

Supporting Information

Nickel-Catalyzed Alkylation of Ketones and Nitriles with Primary Alcohols

Sertaç Genç, Burcu Arslan, Derya Gülcemal, Süleyman Gülcemal, and Salih Günnaz*

Ege University, Department of Chemistry, 35100 Bornova, Izmir, Turkey

* E-mail: salih.gunnaz@ege.edu.tr

Contents

1. Monitoring of the reaction by ^1H NMR in toluene- d_8	S2
2. Time course of the reaction.....	S2
3. Traces of ^1H and ^{13}C NMR spectra of products	S3-S41

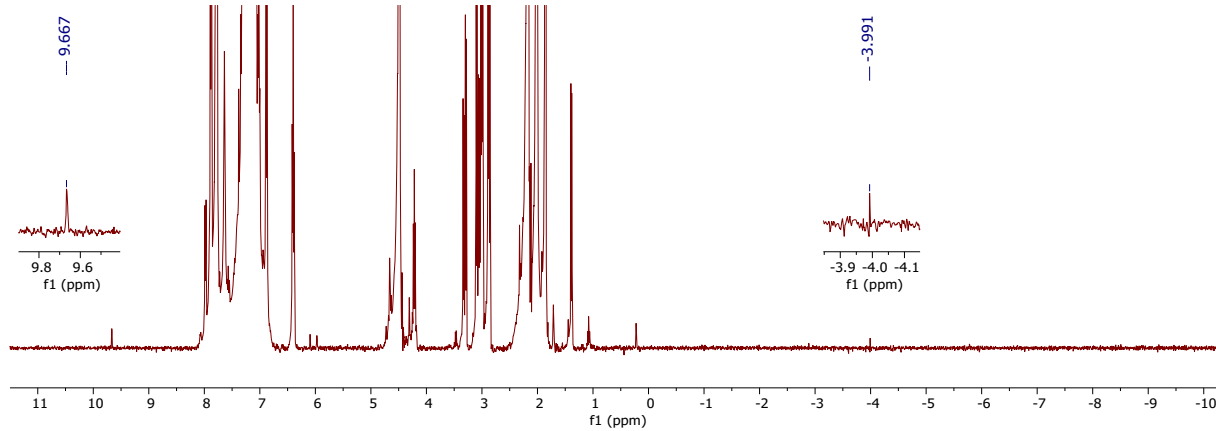


Figure S1. Monitoring of the reaction by ^1H NMR in toluene- d_8

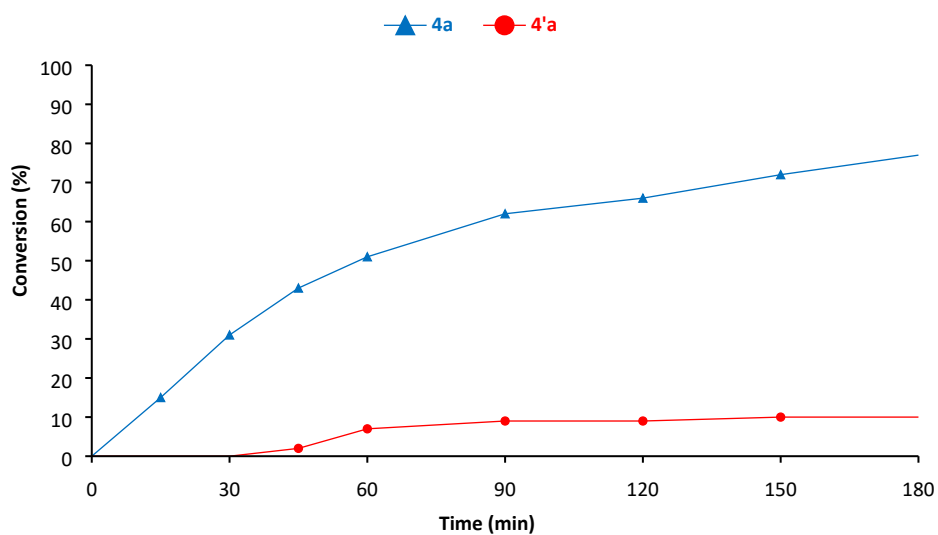


Figure S2. Time course of the reaction

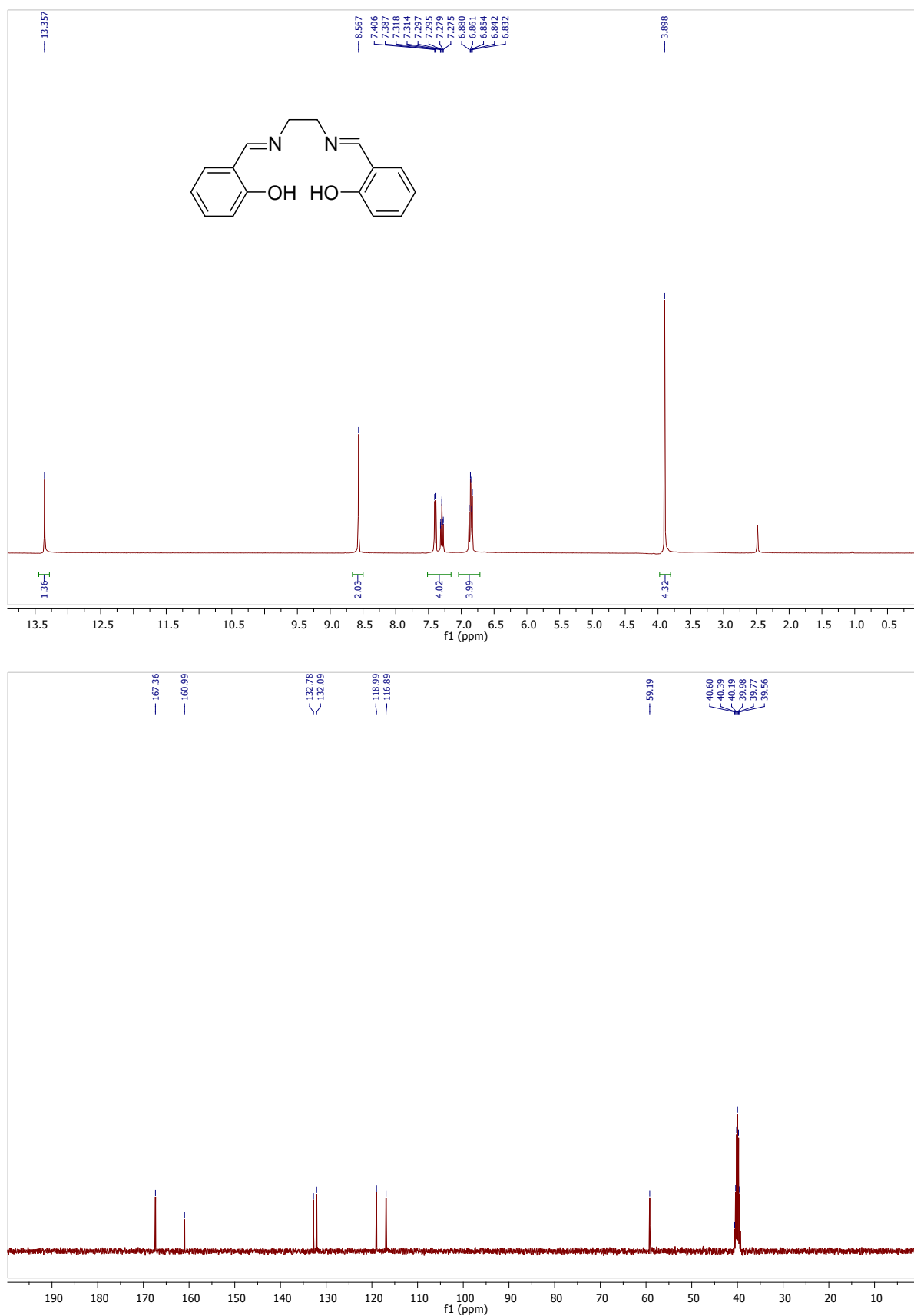


Figure S3. ¹H (400 MHz, DMSO-*d*₆) and ¹³C (100.6 MHz, DMSO-*d*₆) NMR spectra of **L_a**

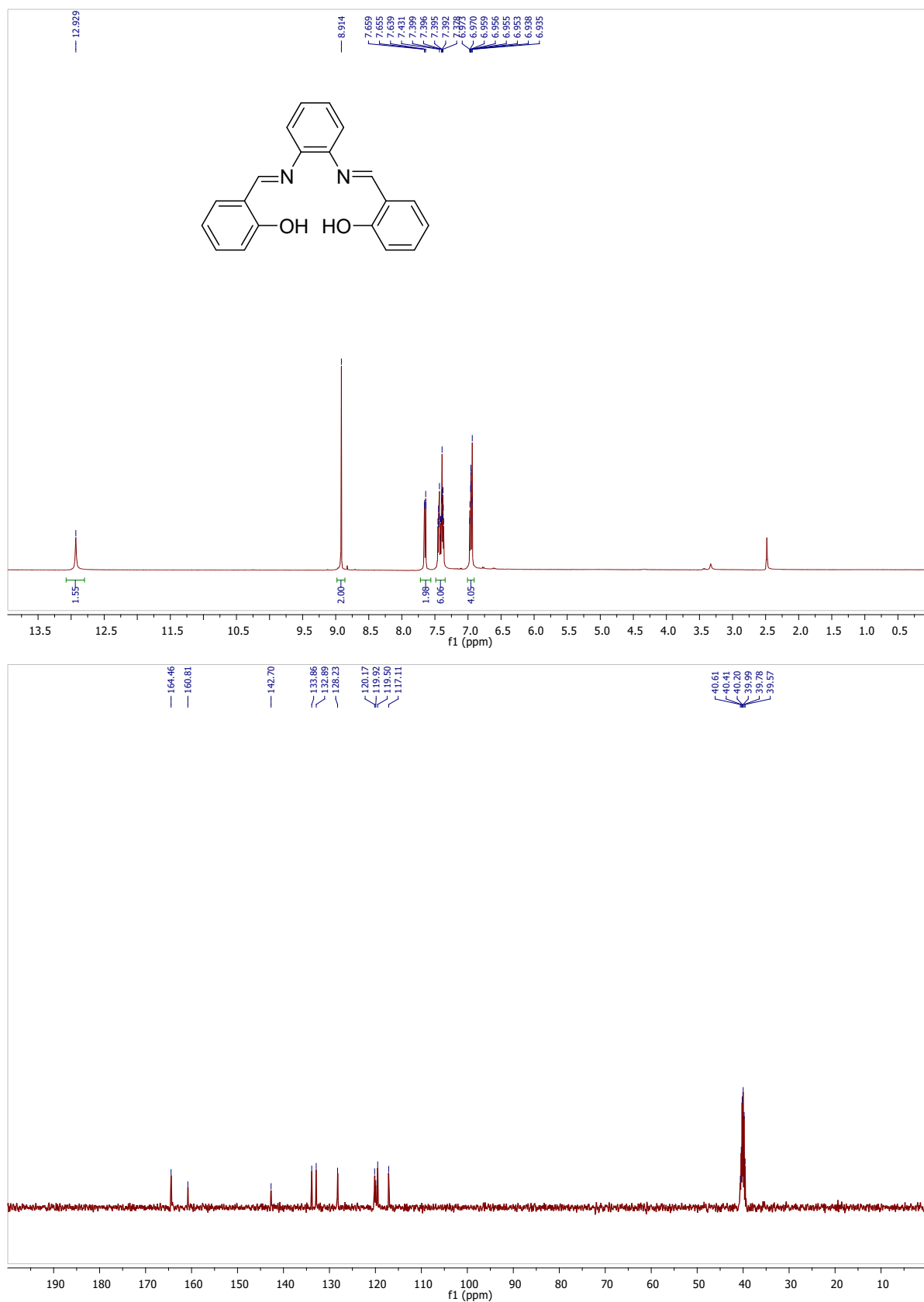


Figure S4. ¹H (400 MHz, DMSO-*d*₆) and ¹³C (100.6 MHz, DMSO-*d*₆) NMR spectra of **L_b**

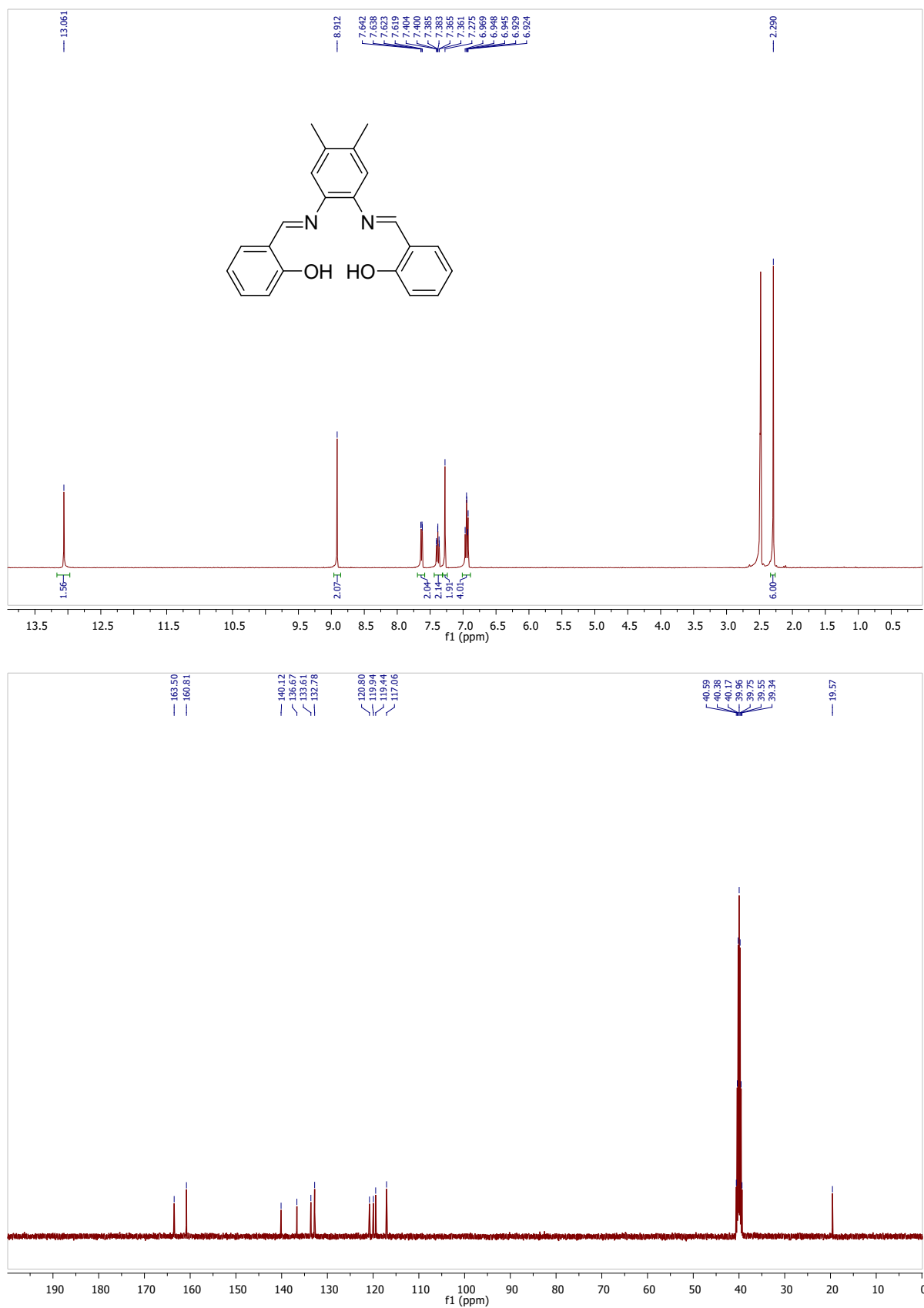


Figure S5. ¹H (400 MHz, DMSO-*d*₆) and ¹³C (100.6 MHz, DMSO-*d*₆) NMR spectra of **L_c**

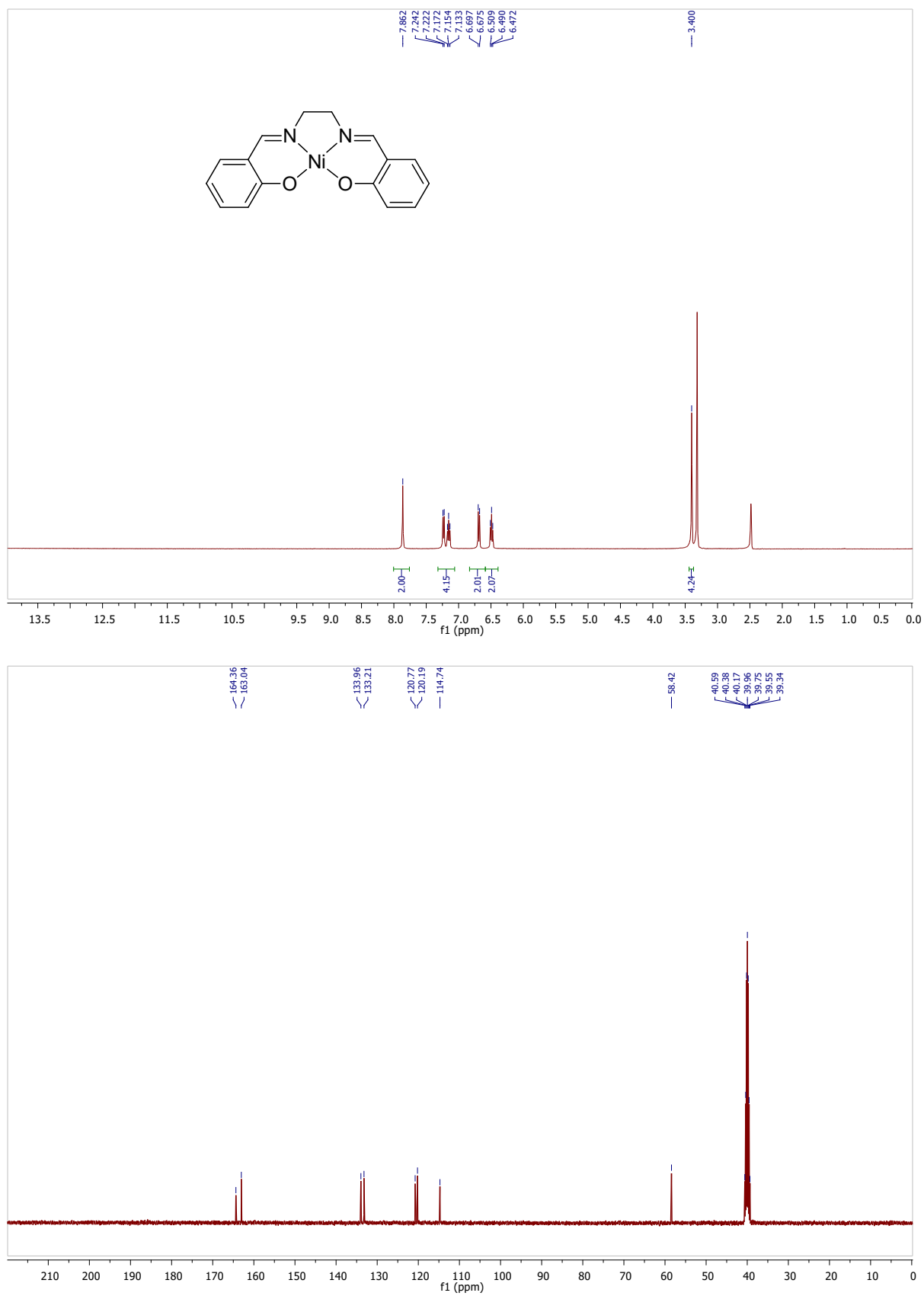


Figure S6. ¹H (400 MHz, DMSO-*d*₆) and ¹³C (100.6 MHz, DMSO-*d*₆) NMR spectra of **1a**

