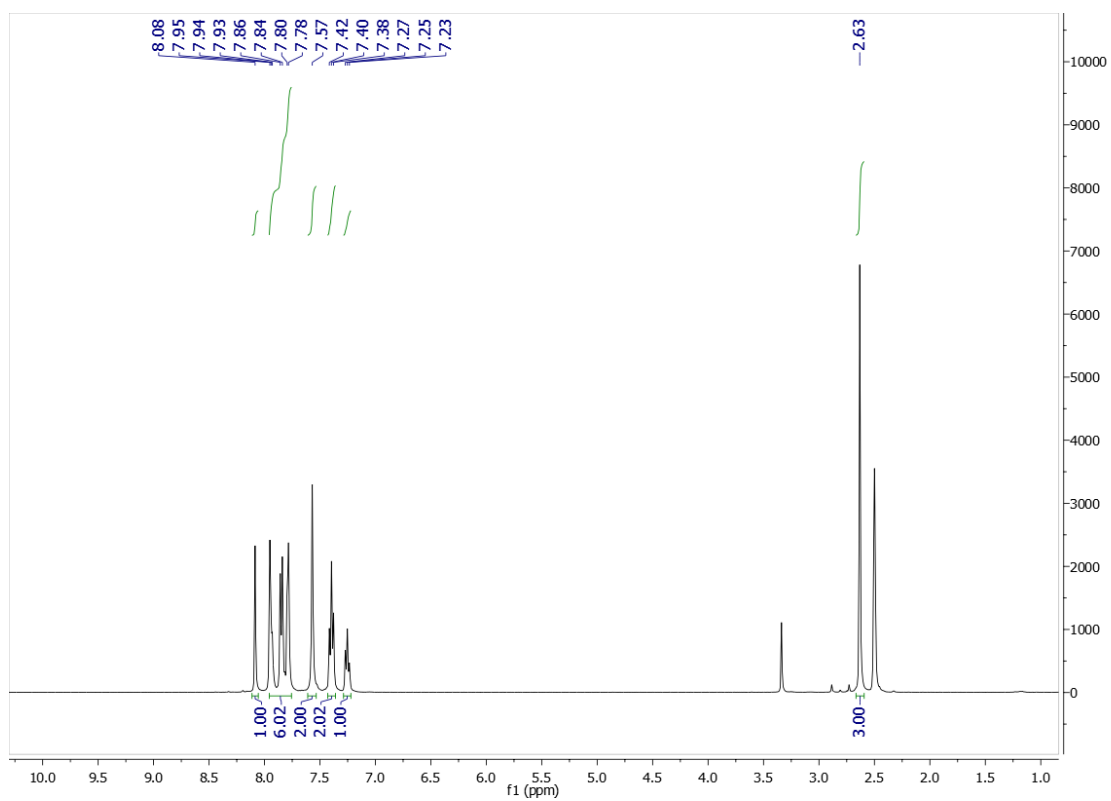


Figure S9. ¹H NMR of compound 16a at 400 MHz (DMSO-*d*₆)

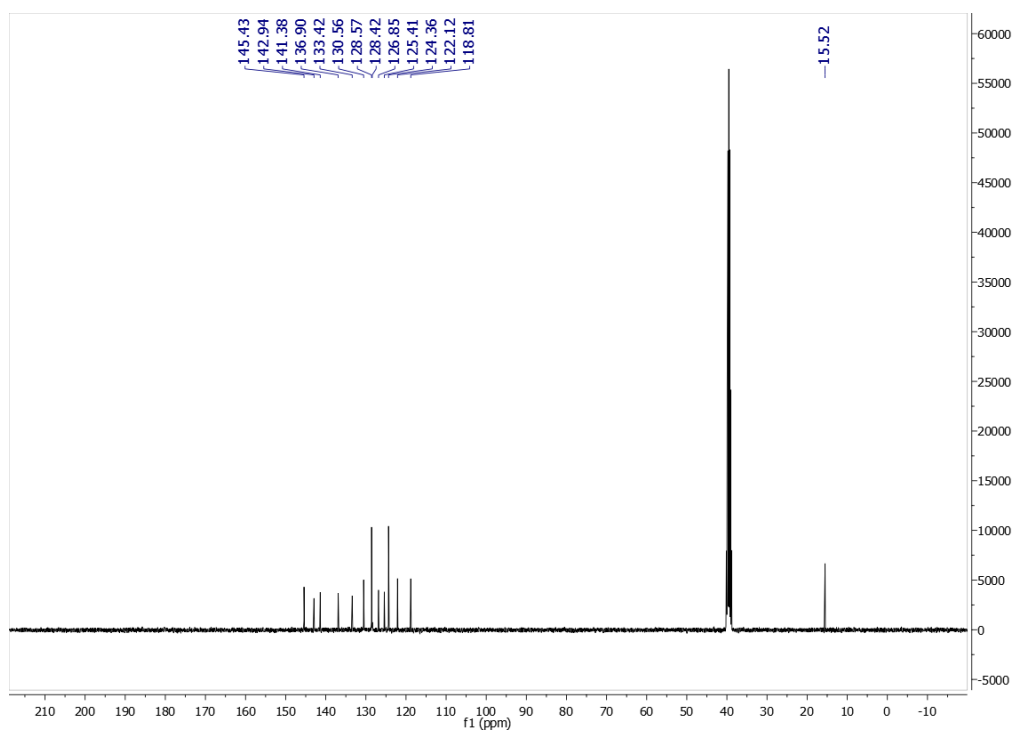


Figure S10. ¹³C NMR of compound 16a at 101 MHz (DMSO-*d*₆)

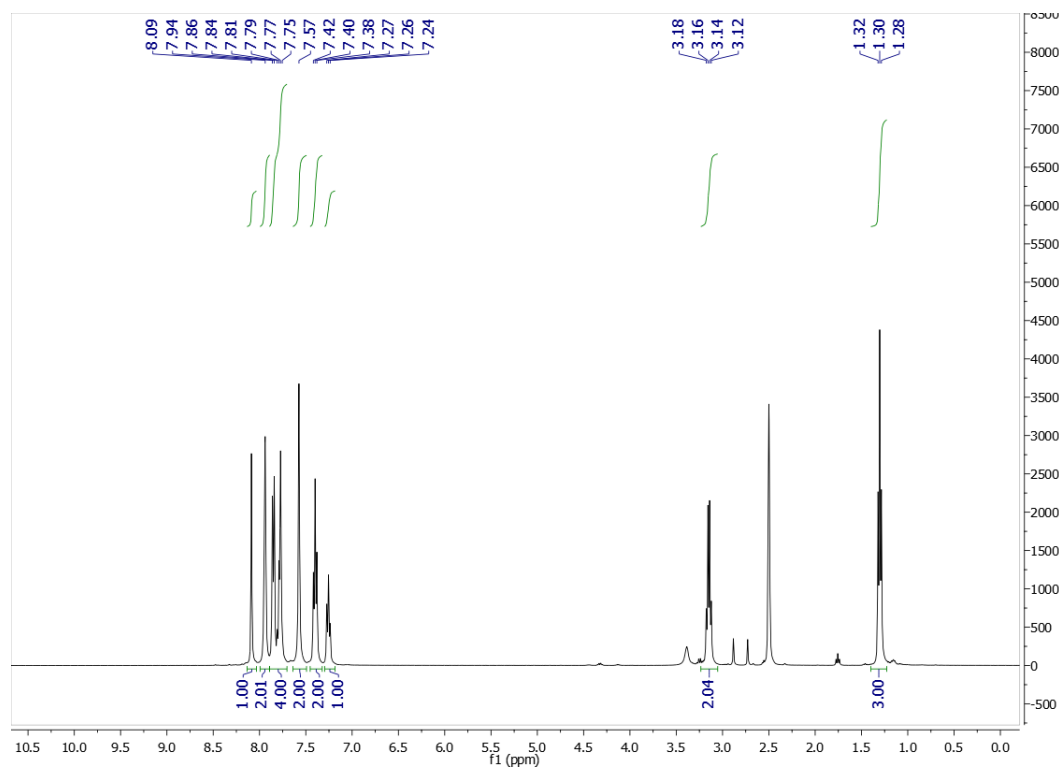


Figure S11. ^1H NMR of compound **16b** at 400 MHz ($\text{DMSO-}d_6$)

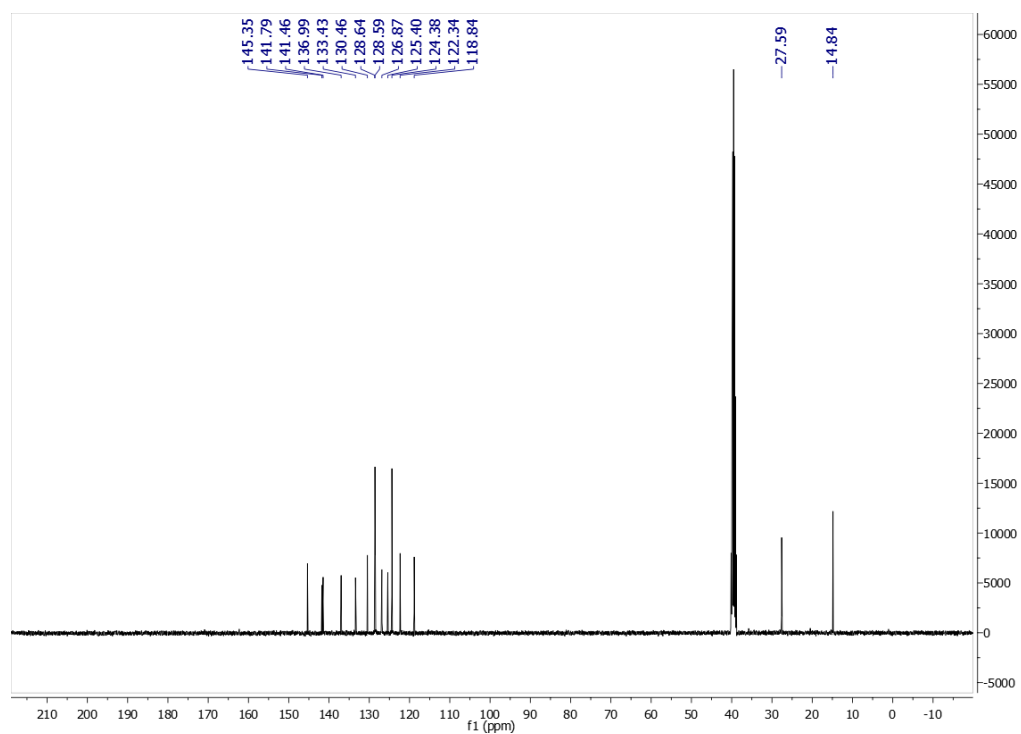


Figure S12. ^{13}C NMR spectrum of compound **16b** at 101 MHz ($\text{DMSO-}d_6$)

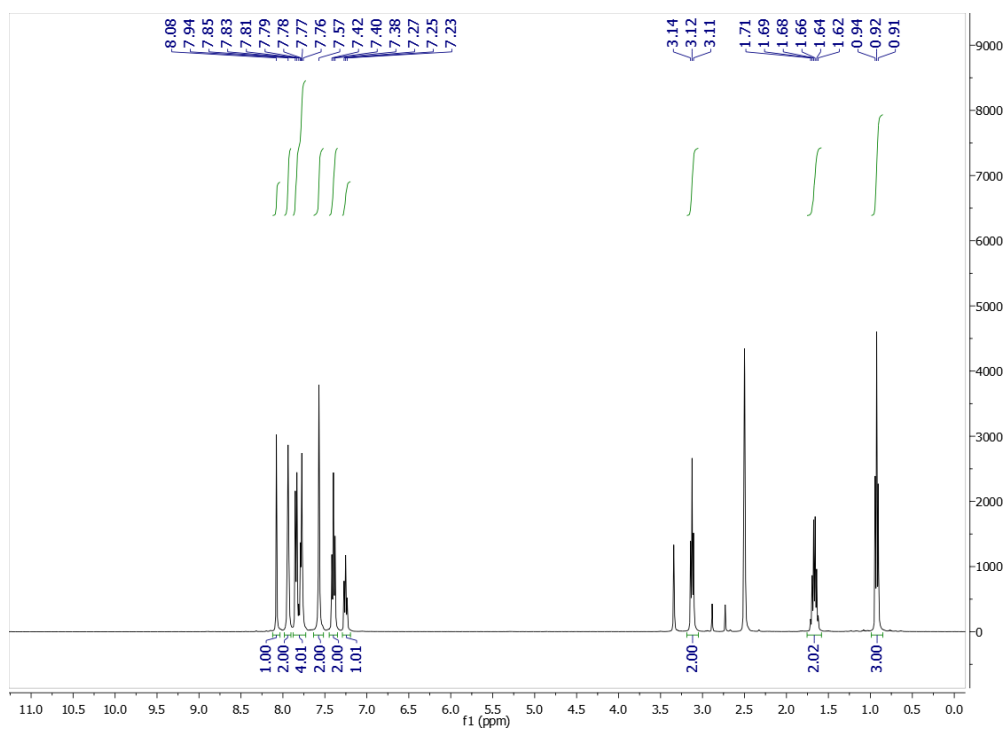


Figure S13. ¹H NMR of compound **16c** at 400 MHz (DMSO-*d*₆)

