

Supplementary information
for the manuscript

**Green accelerated synthesis of quaternary
ammonium salts with antimicrobial activity and an
assessment on their impact on seed germination**

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Bianca Furdui* and Rodica Mihaela Dinică*

Figure S1. $^1\text{H-NMR}$ spectrum of compound 1

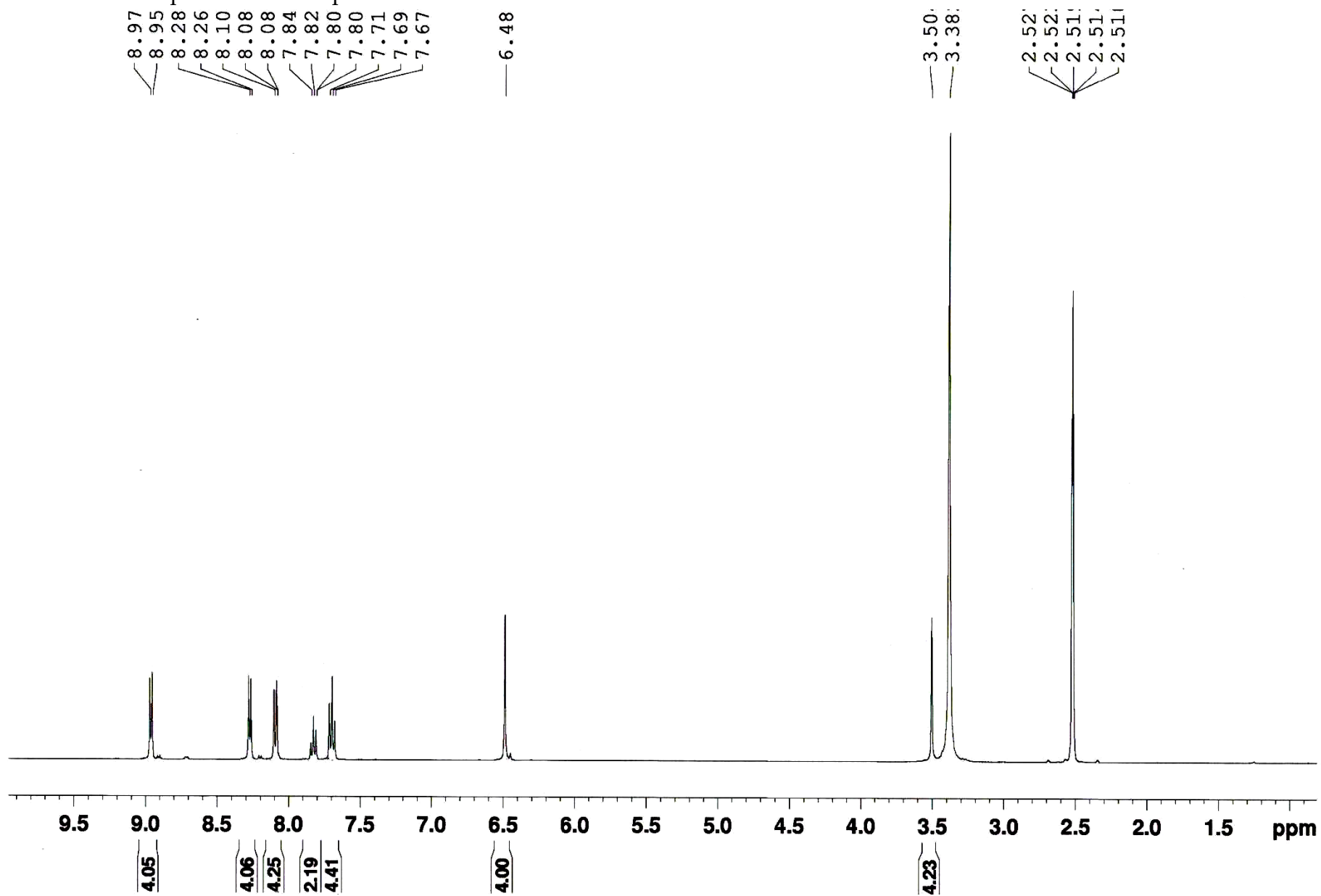


Figure S2. ^{13}C -NMR spectrum of compound 1

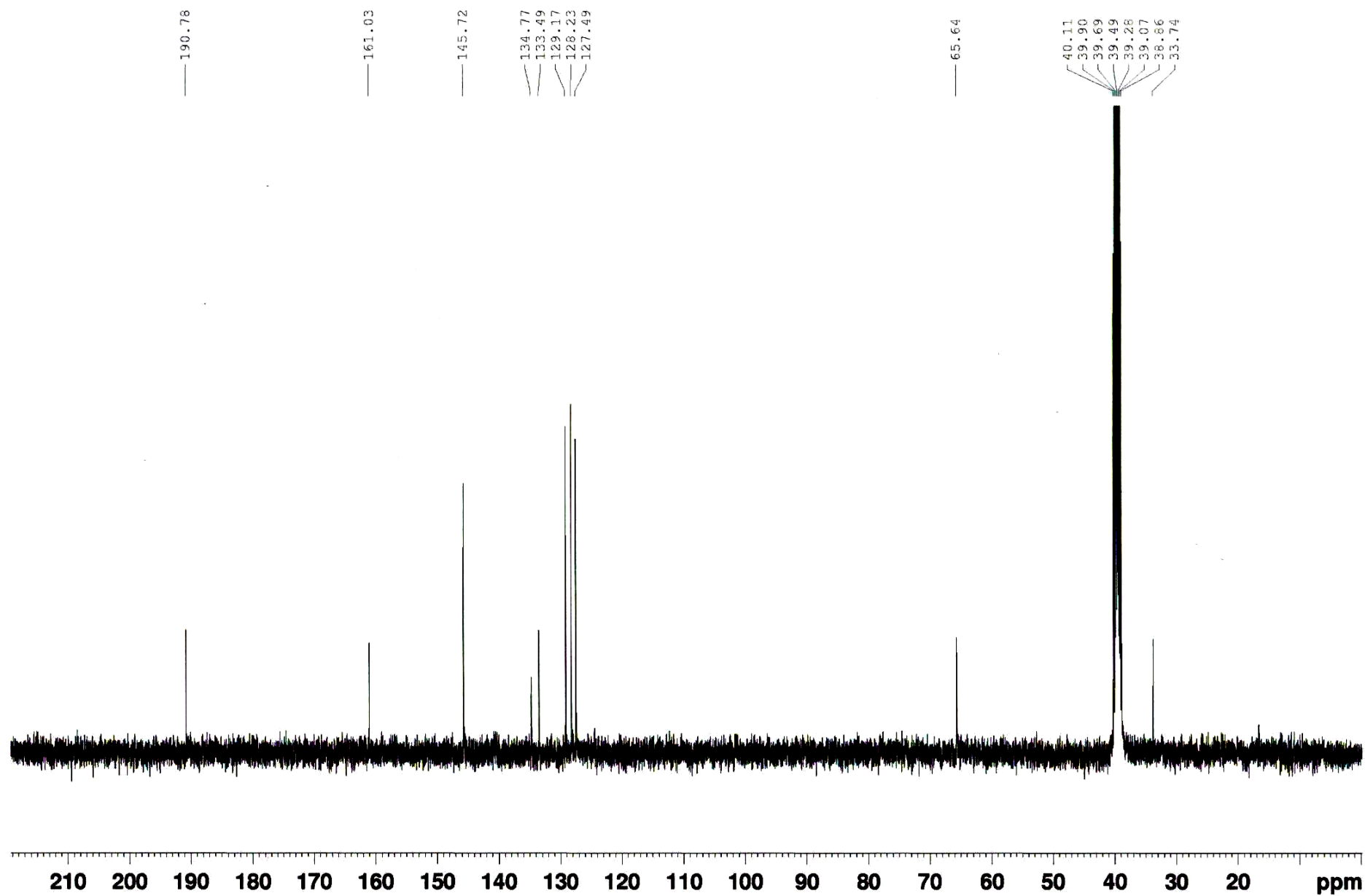


Figure S3. ¹H-NMR spectrum of compound 2