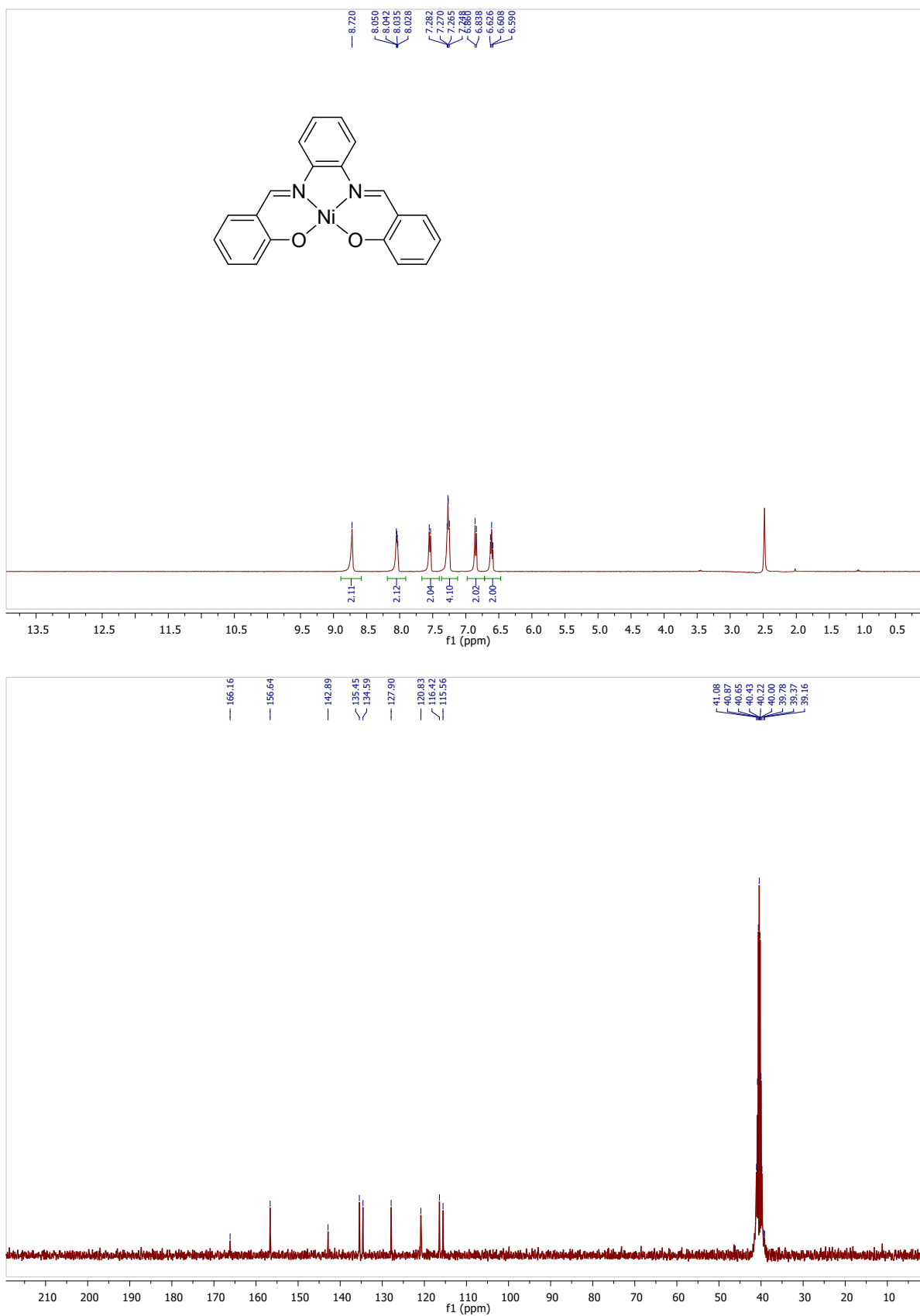


Figure S7. ^1H (400 MHz, $\text{DMSO-}d_6$) and ^{13}C (100.6 MHz, $\text{DMSO-}d_6$) NMR spectra of **1b**

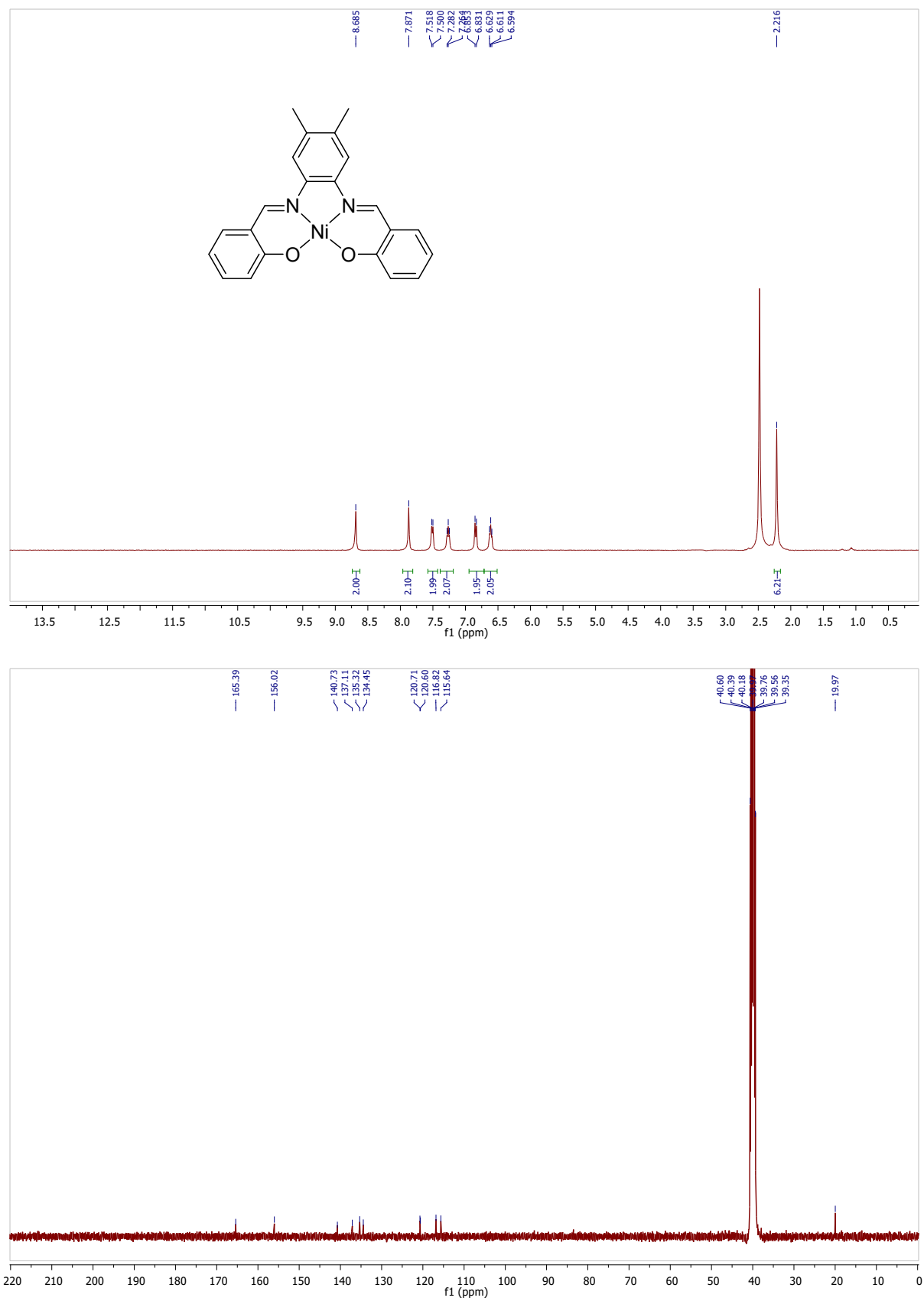


Figure S8. ¹H (400 MHz, DMSO-*d*₆) and ¹³C (100.6 MHz, DMSO-*d*₆) NMR spectra of **1c**