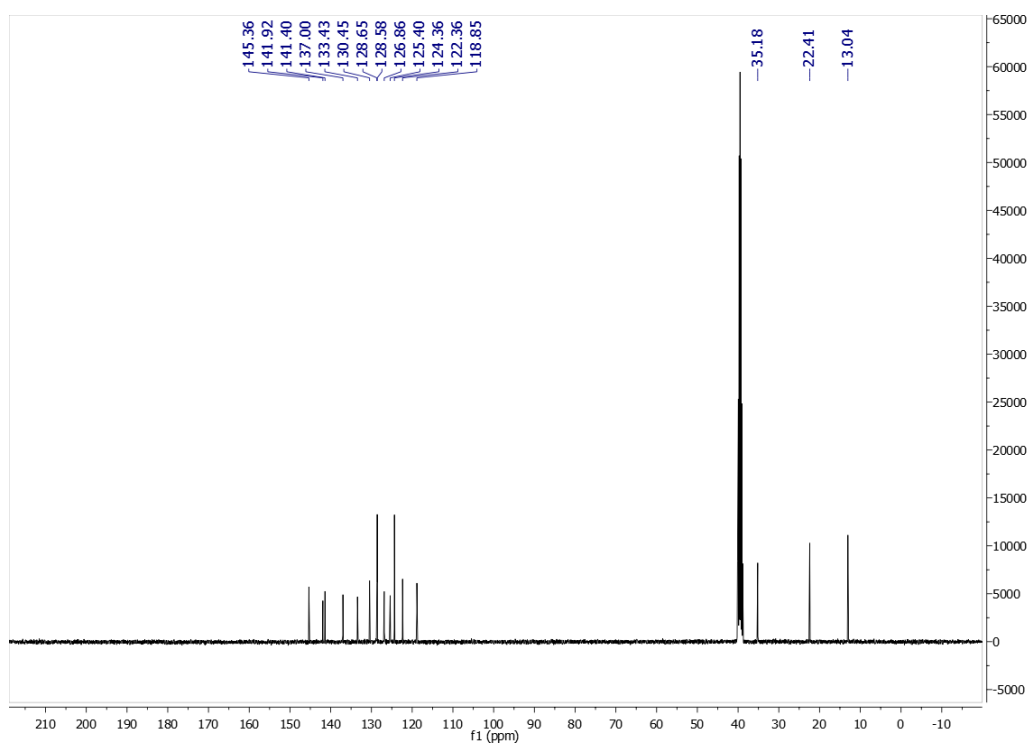


Figure S14. ¹³C NMR spectrum of compound **16c** at 101 MHz (DMSO-*d*₆)

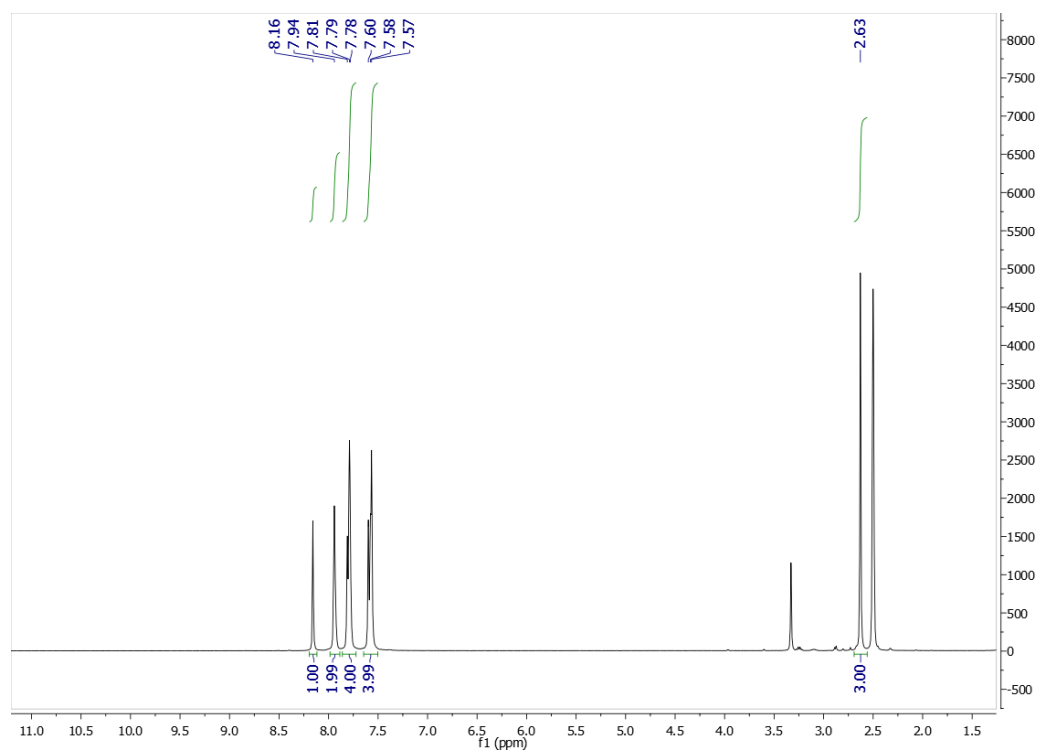


Figure S15. ¹H NMR of compound **17a** at 400 MHz (DMSO-*d*₆)

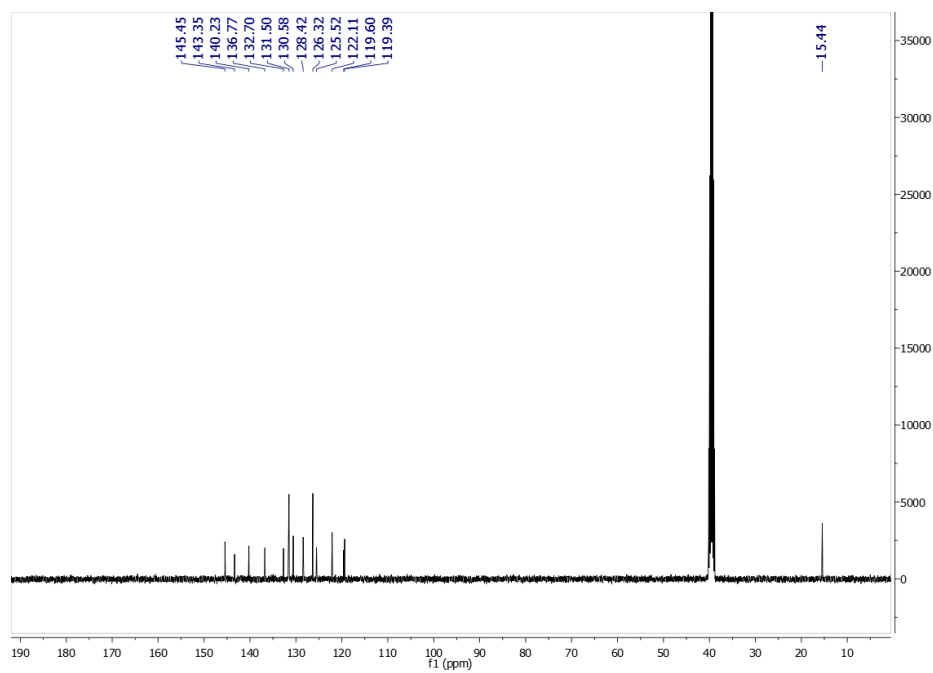


Figure S16. ¹³C NMR spectrum of compound **17a** at 101 MHz (DMSO-*d*₆)

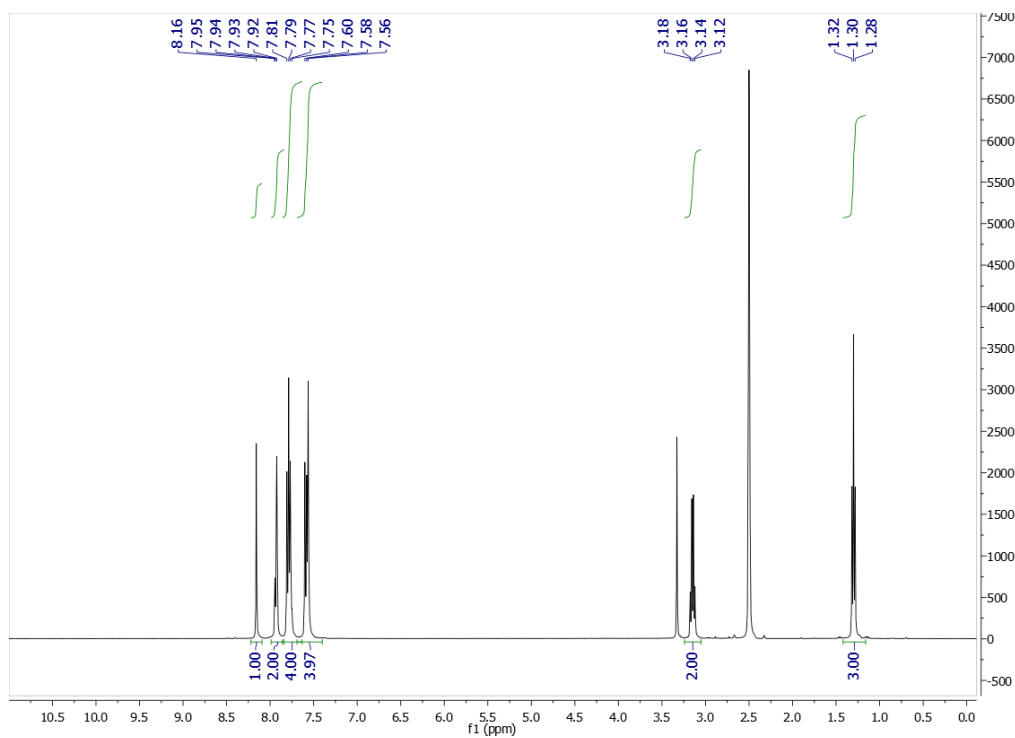


Figure S17. ¹H NMR of compound **17b** at 400 MHz (DMSO-*d*₆)

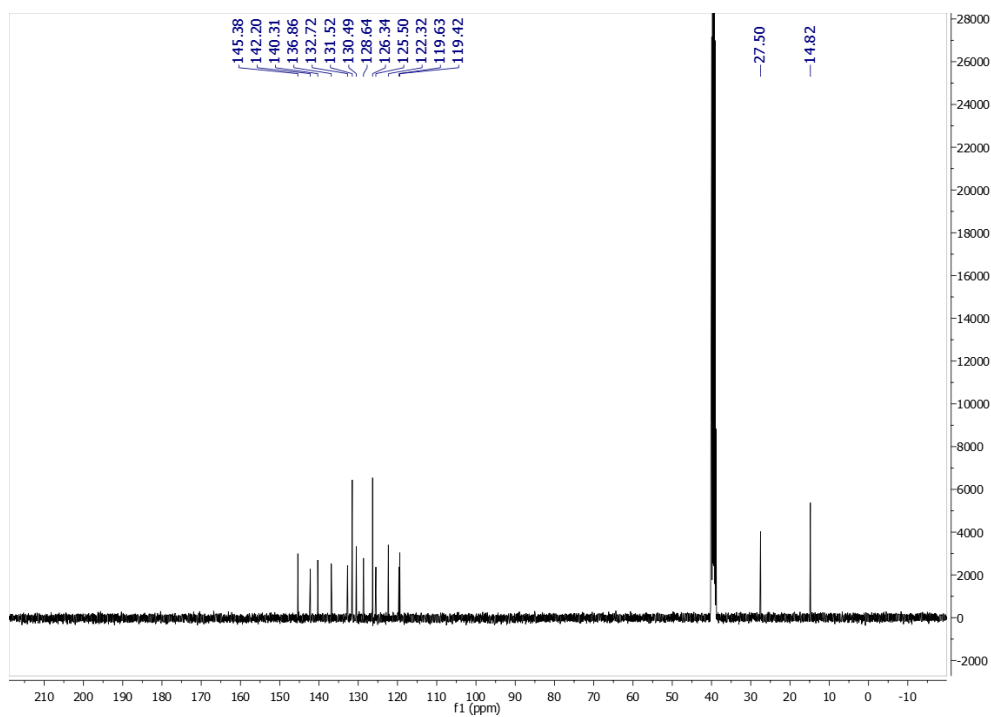


Figure S18. ¹³C NMR spectrum of compound **17b** at 101 MHz (DMSO-*d*₆)

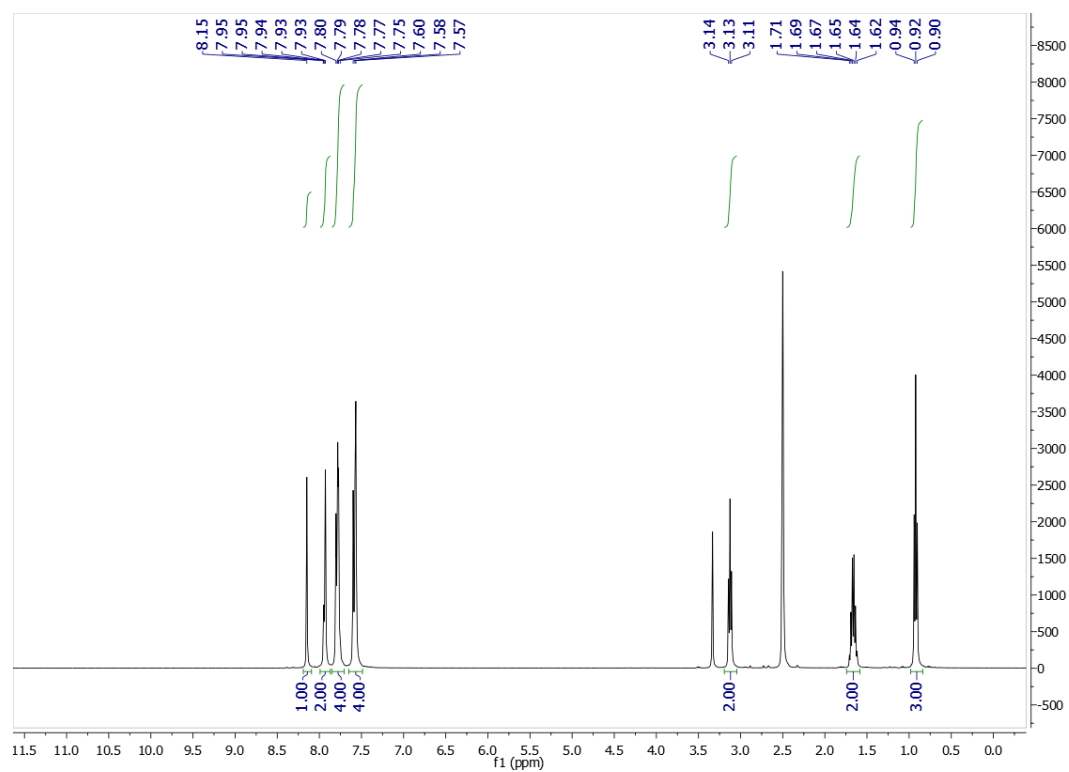


Figure S19. ¹H NMR of compound **17c** at 400 MHz (DMSO-*d*₆)

