

Synthesis of Azuleno[2,1-*b*]quinolones and Quinolines via Brønsted Acid-catalyzed Cyclization of 2-Arylaminoazulenes

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➤ Contents

1. Copies of ^1H NMR and ^{13}C NMR spectra of reported compounds. Figures S1–S50

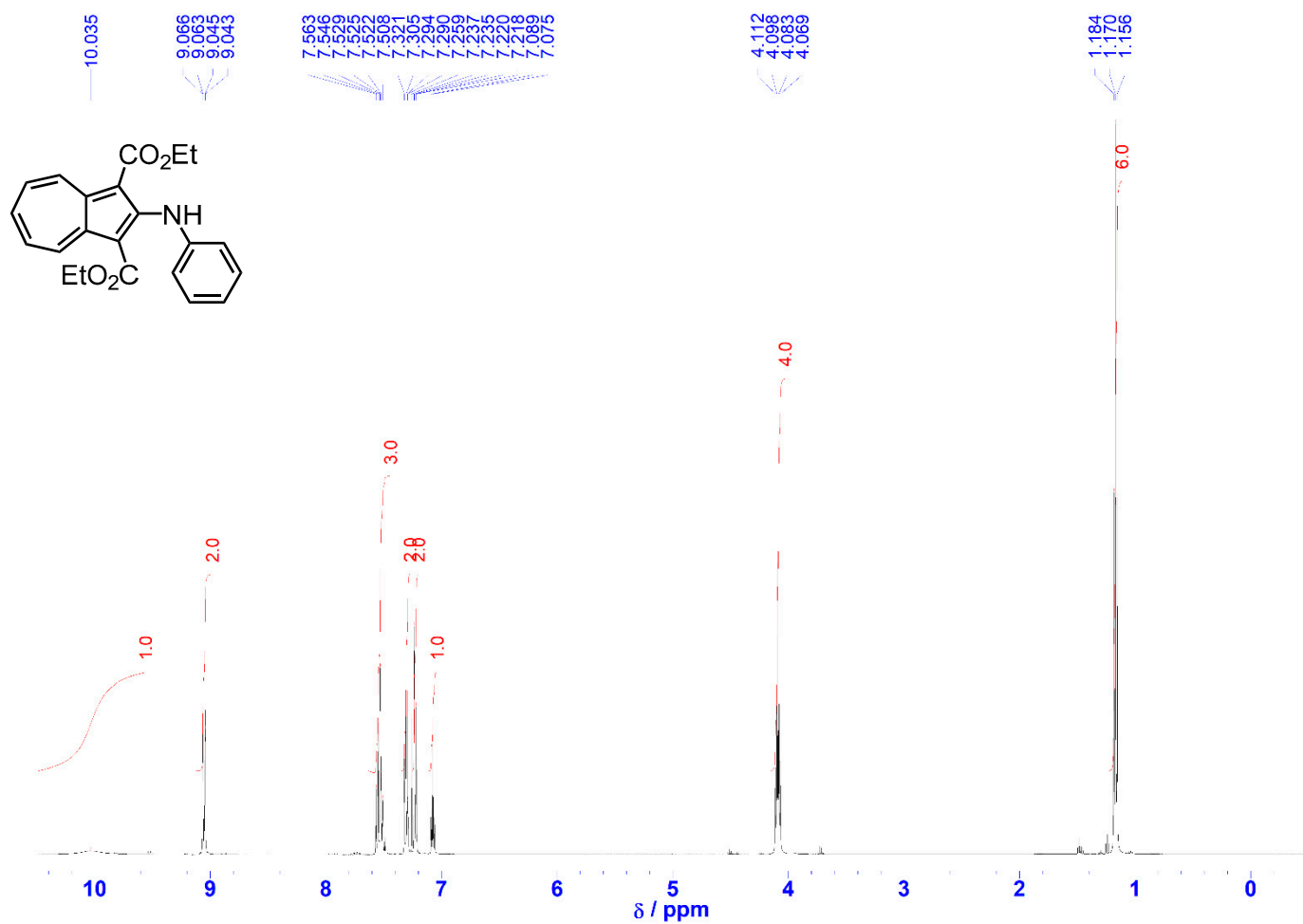


Figure S1. ^1H NMR spectrum of **2a** in CDCl_3 (500 MHz).

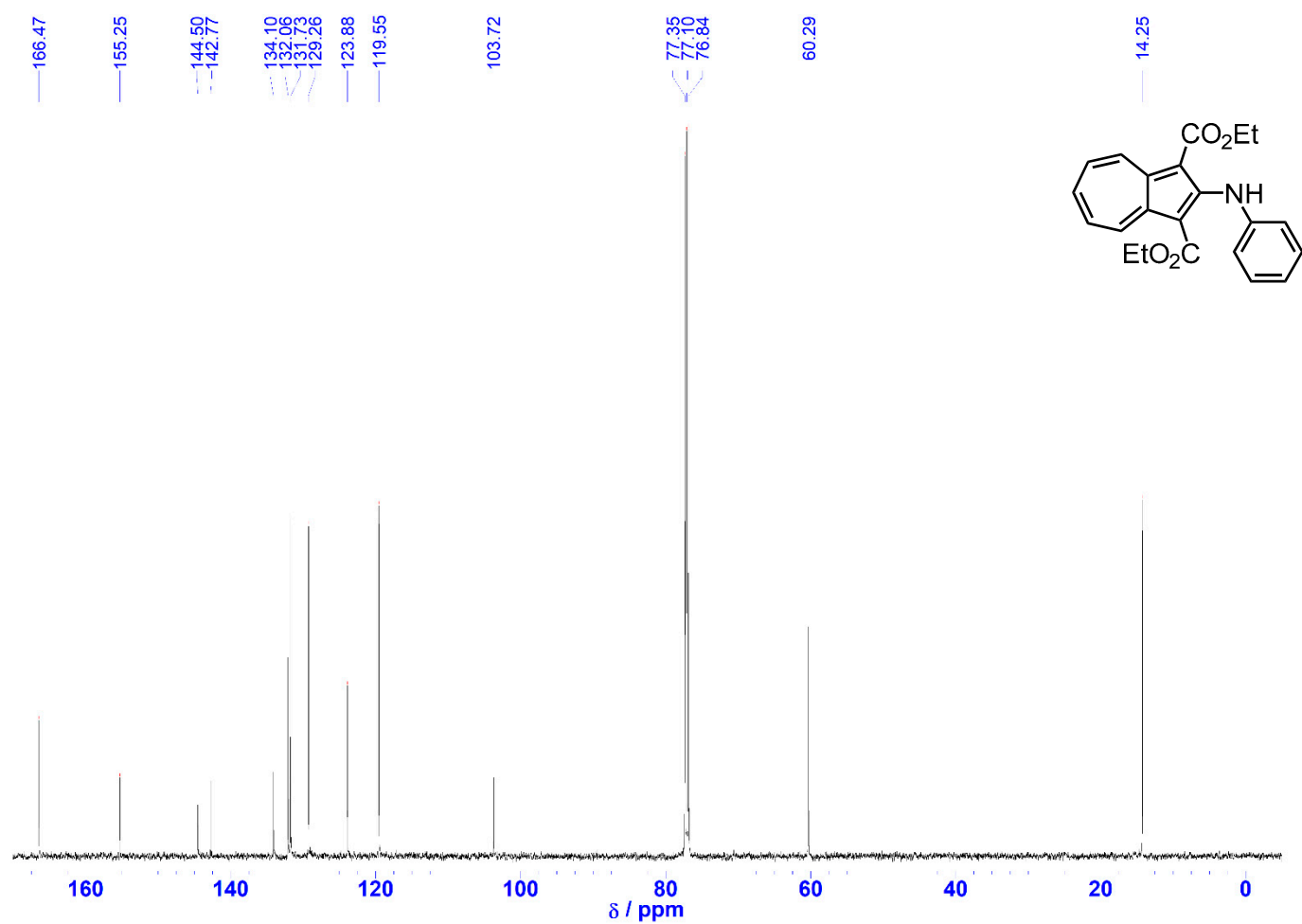


Figure S2. ^{13}C NMR spectrum of **2a** in CDCl_3 (125 MHz).

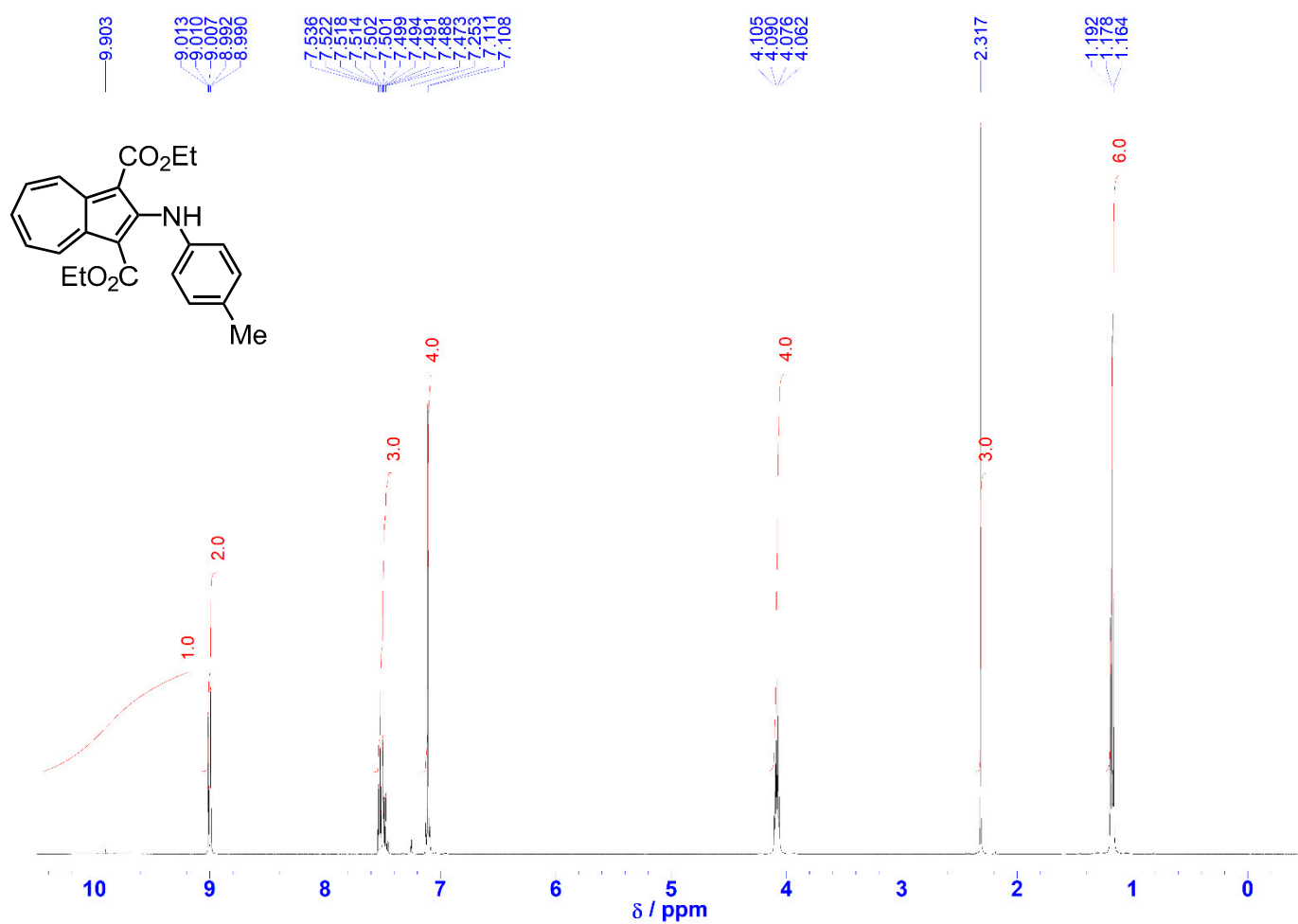


Figure S3. ^1H NMR spectrum of **2b** in CDCl_3 (500 MHz).

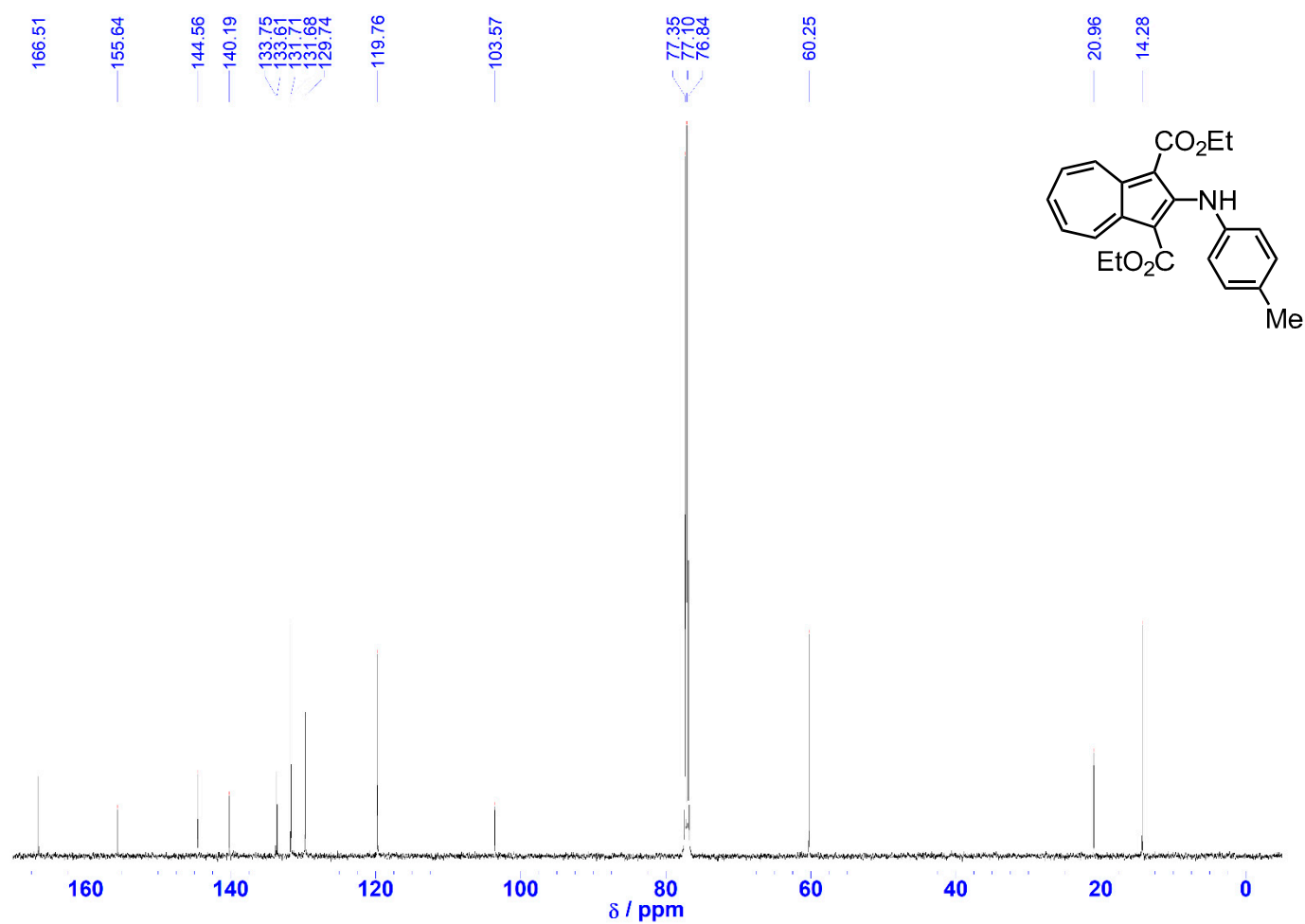


Figure S4. ^{13}C NMR spectrum of **2b** in CDCl_3 (125 MHz).

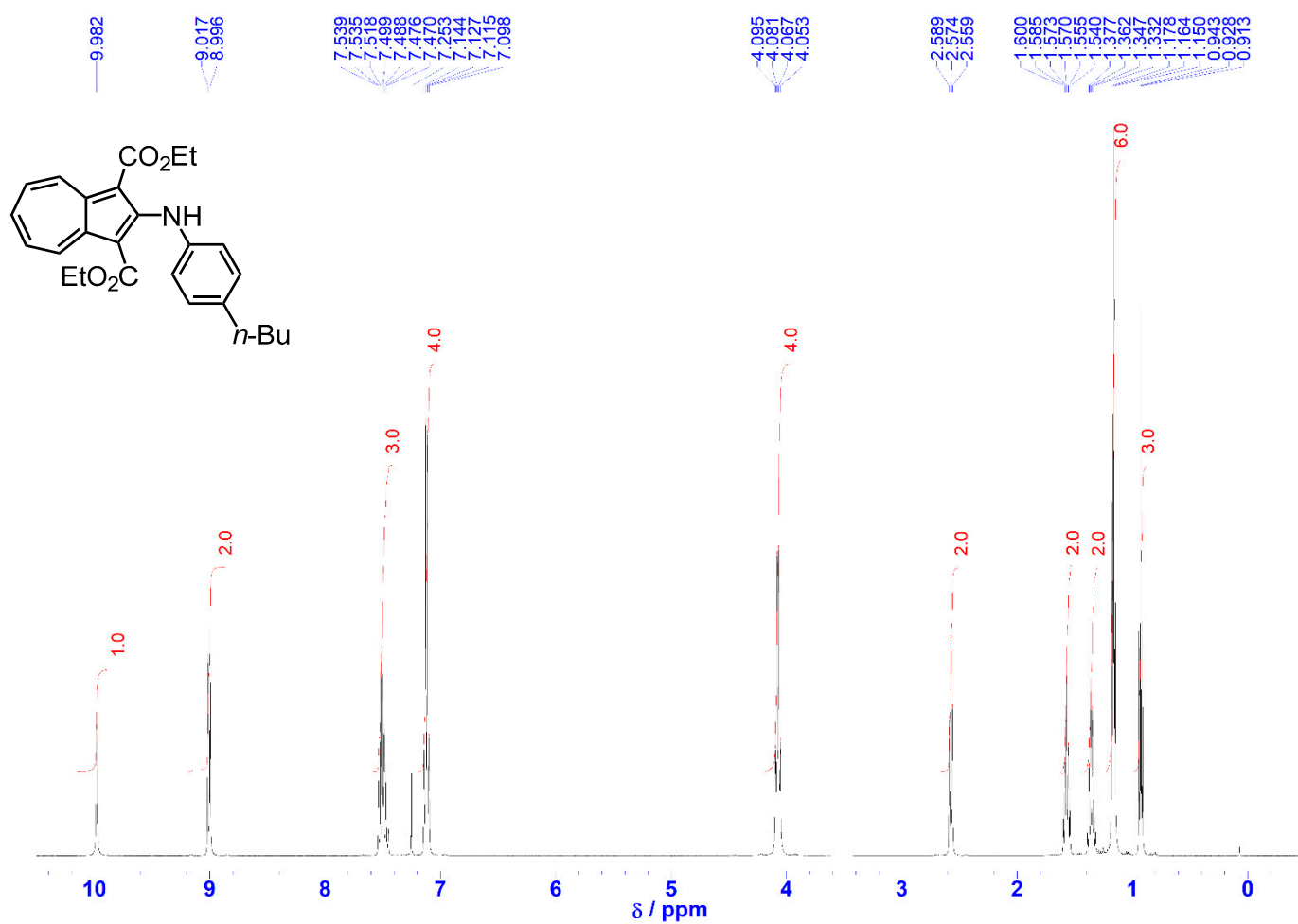


Figure S5. ^1H NMR spectrum of **2c** in CDCl_3 (500 MHz).

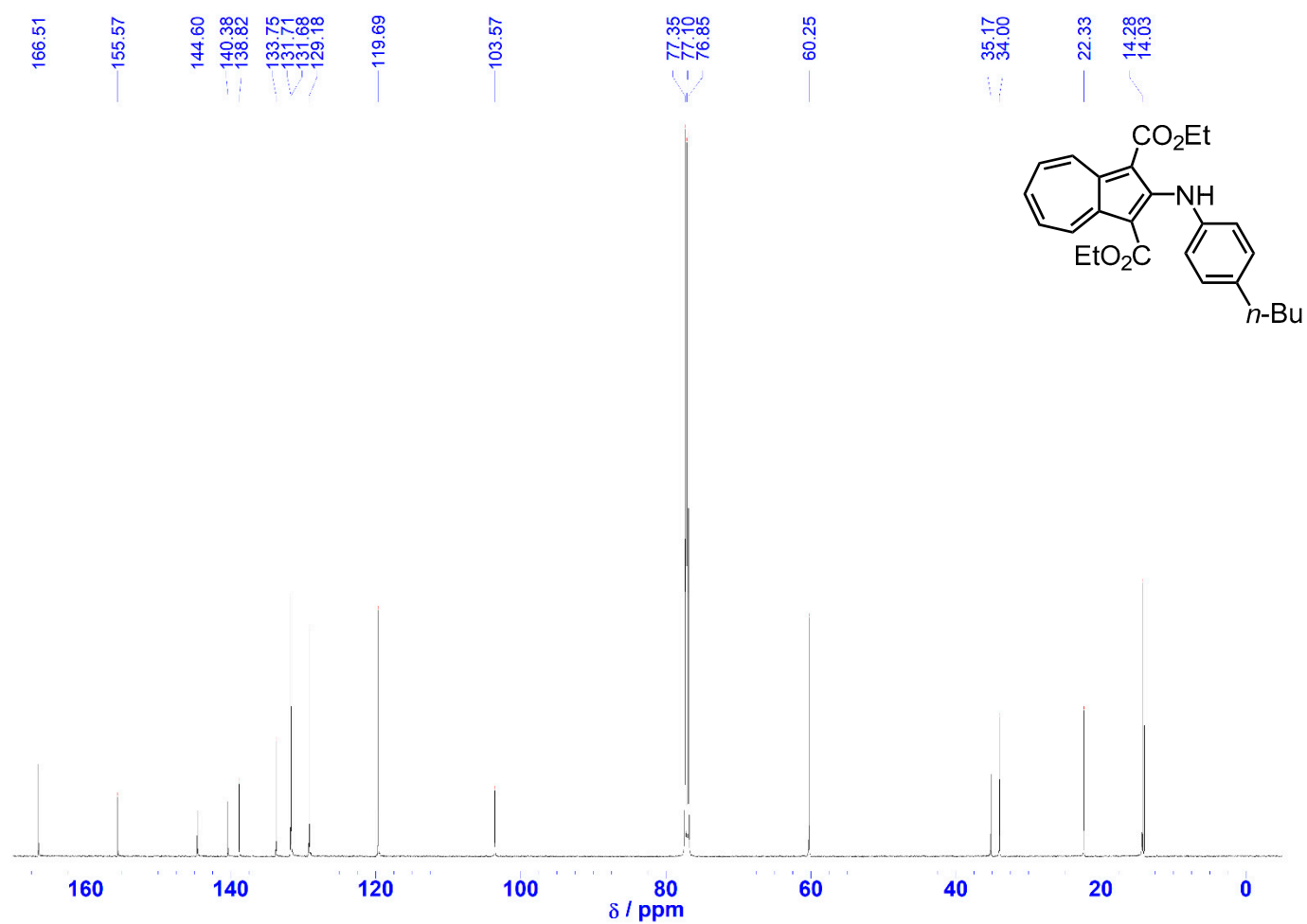


Figure S6. ^{13}C NMR spectrum of **2c** in CDCl_3 (125 MHz).

