

Electronic Supporting Information

for

Synthesis and chemiluminescent properties of aminoacylated luminol derivatives bearing phosphonium cations

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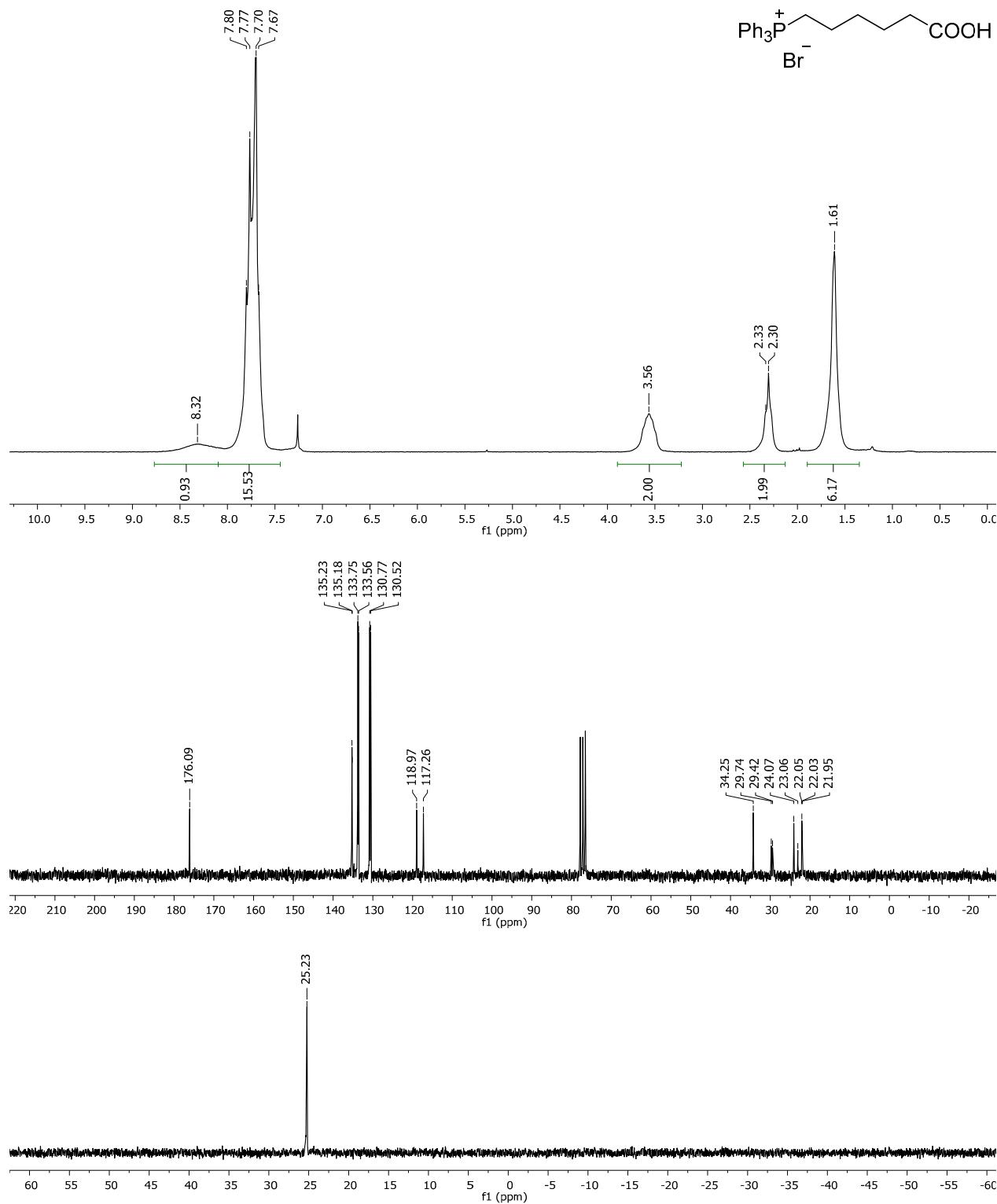


Figure S1. ^1H (200 MHz, top), ^{13}C (50 MHz, middle) and ^{31}P (81 MHz, bottom) NMR (CDCl_3) spectra of **2a**.

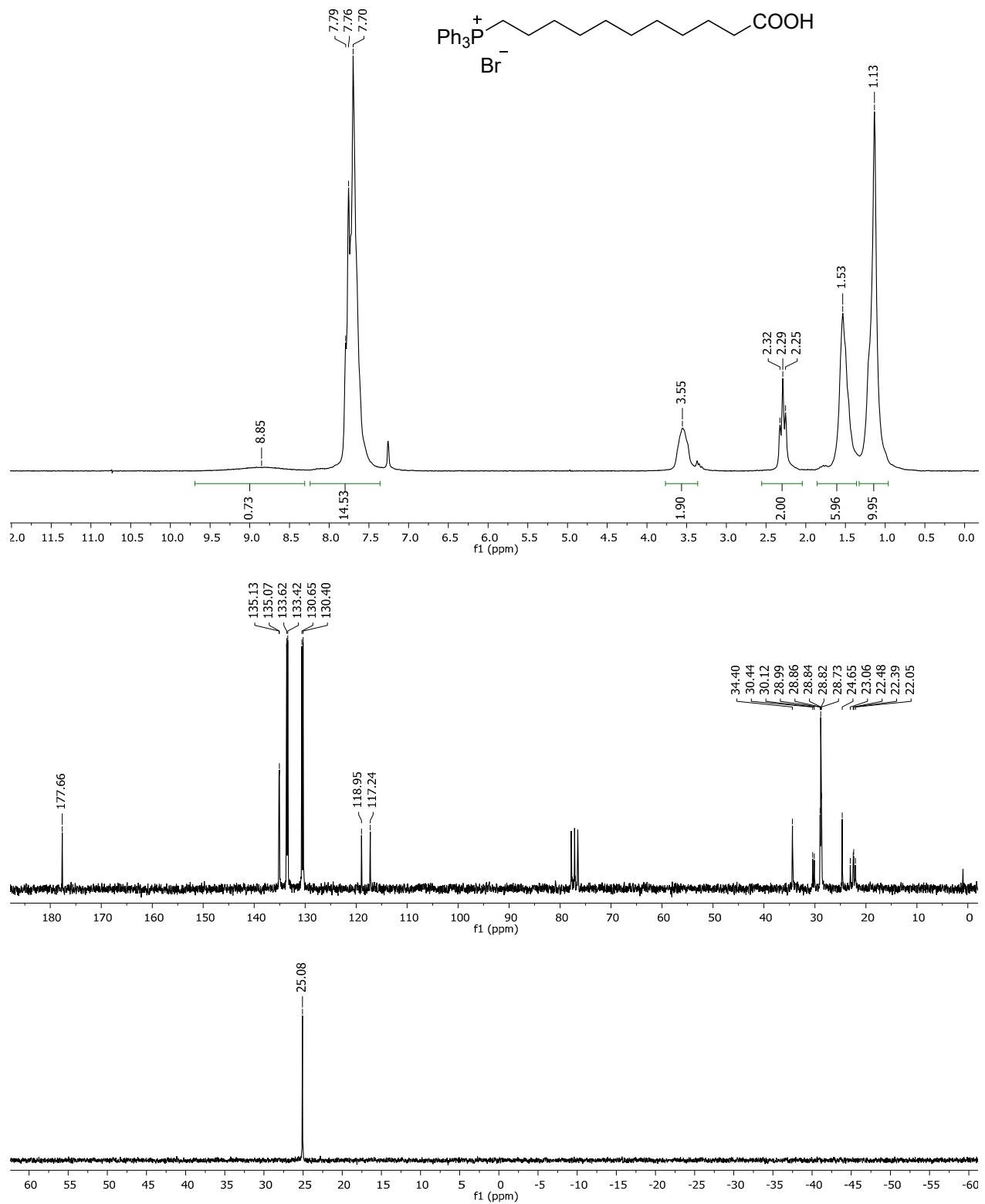


Figure S2. ^1H (200 MHz, top), ^{13}C (50 MHz, middle) and ^{31}P (81 MHz, bottom) NMR (CDCl₃) spectra of **2b**.

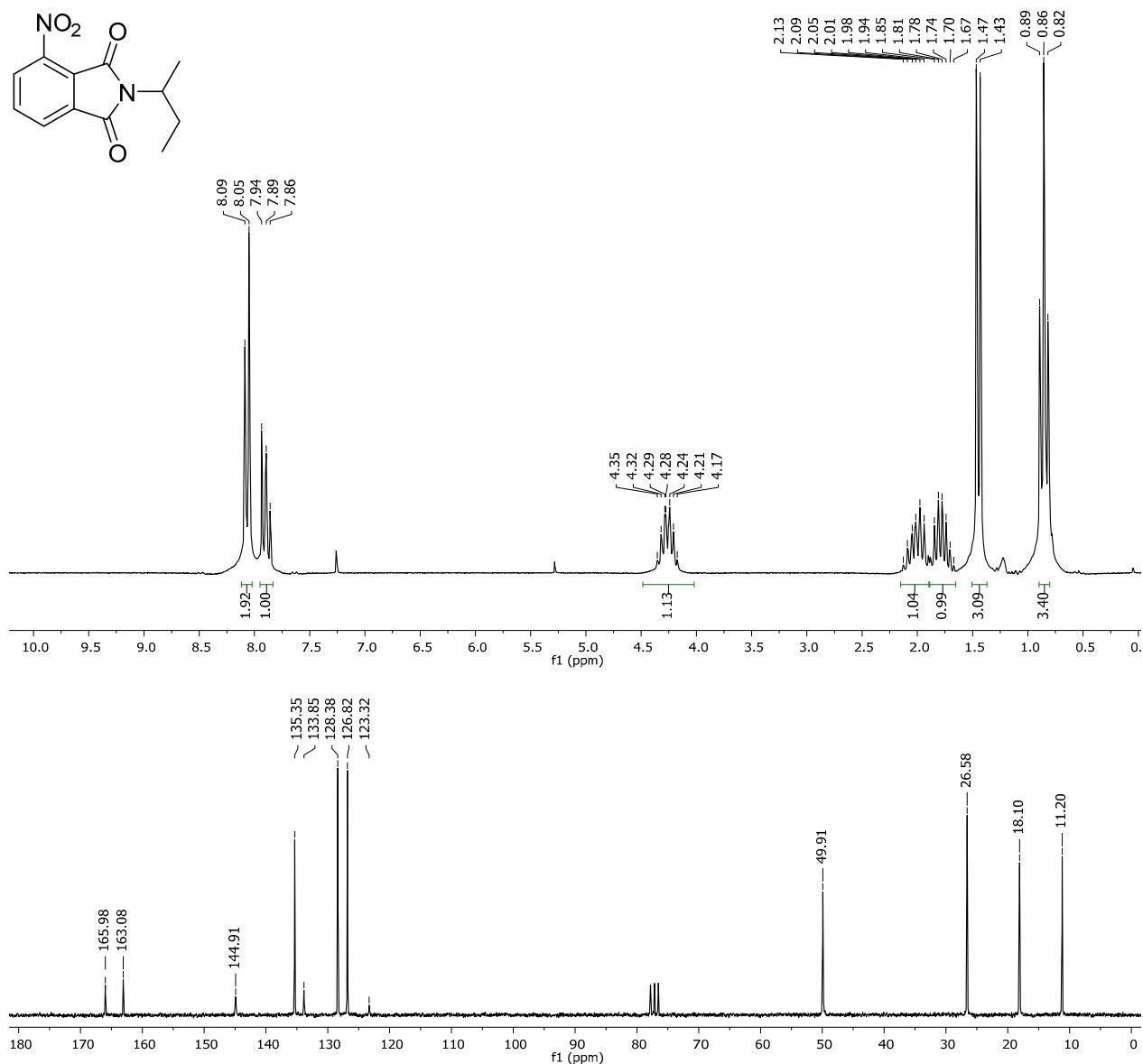


Figure S3. ¹H (200 MHz, top) and ¹³C (50 MHz, bottom) NMR (CDCl₃) spectra of **5a**.

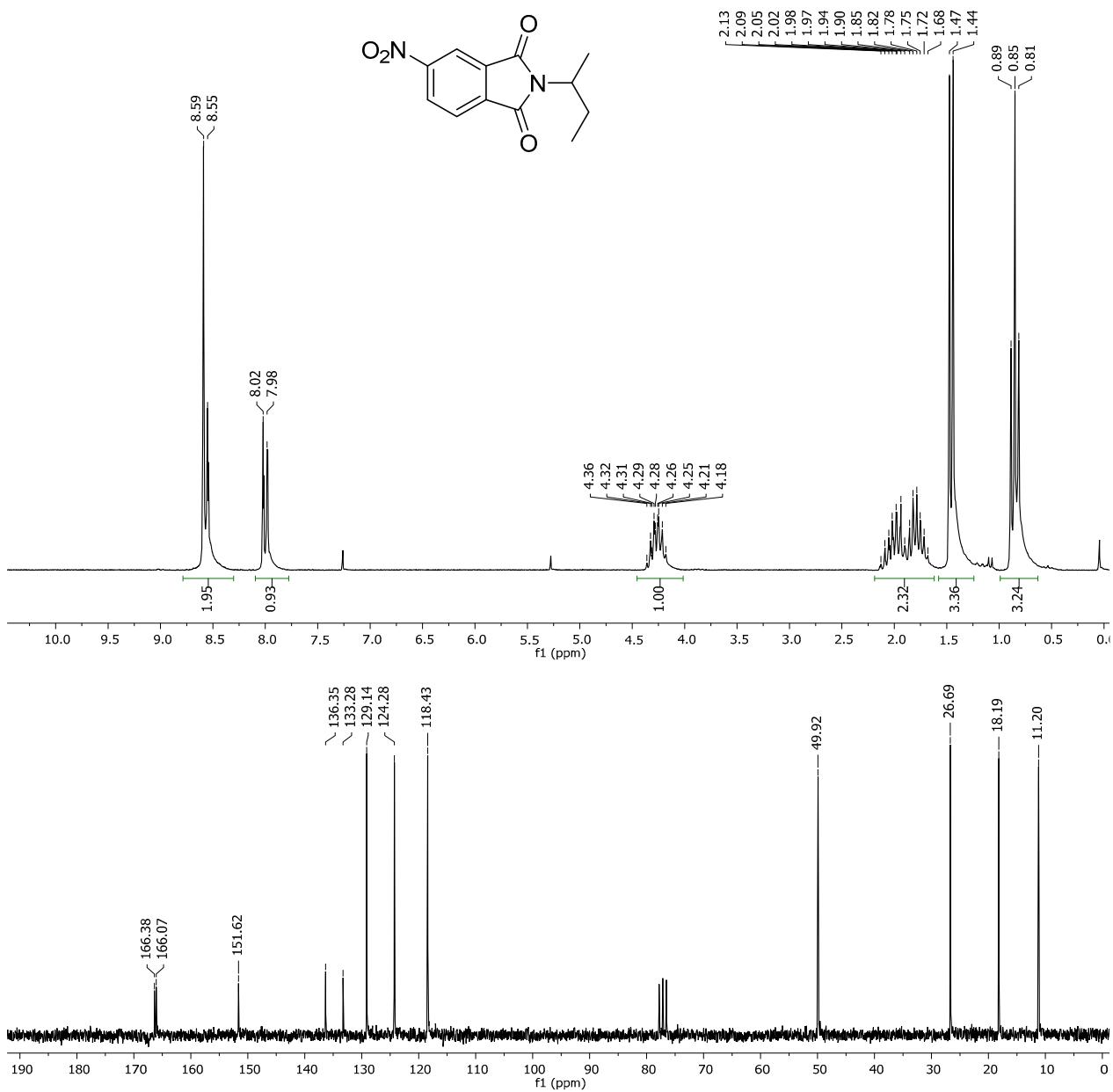


Figure S4. ¹H (200 MHz, top) and ¹³C (50 MHz, bottom) NMR (CDCl₃) spectra of **5b**.

