

Supplementary Materials for

Synthesis and Antifouling Activity Evaluation of

Analogues of Bromosphaerol, a Brominated Diterpene

Isolated from the Red Alga *Sphaerococcus*

coronopifolius

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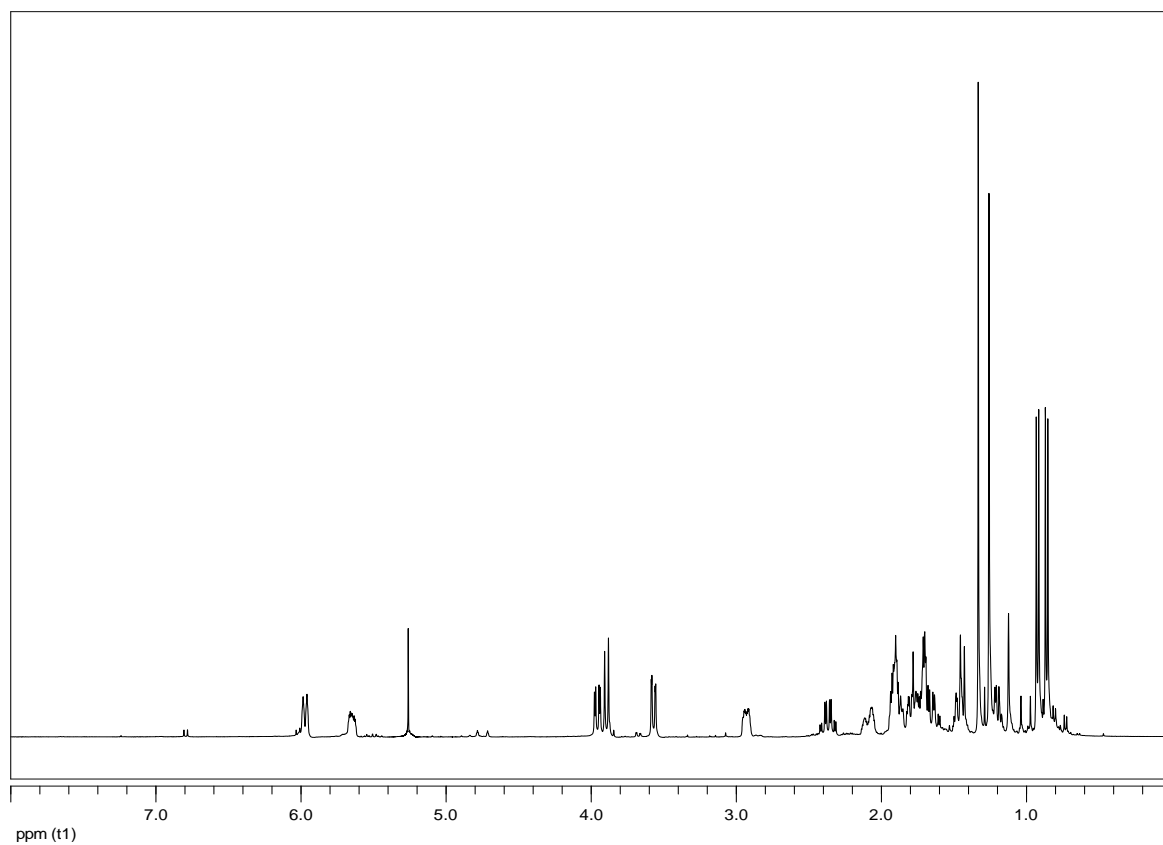


Figure S1. ^1H NMR spectrum (CDCl_3 , 400 MHz) of compound **1**.

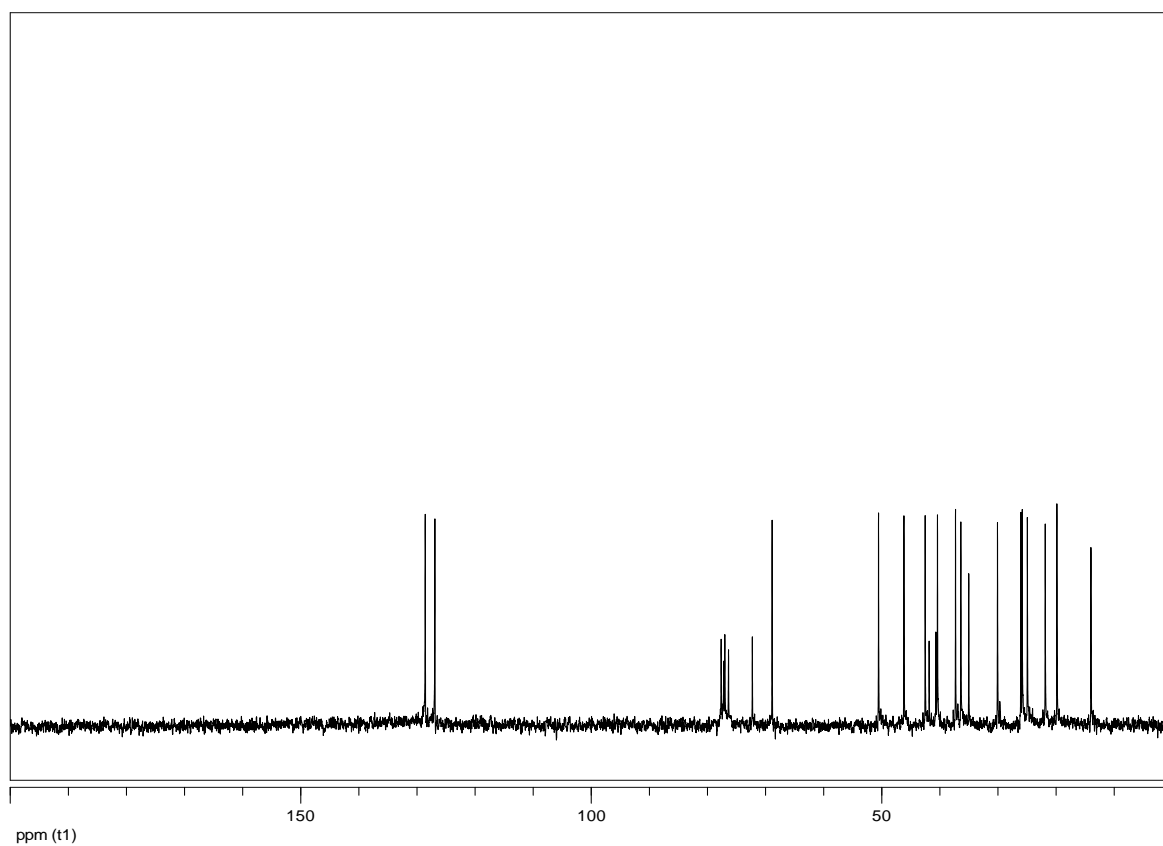


Figure S2. ^{13}C NMR spectrum (CDCl_3 , 100 MHz) of compound **1**.

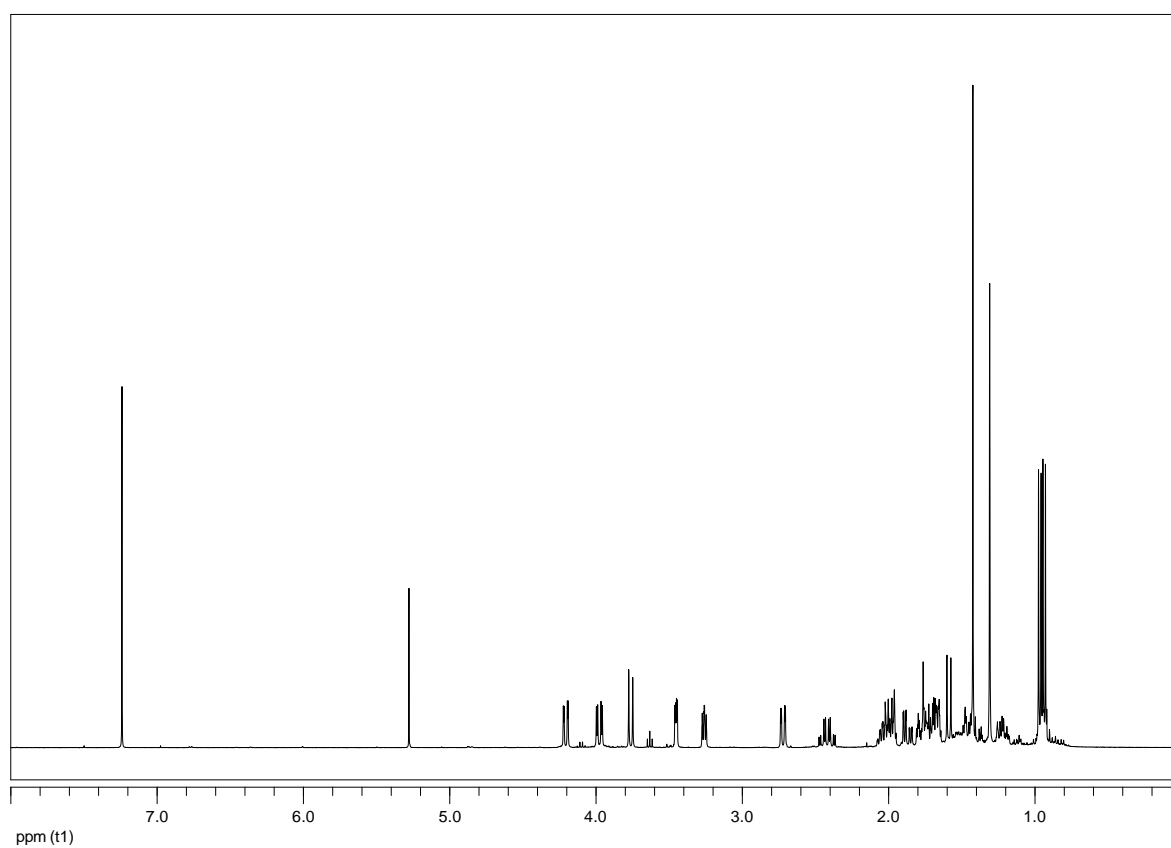


Figure S3. ^1H NMR spectrum (CDCl_3 , 600 MHz) of compound 2.

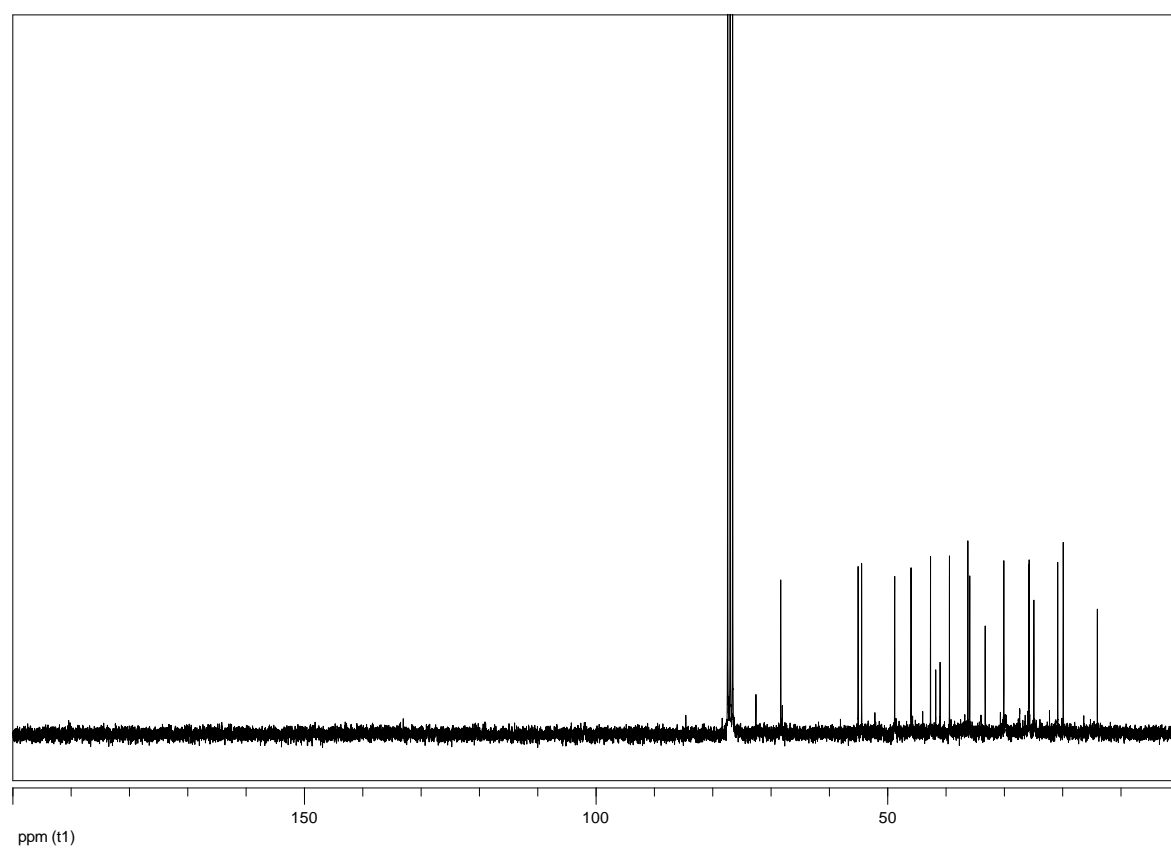


Figure S4. ^{13}C NMR spectrum (CDCl_3 , 75 MHz) of compound 2.

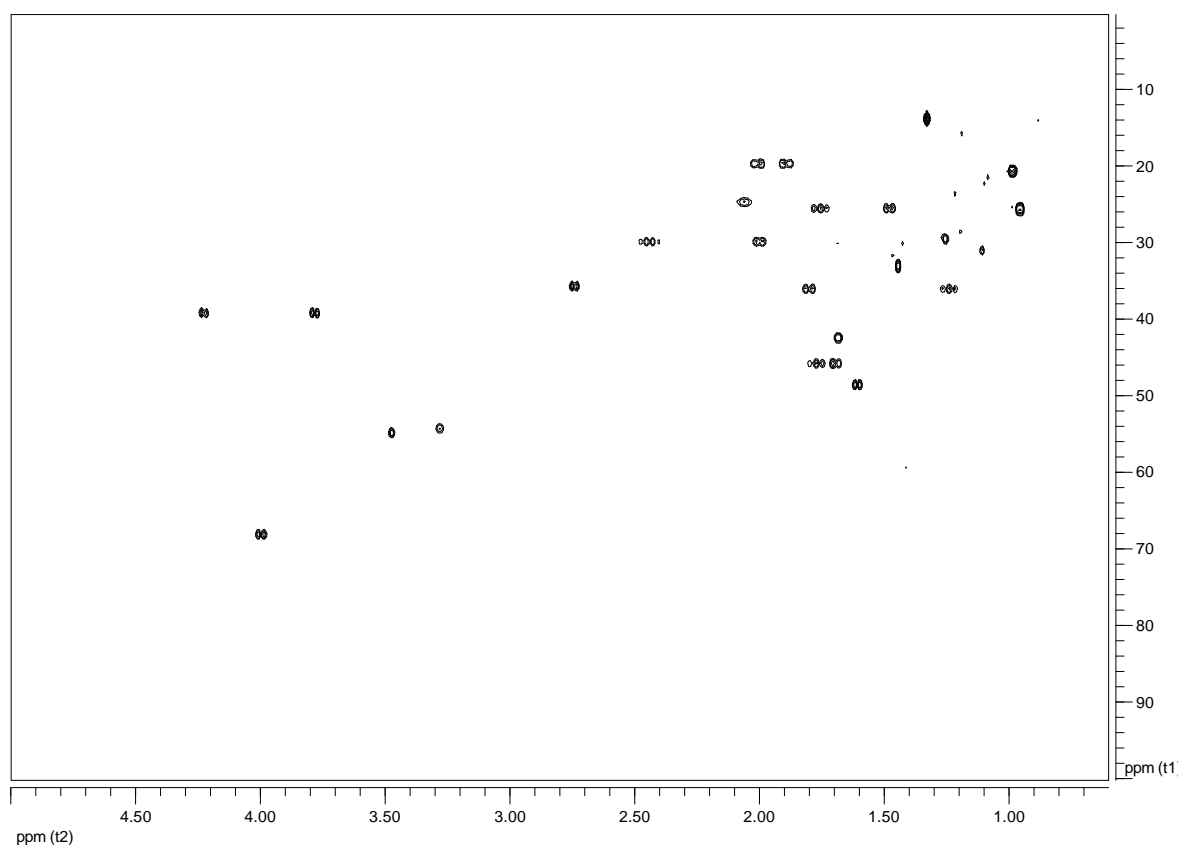


Figure S5. HSQC spectrum (CDCl₃, 600 MHz) of compound **2**.