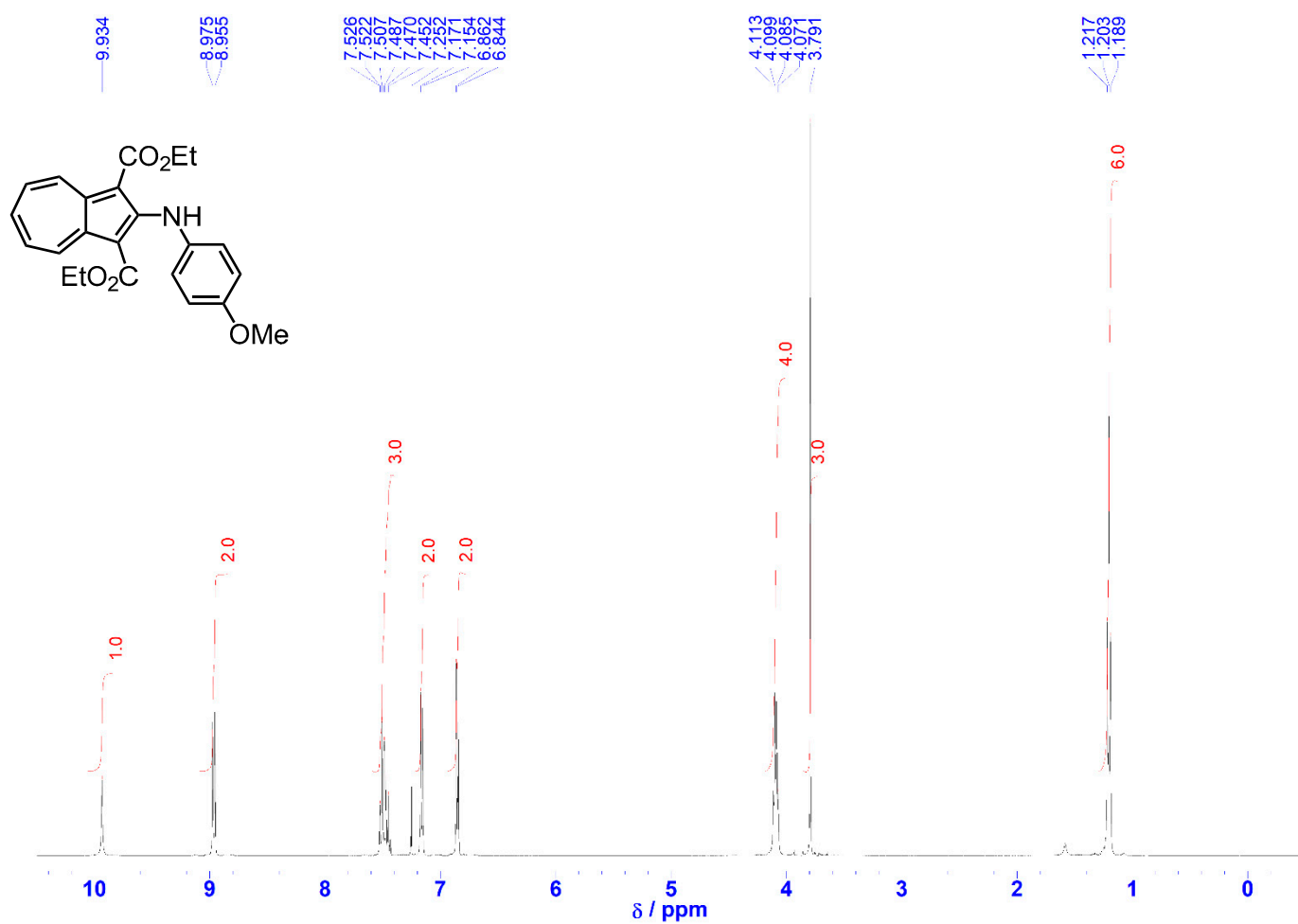


Figure S7. ¹H NMR spectrum of **2d** in CDCl₃ (500 MHz).

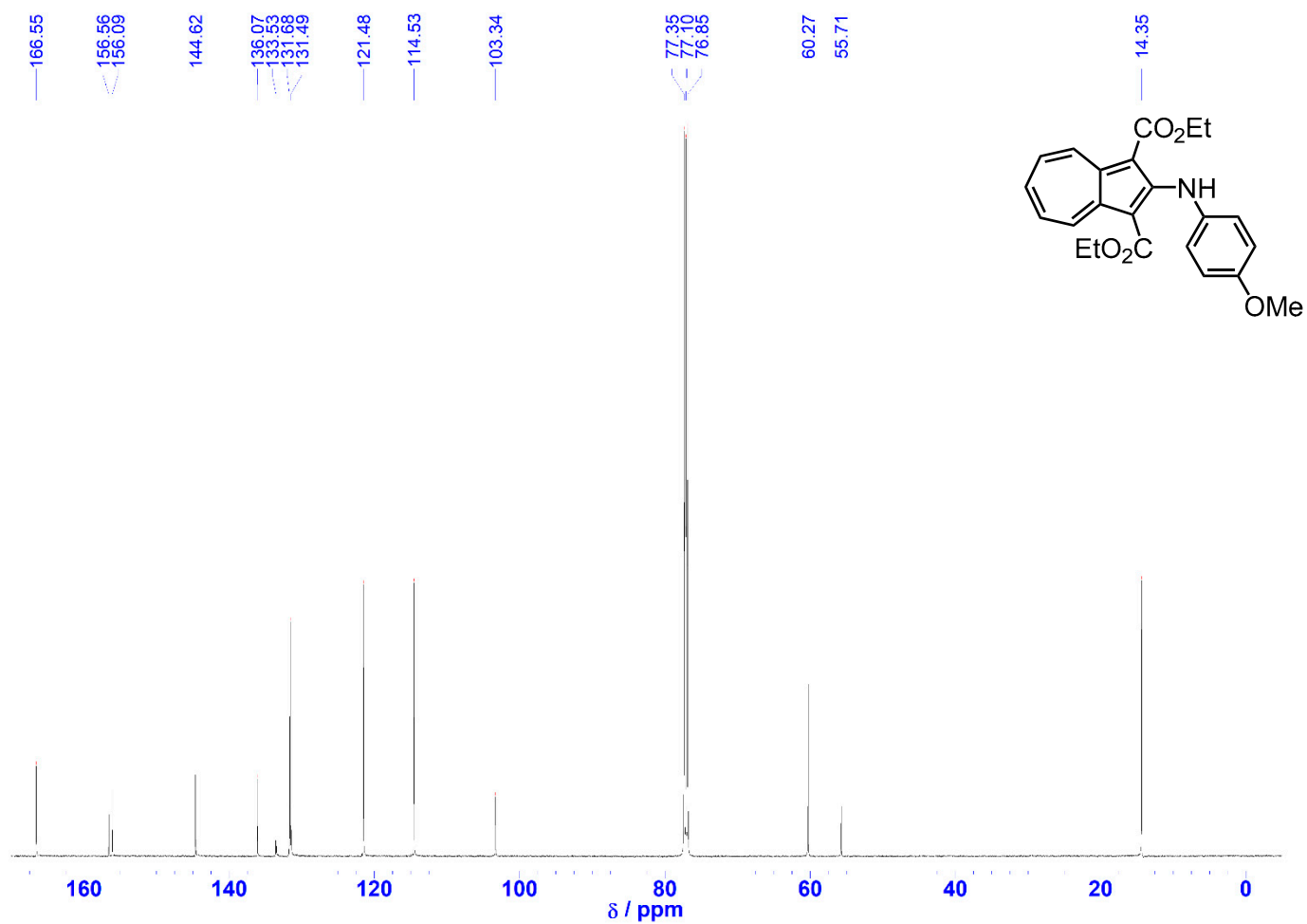


Figure S8. ^{13}C NMR spectrum of **2d** in CDCl_3 (125 MHz).

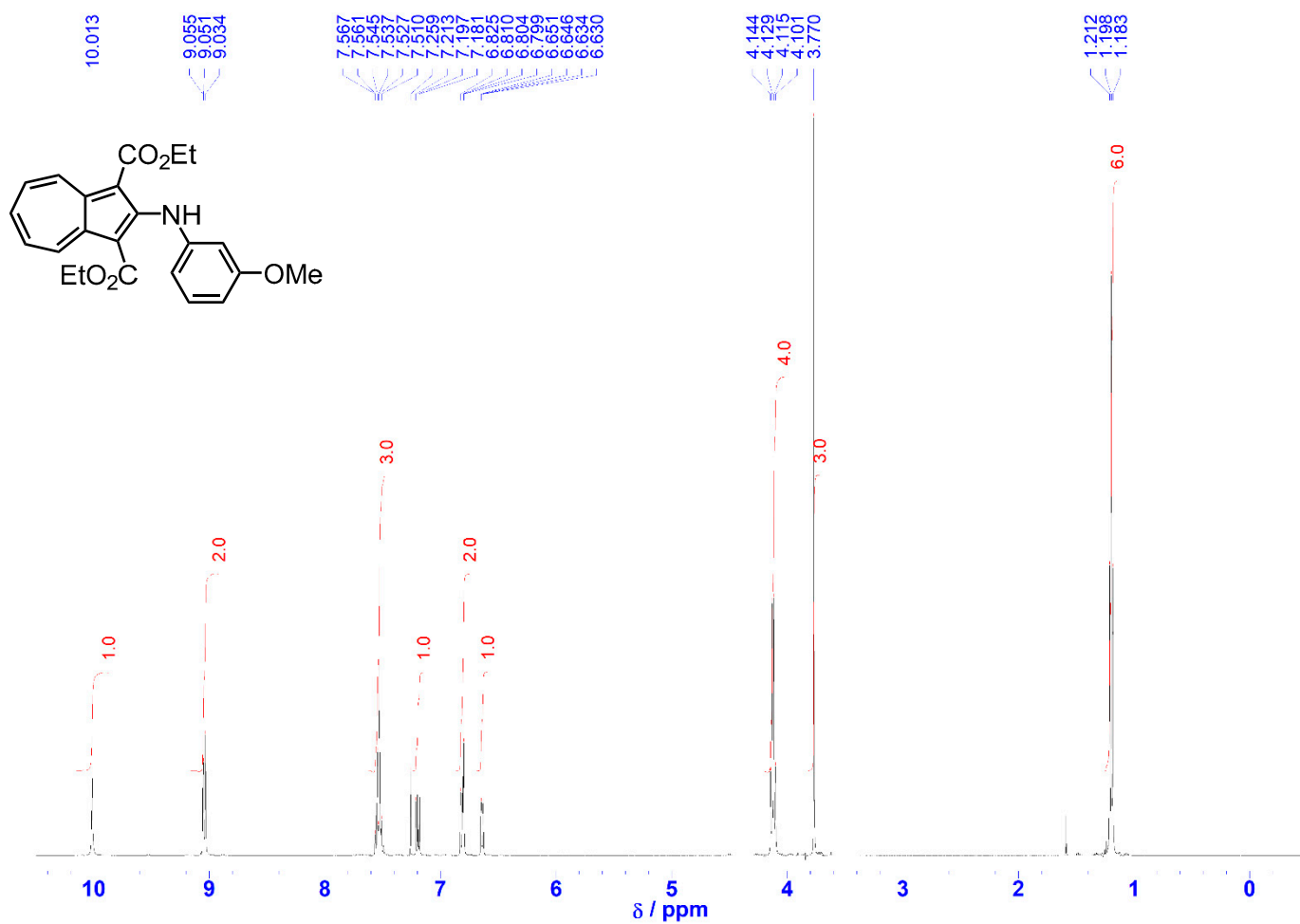


Figure S9. ¹H NMR spectrum of **2e** in CDCl₃ (500 MHz).

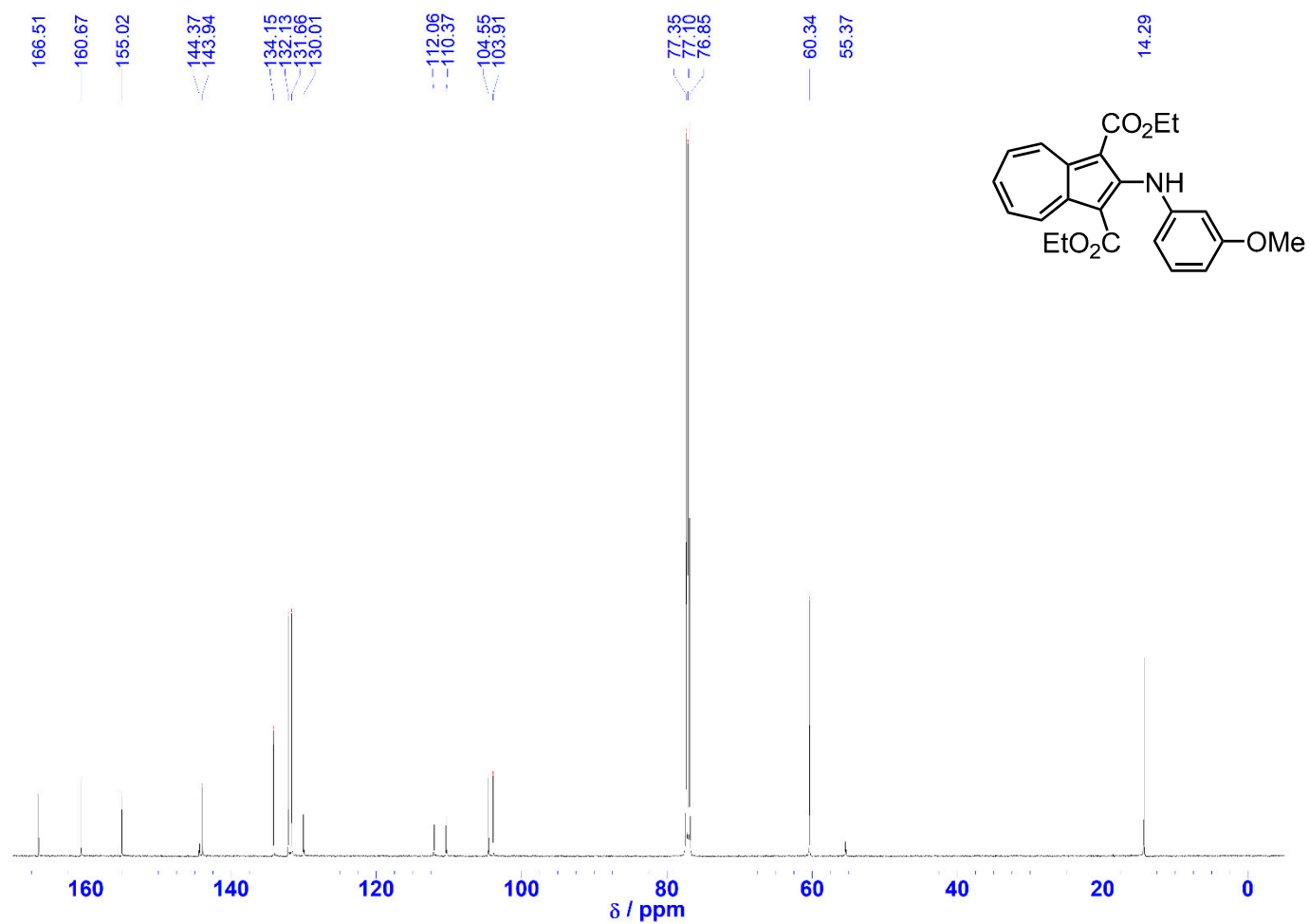


Figure S10. ^{13}C NMR spectrum of **2e** in CDCl_3 (125 MHz).

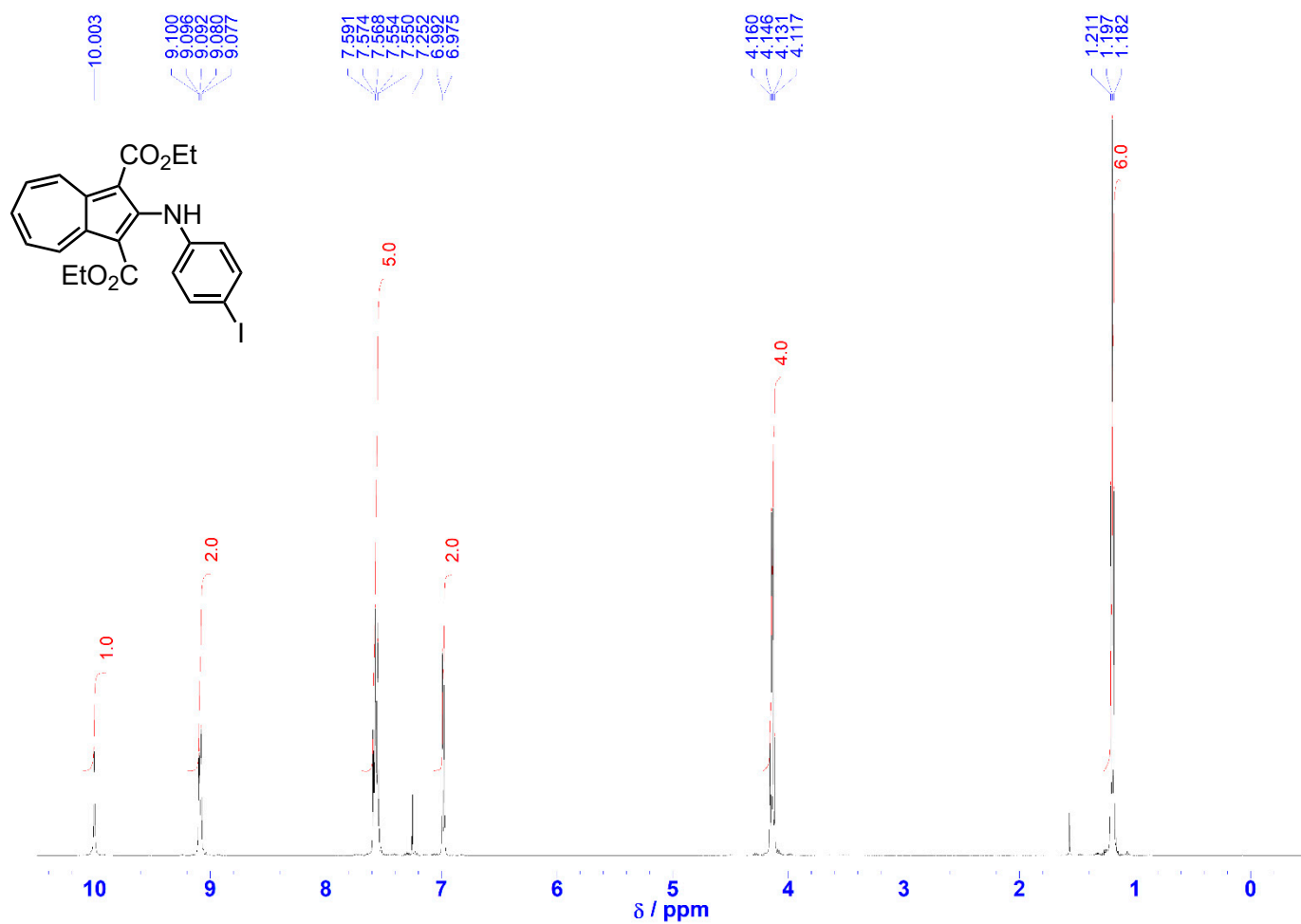


Figure S11. ^1H NMR spectrum of **2f** in CDCl_3 (500 MHz).

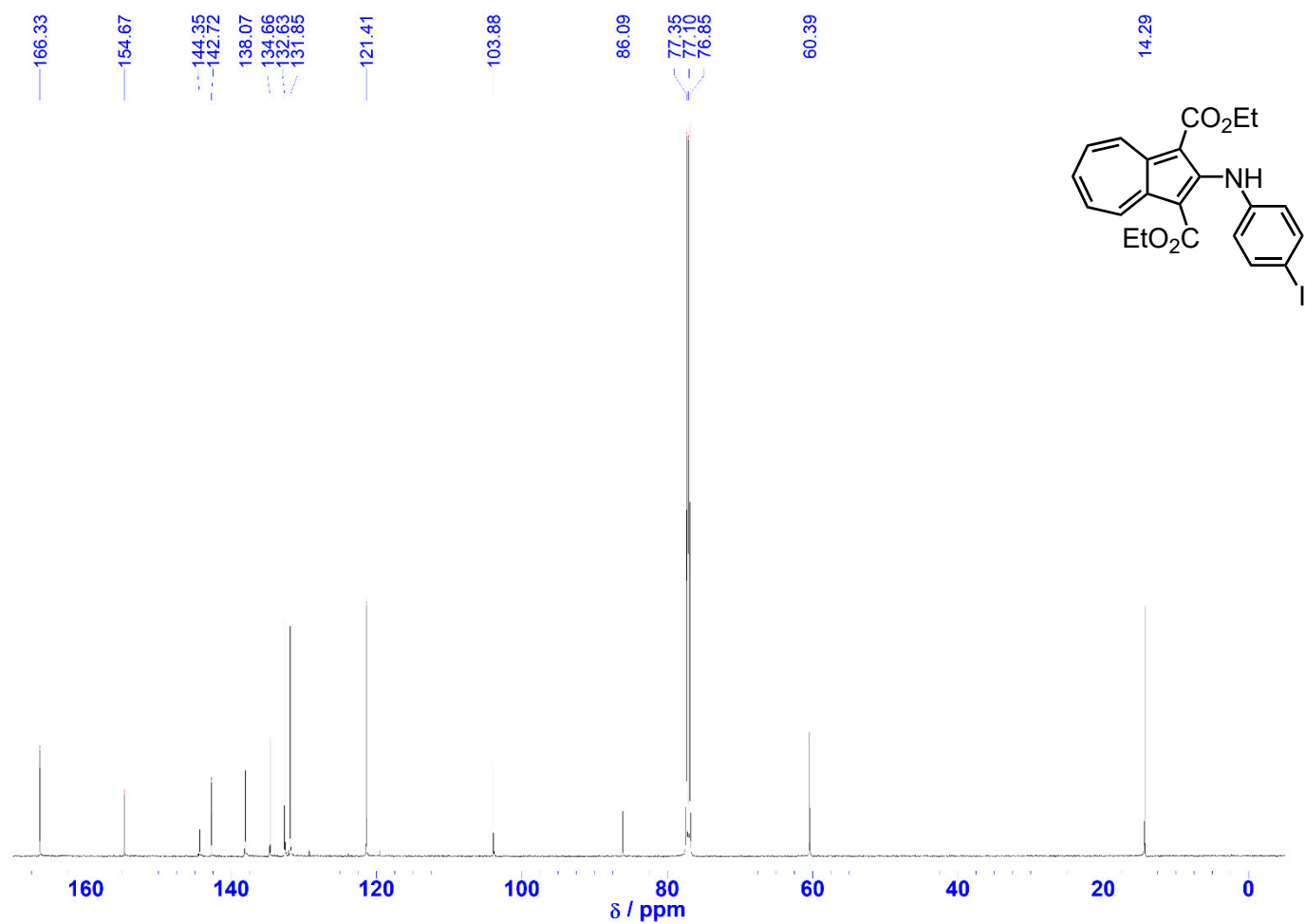


Figure S12. ^{13}C NMR spectrum of **2f** in CDCl_3 (125 MHz).