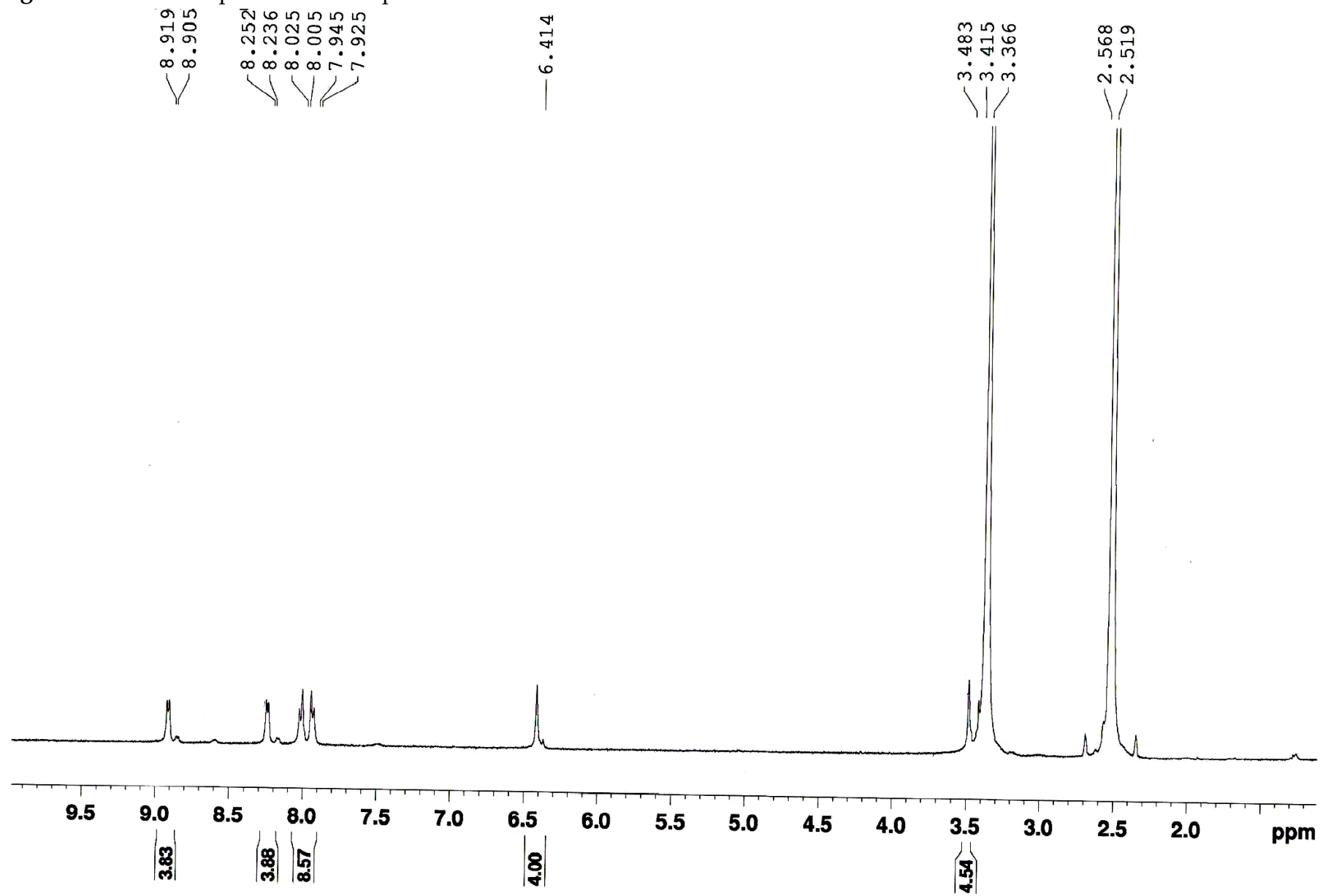


Figure S4. ^{13}C -NMR spectrum of compound 2

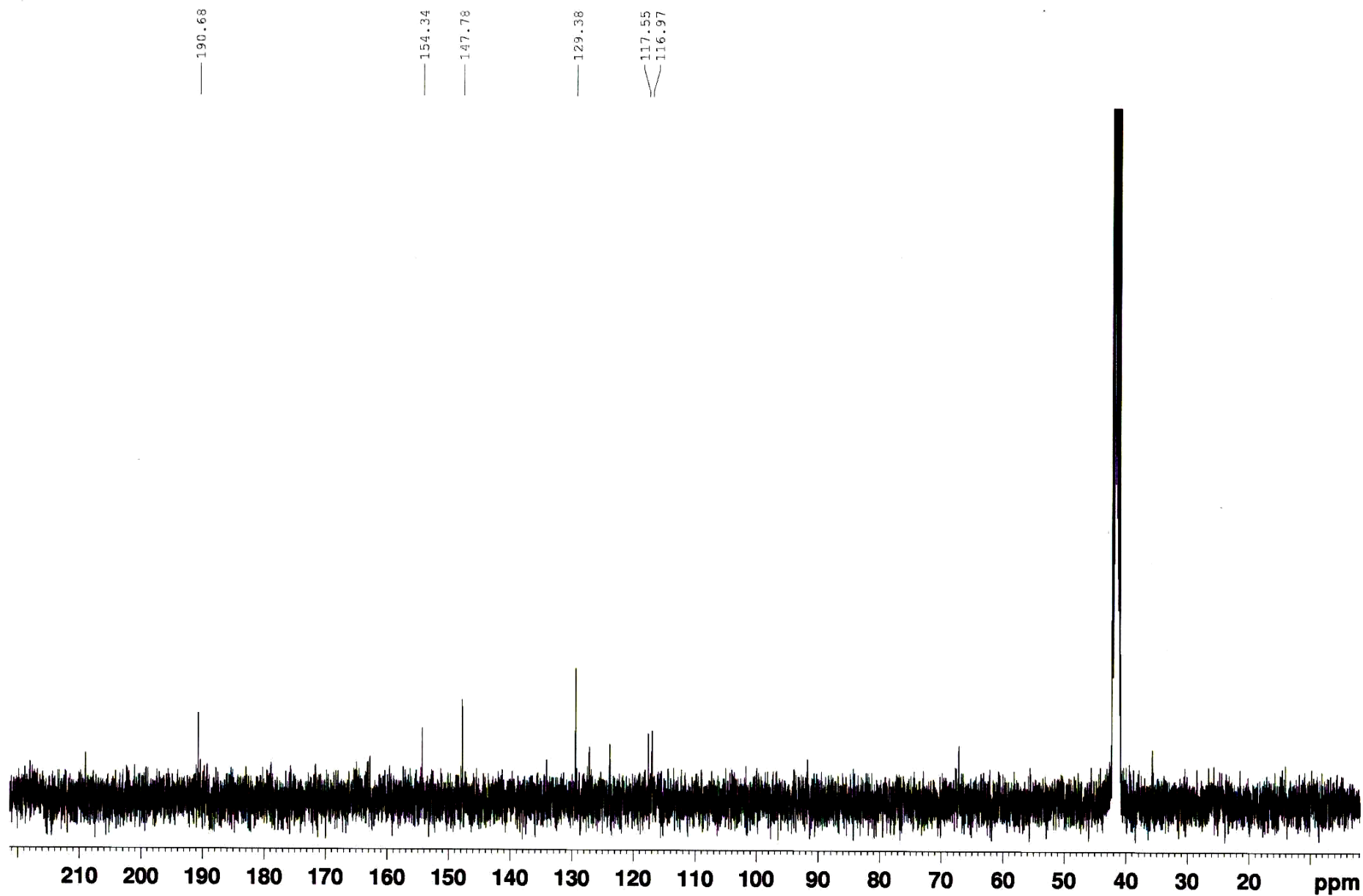


Figure S5. ¹H-NMR spectrum of compound 3

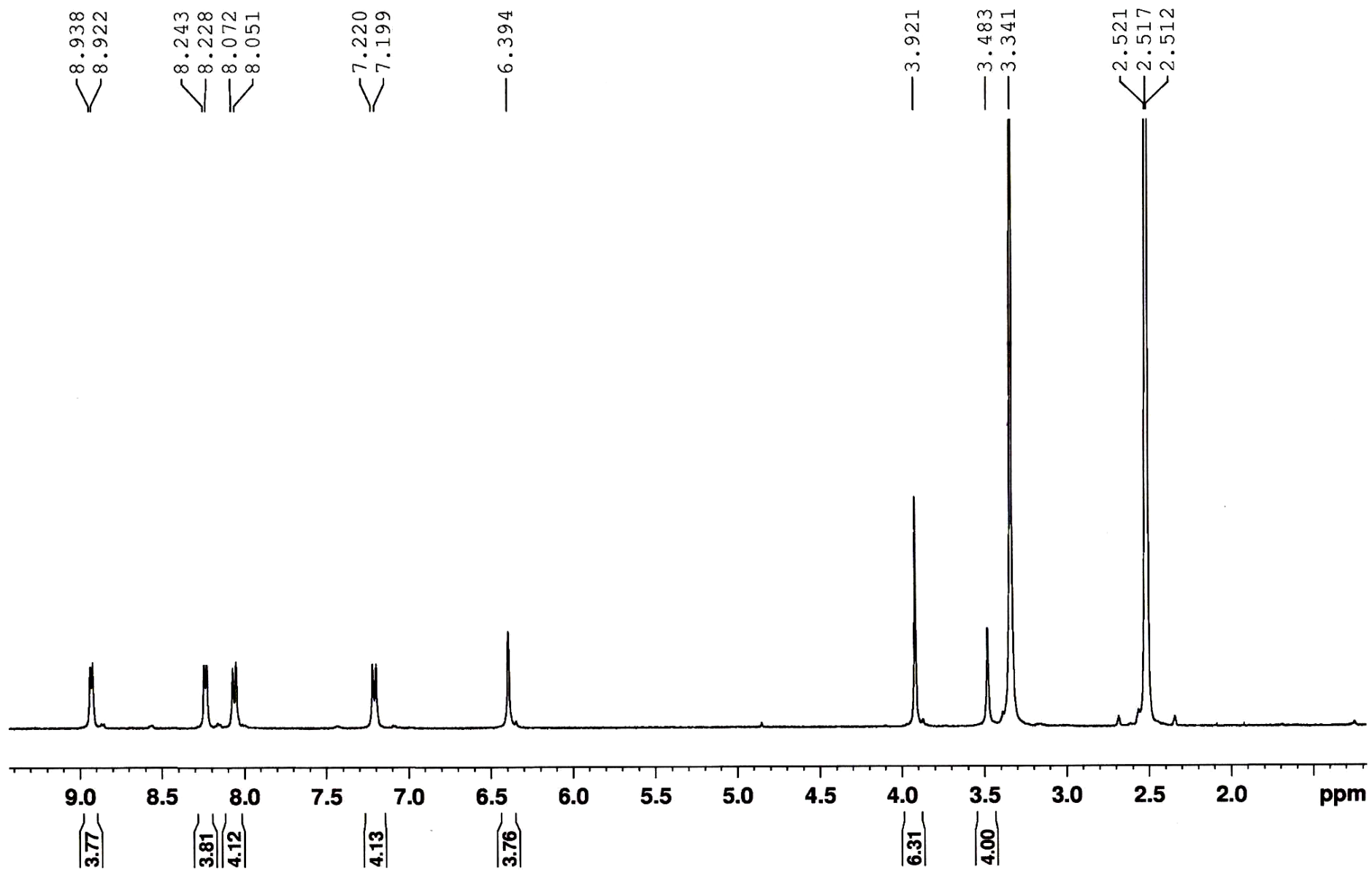


Figure S6. ^{13}C -NMR spectrum of compound 3

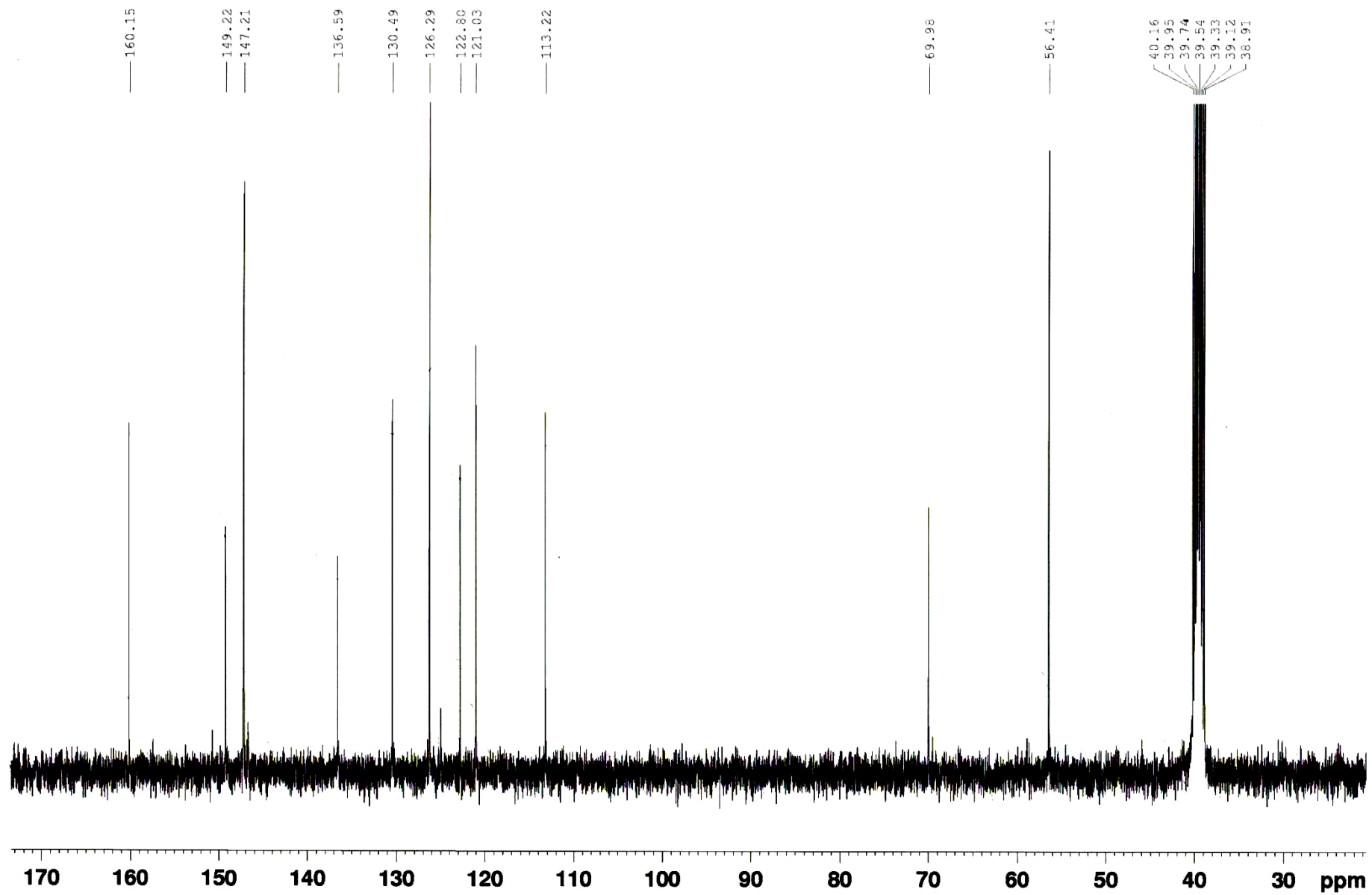


Figure S7. ¹H-NMR spectrum of compound 4

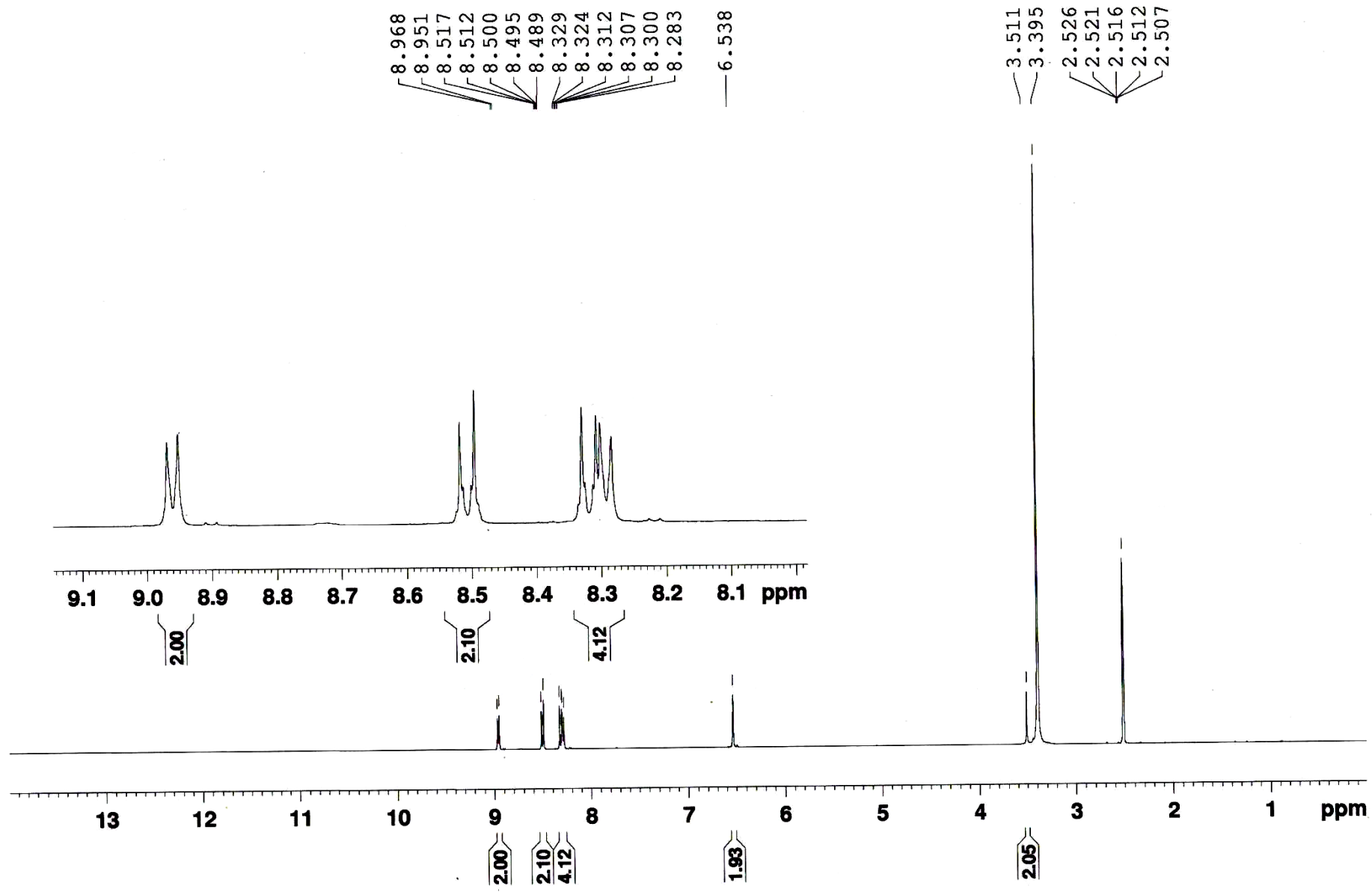


Figure S8. ^{13}C -NMR spectrum of compound 4

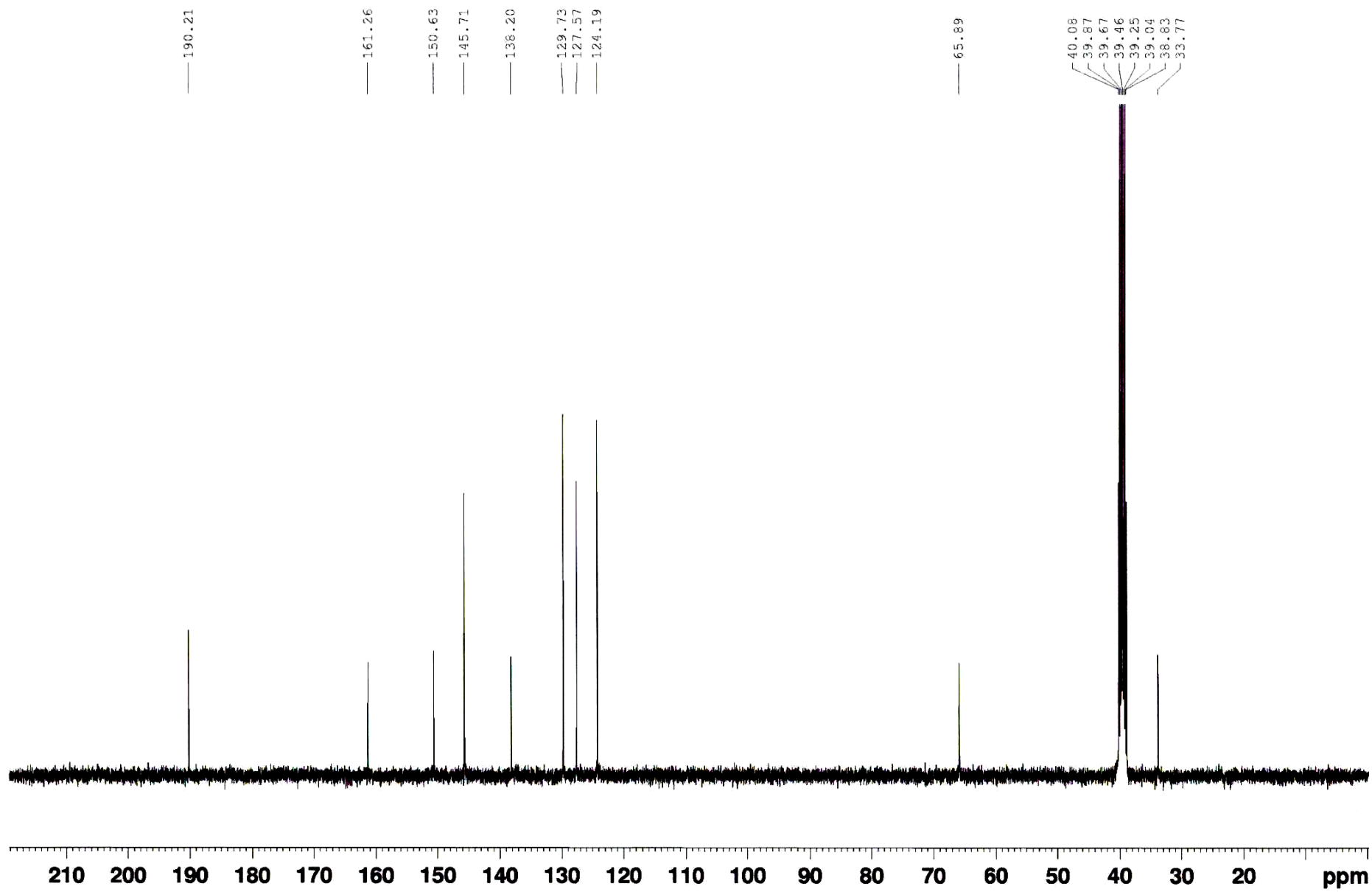


Figure S9. ¹H-NMR spectrum of compound 5