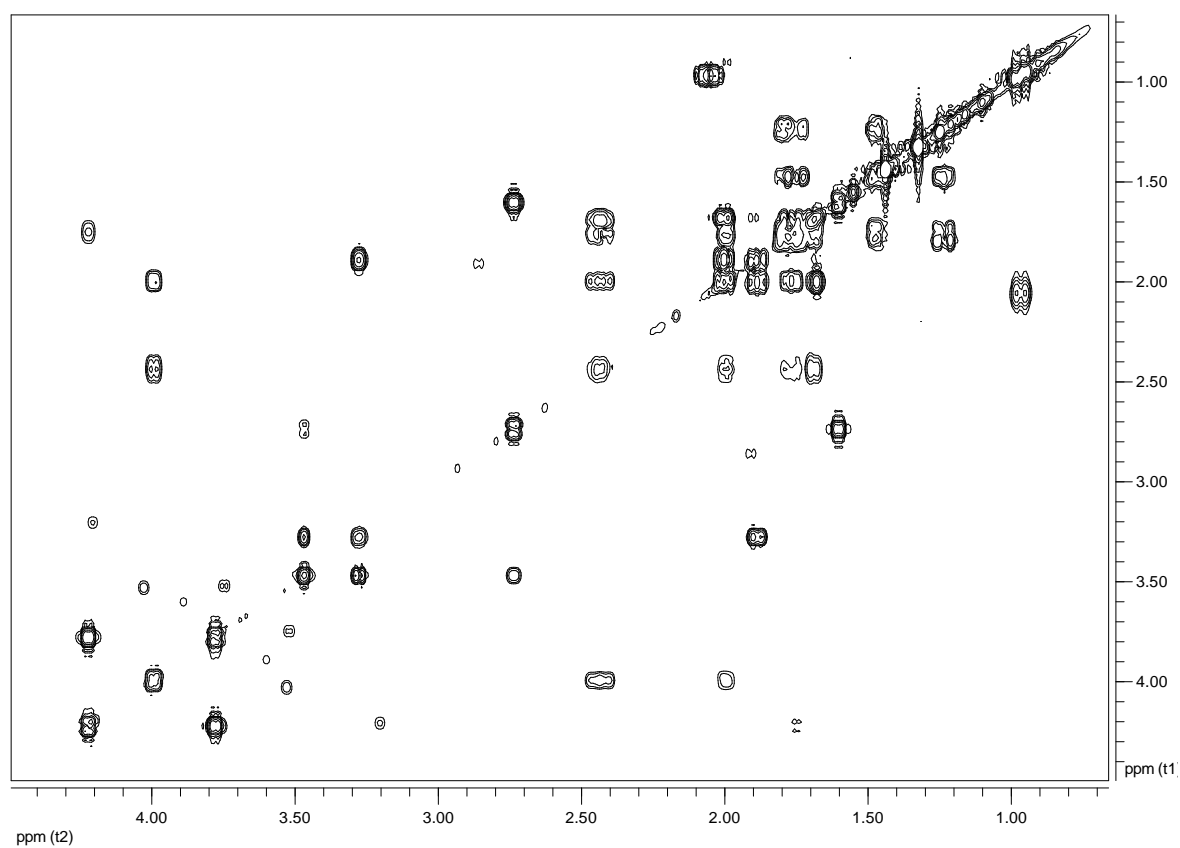


Figure S6. COSY spectrum (CDCl₃, 600 MHz) of compound **2**.

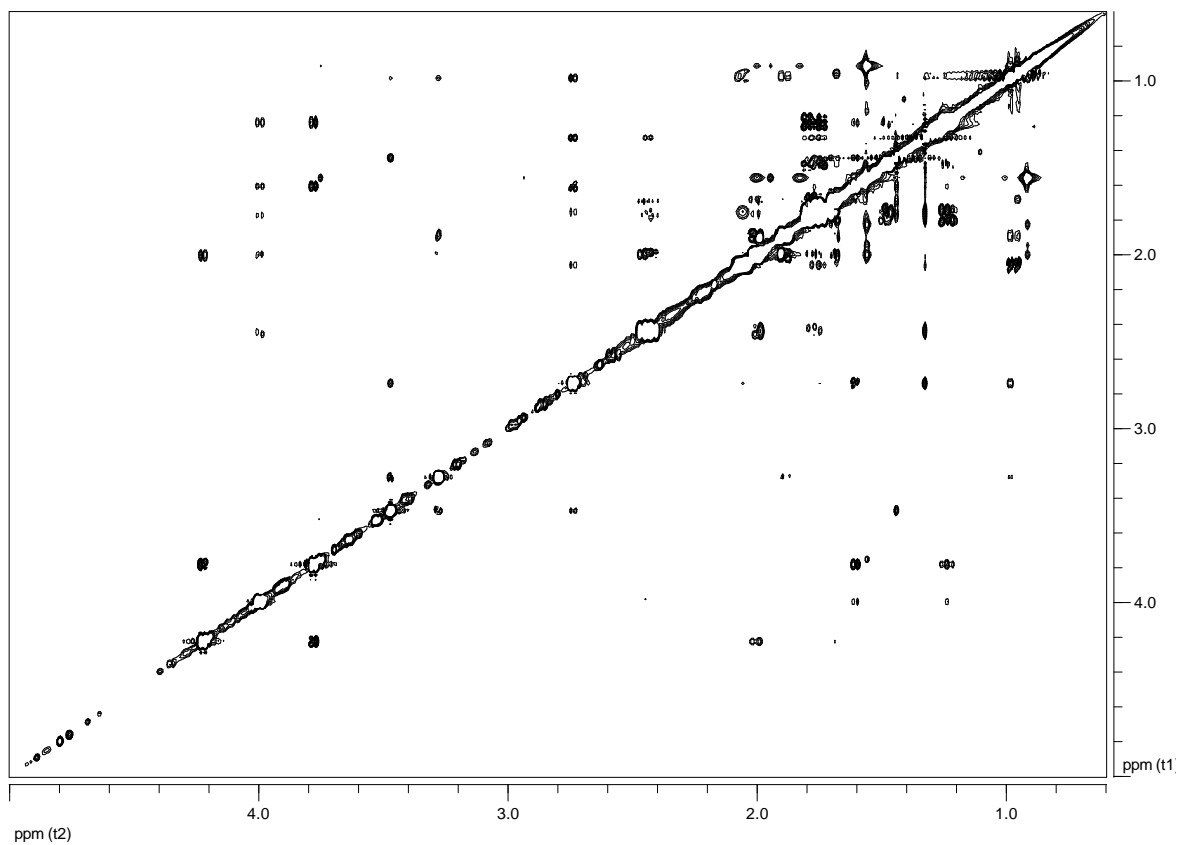


Figure S7. NOESY spectrum (CDCl_3 , 600 MHz) of compound **2**.

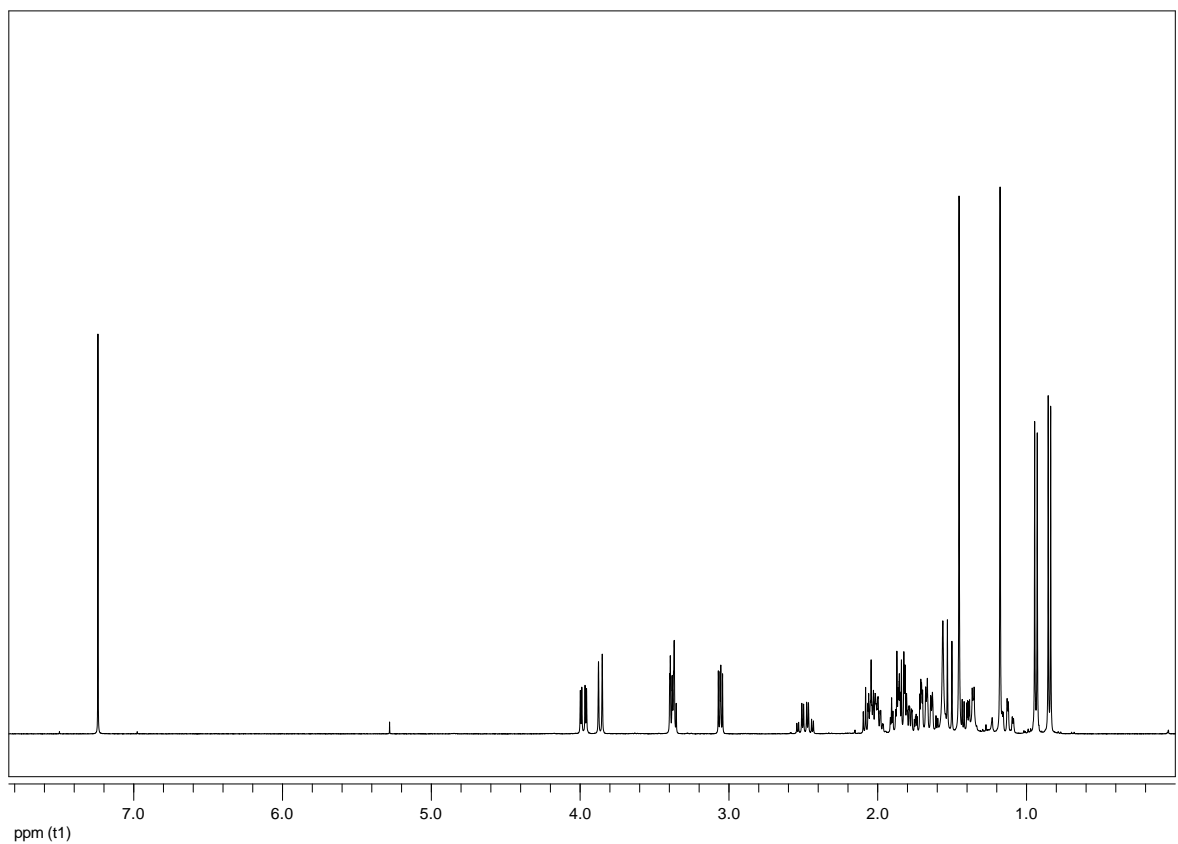


Figure S8. ^1H NMR spectrum (CDCl_3 , 400 MHz) of compound **3**.

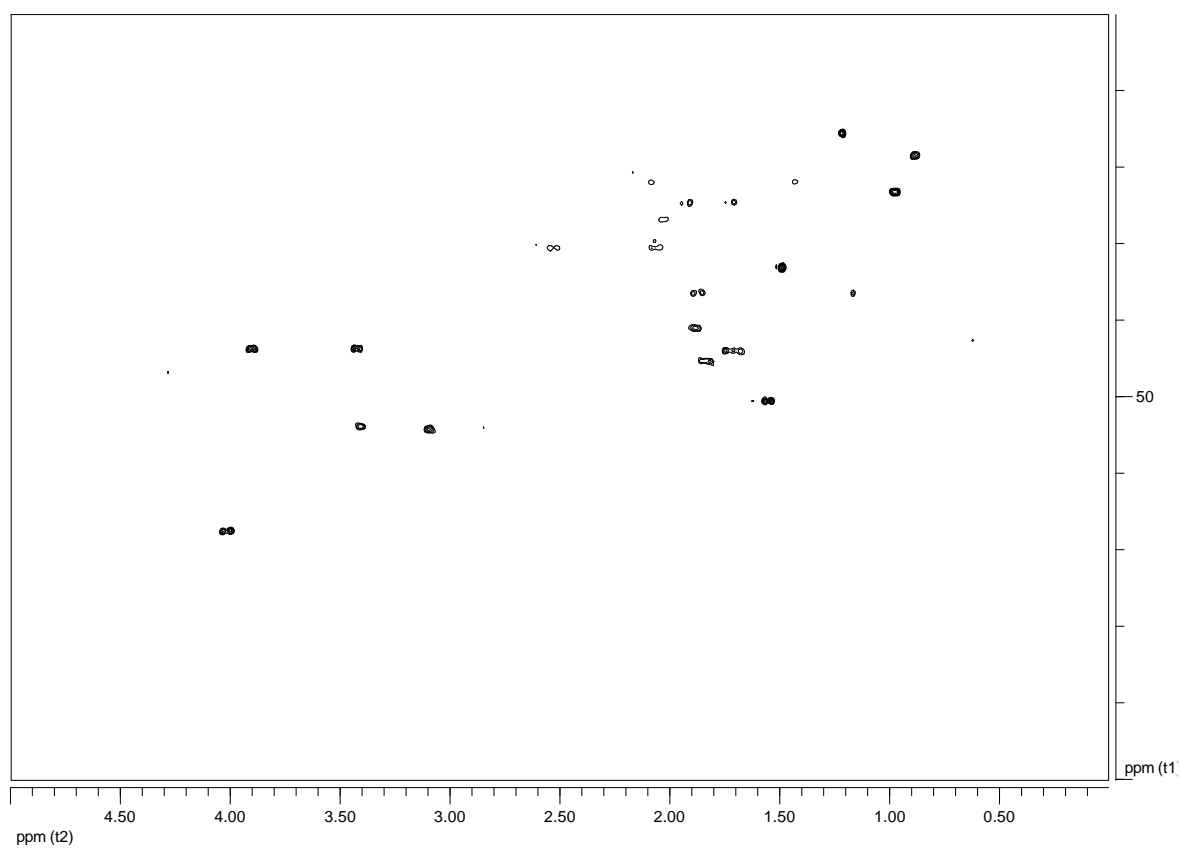


Figure S9. HSQC spectrum (CDCl_3 , 400 MHz) of compound **3**.