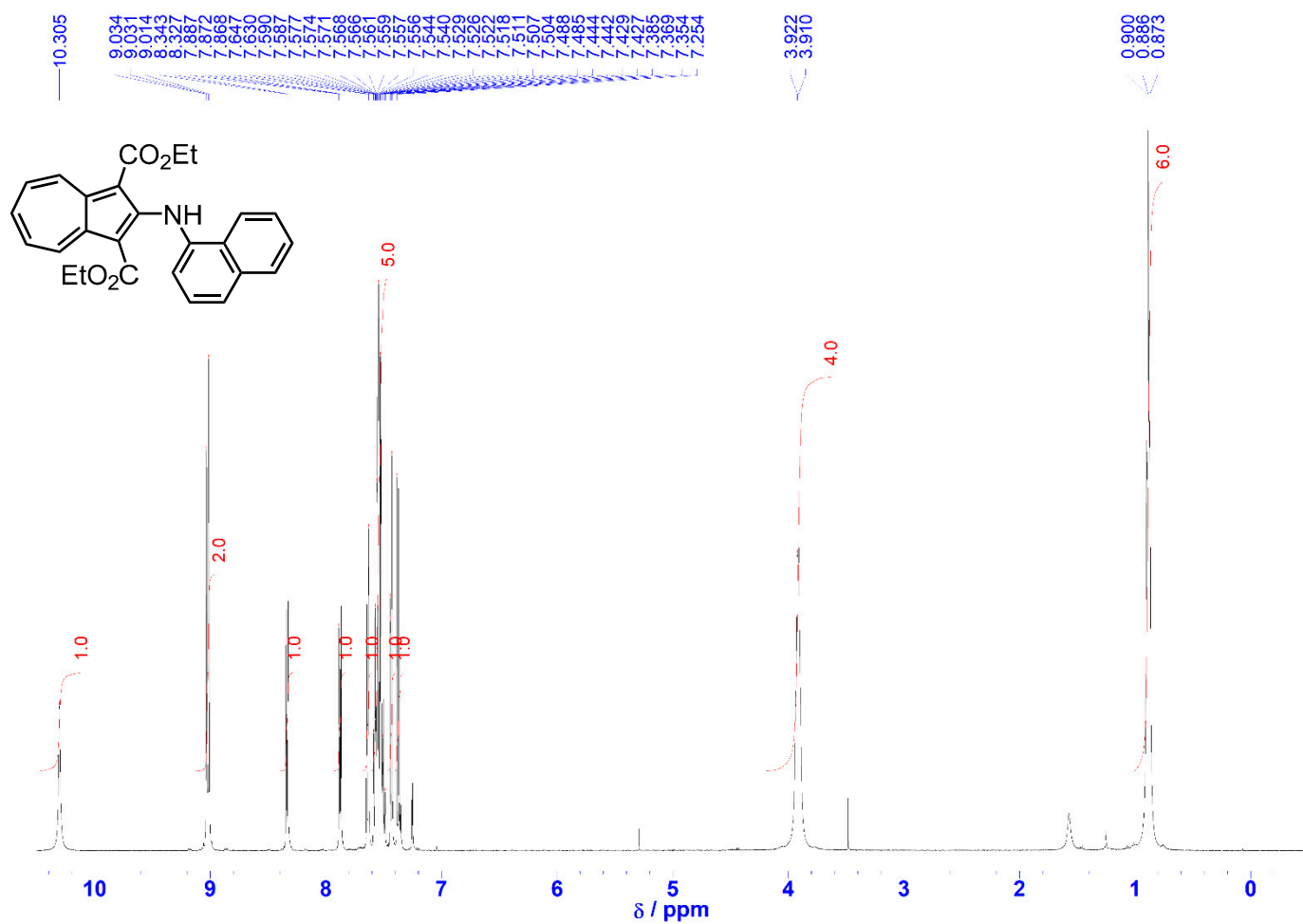


Figure S13. ^1H NMR spectrum of **2f** in CDCl_3 (500 MHz).

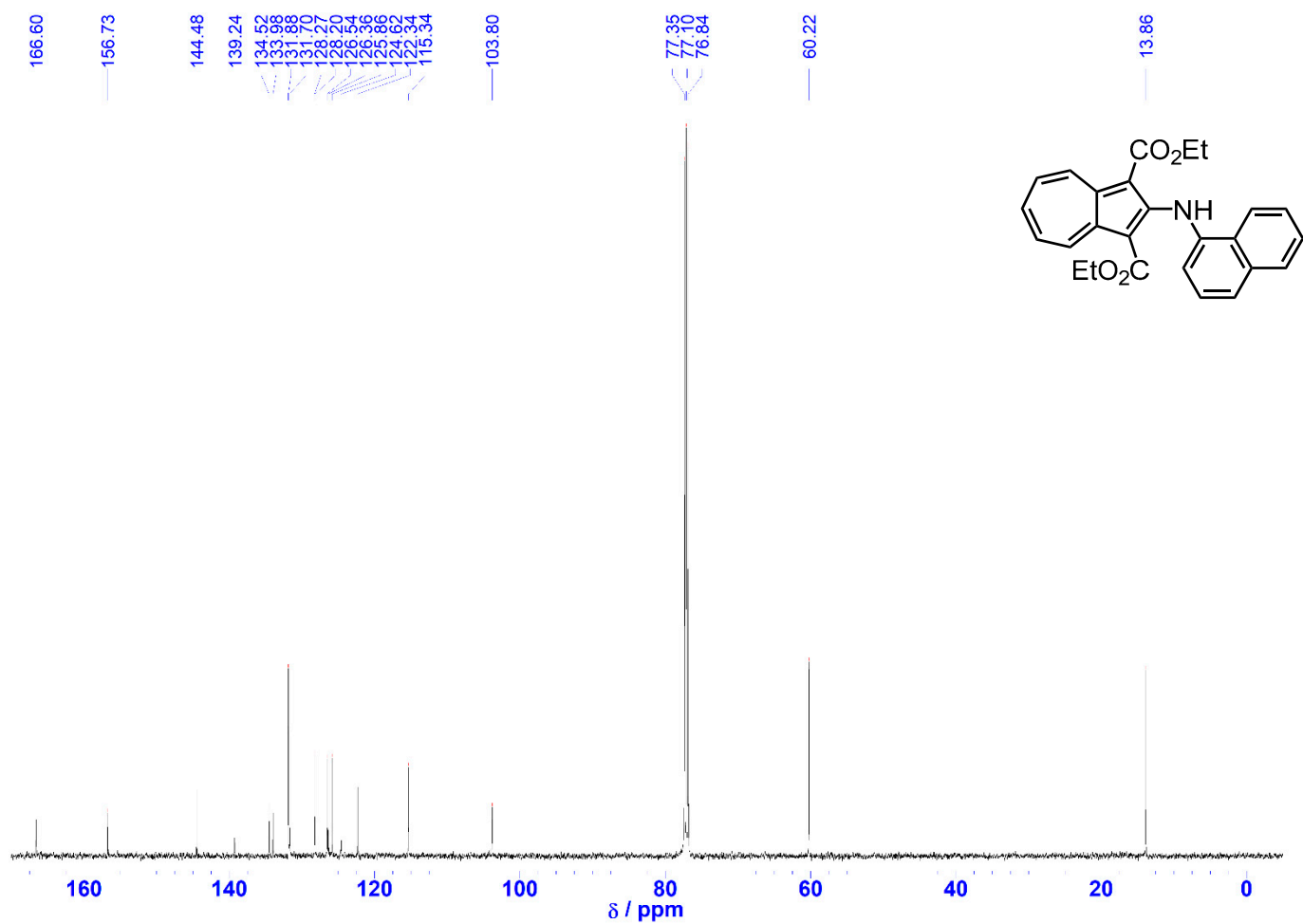


Figure S14. ^{13}C NMR spectrum of **2f** in CDCl_3 (125 MHz).

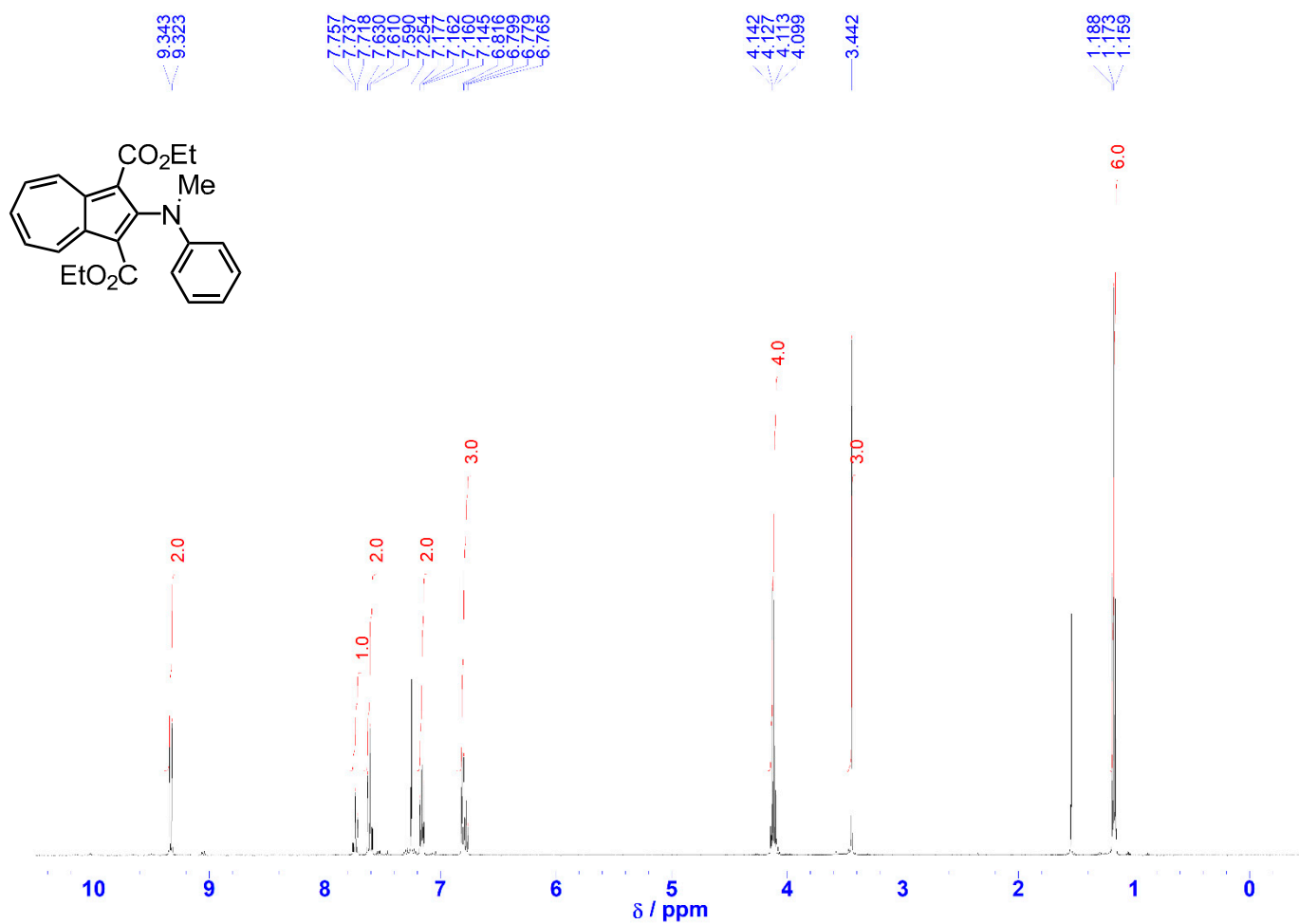


Figure S15. ¹H NMR spectrum of **2g** in CDCl₃ (500 MHz).

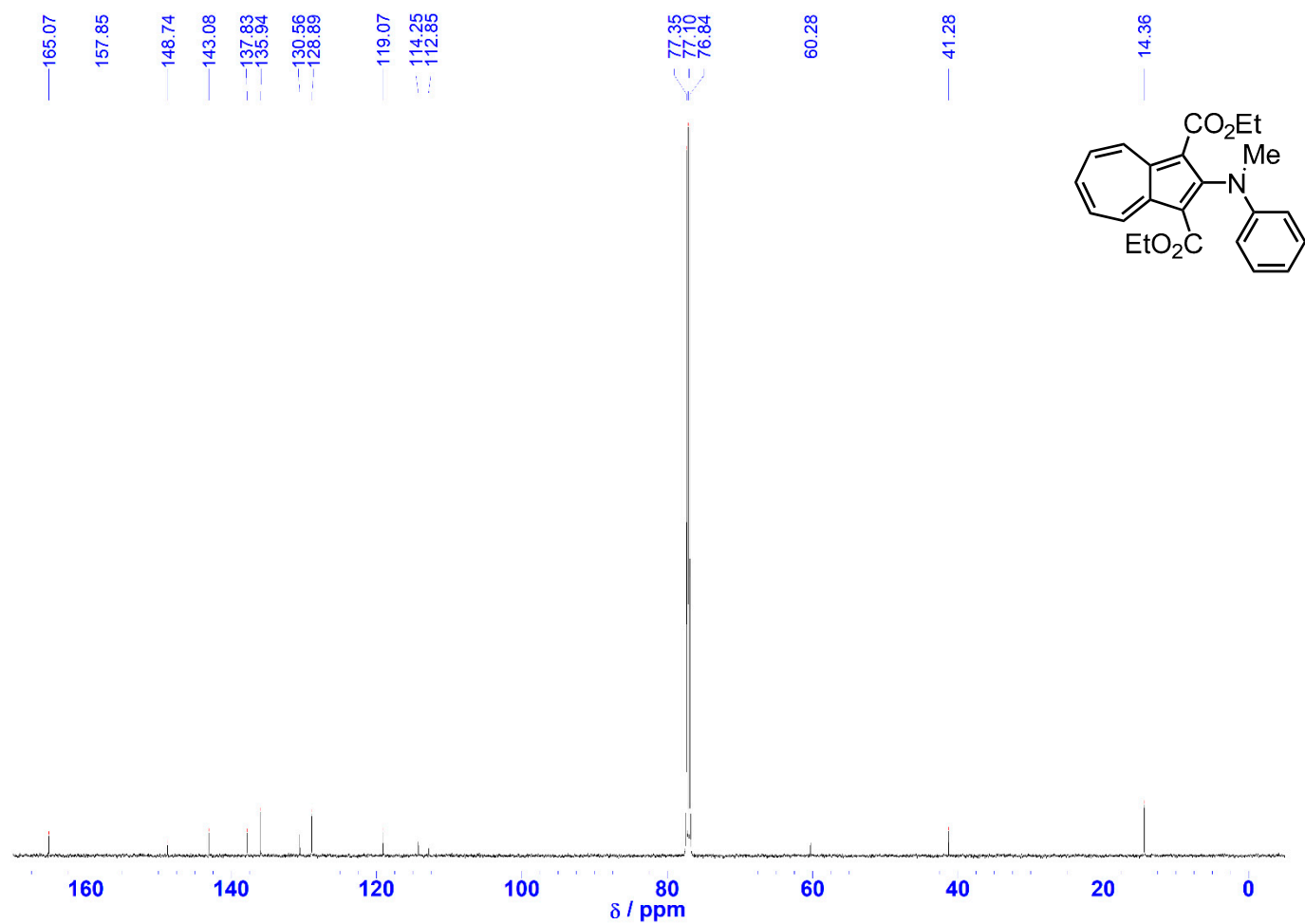


Figure S16. ^{13}C NMR spectrum of **2g** in CDCl_3 (125 MHz).

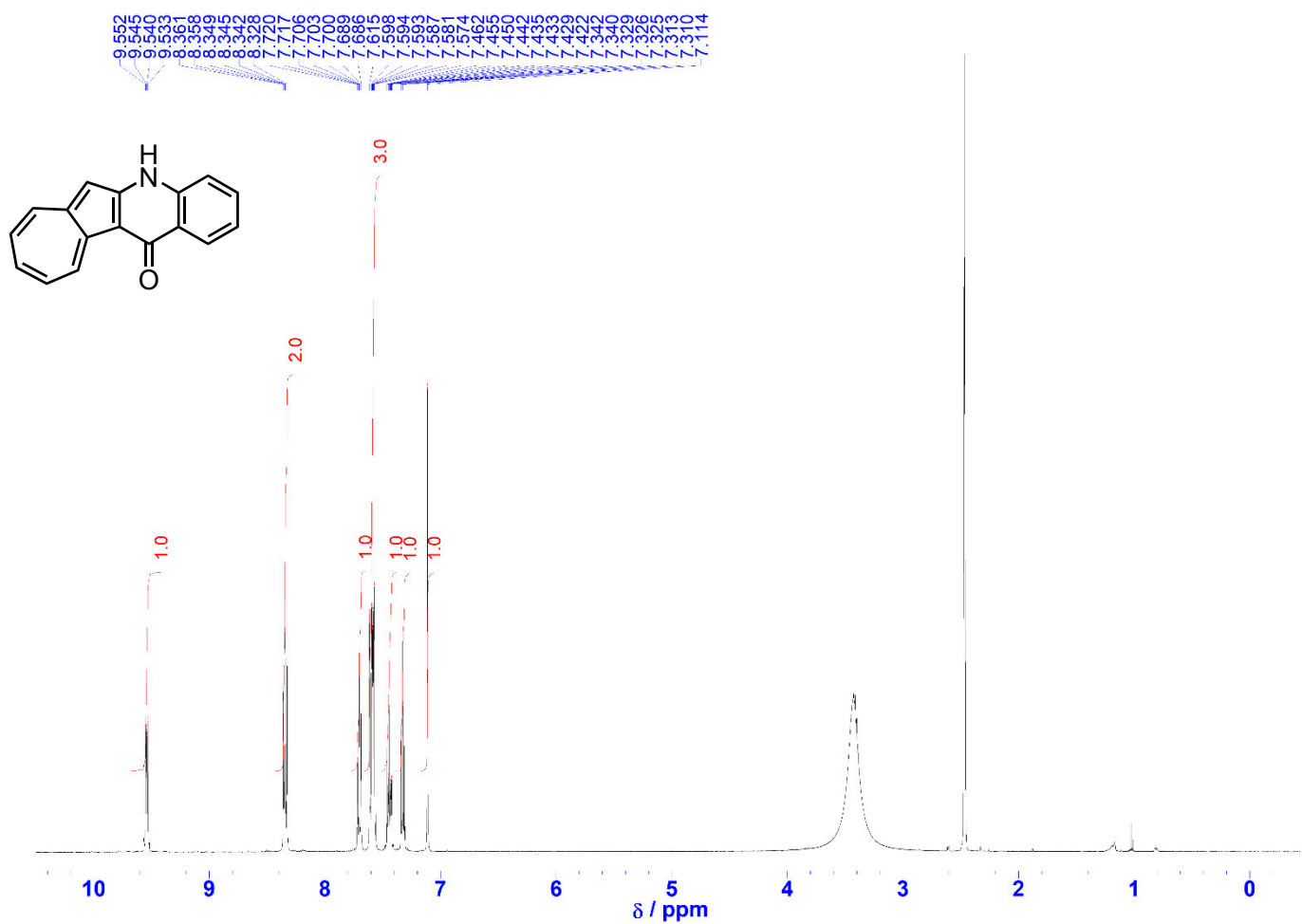


Figure S17. ^1H NMR spectrum of **3a** in $\text{DMSO-}d_6$ (500 MHz).

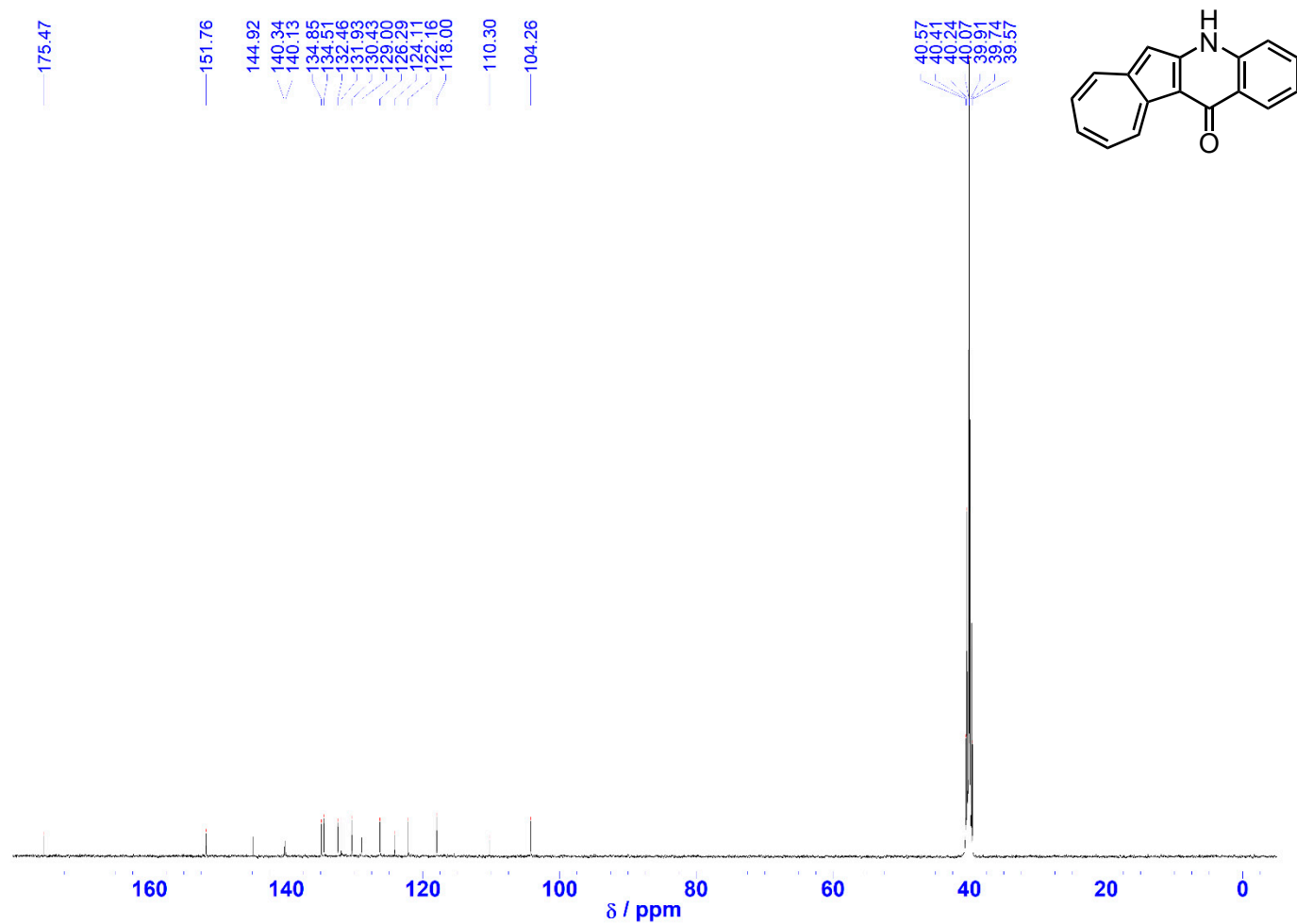


Figure S18. ^{13}C NMR spectrum of **3a** in $\text{DMSO}-d_6$ (125 MHz).

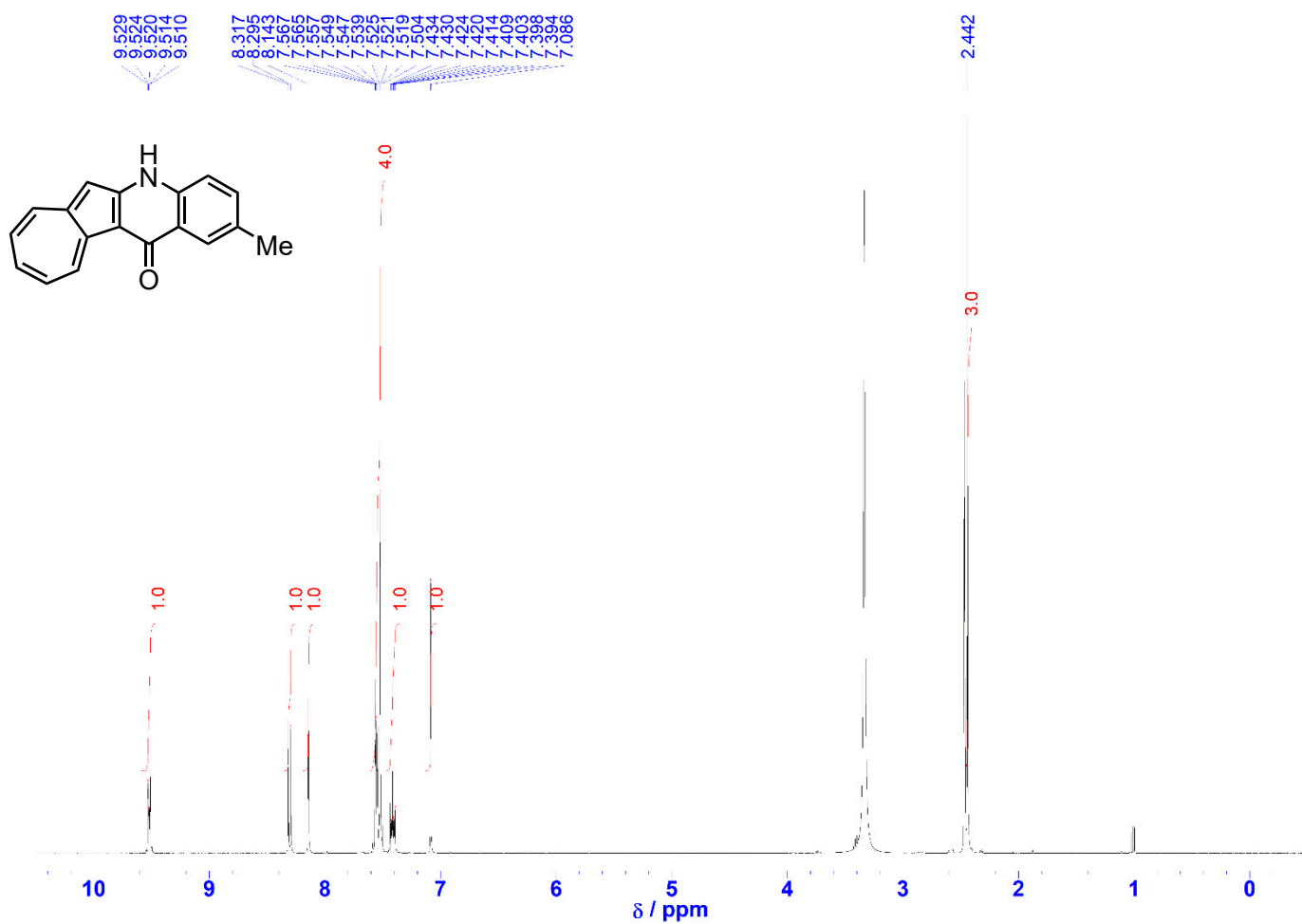


Figure S19. ^1H NMR spectrum of **3b** in $\text{DMSO}-d_6$ (500 MHz).