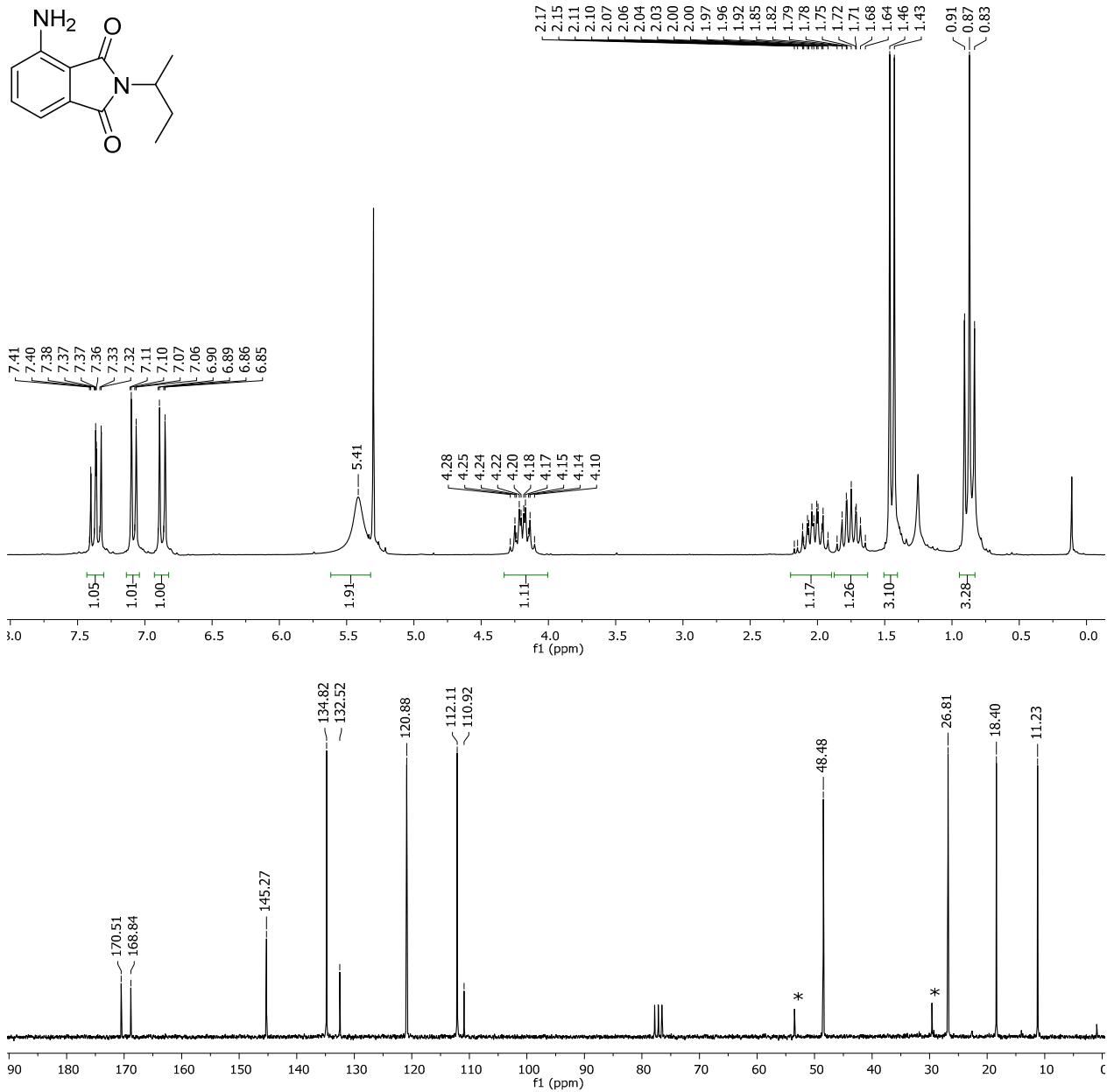


Figure S5. ¹H (200 MHz, top) and ¹³C (50 MHz, bottom) NMR (CDCl₃) spectra of **6a**.

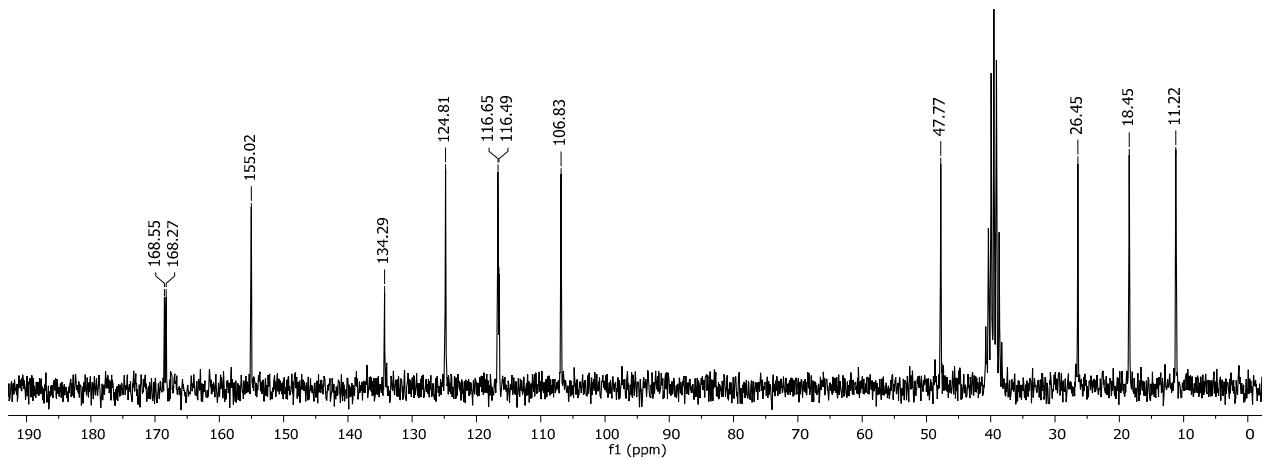
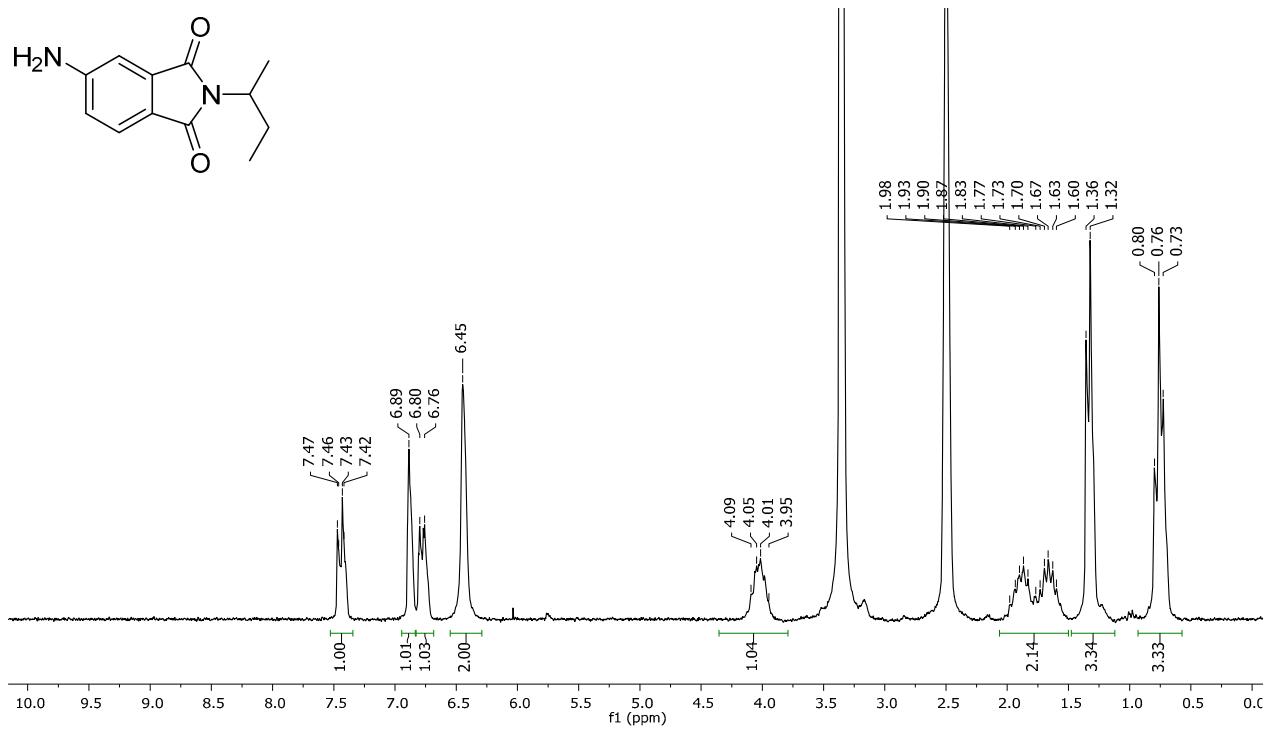


Figure S6. ¹H (200 MHz, top) and ¹³C (50 MHz, bottom) NMR (DMSO-*d*₆) spectra of **6b**.

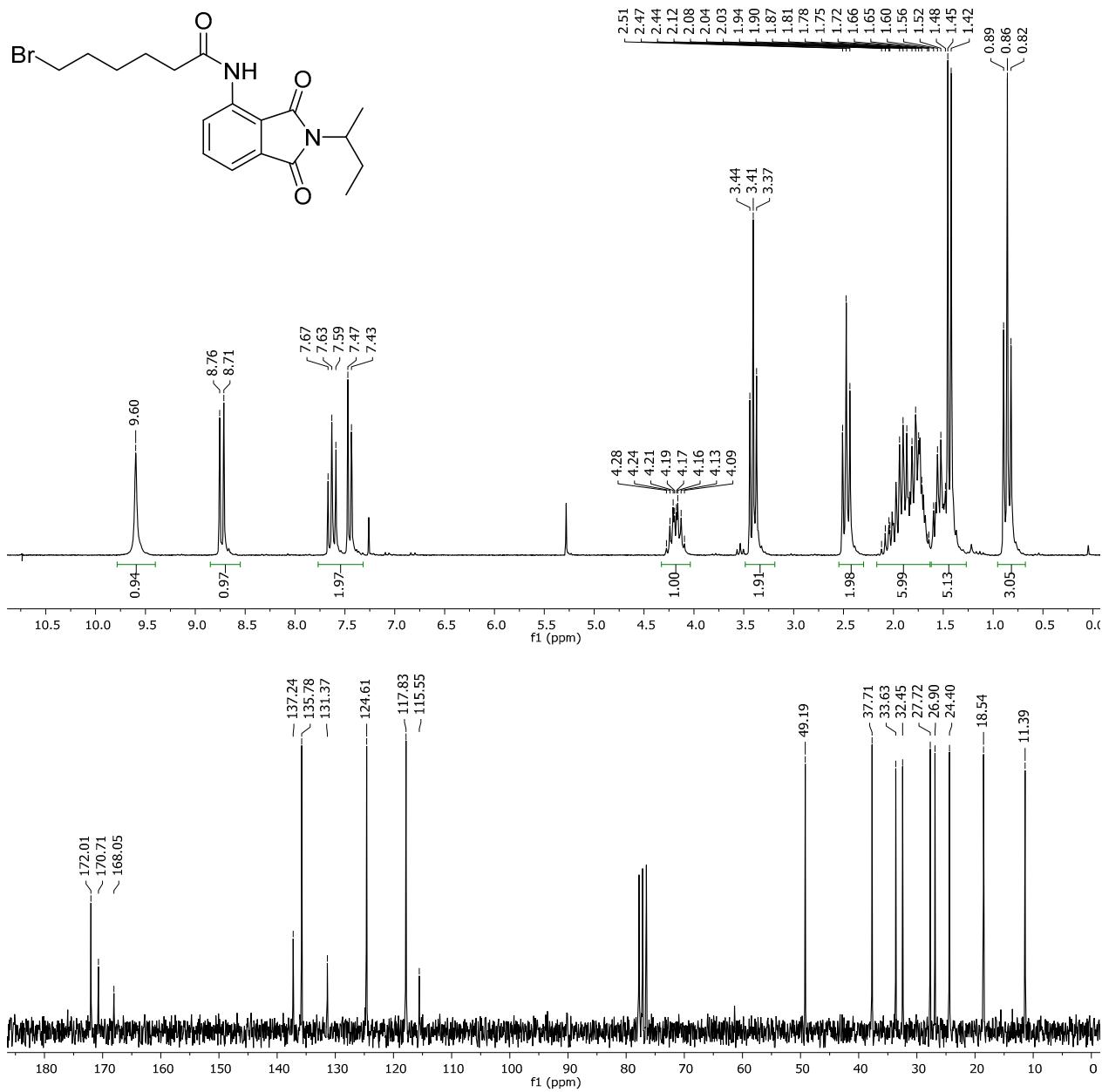


Figure S7. ¹H (200 MHz, top) and ¹³C (50 MHz, bottom) NMR (CDCl₃) spectra of **8a**.