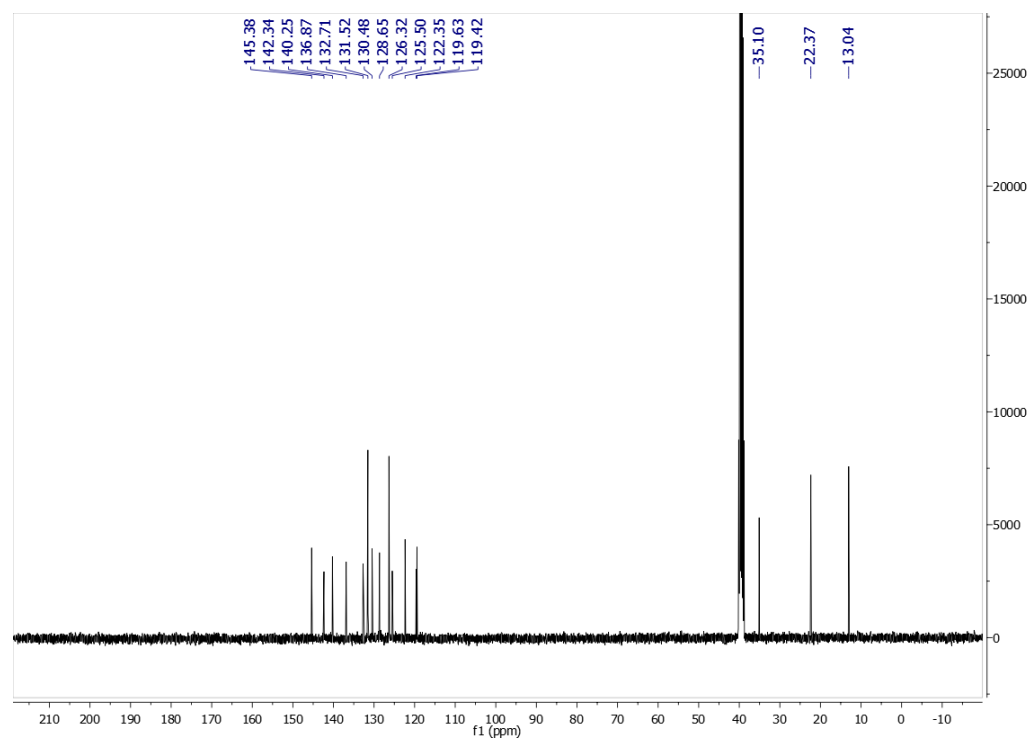


Figure S20. ¹³C NMR spectrum of compound **17c** at 101 MHz (DMSO-*d*₆)

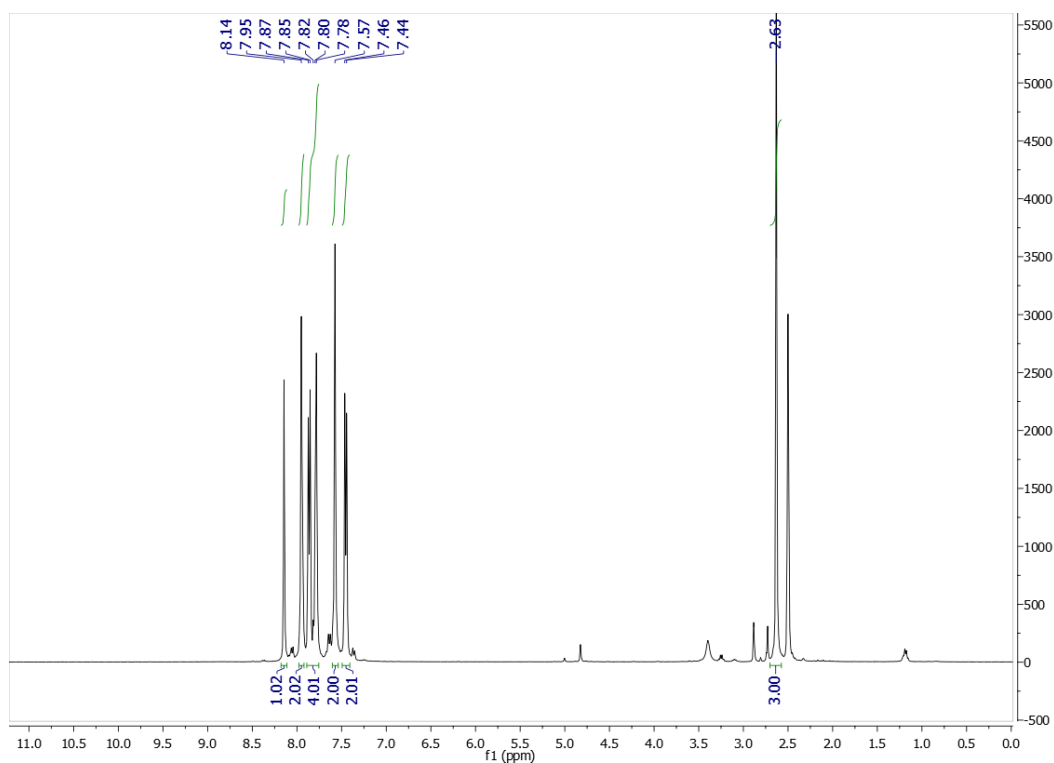


Figure S21. ¹H NMR of compound **18a** at 400 MHz (DMSO-*d*₆)

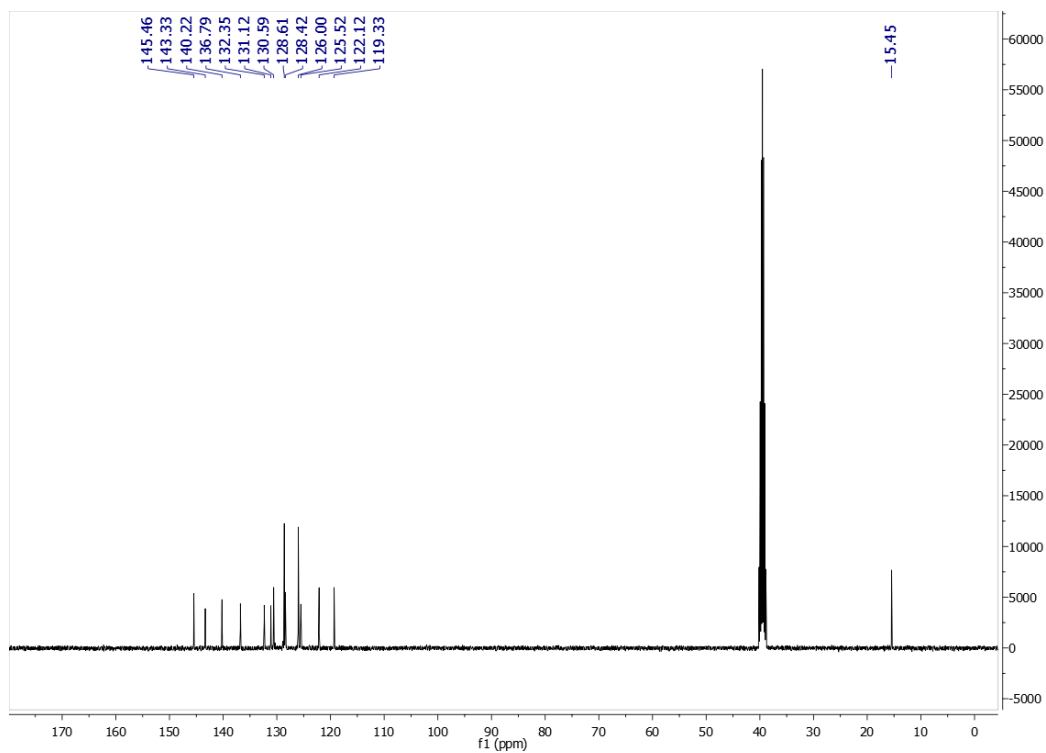


Figure S22. ¹³C NMR spectrum of compound **18a** at 101 MHz (DMSO-*d*₆)

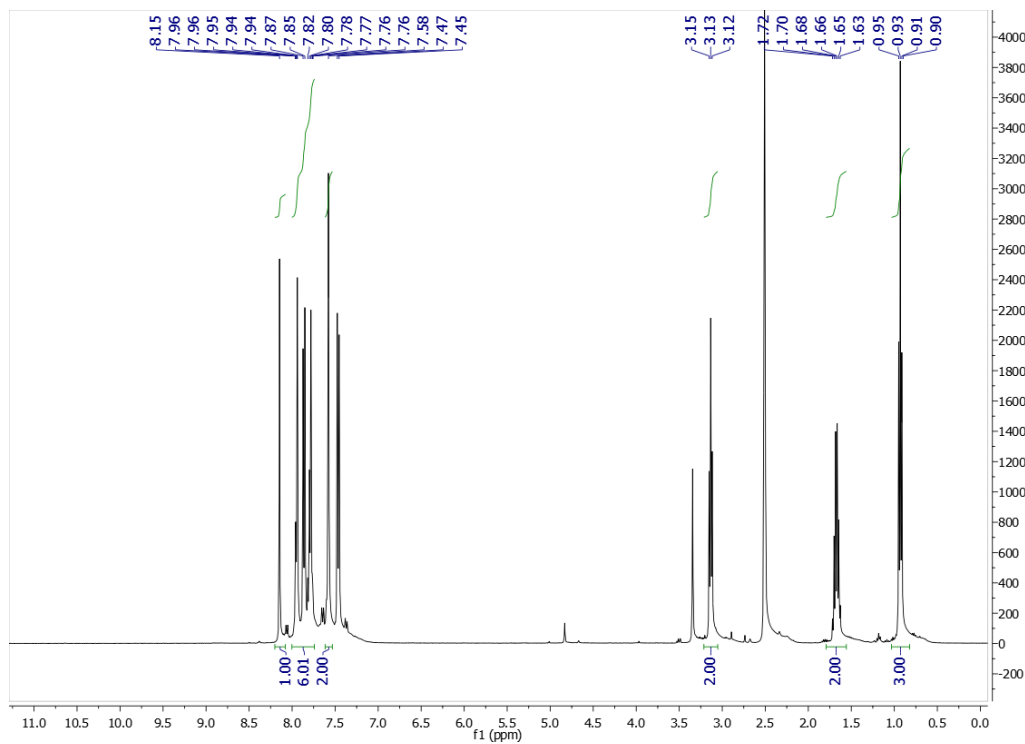


Figure S23. ¹H NMR of compound **18c** at 400 MHz (DMSO-*d*₆)

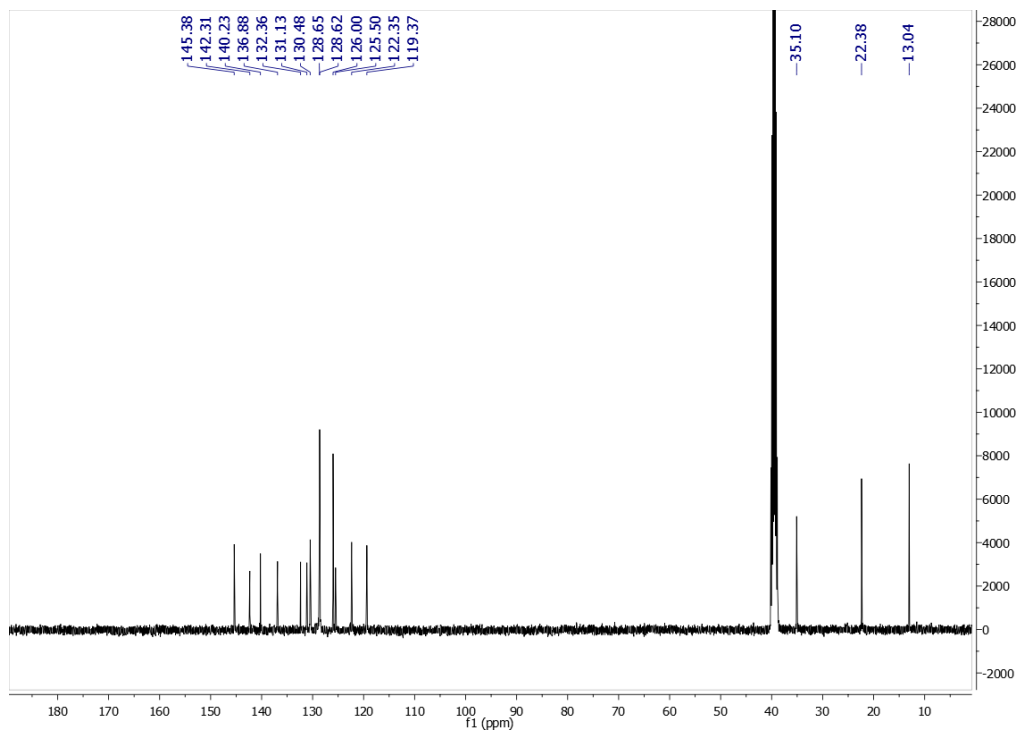


Figure S24. ¹³C NMR spectrum of compound **18c** at 101 MHz (DMSO-*d*₆)