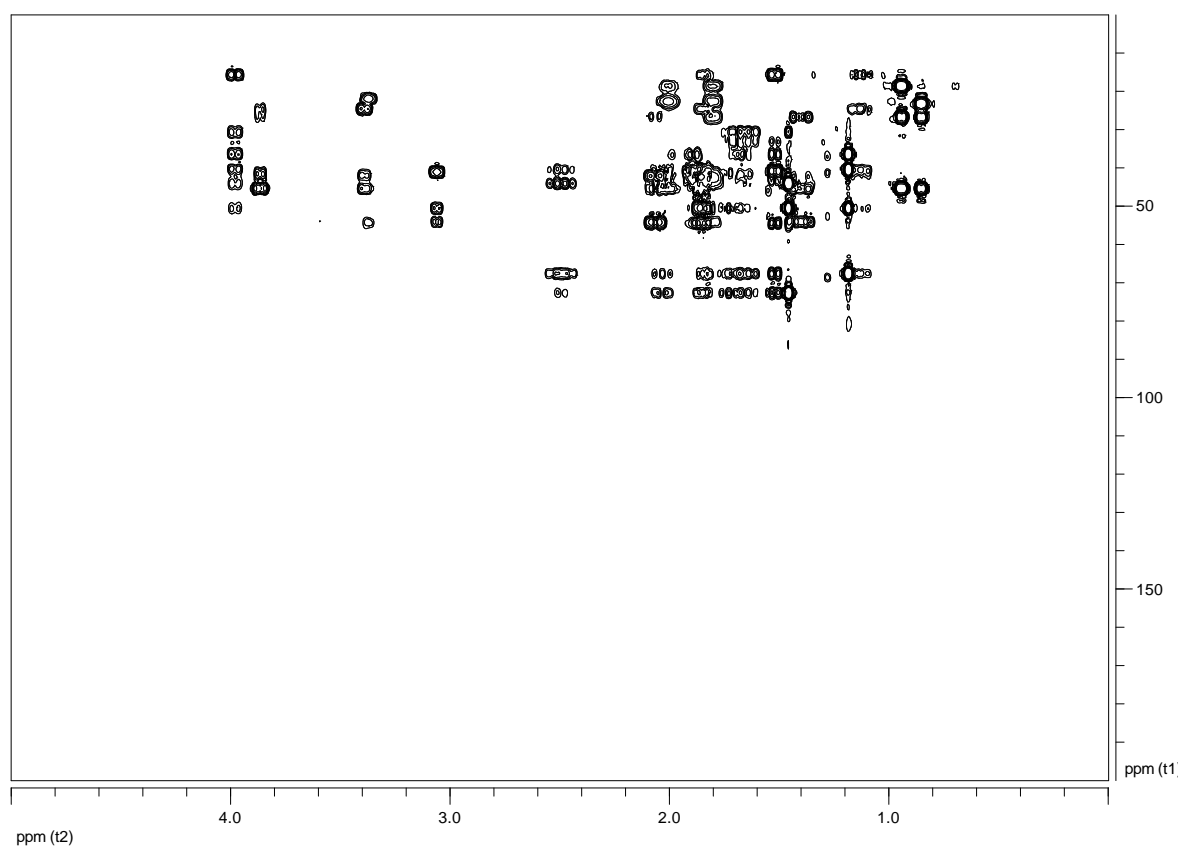


Figure S10. HMBC spectrum (CDCl_3 , 400 MHz) of compound **3**.

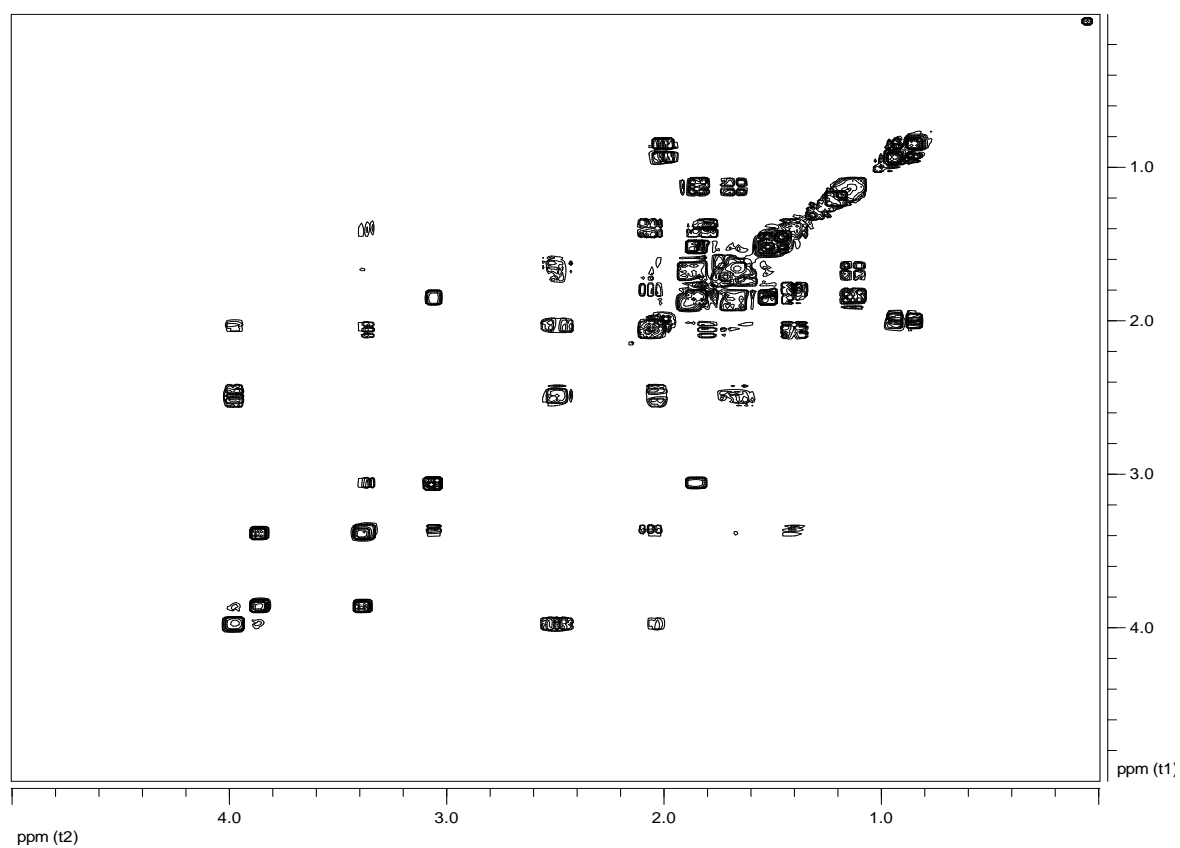


Figure S11. COSY spectrum (CDCl₃, 400 MHz) of compound 3.

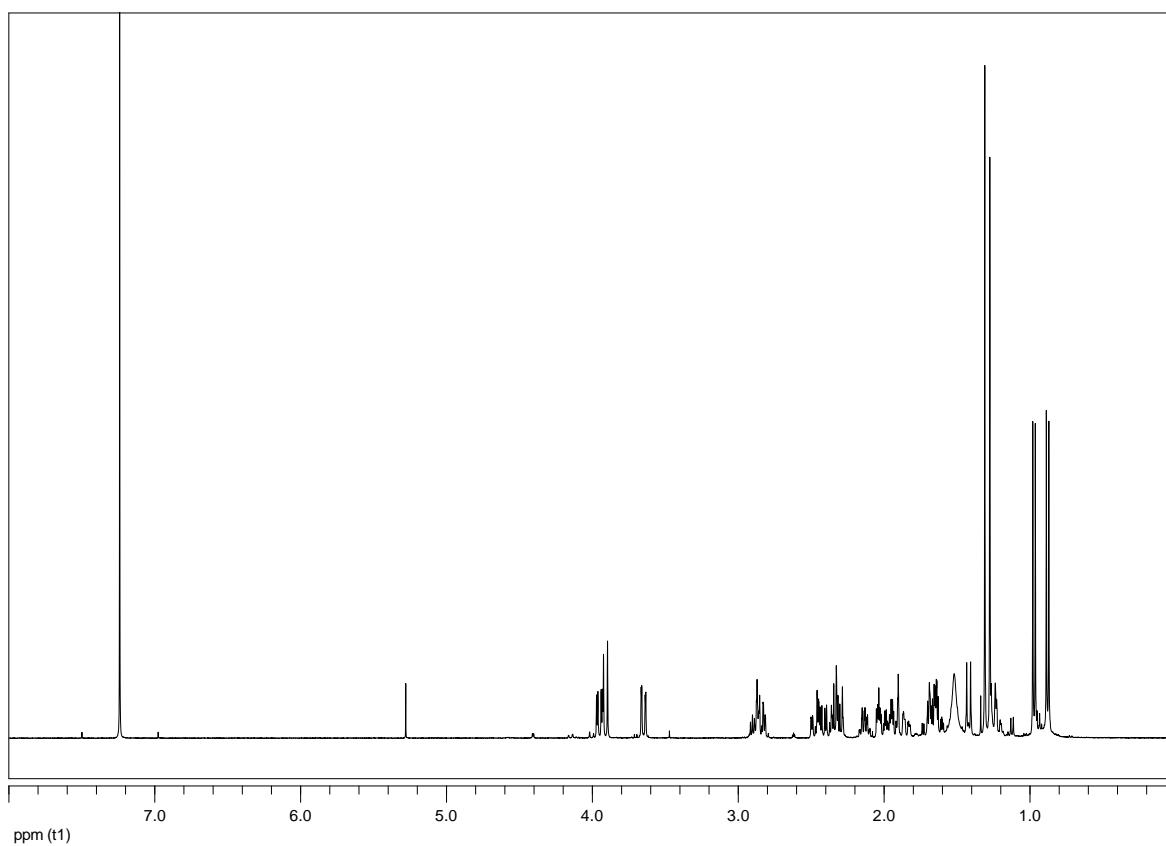


Figure S12. ¹H NMR spectrum (CDCl₃, 600 MHz) of compound 4.

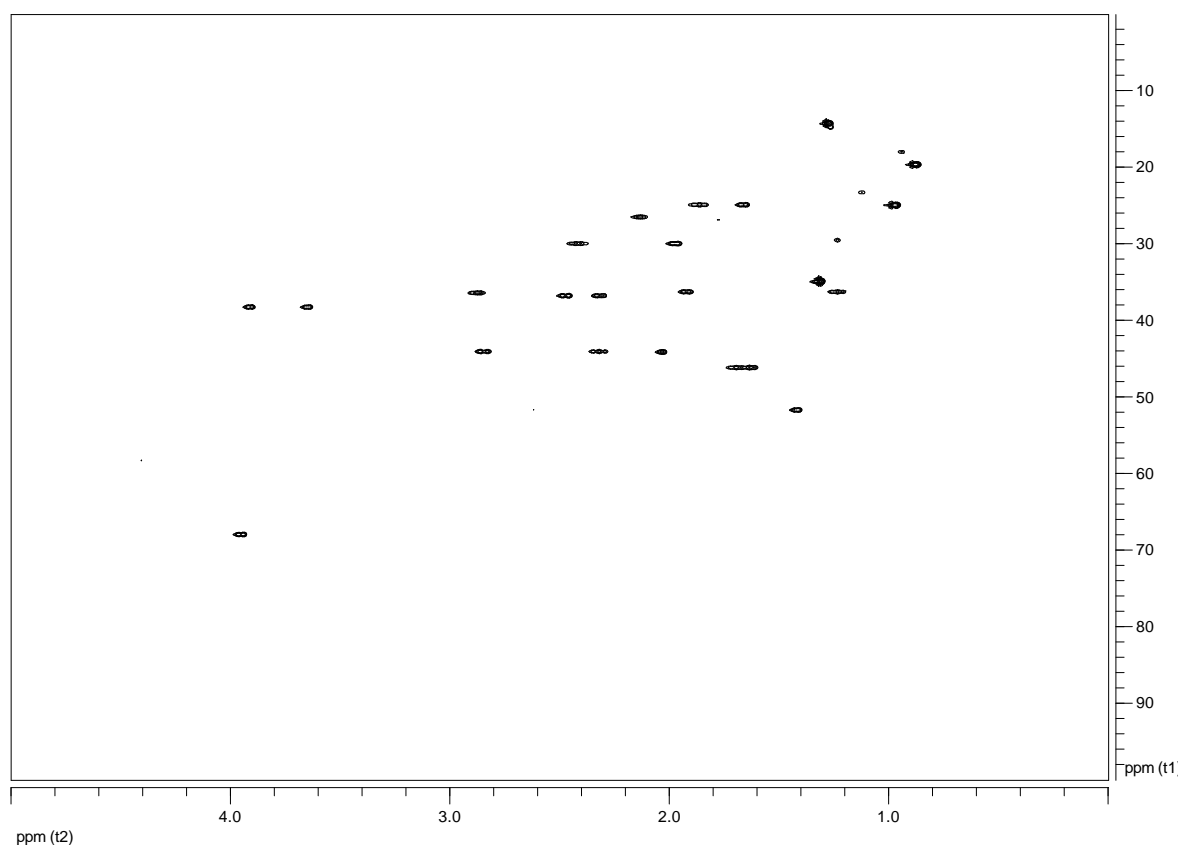


Figure S13. HSQC spectrum (CDCl₃, 600 MHz) of compound **4**.

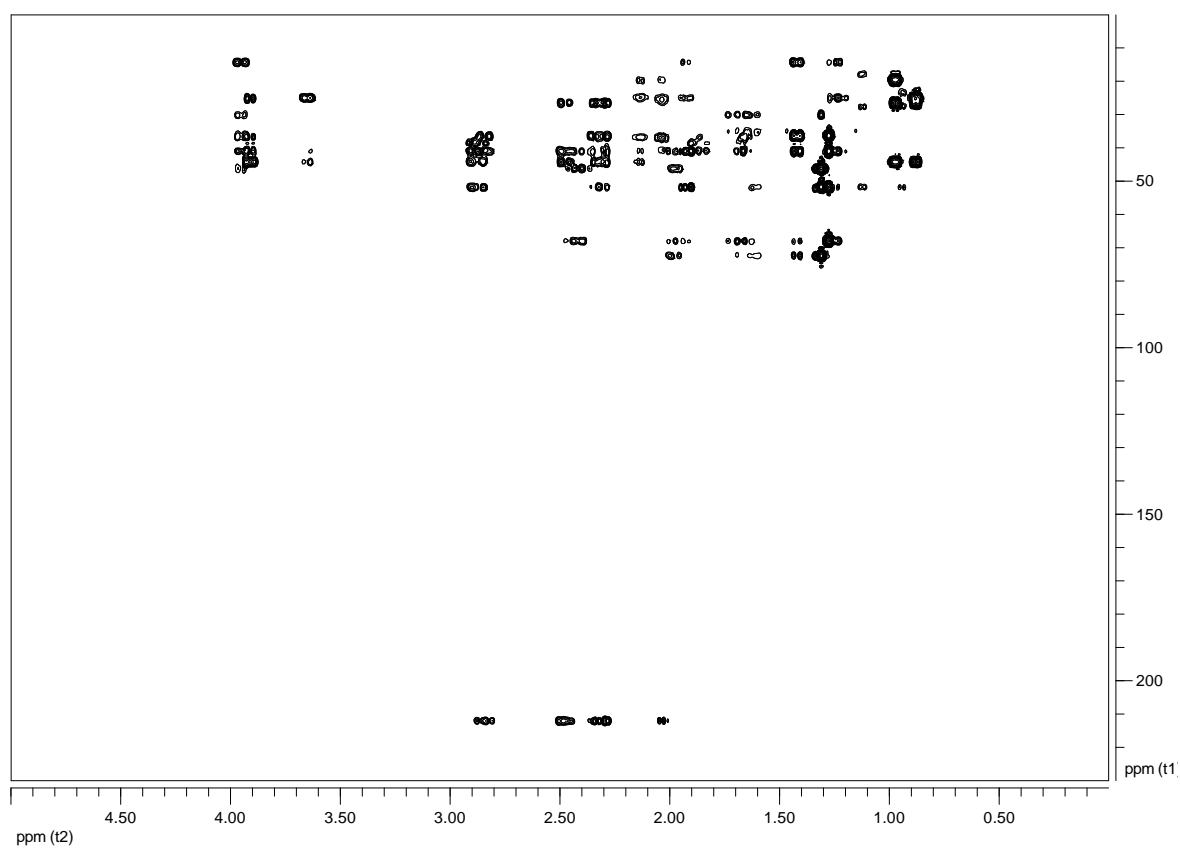


Figure S14. HMBC spectrum (CDCl₃, 400 MHz) of compound **4**.