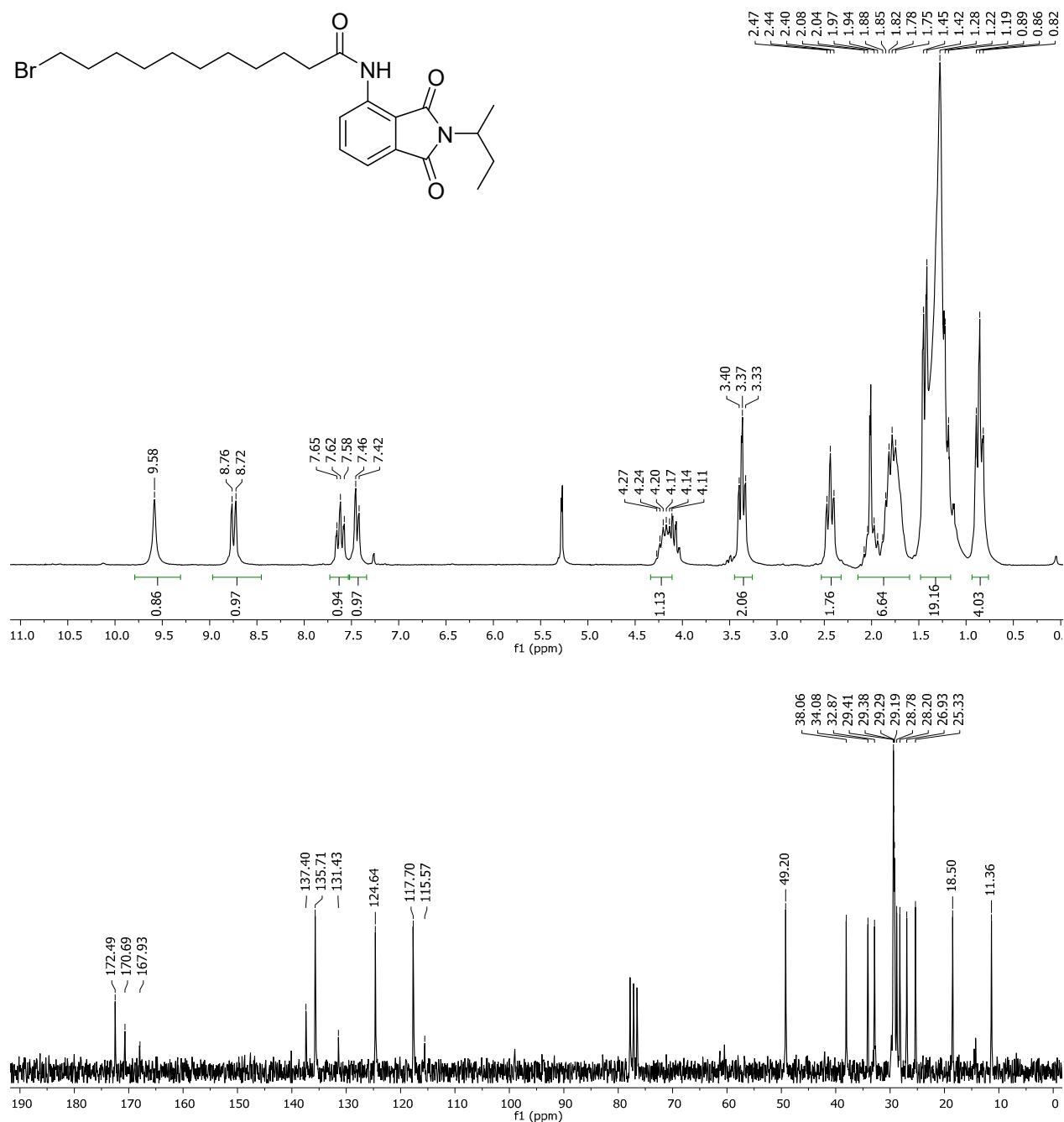


Figure S8. ¹H (200 MHz, top) and ¹³C (50 MHz, bottom) NMR (CDCl₃) spectra of **8b**.

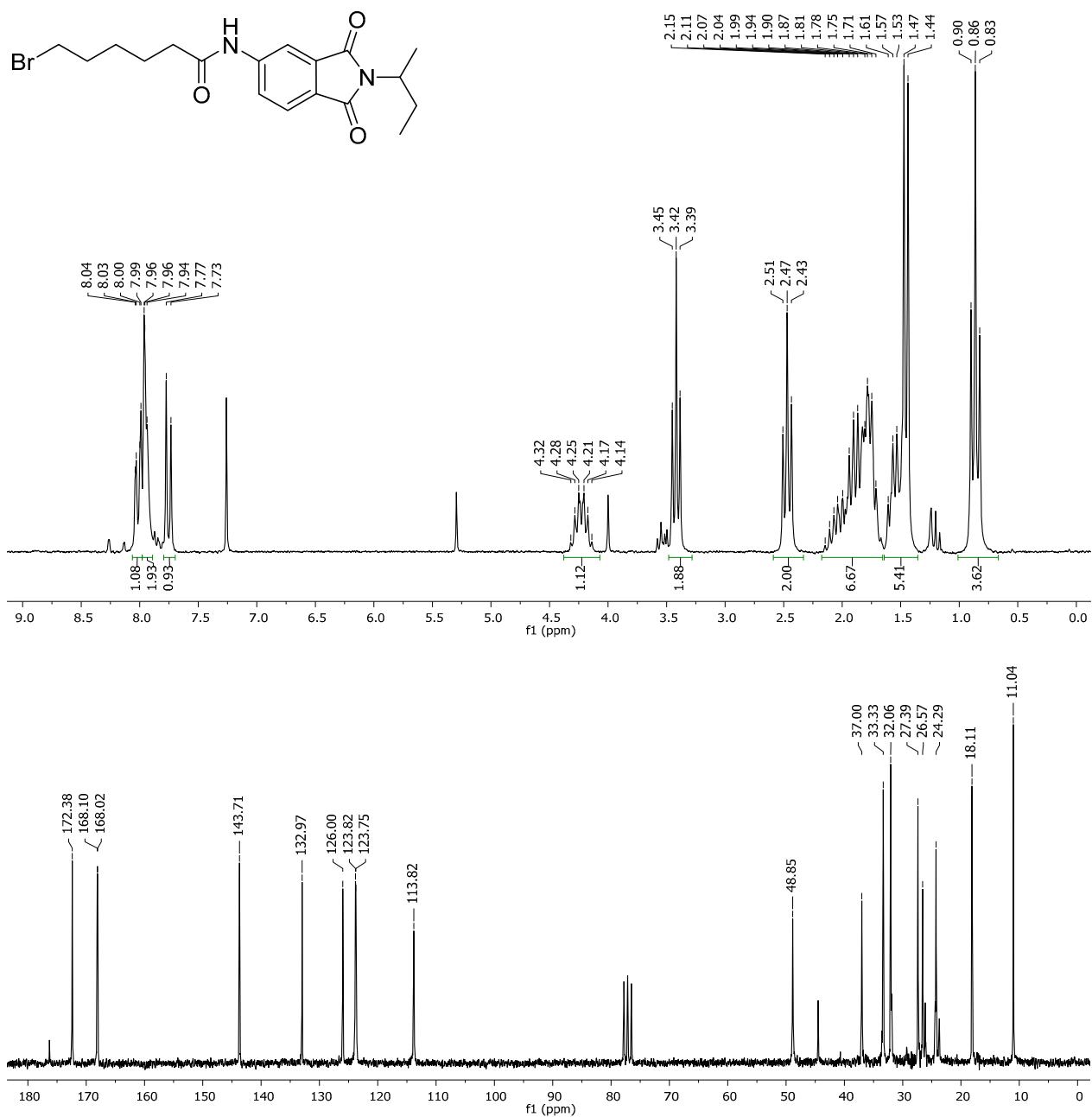


Figure S9. ^1H (200 MHz, top) and ^{13}C (50 MHz, bottom) NMR (CDCl_3) spectra of **9a** (mixture with 10 mol% of the corresponding chloride).

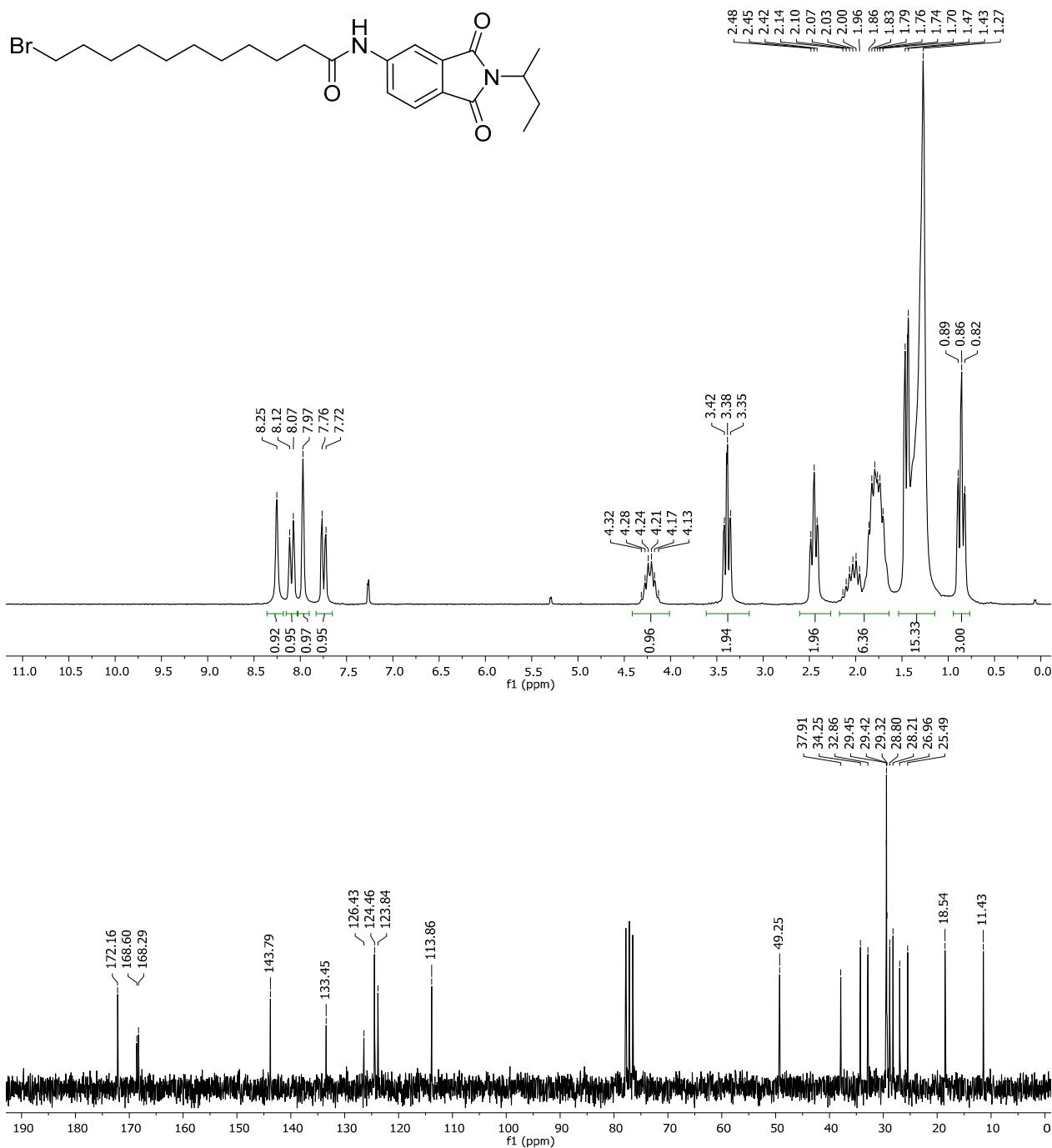
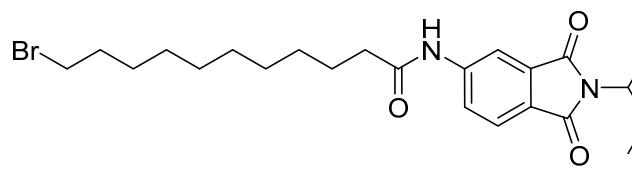


Figure S10. ^1H (200 MHz, top) and ^{13}C (50 MHz, bottom) NMR (CDCl_3) spectra of **9b**.

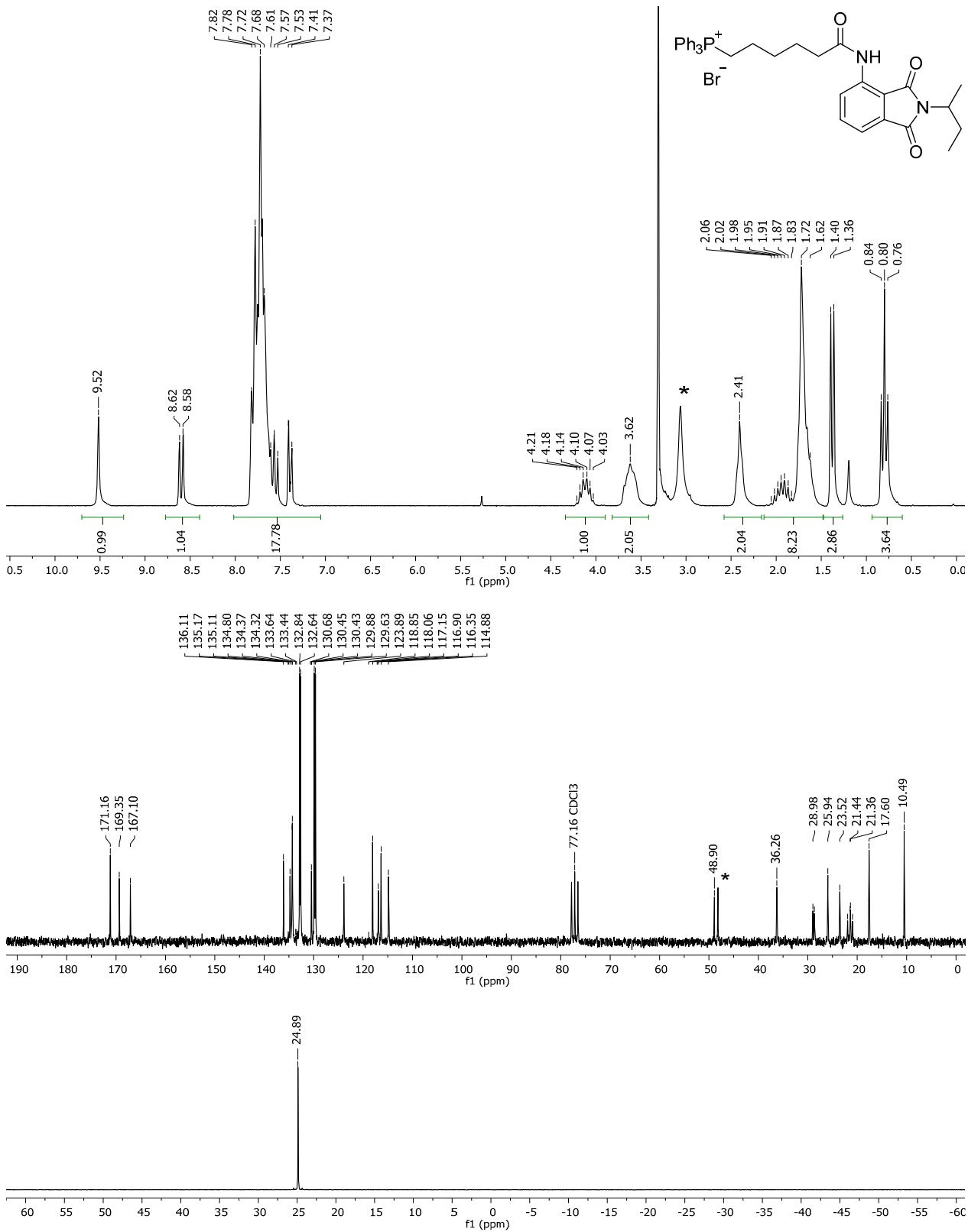


Figure S11. ^1H (200 MHz, top), ^{13}C (50 MHz, middle) and ^{31}P (81 MHz, bottom) NMR (CDCl_3) spectra of **10a**.