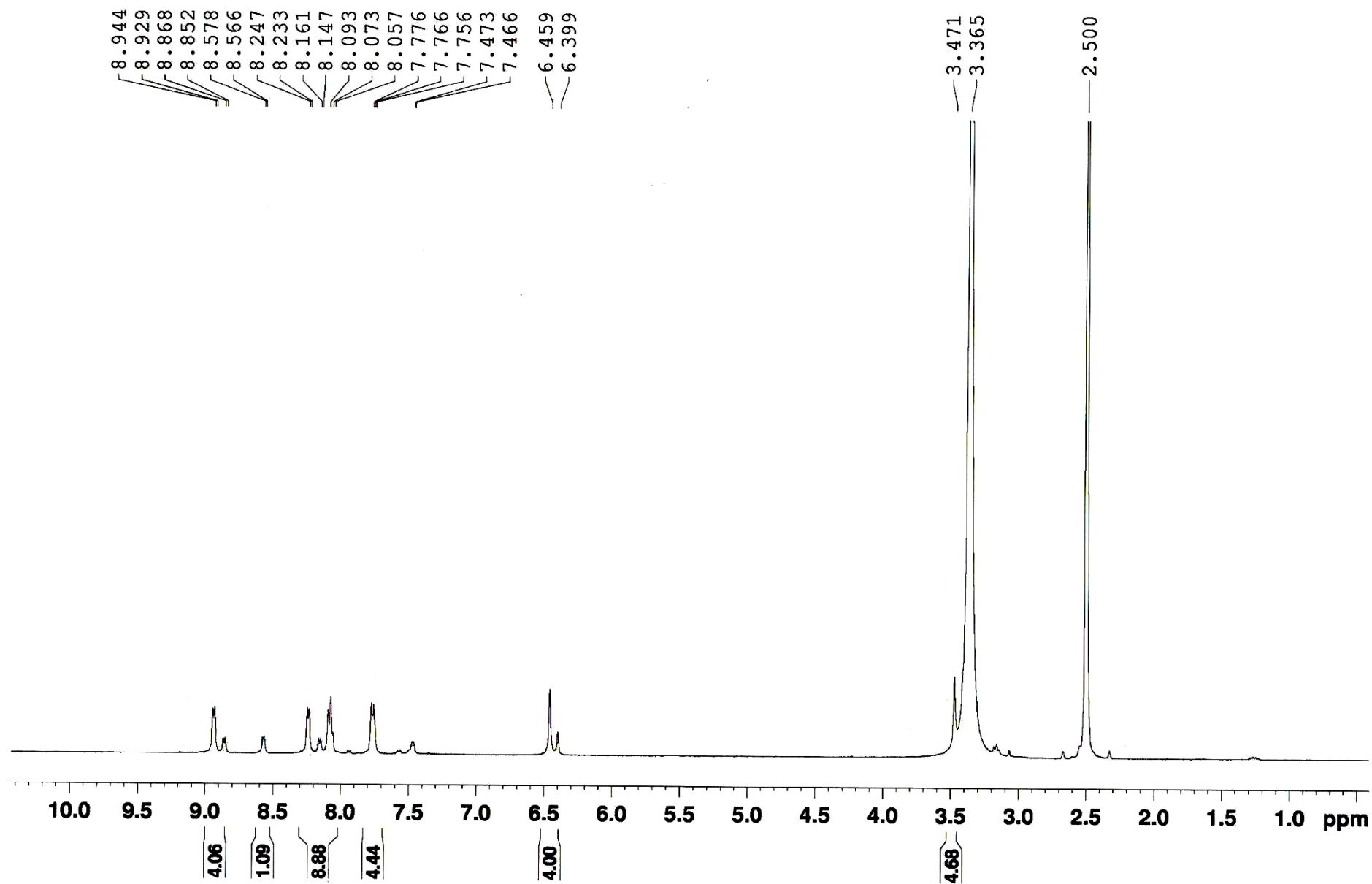


Figure S10. ^{13}C -NMR spectrum of compound 5

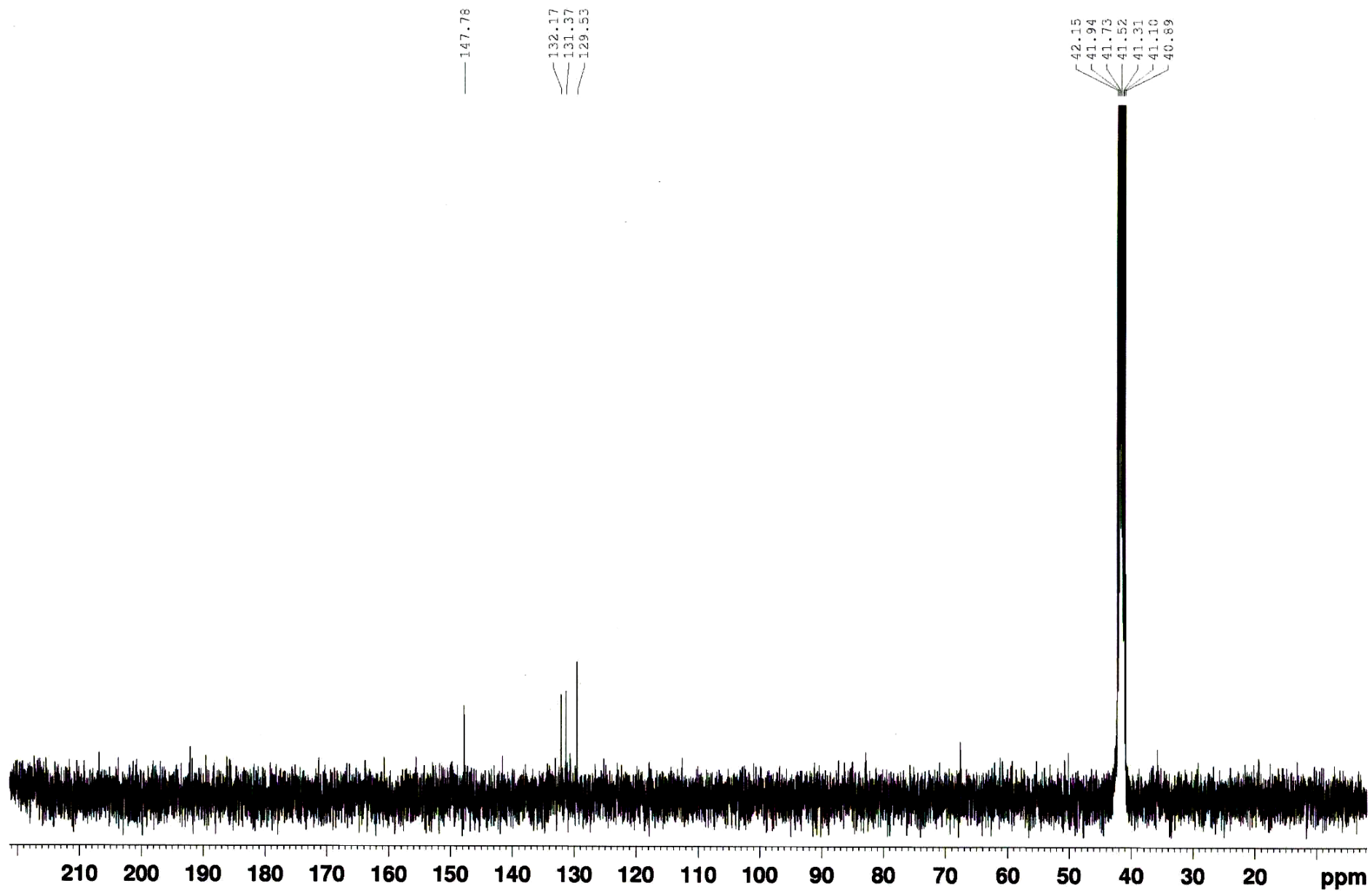


Figure S11. ¹H-NMR spectrum of compound 6

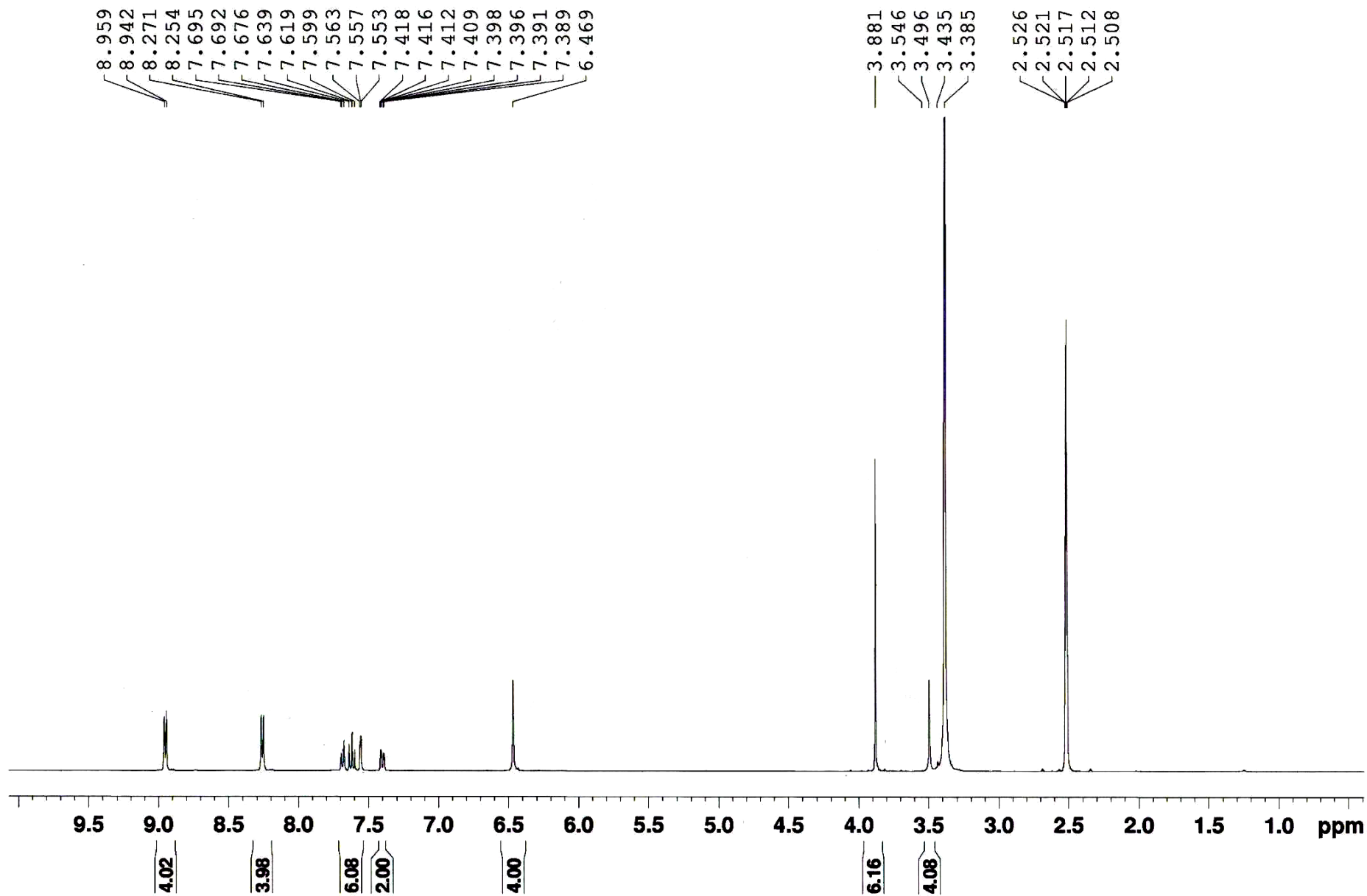


Figure S12. ^{13}C -NMR spectrum of compound 6

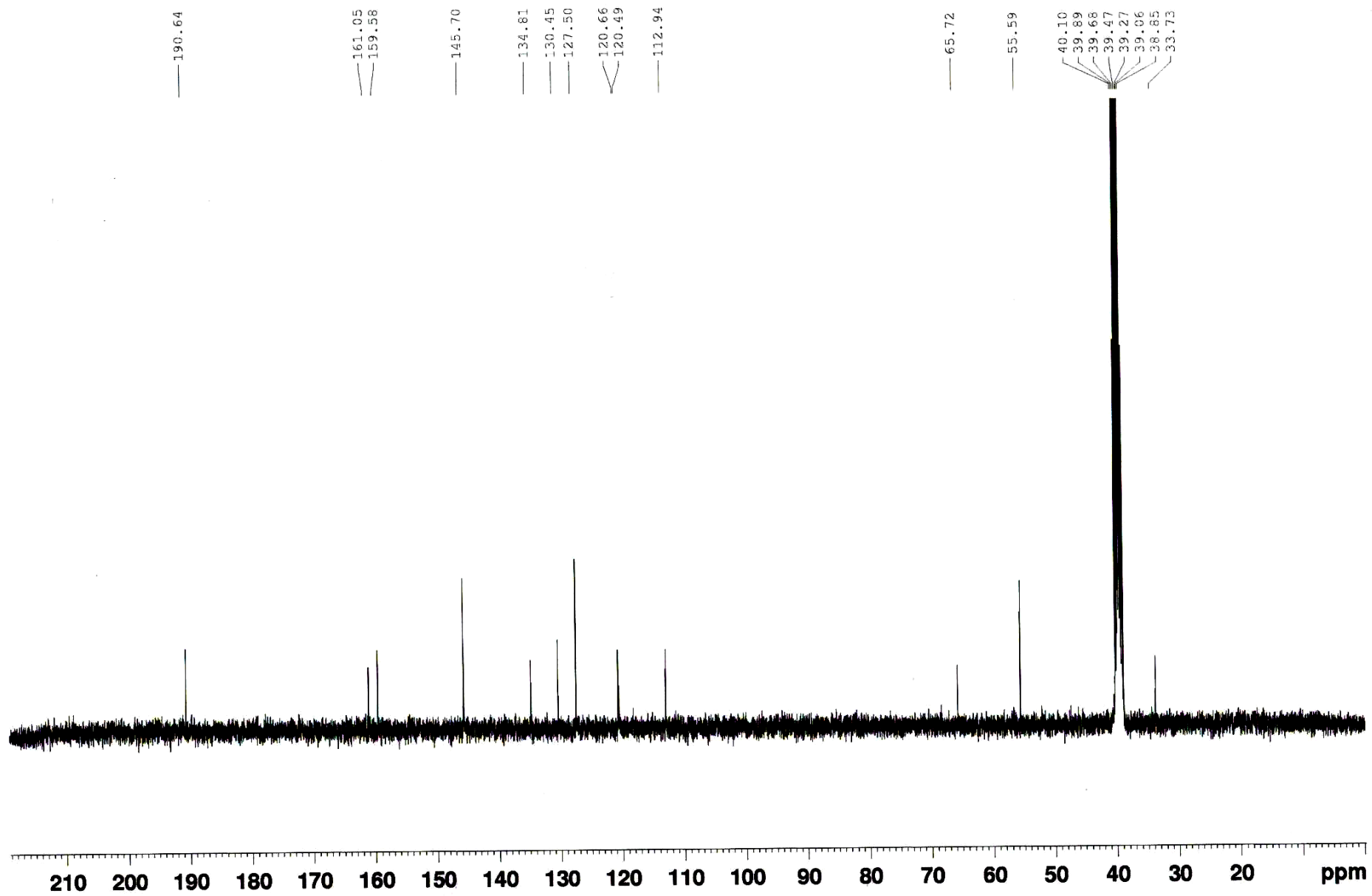


Figure S13. ¹H-NMR spectrum of compound 7

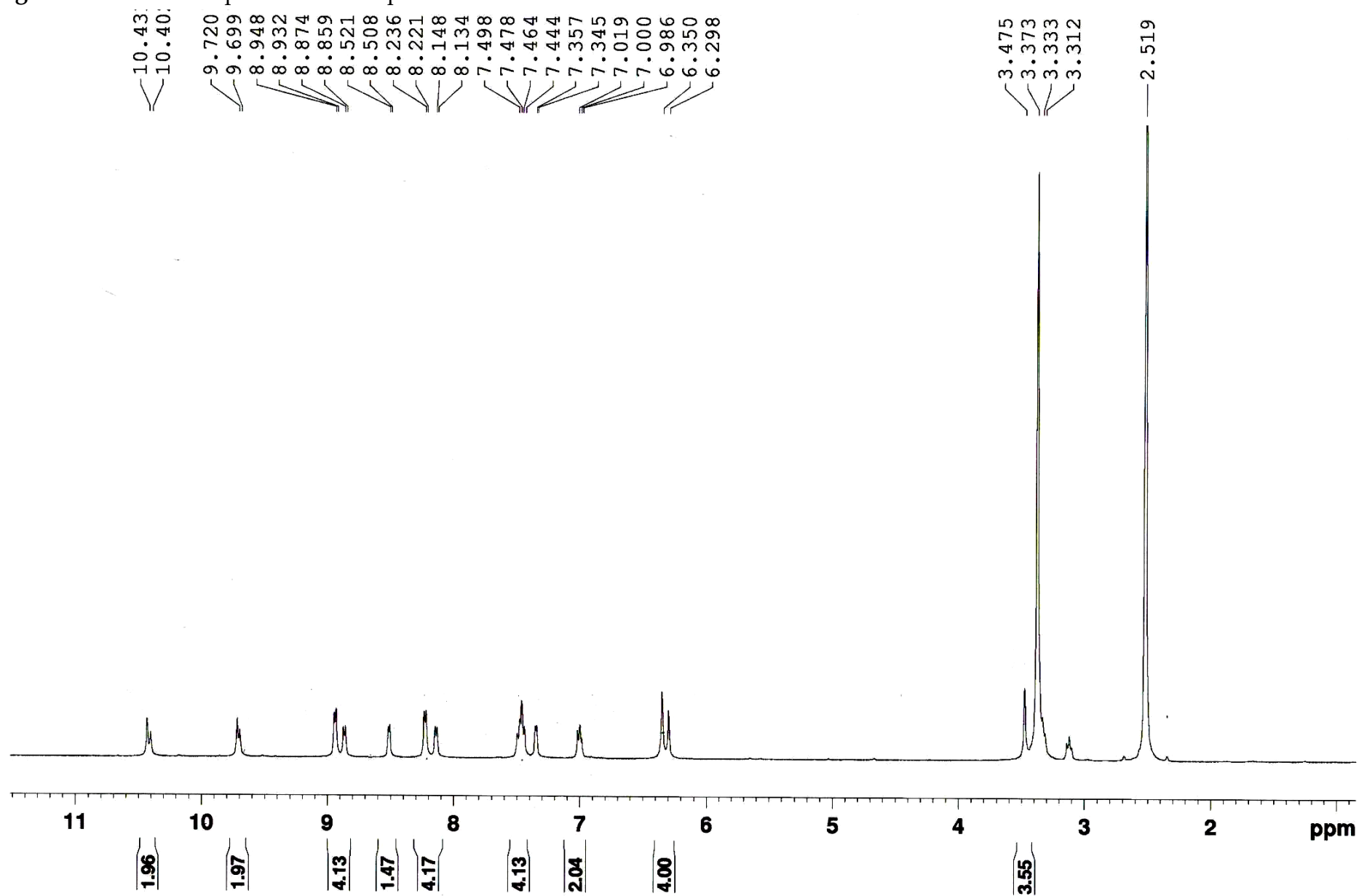


Figure S14. ^{13}C -NMR spectrum of compound 7

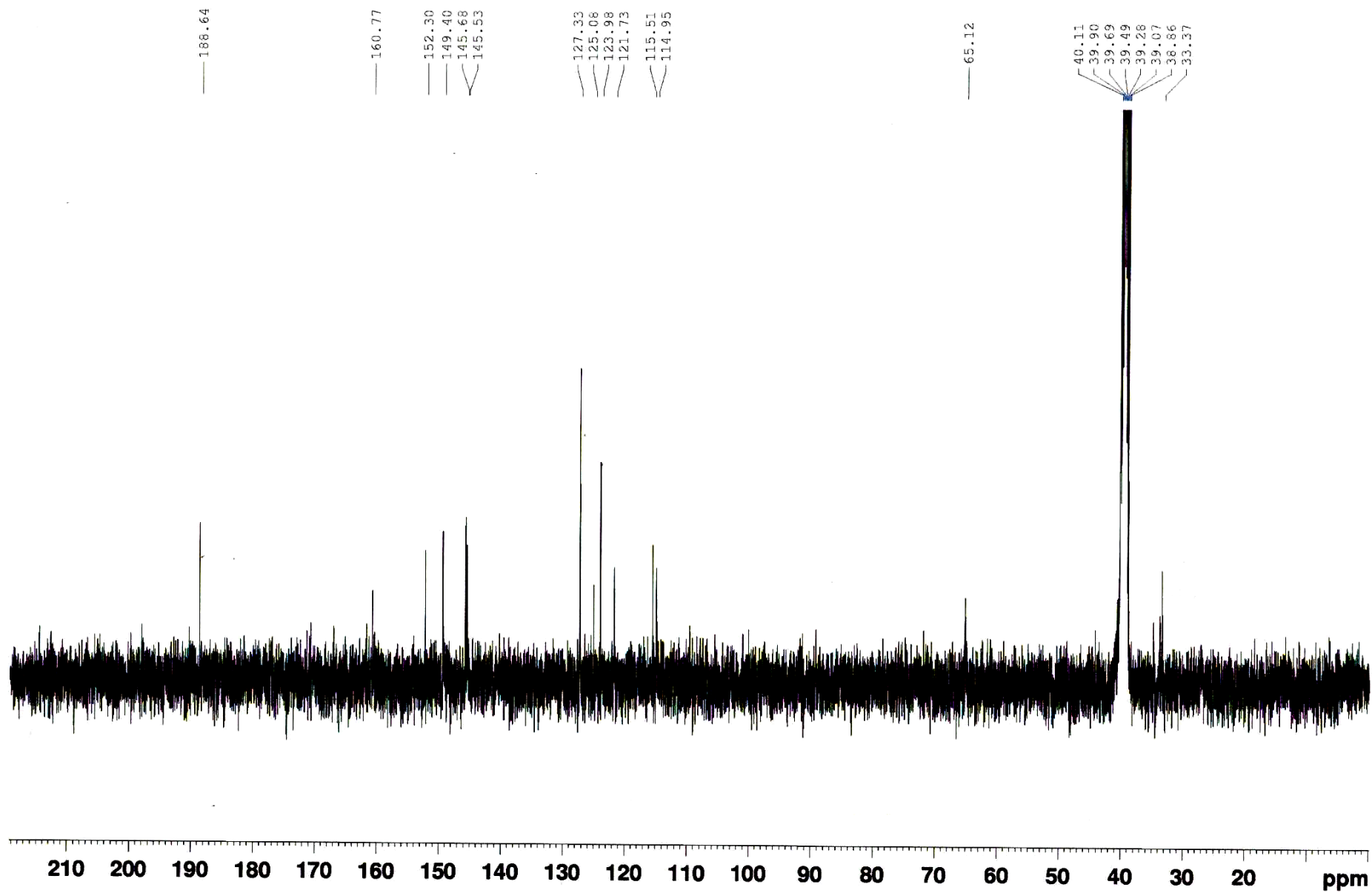


Figure S15. ¹H-NMR spectrum of compound 8