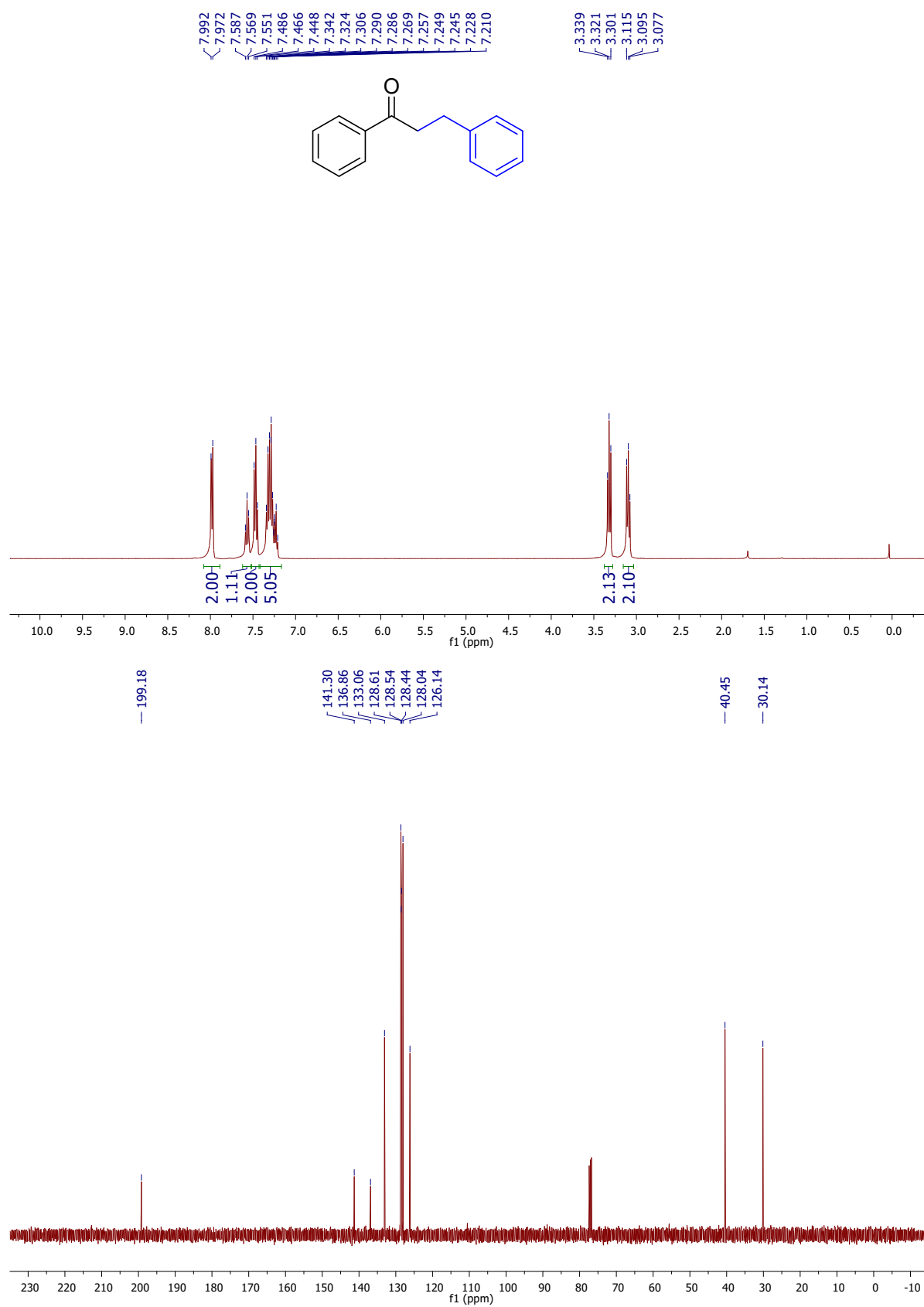


Figure S9. ¹H (400 MHz, CDCl₃) and ¹³C (100.6 MHz, CDCl₃) NMR spectra of **4a**

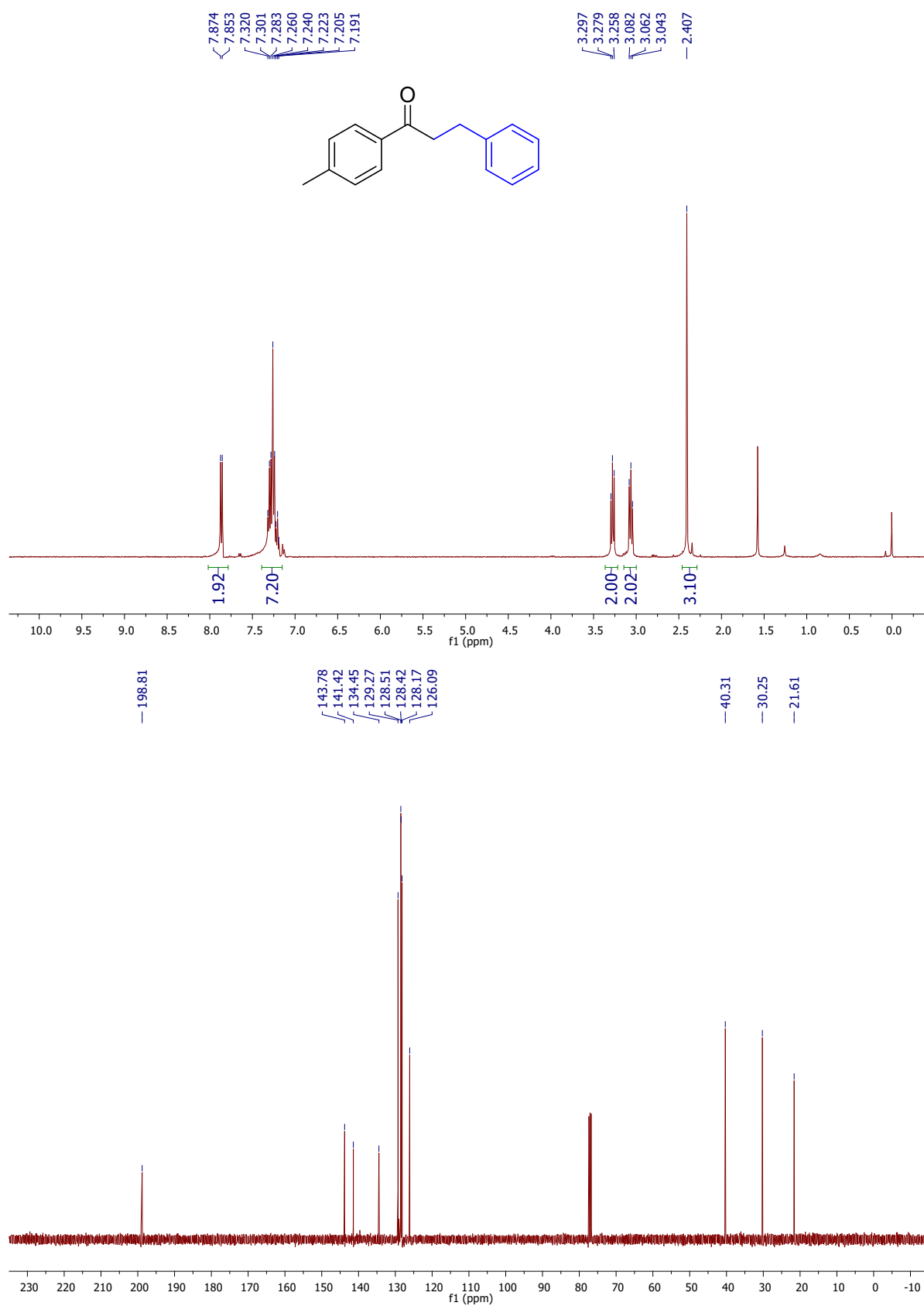


Figure S10. ¹H (400 MHz, CDCl₃) and ¹³C (100.6 MHz, CDCl₃) NMR spectra of **4b**

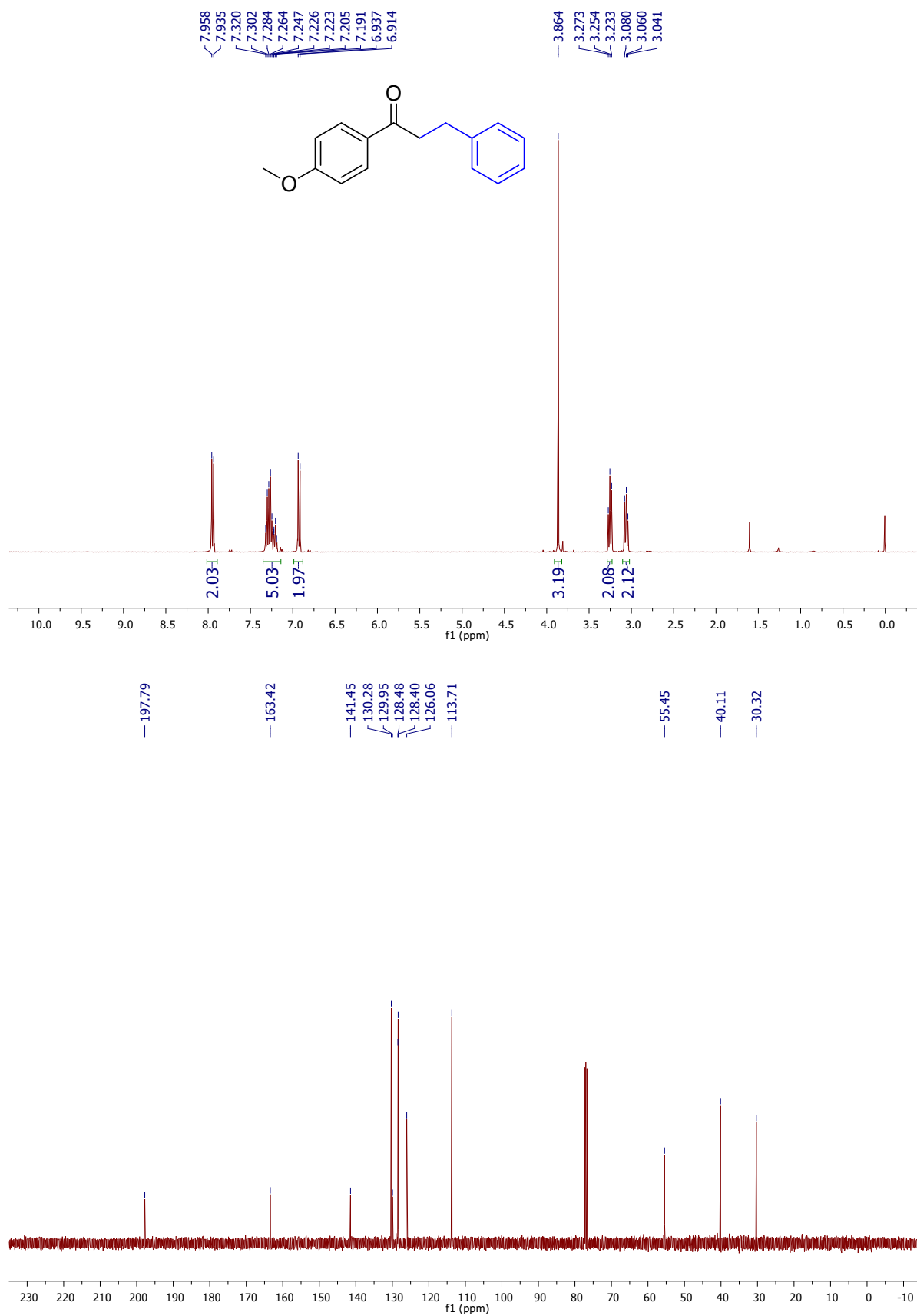


Figure S11. ¹H (400 MHz, CDCl₃) and ¹³C (100.6 MHz, CDCl₃) NMR spectra of **4c**

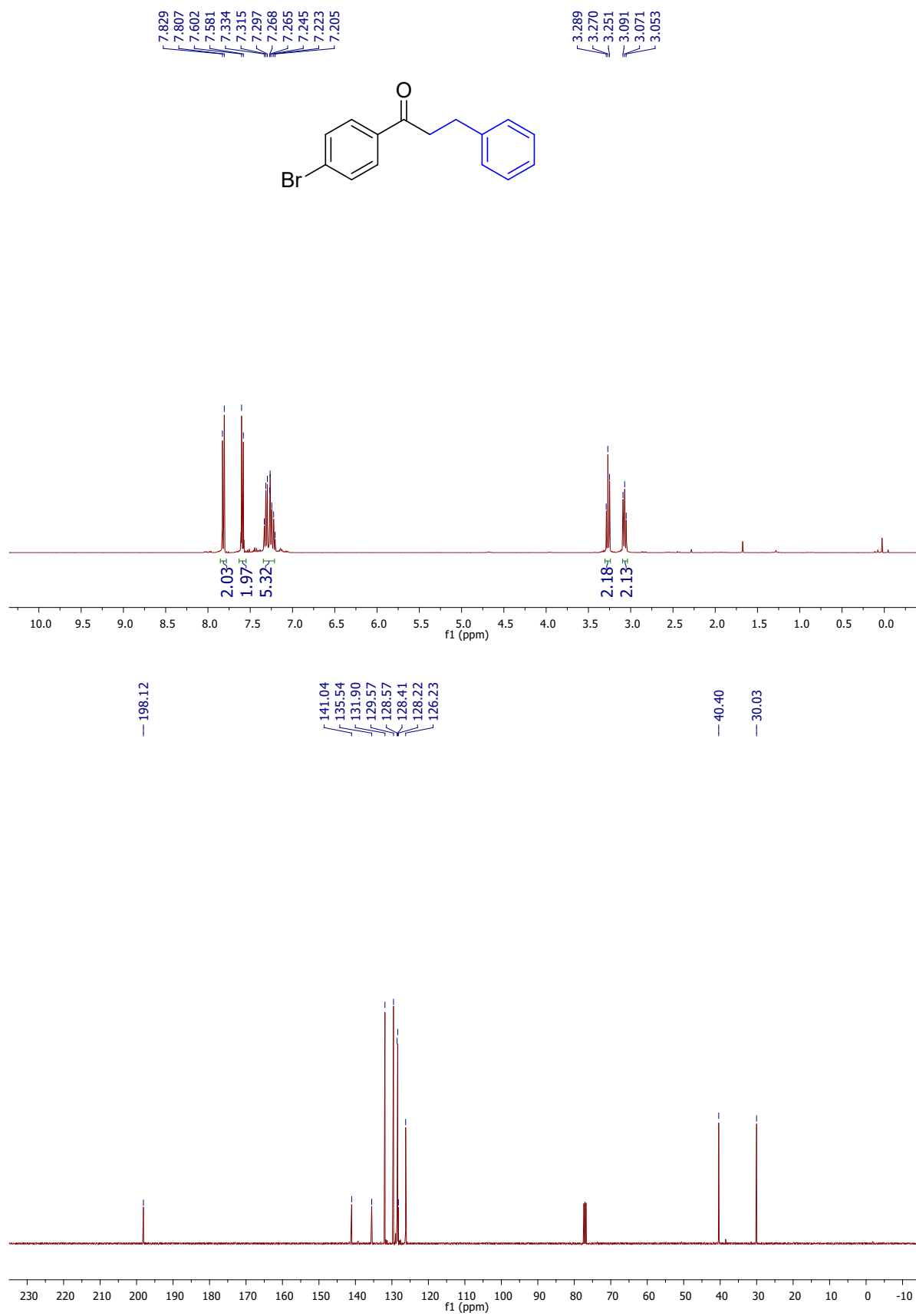


Figure S12. ¹H (400 MHz, CDCl₃) and ¹³C (100.6 MHz, CDCl₃) NMR spectra of **4d**

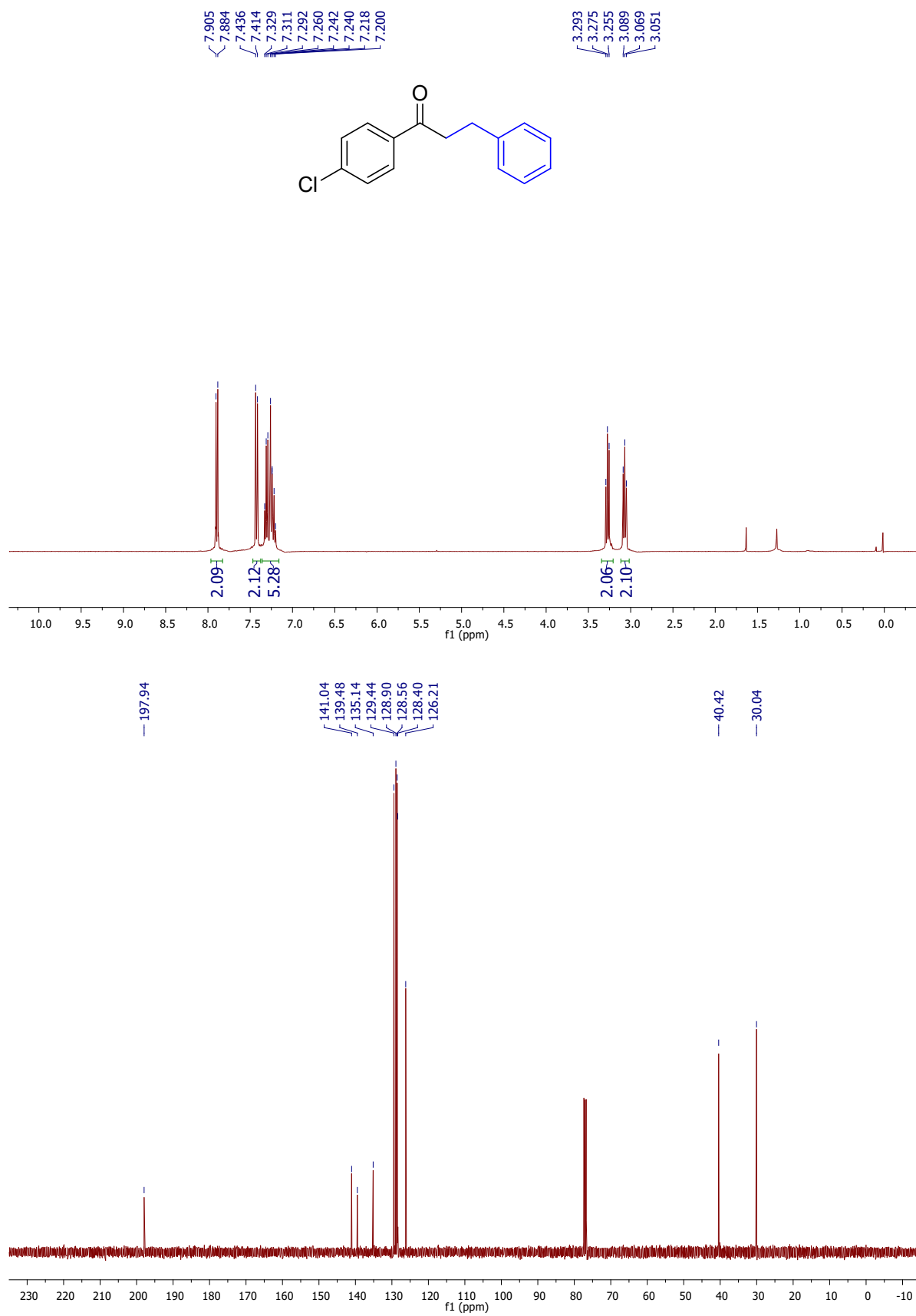


Figure S13. ¹H (400 MHz, CDCl₃) and ¹³C (100.6 MHz, CDCl₃) NMR spectra of **4e**

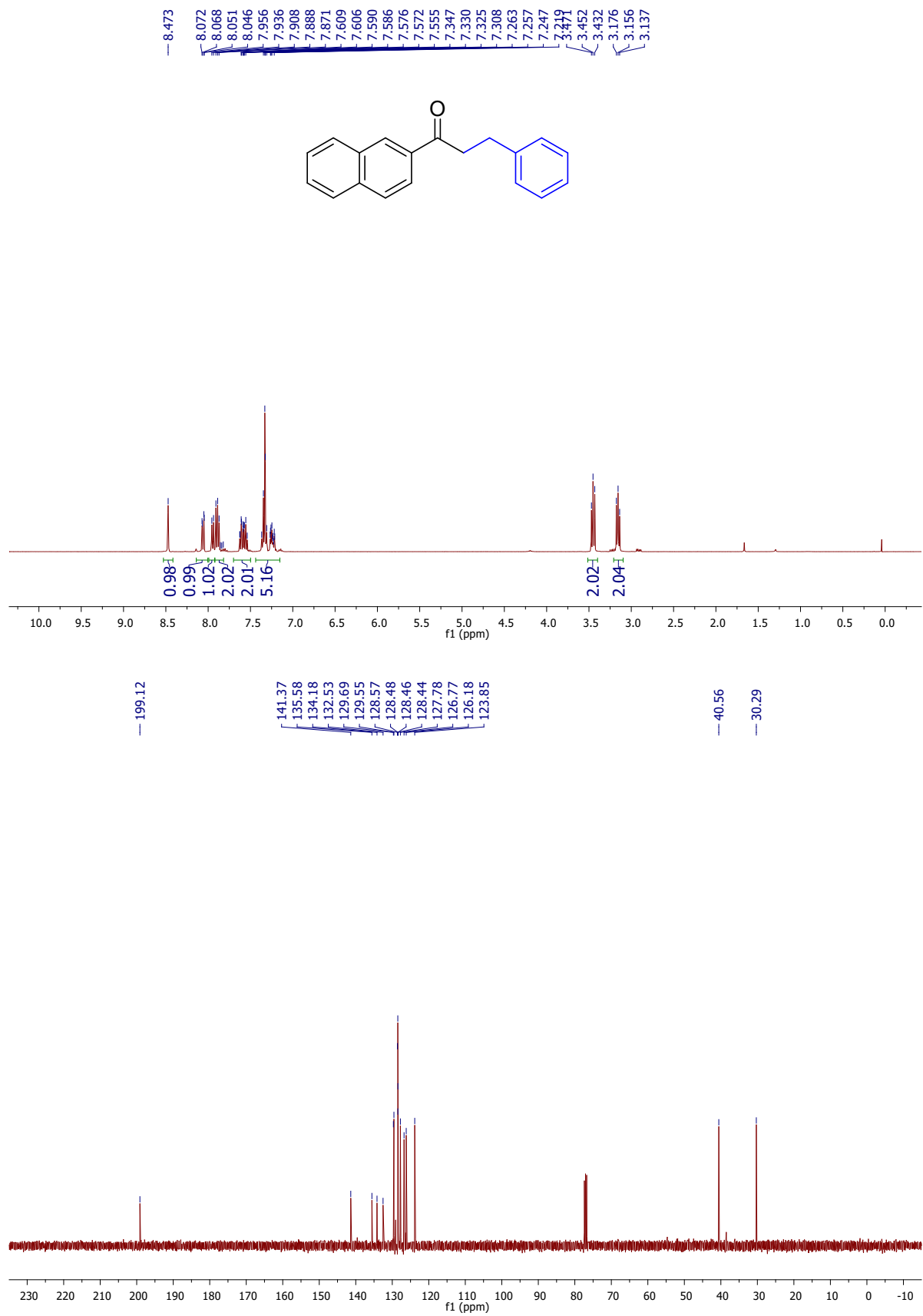