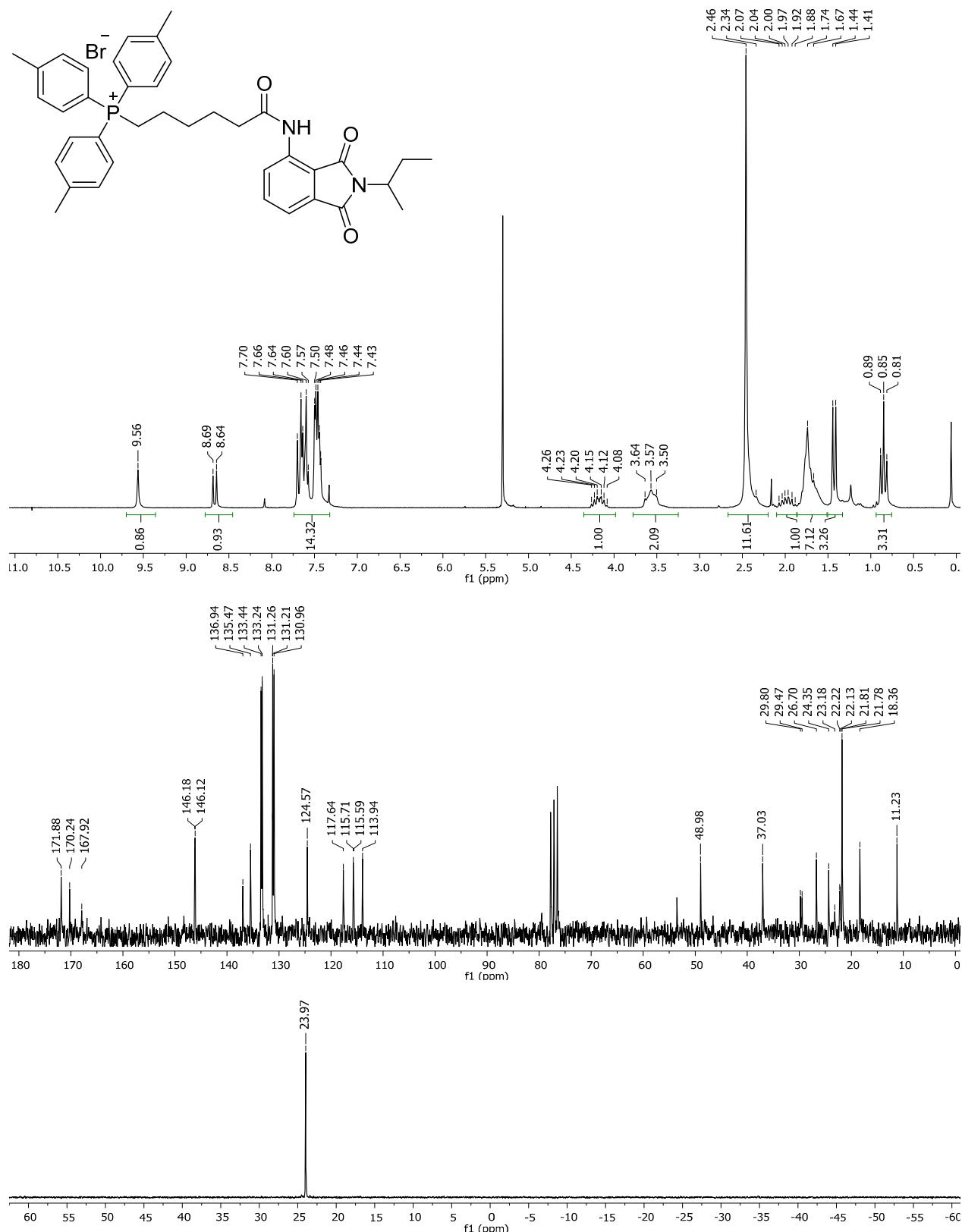


Figure S12. ^1H (200 MHz, top), ^{13}C (50 MHz, middle) and ^{31}P (81 MHz, bottom) NMR (CDCl_3) spectra of **10b**.

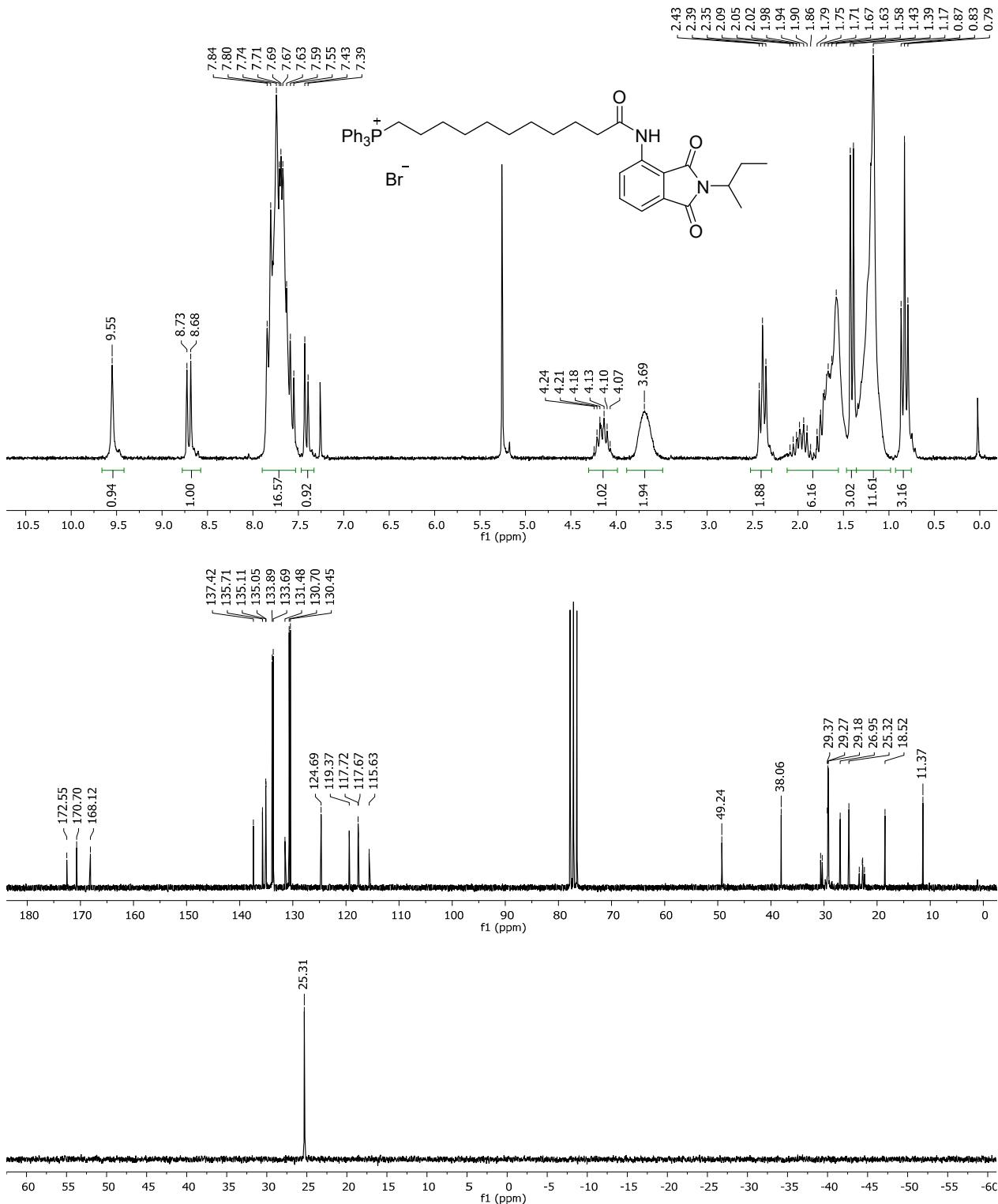


Figure S13. ^1H (200 MHz, top), ^{13}C (50 MHz, middle) and ^{31}P (81 MHz, bottom) NMR (CDCl_3) spectra of **10c**.

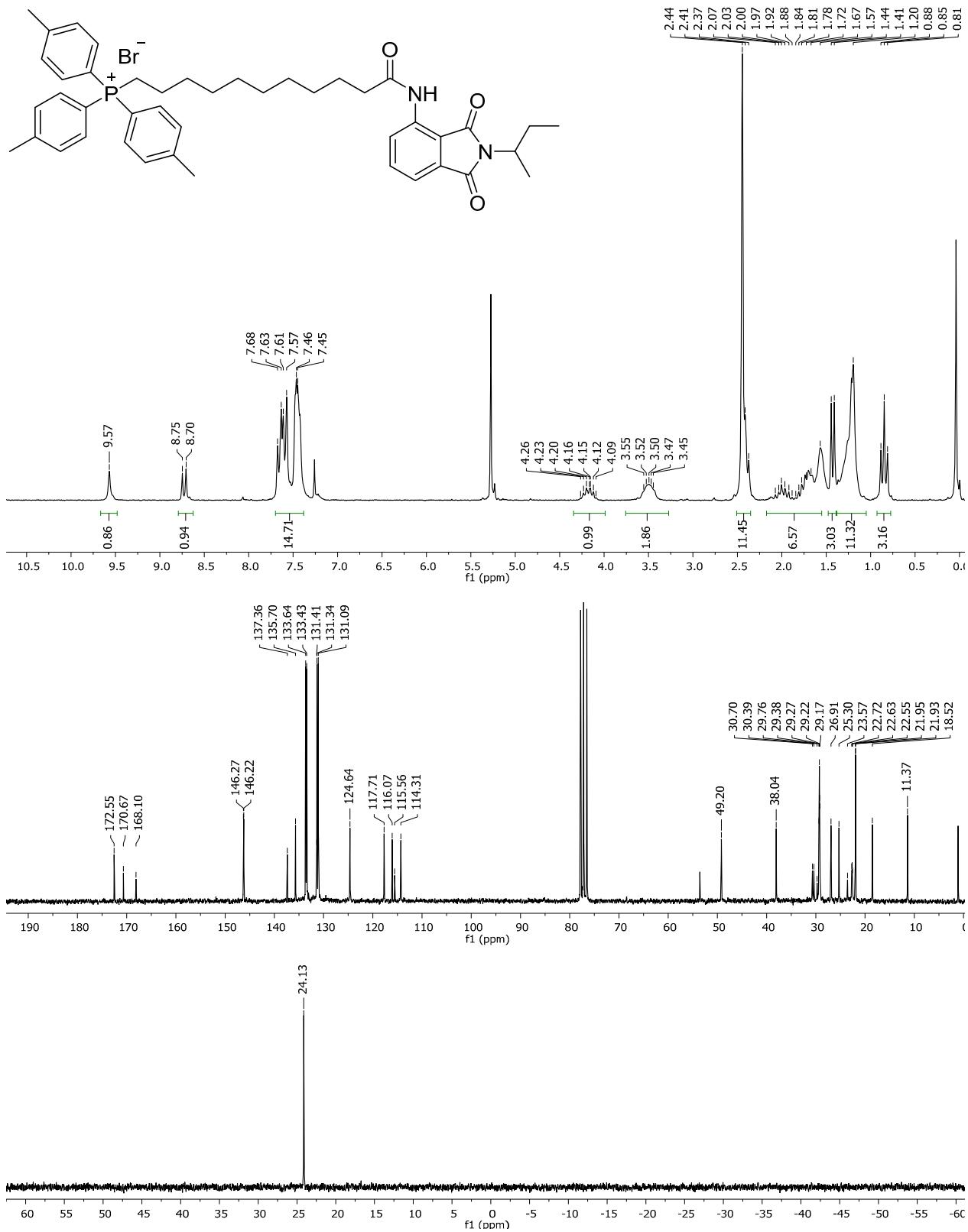


Figure S14. ^1H (200 MHz, top), ^{13}C (50 MHz, middle) and ^{31}P (81 MHz, bottom) NMR (CDCl_3) spectra of **10d**.