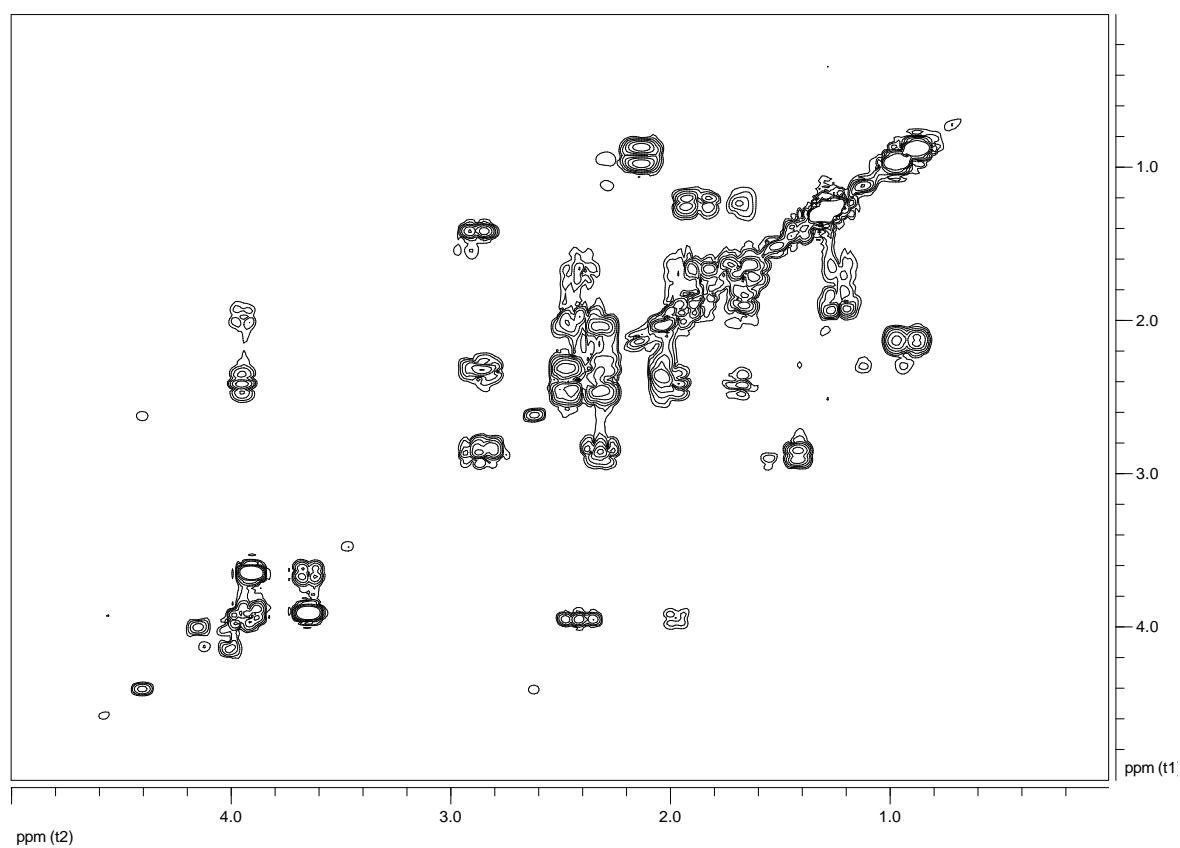


Figure S15. COSY spectrum (CDCl₃, 400 MHz) of compound **4**.

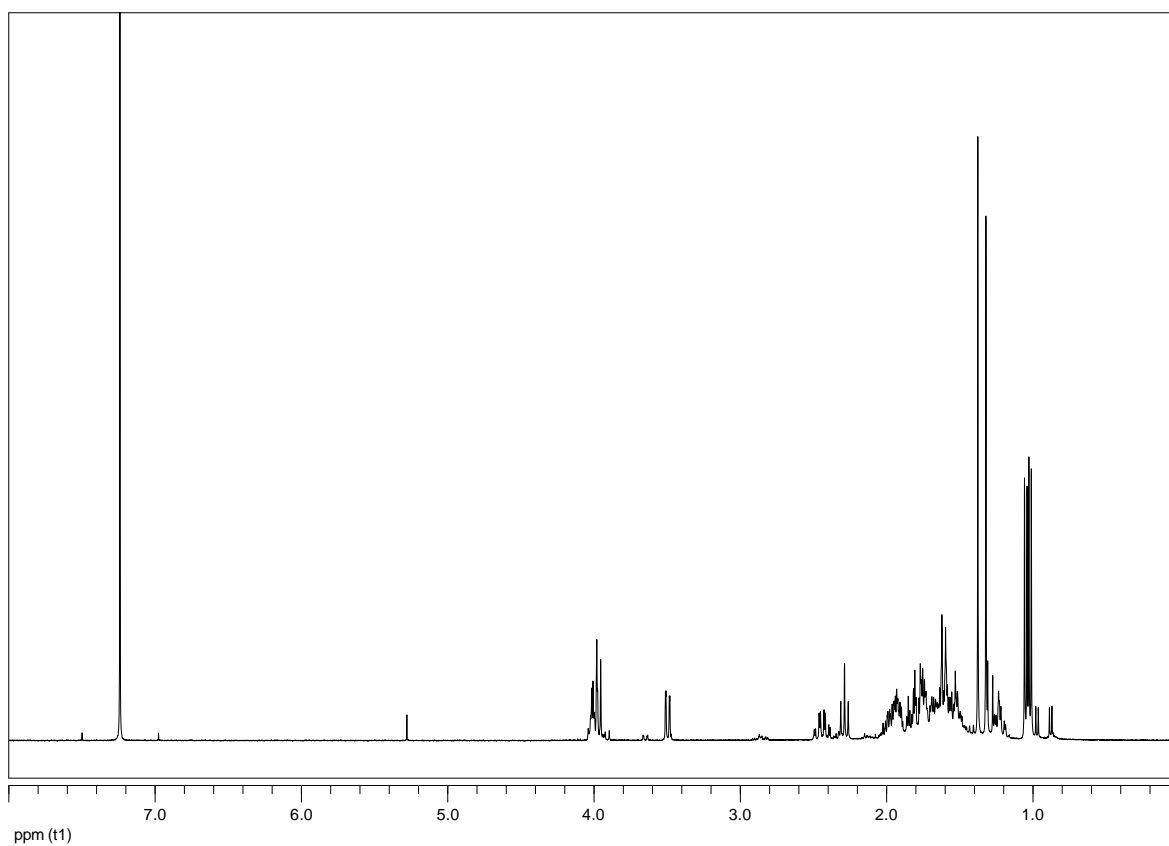


Figure S16. ¹H NMR spectrum (CDCl₃, 600 MHz) of compound **5**.

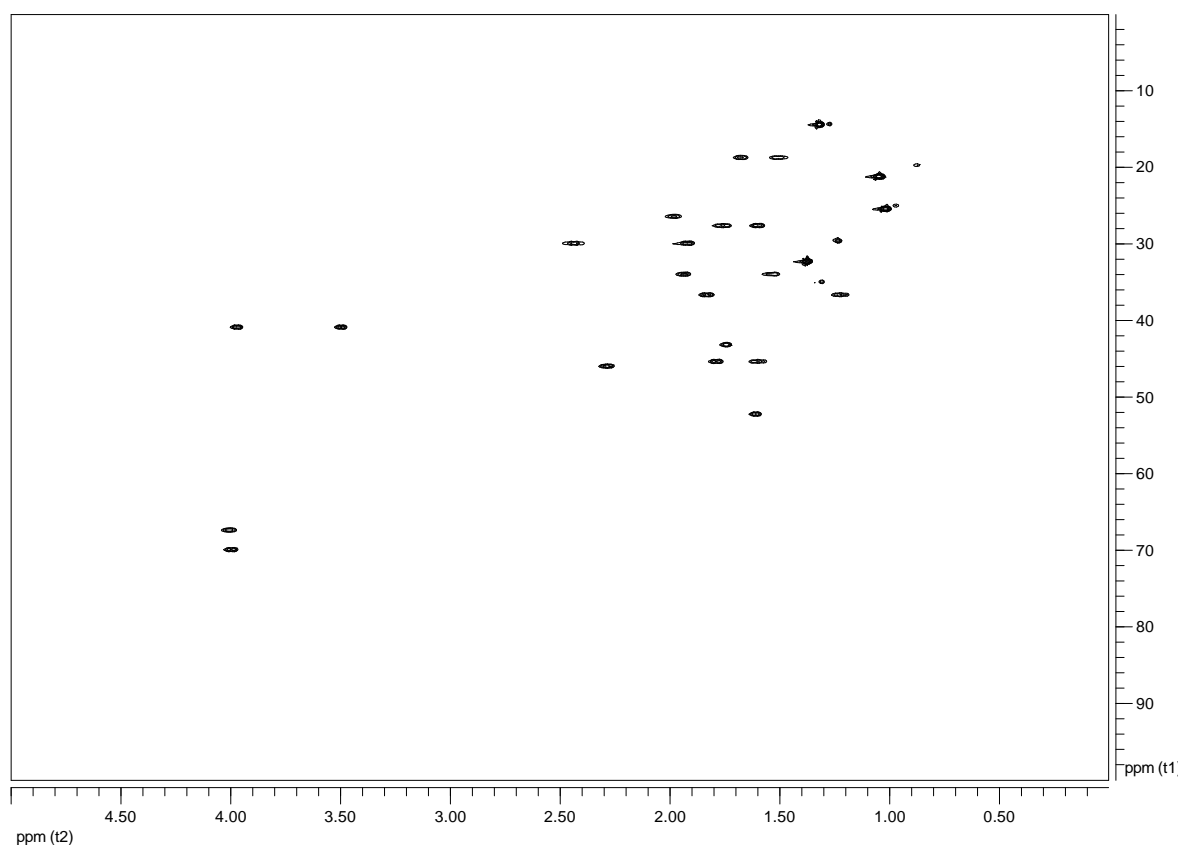


Figure S17. HSQC spectrum (CDCl₃, 600 MHz) of compound **5**.

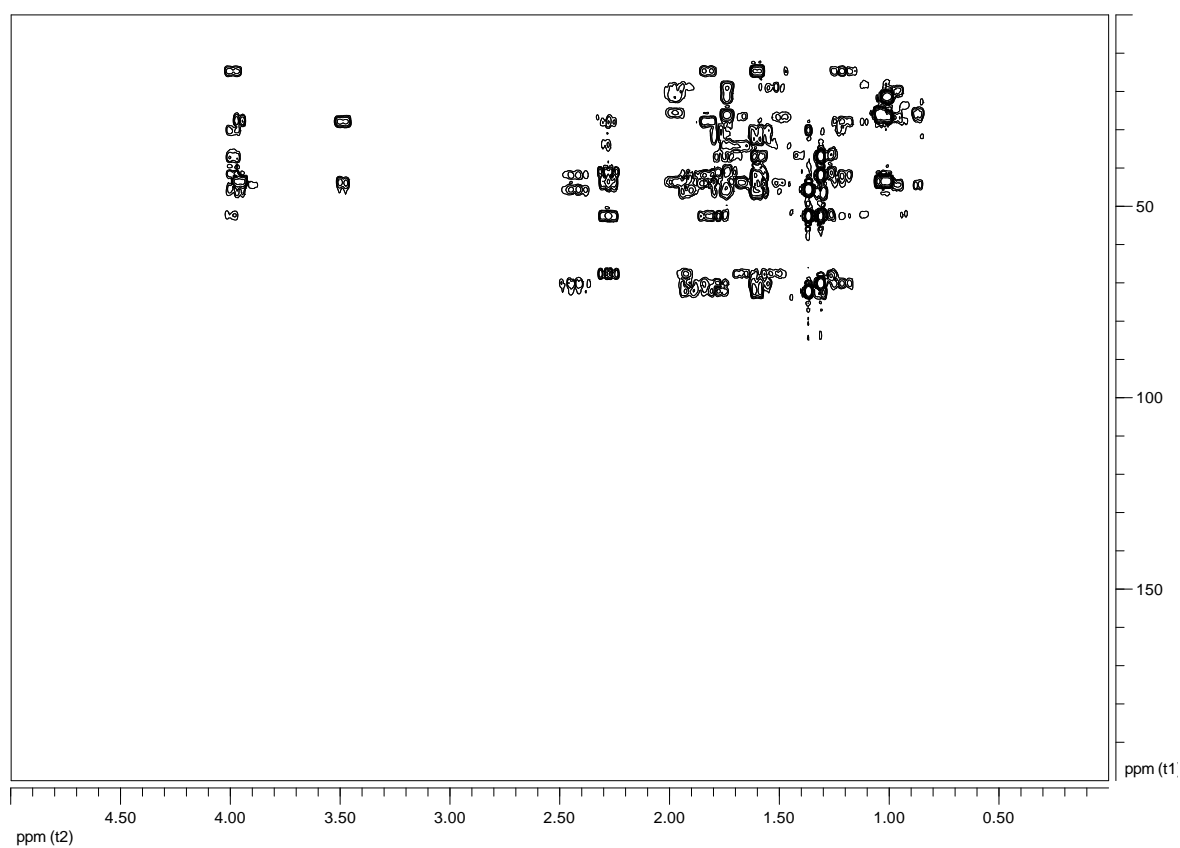


Figure S18. HMBC spectrum (CDCl₃, 400 MHz) of compound **5**.

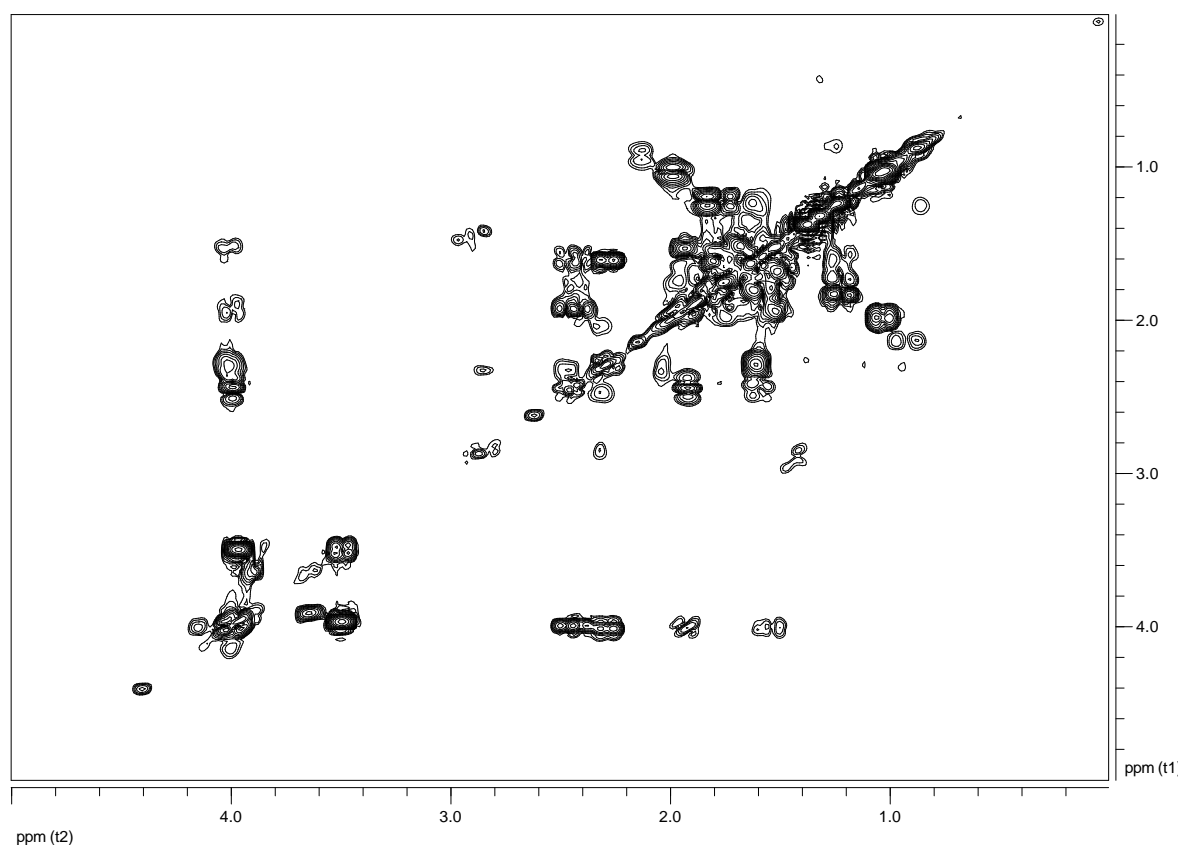


Figure S19. COSY spectrum (CDCl₃, 400 MHz) of compound 5.