Figure S14. ¹H (400 MHz, CDCl₃) and ¹³C (100.6 MHz, CDCl₃) NMR spectra of **4f**

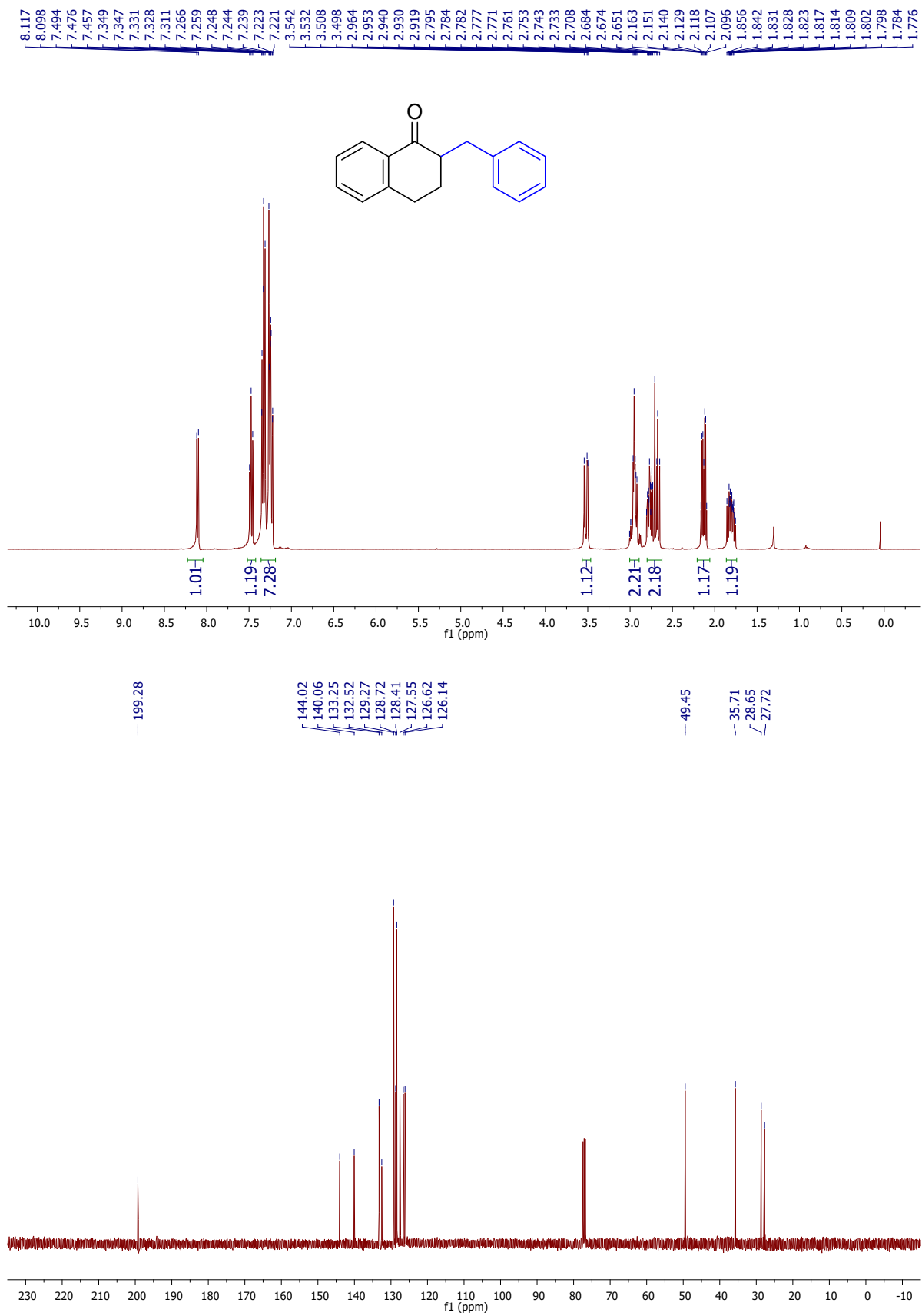


Figure S15. ¹H (400 MHz, CDCl₃) and ¹³C (100.6 MHz, CDCl₃) NMR spectra of **4g**

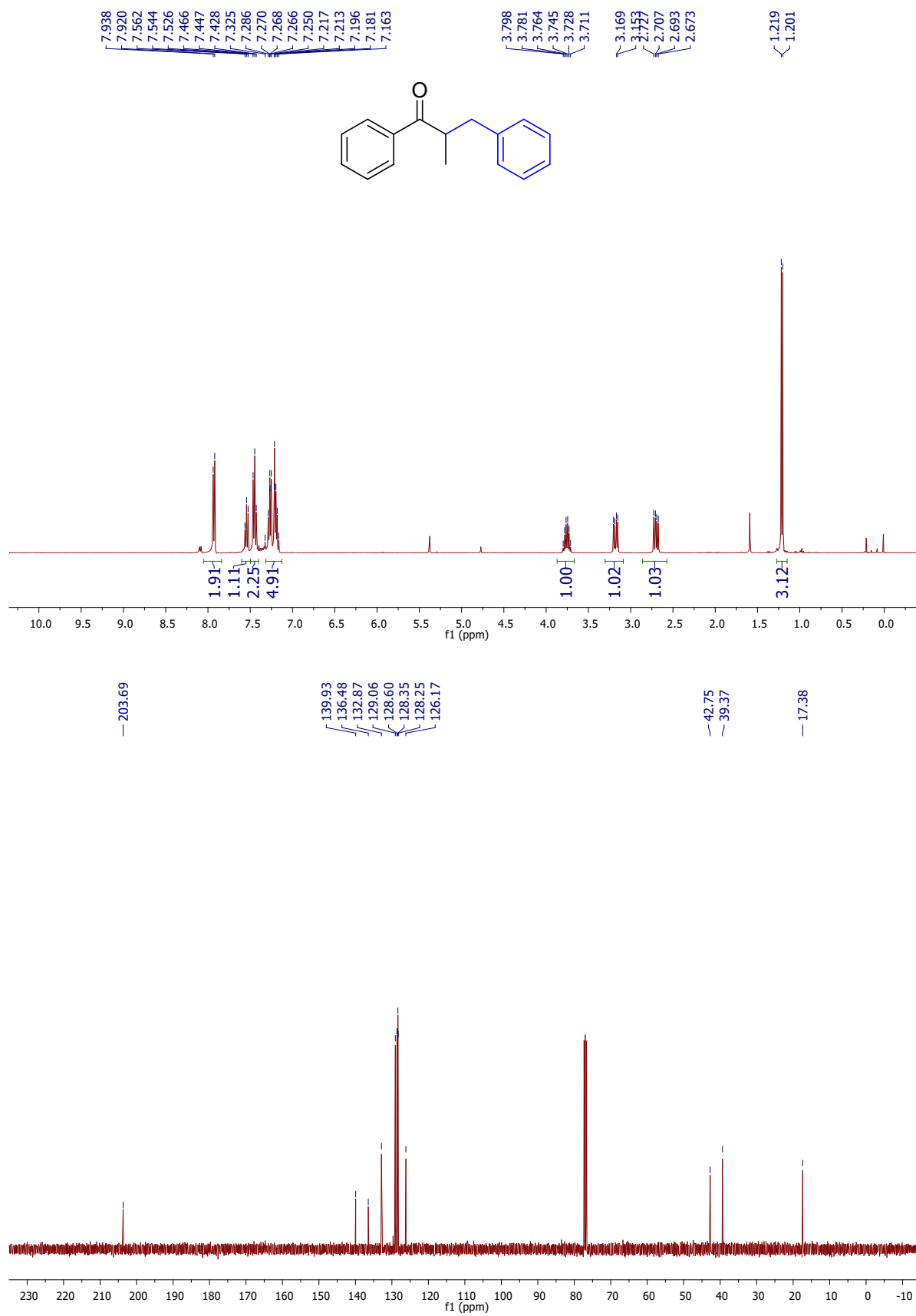


Figure S16. ¹H (400 MHz, CDCl₃) and ¹³C (100.6 MHz, CDCl₃) NMR spectra of **4h**

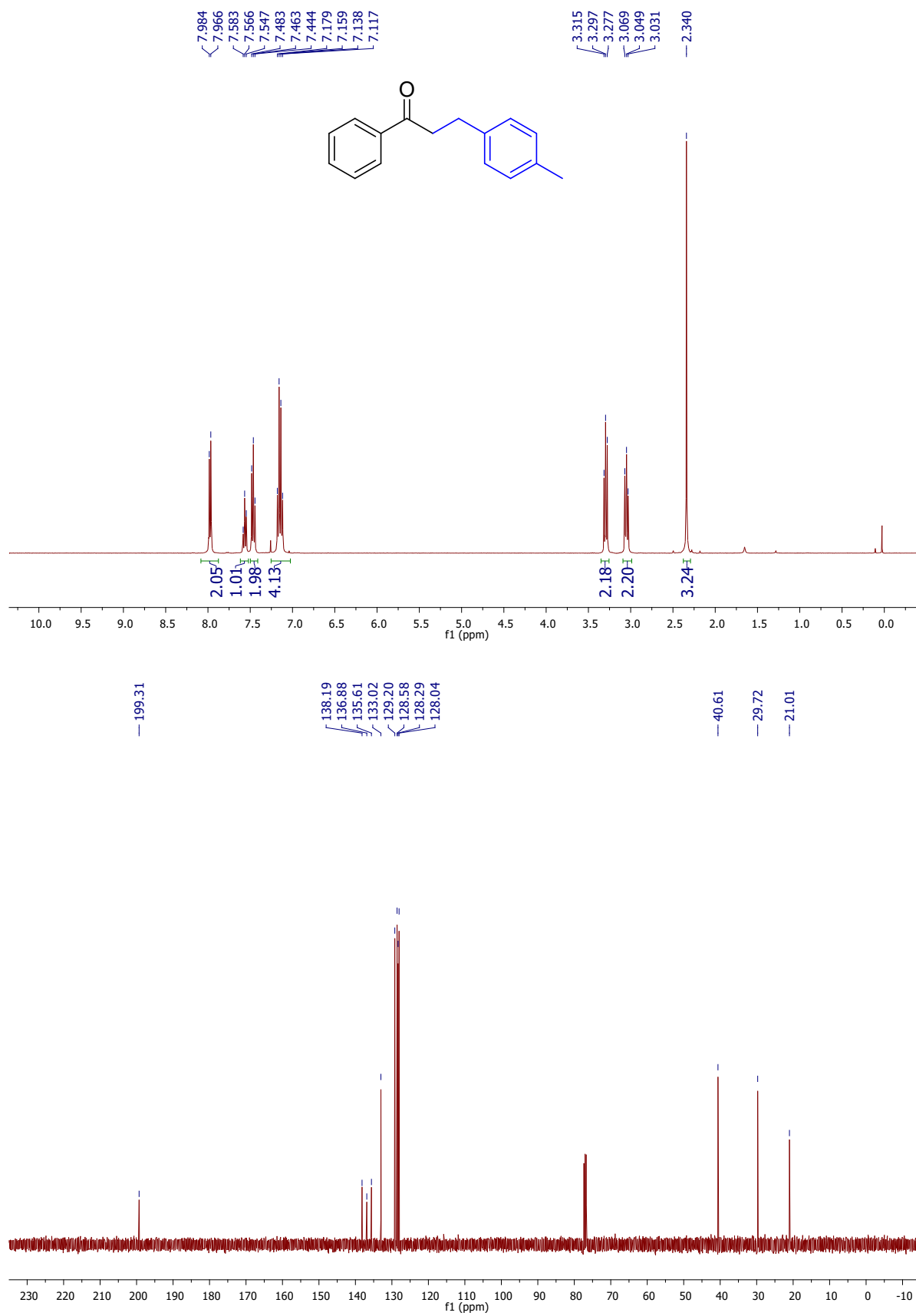


Figure S17. ¹H (400 MHz, CDCl₃) and ¹³C (100.6 MHz, CDCl₃) NMR spectra of **4i**

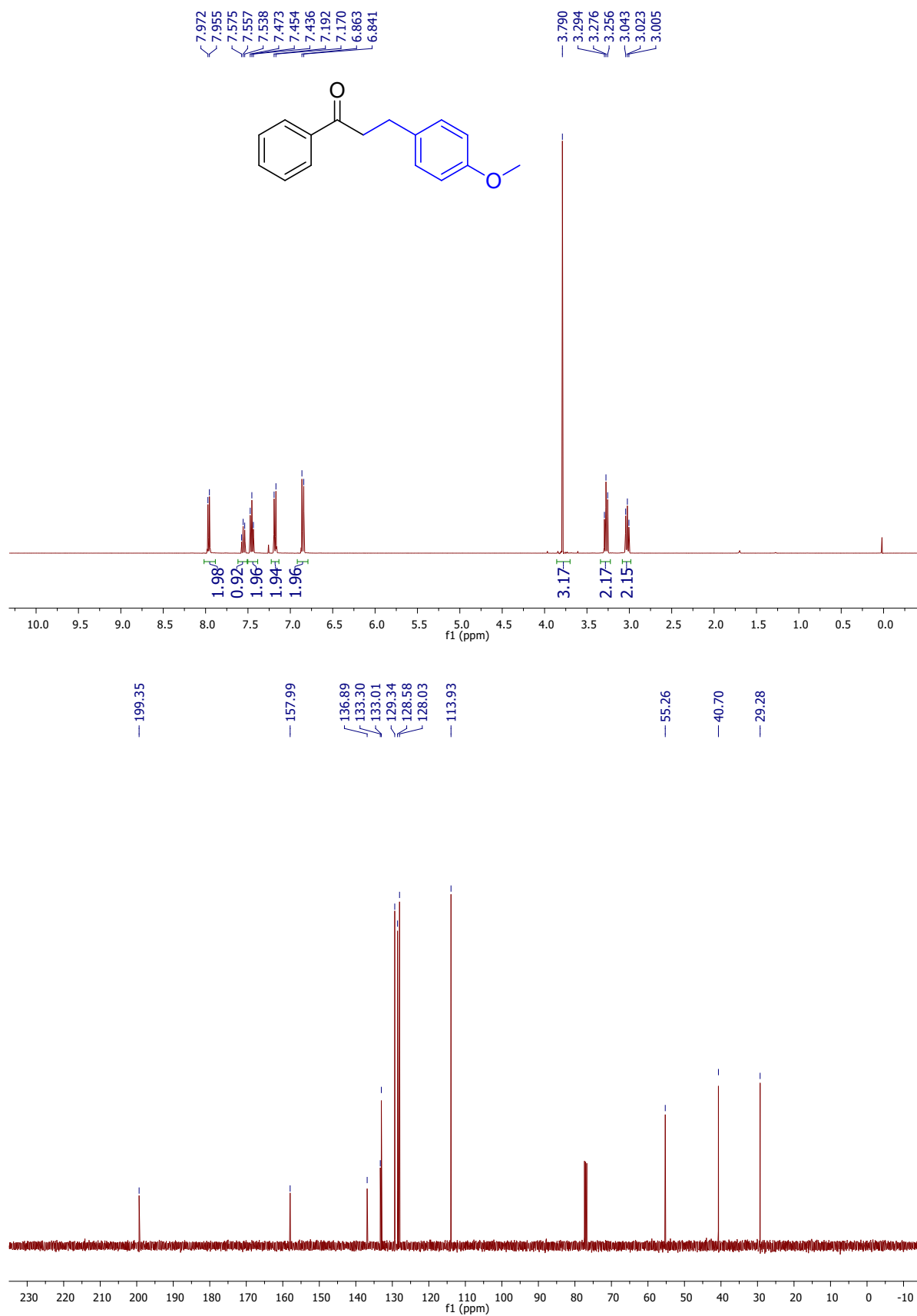


Figure S18. ¹H (400 MHz, CDCl₃) and ¹³C (100.6 MHz, CDCl₃) NMR spectra of **4j**

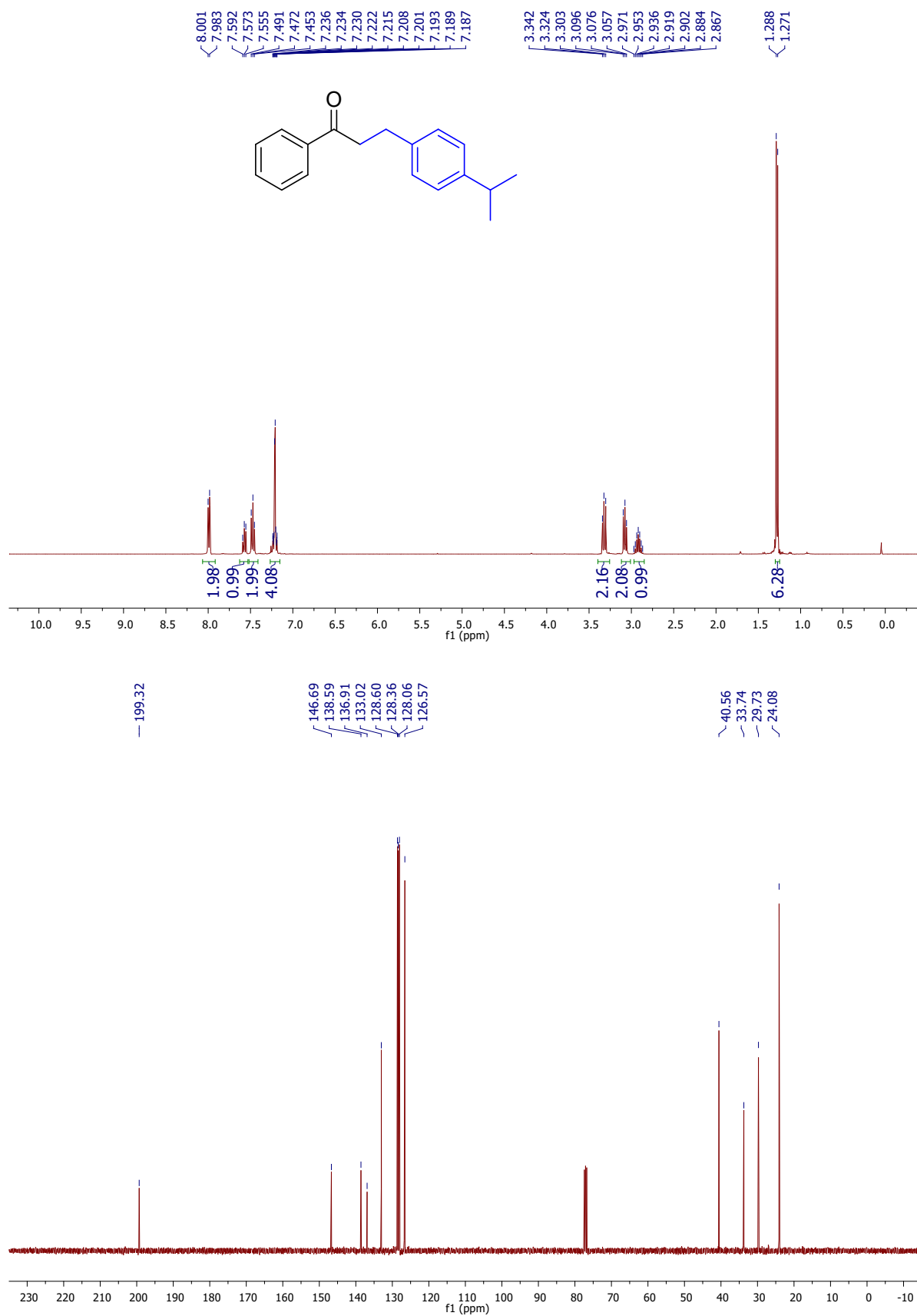


Figure S19. ¹H (400 MHz, CDCl₃) and ¹³C (100.6 MHz, CDCl₃) NMR spectra of **4k**