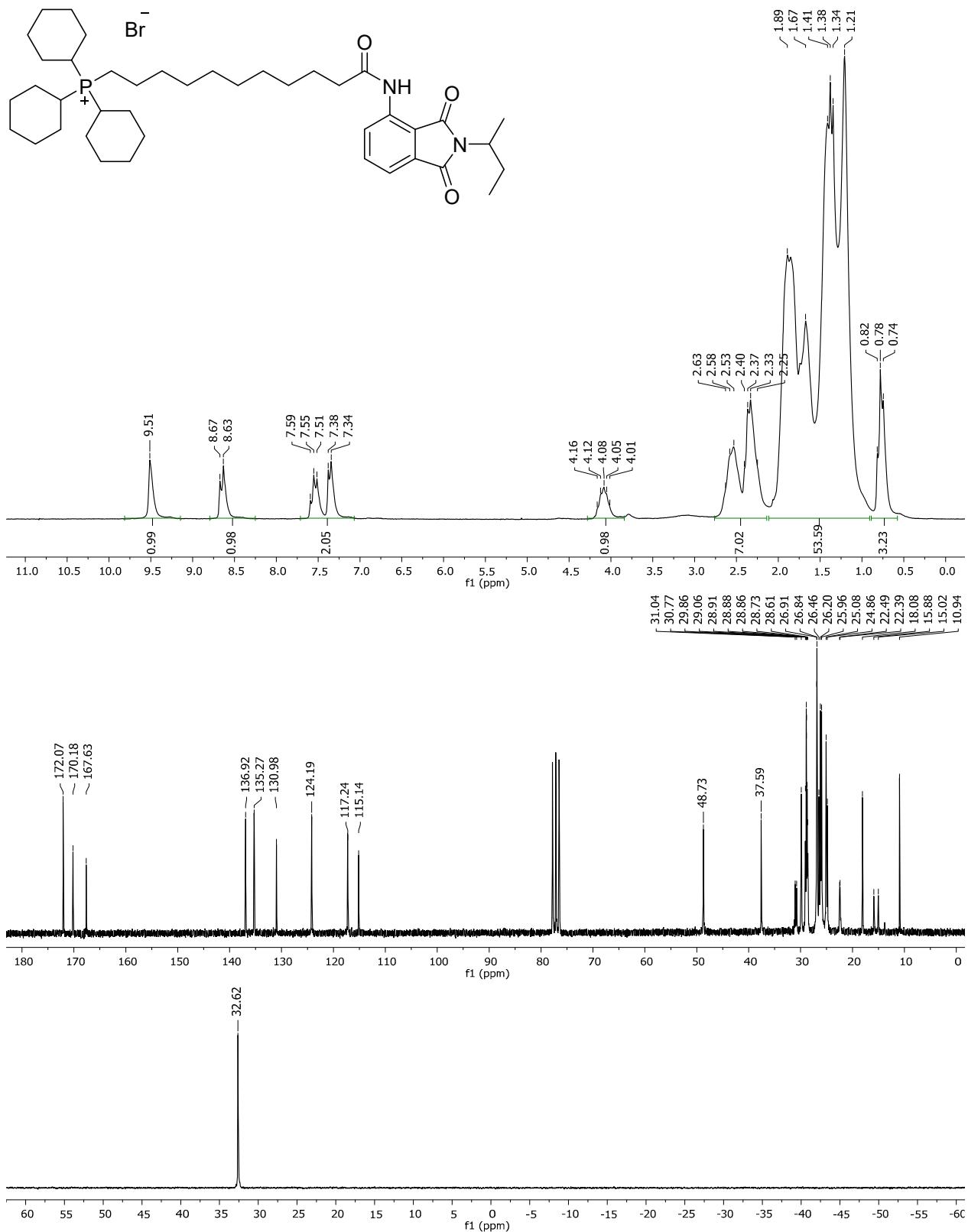


Figure S15. ^1H (200 MHz, top), ^{13}C (50 MHz, middle) and ^{31}P (81 MHz, bottom) NMR (CDCl_3) spectra of **10e**.

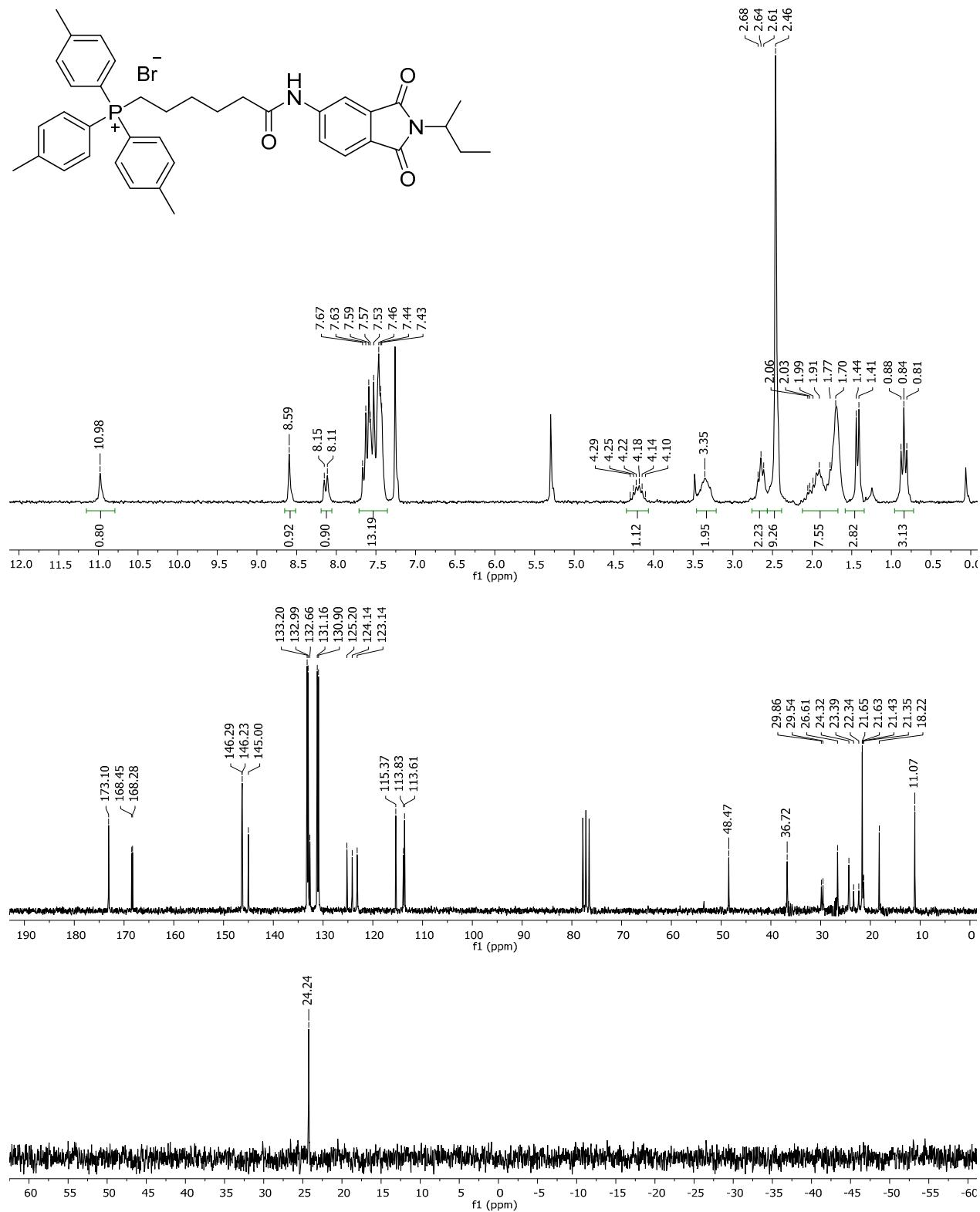


Figure S16. ^1H (200 MHz, top), ^{13}C (50 MHz, middle) and ^{31}P (81 MHz, bottom) NMR (CDCl_3) spectra of **11a**.

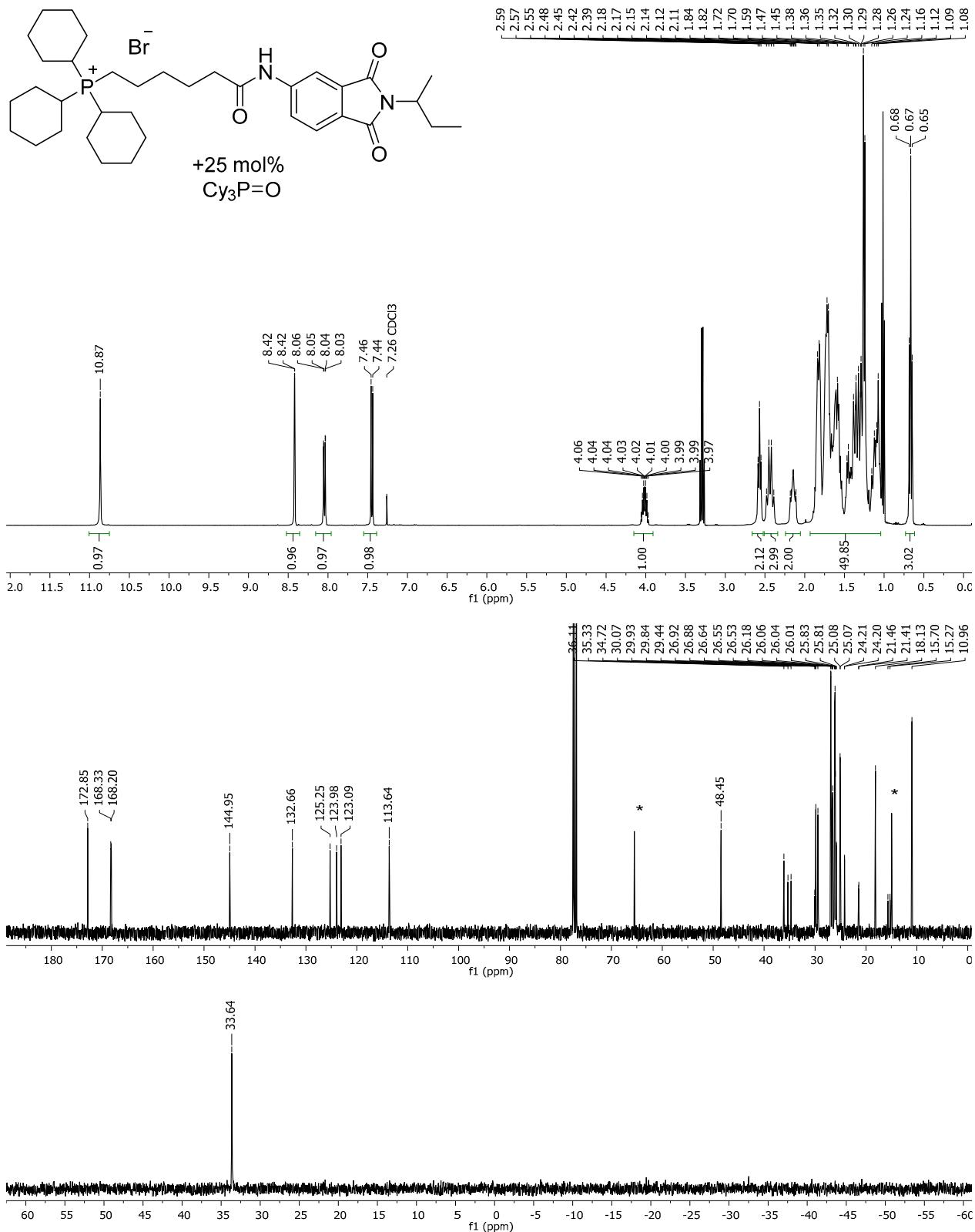


Figure S17. ¹H (400 MHz, top), ¹³C (100 MHz, middle) and ³¹P (81 MHz, bottom) NMR (CDCl_3) spectra of **11b** (contaminated with 25mol% $\text{Cy}_3\text{P=O}$).

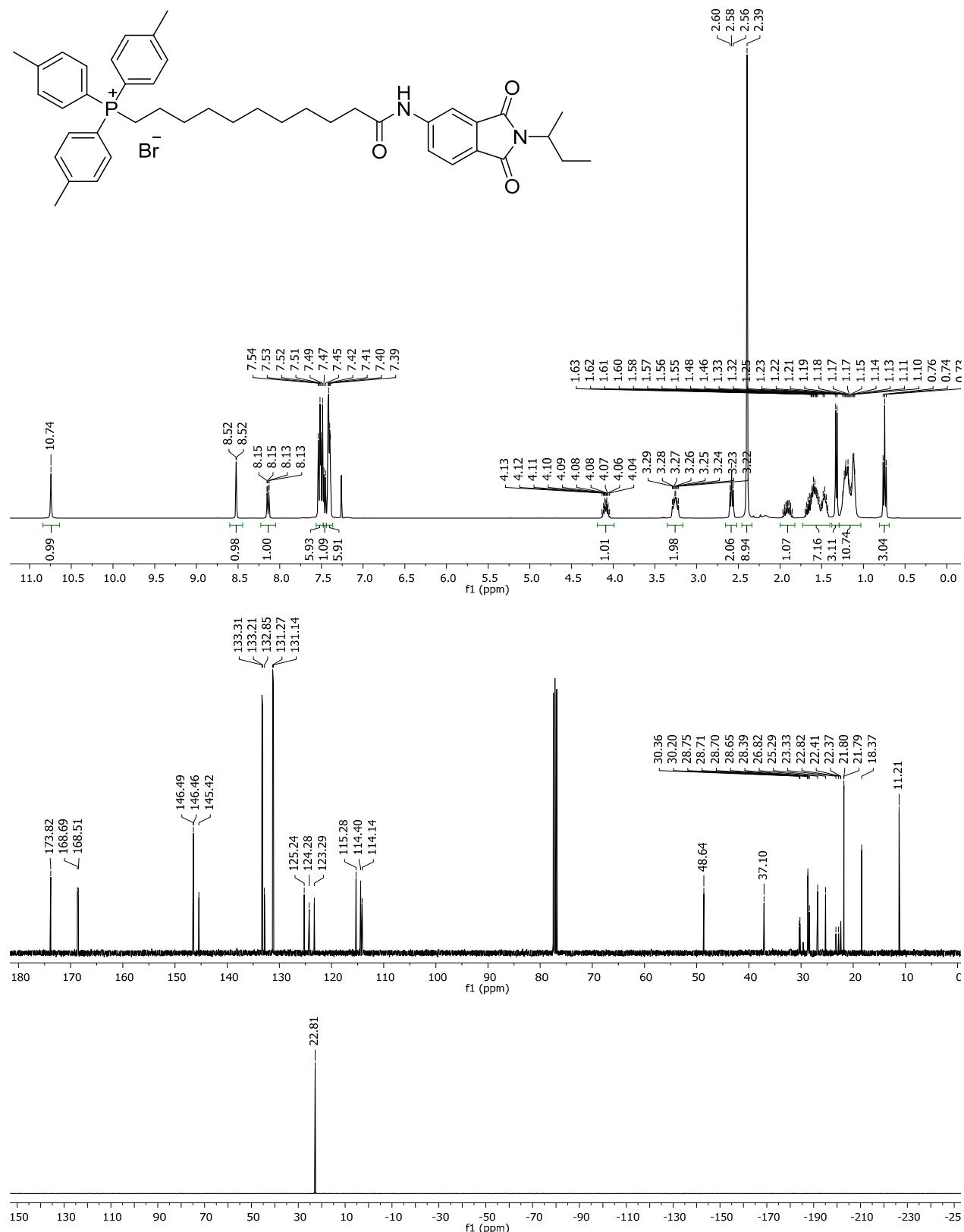


Figure S18. ^1H (400 MHz, top), ^{13}C (100 MHz, middle) and ^{31}P (81 MHz, bottom) NMR (CDCl_3) spectra of **11c**.