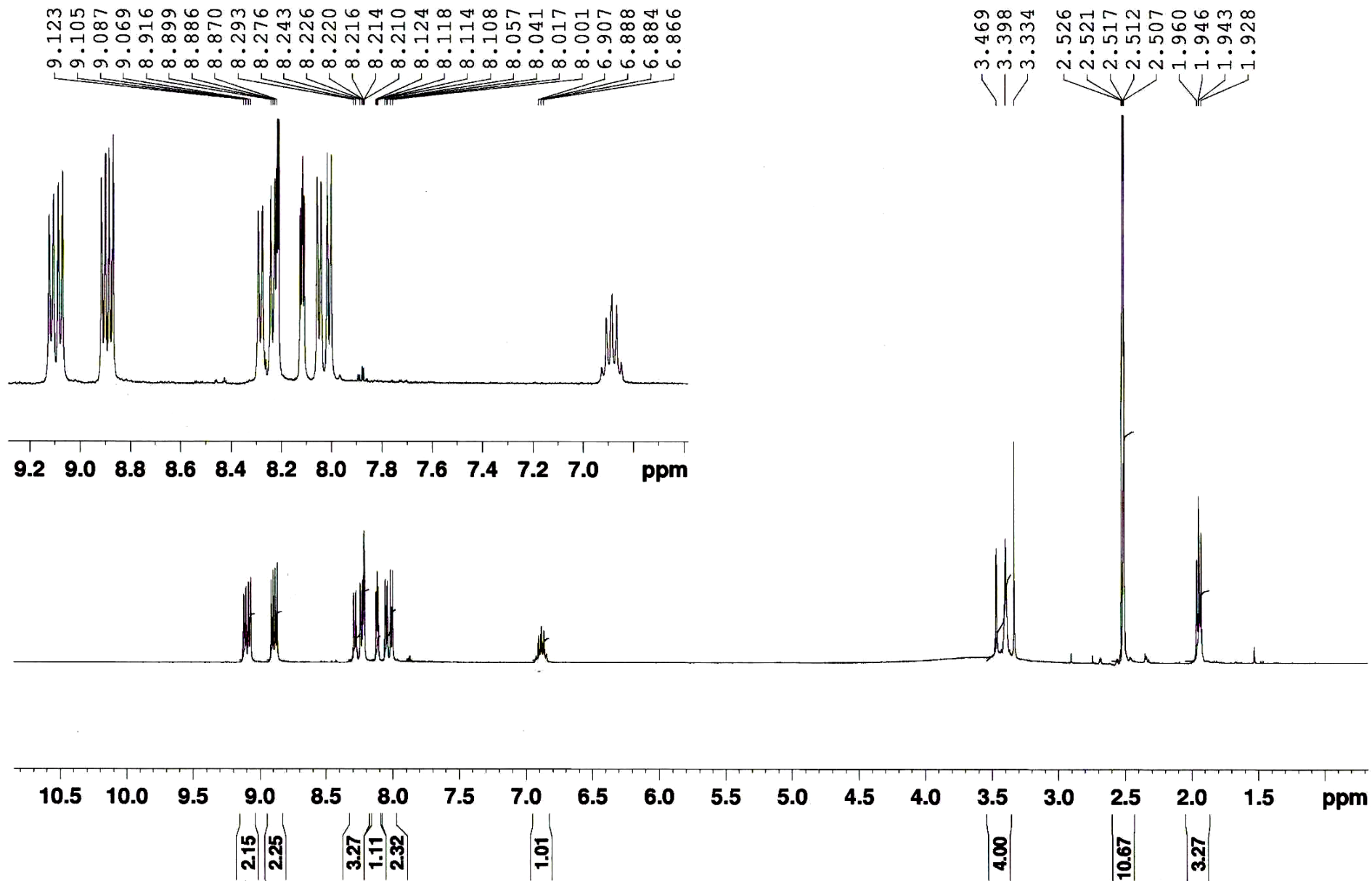


Figure S16. ^{13}C -NMR spectrum of compound 8

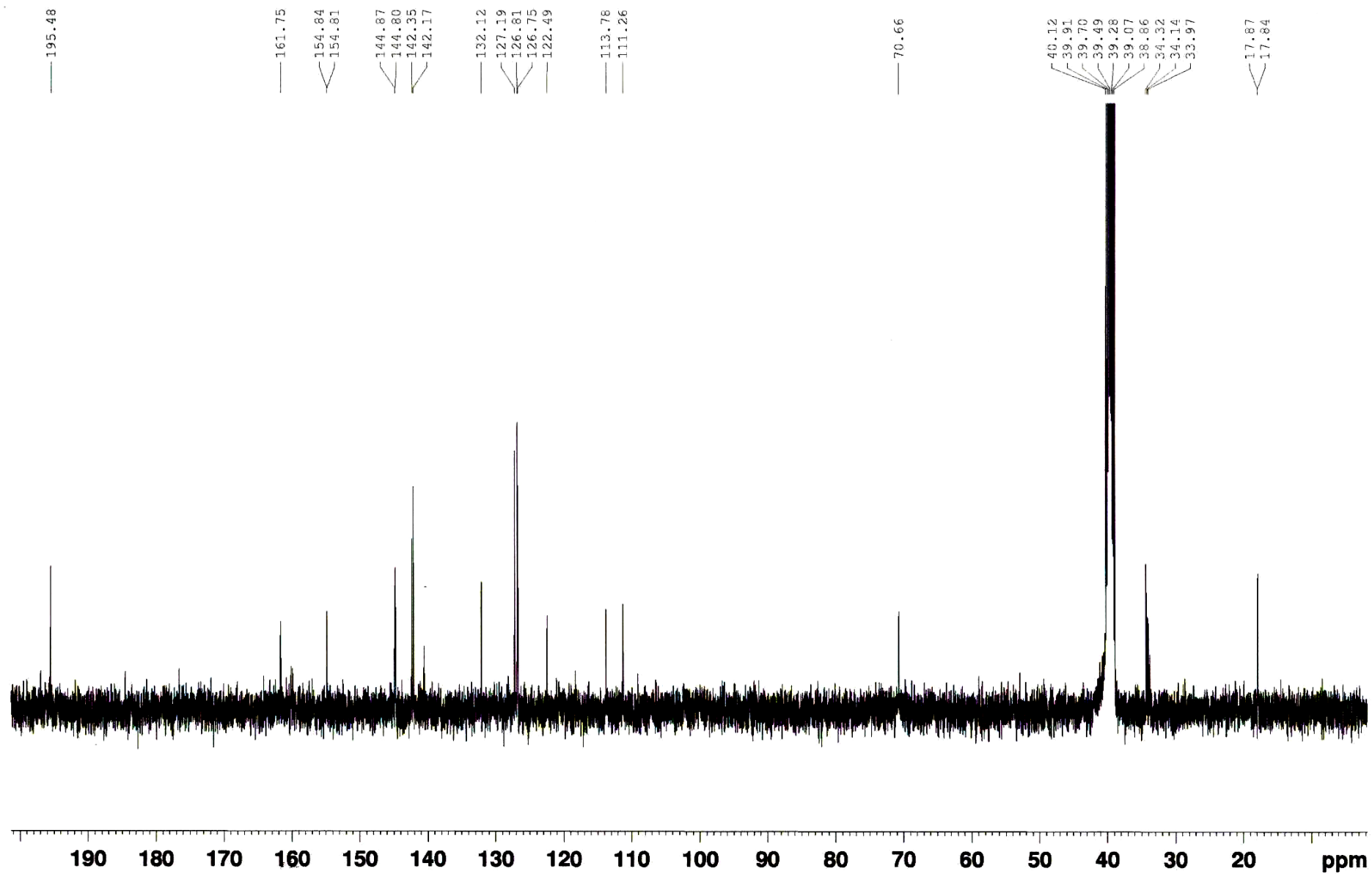


Figure S17. ¹H-NMR spectrum of compound 9

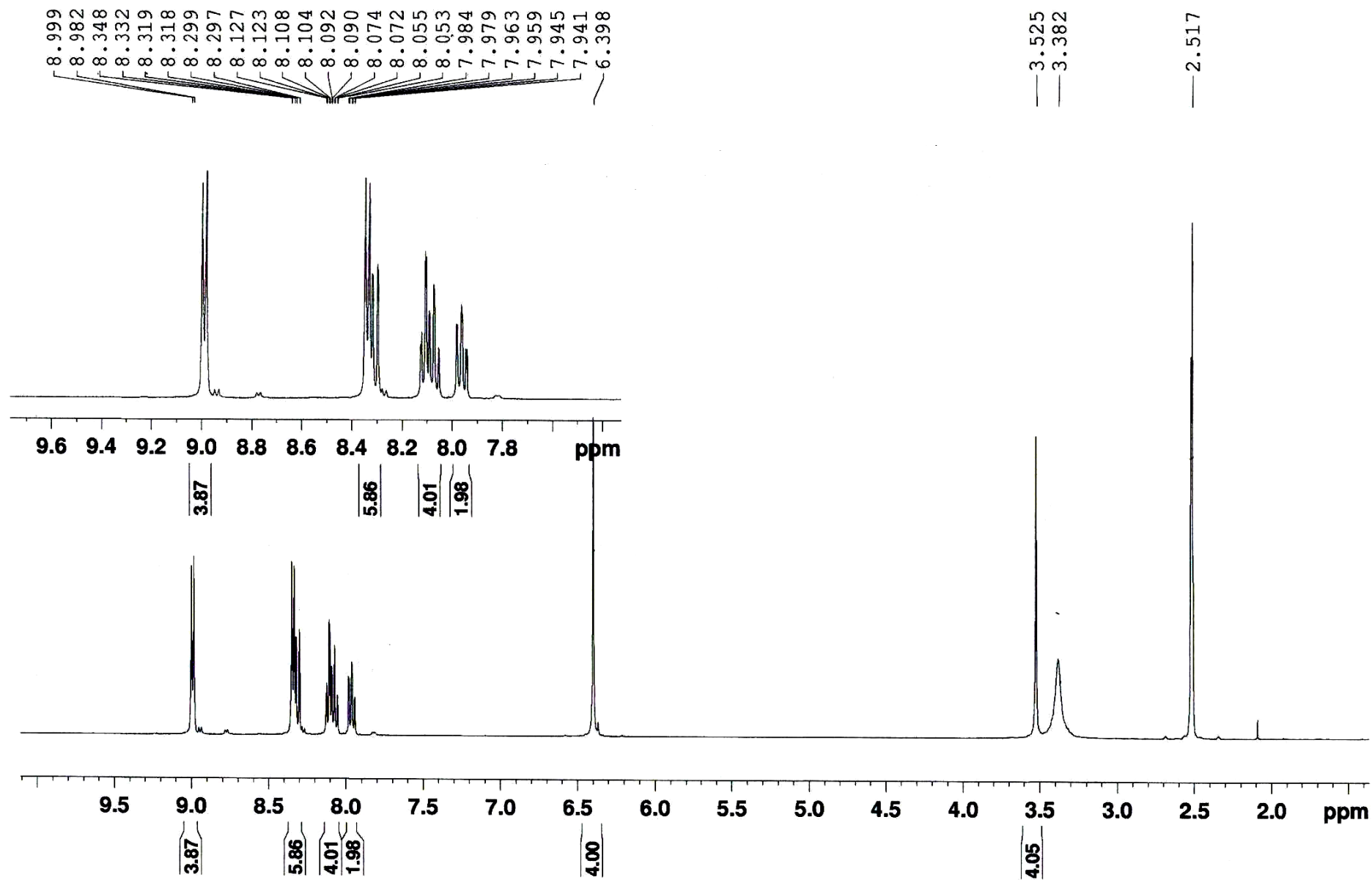


Figure S18. ^{13}C -NMR spectrum of compound 9

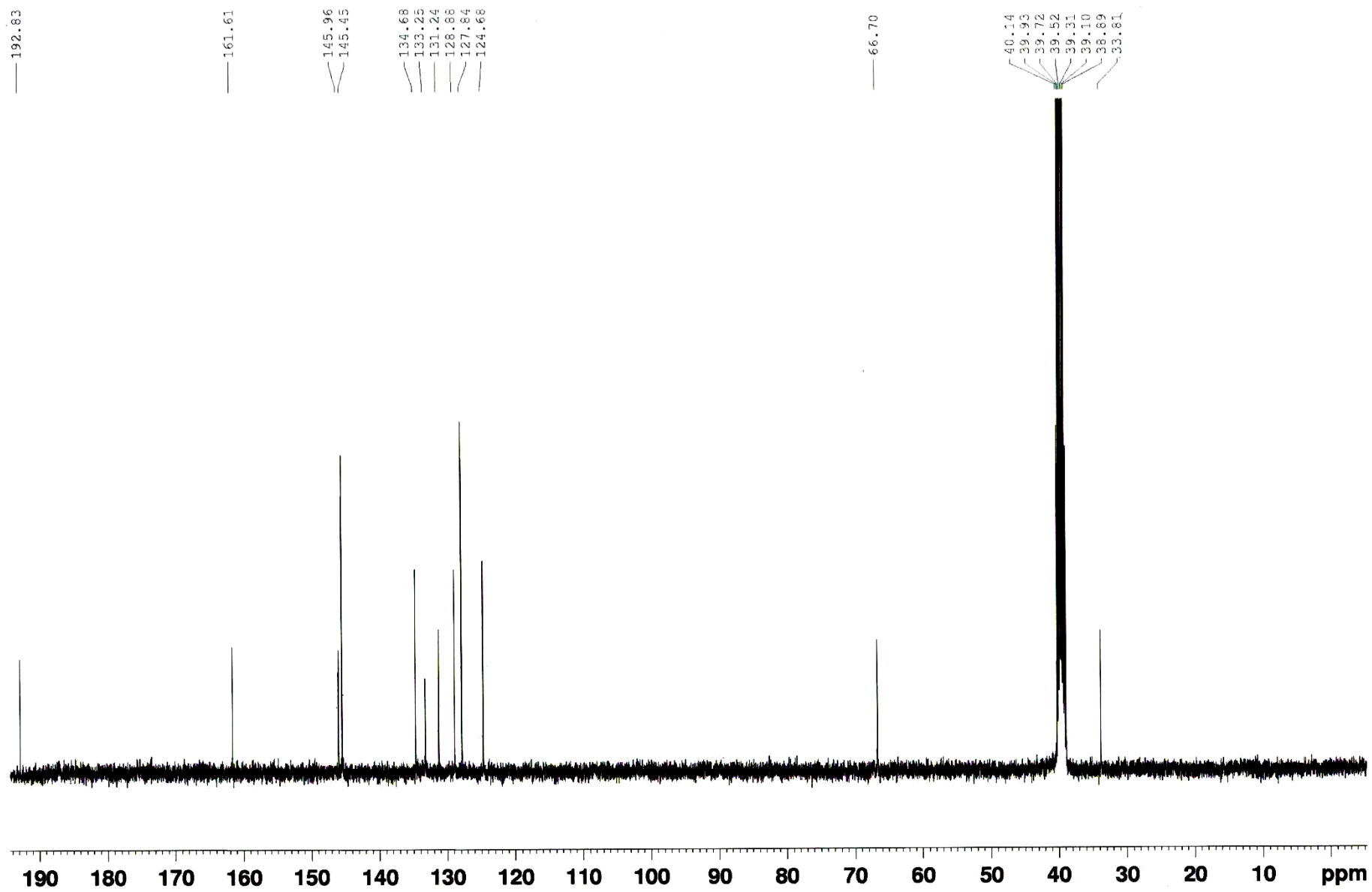


Figure S19. ¹H-NMR spectrum of compound 10

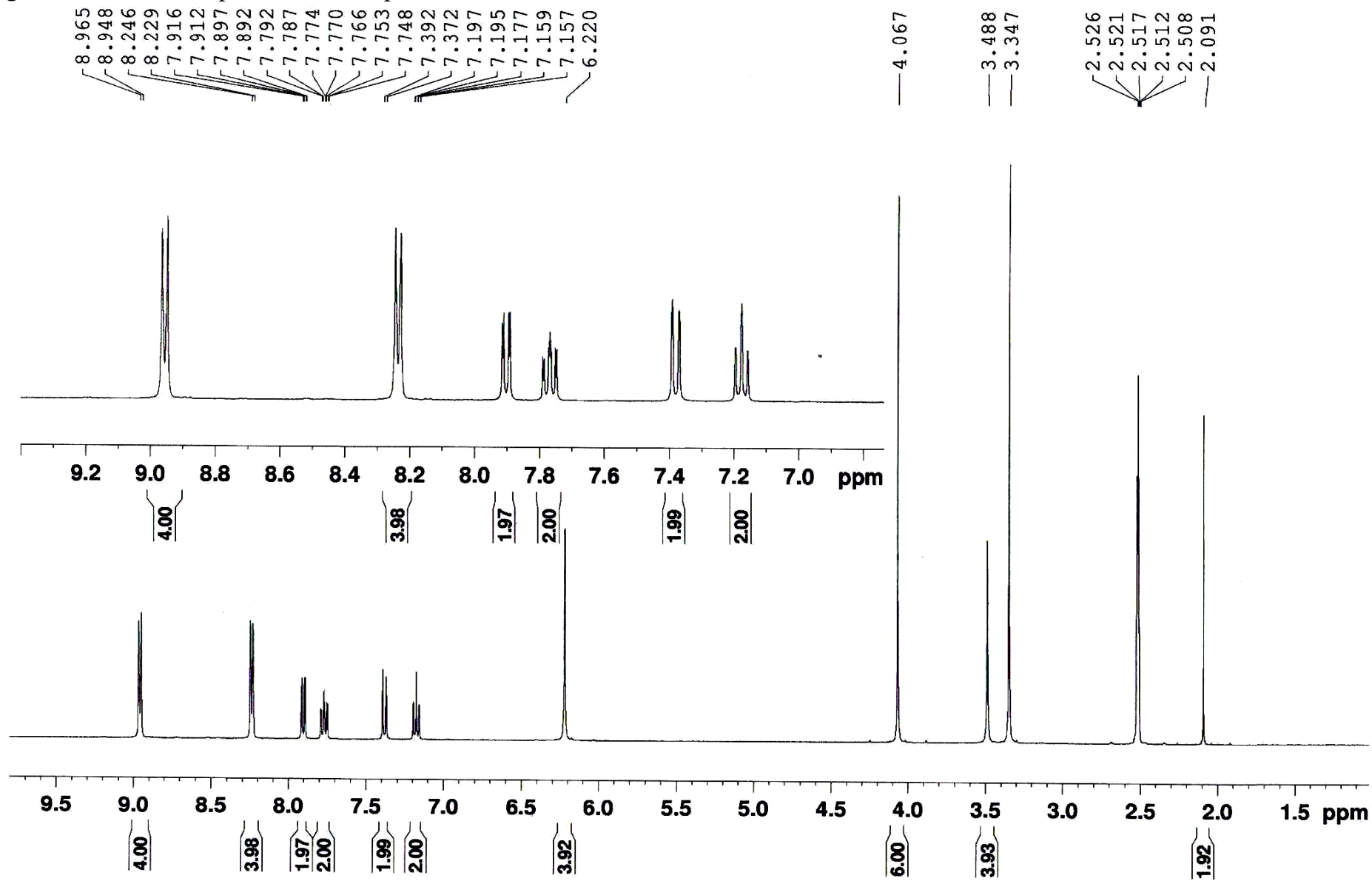


Figure S20. ^{13}C -NMR spectrum of compound 10

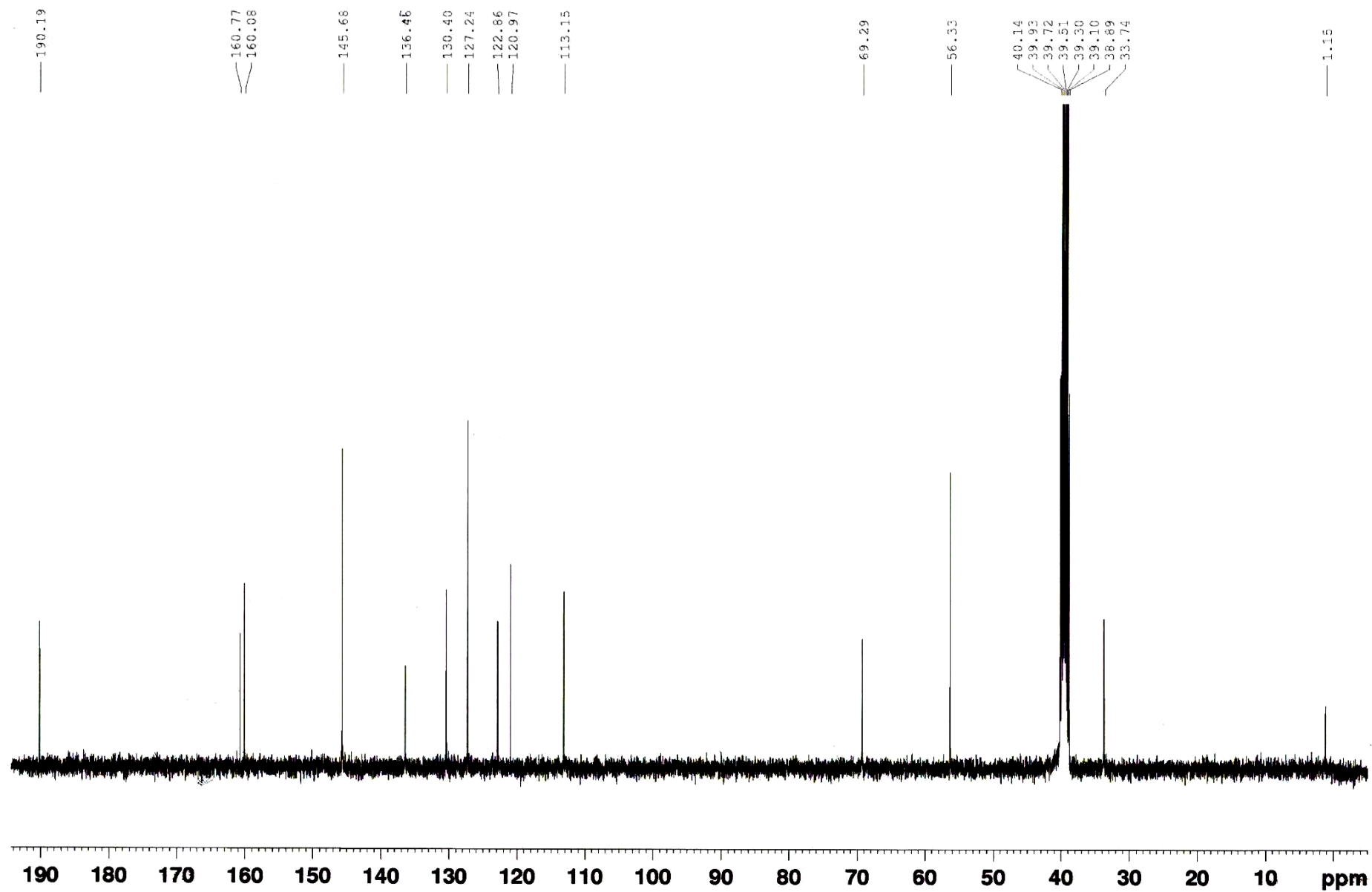


Figure S21. ¹H-NMR spectrum of compound 11