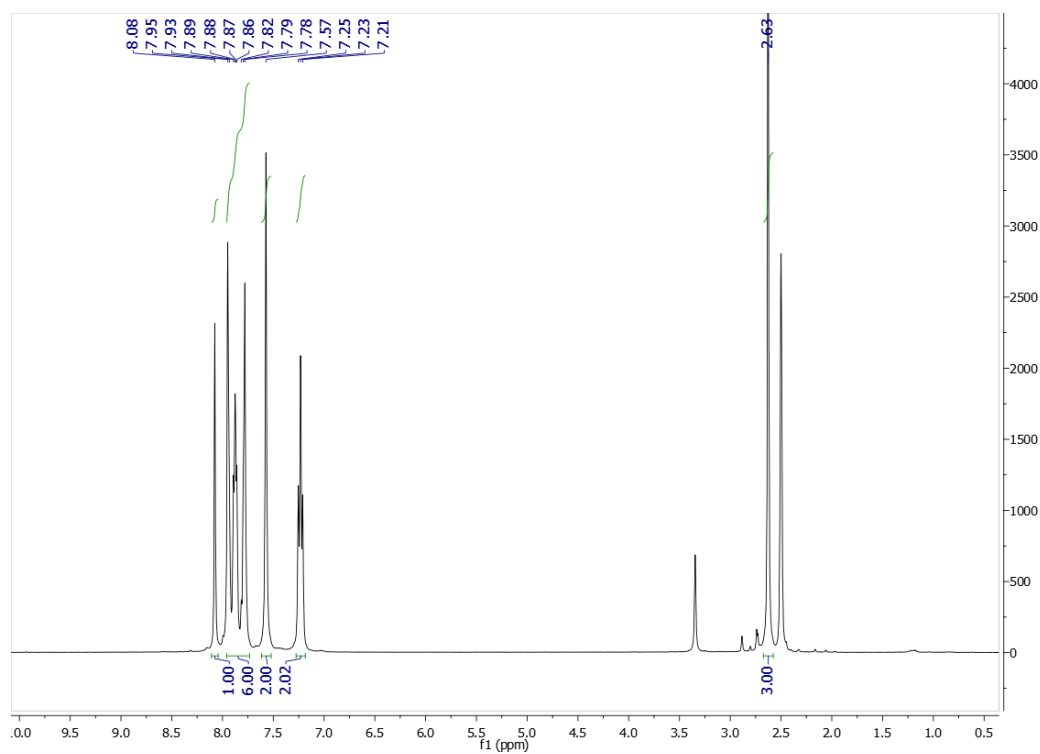


Figure S25. ¹H NMR of compound **19a** at 400 MHz (DMSO-*d*₆)

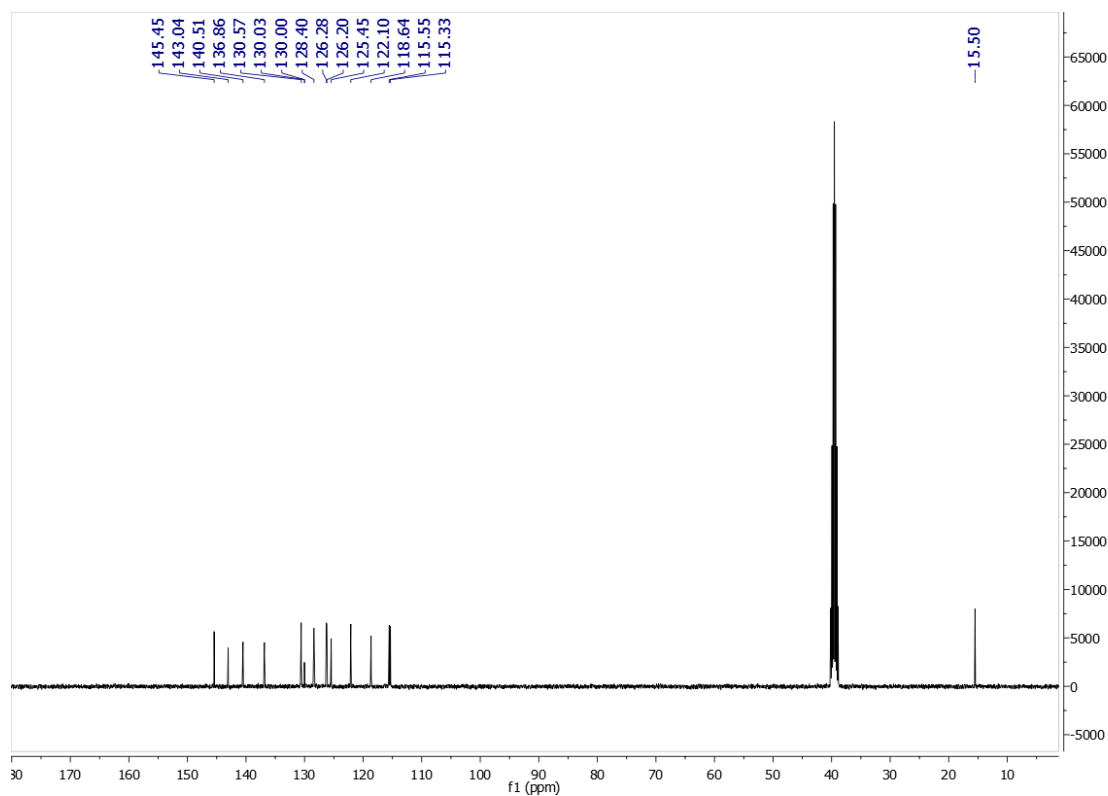


Figure S26. ¹³C NMR spectrum of compound **19a** at 101 MHz (DMSO-*d*₆)

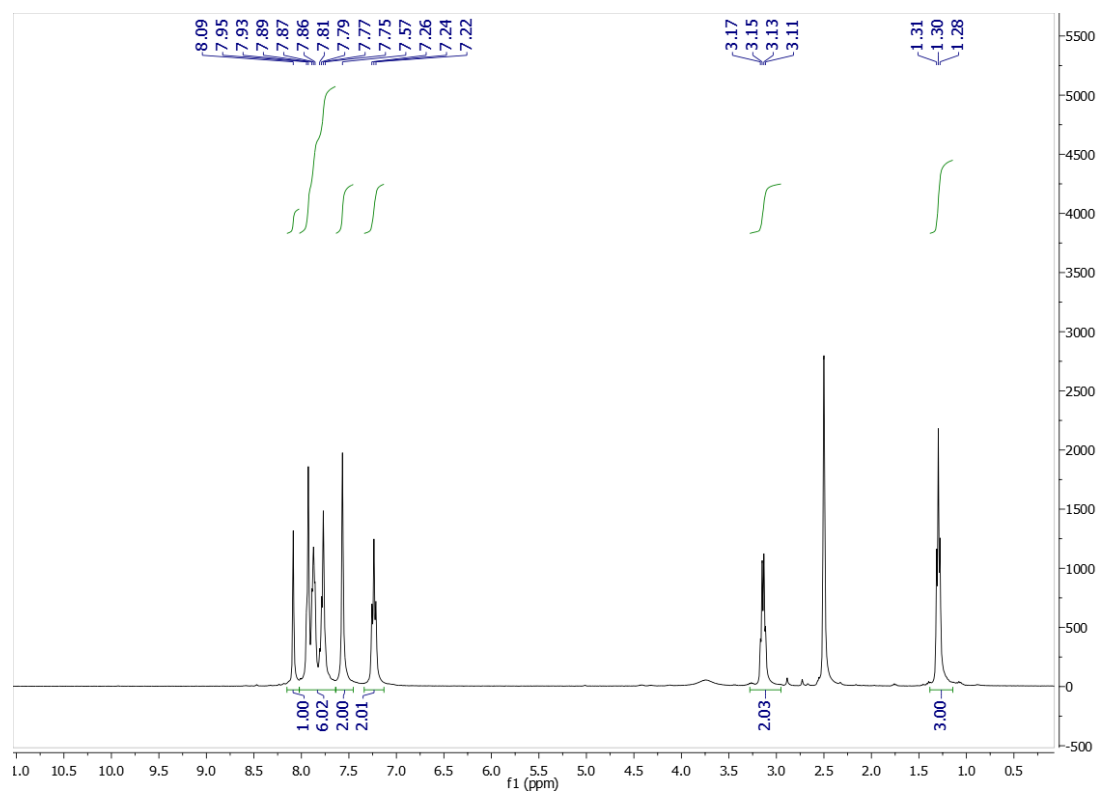


Figure S27. ¹H NMR of compound **19b** at 400 MHz (DMSO-*d*₆)

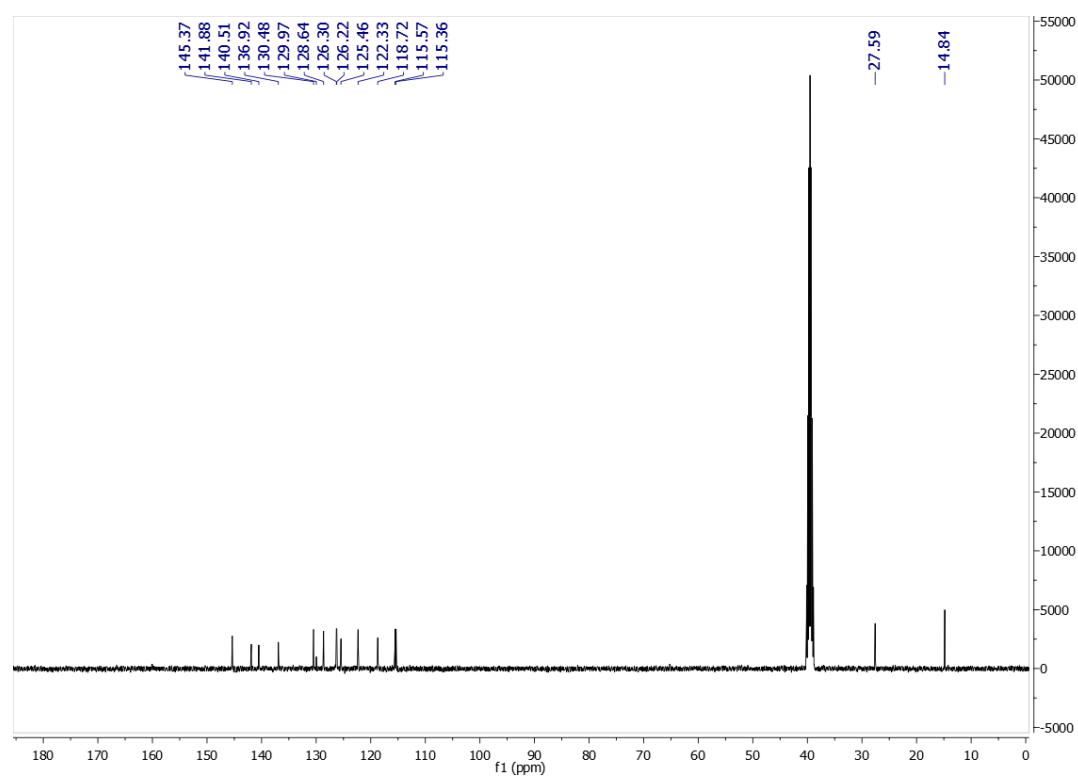


Figure S28. ¹³C NMR spectrum of compound **19b** at 101 MHz (DMSO-*d*₆)

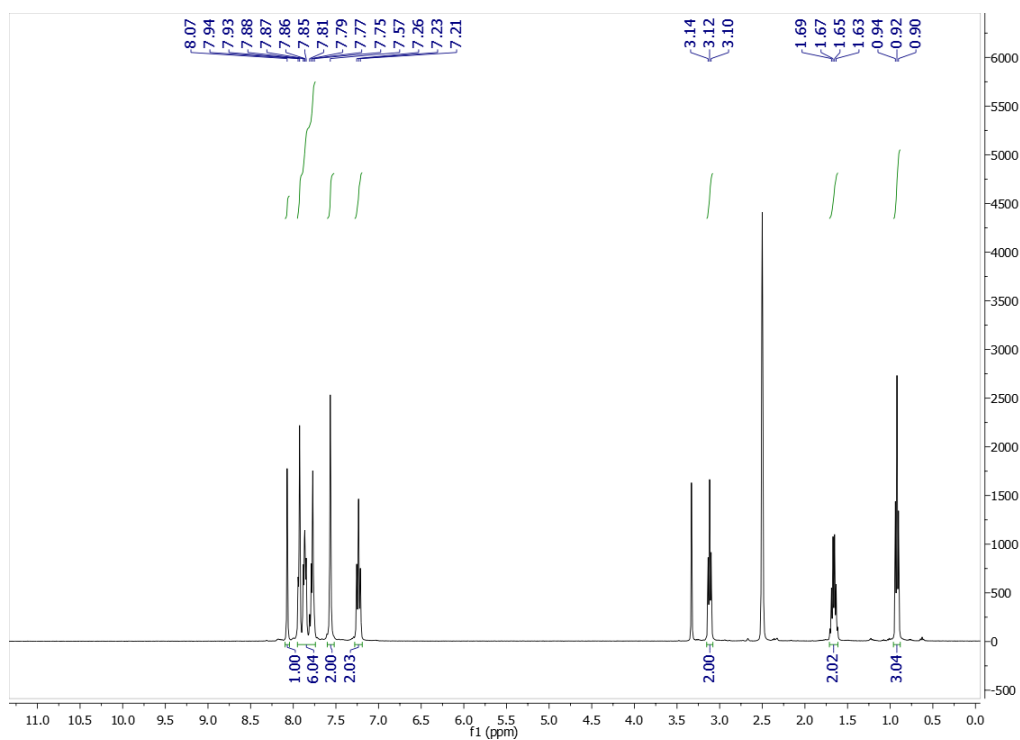


Figure S29. ¹H NMR of compound **19c** at 400 MHz (DMSO-*d*₆)