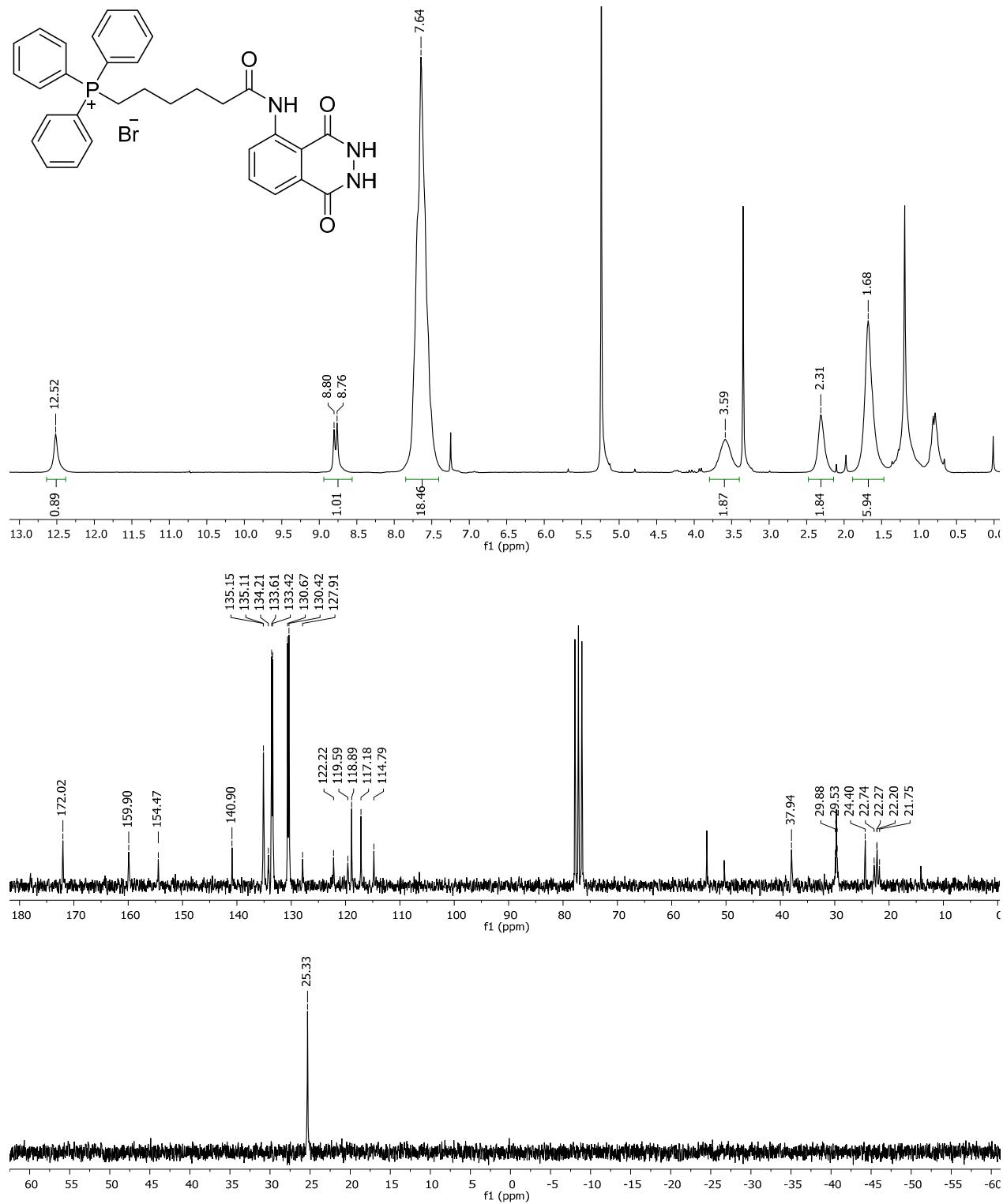


Figure S19. ^1H (200 MHz, top), ^{13}C (50 MHz, middle) and ^{31}P (81 MHz, bottom) NMR (CDCl_3) spectra of **1a**.

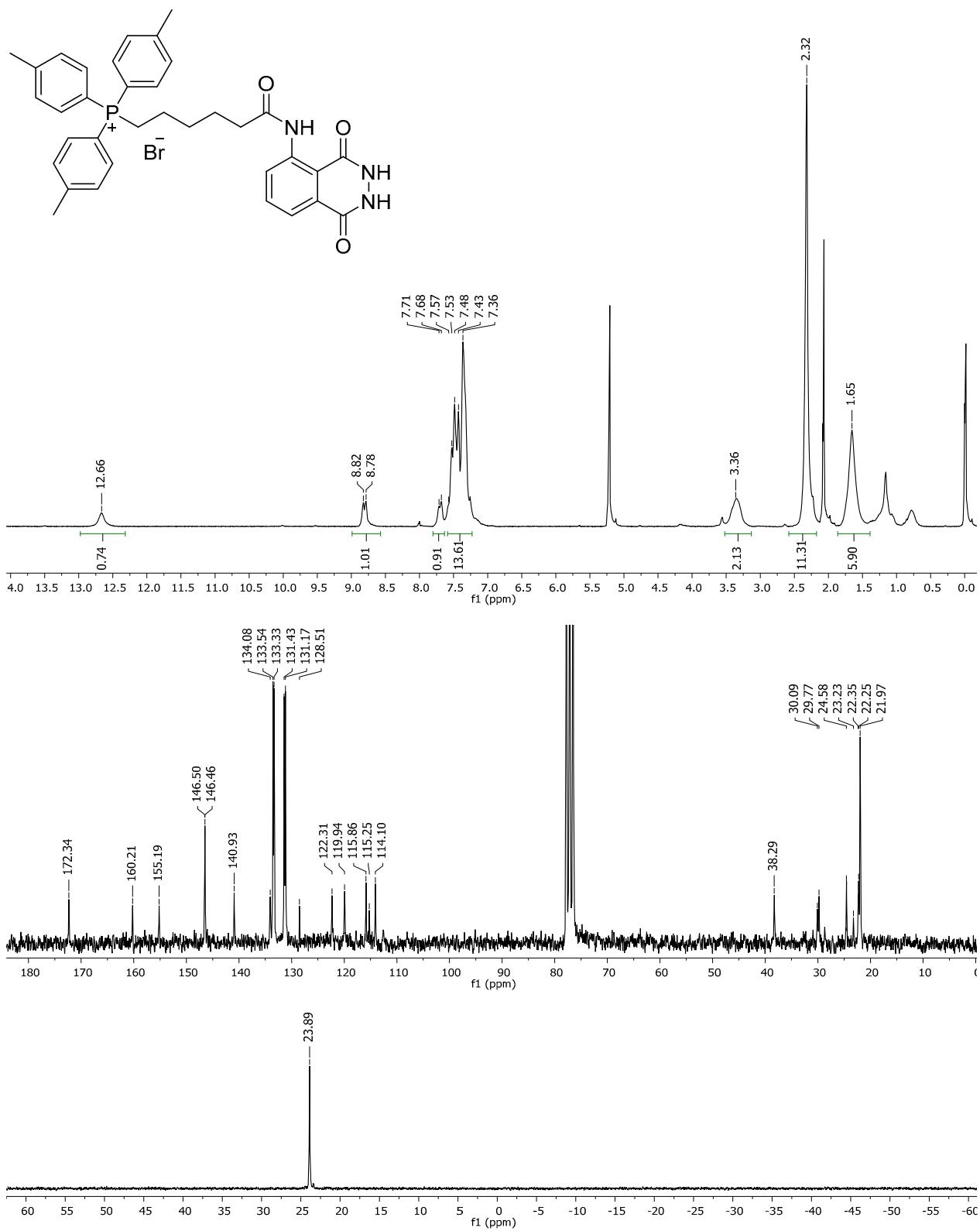


Figure S20. ^1H (200 MHz, top), ^{13}C (50 MHz, middle) and ^{31}P (81 MHz, bottom) NMR (CDCl₃) spectra of **1b**.

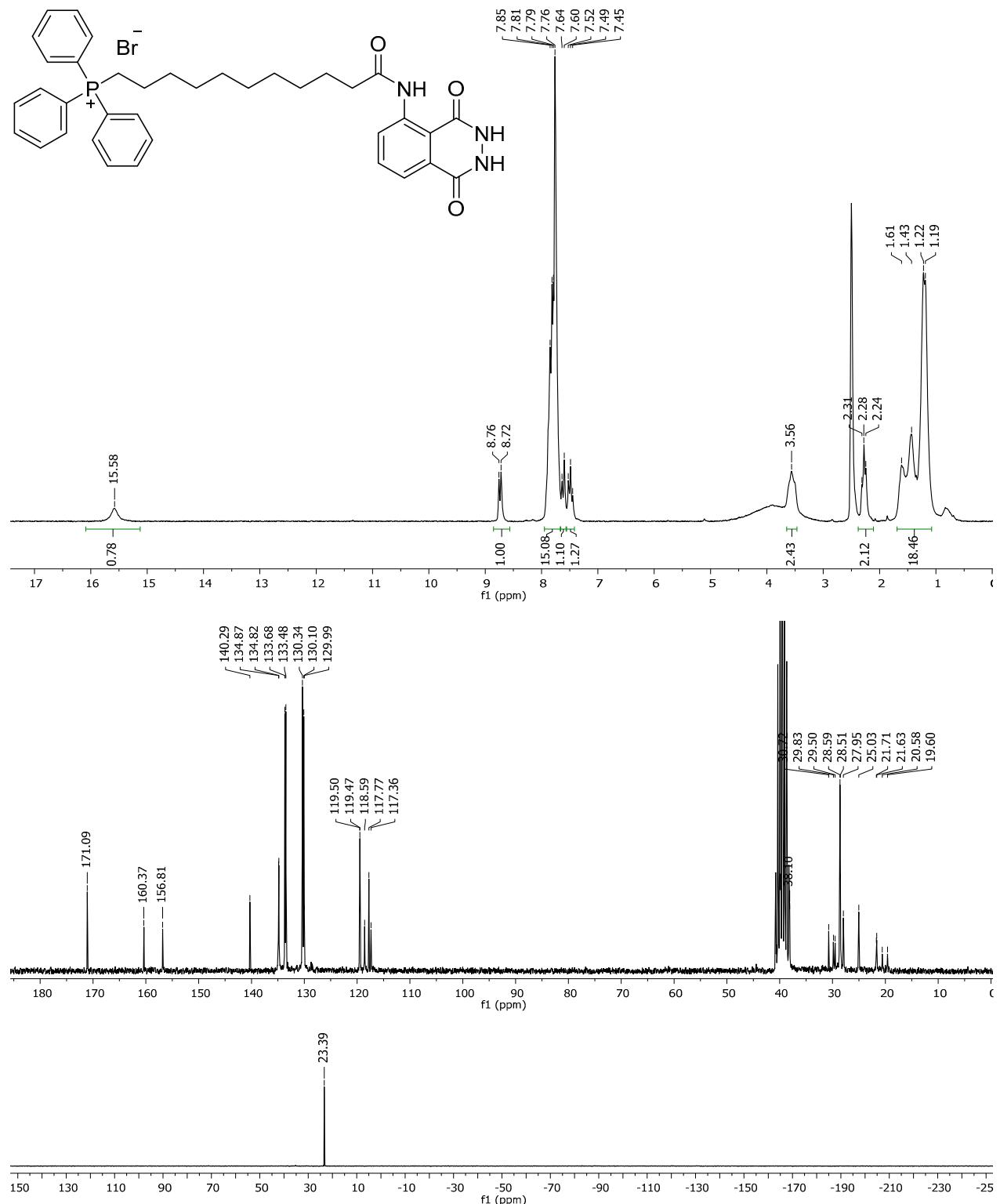


Figure S21. ^1H (200 MHz, top), ^{13}C (50 MHz, middle) and ^{31}P (81 MHz, bottom) NMR ($\text{DMSO}-d_6$) spectra of **1c**.

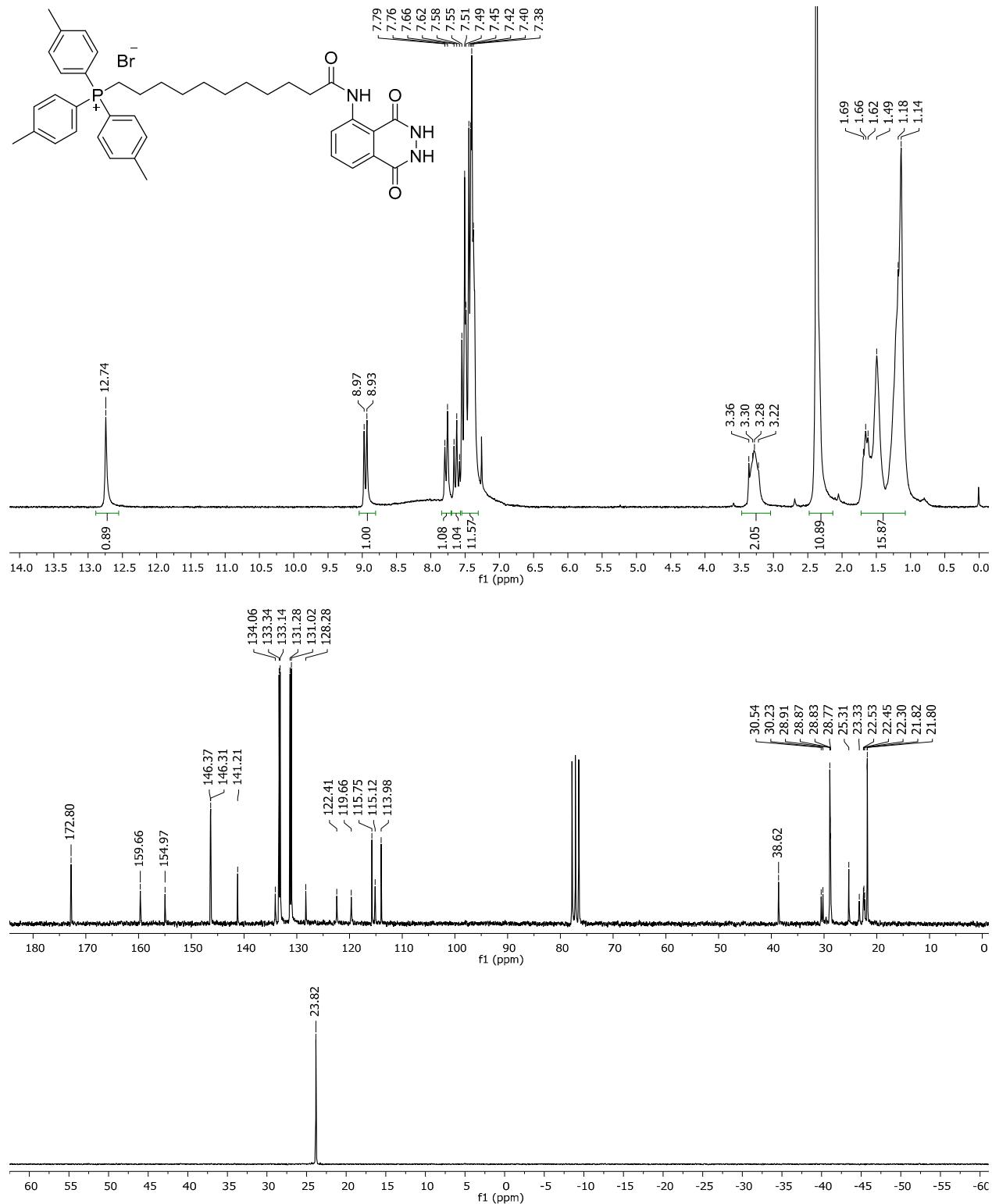


Figure S22. ^1H (200 MHz, top), ^{13}C (50 MHz, middle) and ^{31}P (81 MHz, bottom) NMR (CDCl_3) spectra of **1d**.