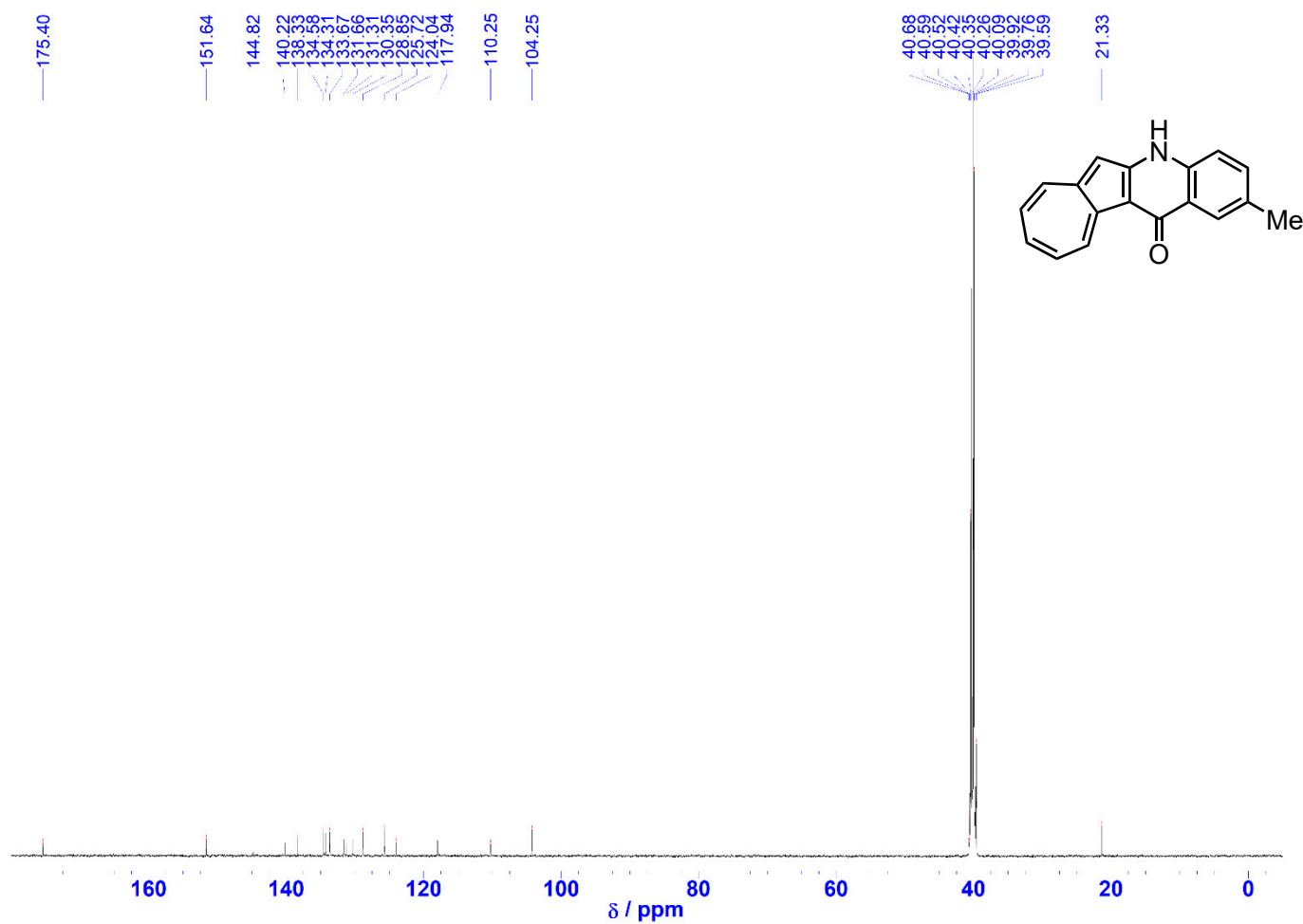


Figure S20. ^{13}C NMR spectrum of **3b** in $\text{DMSO-}d_6$ (125 MHz).

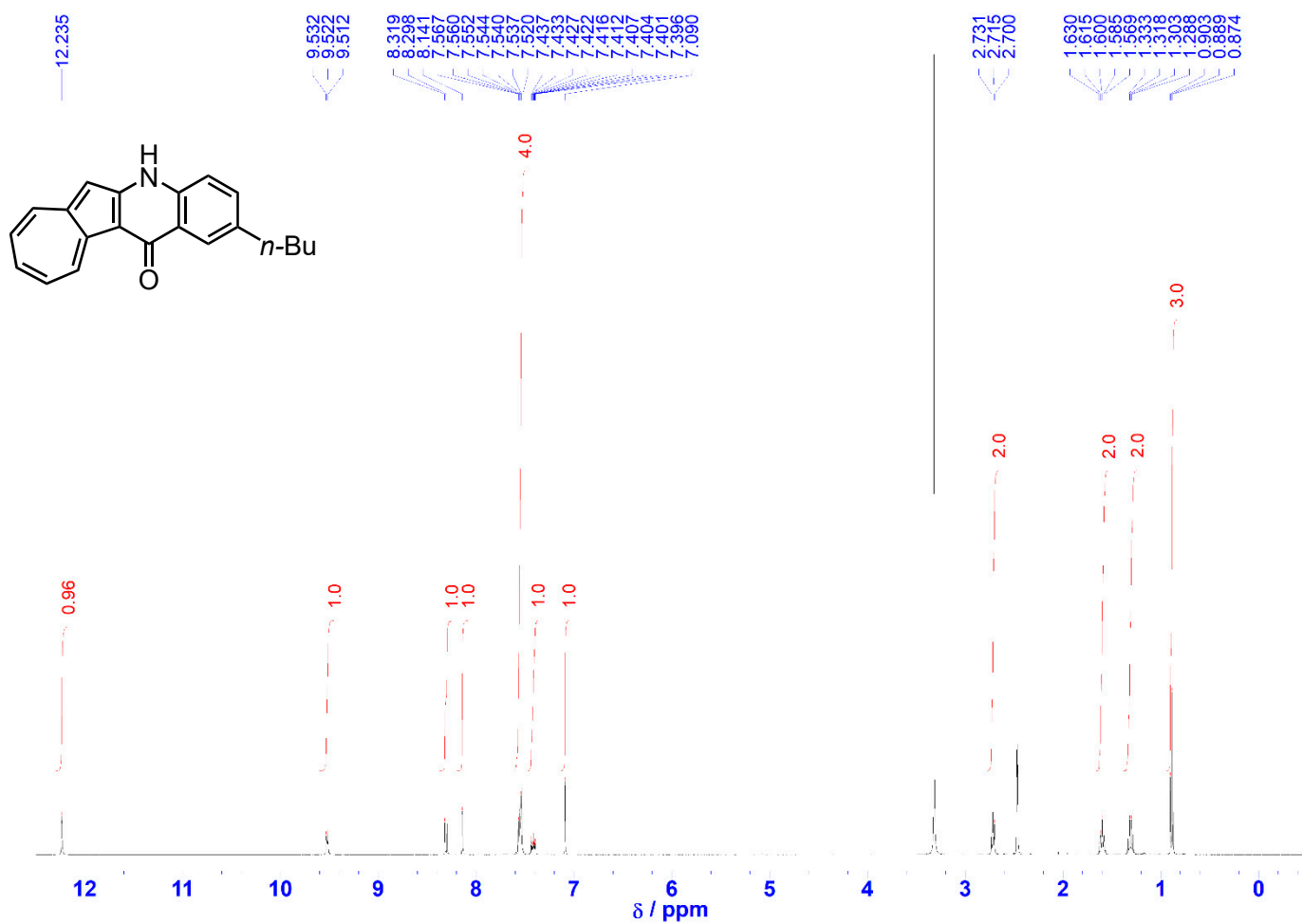


Figure S21. ¹H NMR spectrum of **3c** in DMSO-*d*₆ (500 MHz).

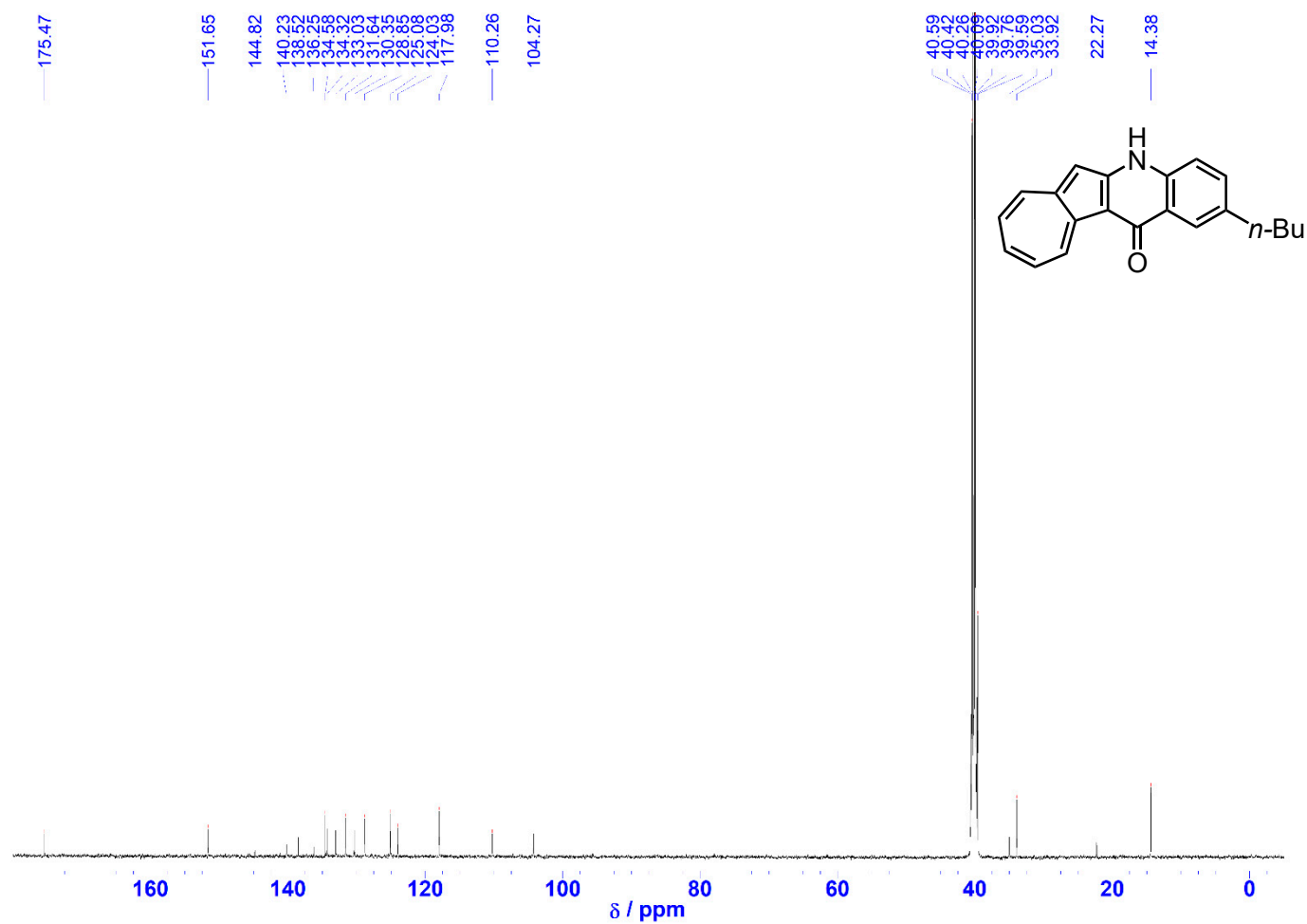


Figure S22. ^{13}C NMR spectrum of **3c** in $\text{DMSO-}d_6$ (125 MHz).

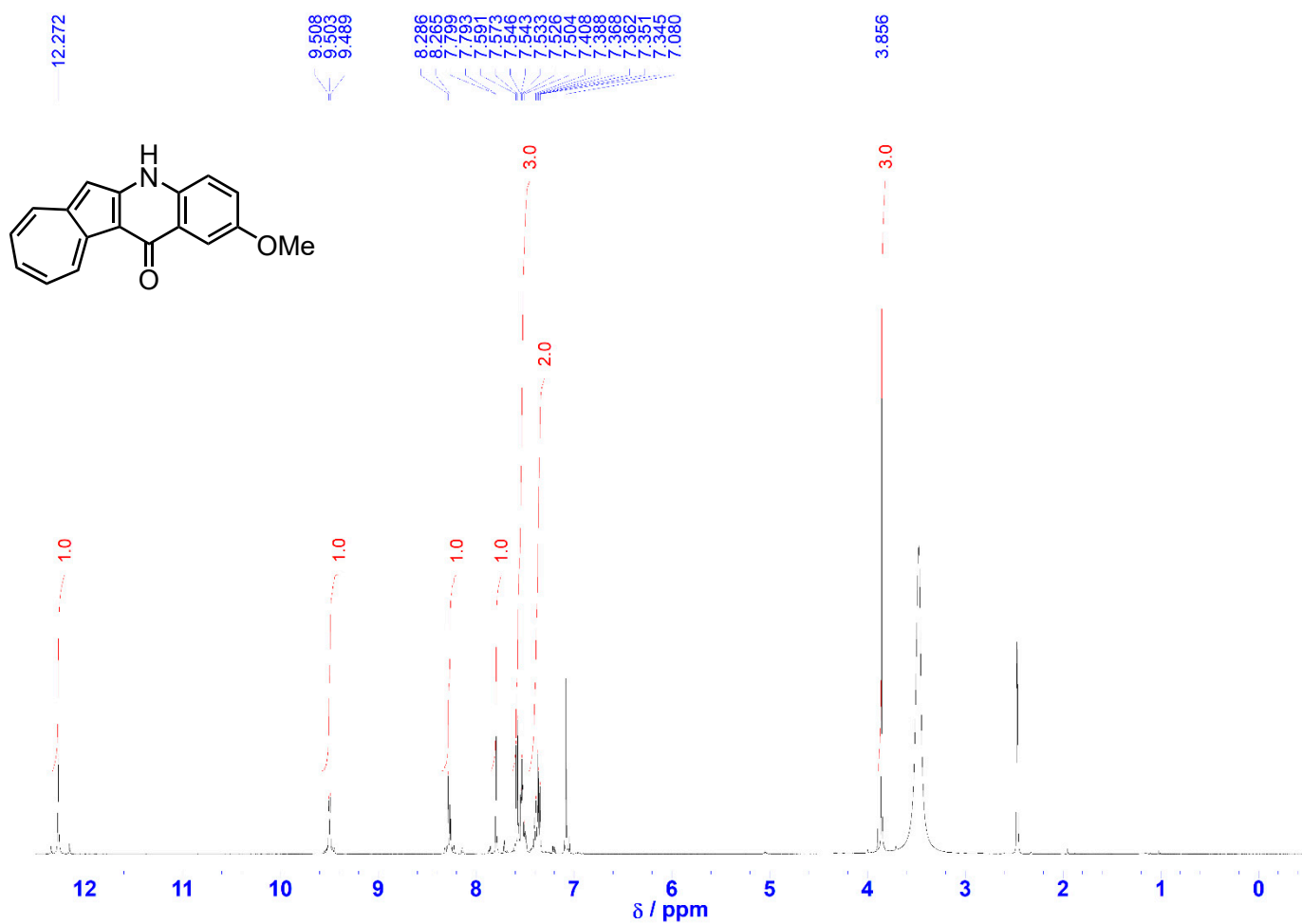


Figure S23. ^1H NMR spectrum of **3d** in $\text{DMSO}-d_6$ (500 MHz).

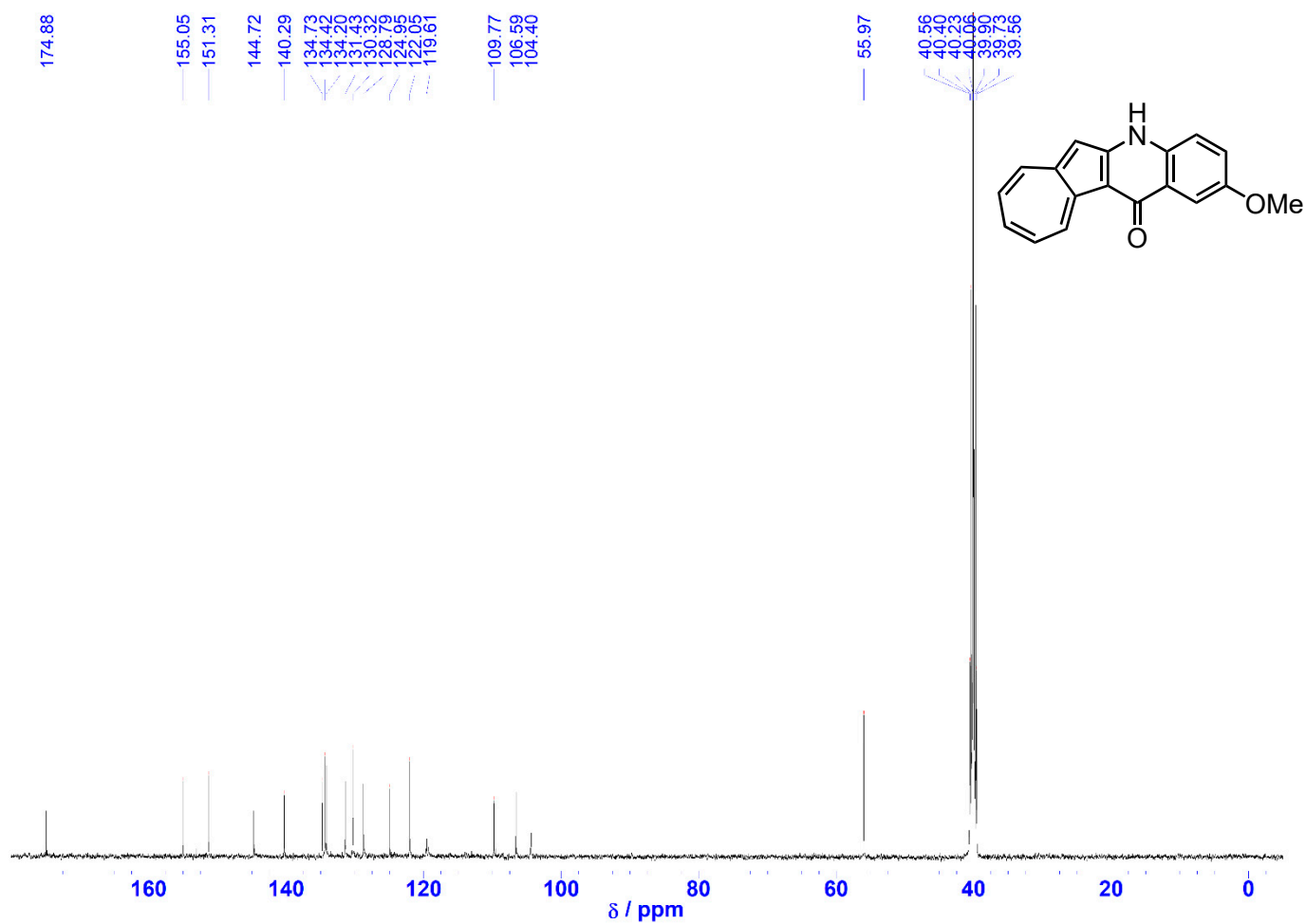


Figure S24. ^{13}C NMR spectrum of **3d** in $\text{DMSO}-d_6$ (125 MHz).

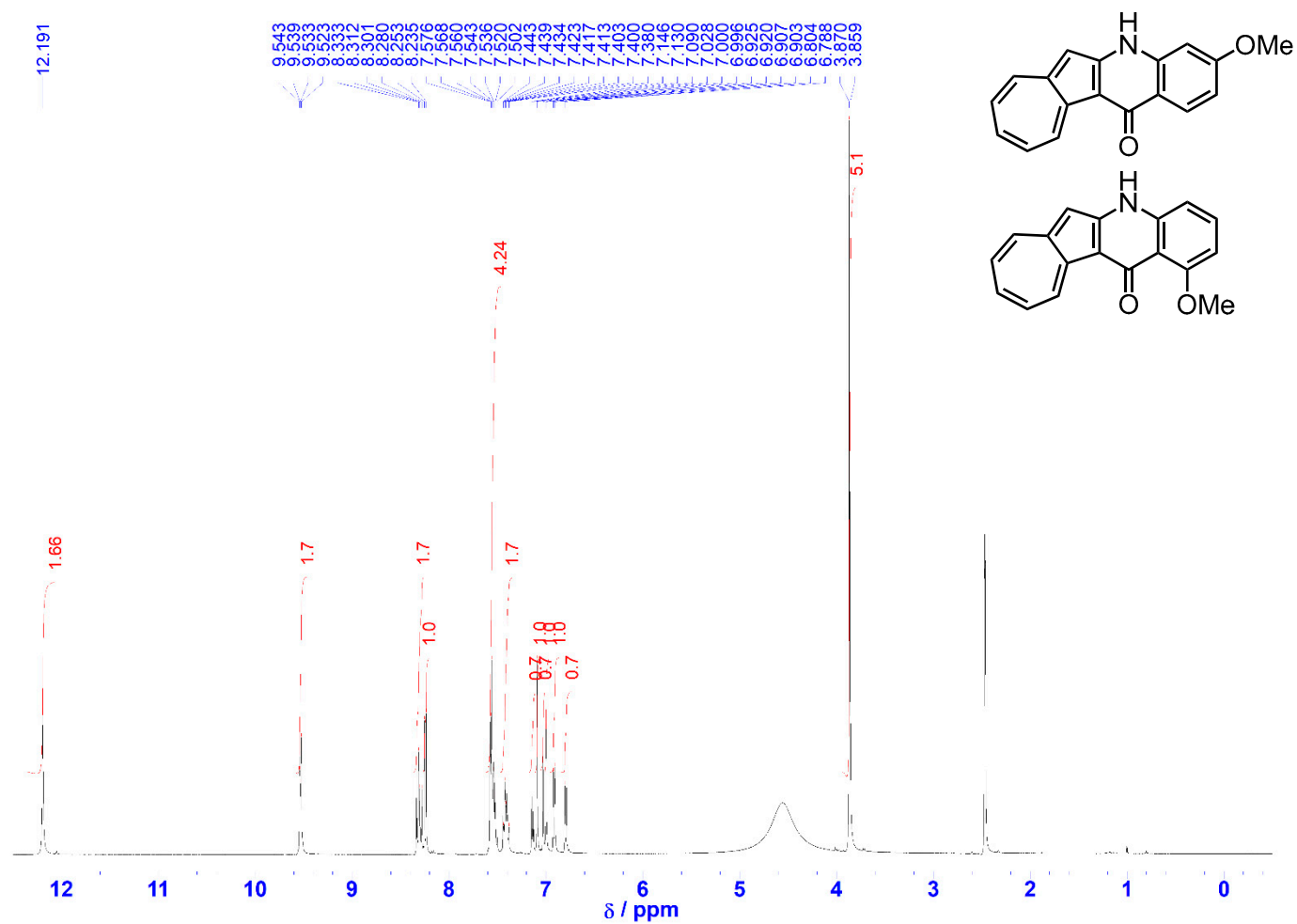


Figure S25. ^1H NMR spectrum of **3e** and **3e'** in $\text{DMSO-}d_6$ (500 MHz).