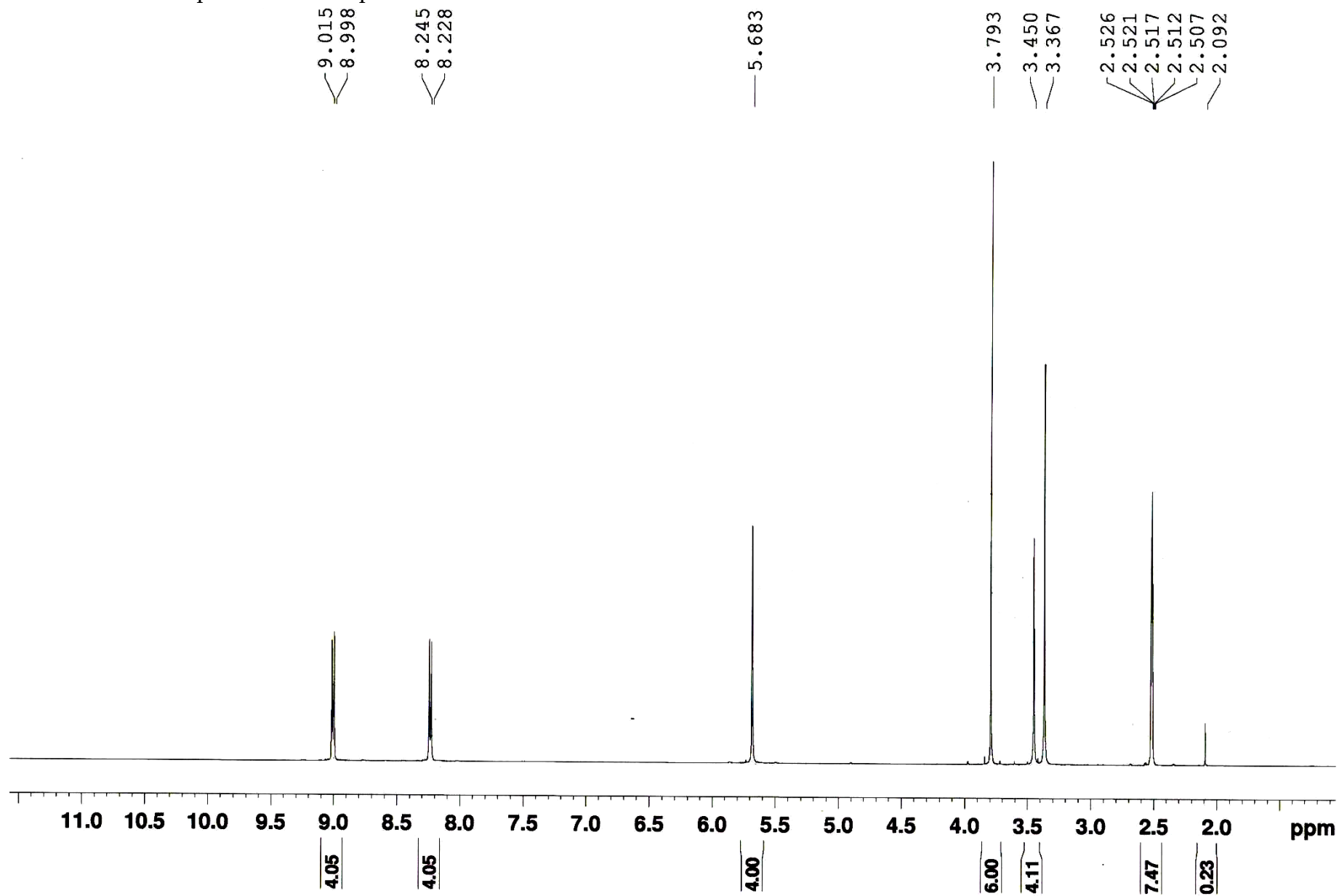


Figure S22. ^{13}C -NMR spectrum of compound 11

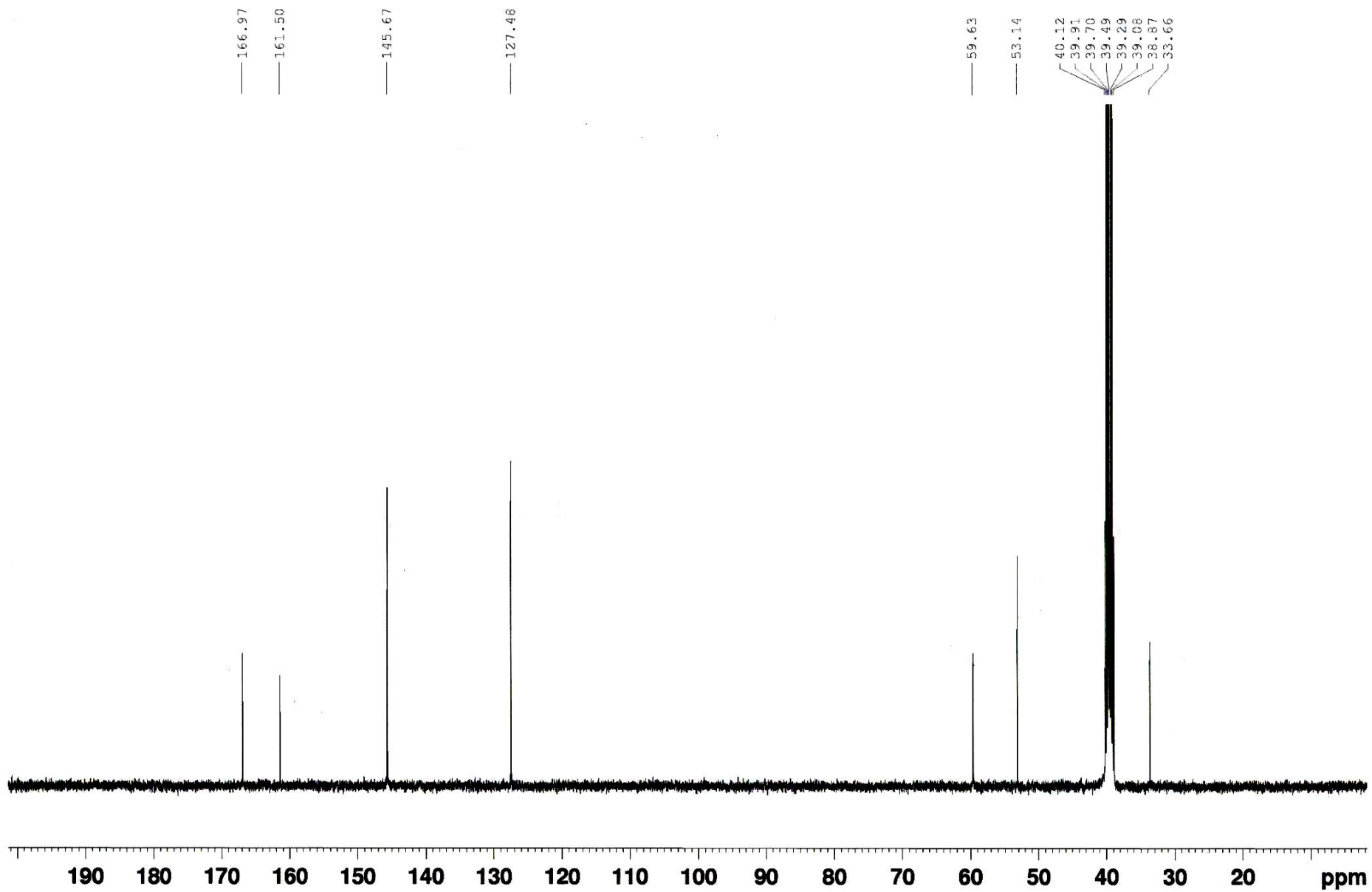


Figure S23. ¹H-NMR spectrum of compound 12

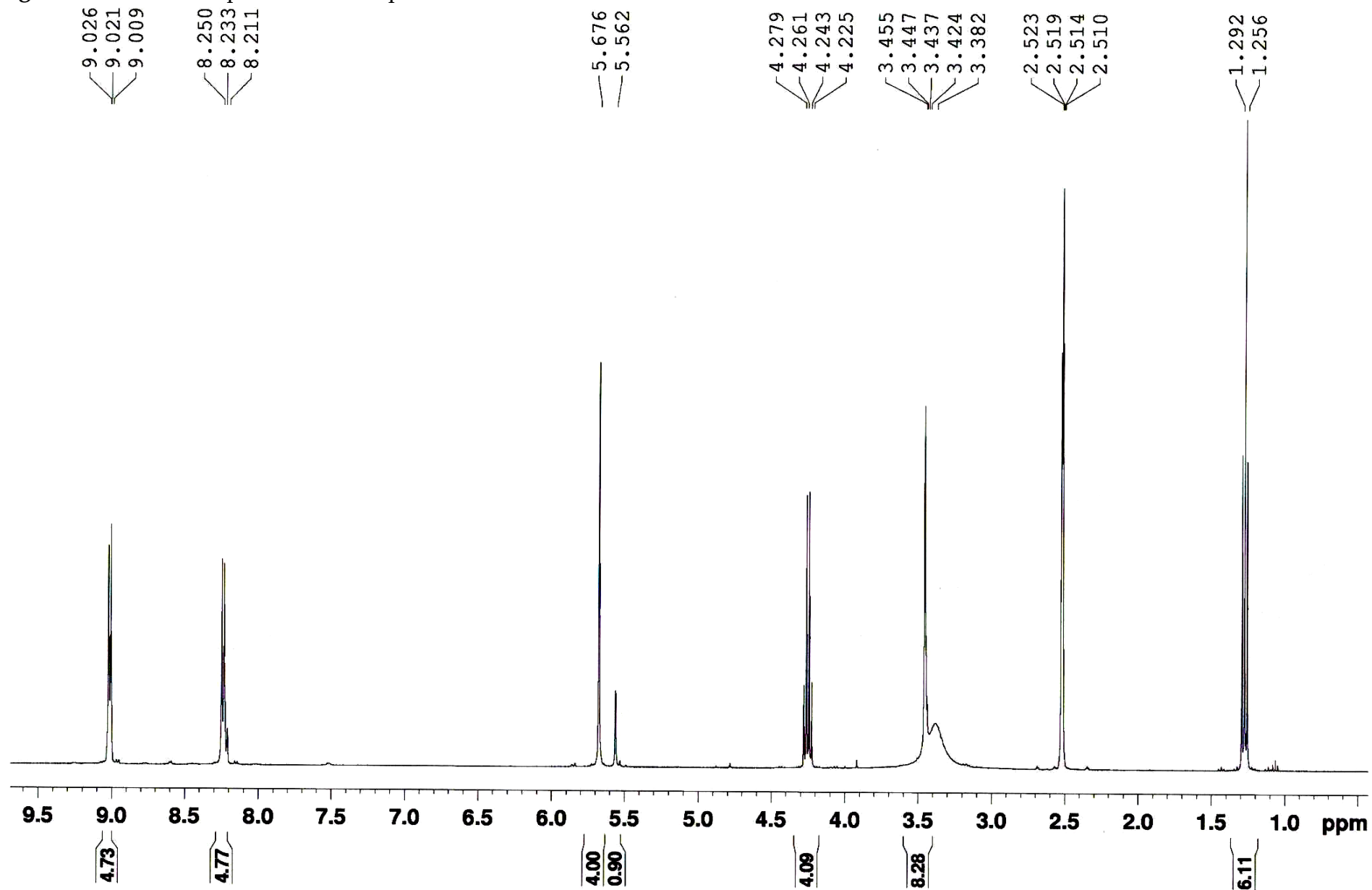


Figure S24. ^{13}C -NMR spectrum of compound 12

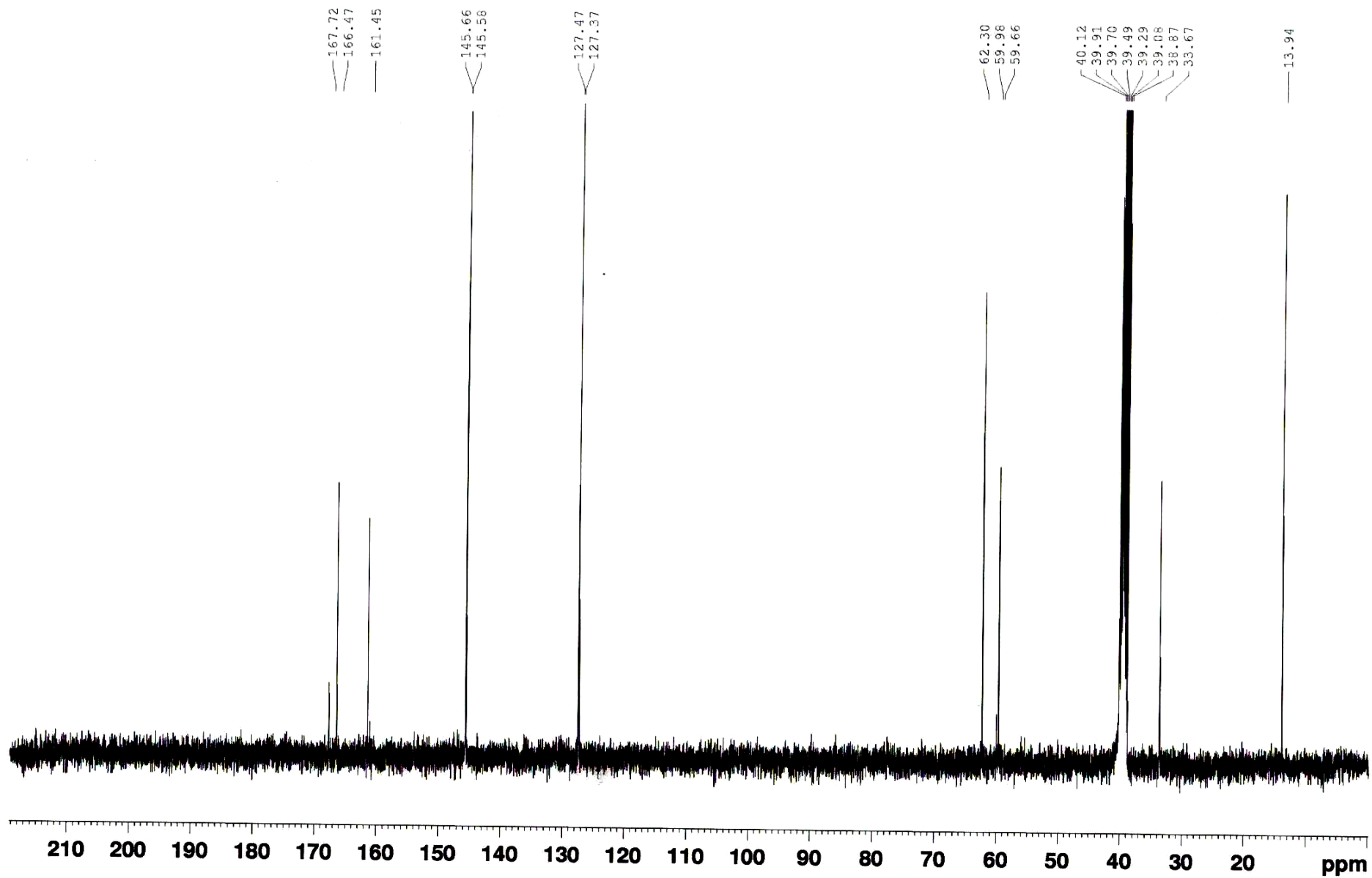


Figure S25. ^1H -NMR spectrum of compound 13

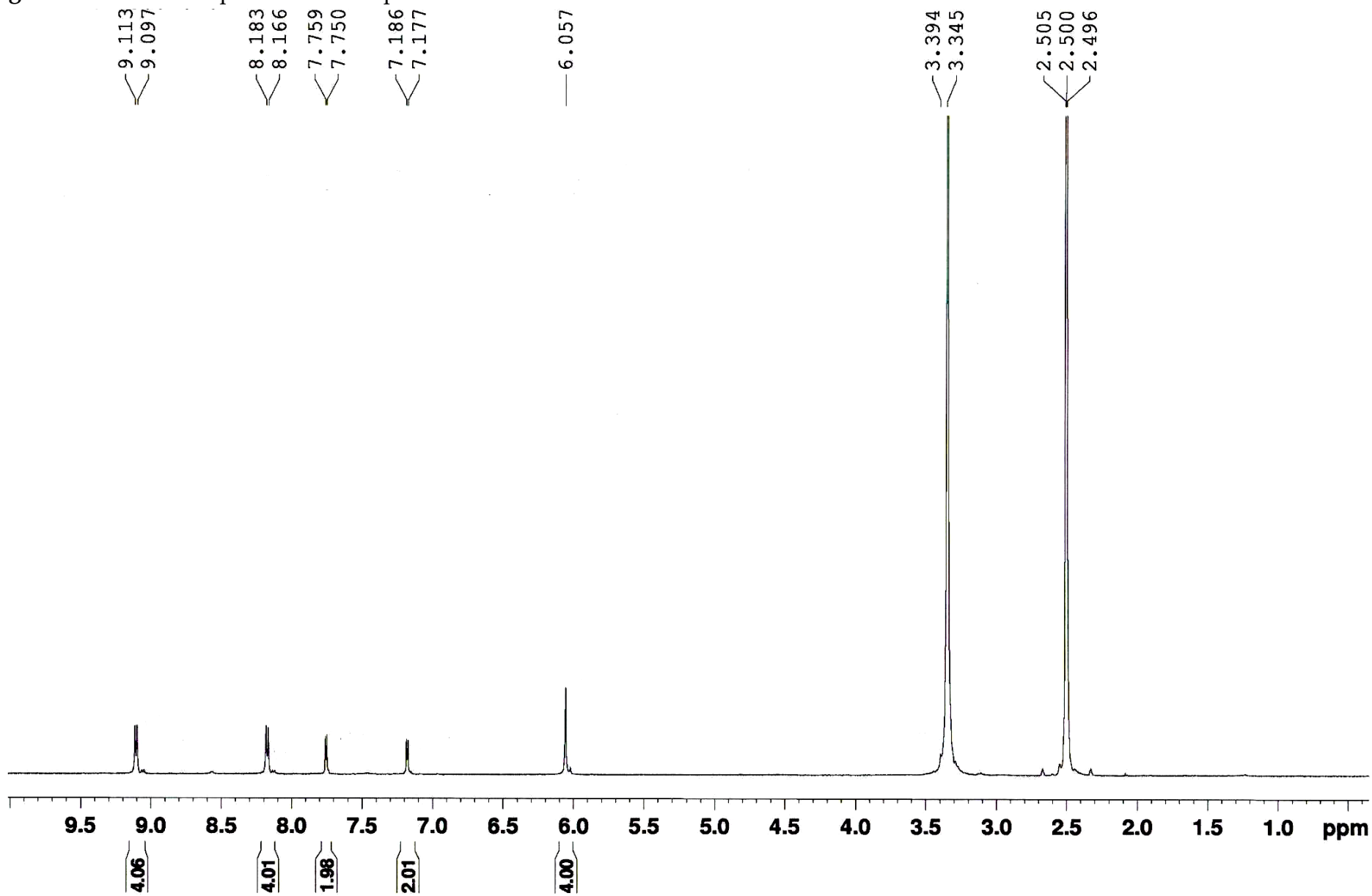


Figure S26. ^{13}C -NMR spectrum of compound 13

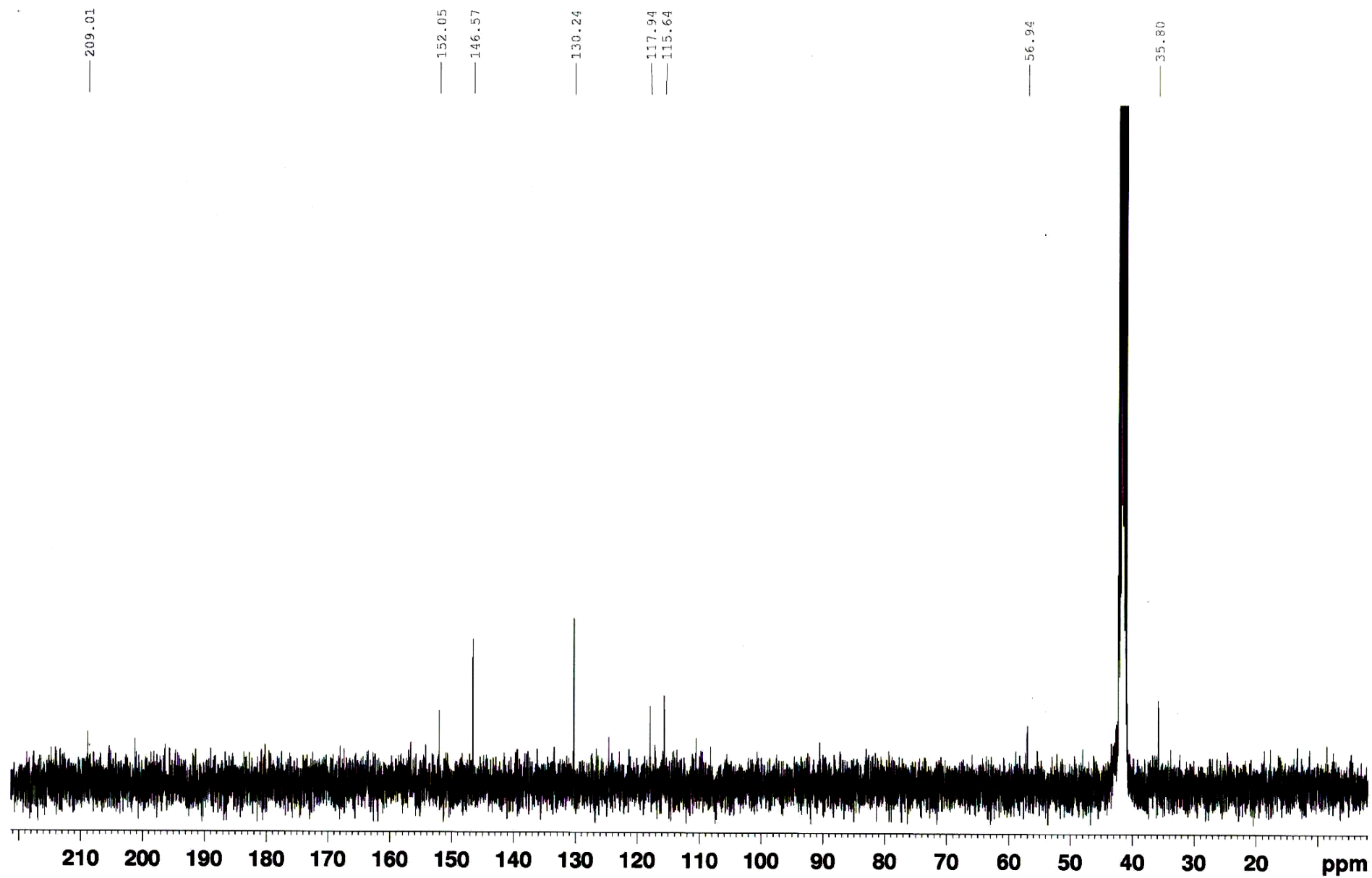