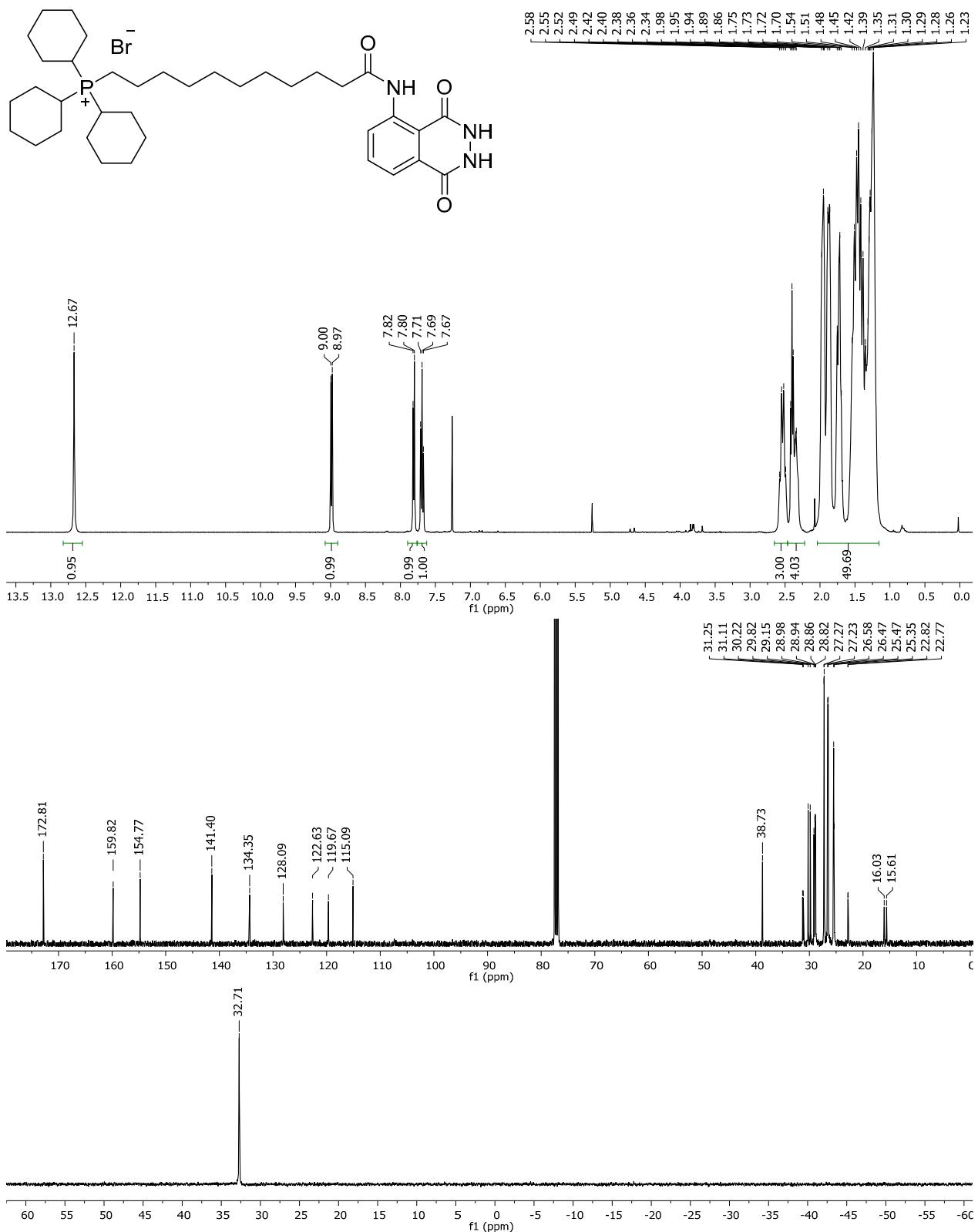


Figure S23. ^1H (400 MHz, top), ^{13}C (100 MHz, middle) and ^{31}P (81 MHz, bottom) NMR (CDCl_3) spectra of **1e**.

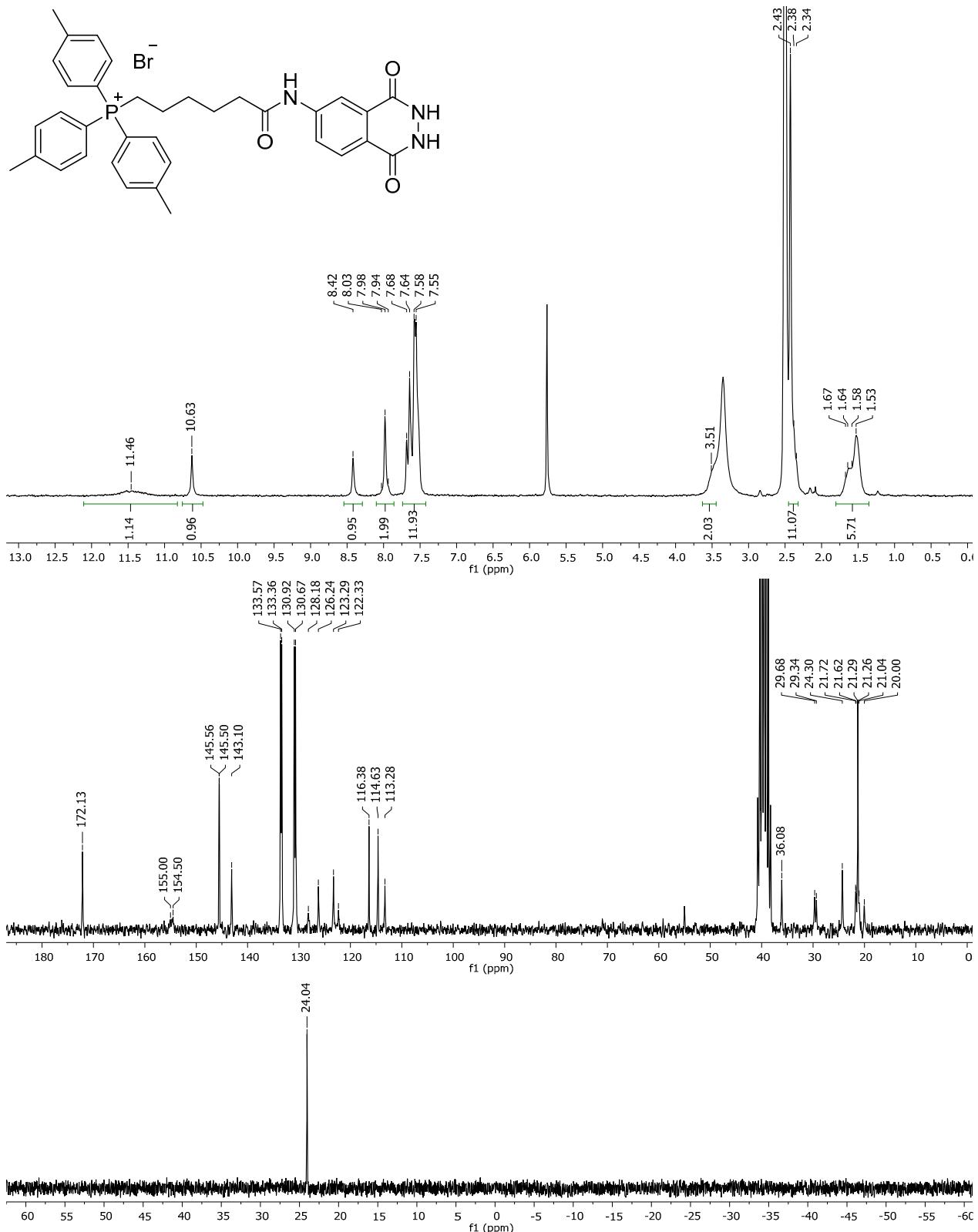


Figure S24. ^1H (200 MHz, top), ^{13}C (50 MHz, middle) and ^{31}P (81 MHz, bottom) NMR (DMSO- d_6) spectra of **12a**.

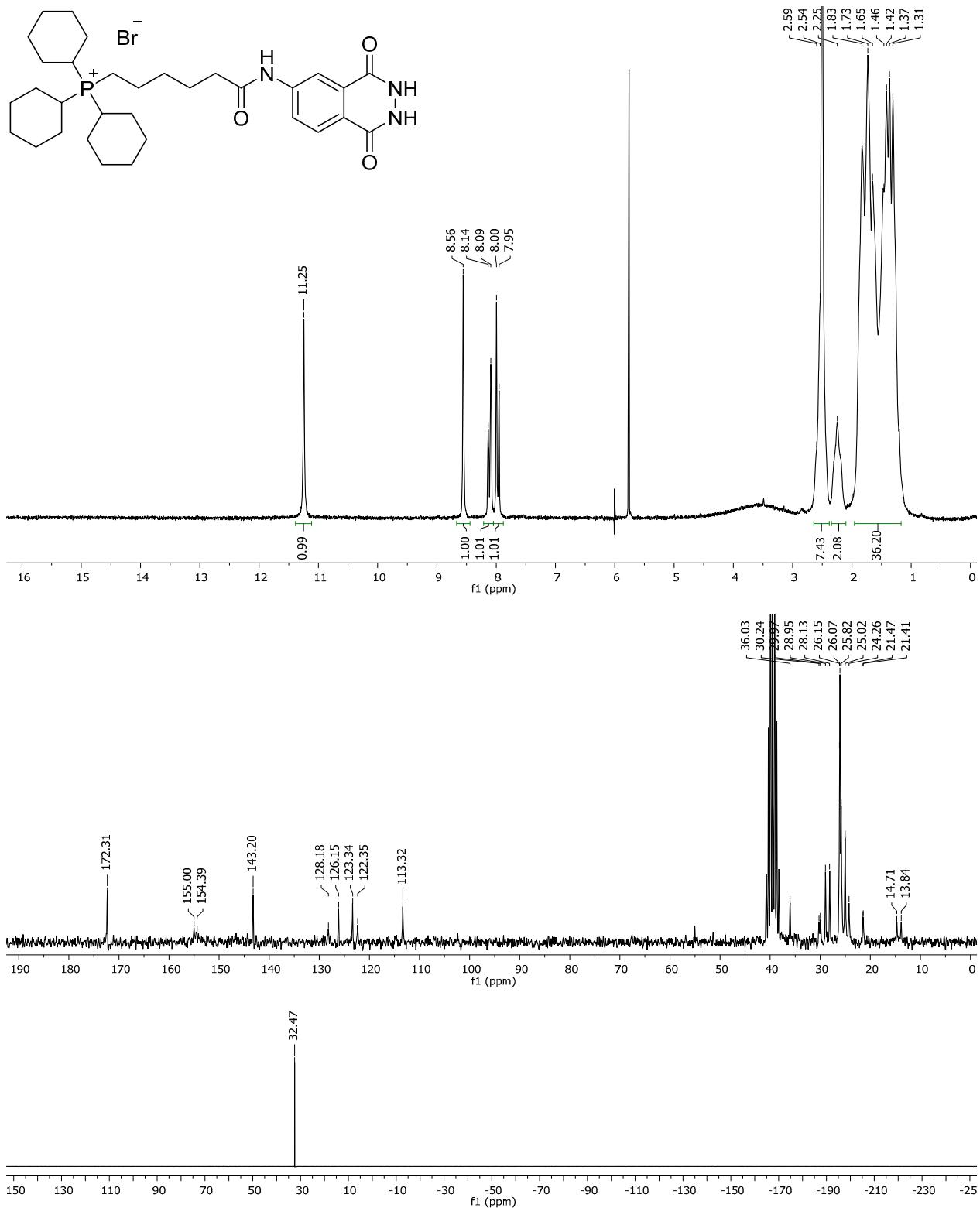


Figure S25. ^1H (200 MHz, top), ^{13}C (50 MHz, middle) and ^{31}P (162 MHz, bottom) NMR (DMSO- d_6) spectra of **12b**.