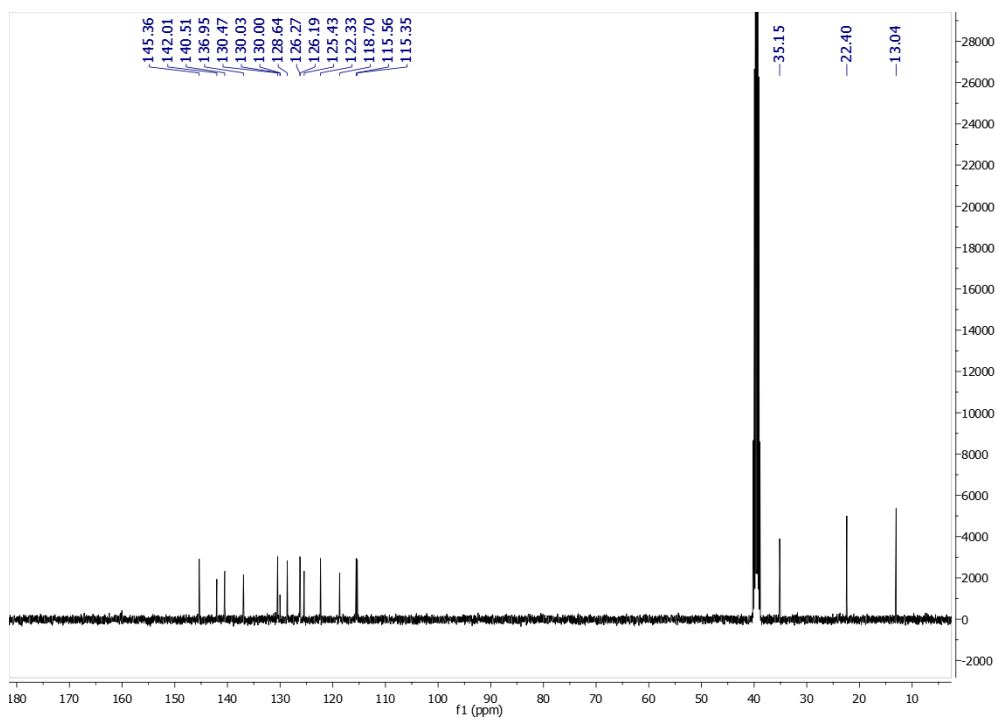


Figure S30. ¹³C NMR spectrum of compound **19c** at 101 MHz (DMSO-*d*₆)

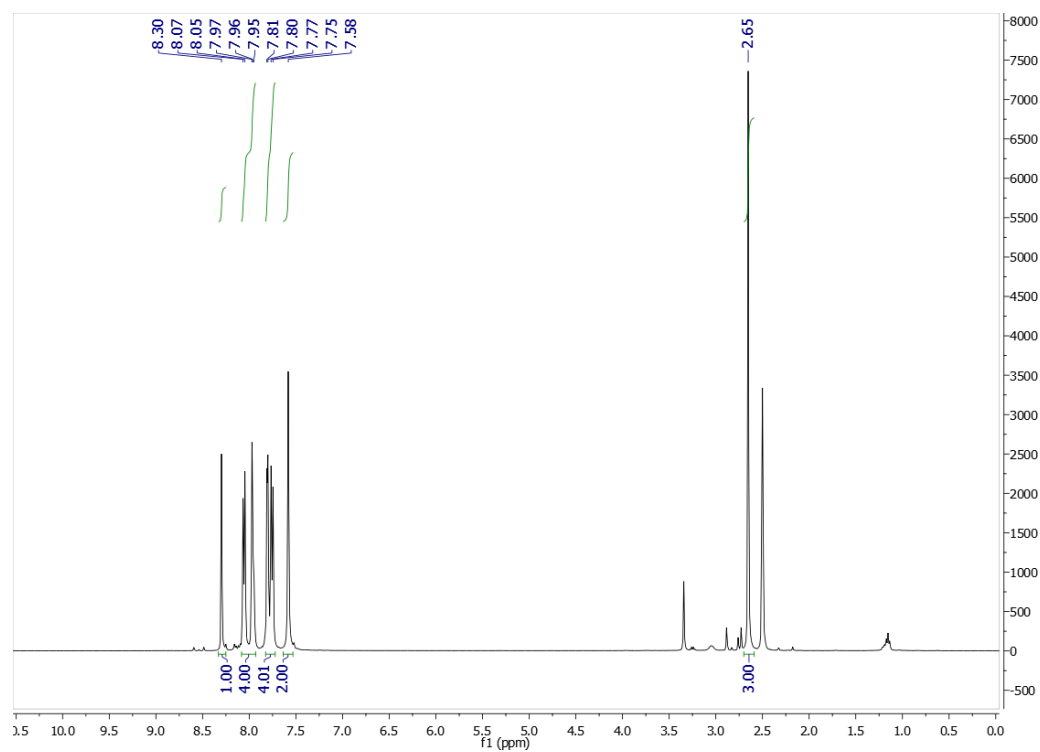


Figure S31. ¹H NMR of compound 20a at 400 MHz (DMSO-*d*₆)

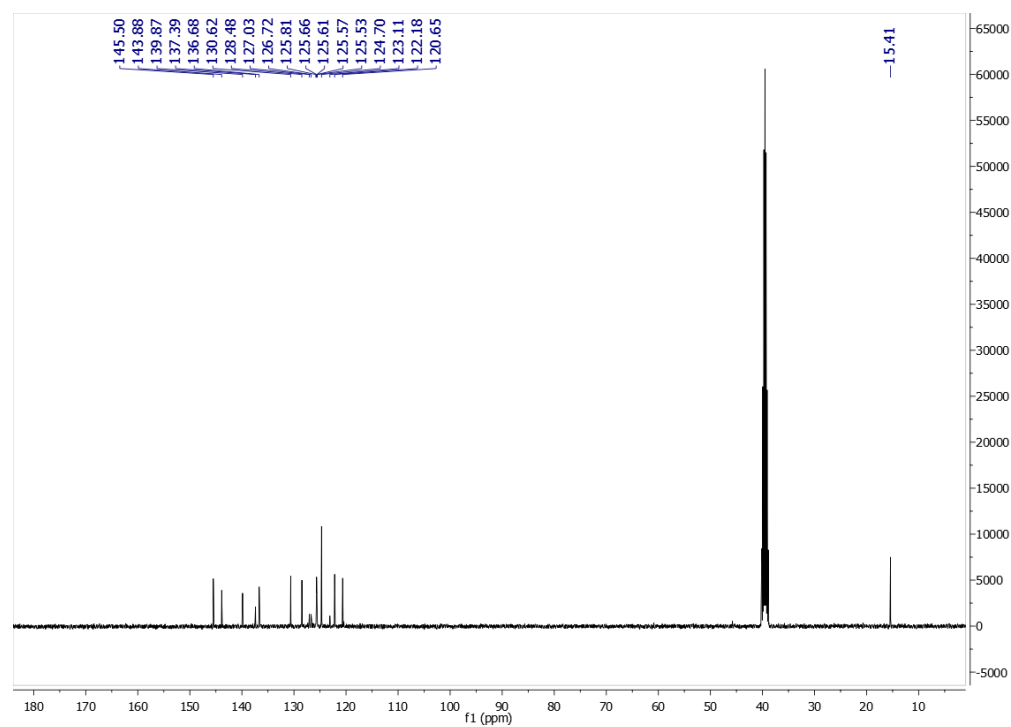


Figure S32. ¹³C NMR spectrum of compound 20a at 101 MHz (DMSO-*d*₆)

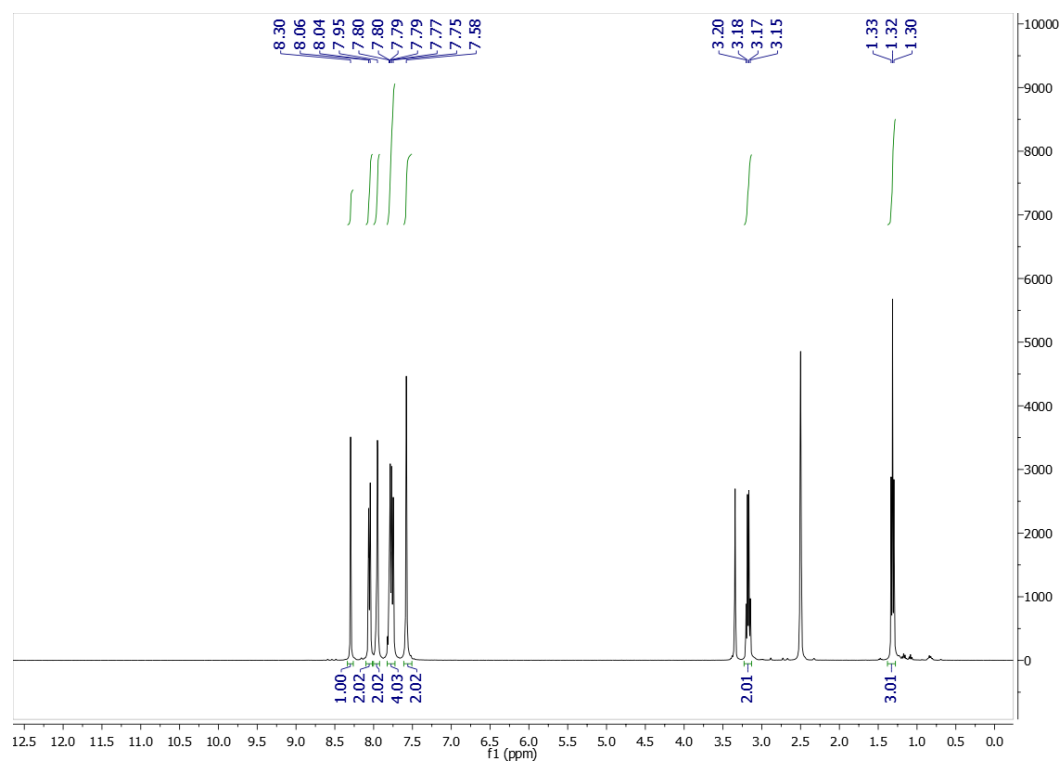


Figure S33. ¹H NMR of compound **20b** at 400 MHz (DMSO-*d*₆)

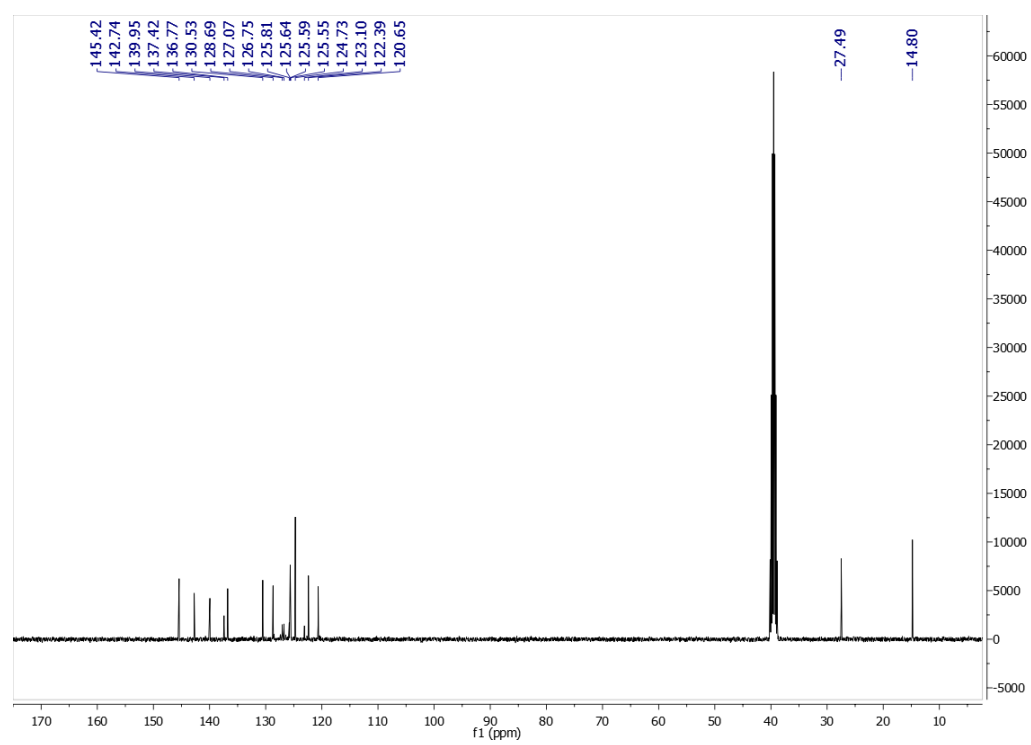


Figure S34. ¹³C NMR spectrum of compound **20b** at 101 MHz (DMSO-*d*₆)