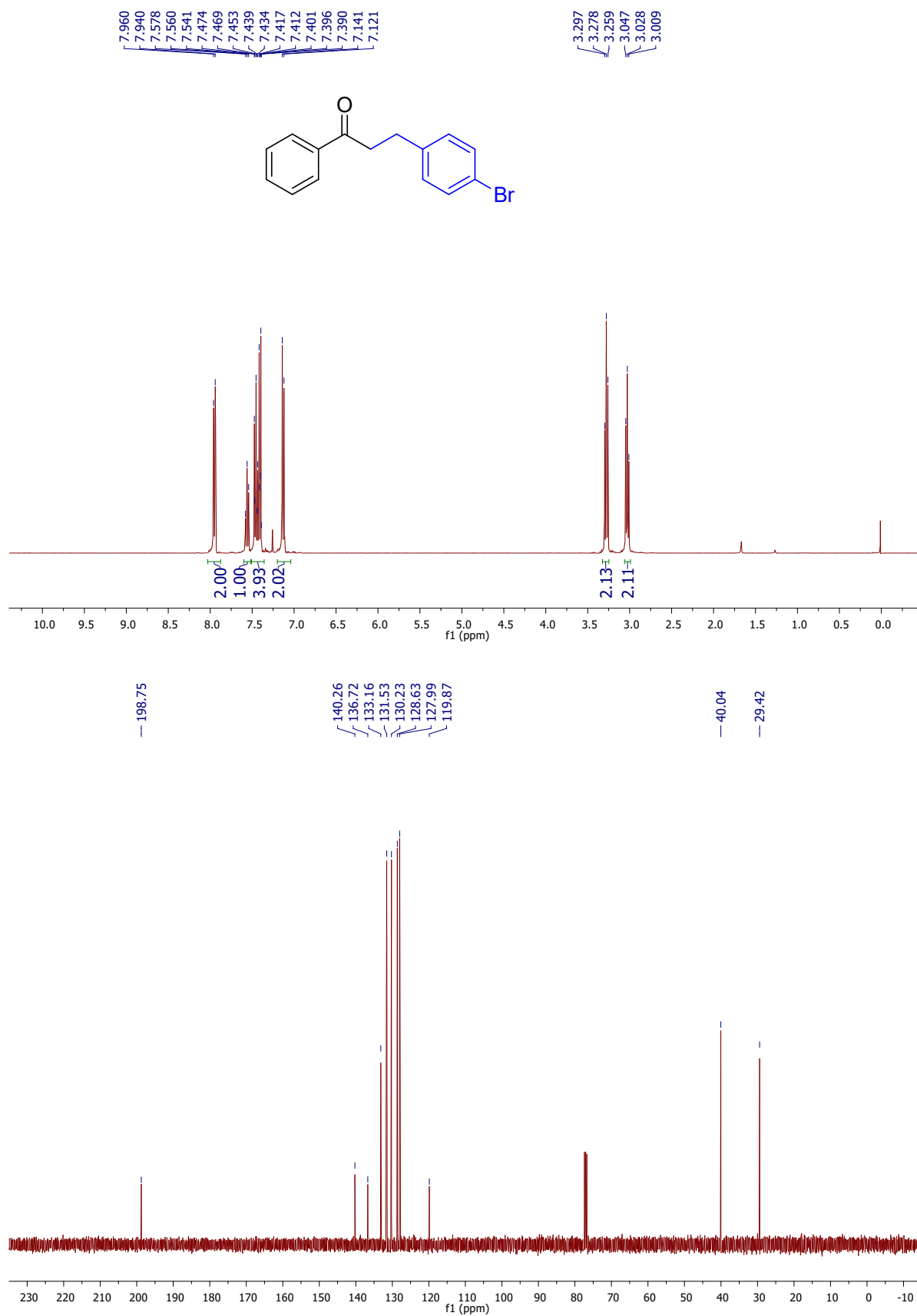


Figure S20. ¹H (400 MHz, CDCl₃) and ¹³C (100.6 MHz, CDCl₃) NMR spectra of **4I**

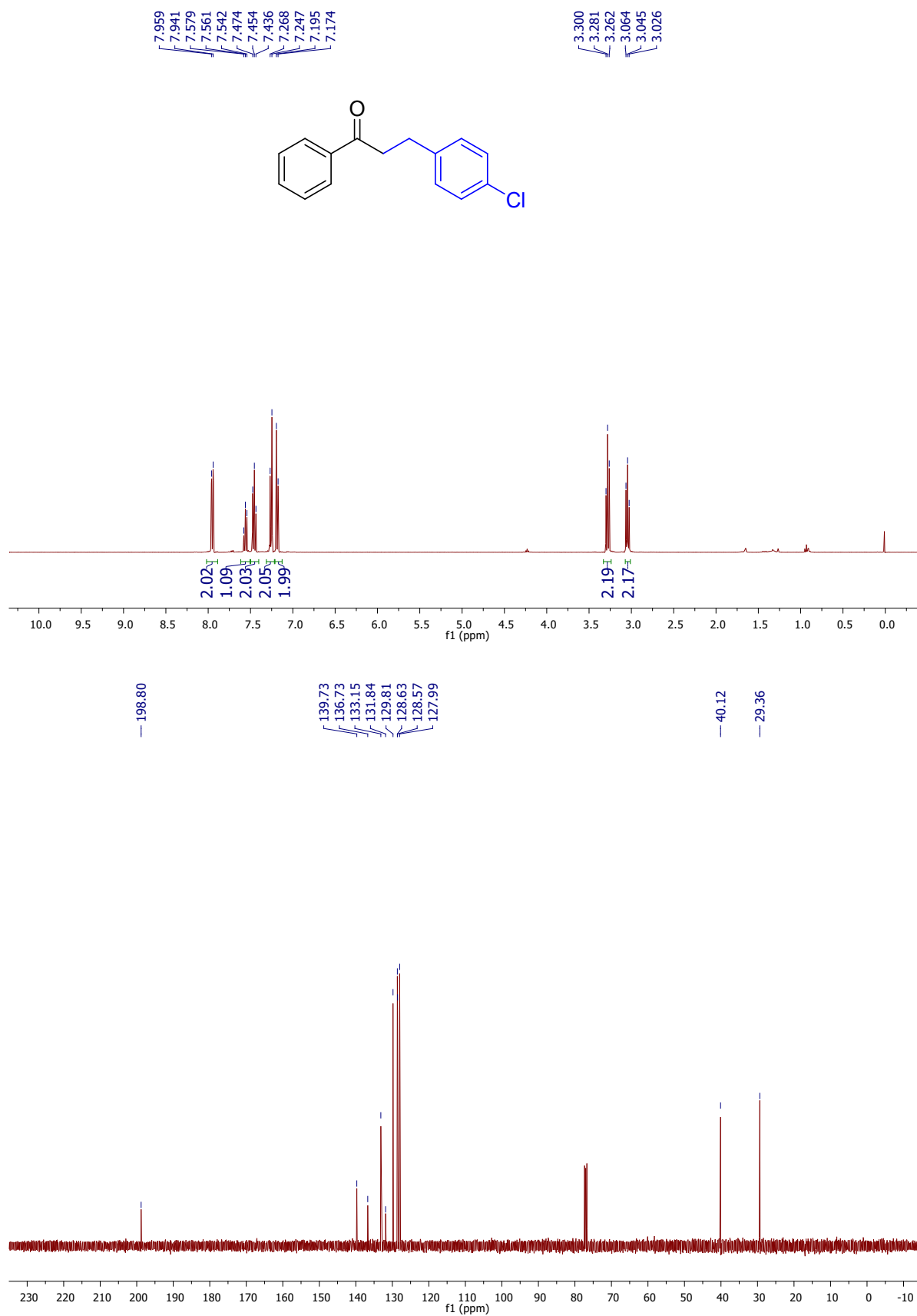


Figure S21. ¹H (400 MHz, CDCl₃) and ¹³C (100.6 MHz, CDCl₃) NMR spectra of **4m**

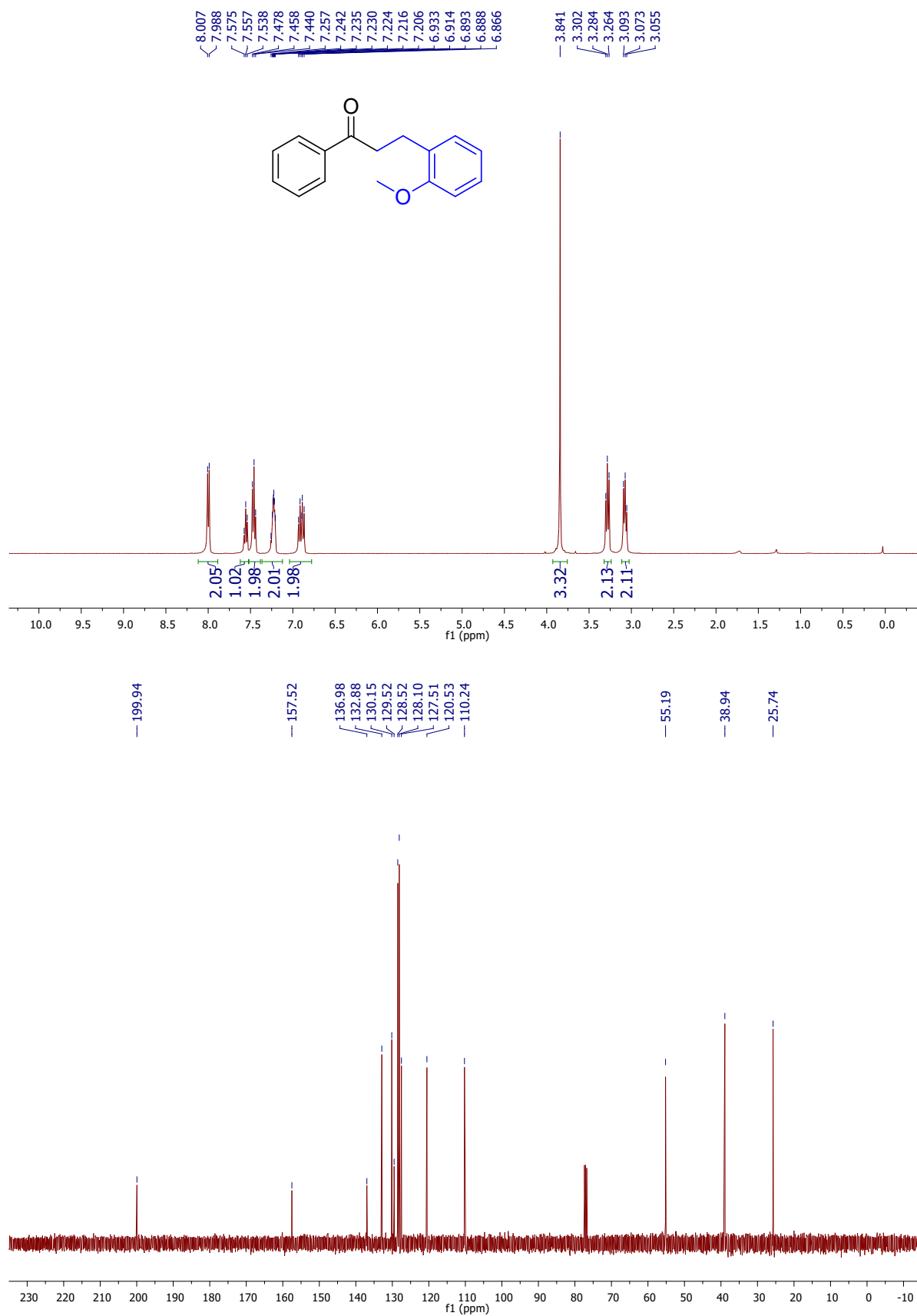


Figure S22. ¹H (400 MHz, CDCl₃) and ¹³C (100.6 MHz, CDCl₃) NMR spectra of **4n**

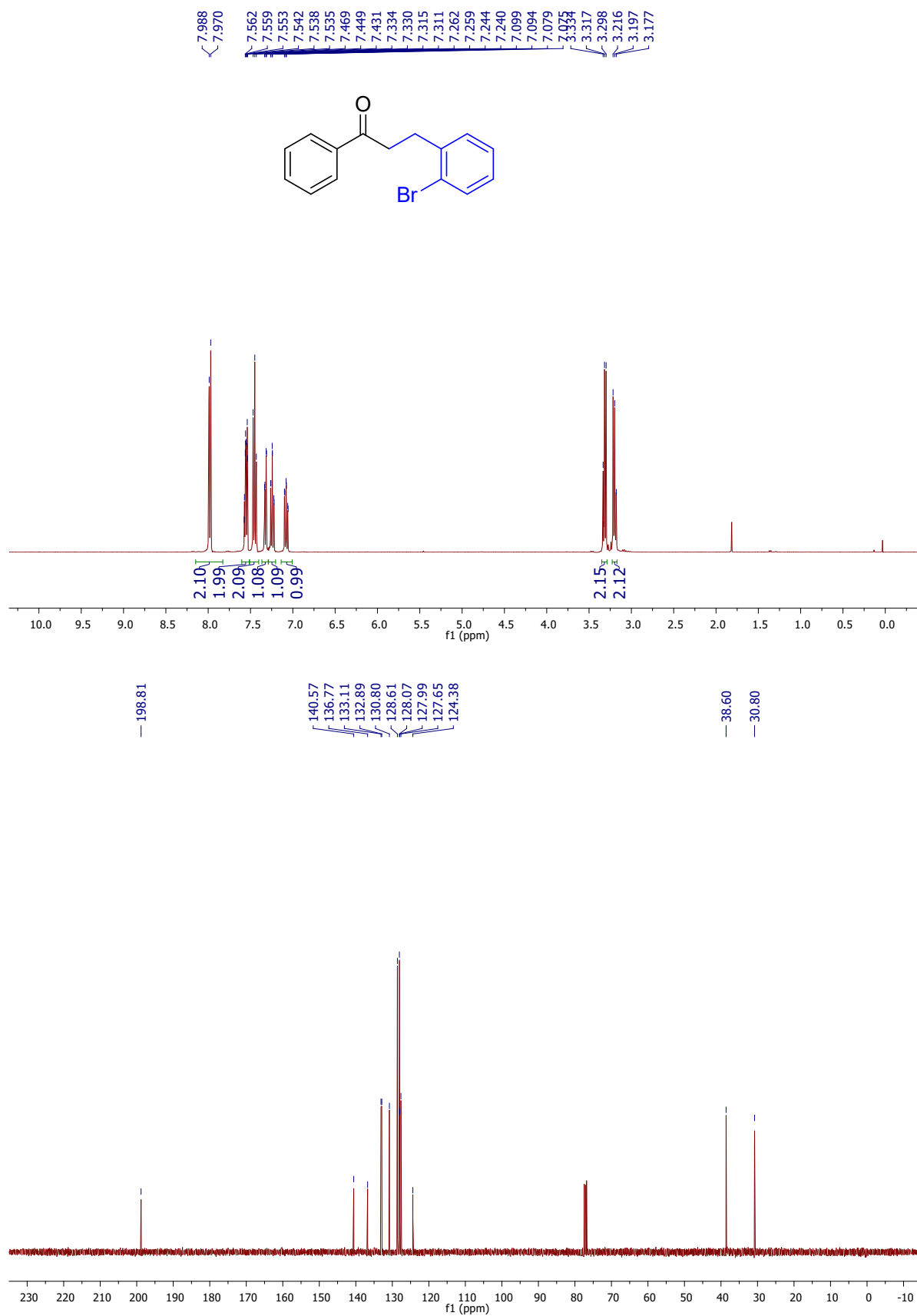


Figure S23. ¹H (400 MHz, CDCl₃) and ¹³C (100.6 MHz, CDCl₃) NMR spectra of **4o**

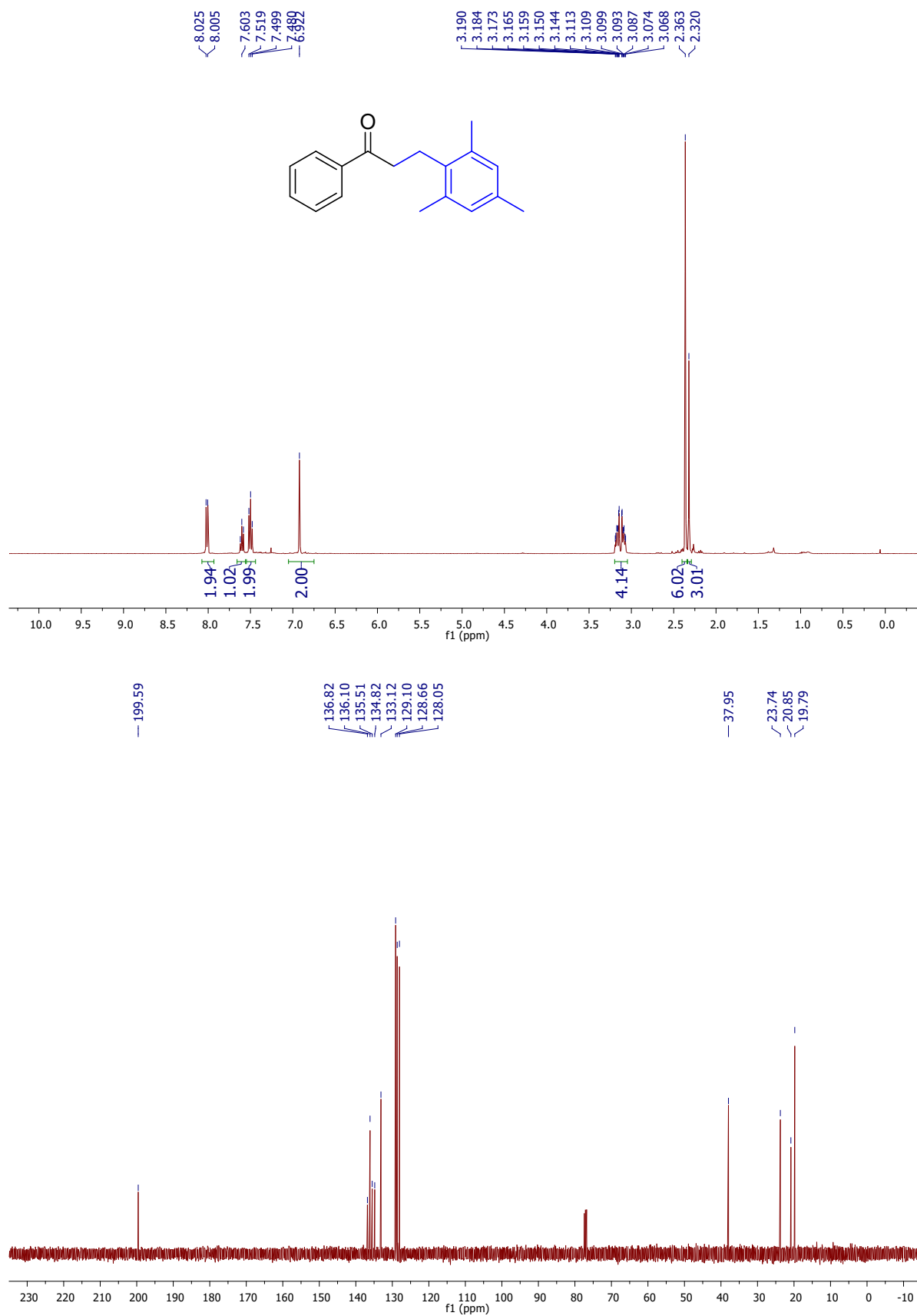


Figure S24. ¹H (400 MHz, CDCl₃) and ¹³C (100.6 MHz, CDCl₃) NMR spectra of **4p**

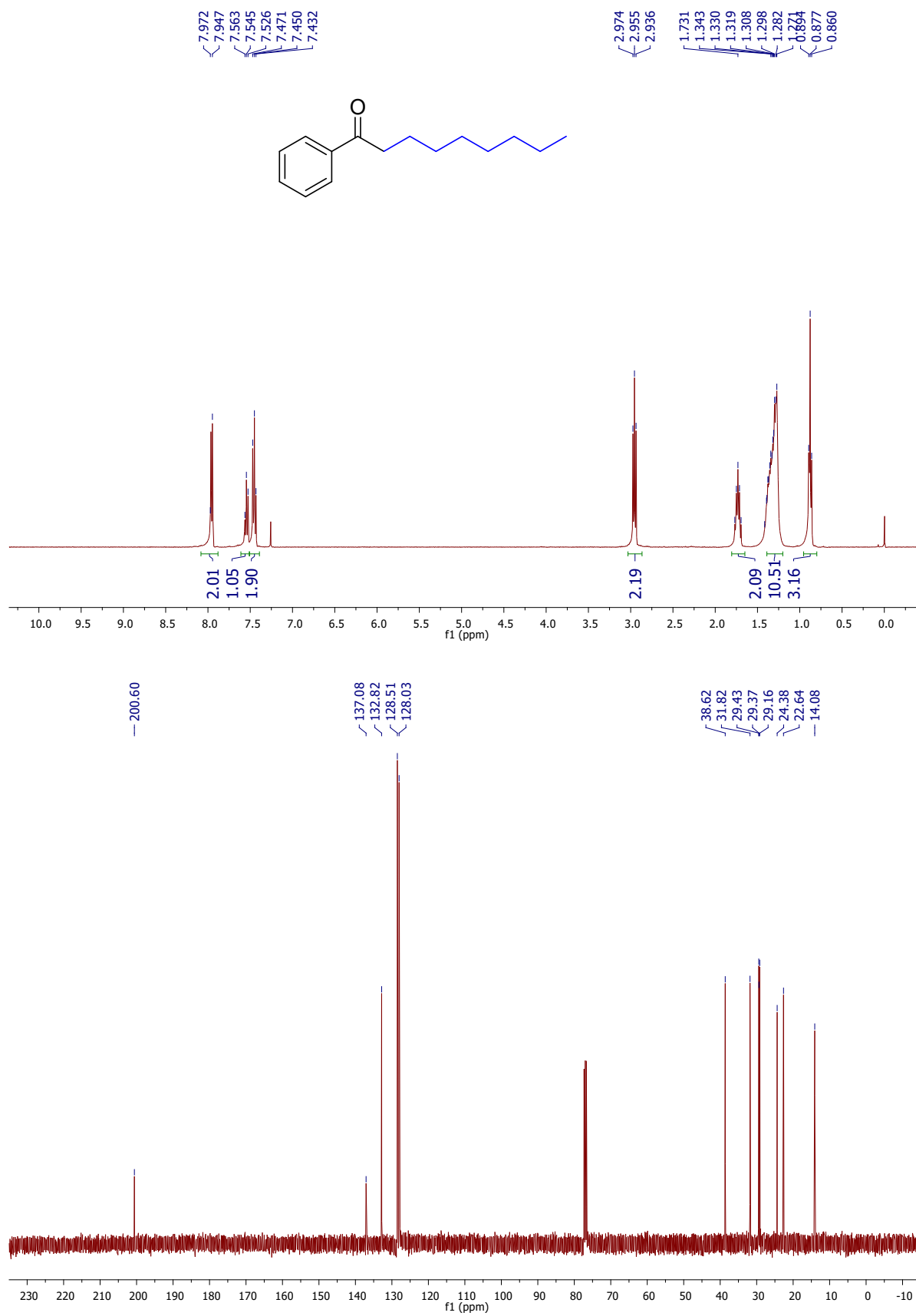