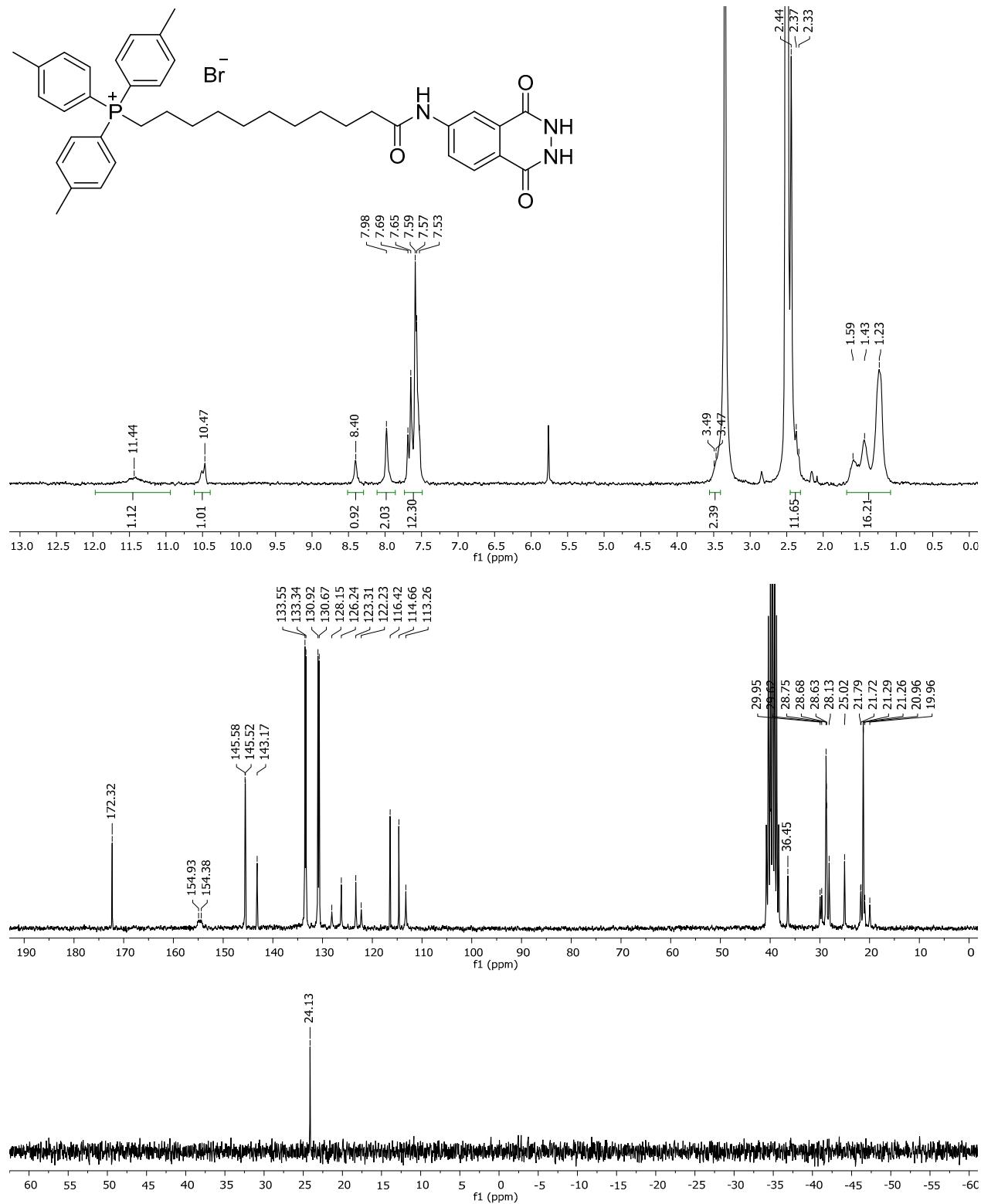


Figure S26. ^1H (200 MHz, top), ^{13}C (50 MHz, middle) and ^{31}P (81 MHz, bottom) NMR ($\text{DMSO}-d_6$) spectra of **12c**.

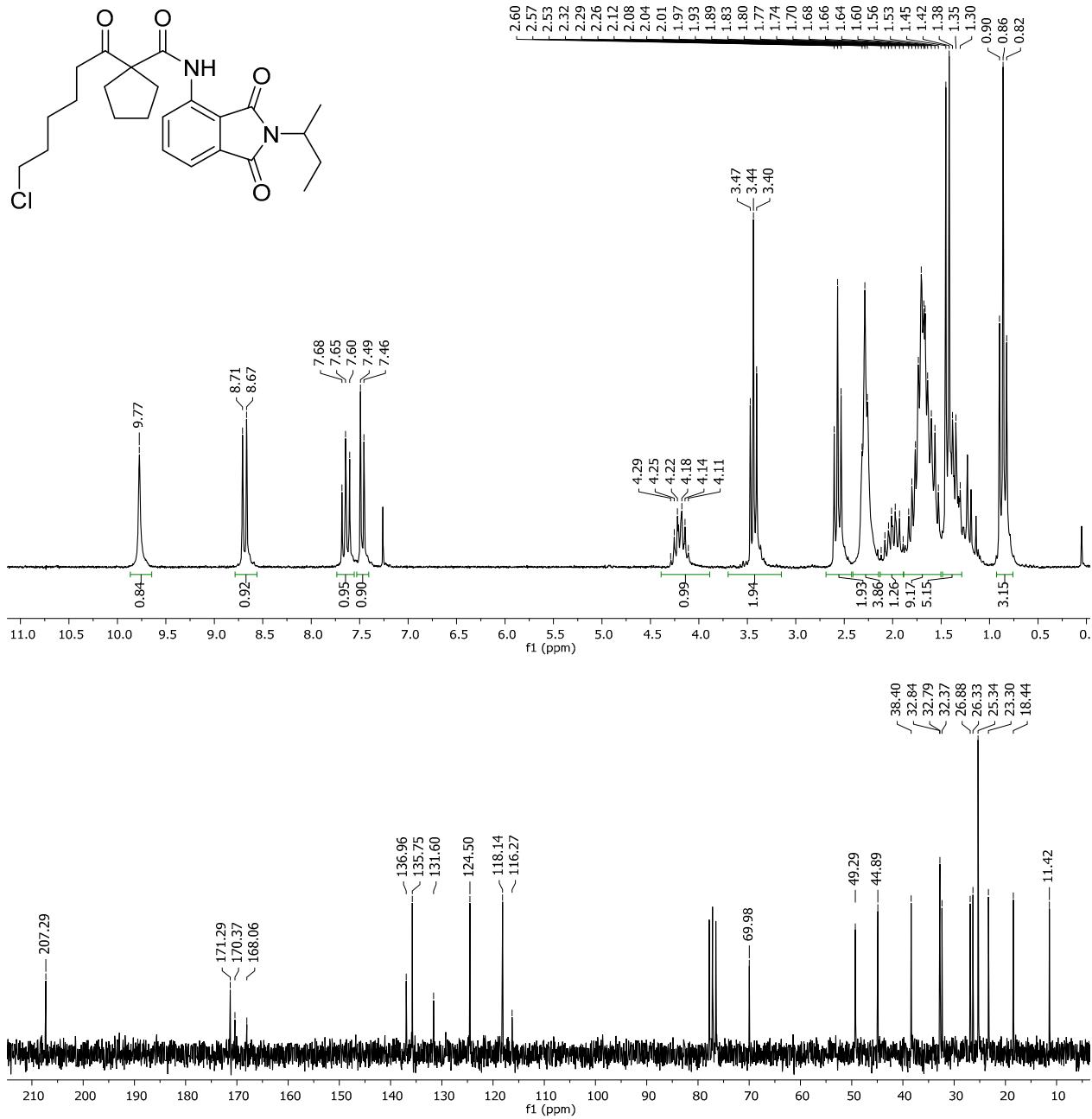


Figure S27. ¹H (200 MHz, top) and ¹³C (50 MHz, bottom) NMR (CDCl₃) spectra of **13**.

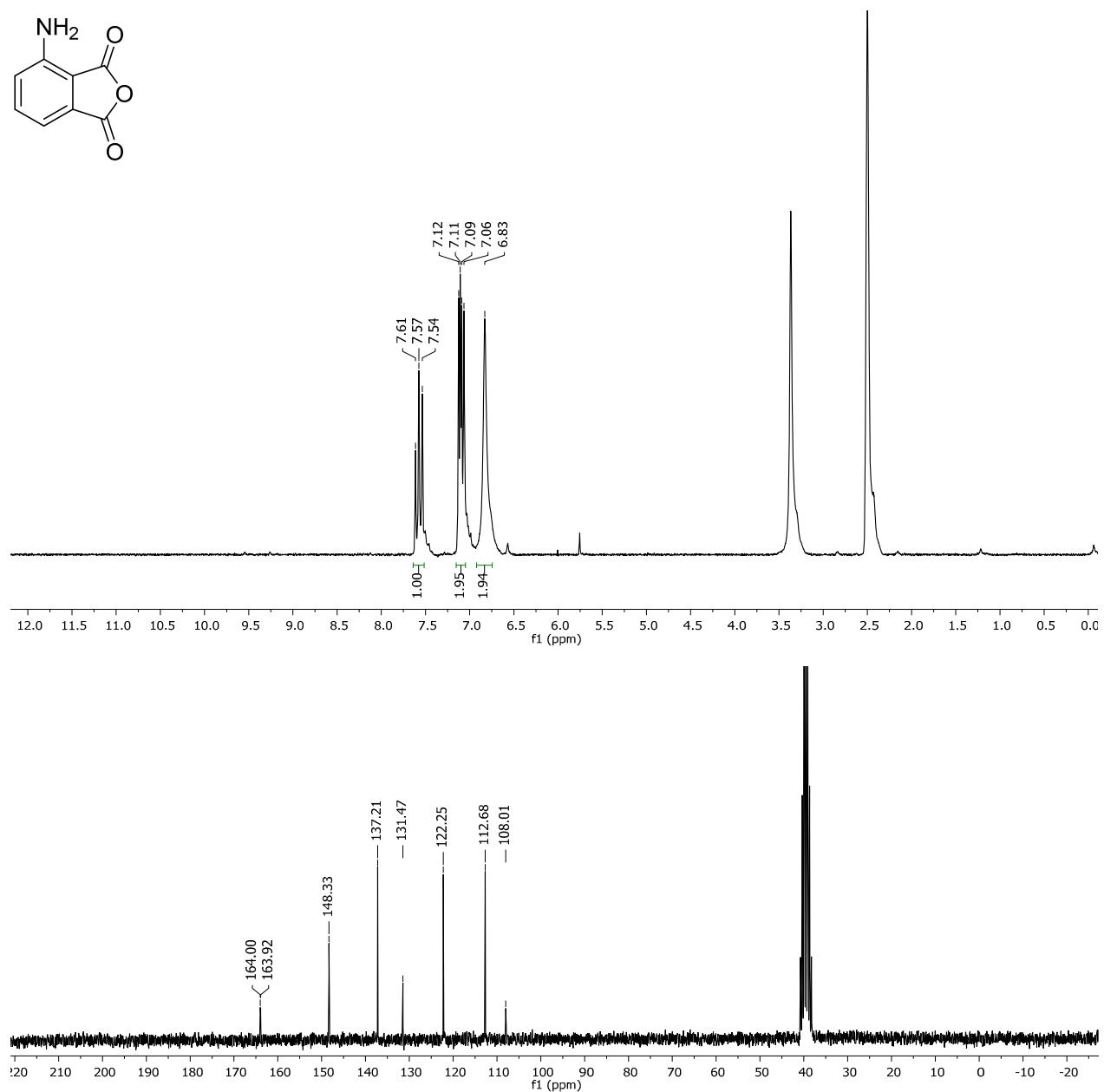
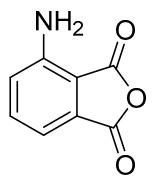


Figure S28. ¹H (200 MHz, top) and ¹³C (50 MHz, bottom) NMR (DMSO-*d*₆) spectra of **15**.

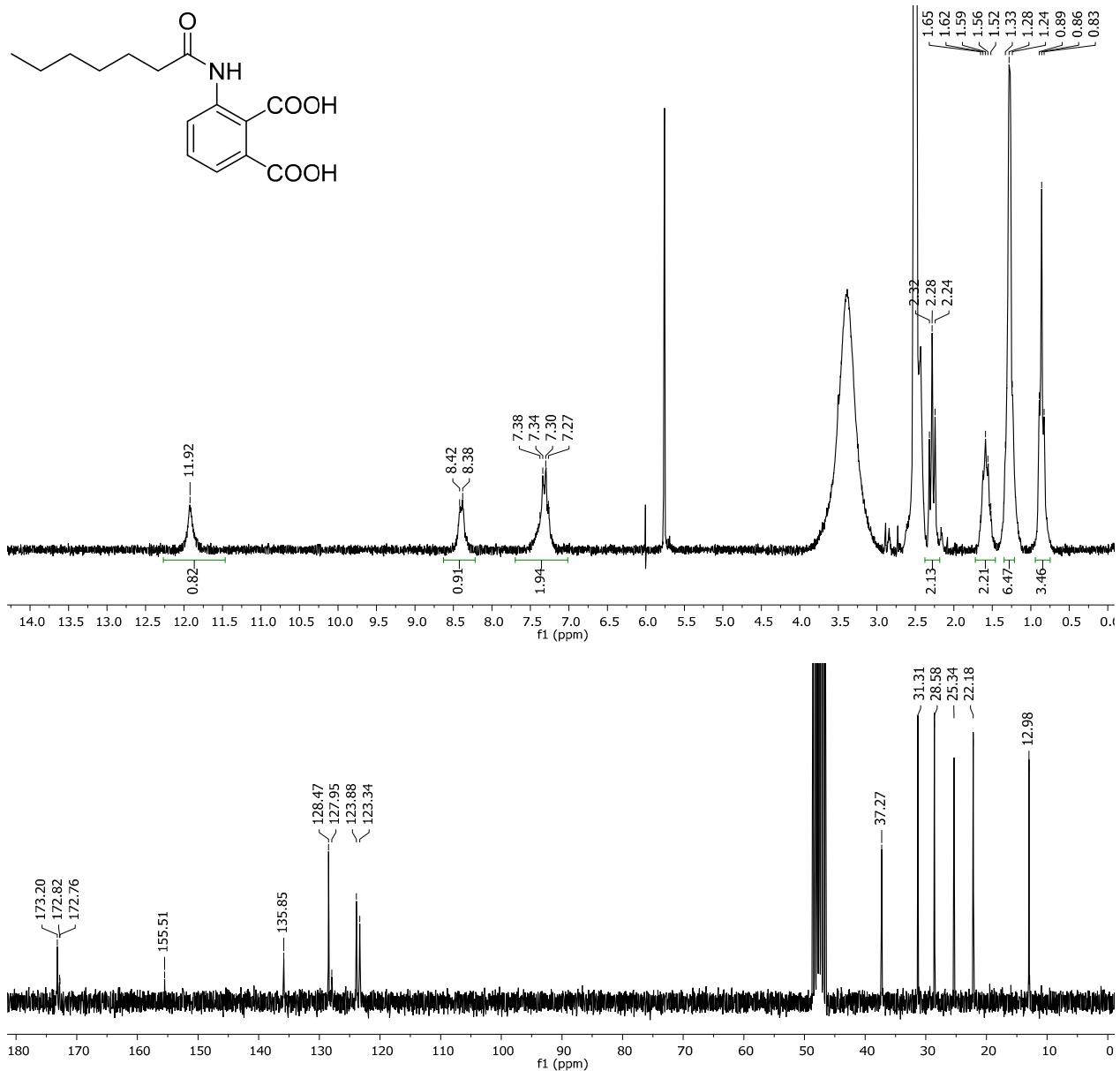


Figure S29. ^1H (200 MHz, top) and ^{13}C (63 MHz, bottom) NMR ($\text{MeOD}-d_4$) spectra of **14**.