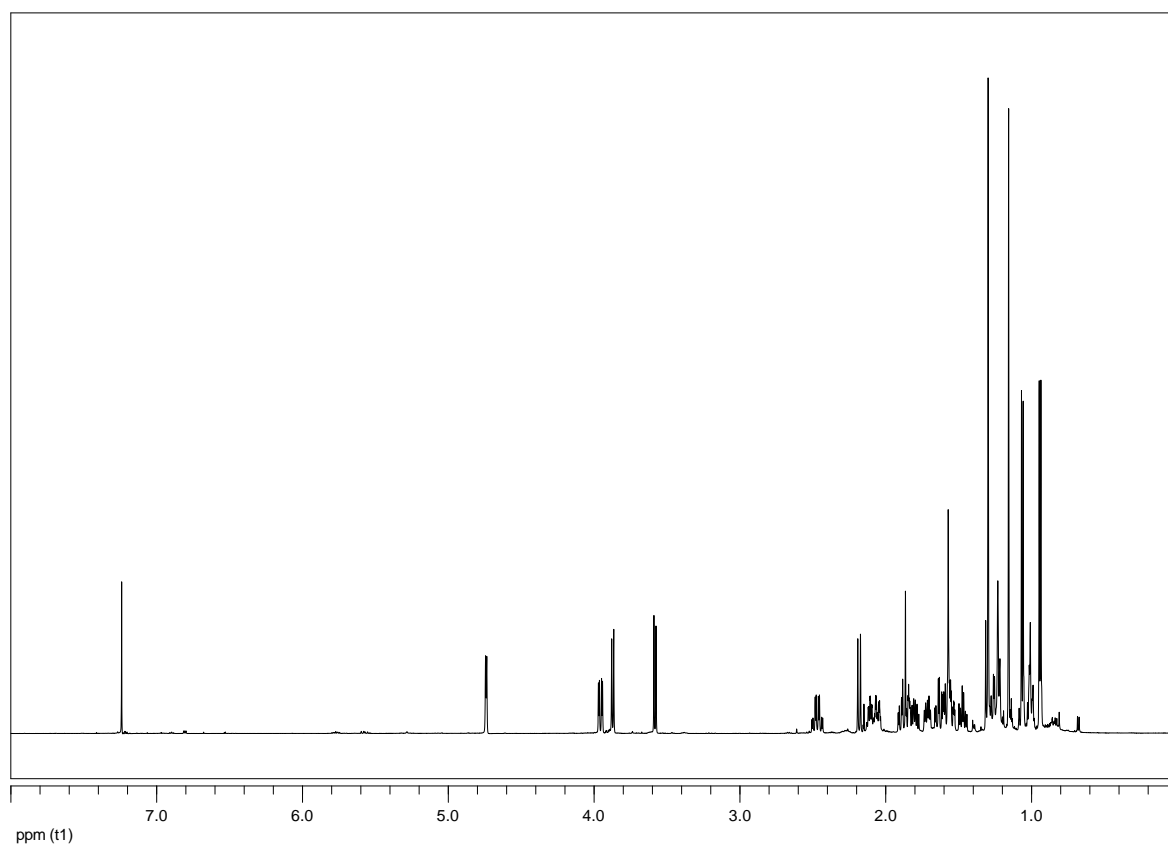


Figure S20. ¹H NMR spectrum (CDCl₃, 600 MHz) of compound 6.

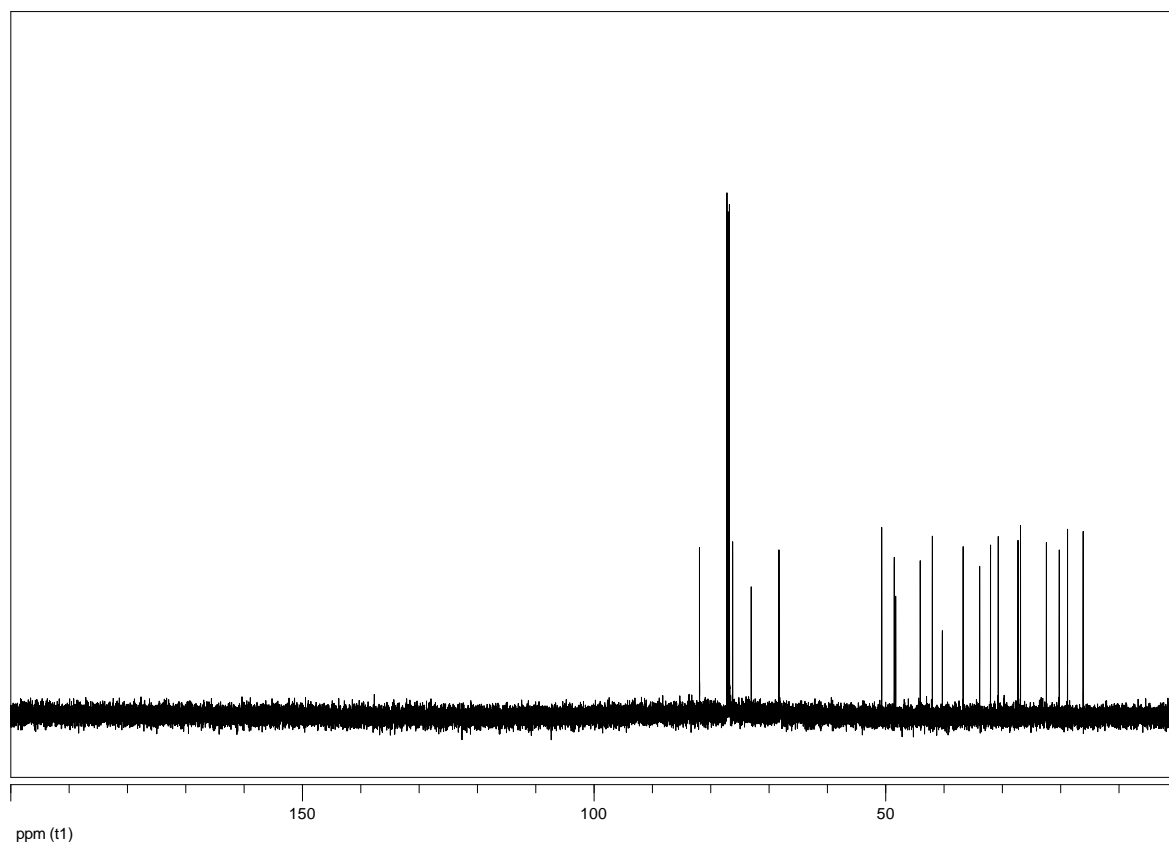


Figure S21. ^{13}C NMR spectrum (CDCl_3 , 150 MHz) of compound **6**.

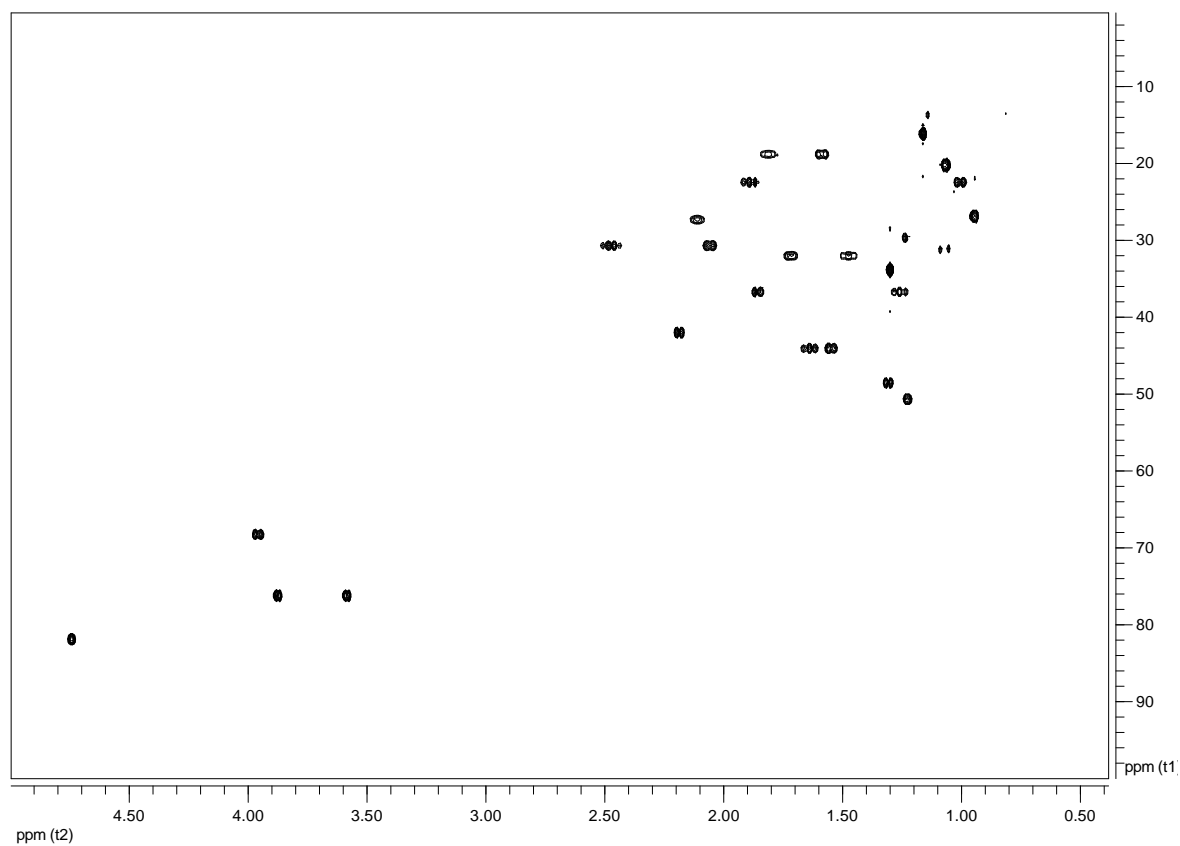


Figure S22. HSQC spectrum (CDCl_3 , 600 MHz) of compound **6**.

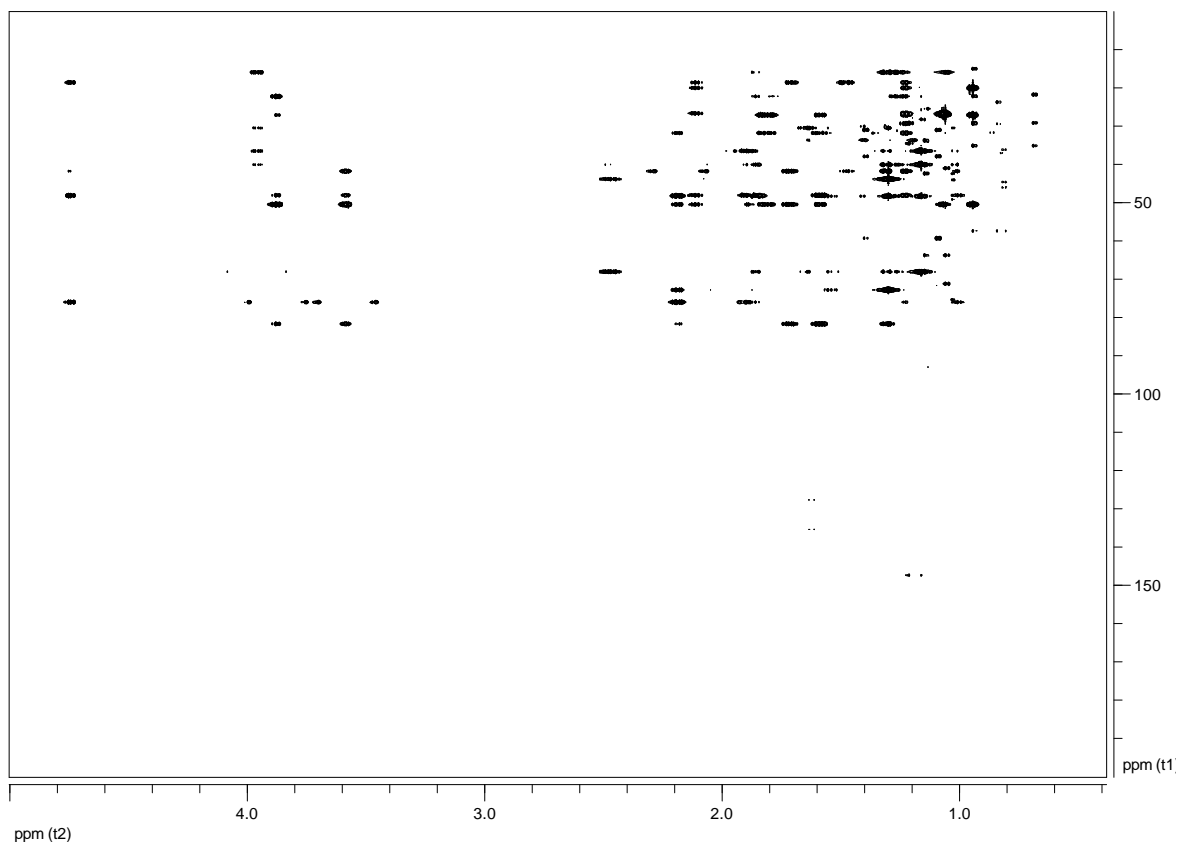


Figure S23. HMBC spectrum (CDCl₃, 600 MHz) of compound **6**.

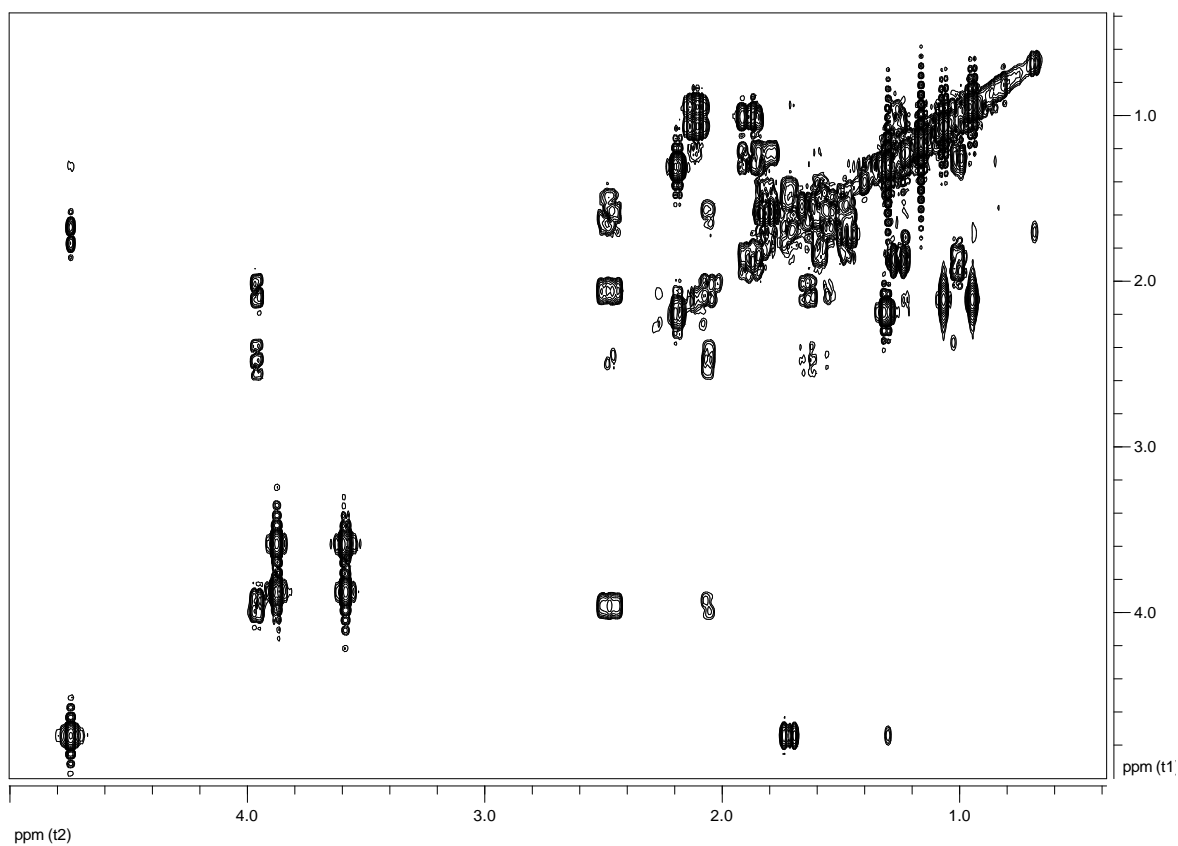


Figure S24. COSY spectrum (CDCl₃, 600 MHz) of compound **6**.