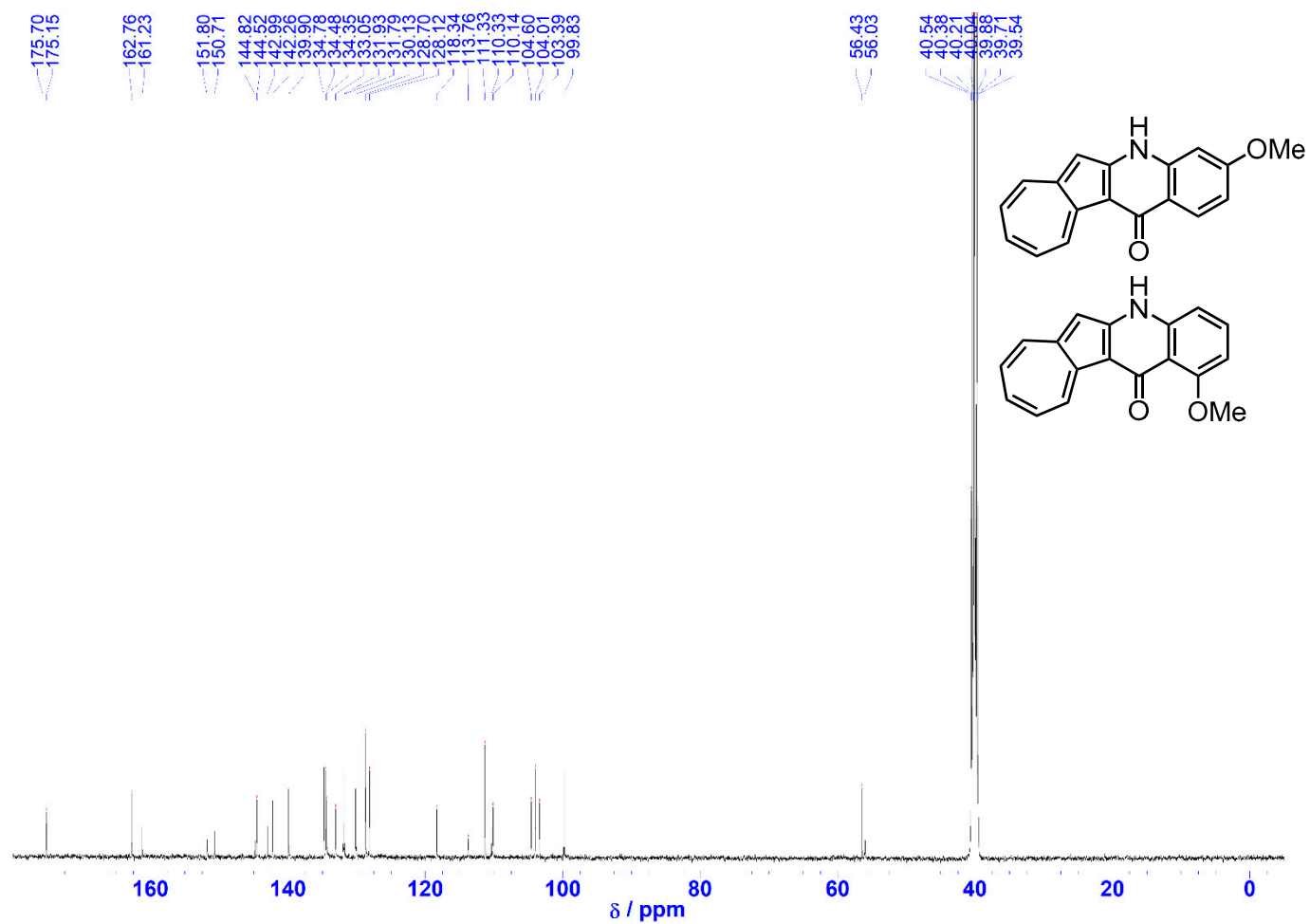


Figure S26. ¹³C NMR spectrum of **3e** and **3e'** in DMSO-*d*₆ (125 MHz).

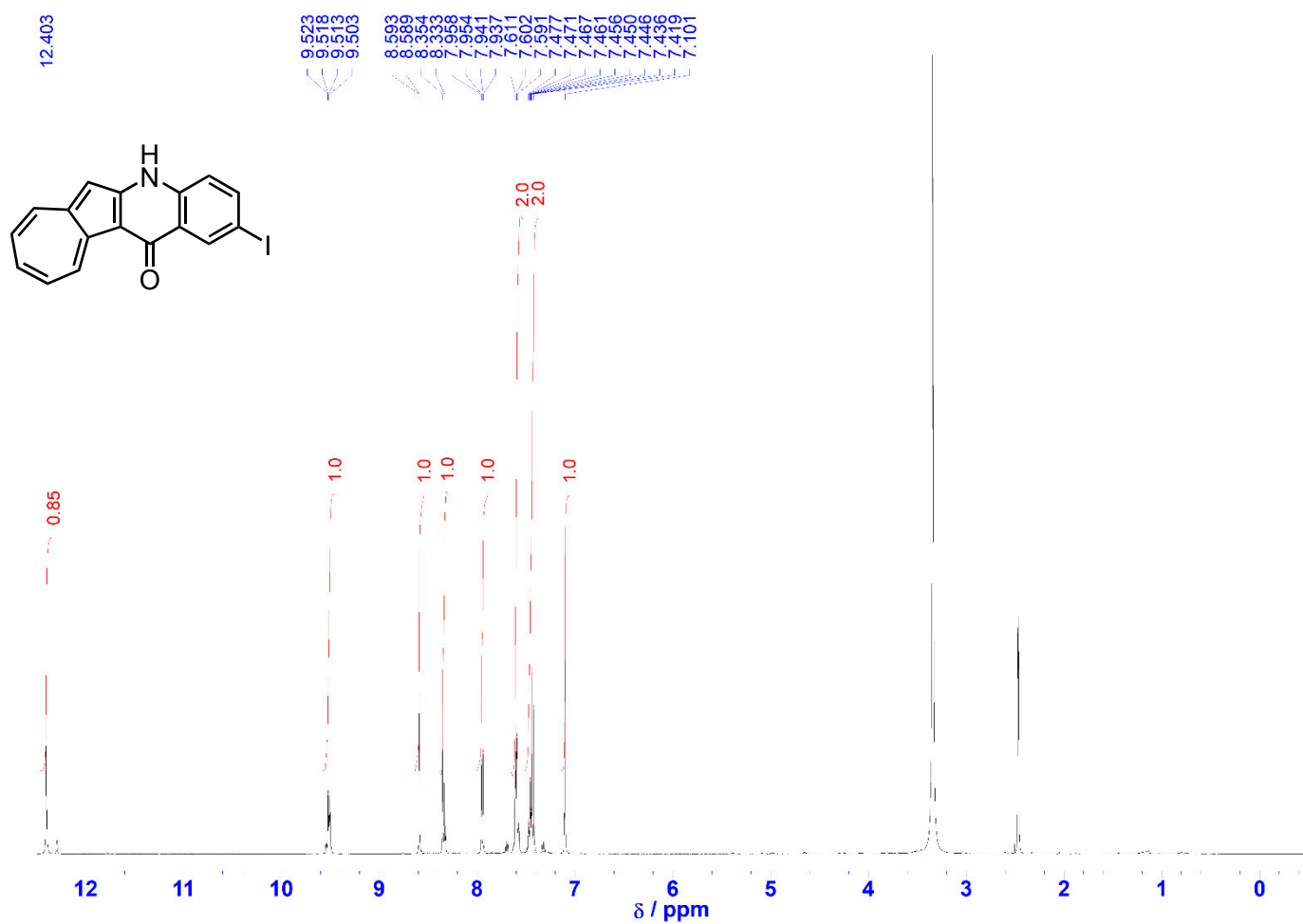


Figure S27. ¹H NMR spectrum of 3f in DMSO-*d*₆ (500 MHz).

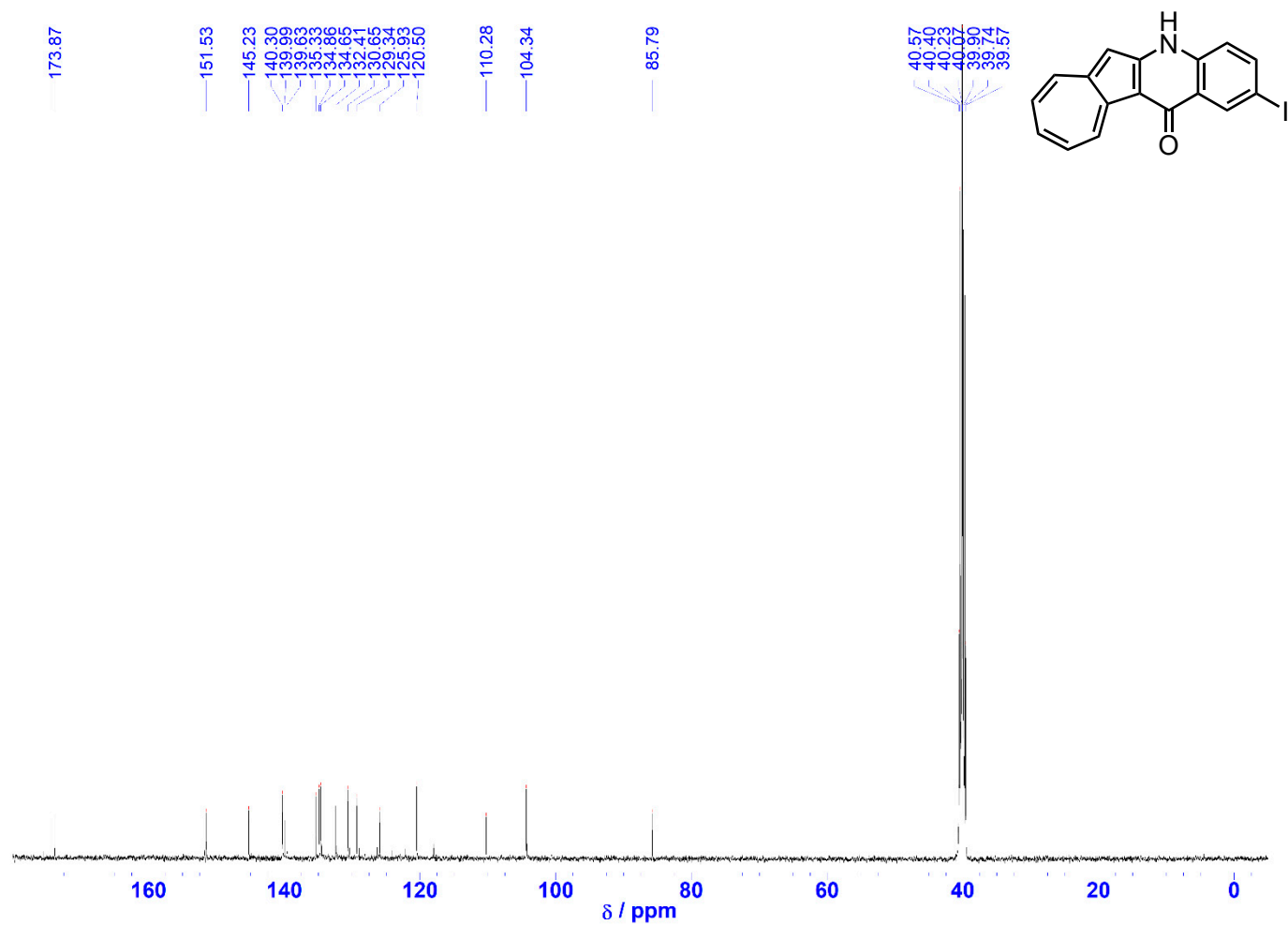


Figure S28. ^{13}C NMR spectrum of **3f** in $\text{DMSO}-d_6$ (125 MHz).

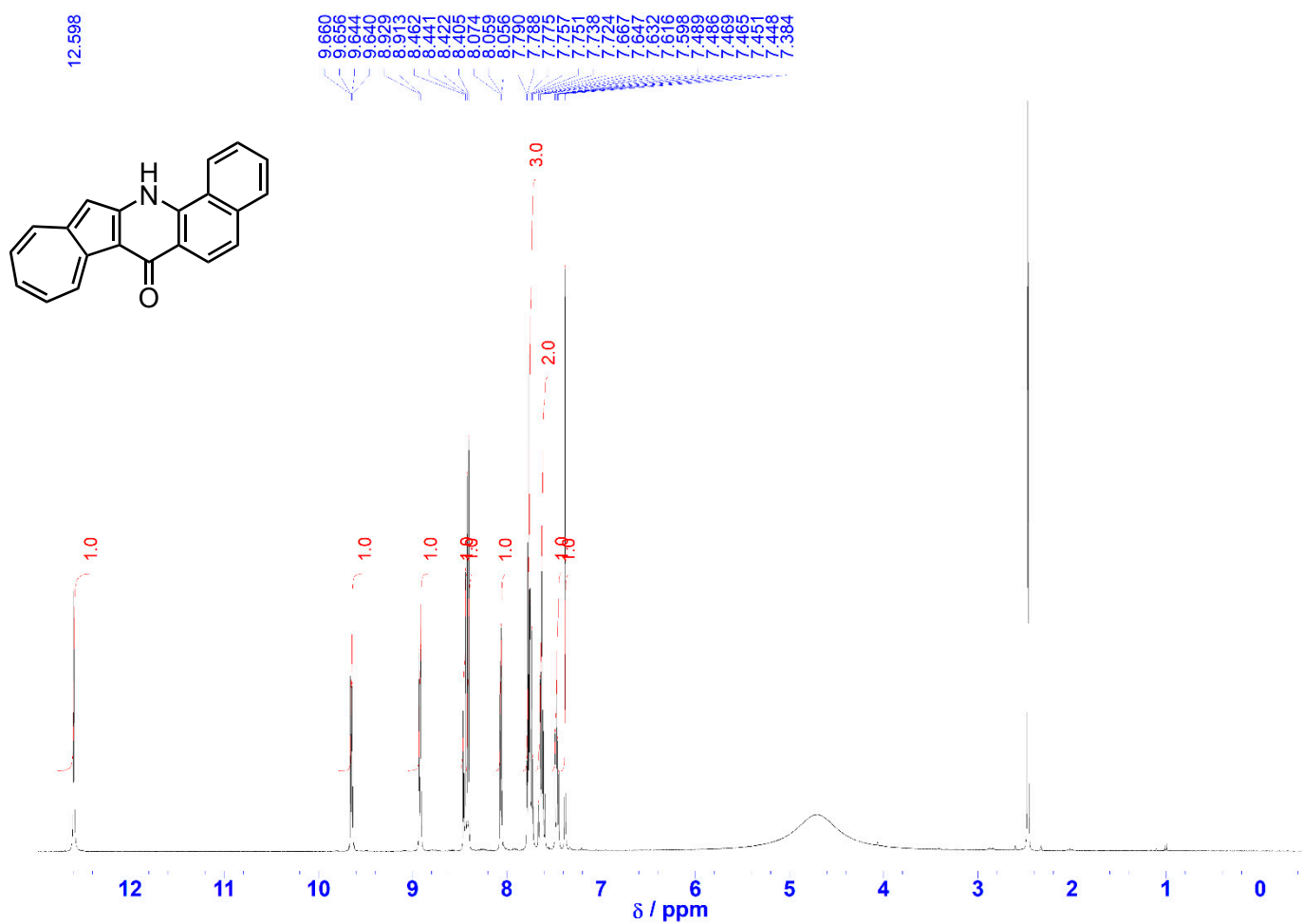


Figure S29. ^1H NMR spectrum of **3g** in $\text{DMSO}-d_6$ (500 MHz).

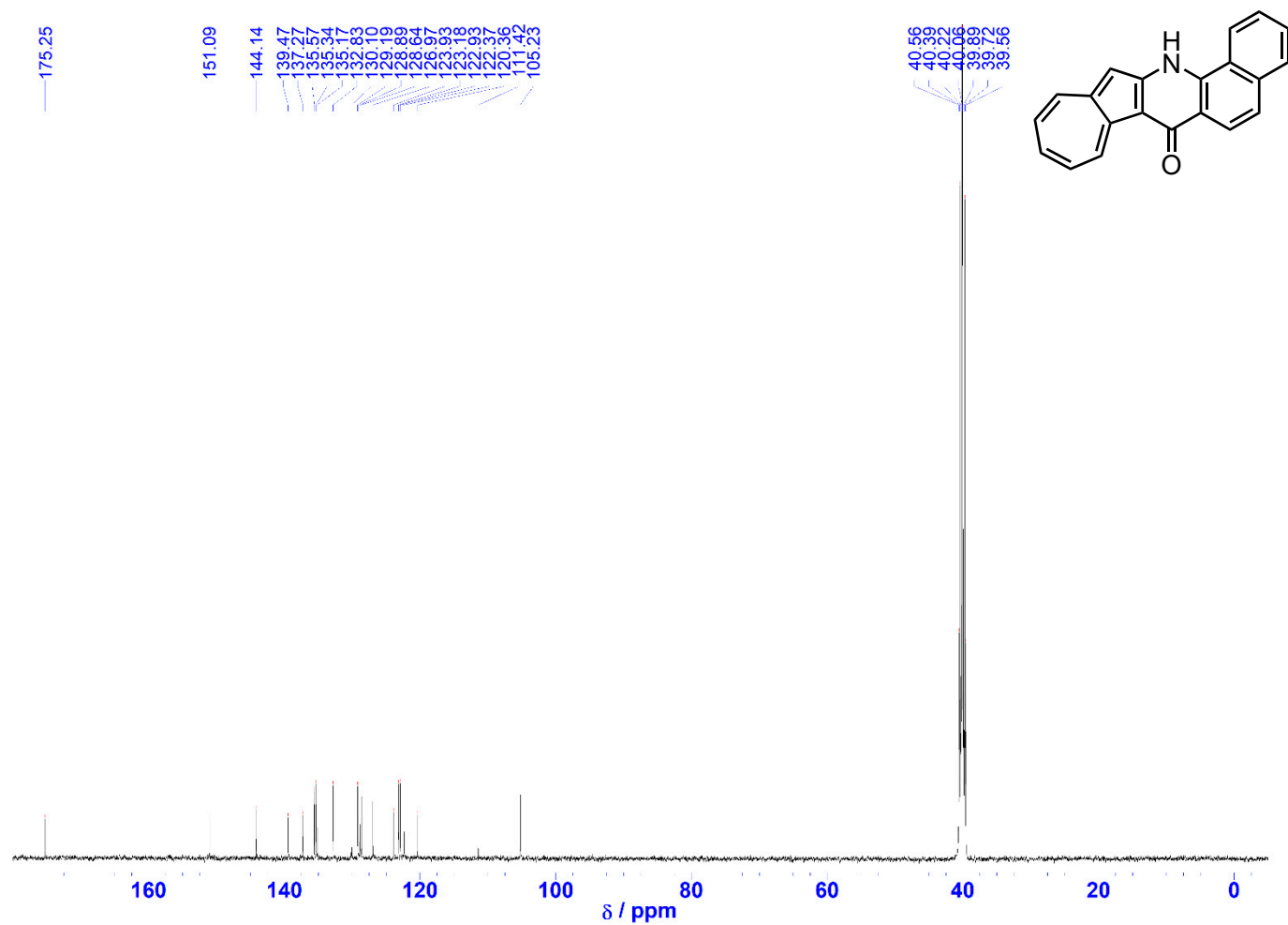


Figure S30. ^{13}C NMR spectrum of **3g** in $\text{DMSO}-d_6$ (125 MHz).

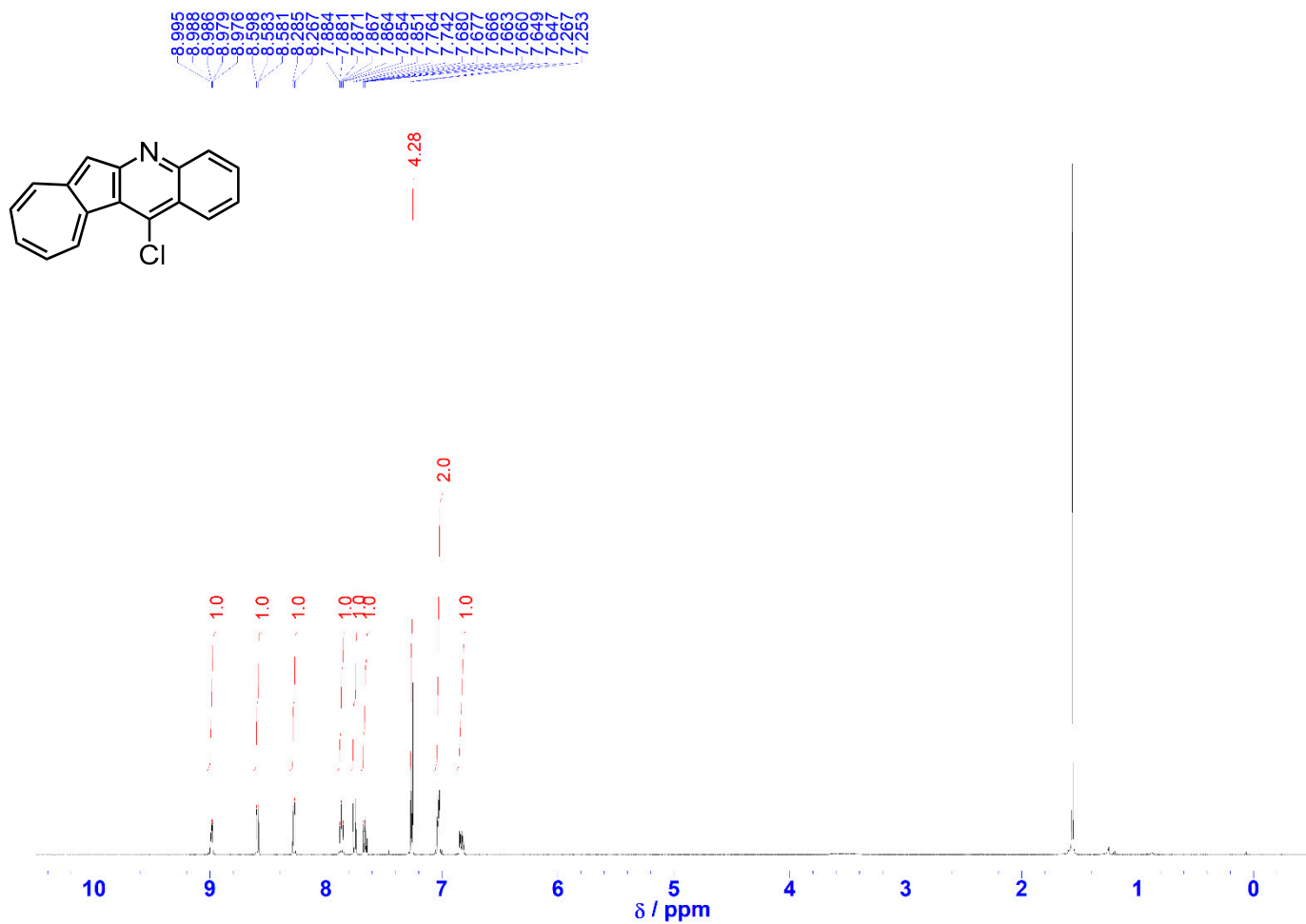


Figure S31. ¹H NMR spectrum of **4a** in CDCl₃ (500 MHz).