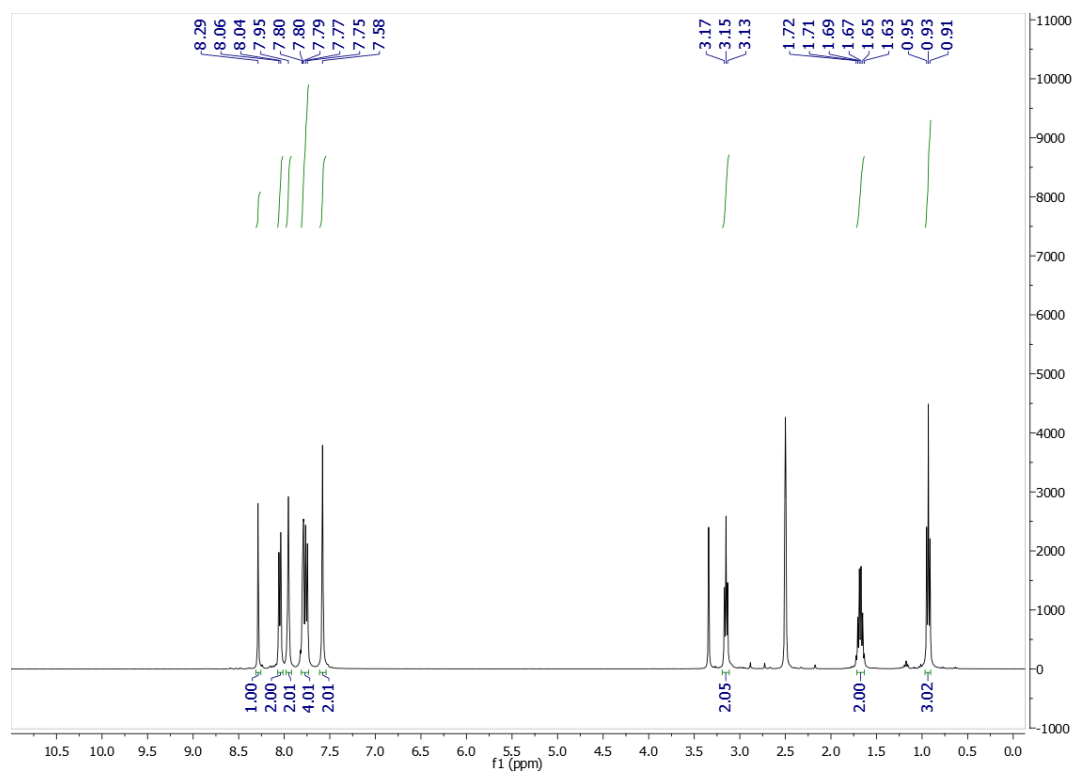


Figure S35. ¹H NMR of compound **20c** at 400 MHz (DMSO-*d*₆)

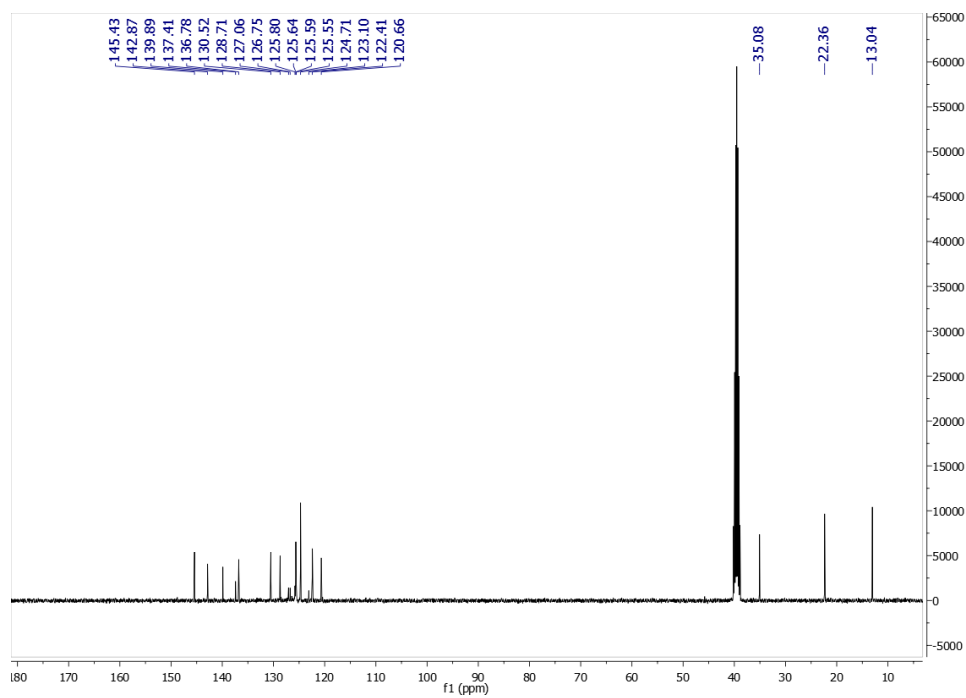


Figure S36. ¹³C NMR spectrum of compound **20c** at 101 MHz (DMSO-*d*₆)

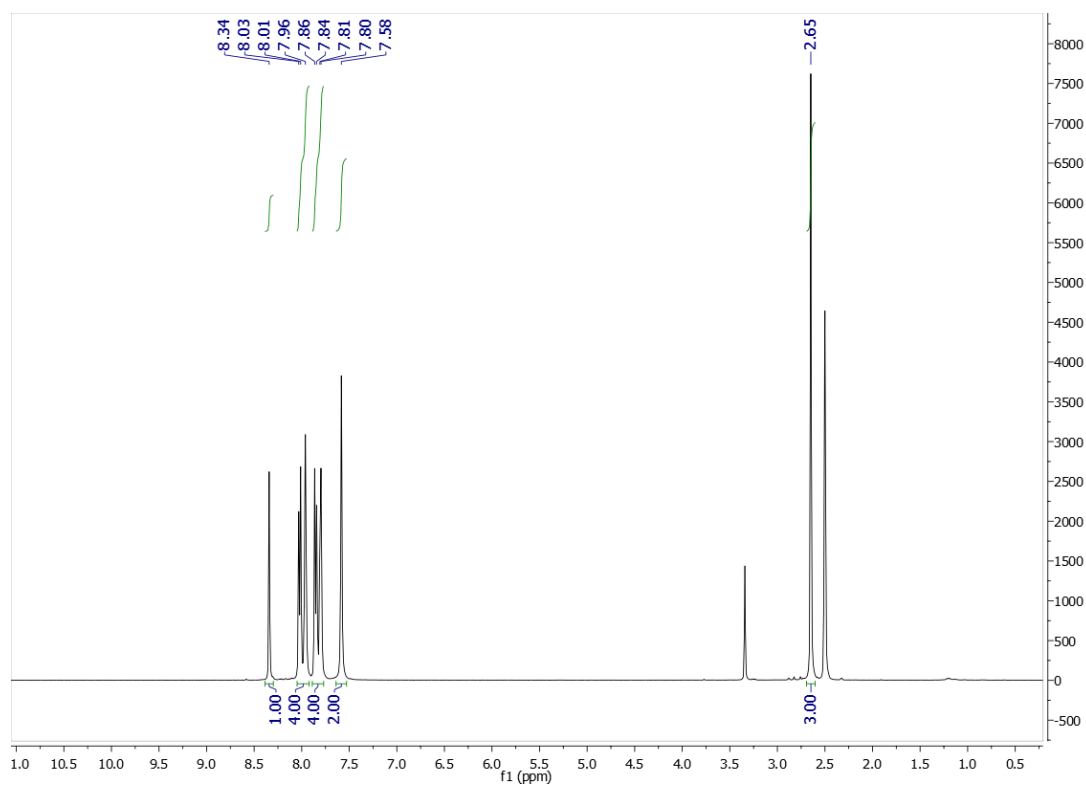


Figure S37. ¹H NMR of compound **21a** at 400 MHz (DMSO-*d*₆)

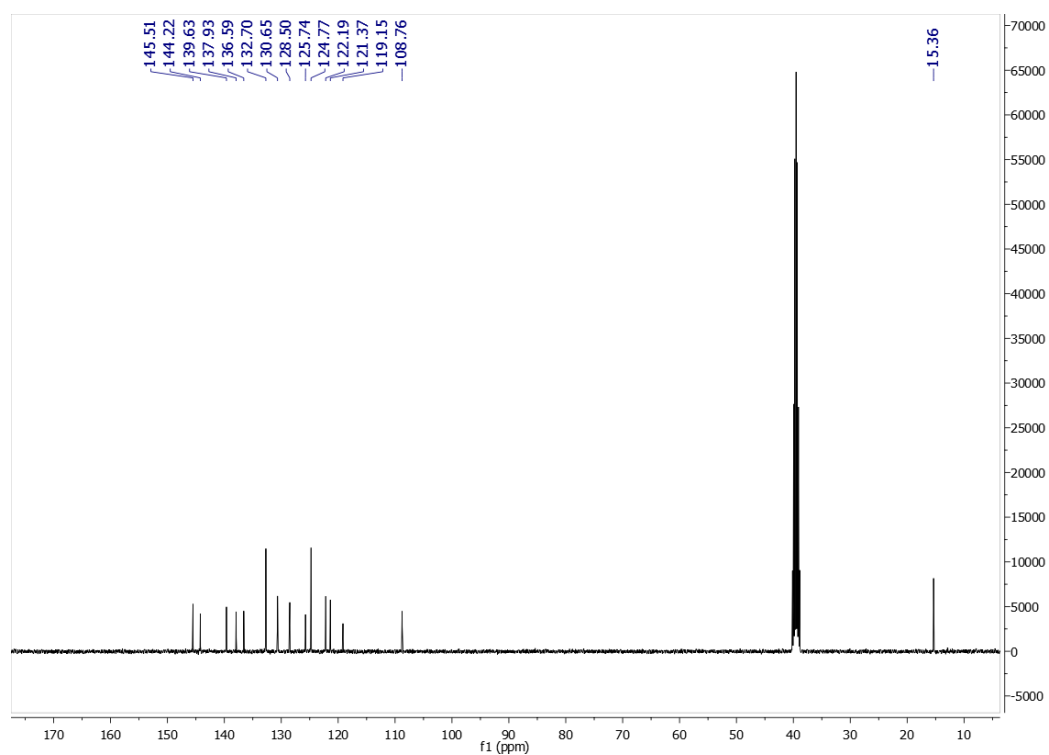


Figure S38. ¹³C NMR spectrum of compound **21a** at 101 MHz (DMSO-*d*₆)

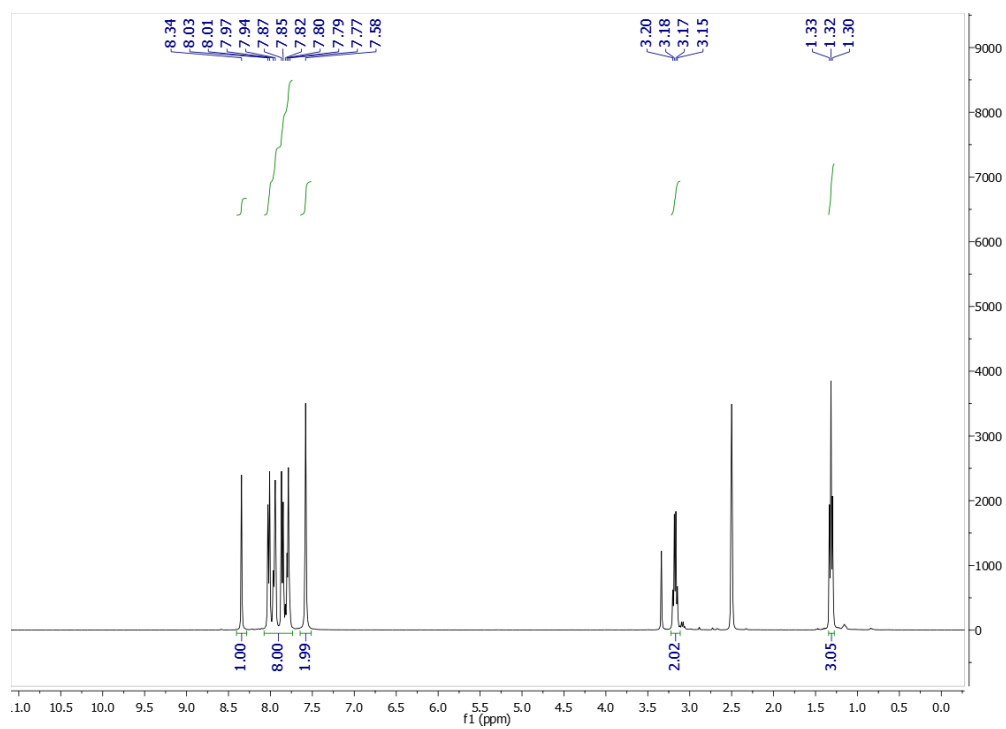


Figure S39. ¹H NMR of compound **21b** at 400 MHz (DMSO-*d*₆)