Figure S27. ¹H-NMR spectrum of compound 14

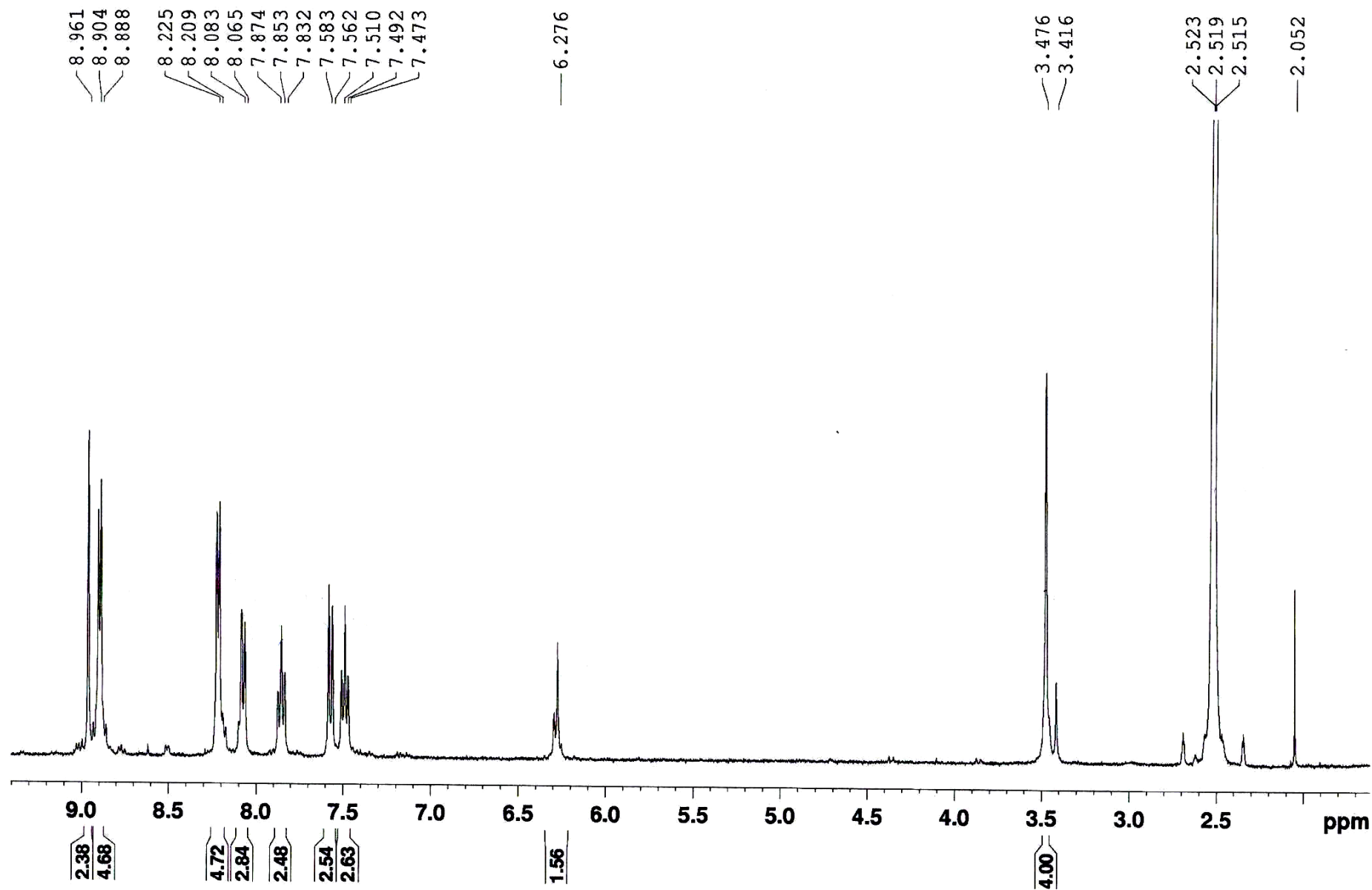


Figure S28. ^{13}C -NMR spectrum of compound 14

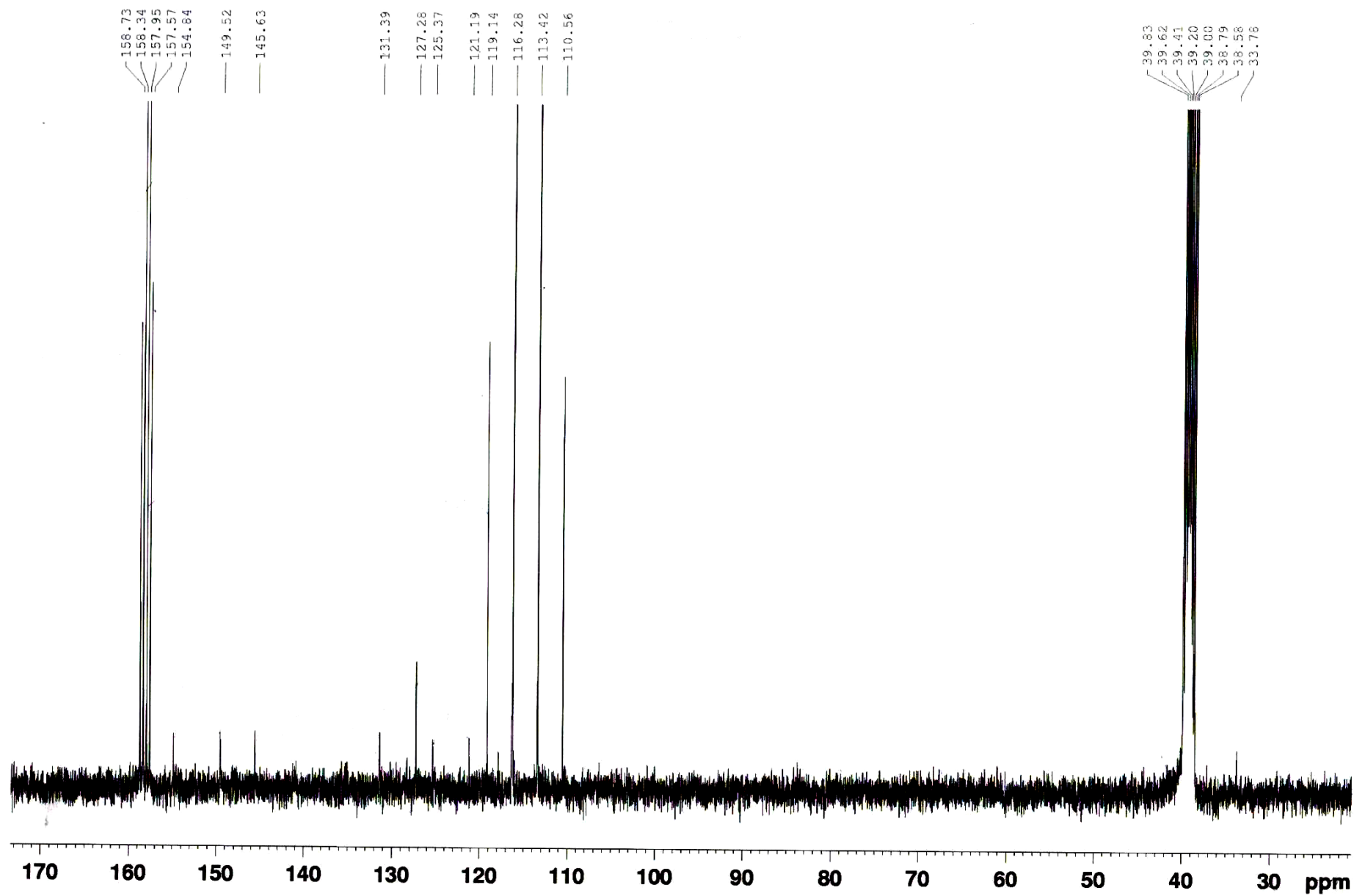


Figure S29. ¹H-NMR spectrum of compound 15

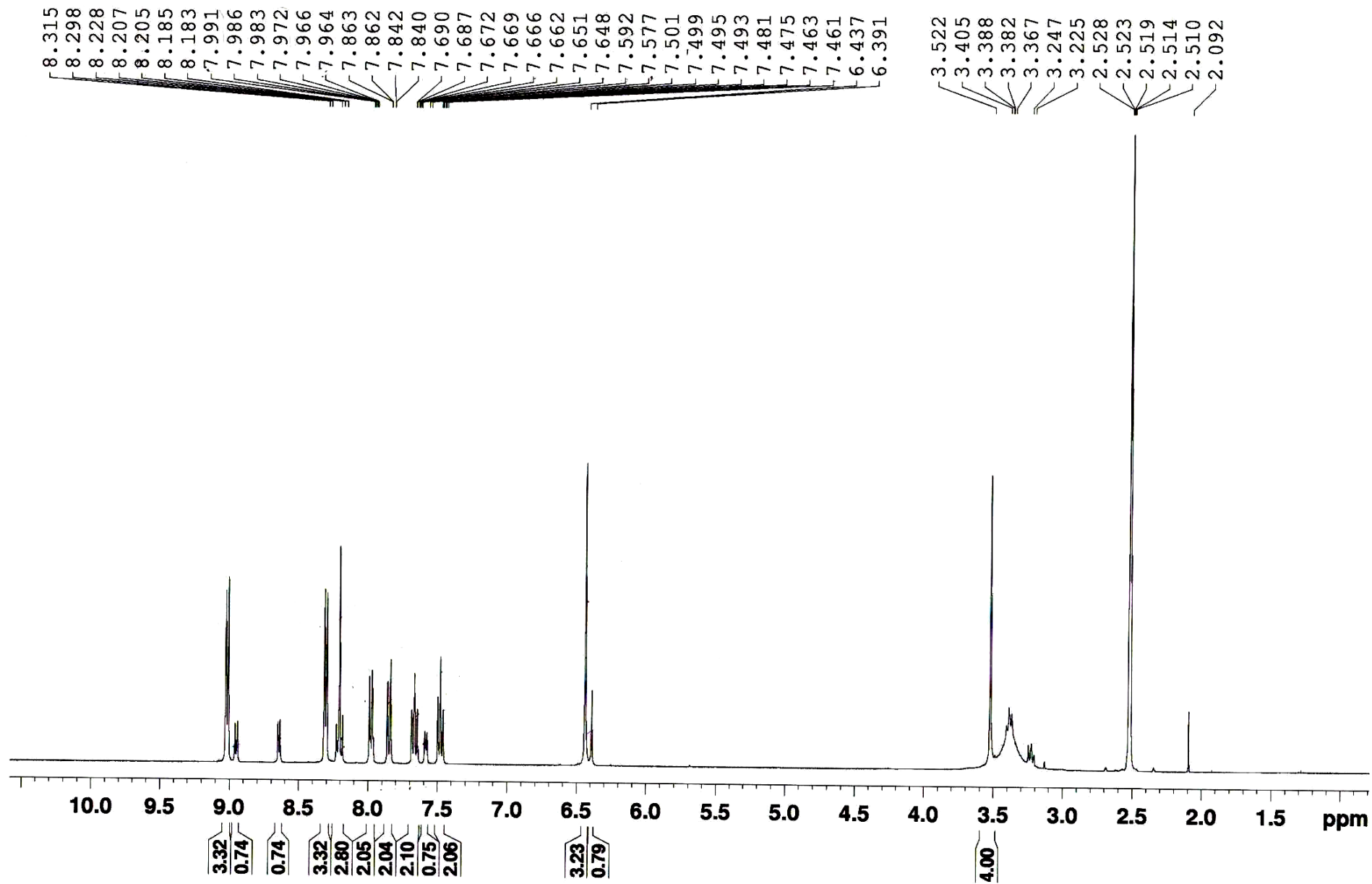


Figure S30. ¹³C-NMR spectrum of compound 15

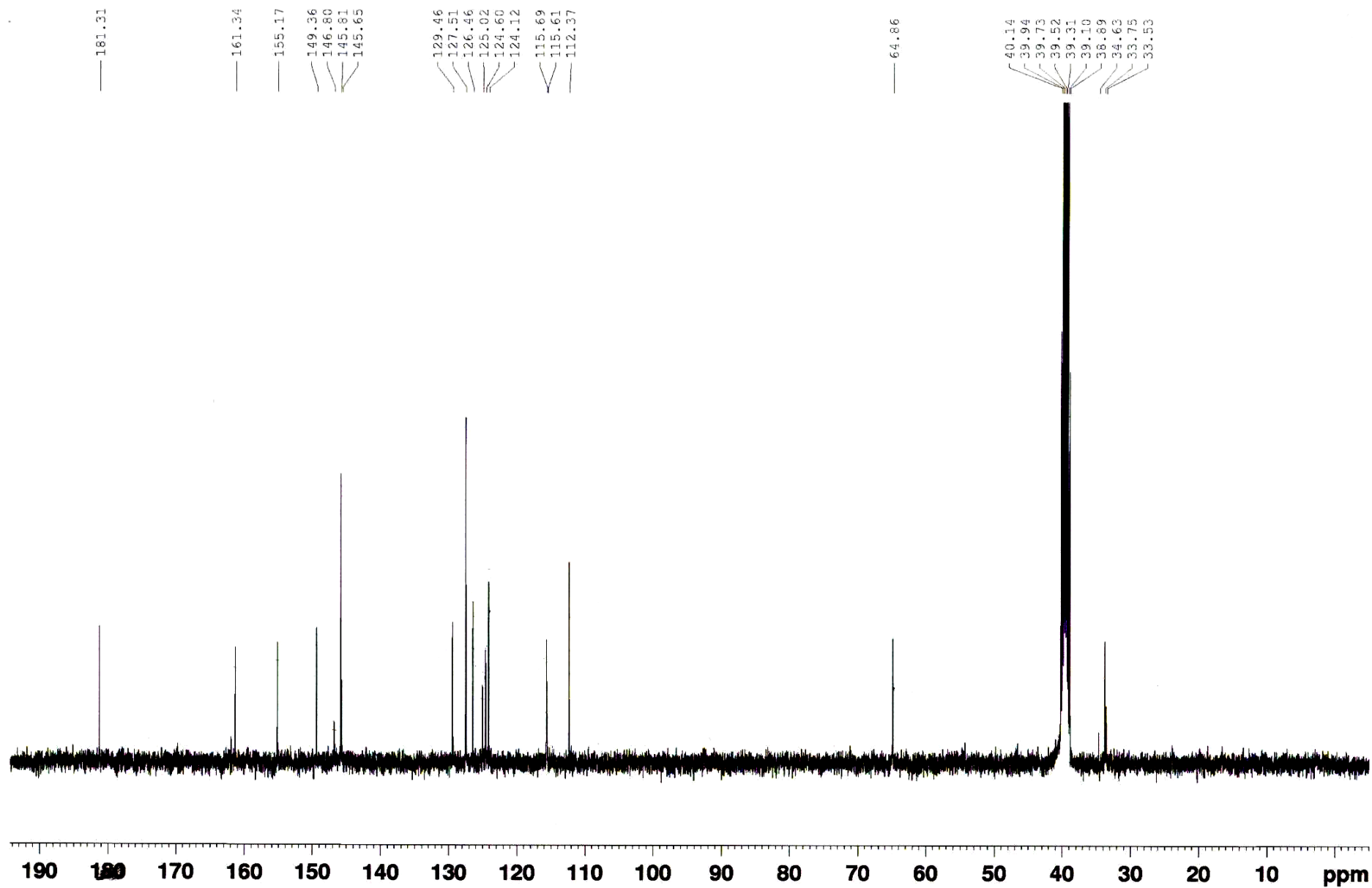


Figure S31. FTIR spectrum of compound 1

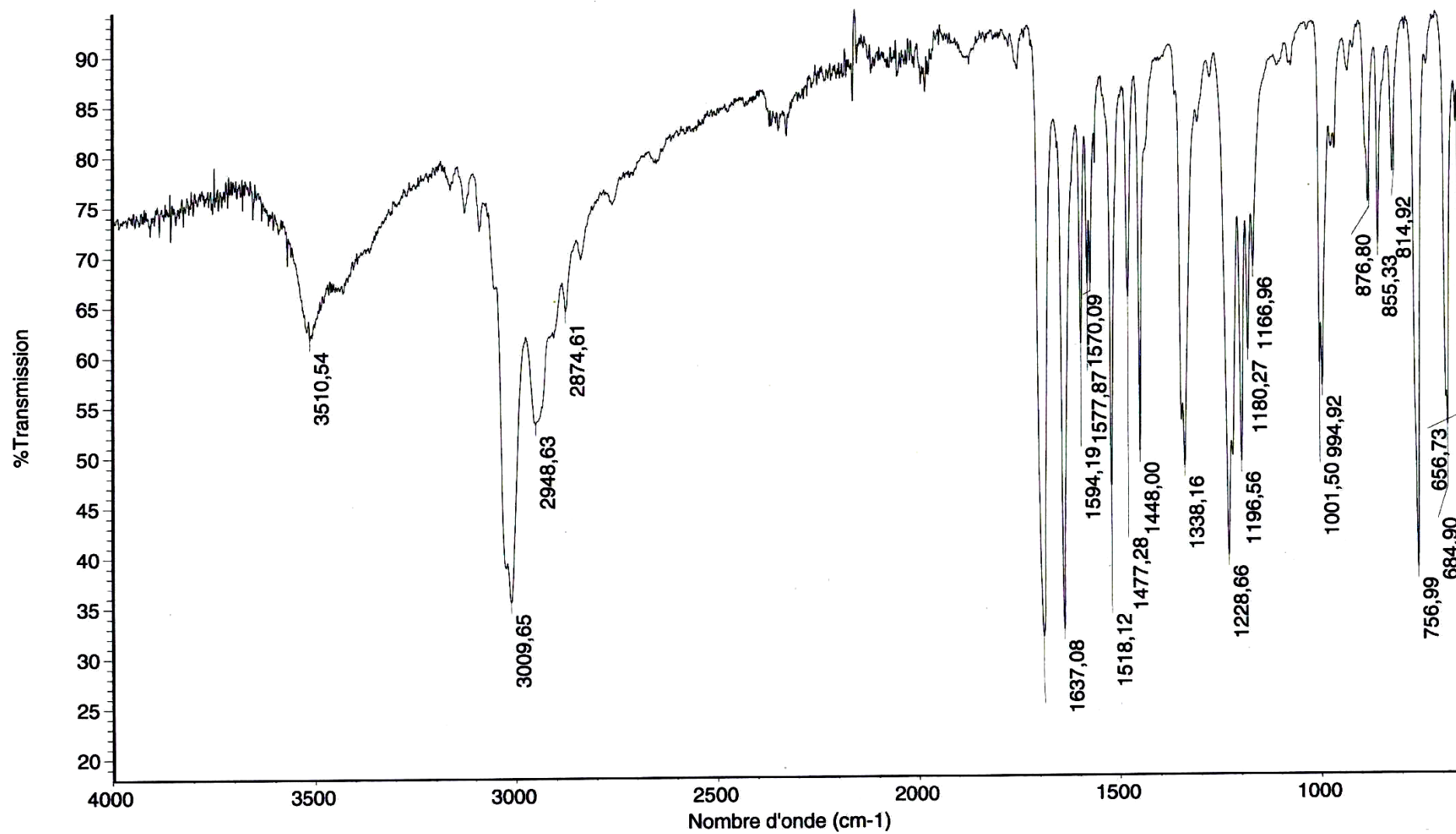


Figure S32. FTIR spectrum of compound 2

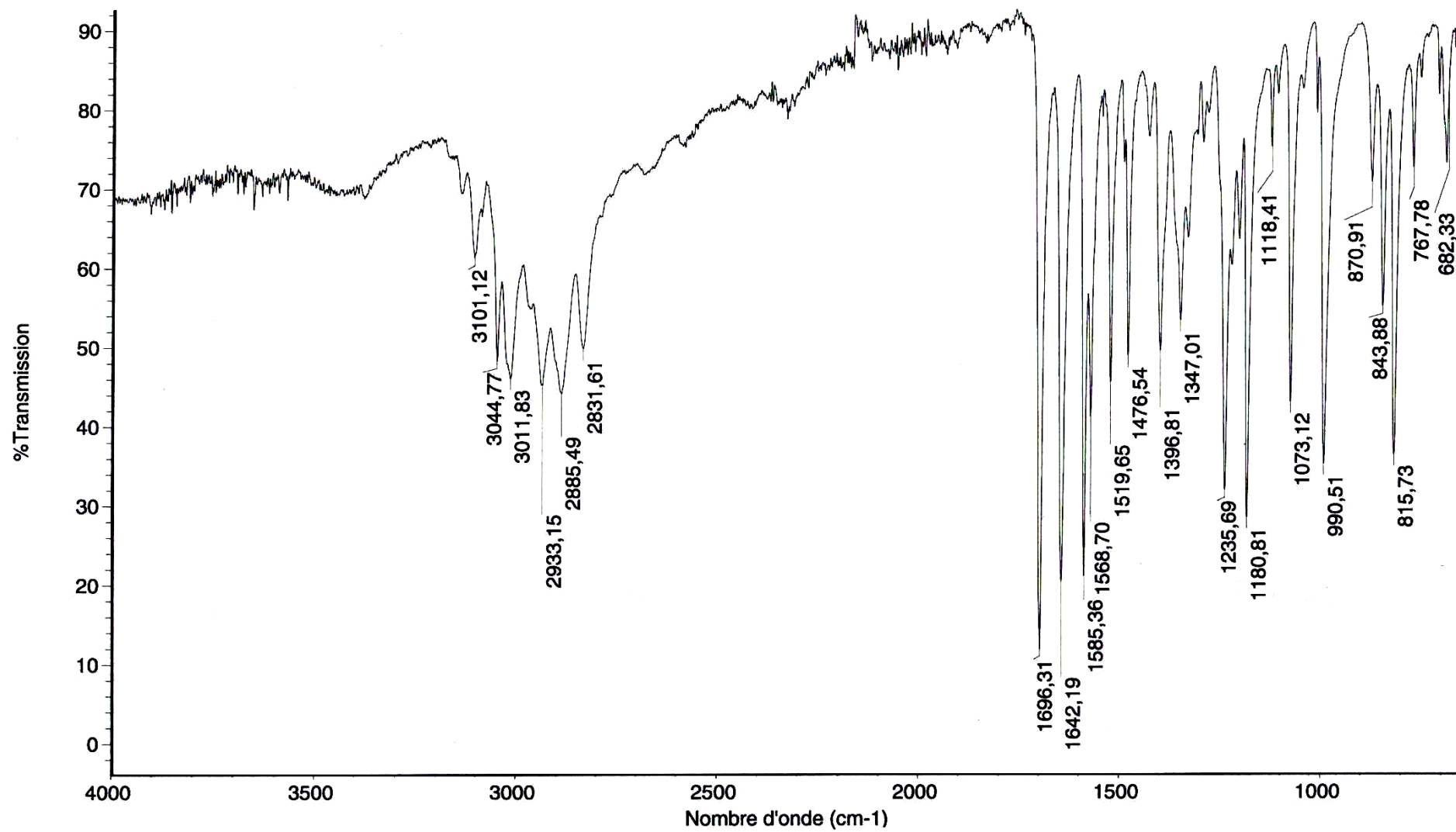