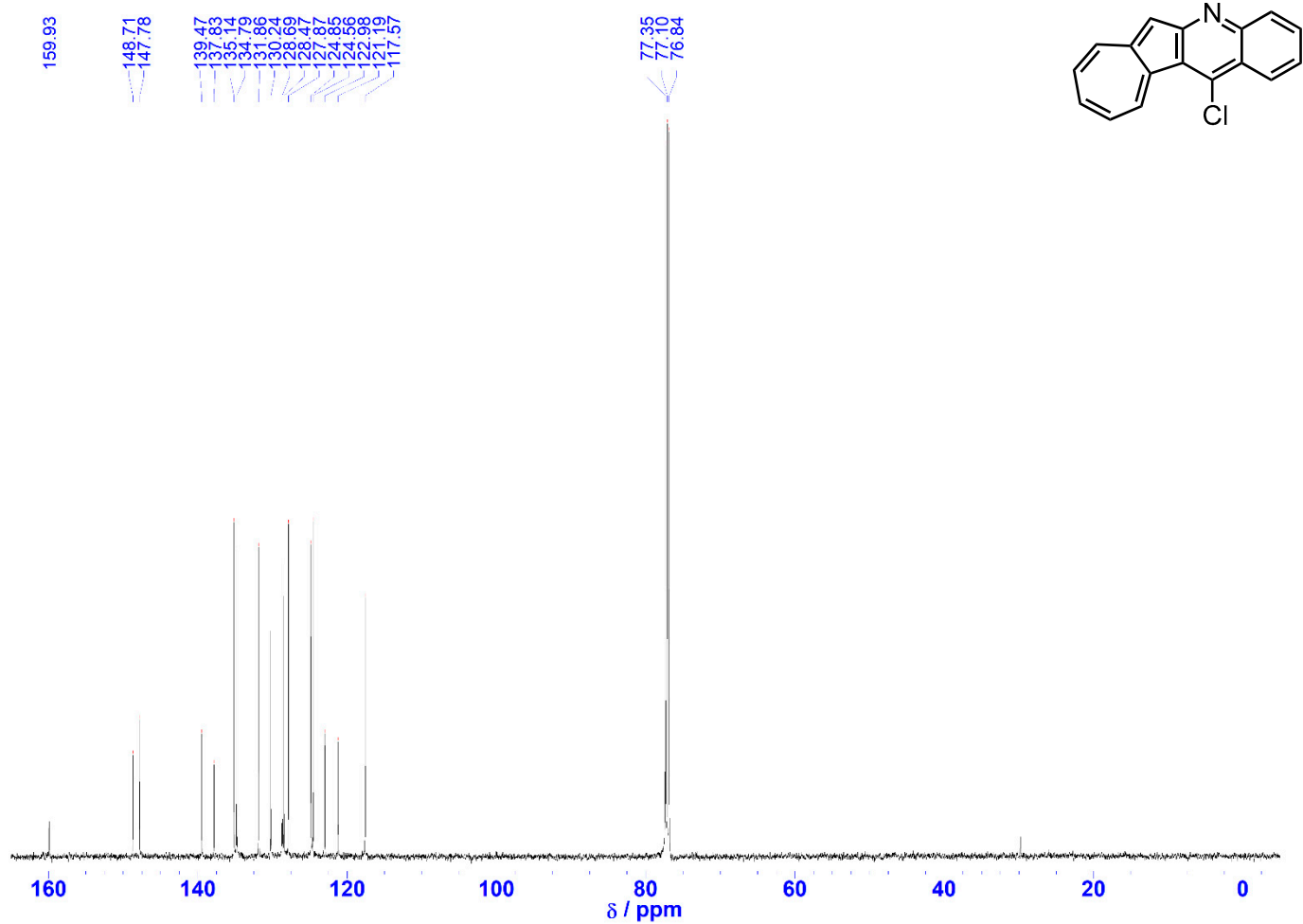


Figure S32. ^{13}C NMR spectrum of **4a** in CDCl_3 (125 MHz).

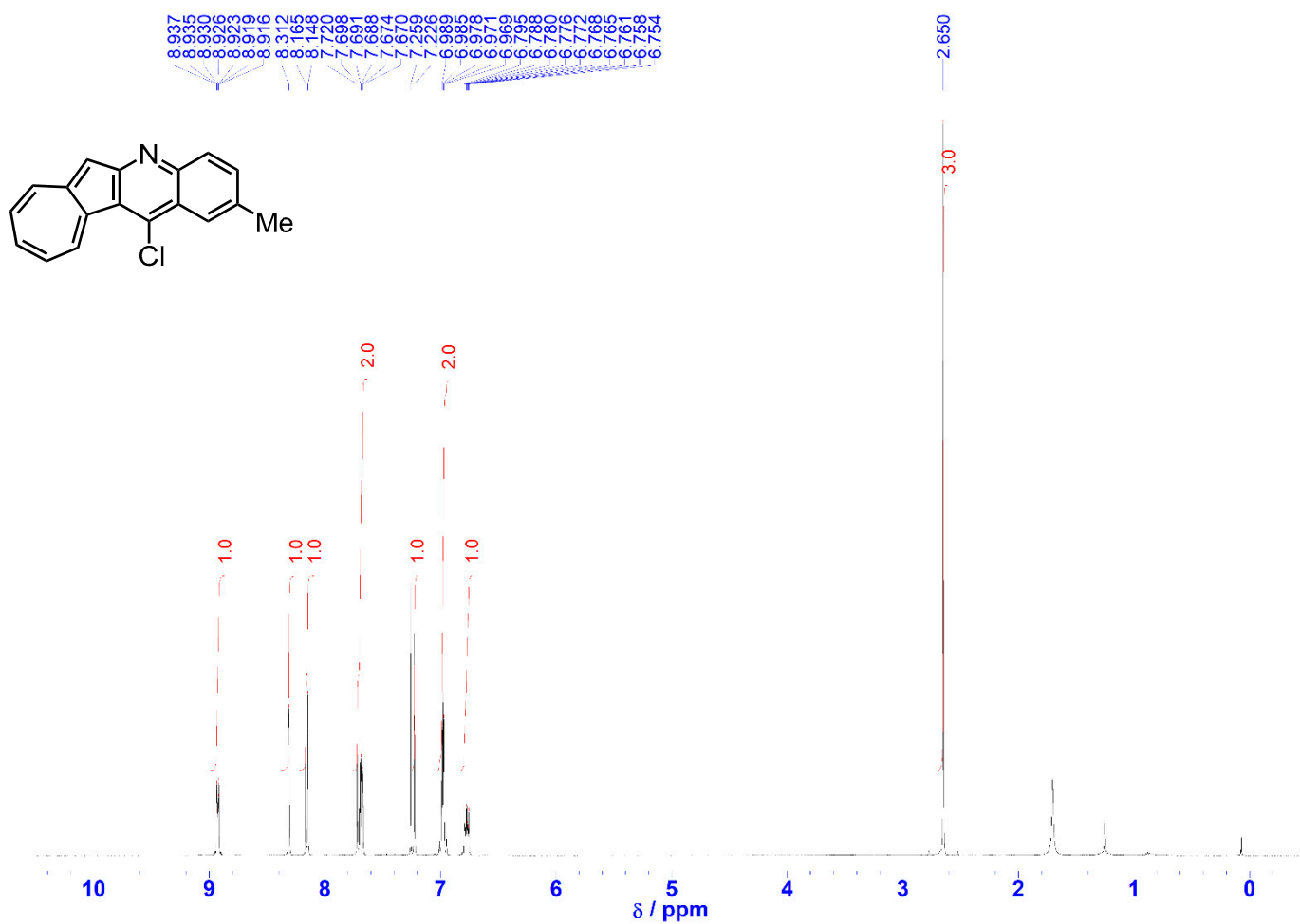


Figure S33. ^1H NMR spectrum of **4b** in CDCl_3 (500 MHz).

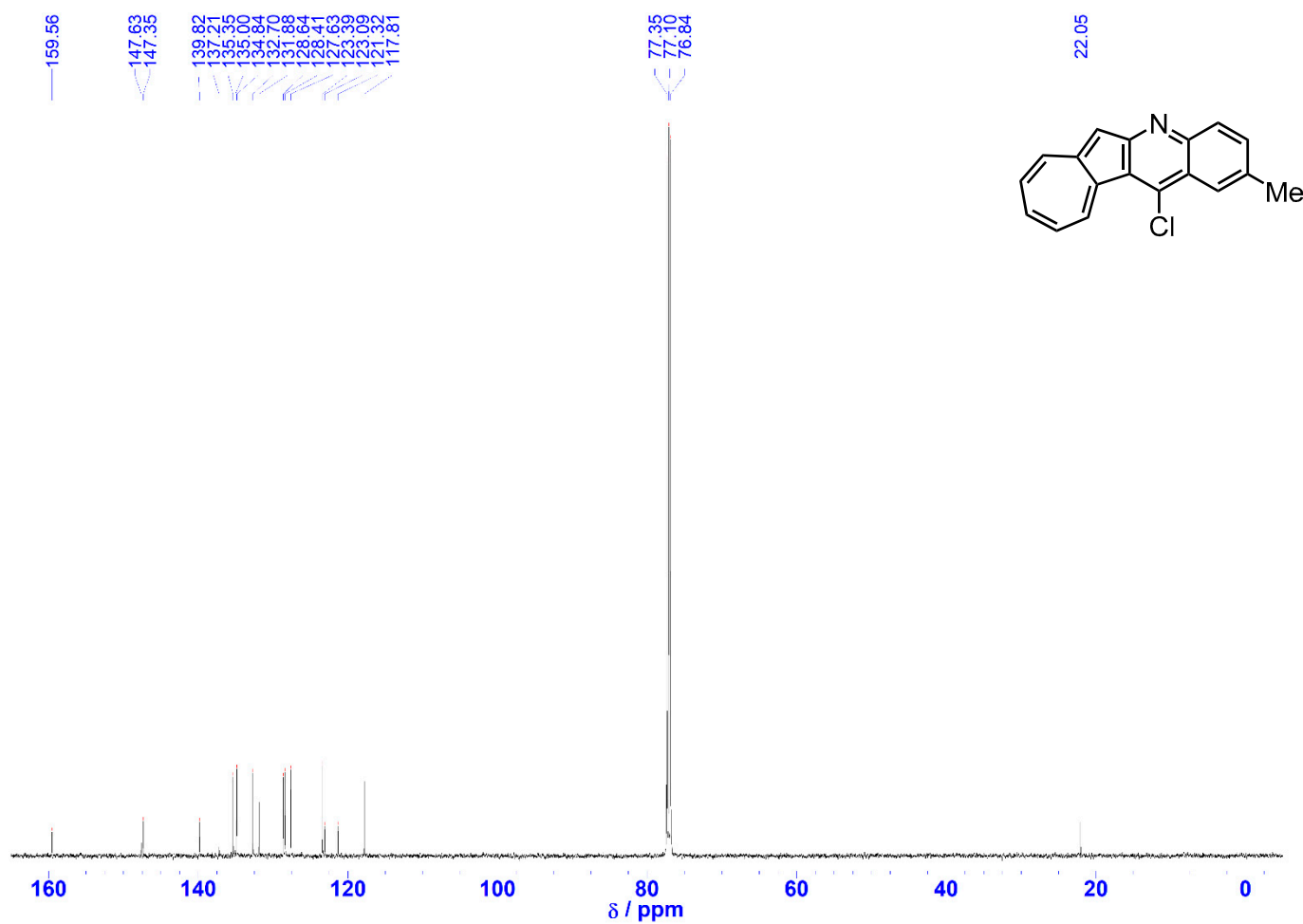


Figure S34. ¹³C NMR spectrum of **4b** in CDCl₃ (125 MHz).

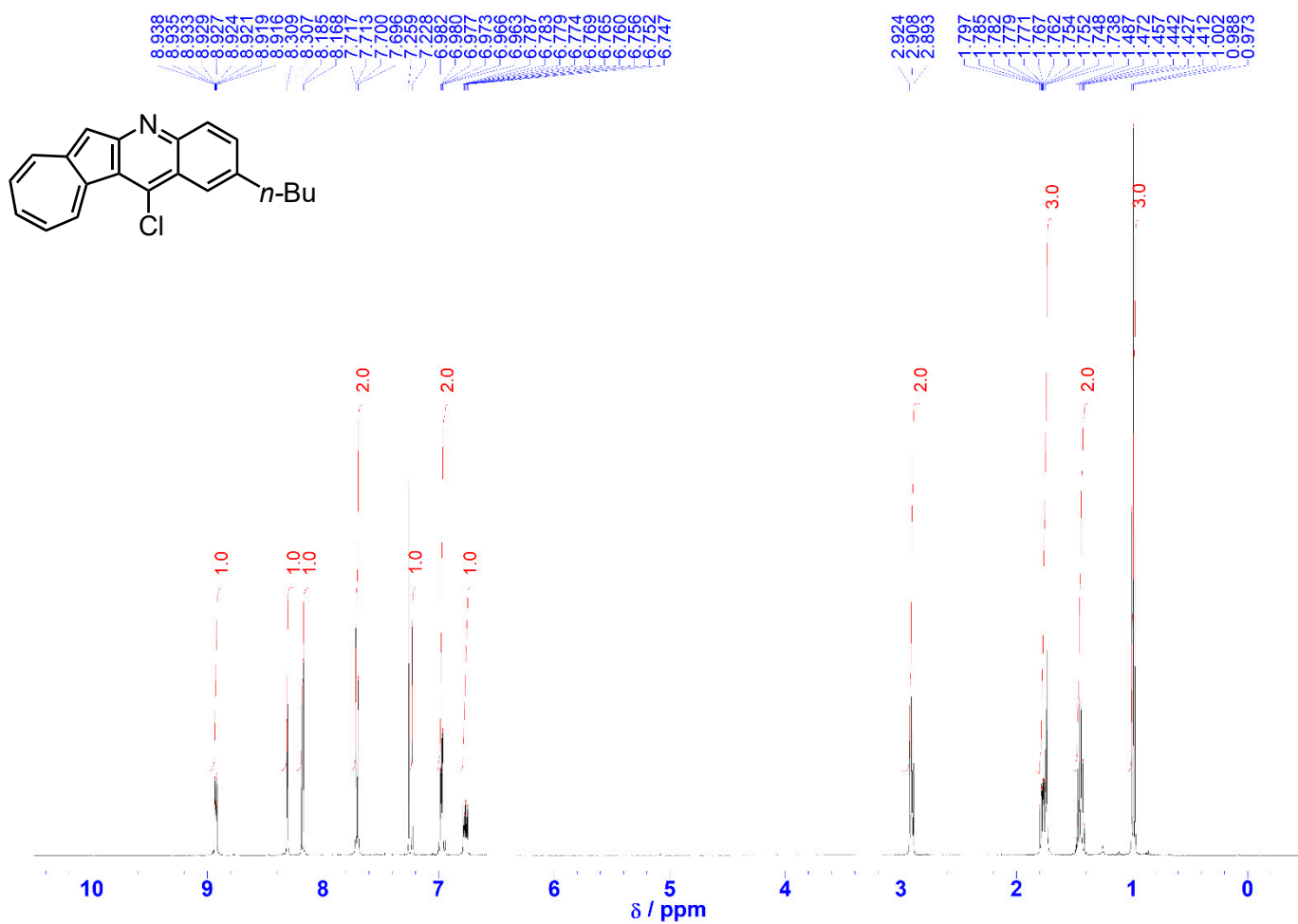


Figure S35. ^1H NMR spectrum of **4c** in CDCl_3 (500 MHz).

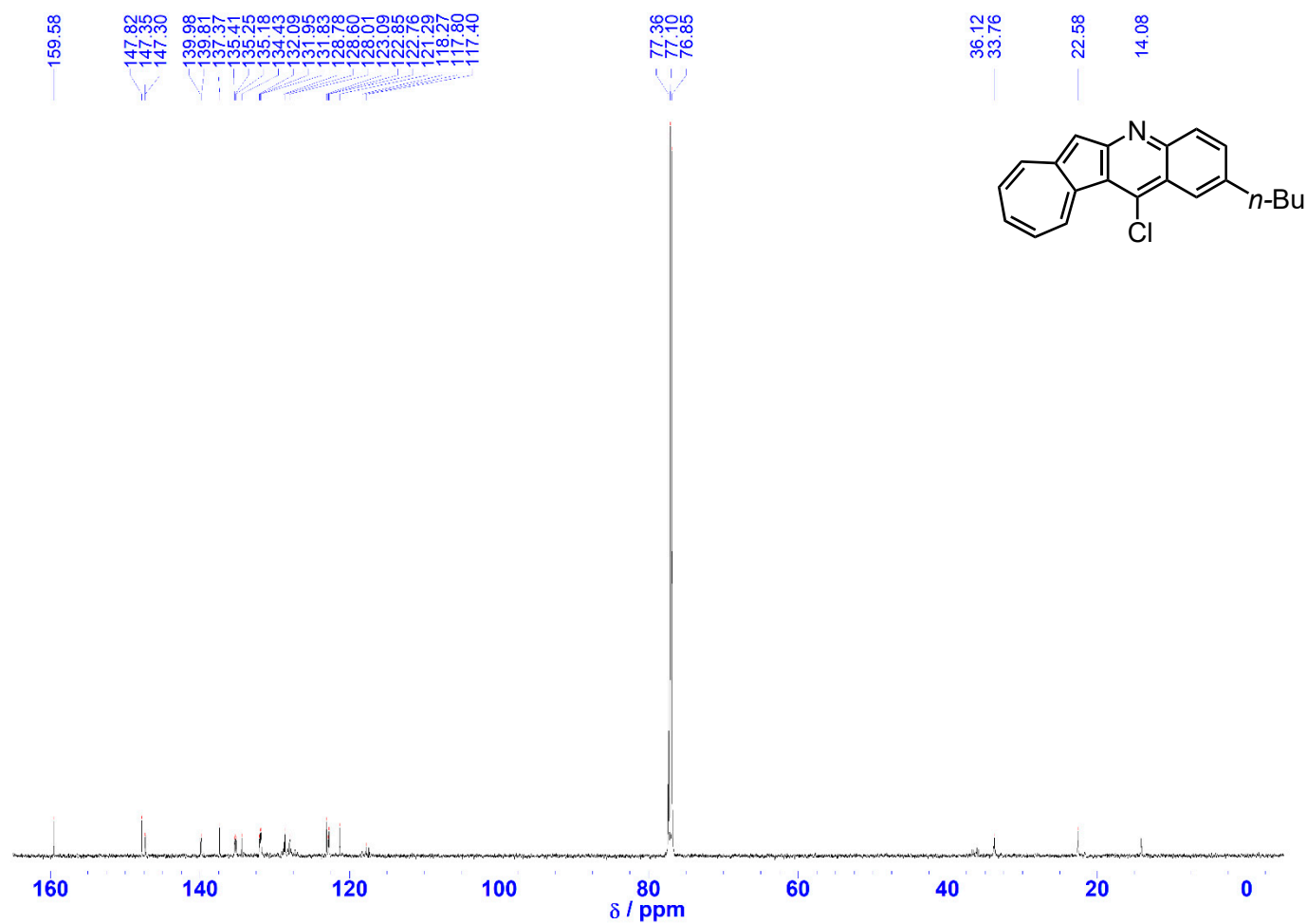


Figure S36. ¹³C NMR spectrum of **4c** in CDCl₃ (125 MHz).

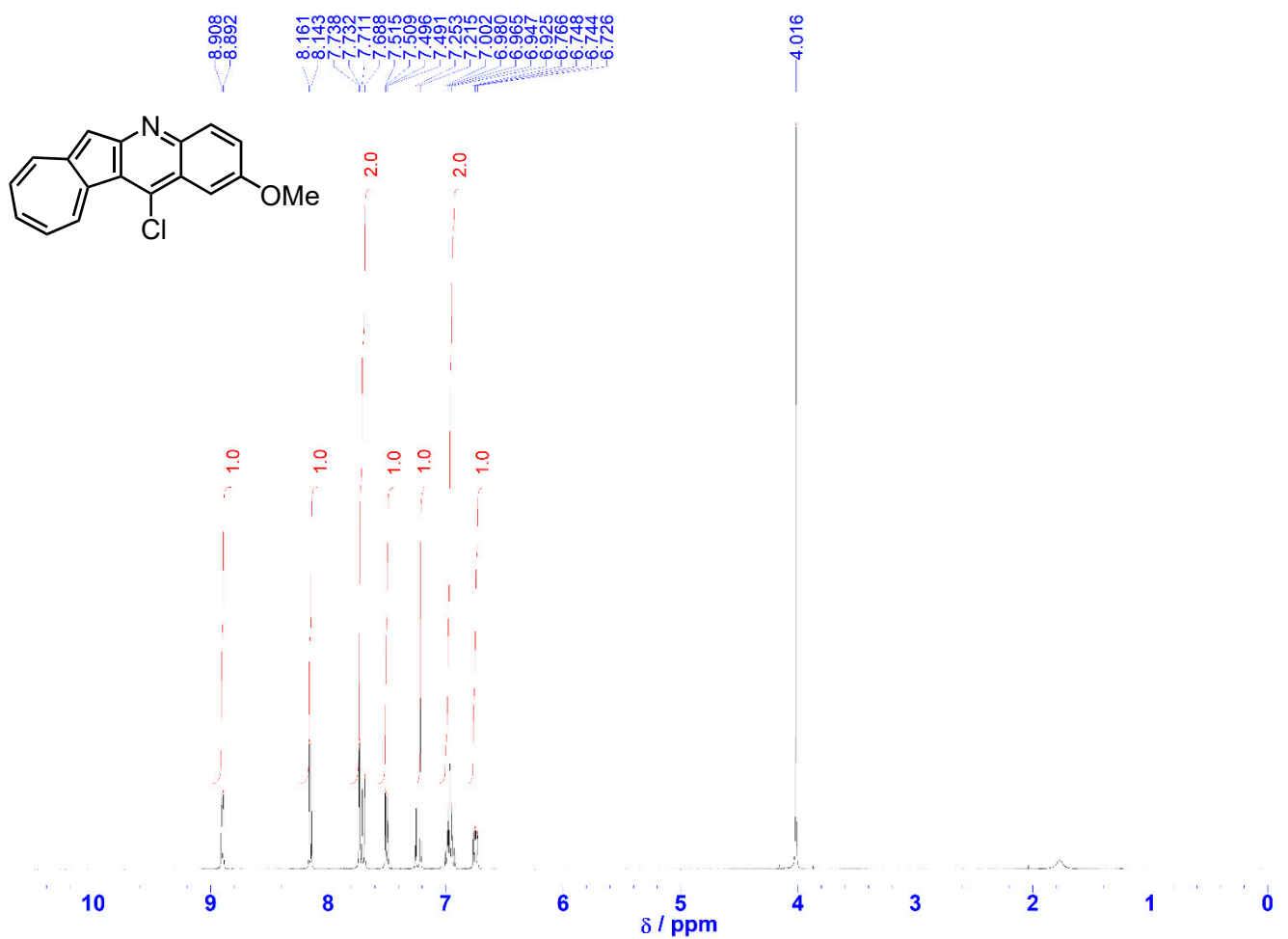


Figure S37. ¹H NMR spectrum of **4d** in CDCl₃ (500 MHz).