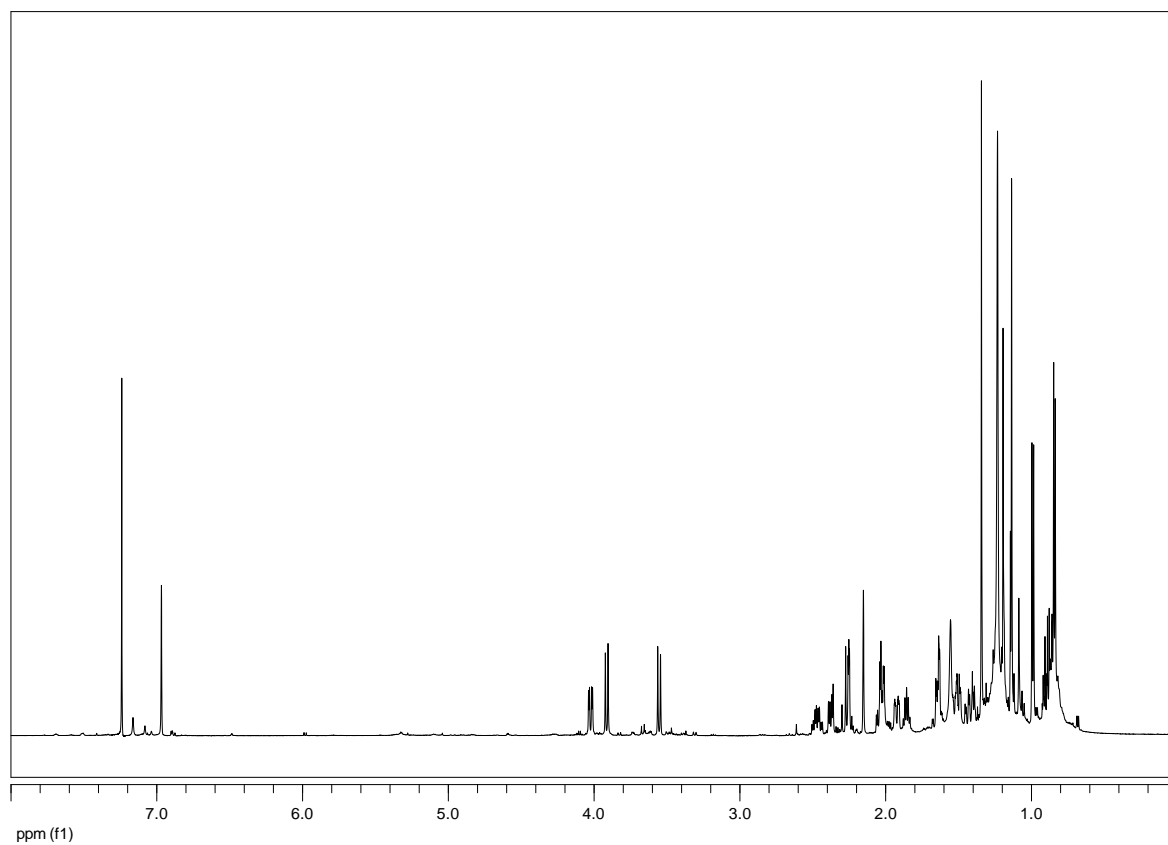


Figure S25. ¹H NMR spectrum (CDCl₃, 600 MHz) of compound 7.

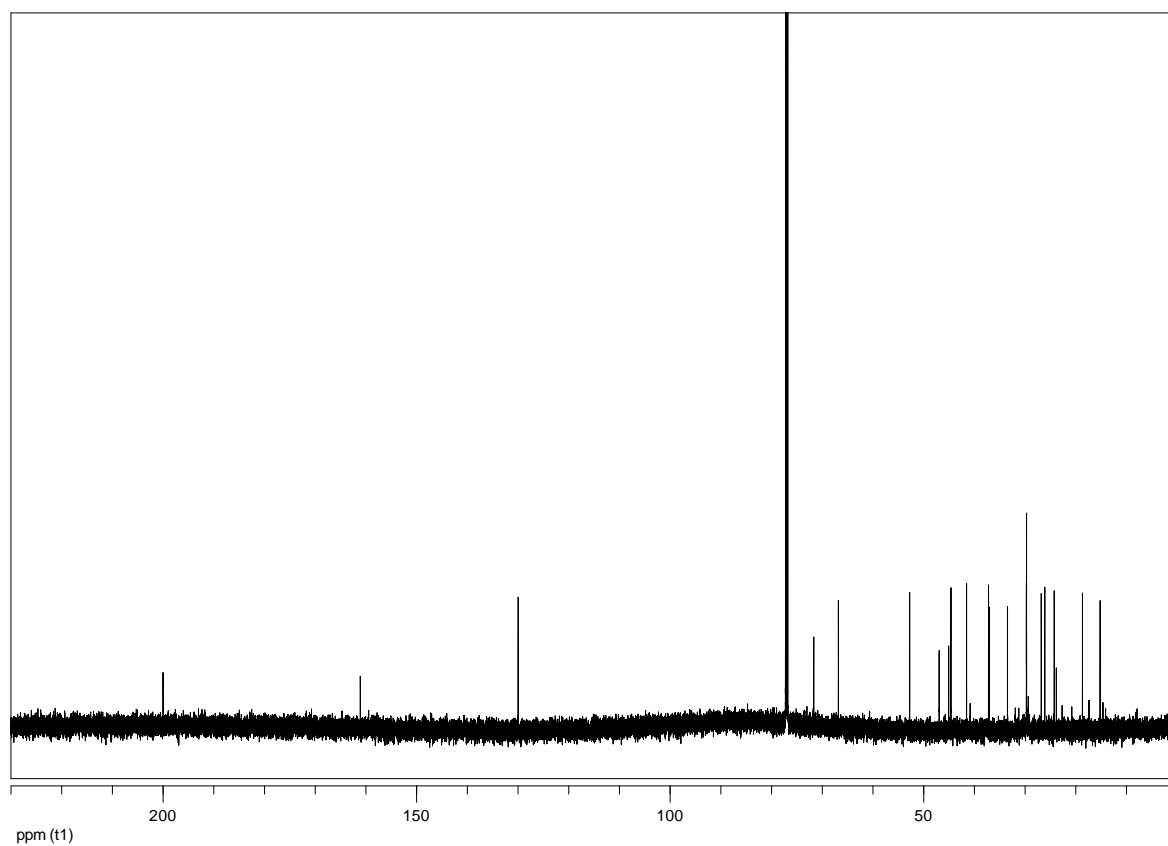


Figure S26. ¹³C NMR spectrum (CDCl₃, 75 MHz) of compound 7.

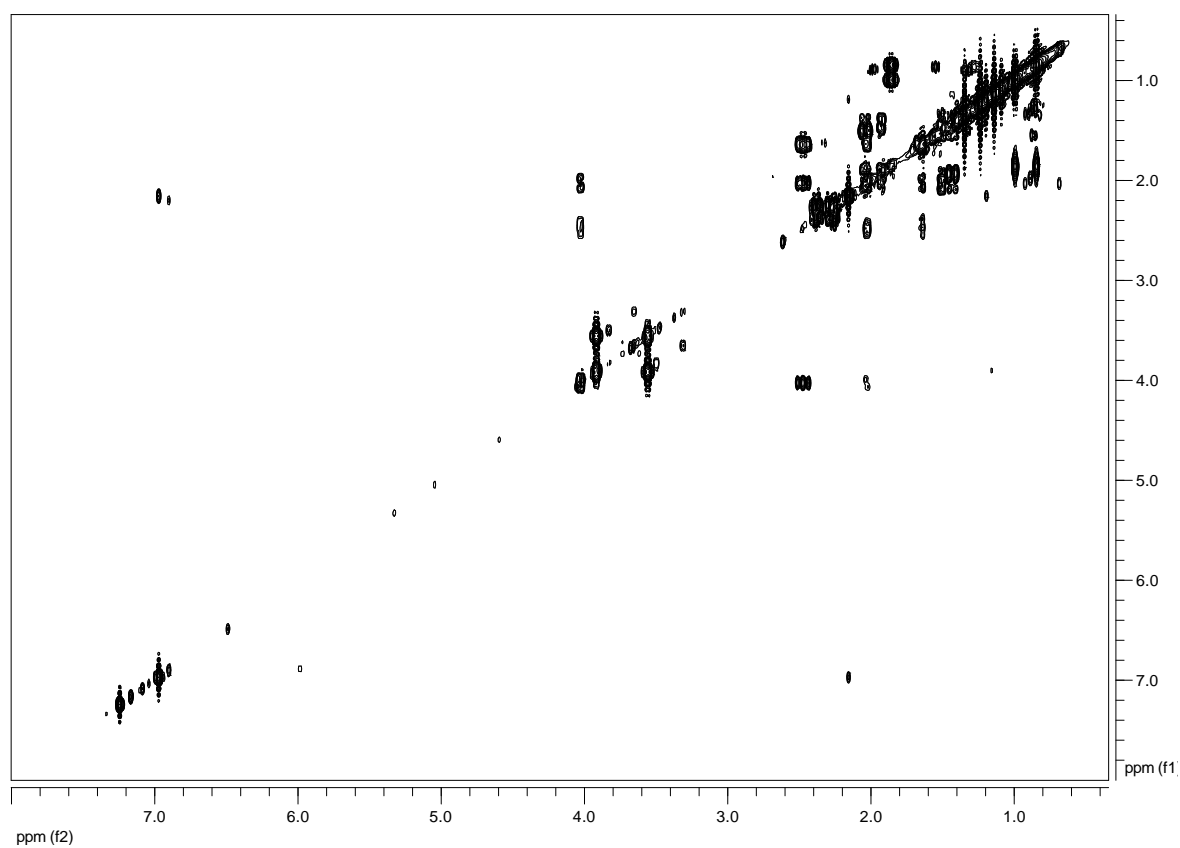


Figure S27. COSY spectrum (CDCl_3 , 600 MHz) of compound 7.

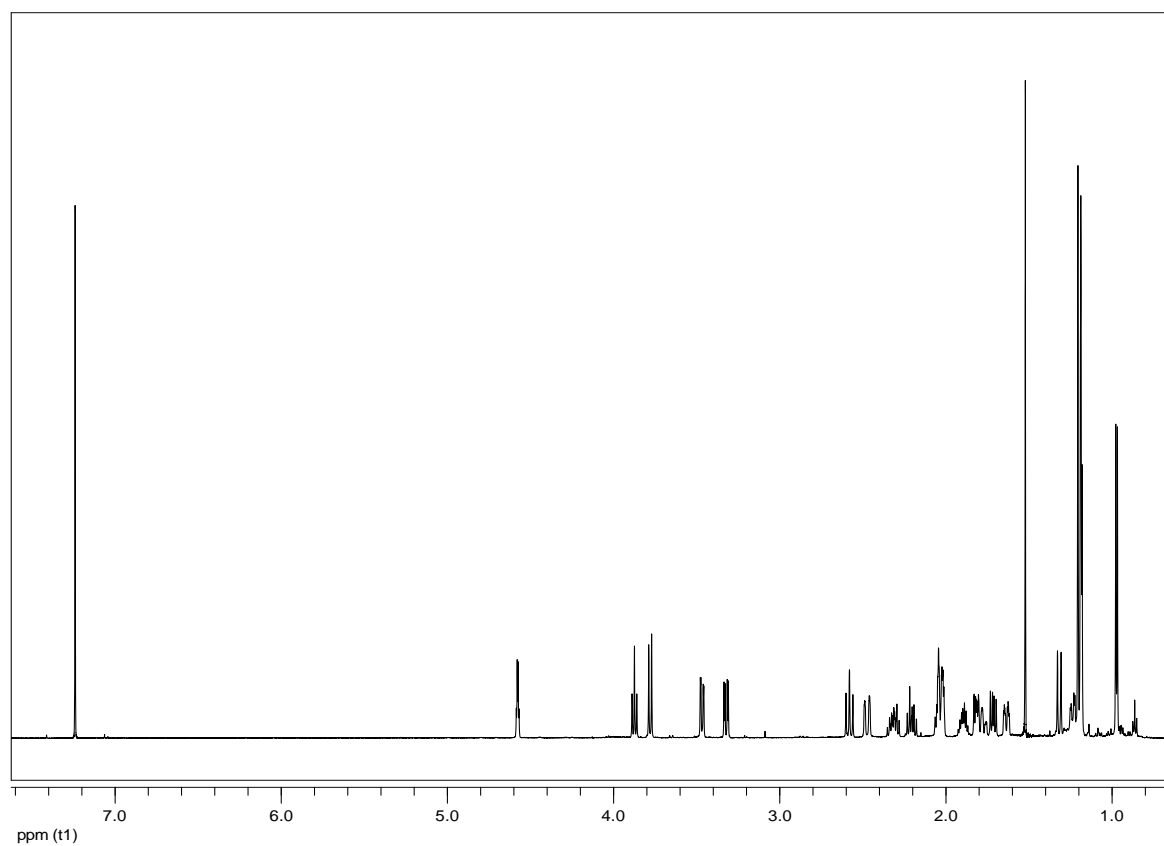


Figure S28. ^1H NMR spectrum (CDCl_3 , 600 MHz) of compound 8.

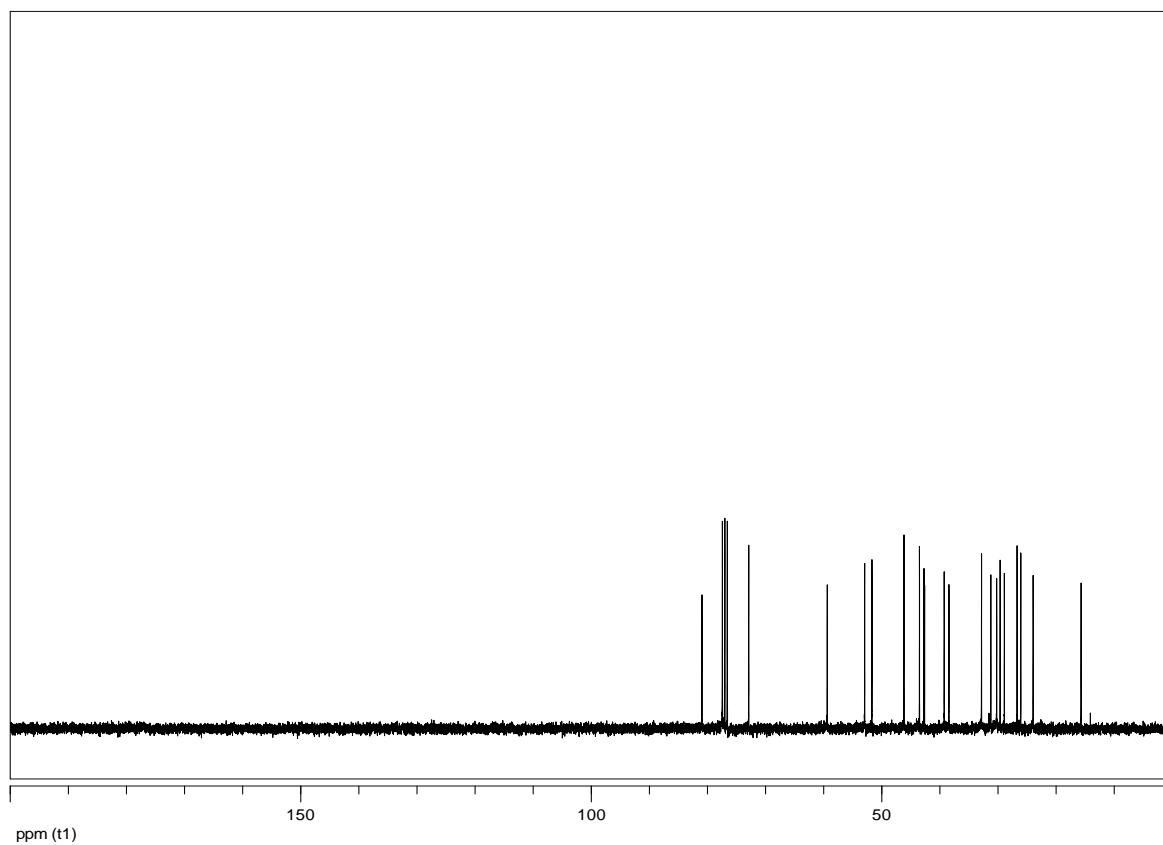


Figure S29. ^{13}C NMR spectrum (CDCl_3 , 75 MHz) of compound 8.