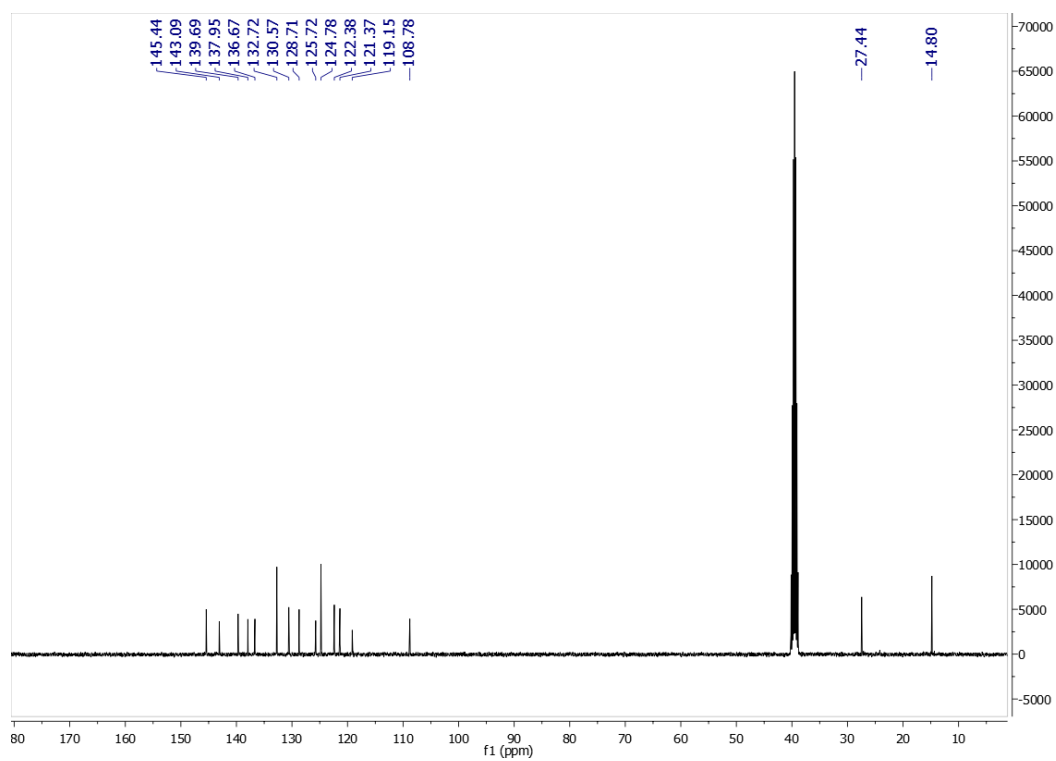


Figure S40. ¹³C NMR spectrum of compound **21b** at 101 MHz (DMSO-*d*₆)

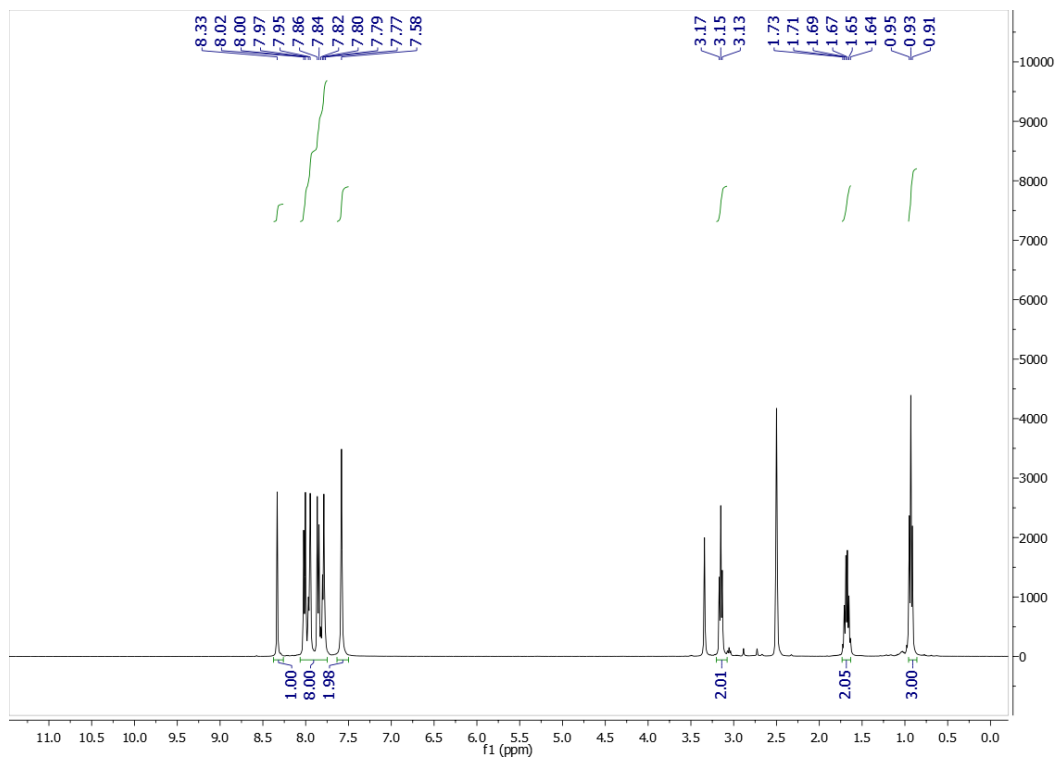


Figure S41. ¹H NMR of compound **21c** at 400 MHz (DMSO-*d*₆)

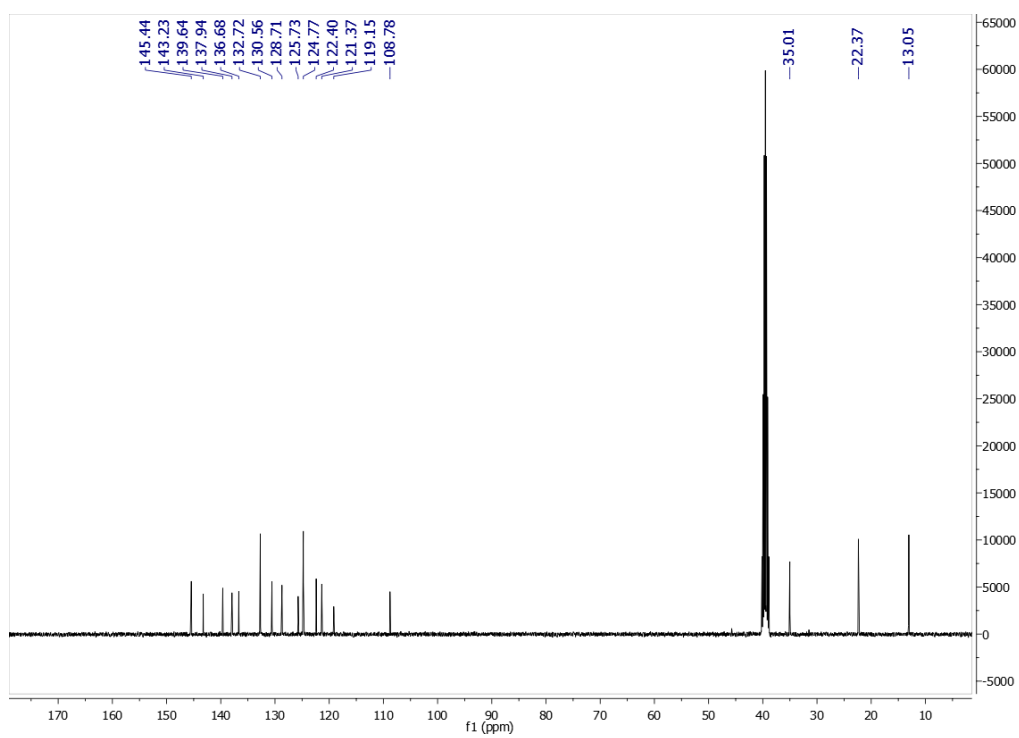


Figure S42. ¹³C NMR spectrum of compound **21c** at 101 MHz (DMSO-*d*₆)

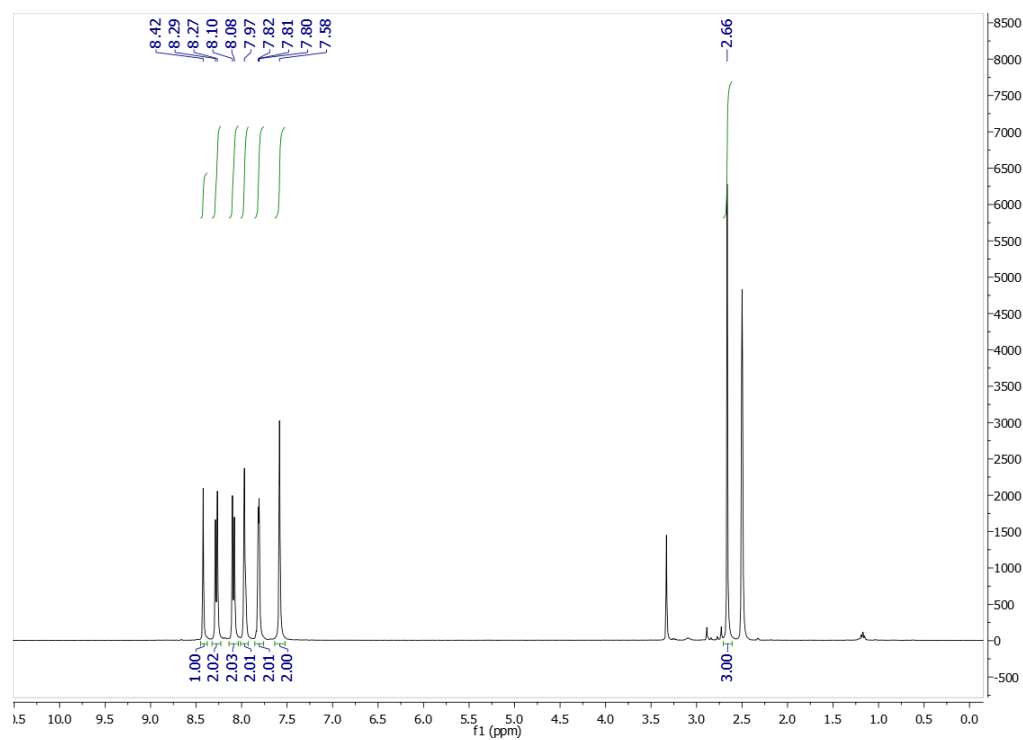


Figure S43. ¹H NMR of compound **22a** at 400 MHz (DMSO-*d*₆)

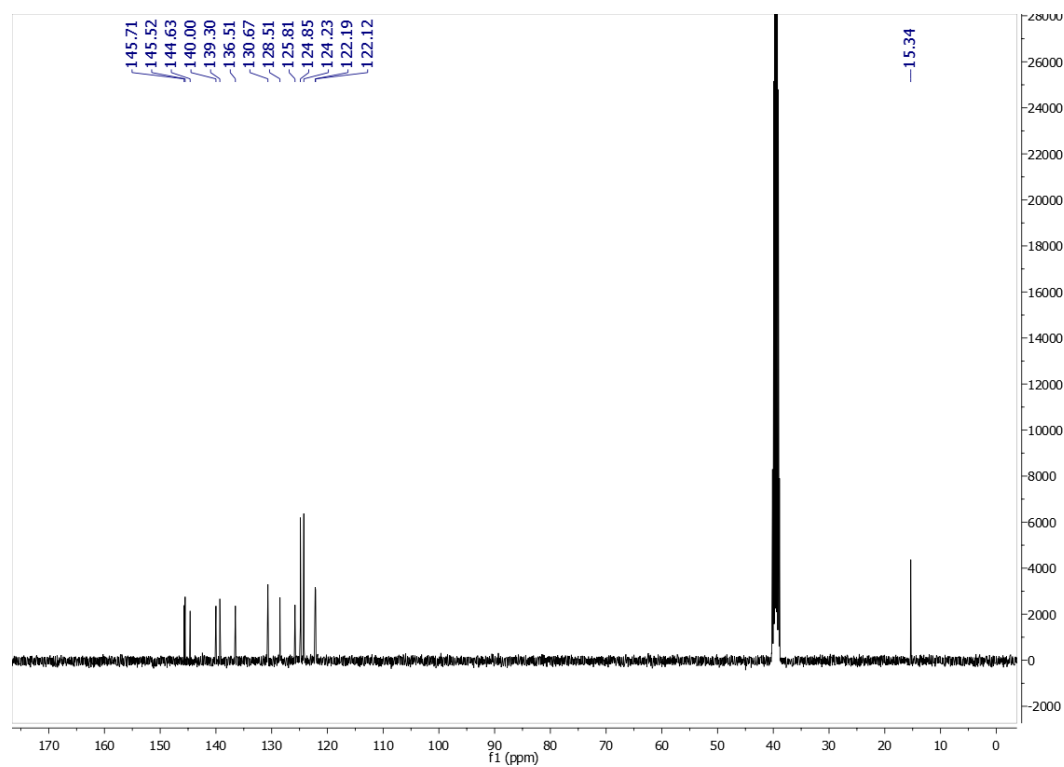


Figure S44. ¹³C NMR spectrum of compound **22a** at 101 MHz (DMSO-*d*₆)