Figure S25. ¹H (400 MHz, CDCl₃) and ¹³C (100.6 MHz, CDCl₃) NMR spectra of **4q**

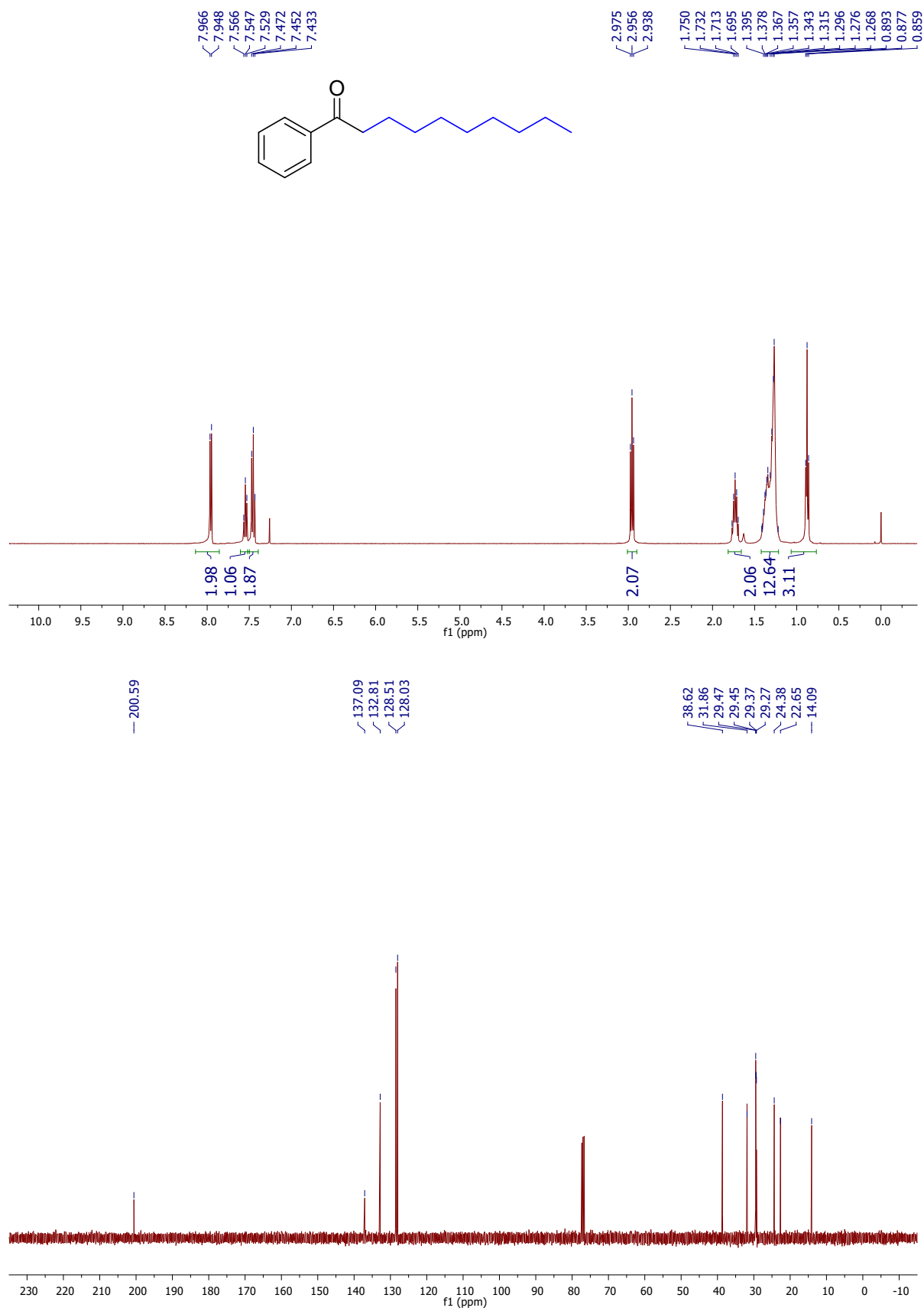


Figure S26. ¹H (400 MHz, CDCl₃) and ¹³C (100.6 MHz, CDCl₃) NMR spectra of **4r**

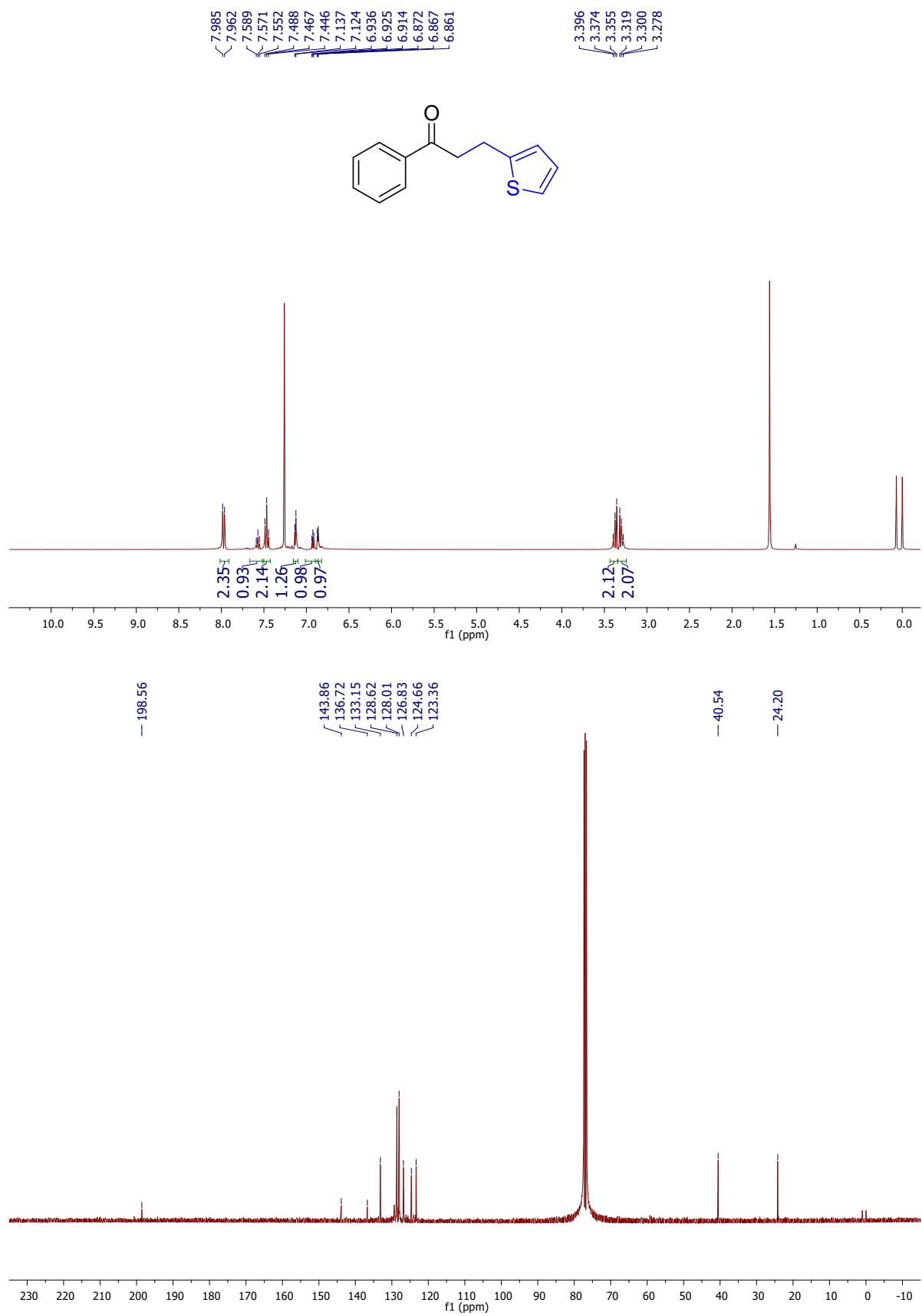


Figure S27. ¹H (400 MHz, CDCl₃) and ¹³C (100.6 MHz, CDCl₃) NMR spectra of **4s**

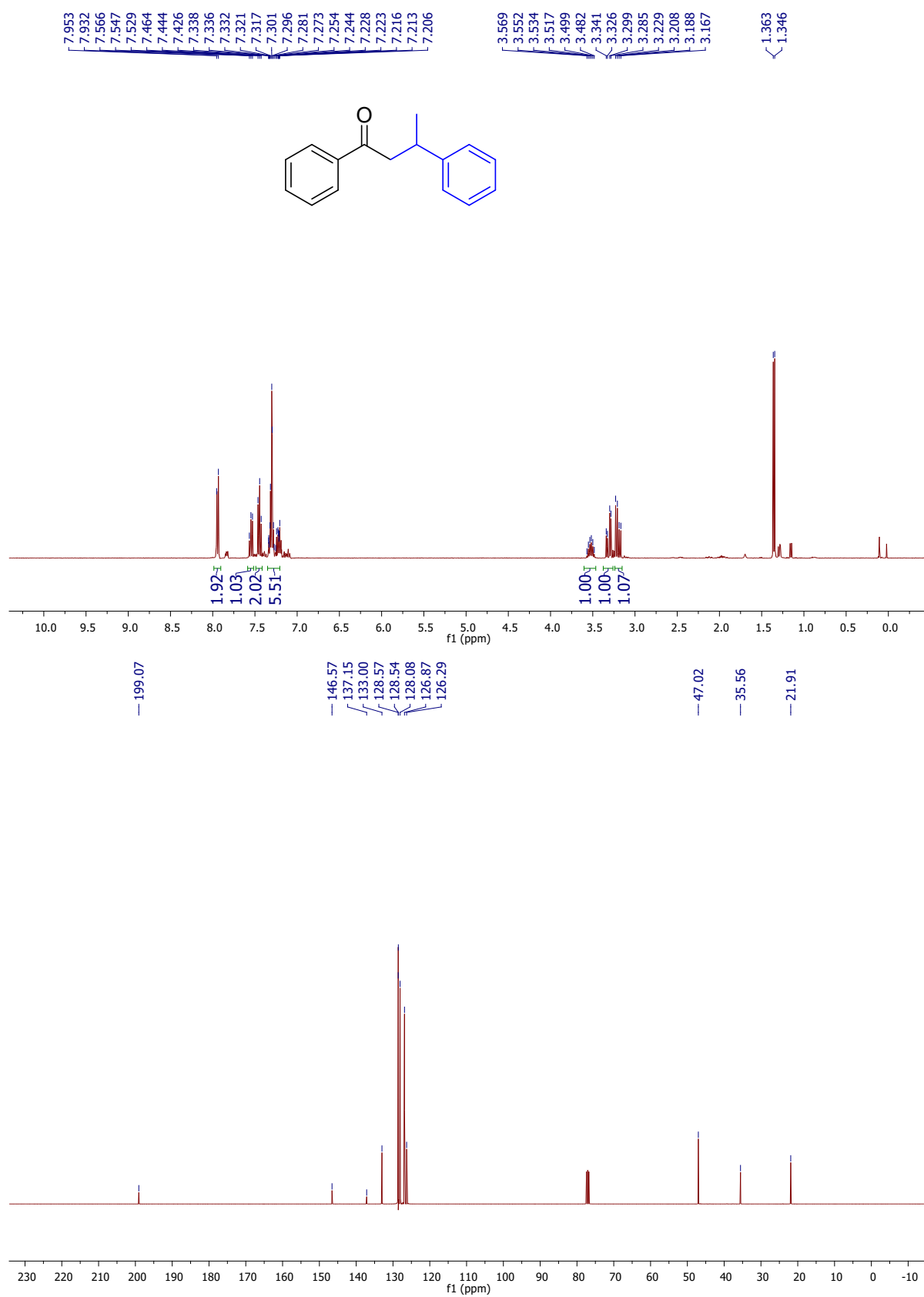


Figure S28. ¹H (400 MHz, CDCl₃) and ¹³C (100.6 MHz, CDCl₃) NMR spectra of **4t**

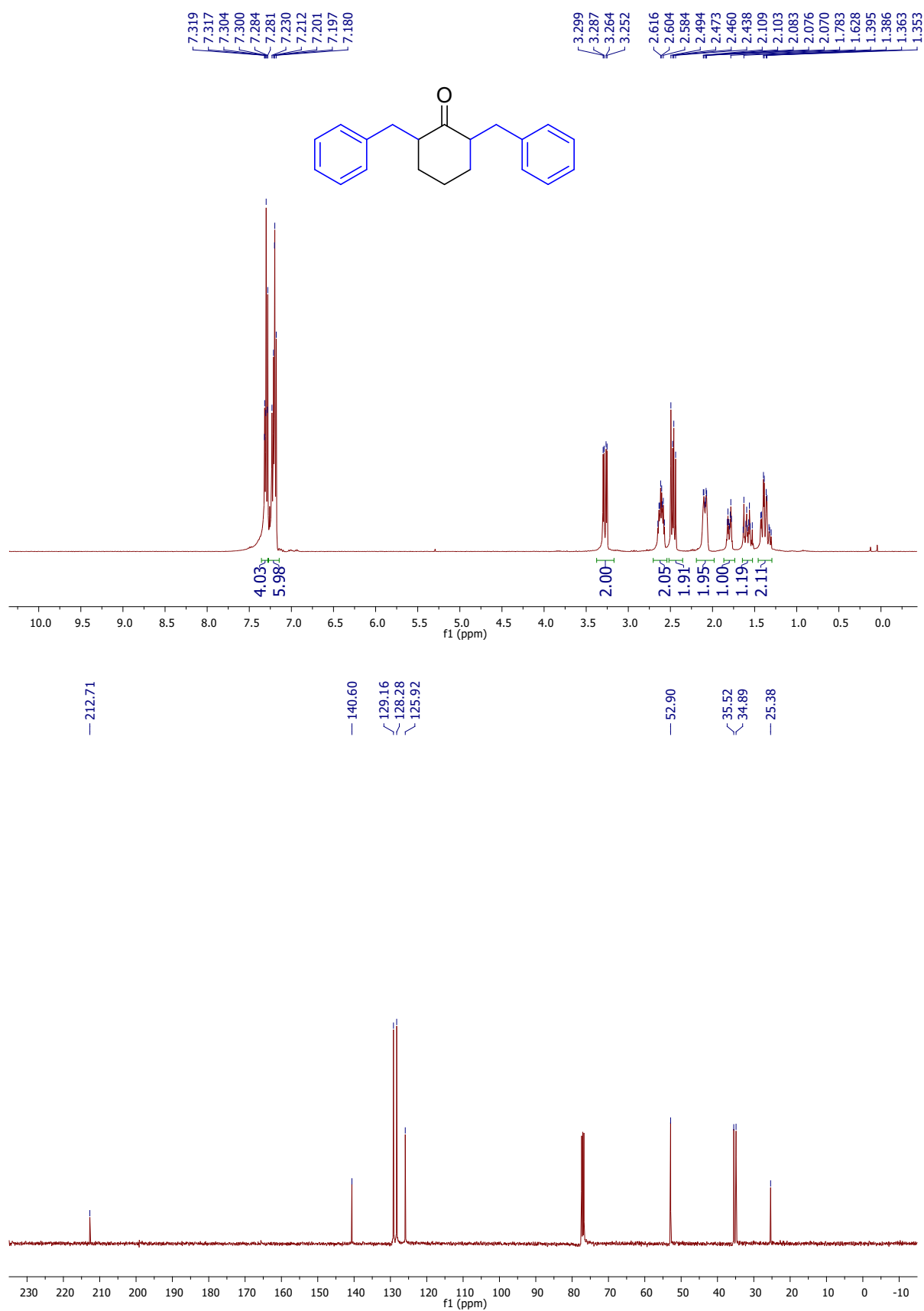


Figure S29. ¹H (400 MHz, CDCl₃) and ¹³C (100.6 MHz, CDCl₃) NMR spectra of **6a**

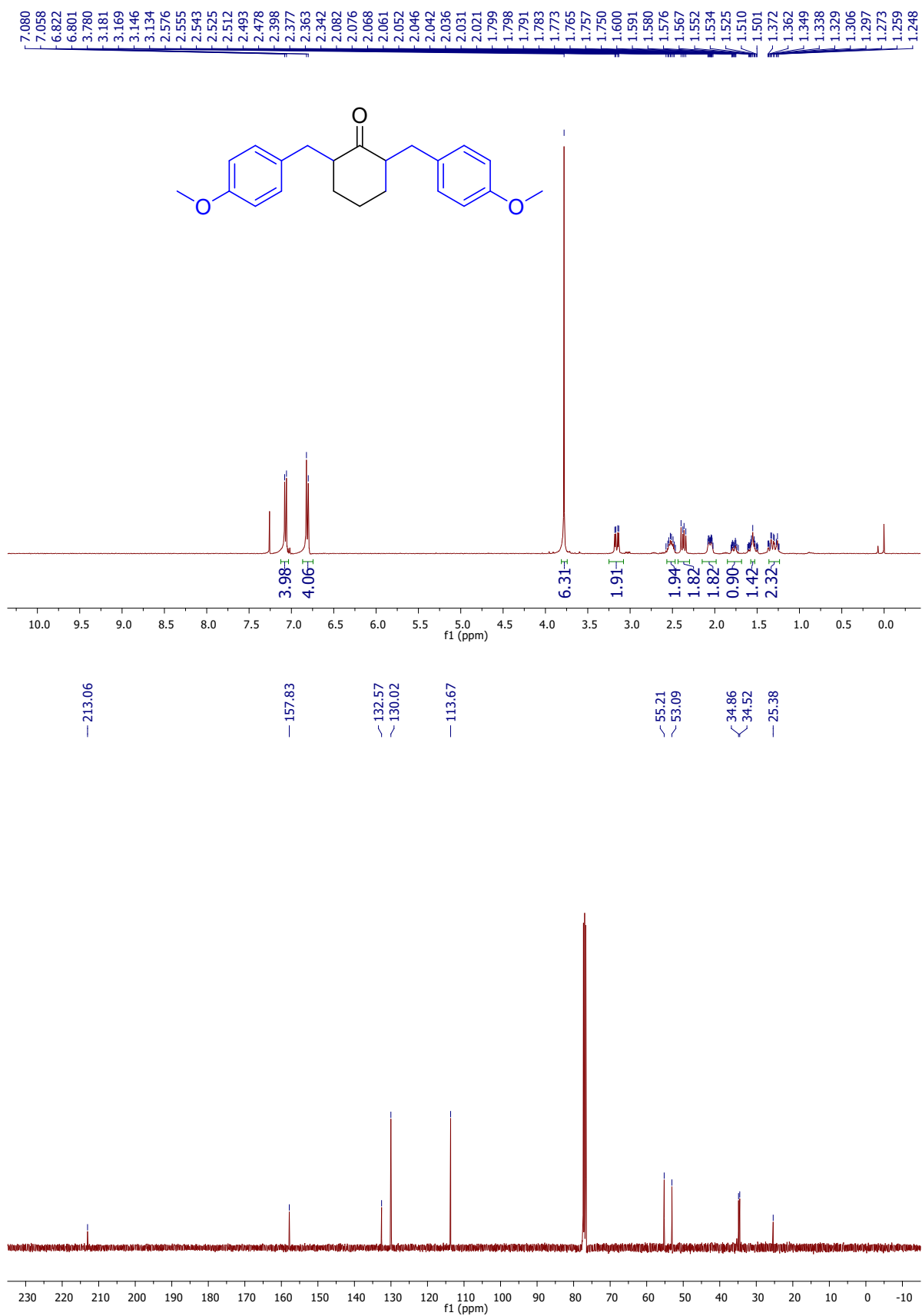