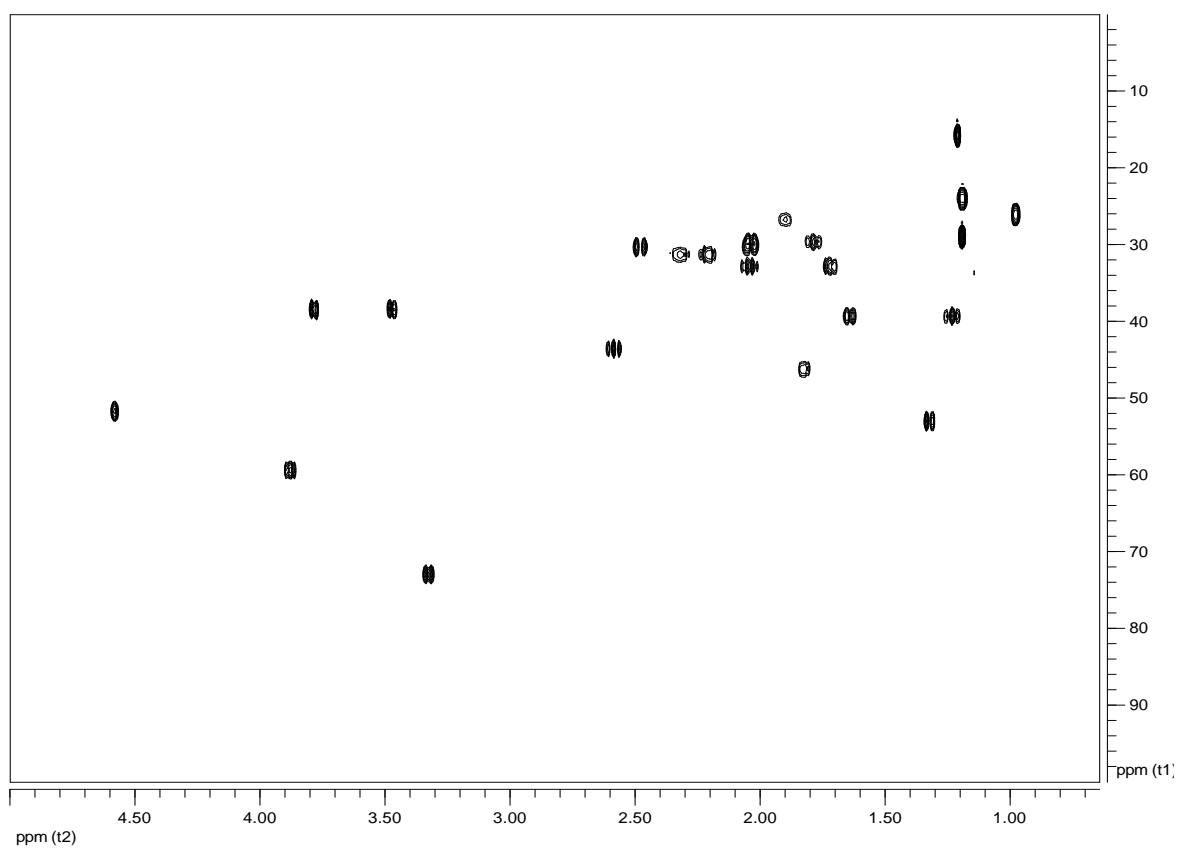


Figure S30. HSQC spectrum (CDCl_3 , 600 MHz) of compound 8.

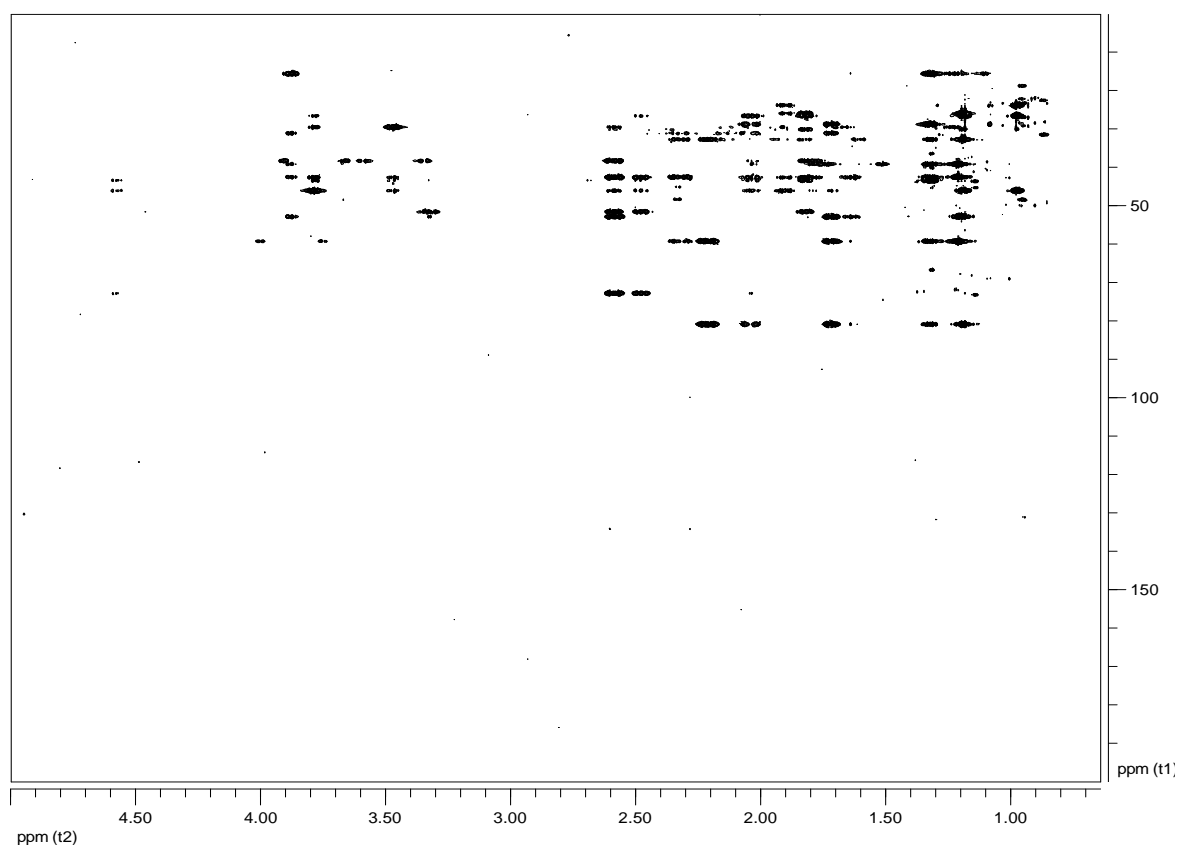


Figure S31. HMBC spectrum (CDCl_3 , 600 MHz) of compound **8**.

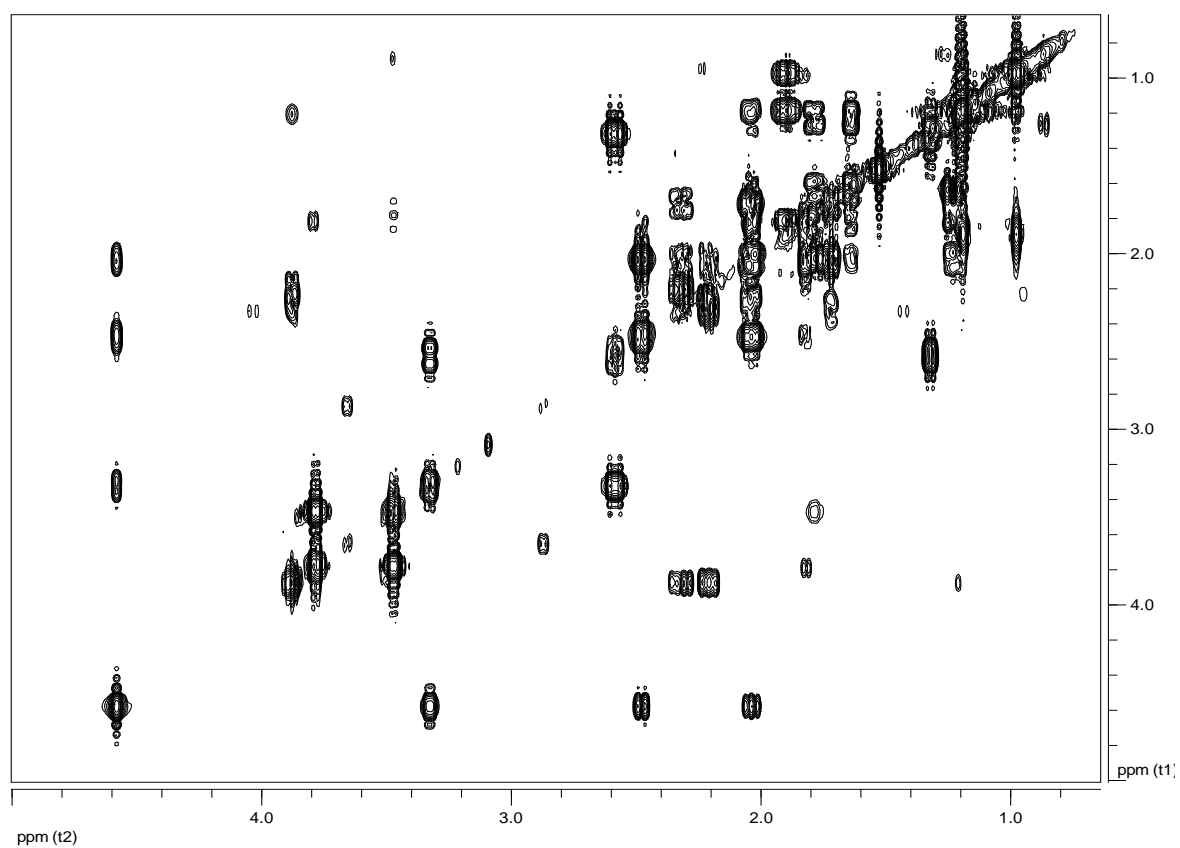


Figure S32. COSY spectrum (CDCl_3 , 600 MHz) of compound **8**.

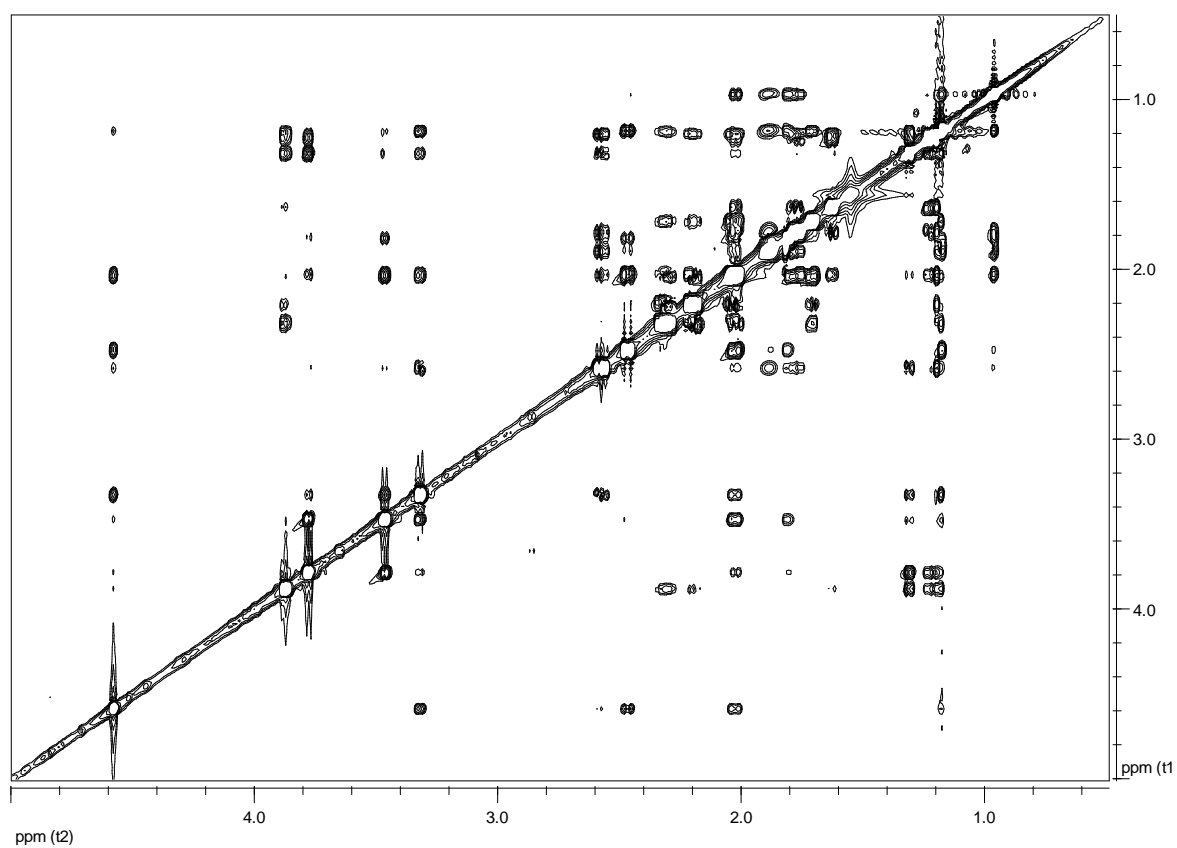


Figure S33. NOESY spectrum (CDCl_3 , 600 MHz) of compound **8**.