Figure S33. FTIR spectrum of compound 3

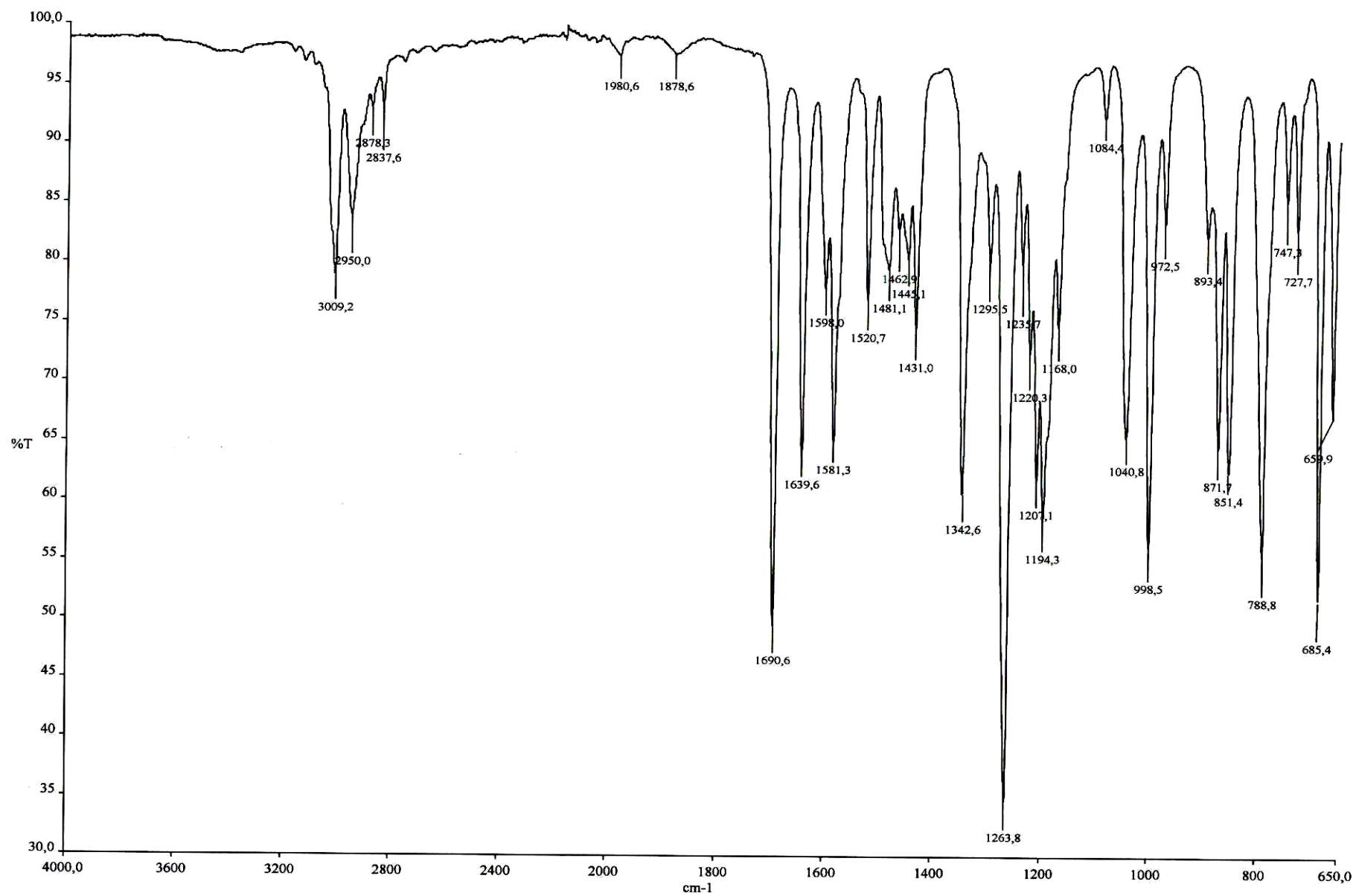


Figure S34. FTIR spectrum of compound 4

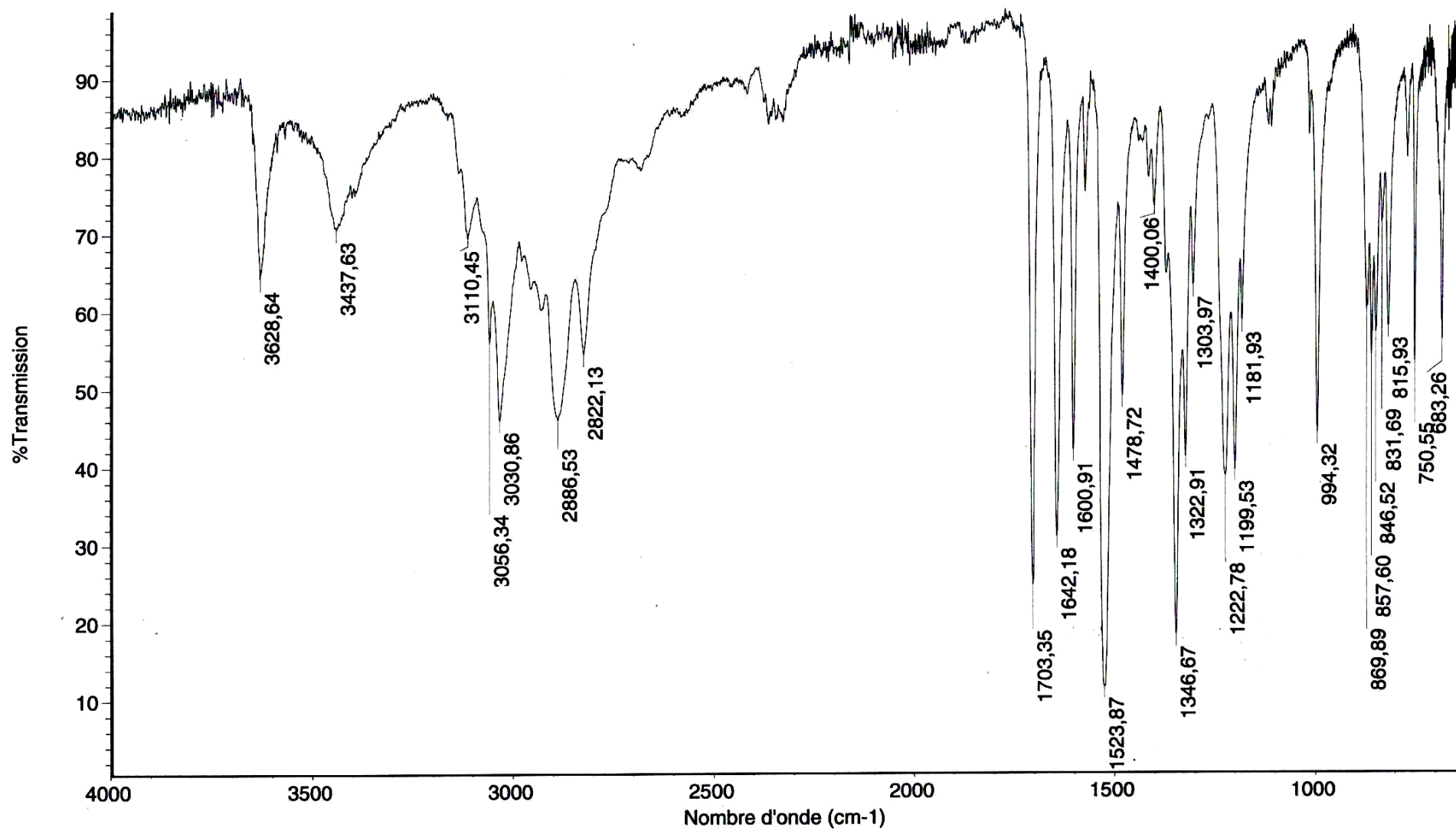


Figure S35. FTIR spectrum of compound 5

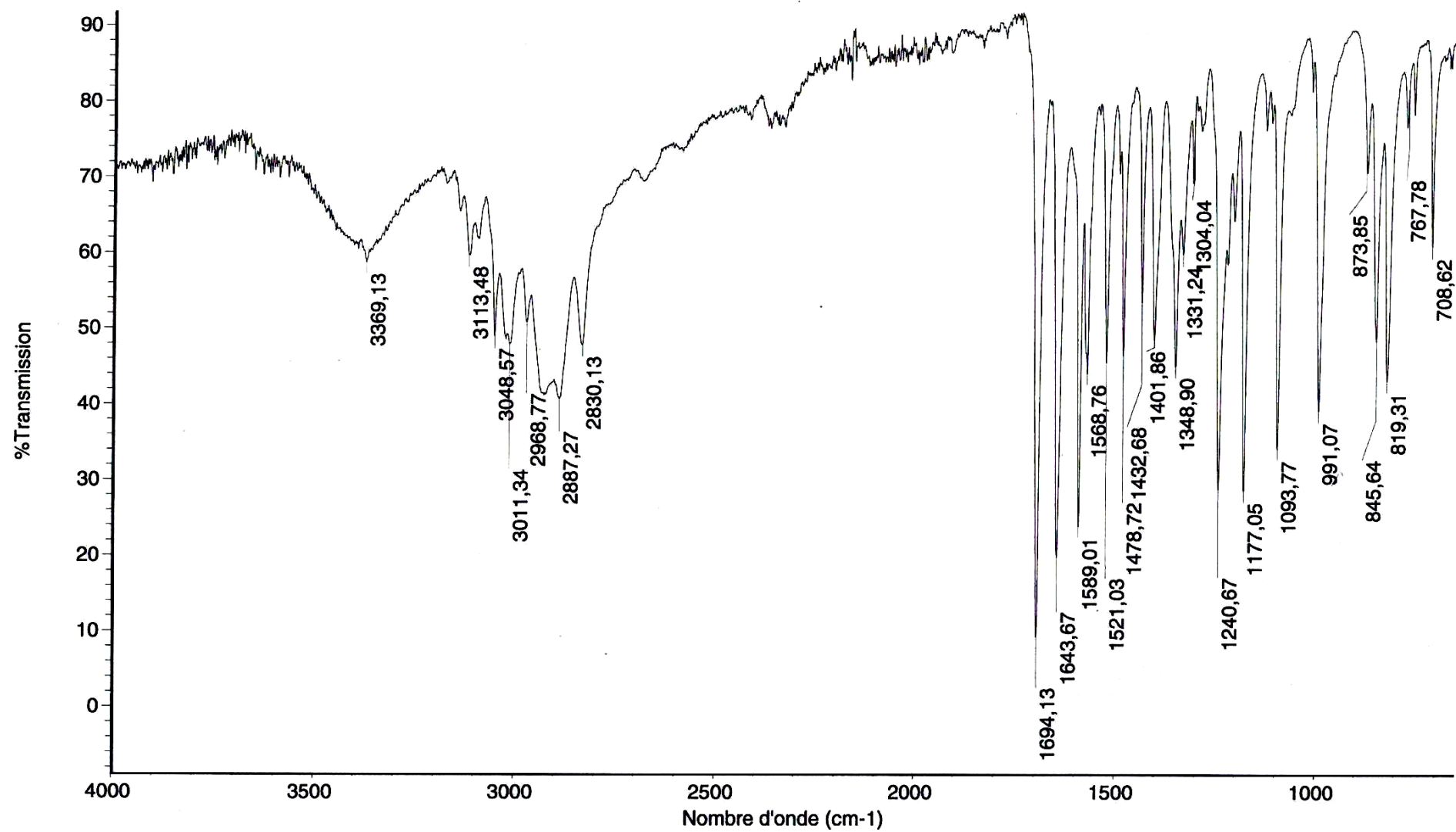


Figure S36. FTIR spectrum of compound 6

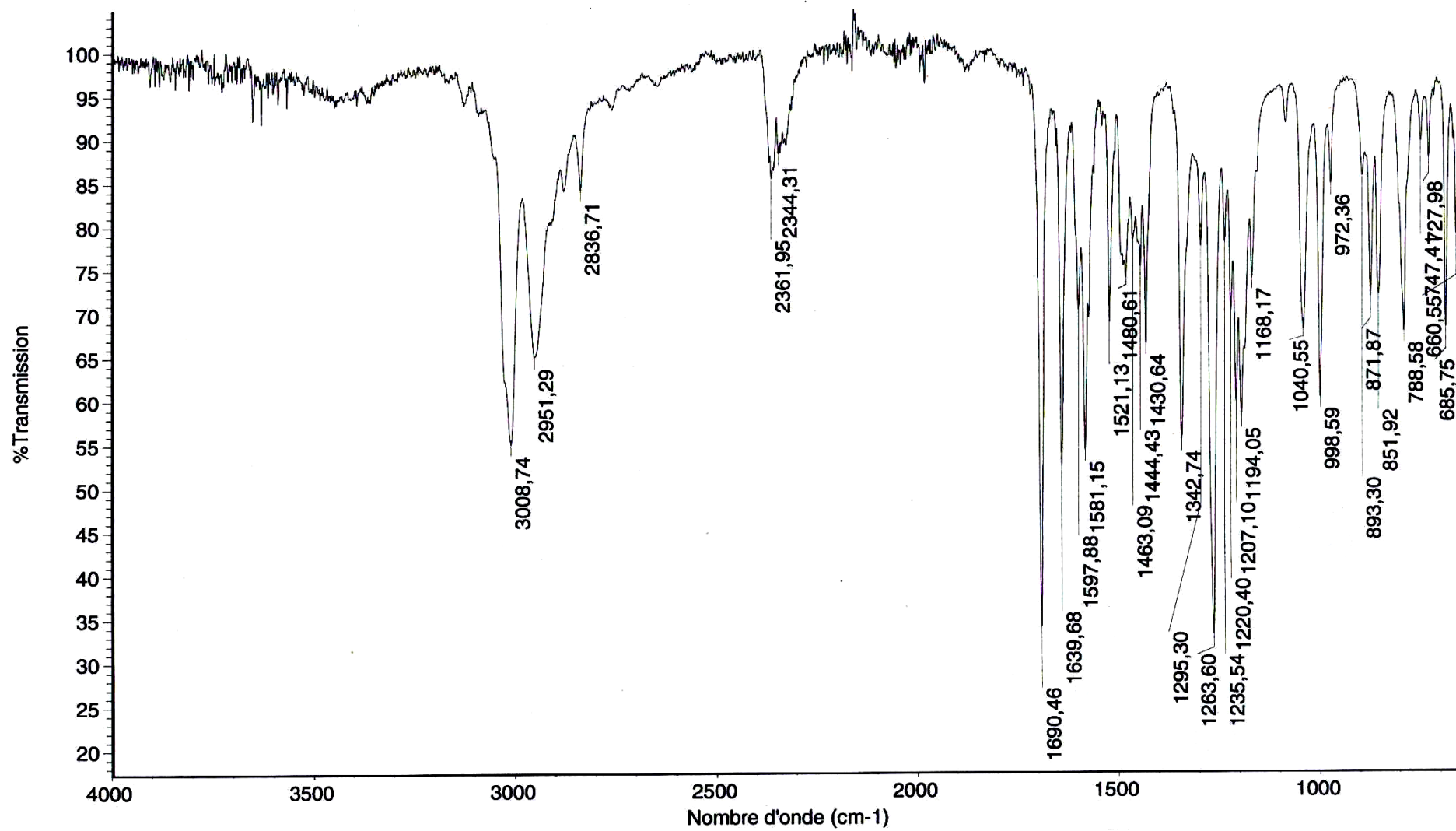


Figure S37. FTIR spectrum of compound 7

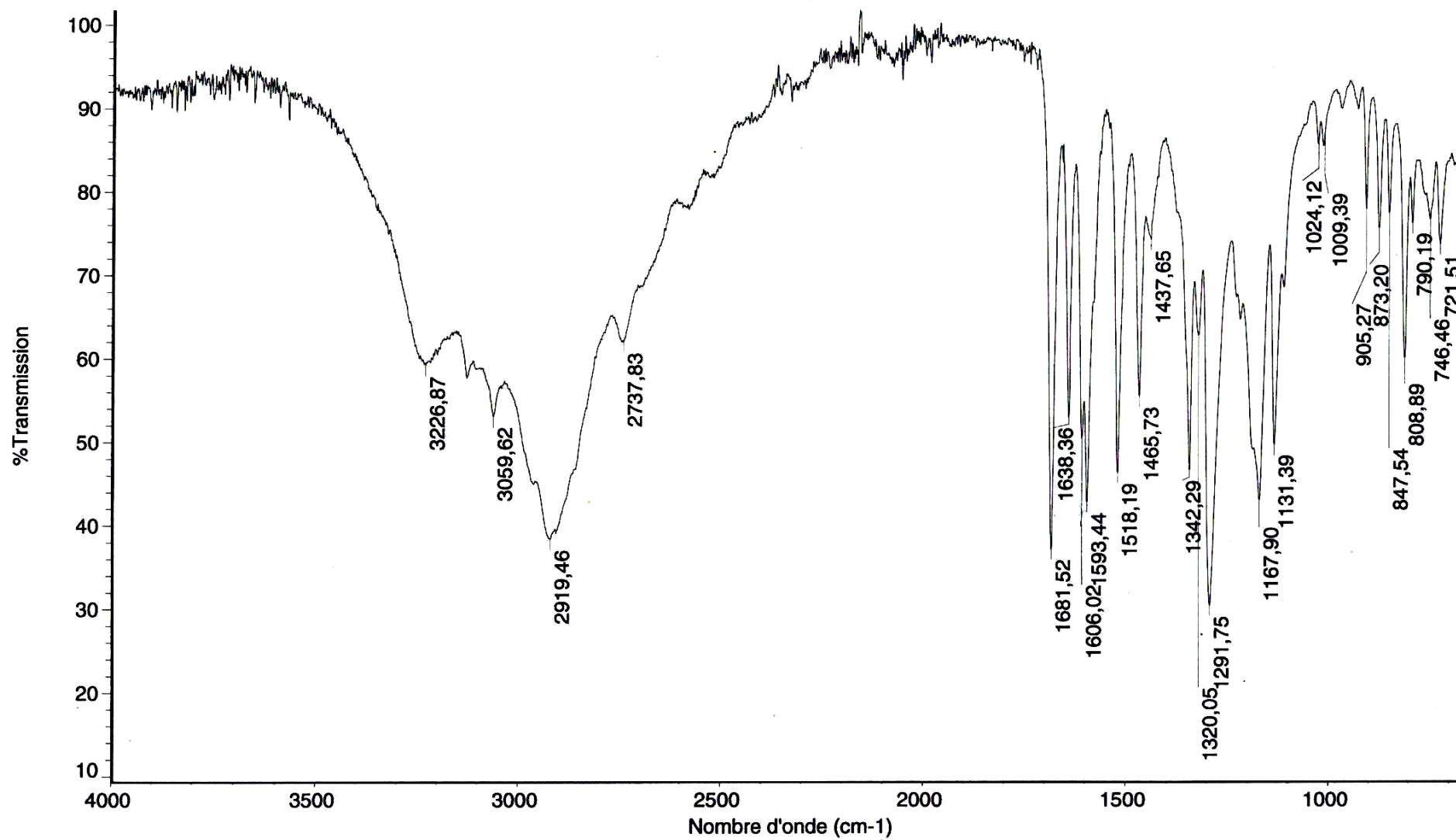


Figure S38. FTIR spectrum of compound 8

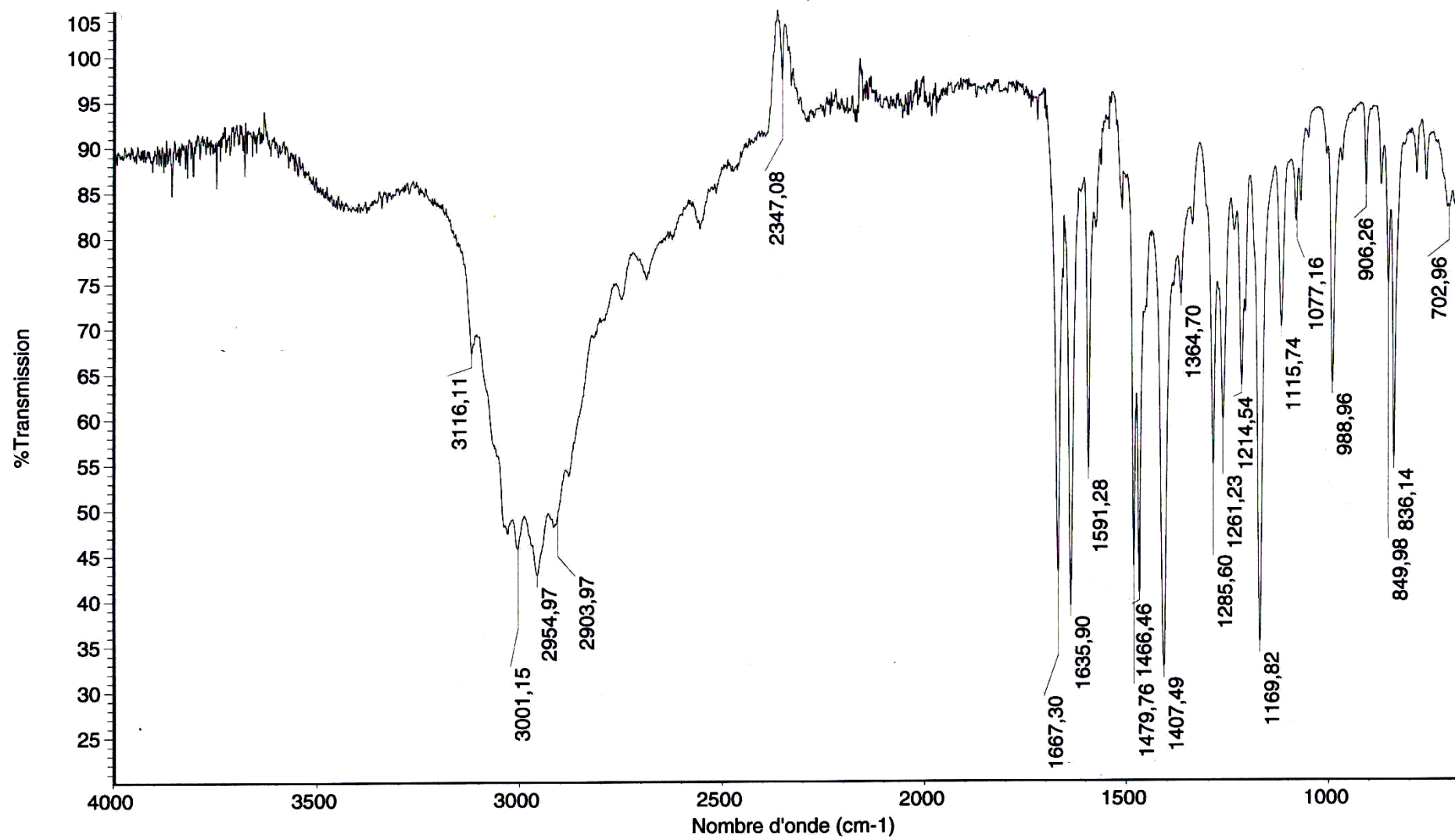


Figure S39. FTIR spectrum of compound 9