Figure S30. ¹H (400 MHz, CDCl₃) and ¹³C (100.6 MHz, CDCl₃) NMR spectra of **6b**

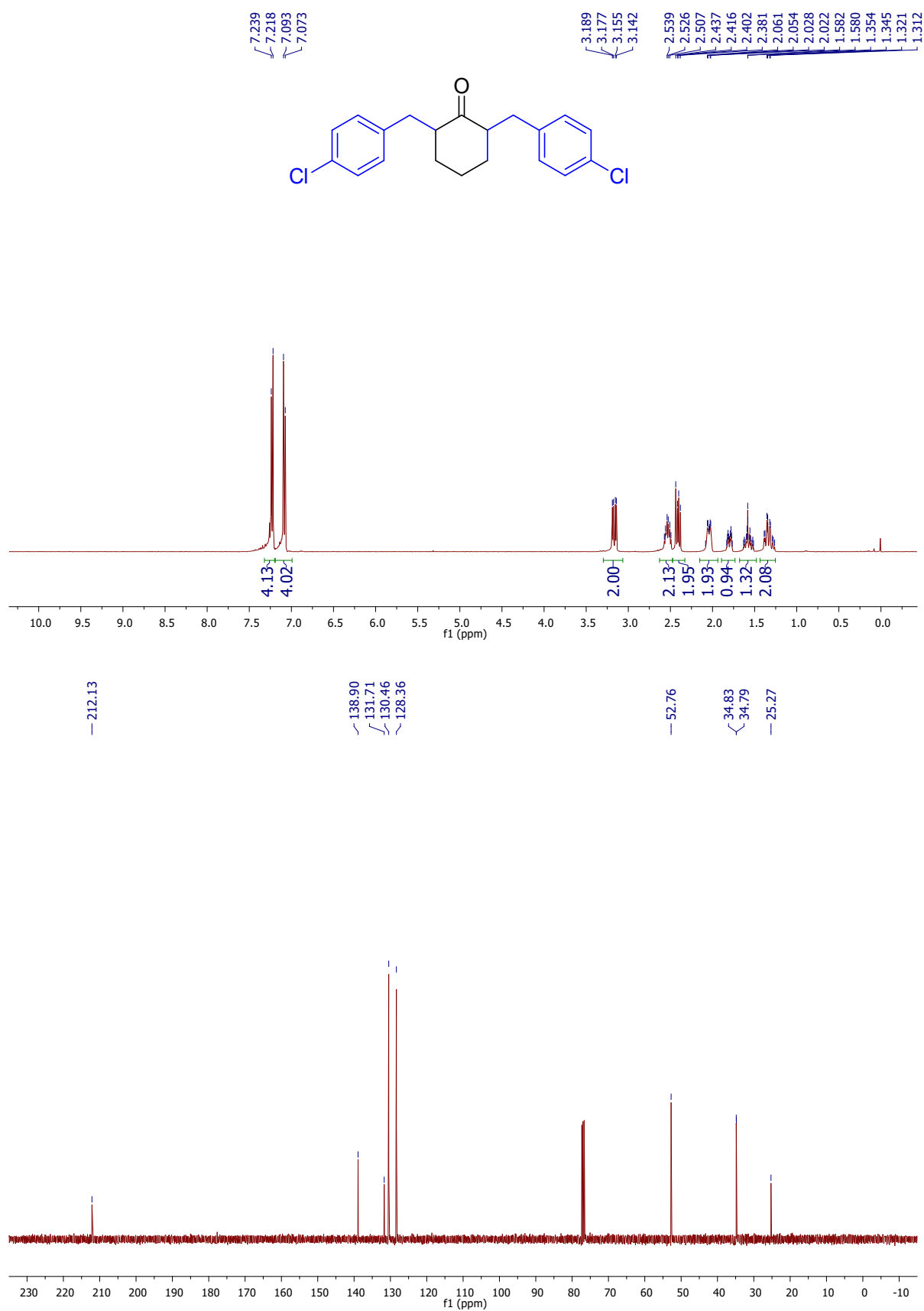


Figure S31. ¹H (400 MHz, CDCl₃) and ¹³C (100.6 MHz, CDCl₃) NMR spectra of **6c**

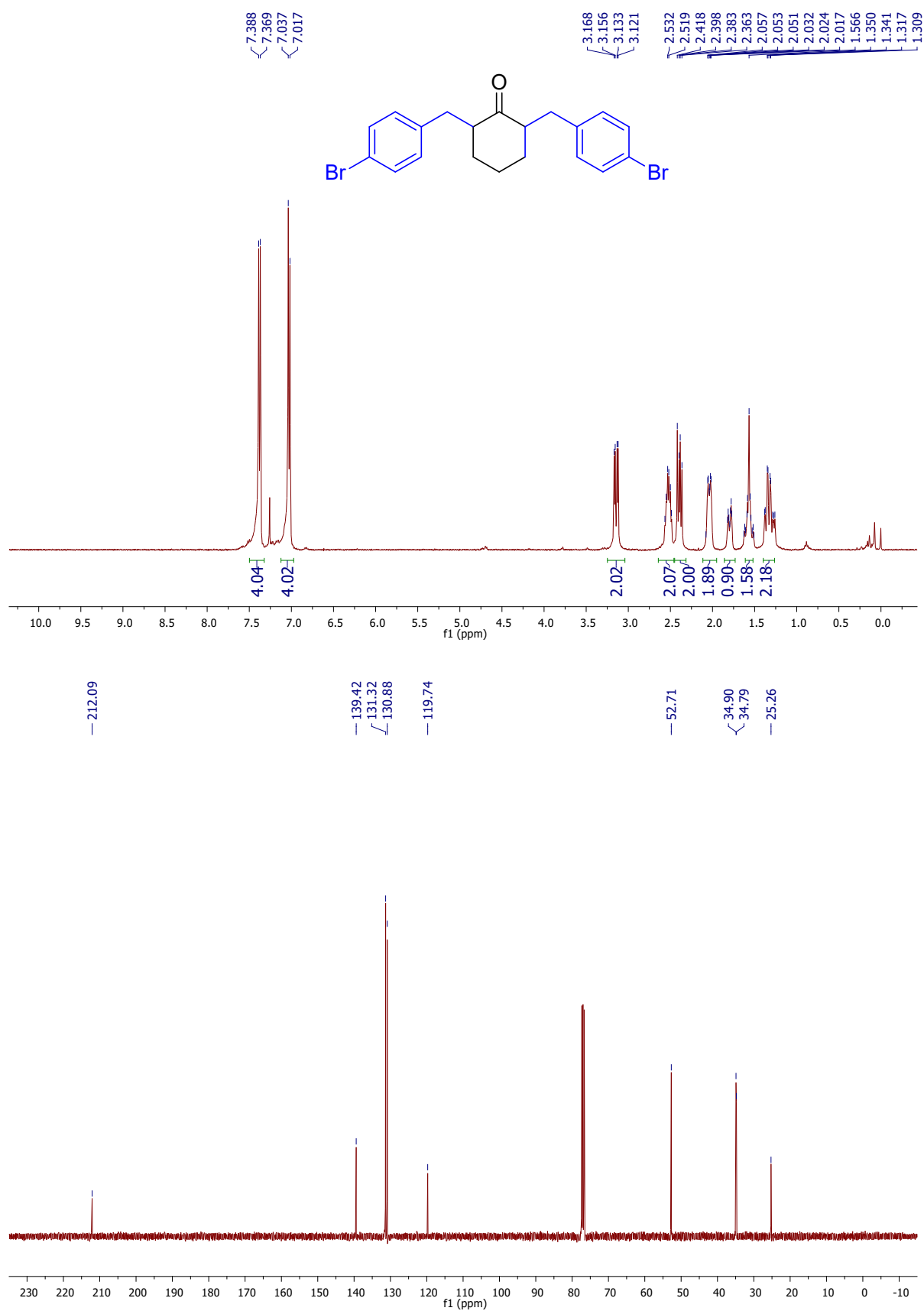


Figure S32. ¹H (400 MHz, CDCl₃) and ¹³C (100.6 MHz, CDCl₃) NMR spectra of **6d**

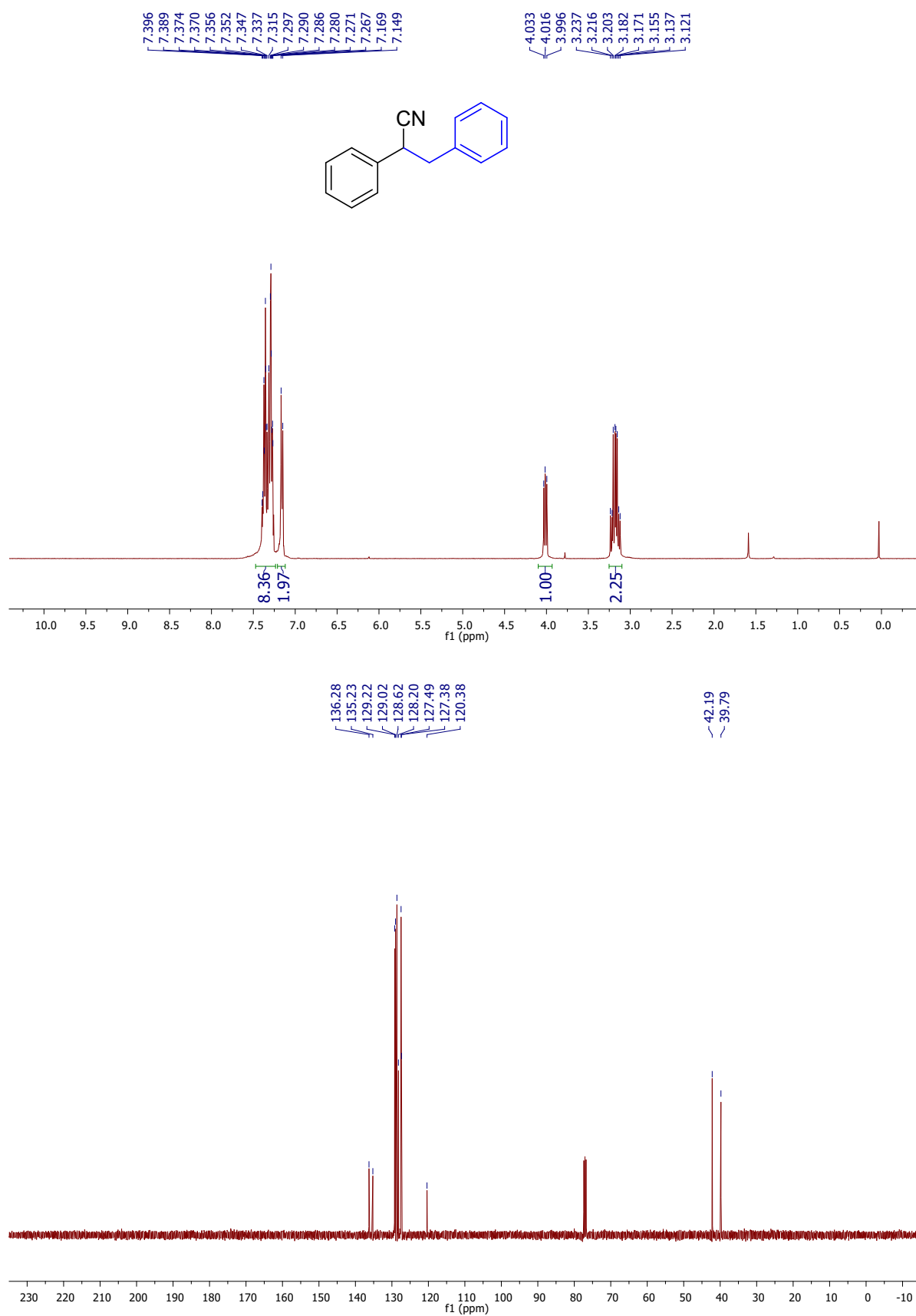


Figure S33. ¹H (400 MHz, CDCl₃) and ¹³C (100.6 MHz, CDCl₃) NMR spectra of **8a**

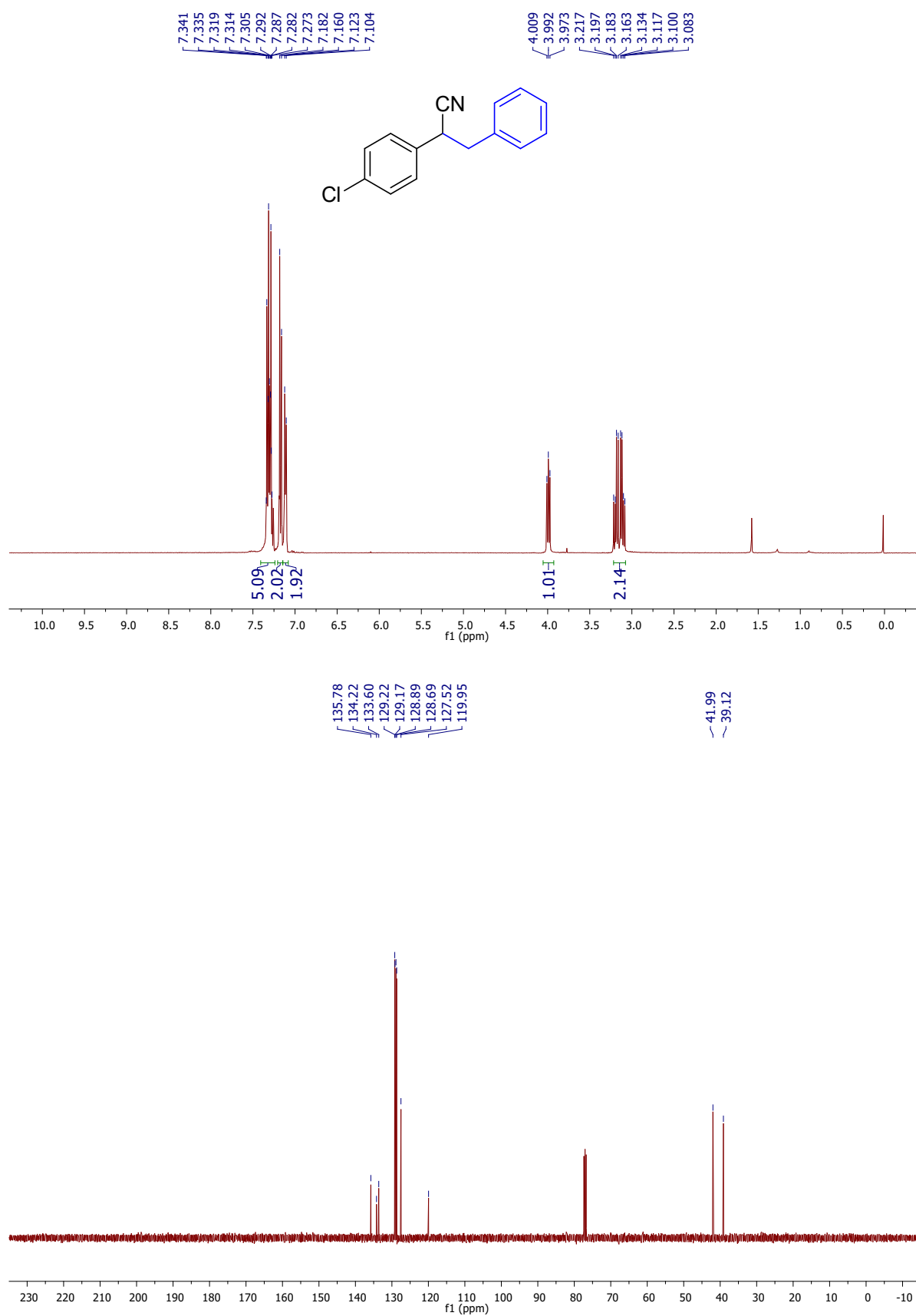


Figure S34. ¹H (400 MHz, CDCl₃) and ¹³C (100.6 MHz, CDCl₃) NMR spectra of **8b**

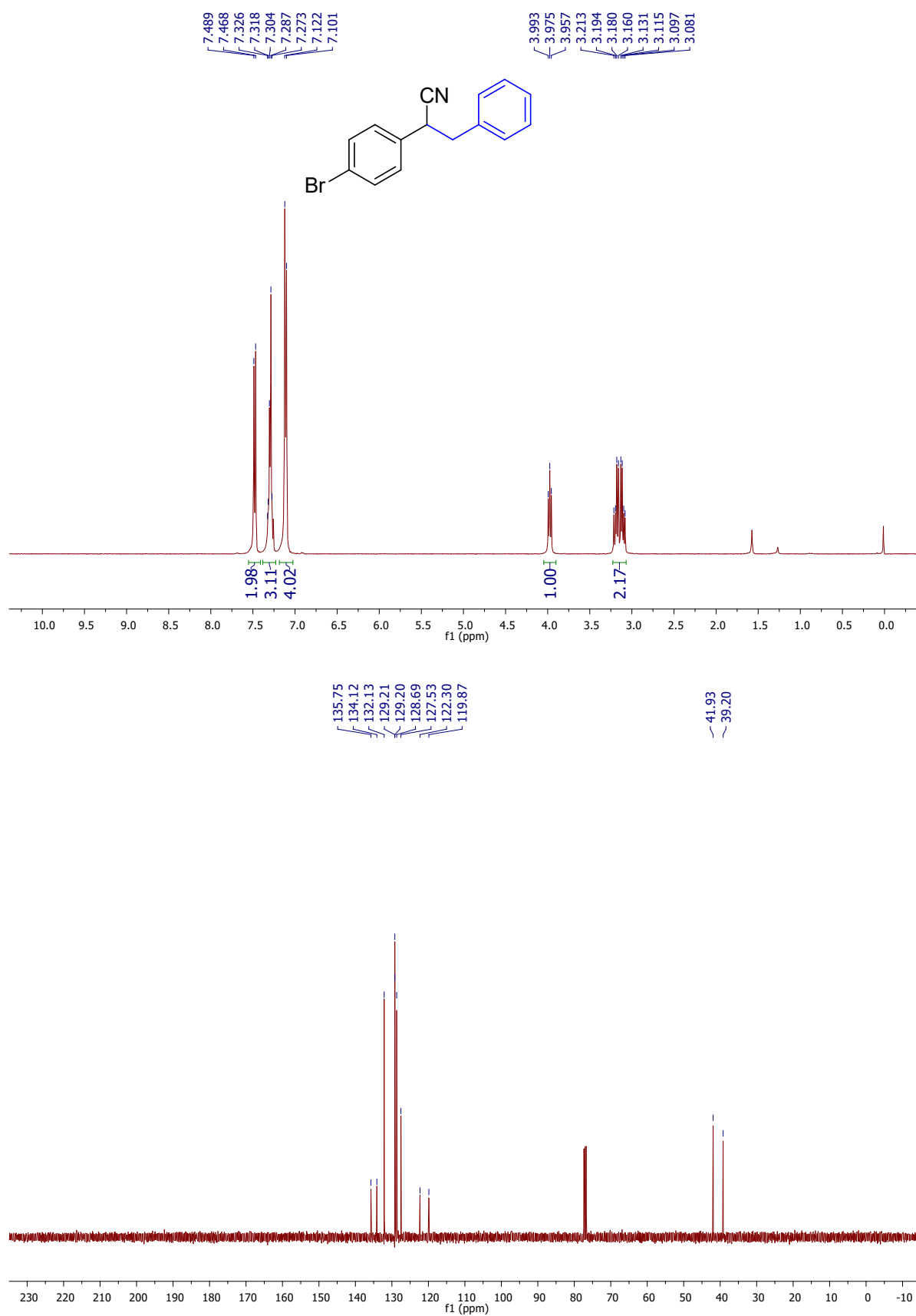


Figure S35. ^1H (400 MHz, CDCl_3) and ^{13}C (100.6 MHz, CDCl_3) NMR spectra of **8c**