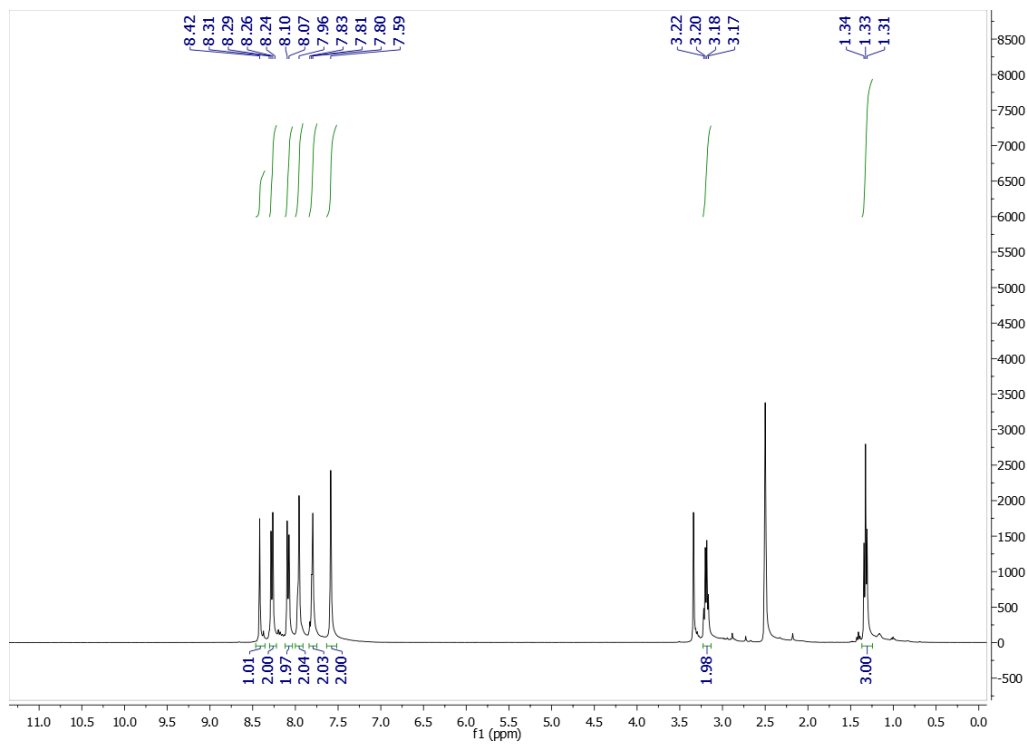


Figure S45. ¹H NMR of compound **22b** at 400 MHz (DMSO-*d*₆)

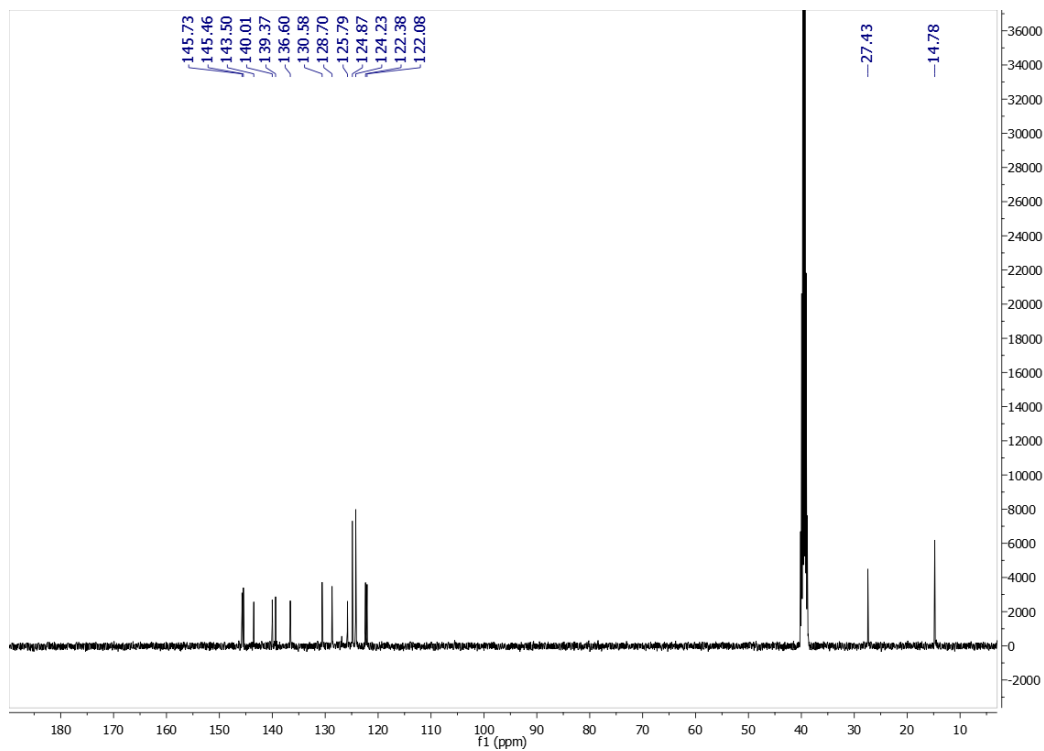


Figure S46. ¹³C NMR spectrum of compound **22b** at 101 MHz (DMSO-*d*₆)

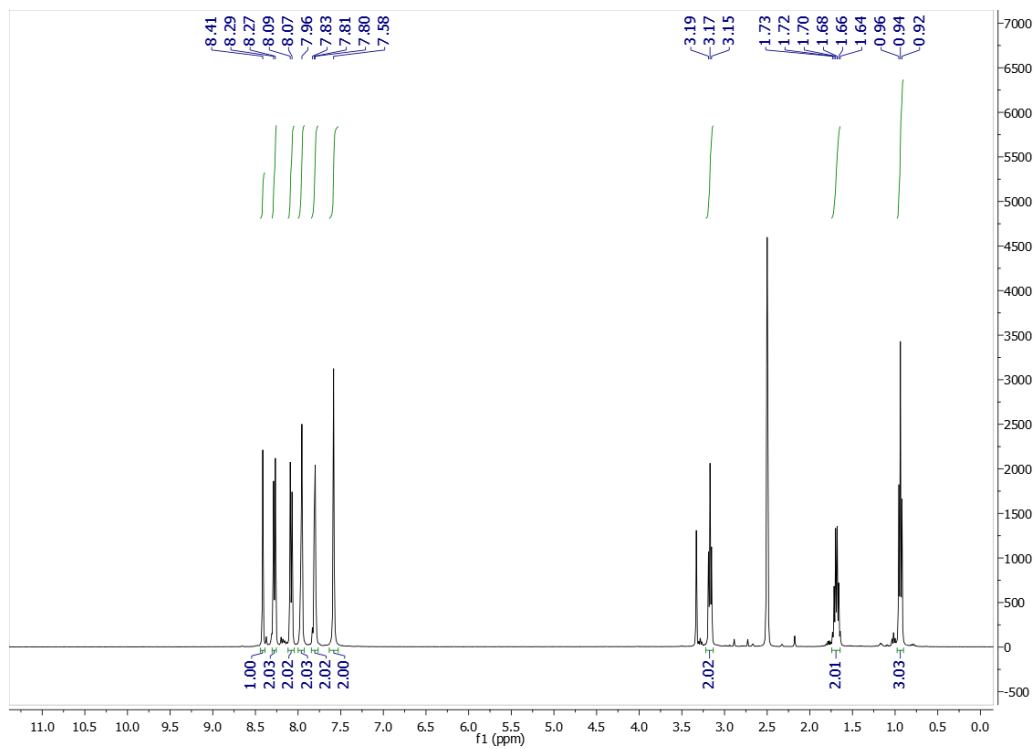


Figure S47. ¹H NMR of compound 22c at 400 MHz (DMSO-*d*₆)

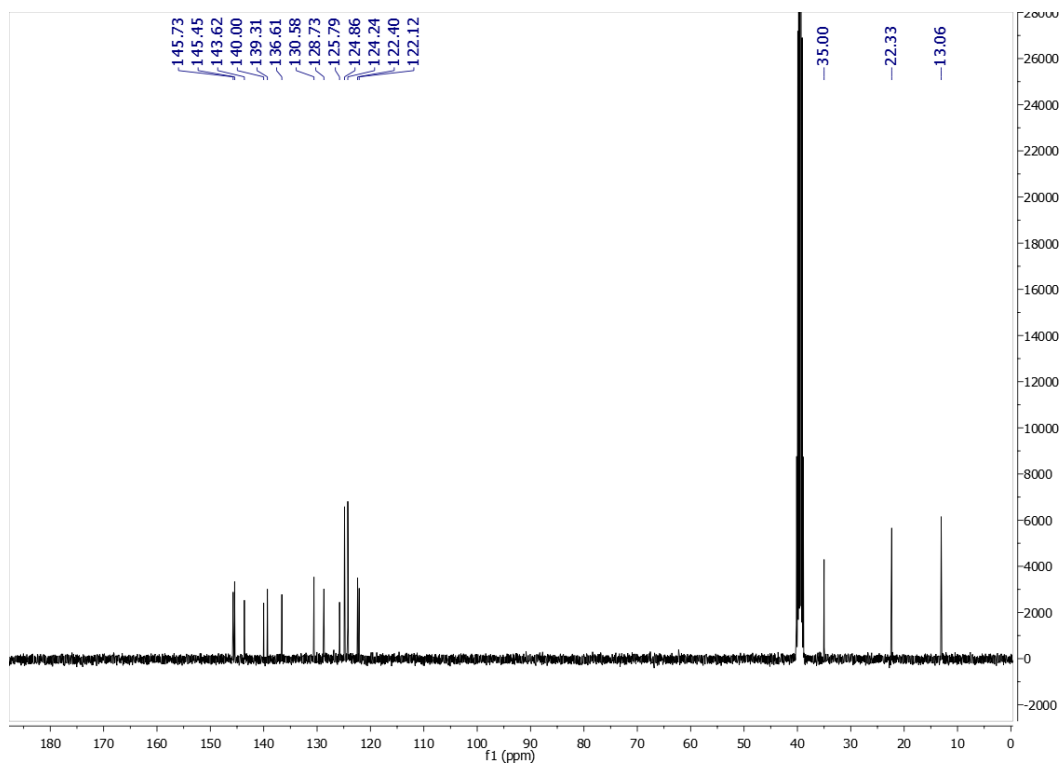


Figure S48. ¹³C NMR spectrum of compound 22c at 101 MHz (DMSO-*d*₆)

Table S1. The *in vitro* antibacterial activity of compounds **2-22c** against multidrug-resistant bacterial strains. The minimal inhibitory concentration (MIC) values are provided as an average value obtained from three experimental replicas.

Compound	Minimal inhibitory concentration (μg/ml)			
	<i>S. aureus</i> TCH 1516	<i>K. pneumoniae</i> AR-0034	<i>A. baumannii</i> AR-0033	<i>P. aeruginosa</i> AR-0054
2	>64	>64	>64	>64
3	>64	>64	>64	>64
4	>64	>64	>64	>64
5	>64	>64	>64	>64
5	>64	>64	>64	>64
7	>64	>64	>64	>64
8	>64	>64	>64	>64
9	>64	>64	>64	>64
10	>64	>64	>64	>64
11	>64	>64	>64	>64
12	>64	>64	>64	>64
13	>64	>64	>64	>64
14	>64	>64	>64	>64
15	64	>64	>64	>64
16	>64	>64	>64	>64
17	>64	>64	>64	>64
16a	>64	>64	>64	>64
16b	>64	>64	>64	>64
16c	>64	>64	>64	>64
17a	>64	>64	>64	>64
17b	>64	>64	>64	>64
17c	>64	>64	>64	>64
18a	>64	>64	>64	>64
18b	>64	>64	>64	>64
18c	>64	>64	>64	>64
19a	>64	>64	>64	>64
19b	>64	>64	>64	>64
19c	>64	>64	>64	>64
20a	>64	>64	>64	>64
20b	>64	>64	>64	>64
20c	>64	>64	>64	>64
21a	>64	>64	>64	>64
21b	>64	>64	>64	>64
21c	>64	>64	>64	>64
22a	>64	>64	>64	>64
22b	>64	>64	>64	>64
22c	>64	>64	>64	>64
Ceftazidime	16	>64	>64	>64
Ciprofloxacin	8	2	32	64
Levofloxacin	4	1	32	64
Meropenem	2	32	>64	16

Piperacillin/Tazobactam	4	4	8	>64
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Table S2. The *in vitro* antifungal activity of compounds **2-22c** against multidrug-resistant *Candida auris* strains. The minimal inhibitory concentration (MIC) values are provided as an average value obtained from three experimental replicas.

Compound	Minimal inhibitory concentration (µg/ml)		
	<i>C. auris</i> AR-381	<i>C. auris</i> AR-382	<i>C. auris</i> AR-383
2	>64	>64	>64
3	>64	>64	>64
4	>64	>64	>64
5	>64	>64	>64
6	>64	>64	>64
7	>64	>64	>64
8	>64	>64	>64
9	>64	>64	>64
10	>64	>64	>64
11	>64	>64	>64
12	>64	>64	>64
13	32	16	32
14	>64	>64	>64
15	>64	>64	>64
16a	>64	>64	>64
16b	>64	>64	>64
16c	>64	>64	>64
17a	>64	>64	>64
17b	>64	>64	>64
17c	>64	>64	>64
18a	>64	>64	>64
18b	>64	>64	>64
18c	>64	>64	>64
19a	64	64	32
19b	>64	>64	>64
19c	>64	>64	>64
20a	>64	>64	>64
20b	>64	>64	>64
20c	>64	>64	>64
21a	>64	>64	>64
21b	>64	>64	>64
21c	>64	>64	>64
22a	>64	>64	>64
22b	>64	>64	>64
22c	>64	>64	>64
Fluconazole	8	32	>64
Amfotericin B	≤0.5	≤0.5	≤0.5