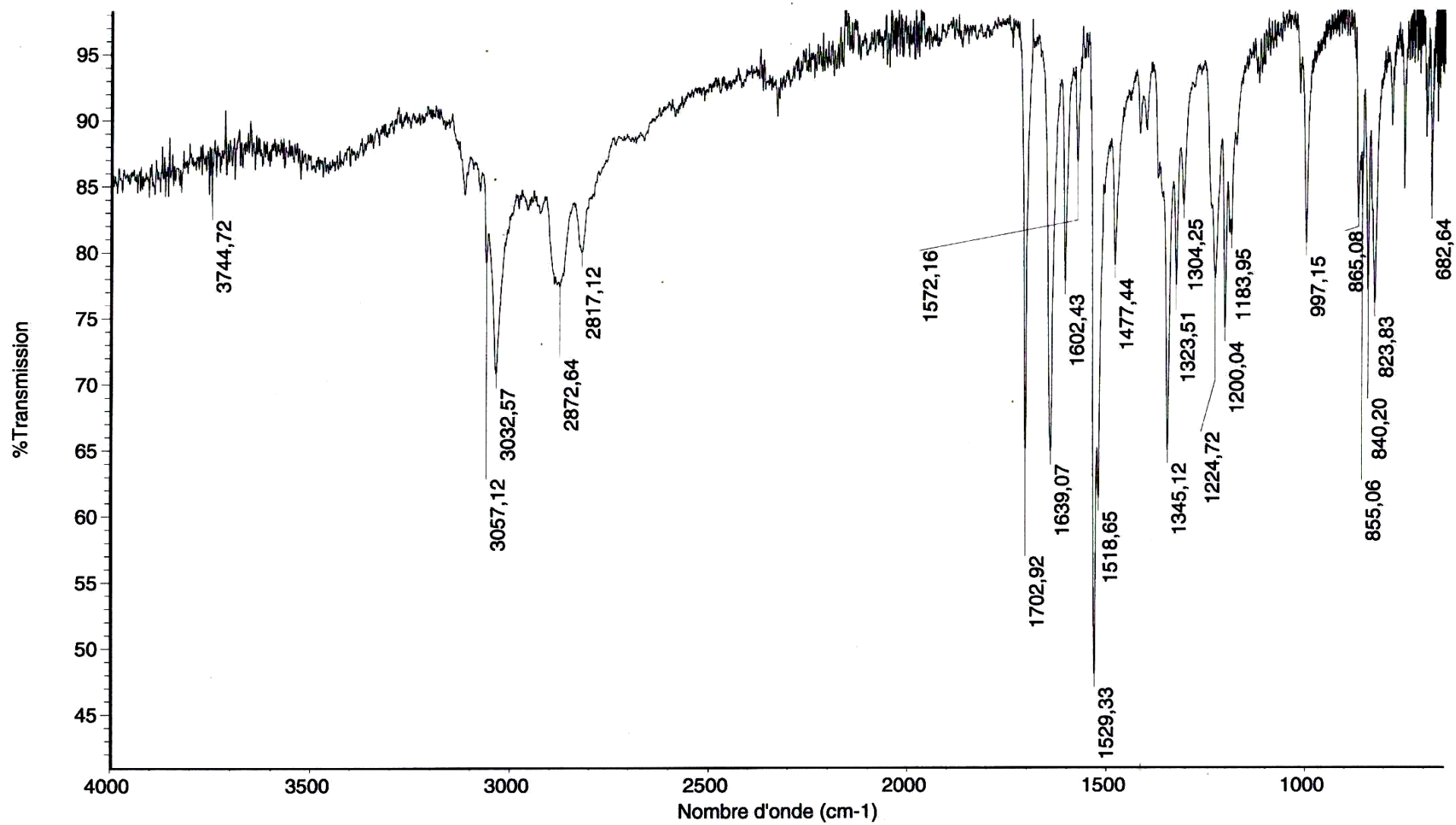


Figure S40. FTIR spectrum of compound 10

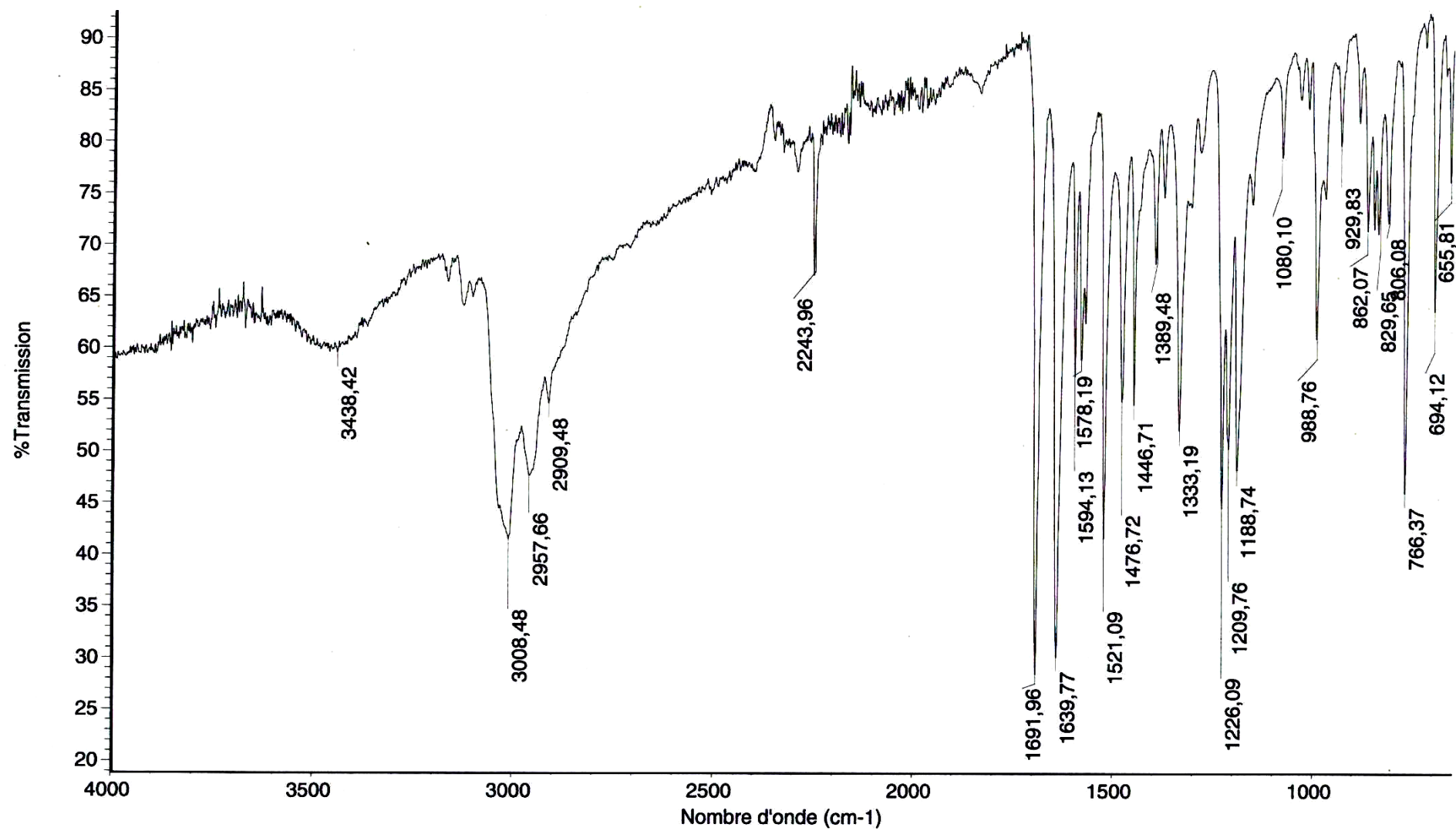


Figure S41. FTIR spectrum of compound 11

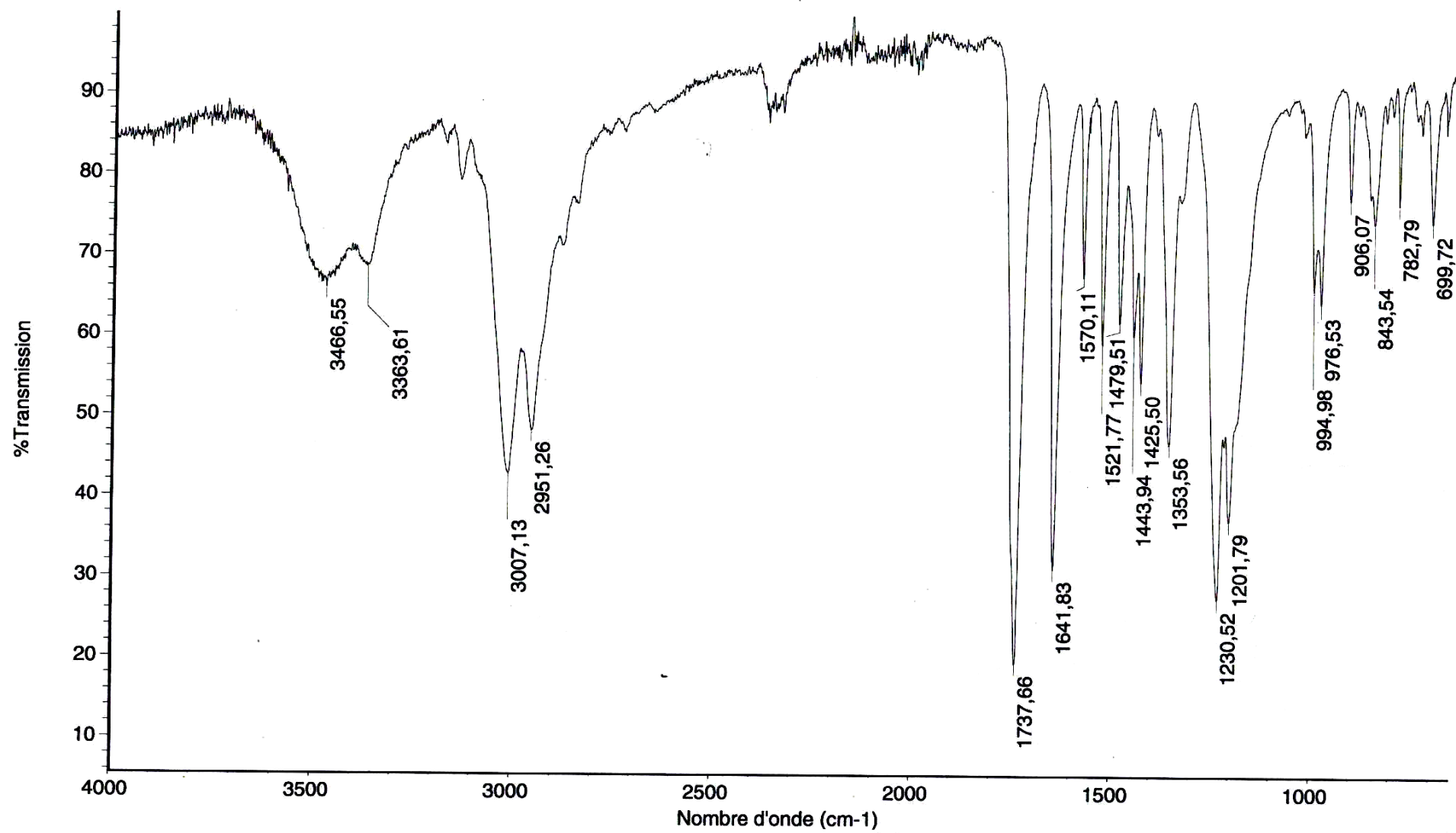


Figure S42. FTIR spectrum of compound 12

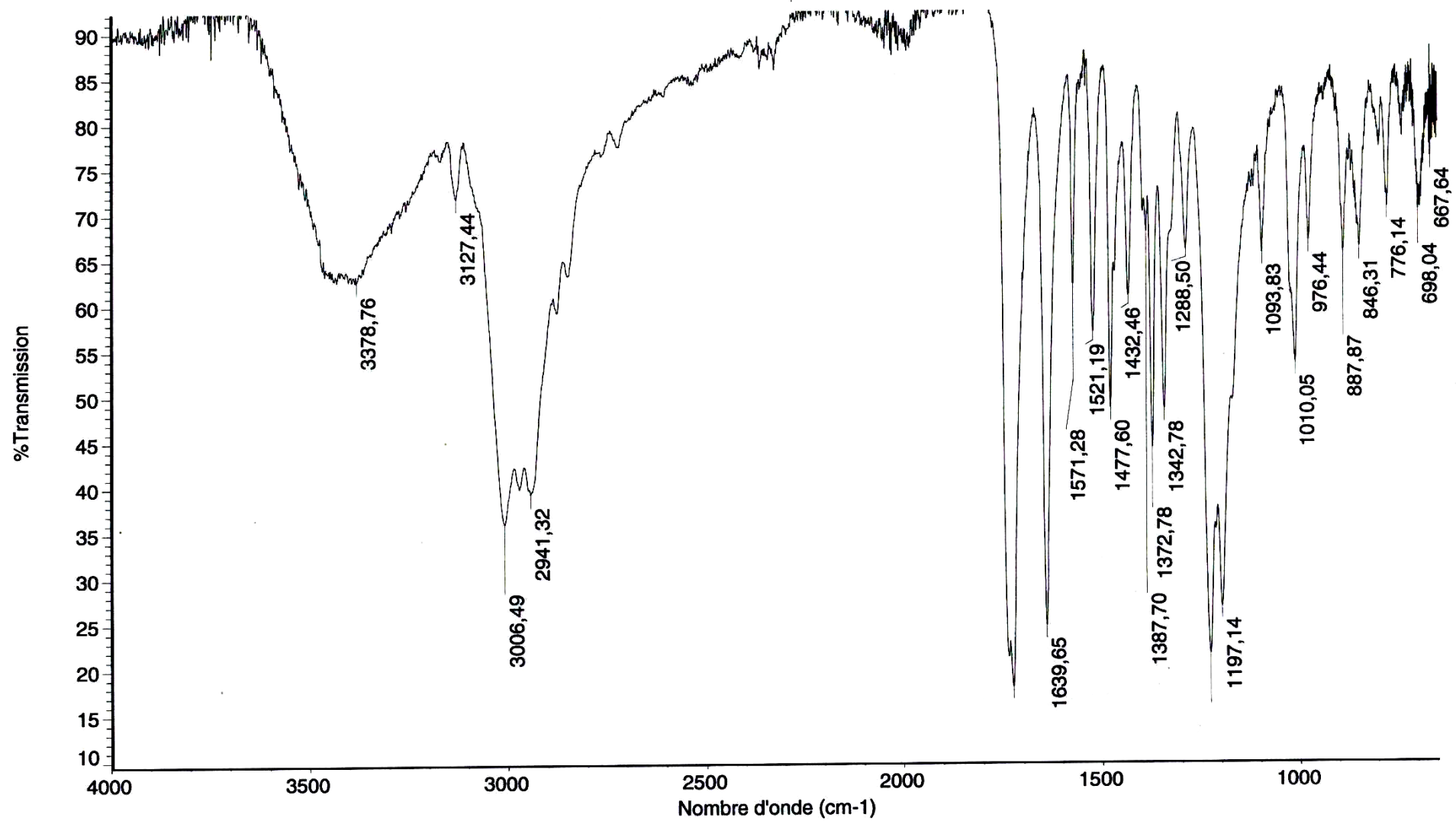


Figure S43. FTIR spectrum of compound 13

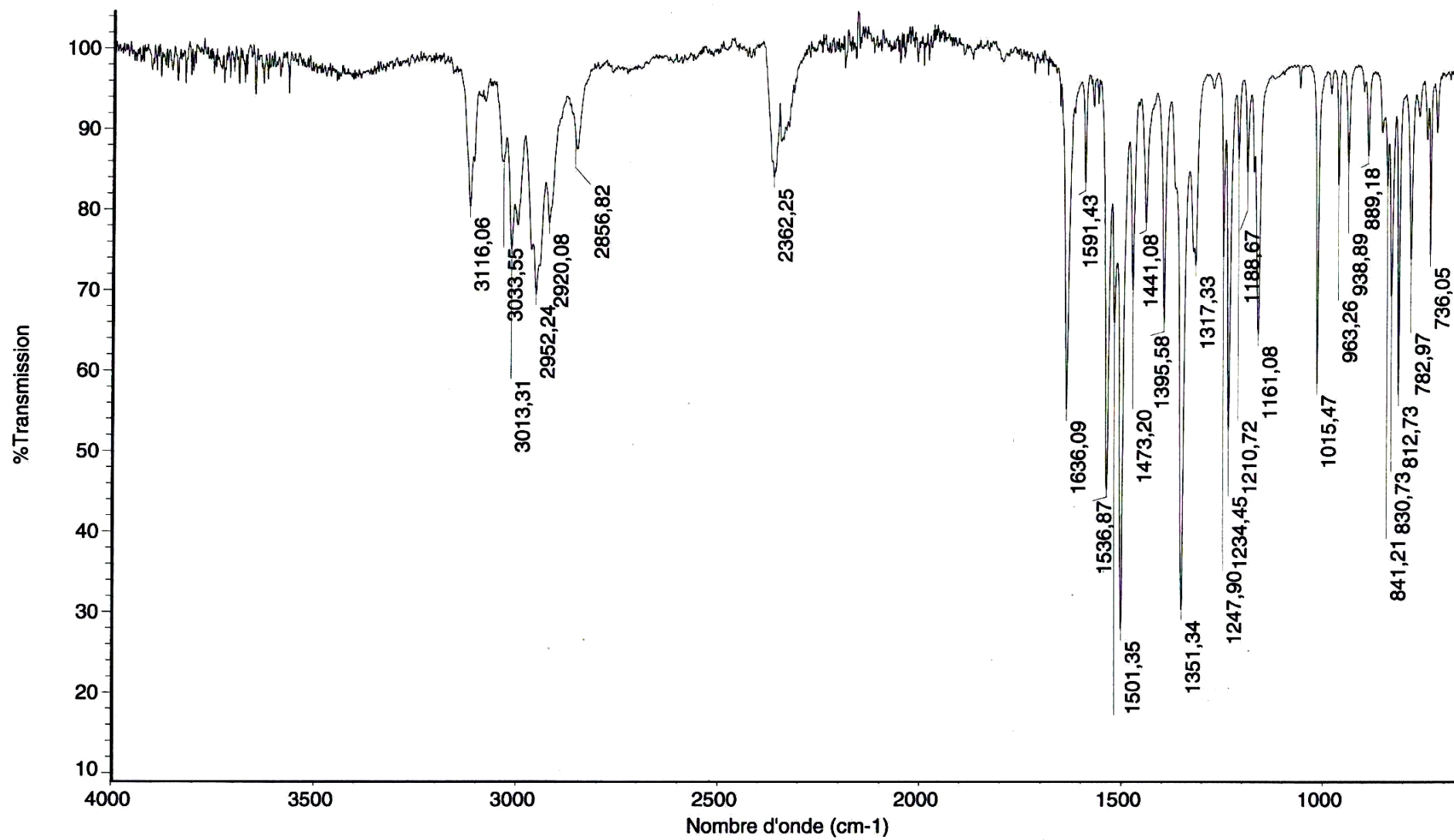


Figure S44. FTIR spectrum of compound 14

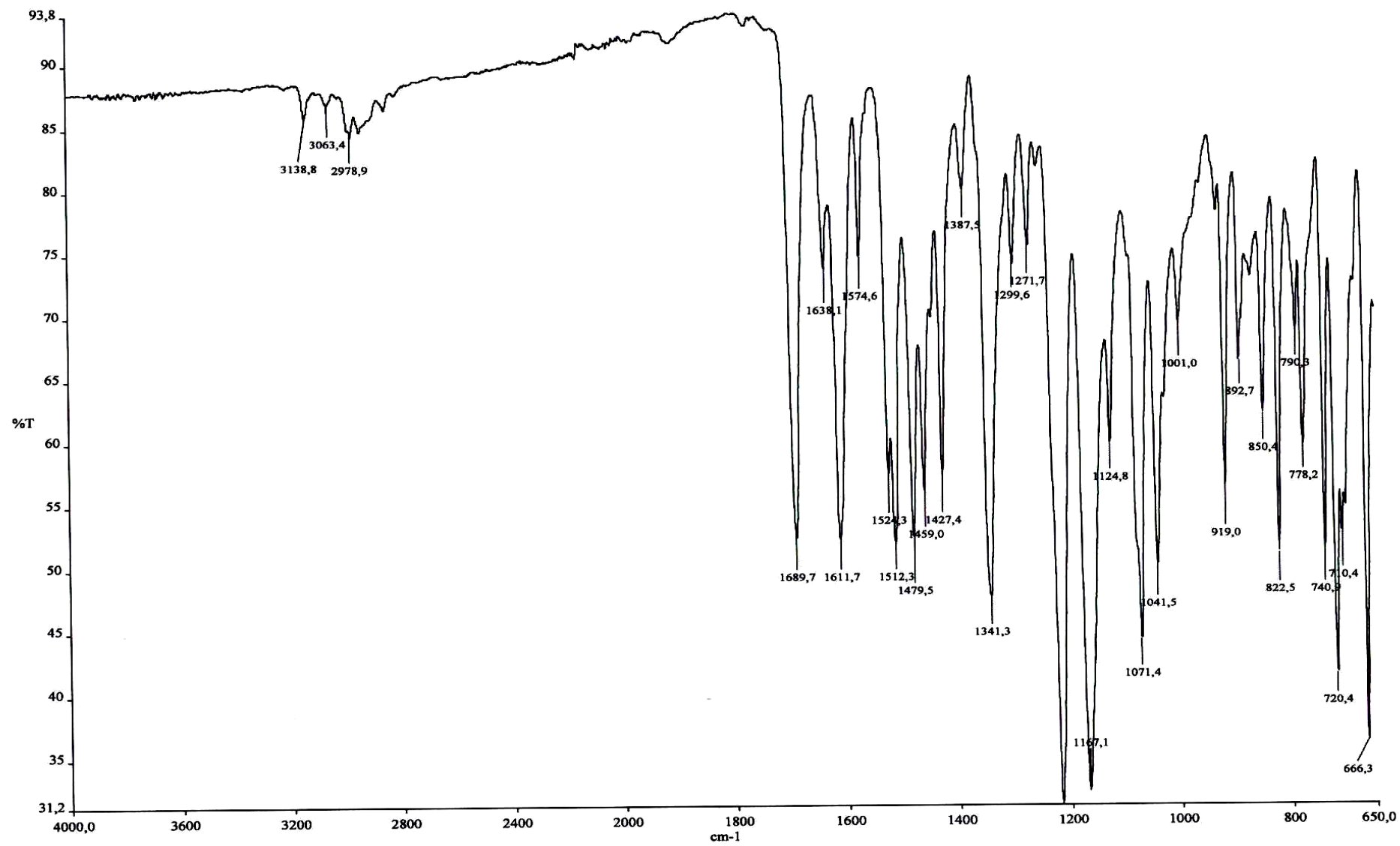


Figure S45. FTIR spectrum of compound 15