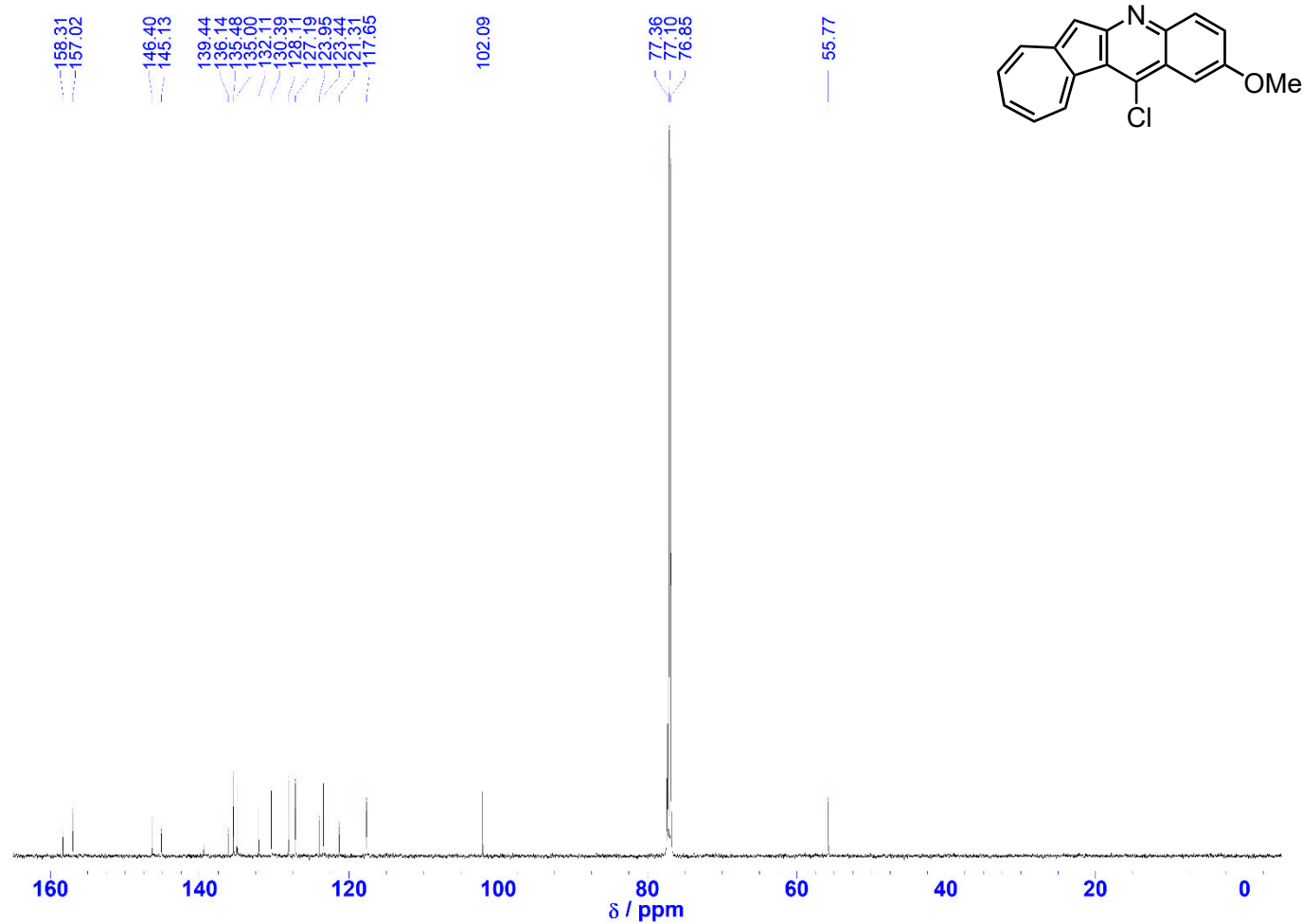


Figure S38. ^{13}C NMR spectrum of **4d** in CDCl_3 (125 MHz).

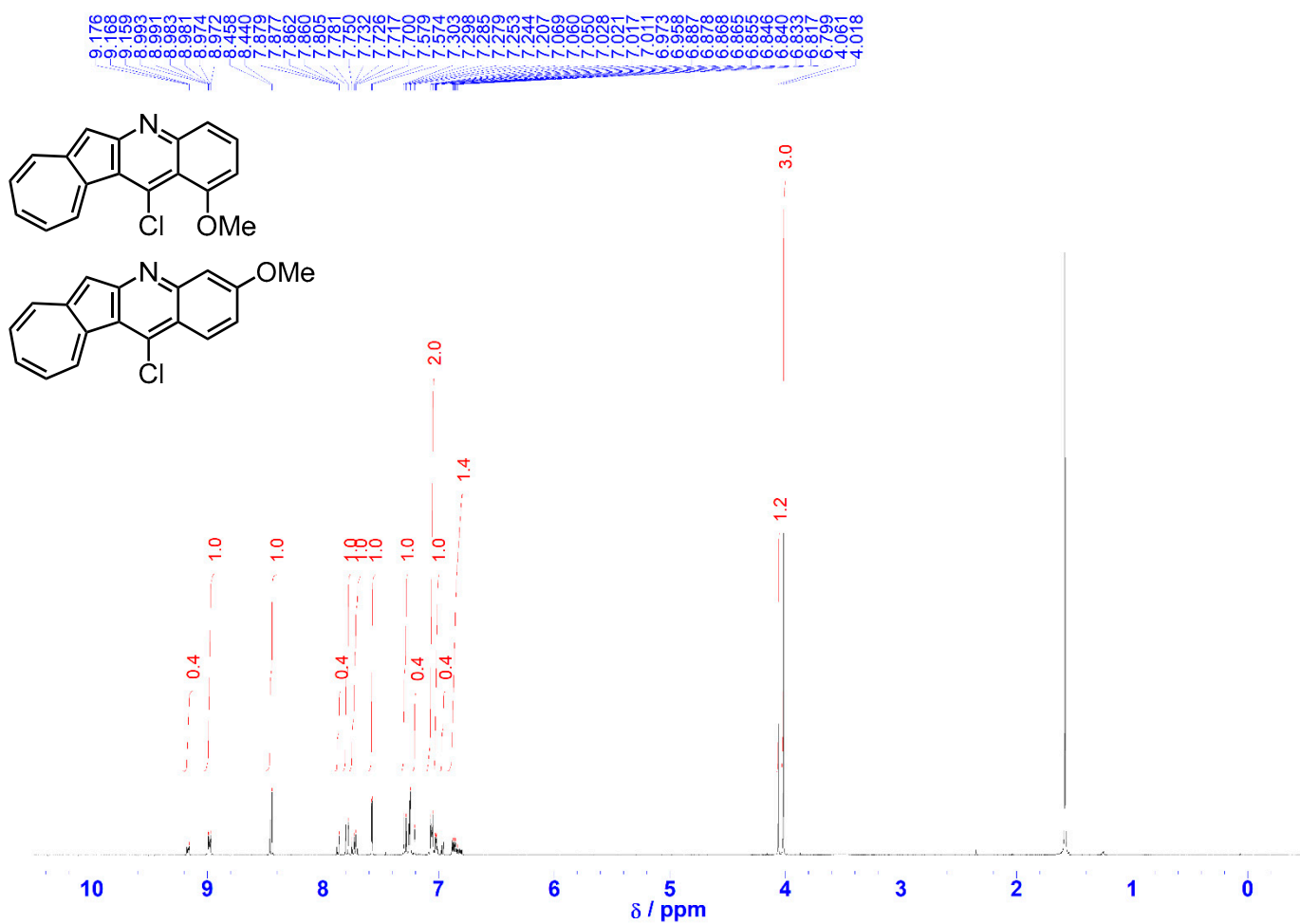


Figure S39. ^1H NMR spectrum of **4e** and **4e'** in CDCl_3 (500 MHz).

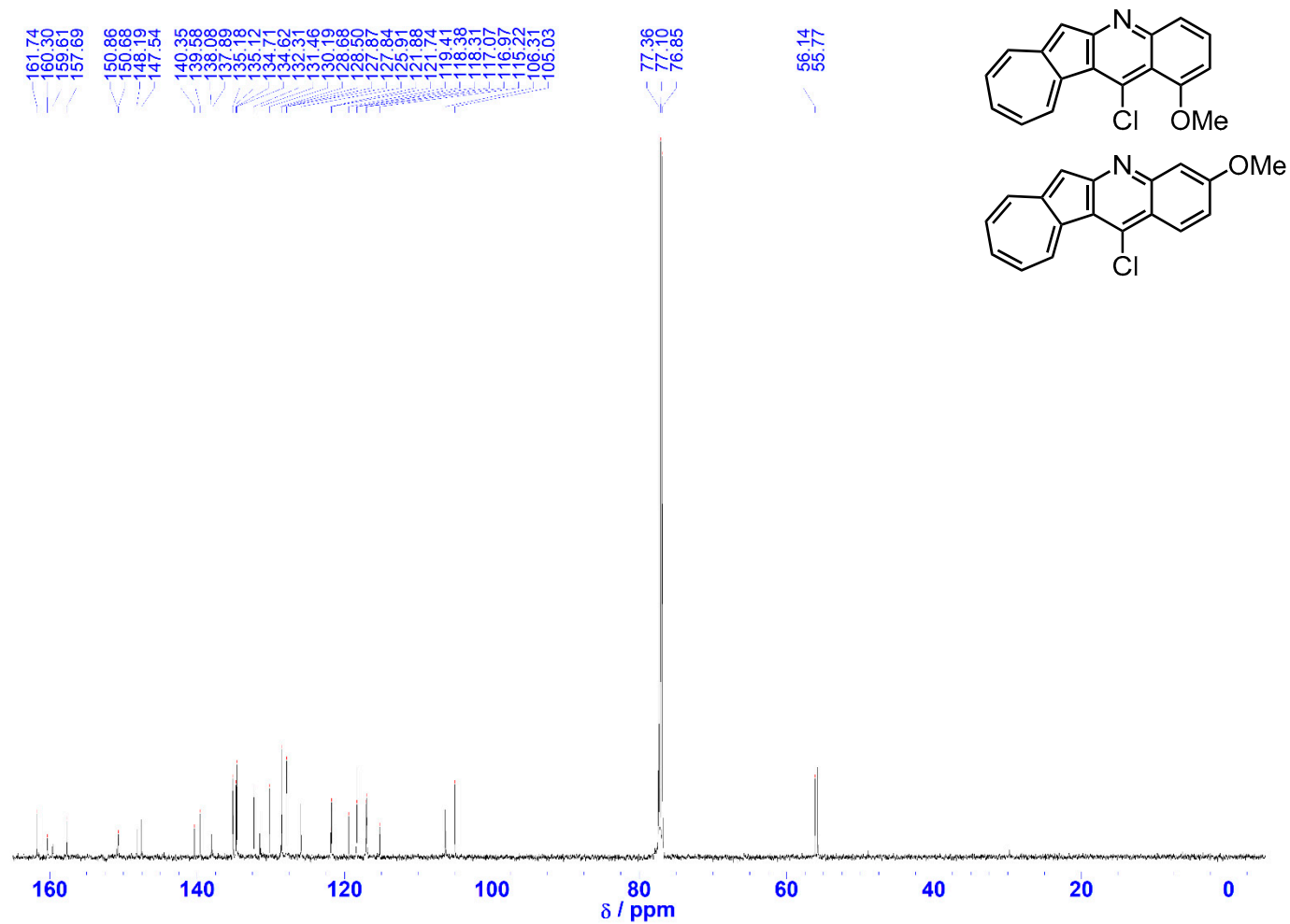


Figure S40. ^{13}C NMR spectrum of **4e** and **4e'** in CDCl_3 (125 MHz).

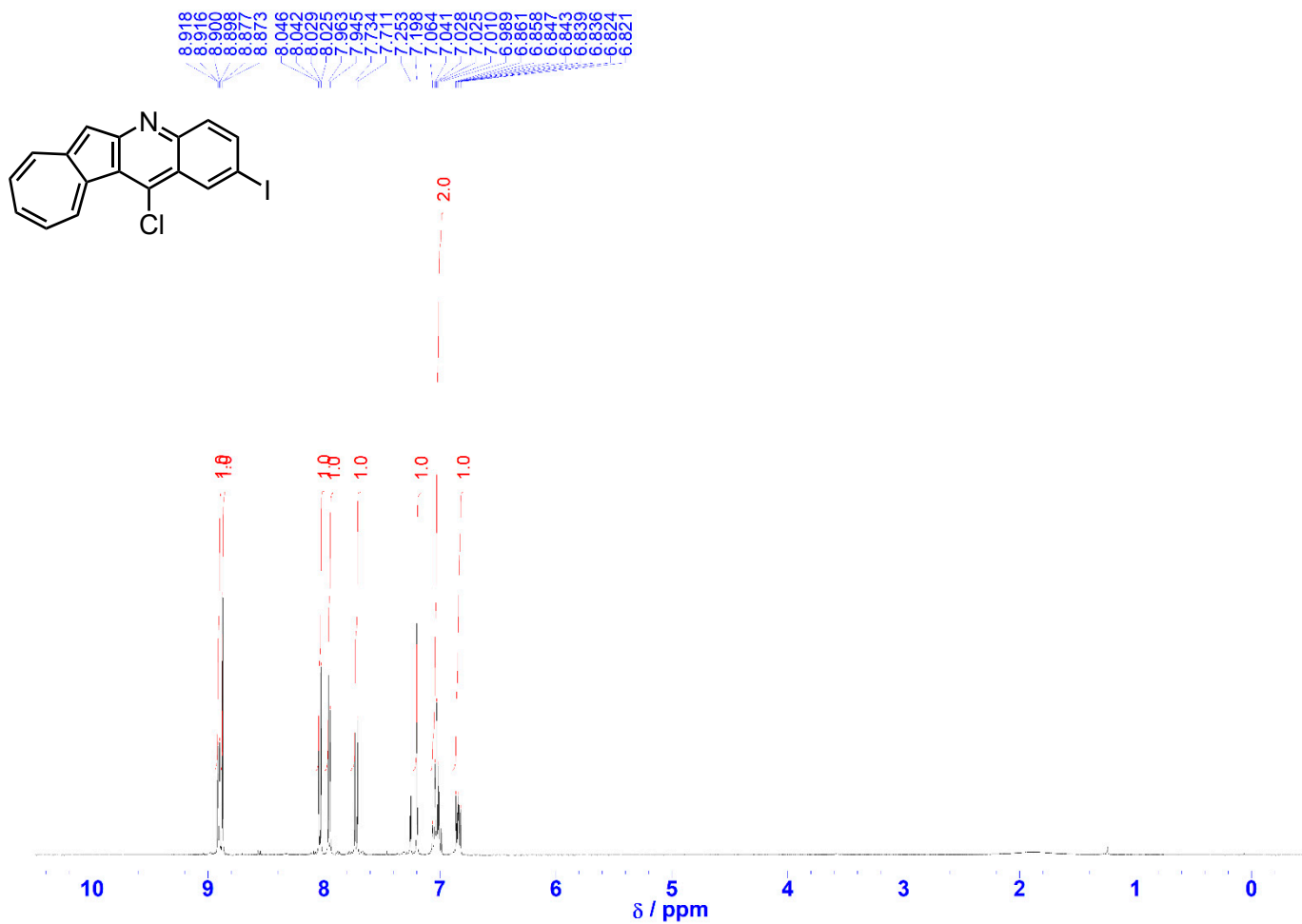


Figure S41. ¹H NMR spectrum of **4f** in CDCl₃ (500 MHz).

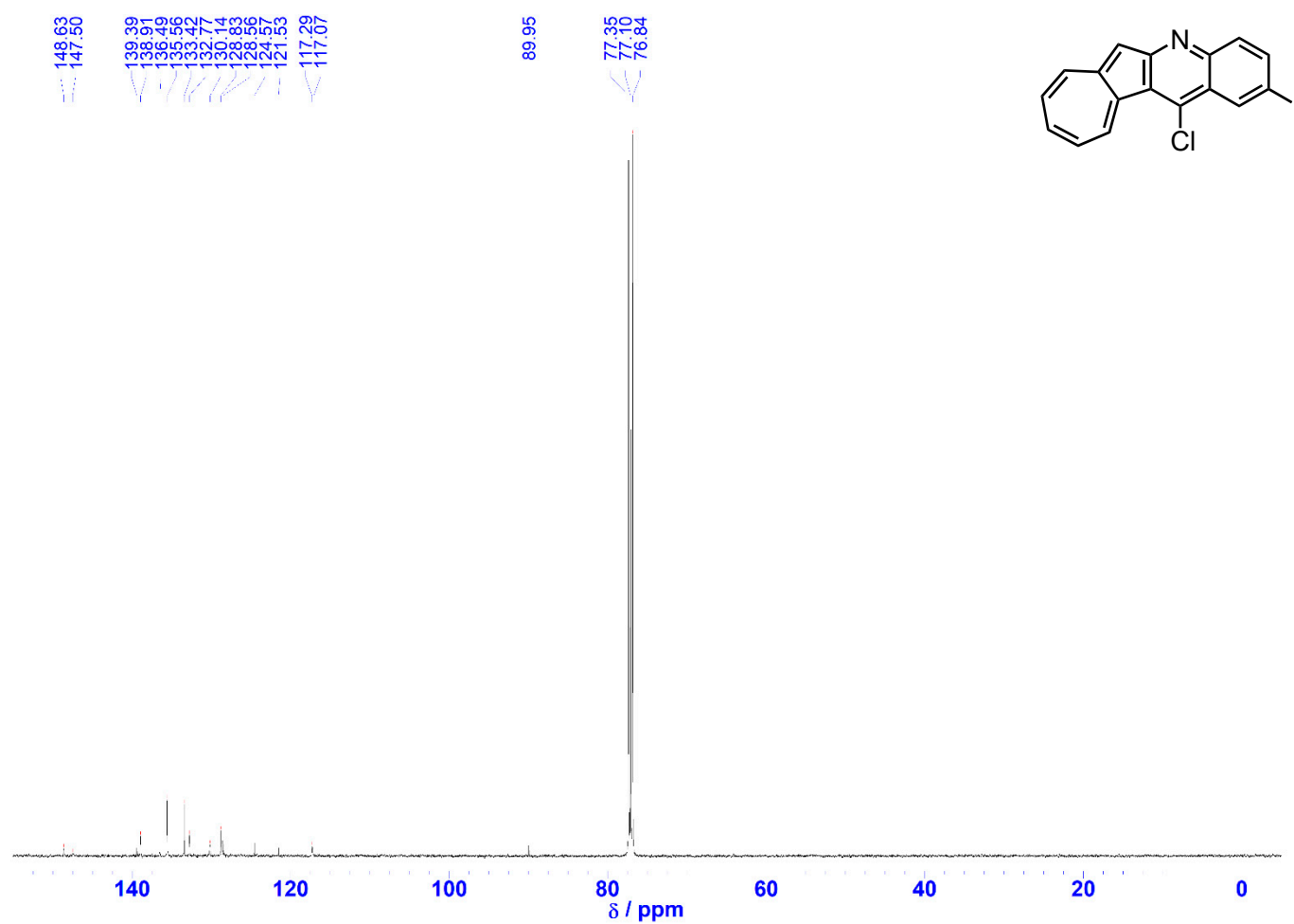


Figure S42. ^{13}C NMR spectrum of **4f** in CDCl_3 (125 MHz).

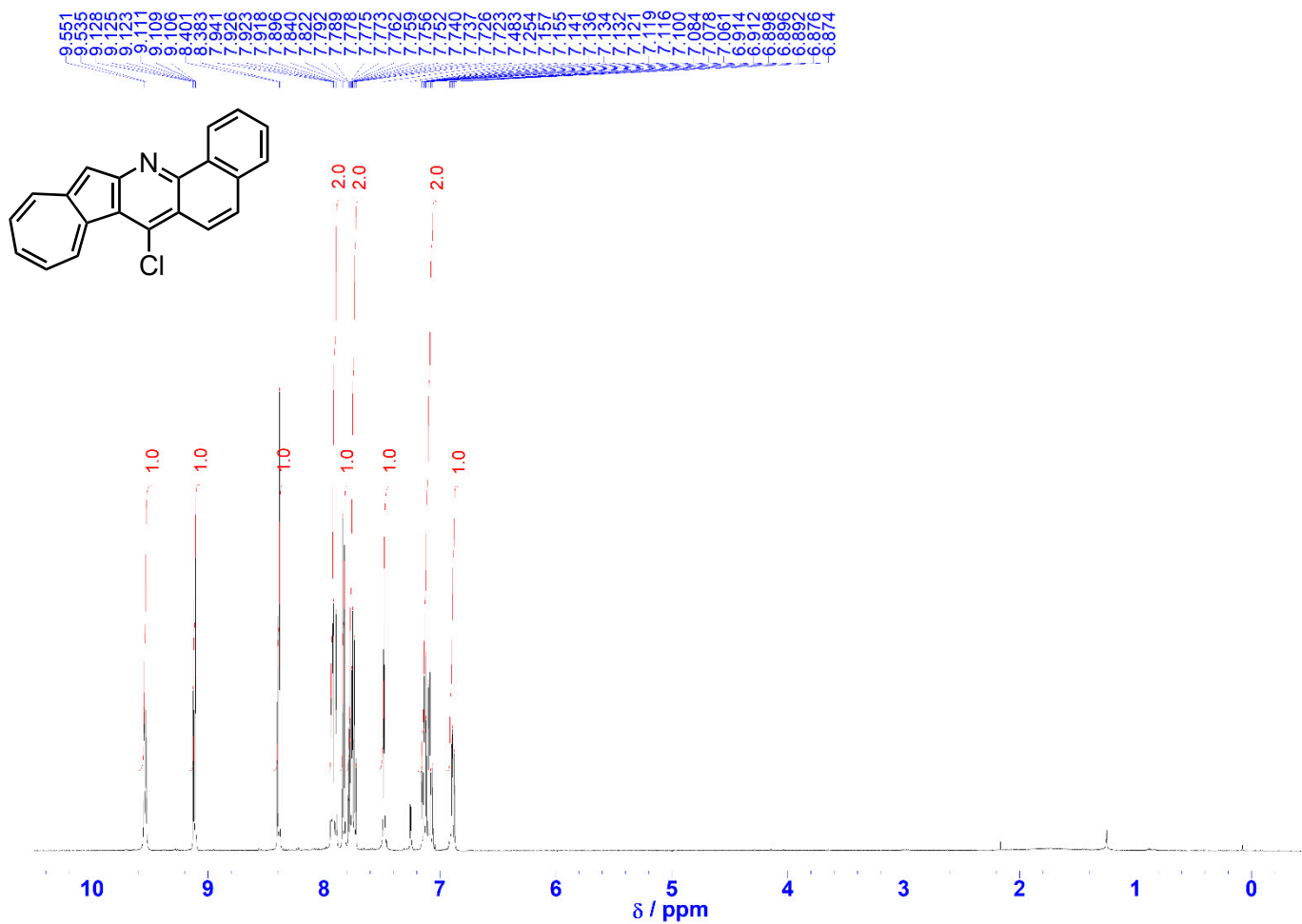


Figure S43. ^1H NMR spectrum of **4g** in CDCl_3 (500 MHz).

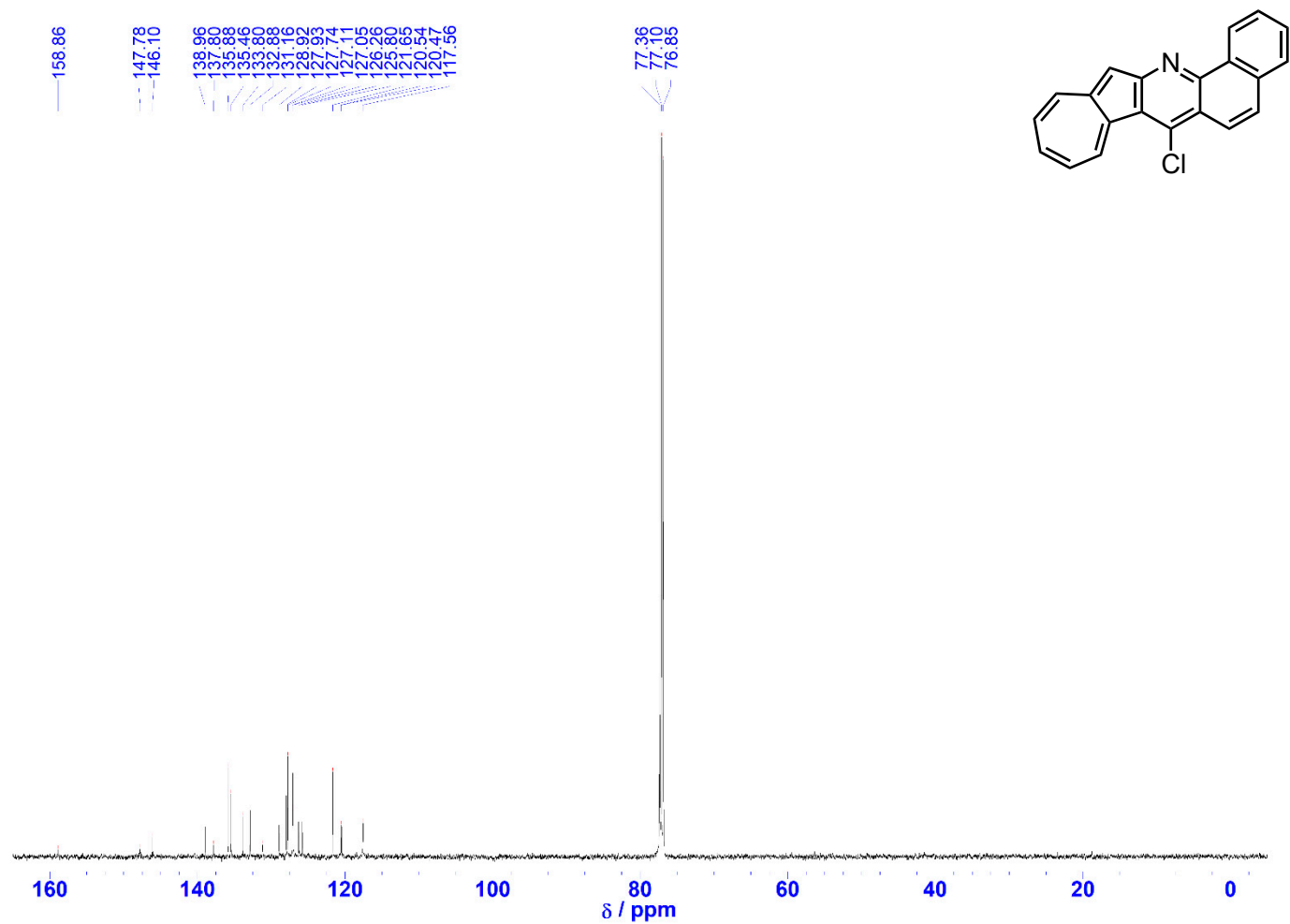


Figure S44. ^{13}C NMR spectrum of **4g** in CDCl_3 (125 MHz).