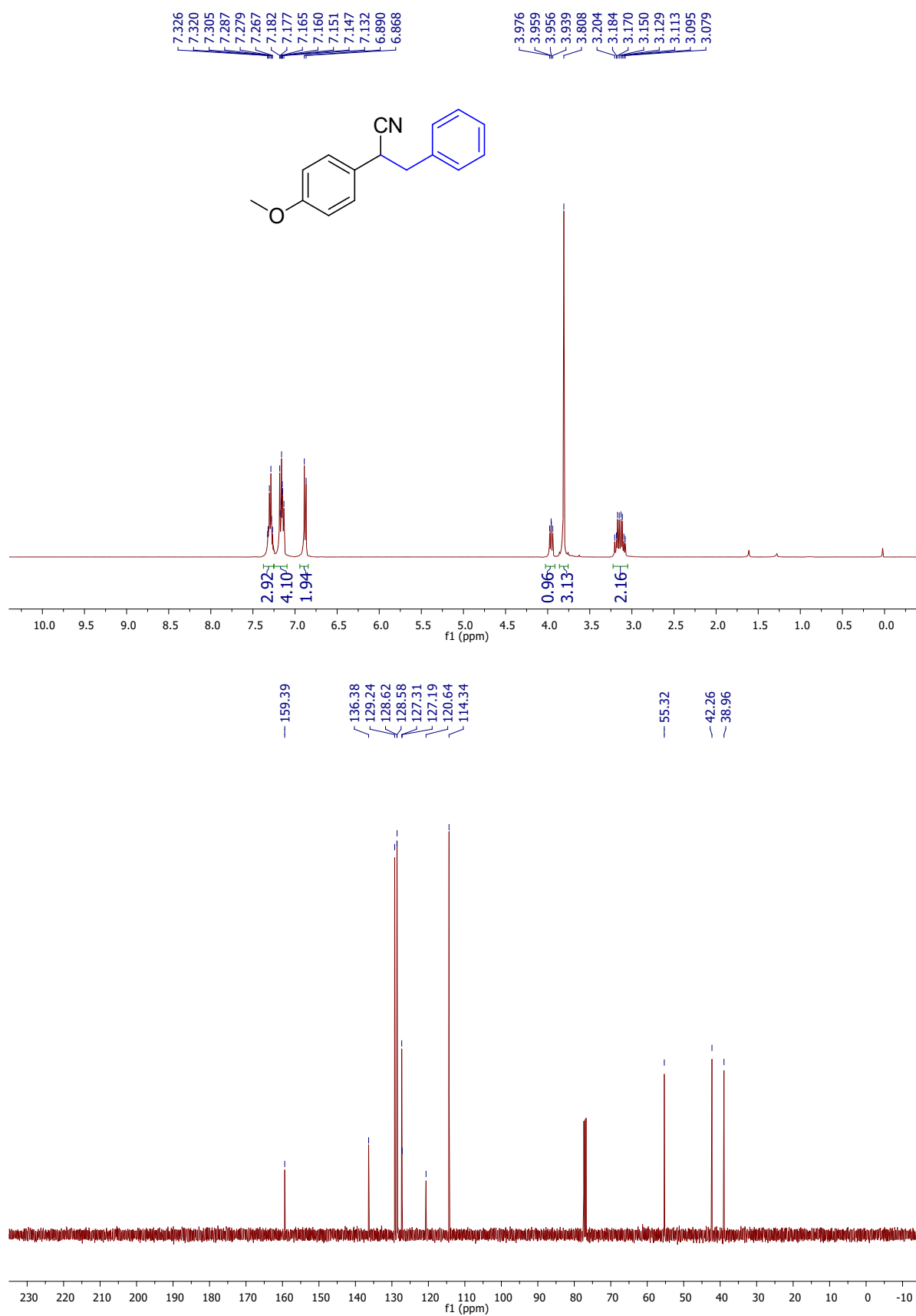


Figure S36. ¹H (400 MHz, CDCl₃) and ¹³C (100.6 MHz, CDCl₃) NMR spectra of **8d**

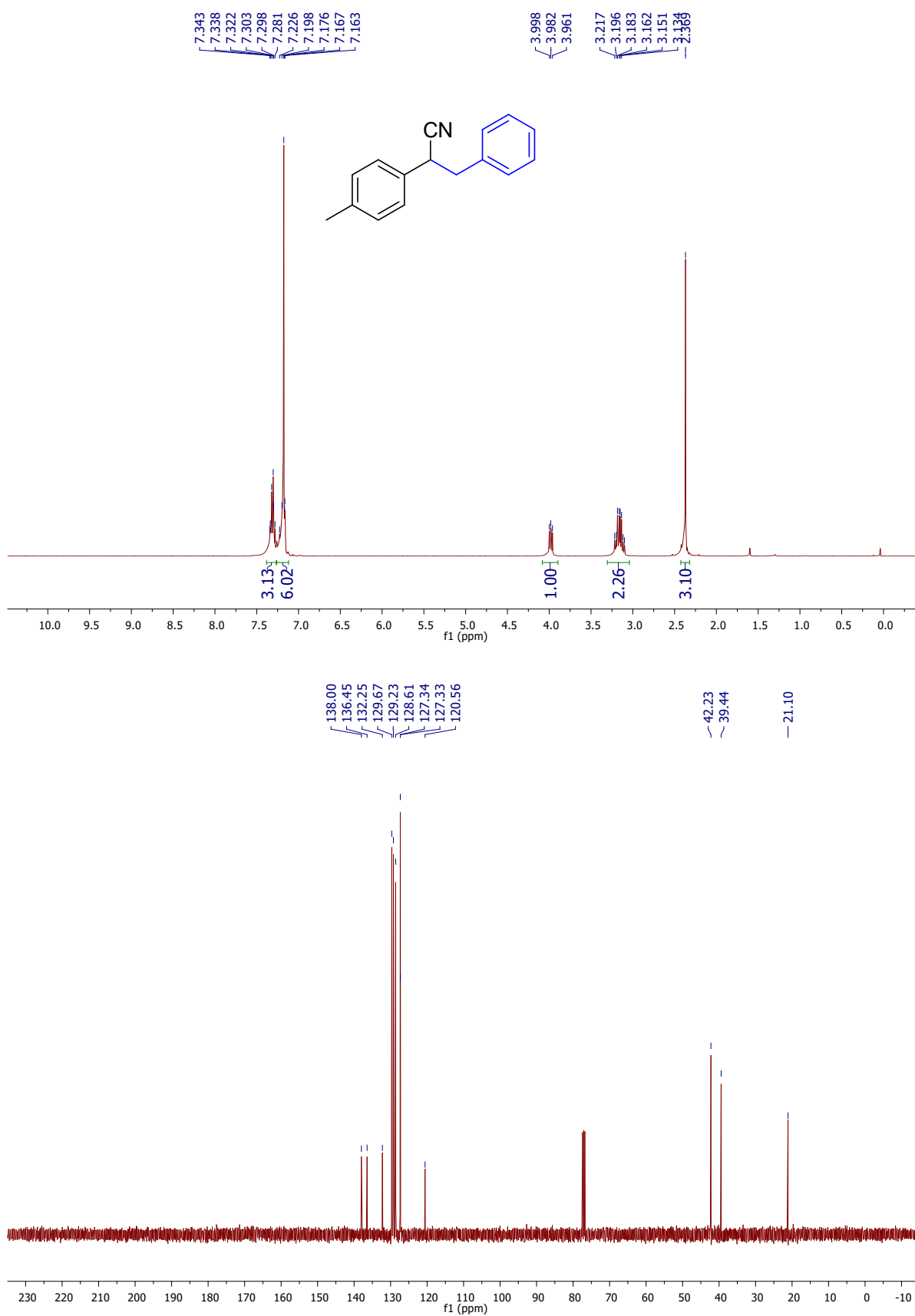


Figure S37. ¹H (400 MHz, CDCl₃) and ¹³C (100.6 MHz, CDCl₃) NMR spectra of **8e**

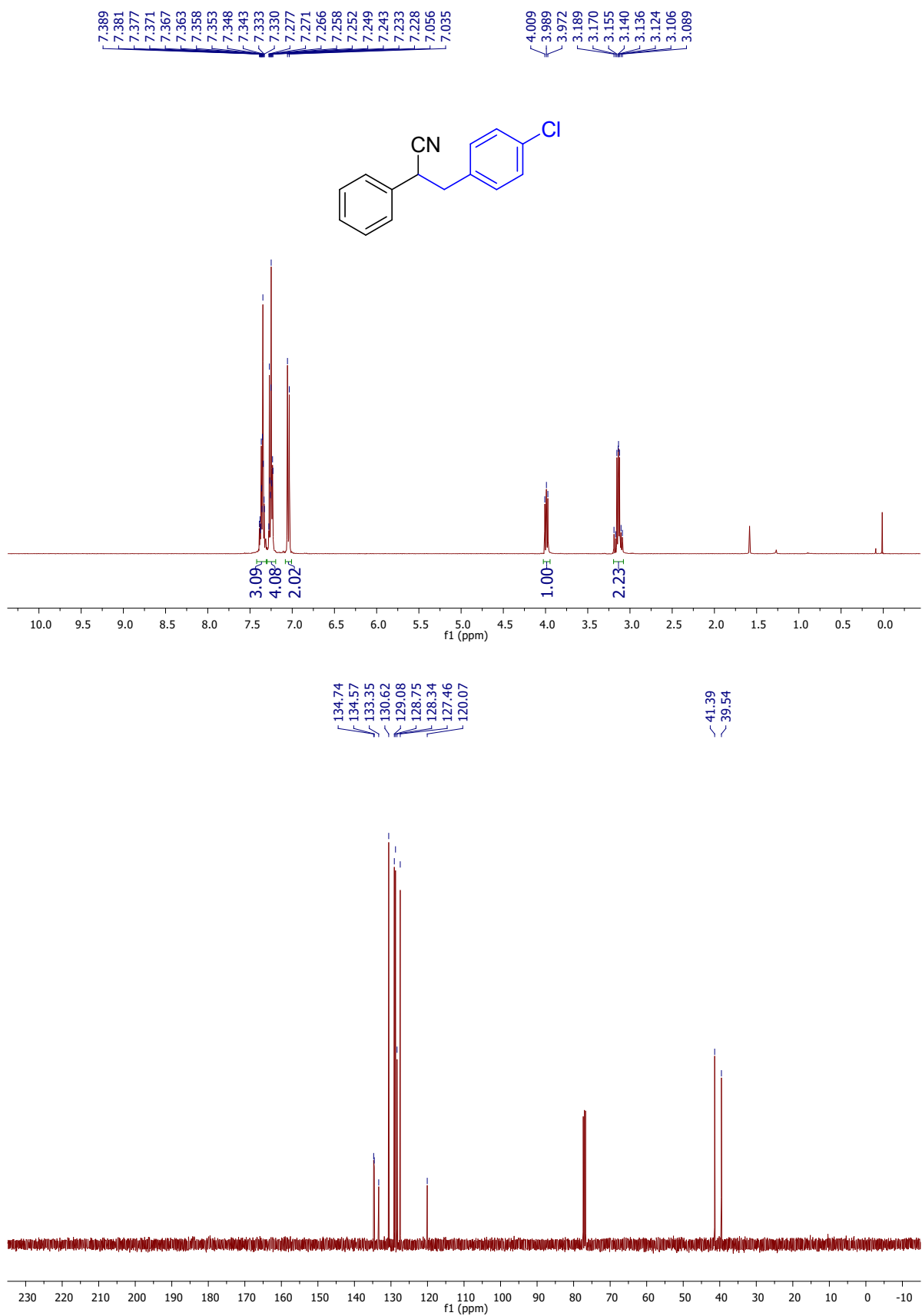


Figure S38. ¹H (400 MHz, CDCl₃) and ¹³C (100.6 MHz, CDCl₃) NMR spectra of **8f**

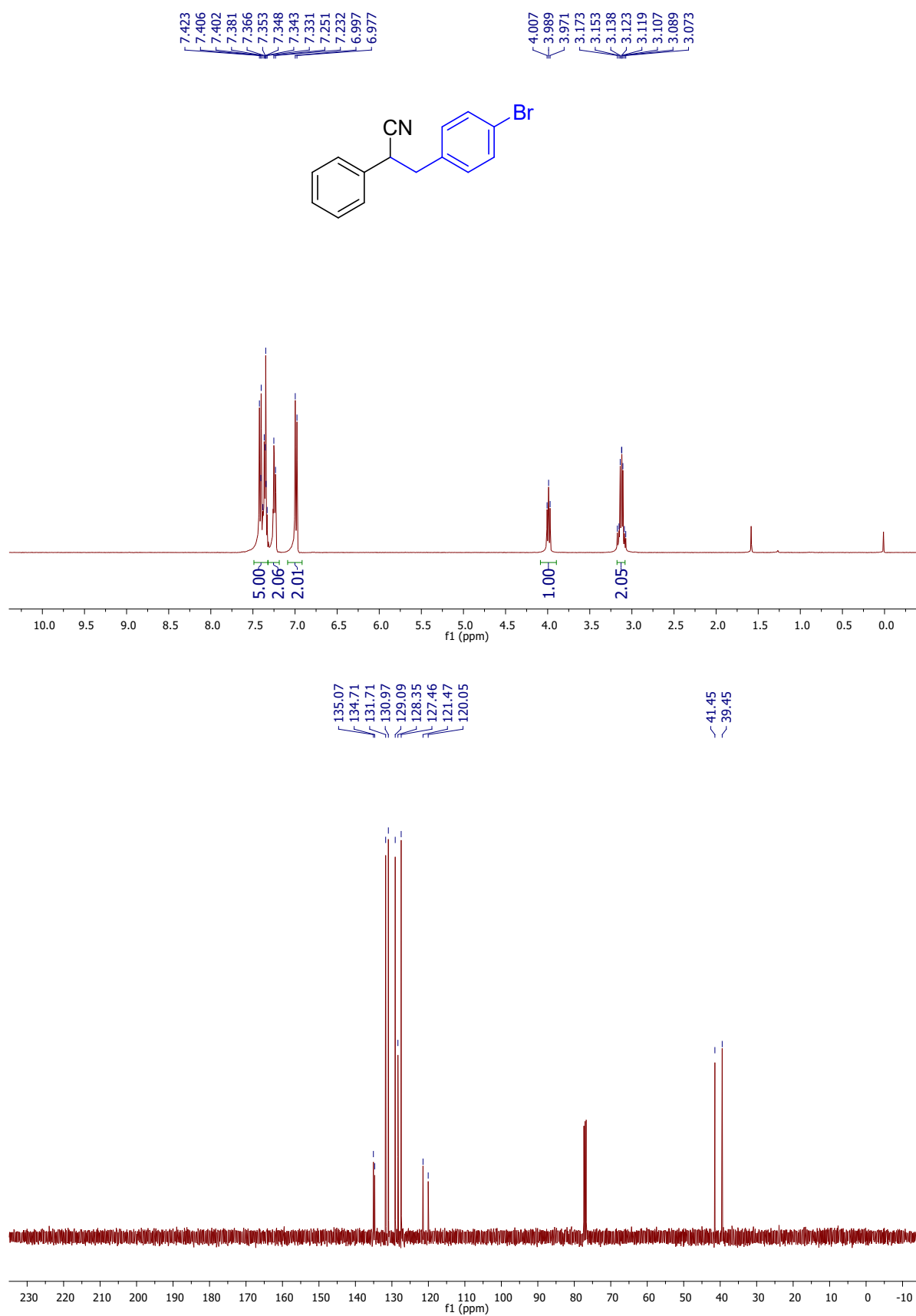


Figure S39. ¹H (400 MHz, CDCl₃) and ¹³C (100.6 MHz, CDCl₃) NMR spectra of **8g**

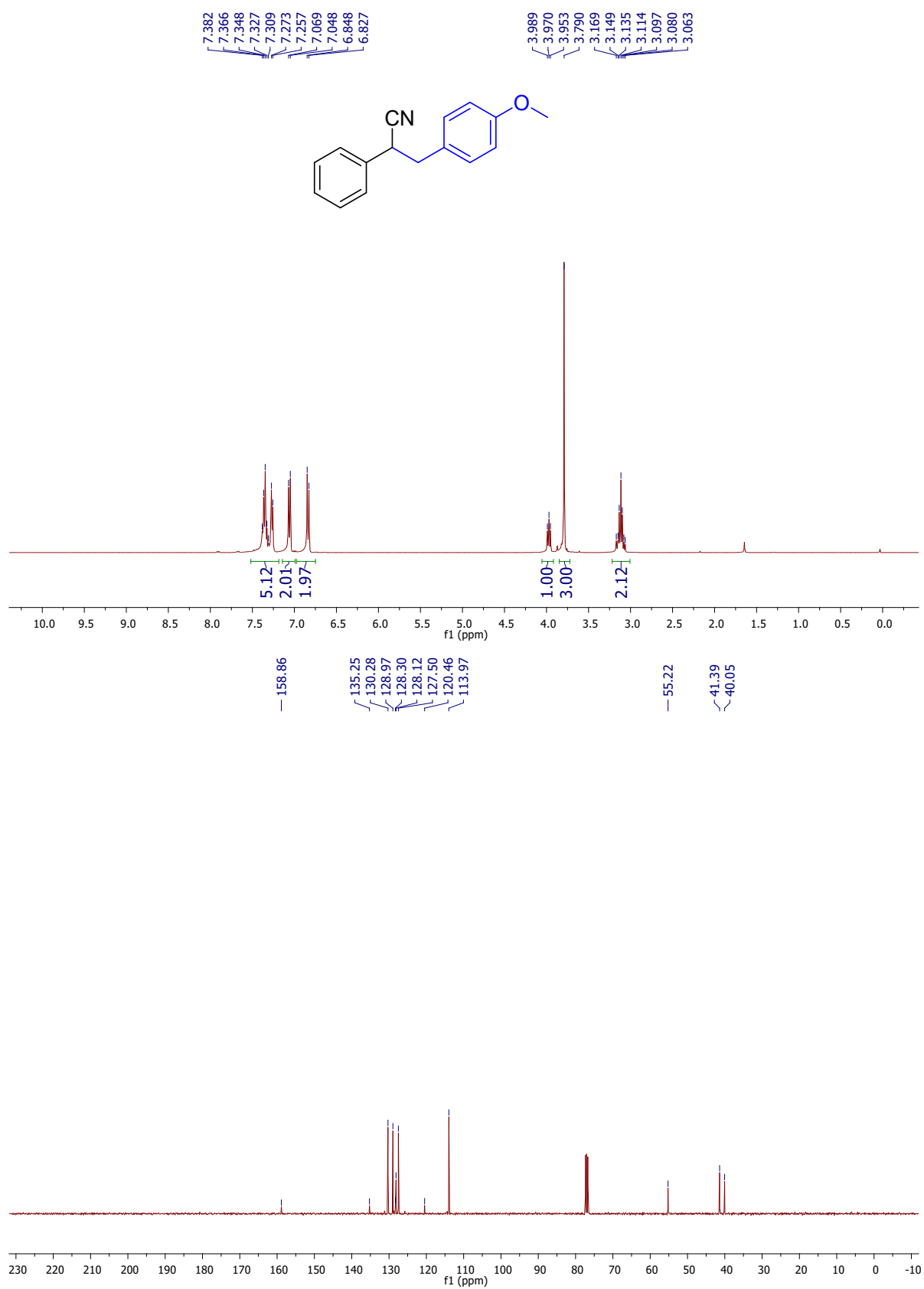


Figure S40. ¹H (400 MHz, CDCl₃) and ¹³C (100.6 MHz, CDCl₃) NMR spectra of **8h**

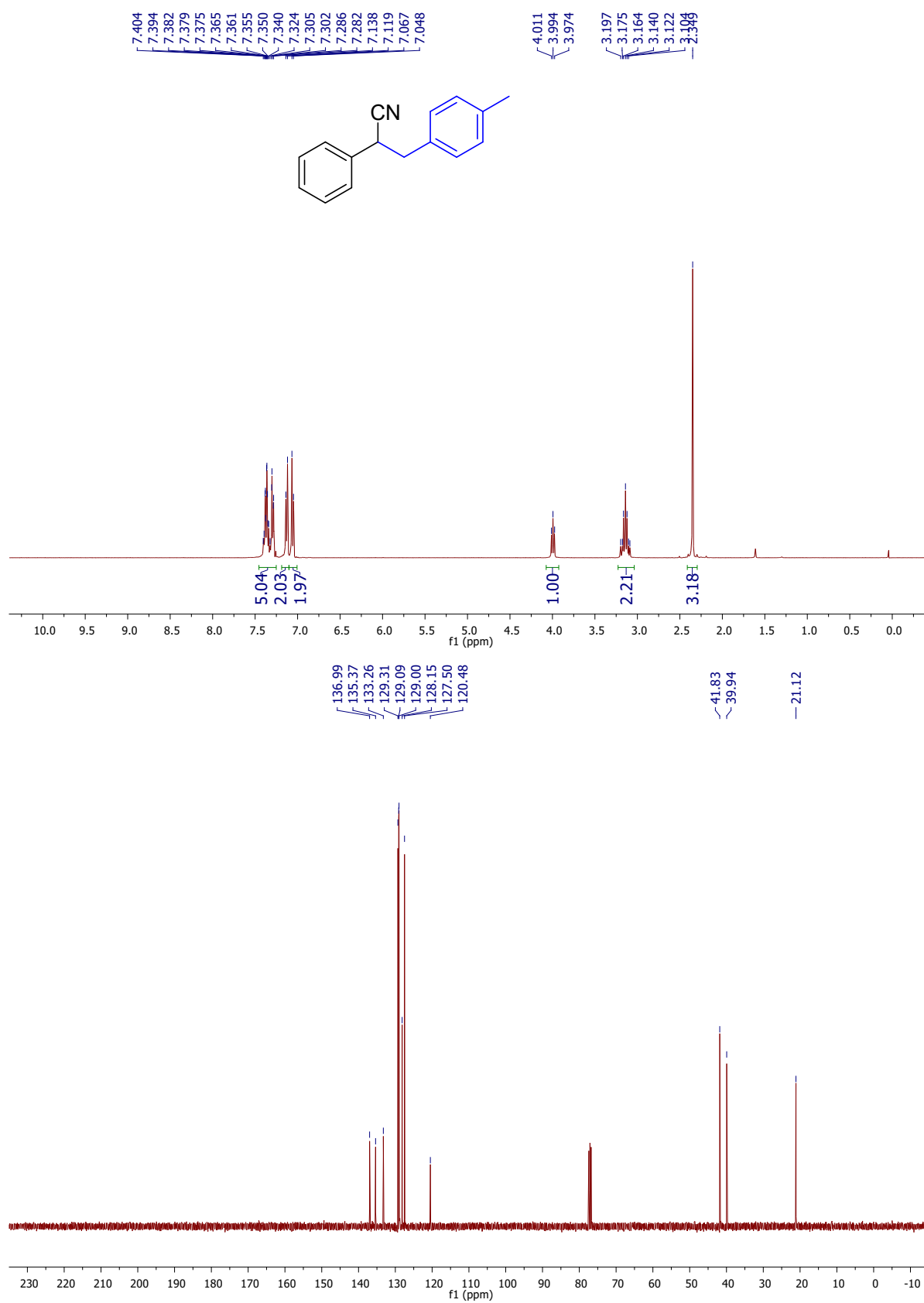


Figure S41. ¹H (400 MHz, CDCl₃) and ¹³C (100.6 MHz, CDCl₃) NMR spectra of **8i**