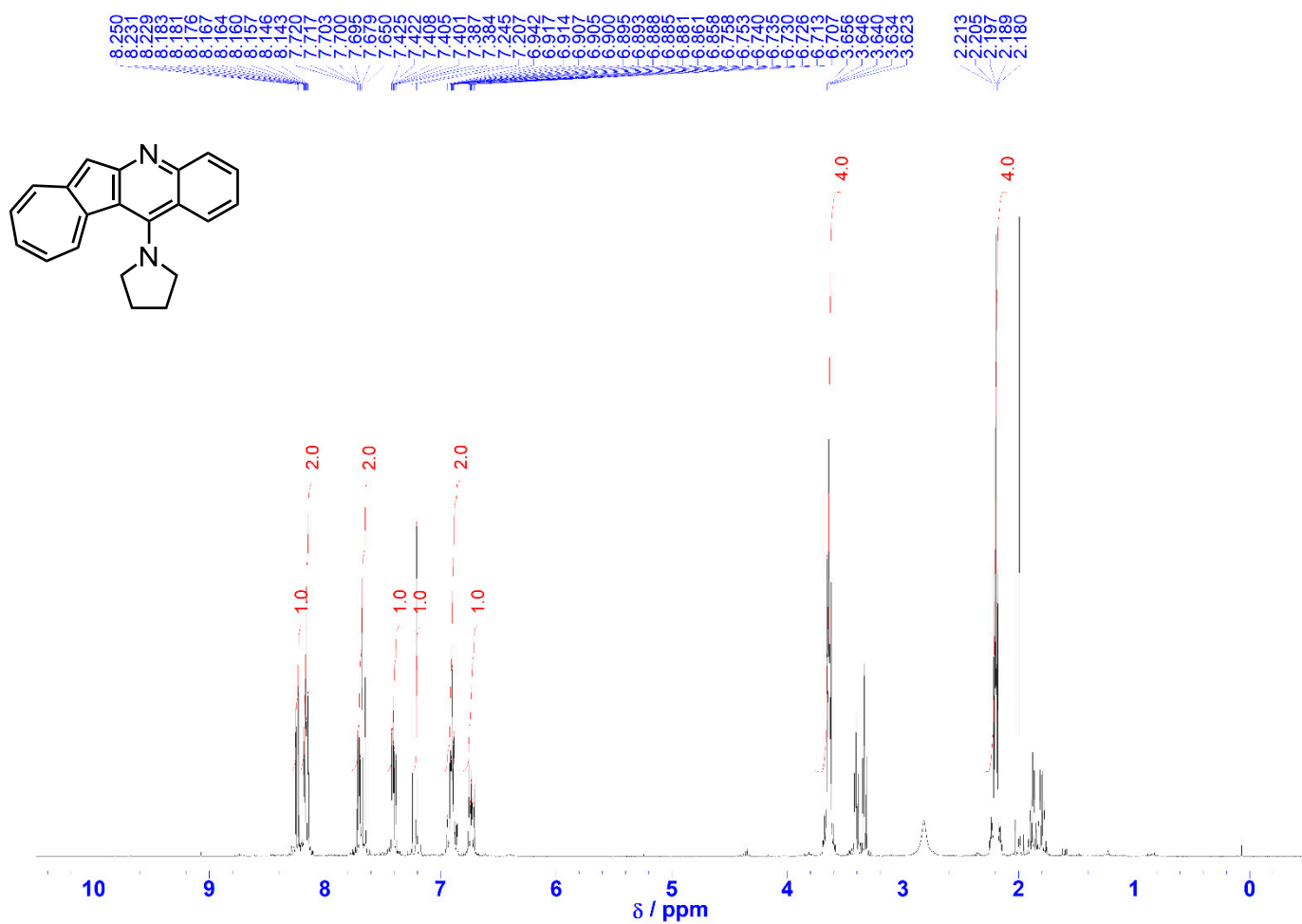


Figure S45. ^1H NMR spectrum of **5a** in CDCl_3 (500 MHz).

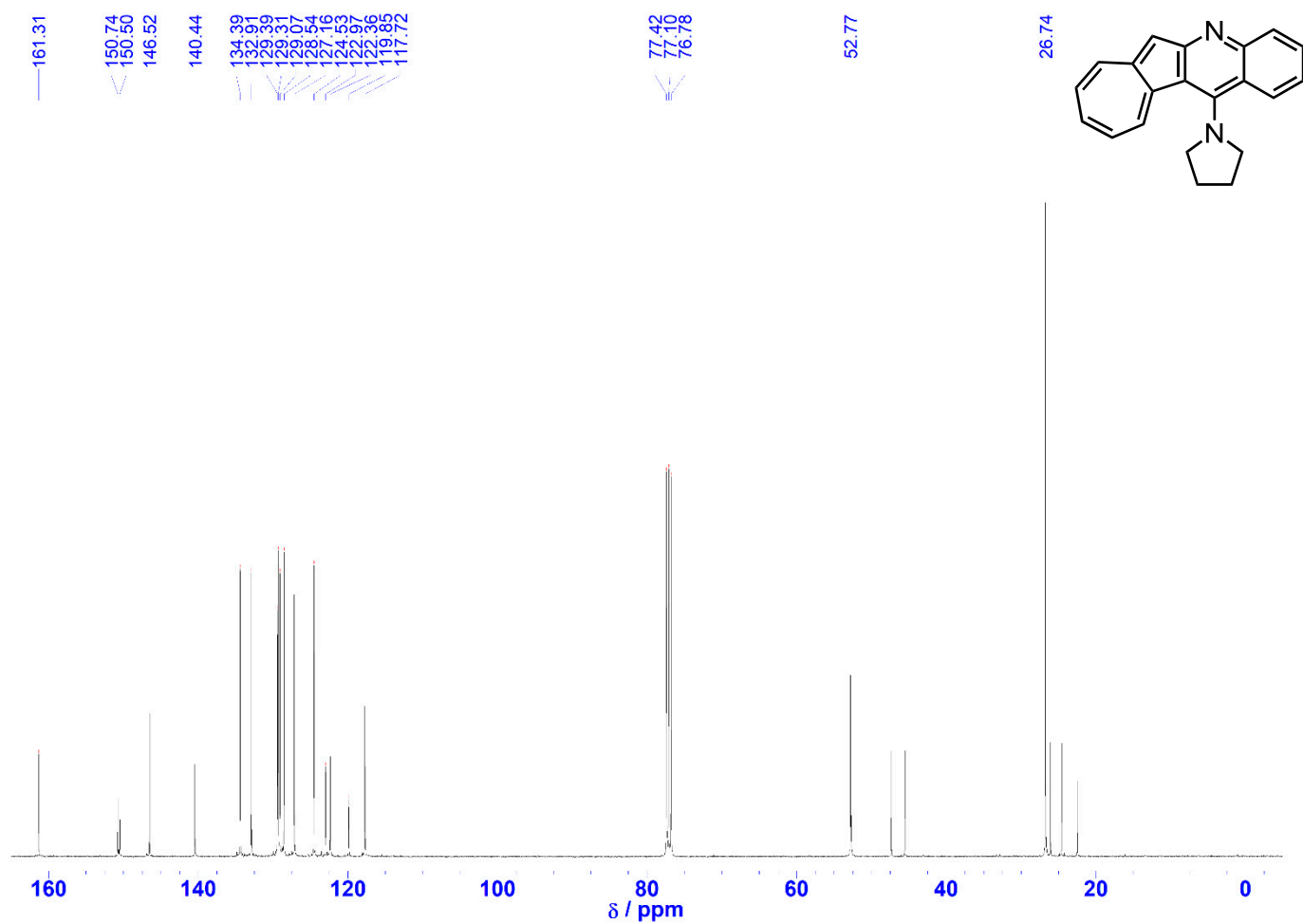
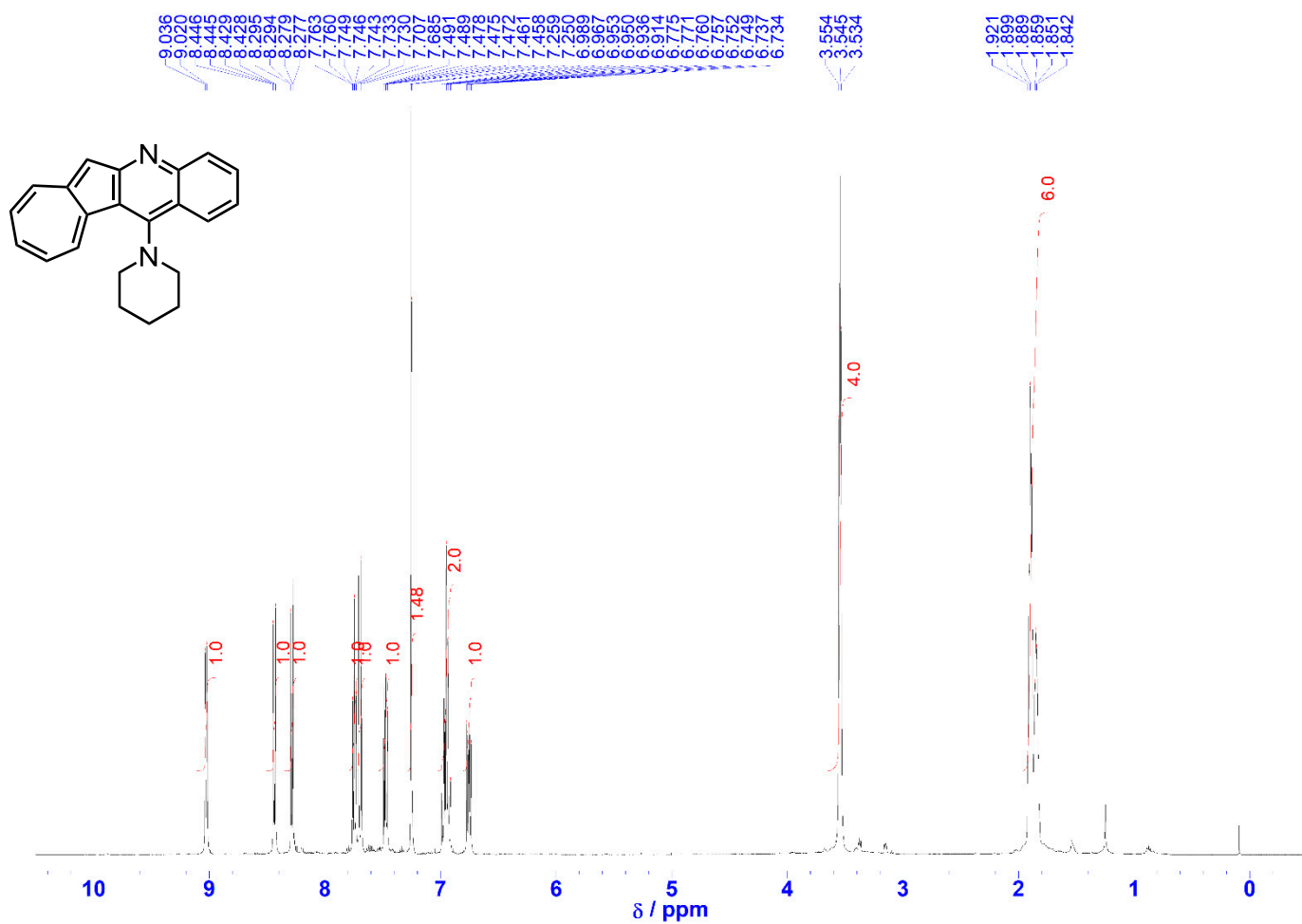


Figure S46. ^{13}C NMR spectrum of **5a** in CDCl_3 (125 MHz).



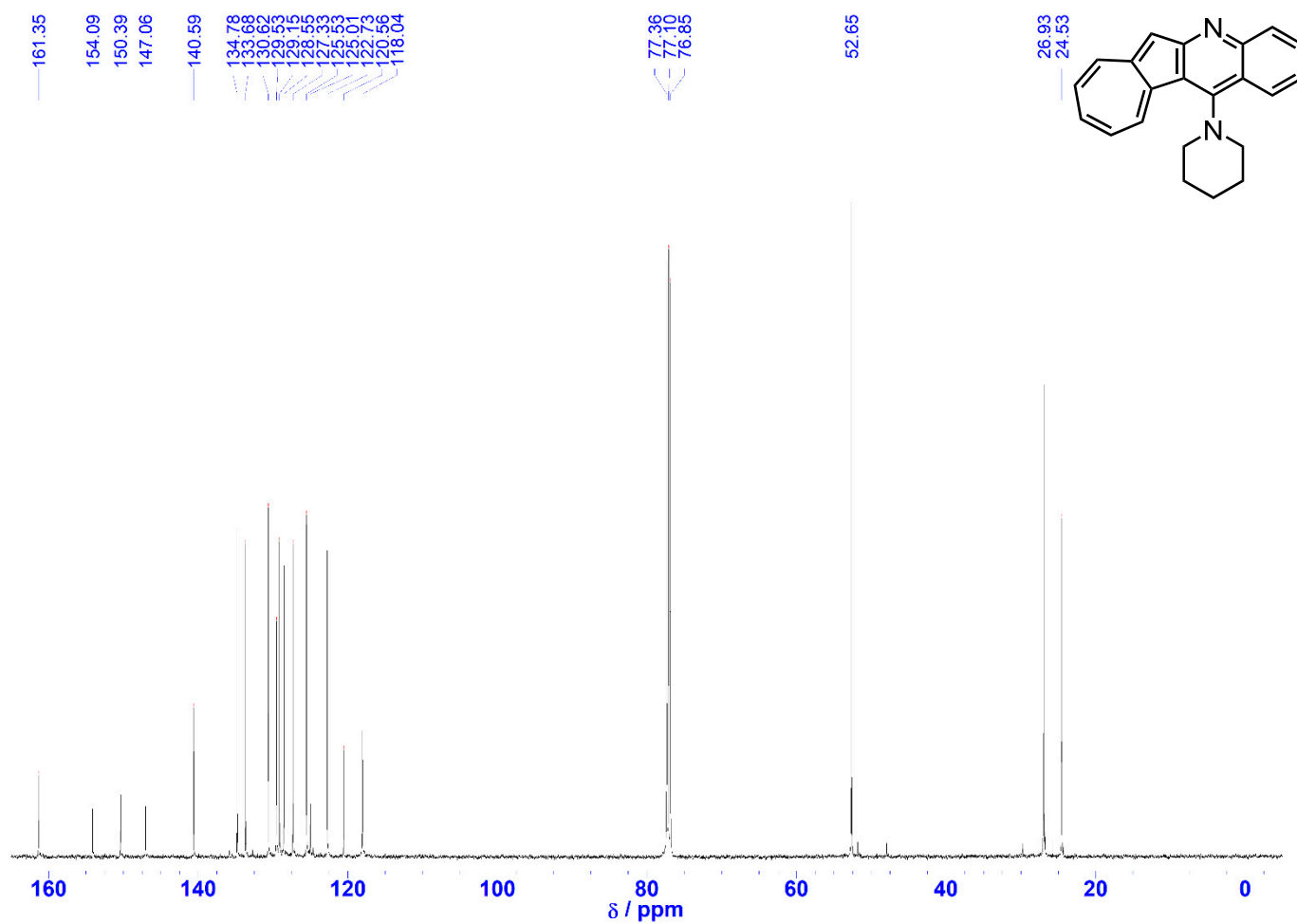


Figure S48. ^{13}C NMR spectrum of **5a** in CDCl_3 (125 MHz).

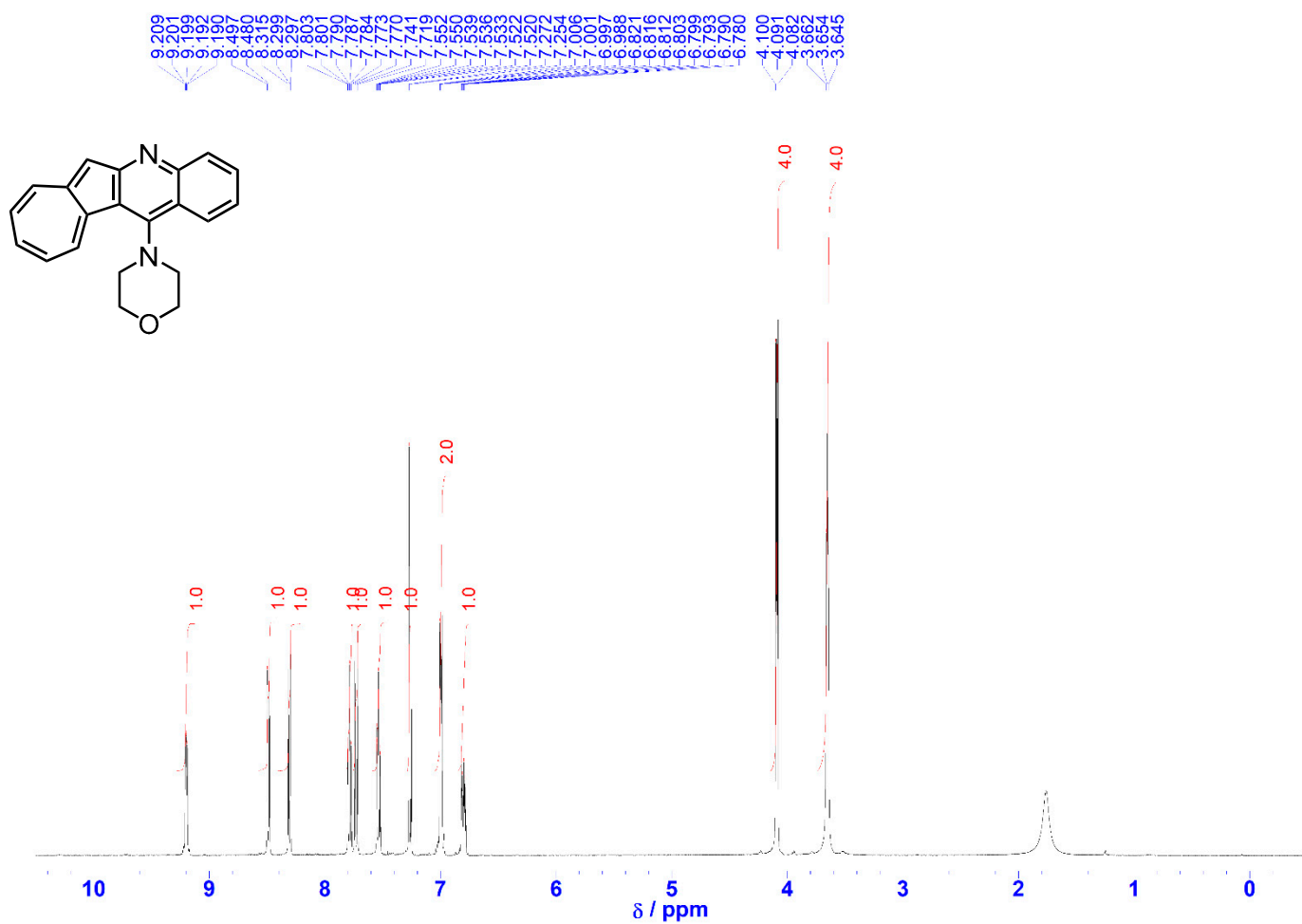


Figure S49. ^1H NMR spectrum of **5a** in CDCl_3 (500 MHz).

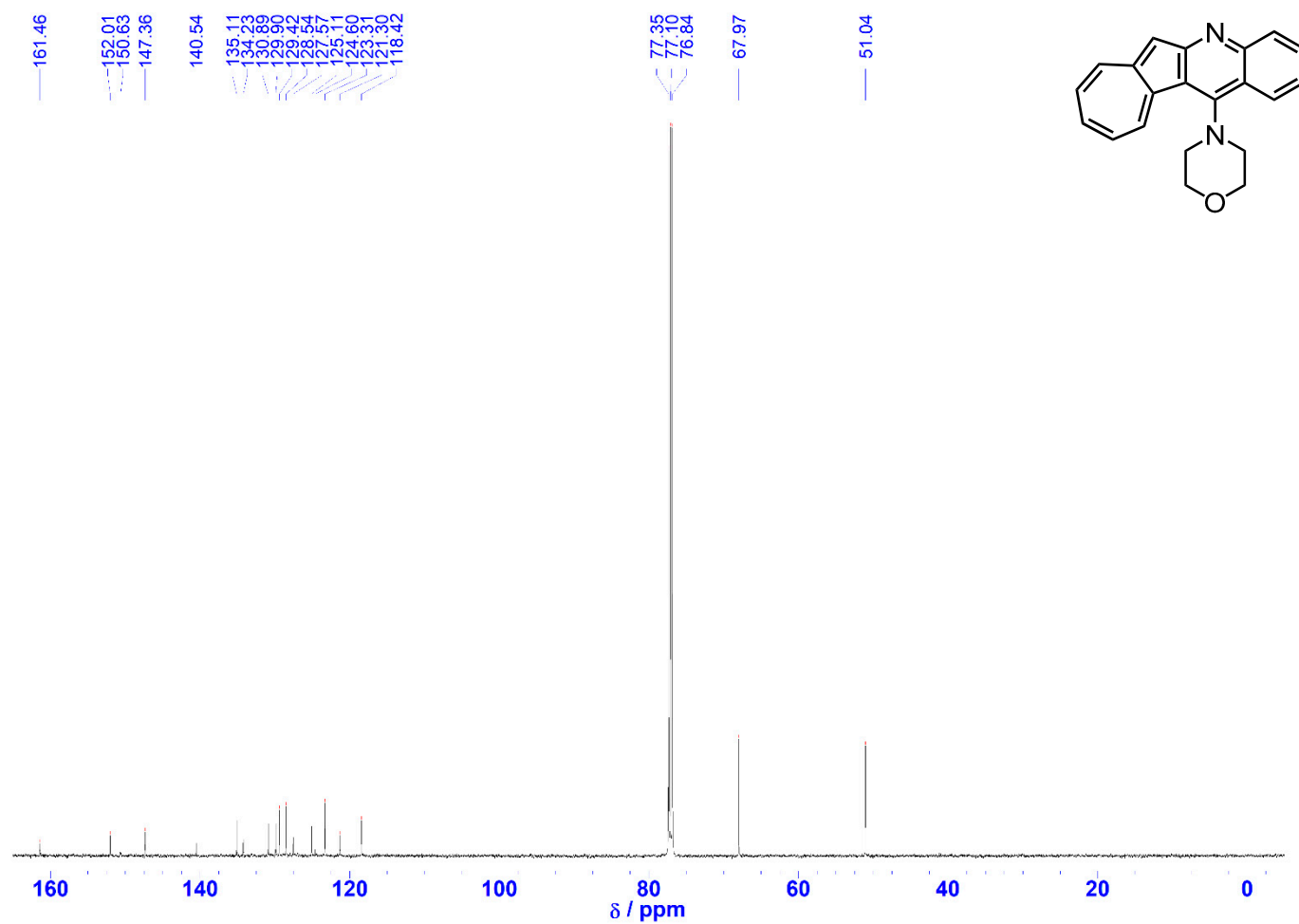


Figure S50. ^{13}C NMR spectrum of **5a** in CDCl_3 (125 MHz).