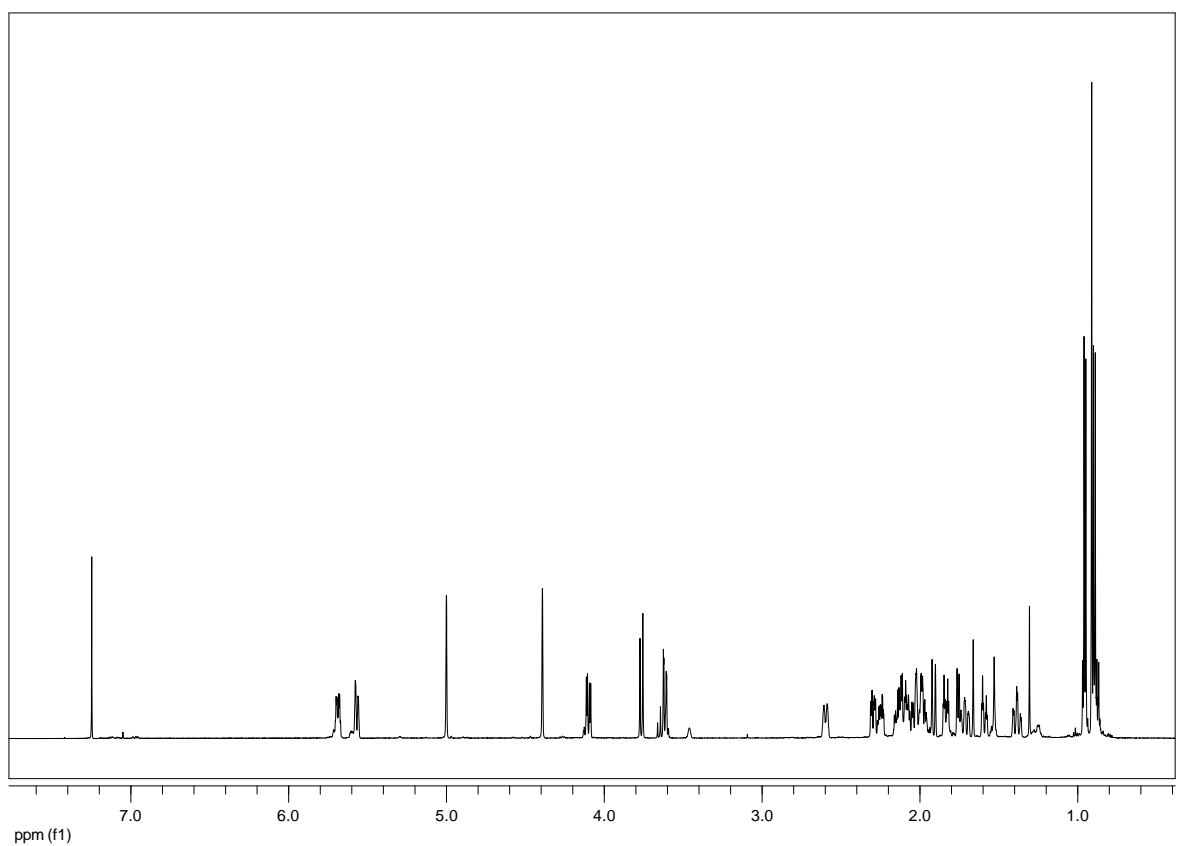


Figure S34. ^1H NMR spectrum (CDCl_3 , 600 MHz) of compound **9**.

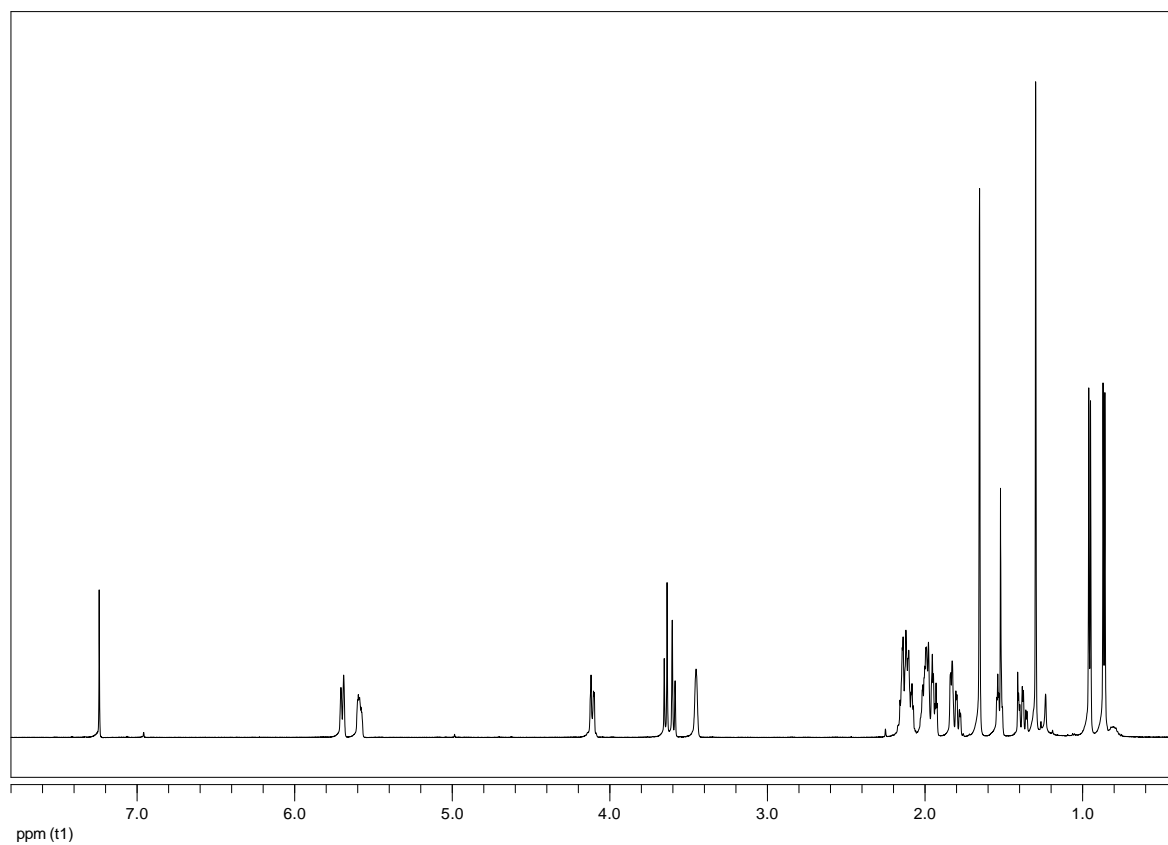


Figure S35. ^1H NMR spectrum (CDCl_3 , 600 MHz) of compound **10**.

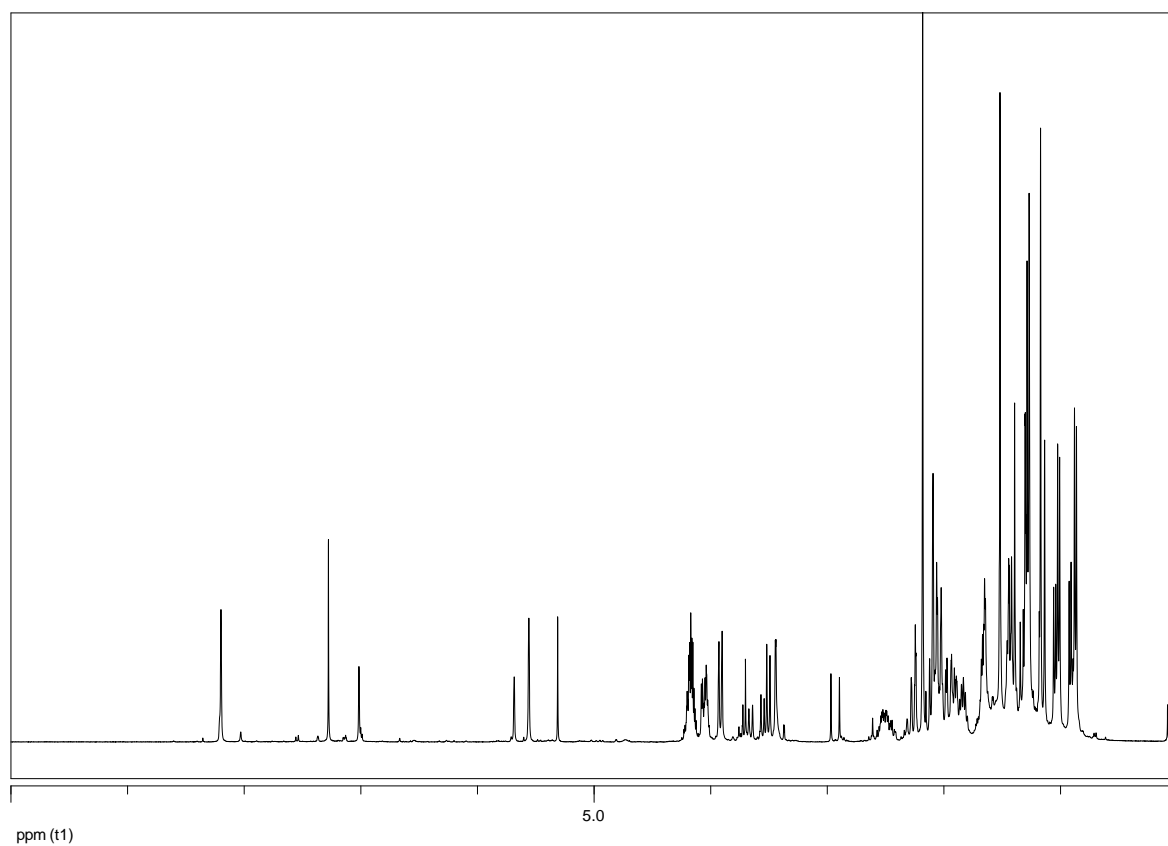


Figure S36. ^1H NMR spectrum (CDCl_3 , 600 MHz) of compound **11** (mixture of *E,Z* geometrical isomers).

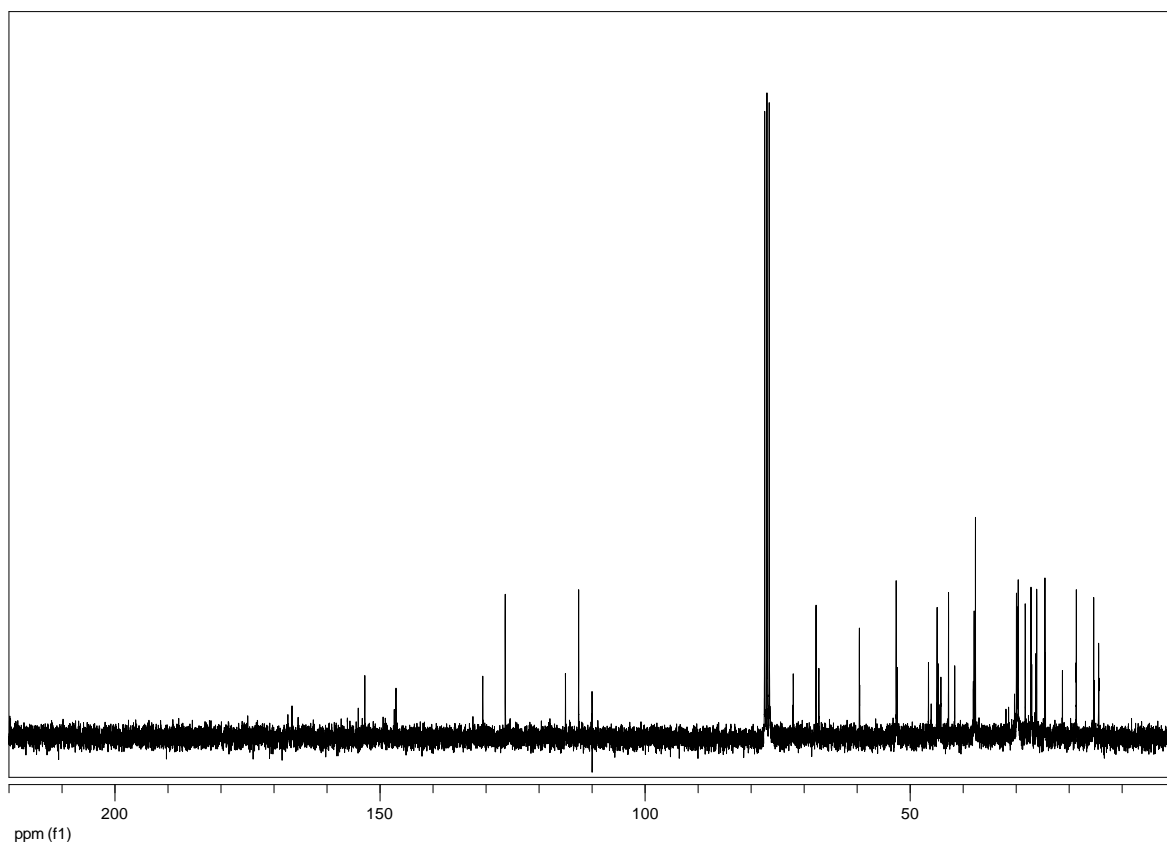


Figure S37. ^{13}C NMR spectrum (CDCl_3 , 75 MHz) of compound **11** (mixture of *E,Z* geometrical isomers).

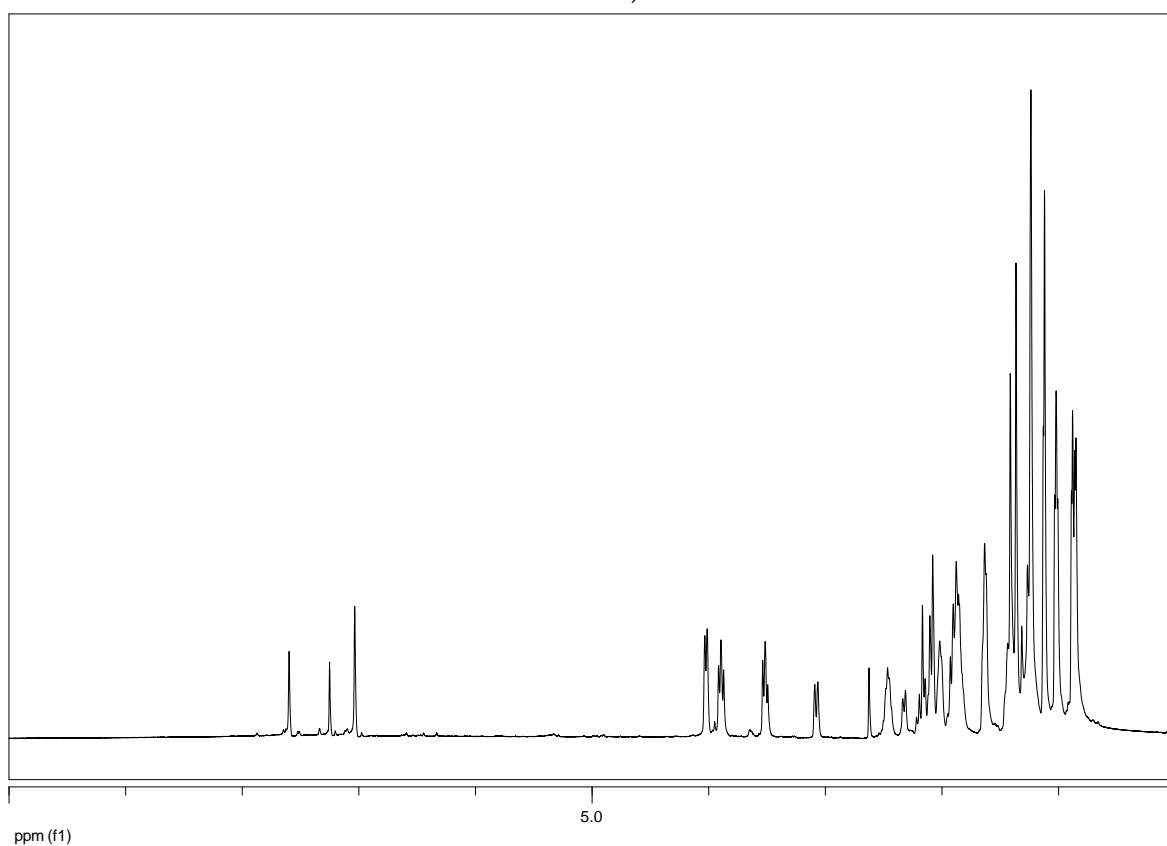


Figure S38. ^1H NMR spectrum (CDCl_3 , 600 MHz) of compound **12** (mixture of *E,Z* geometrical isomers).

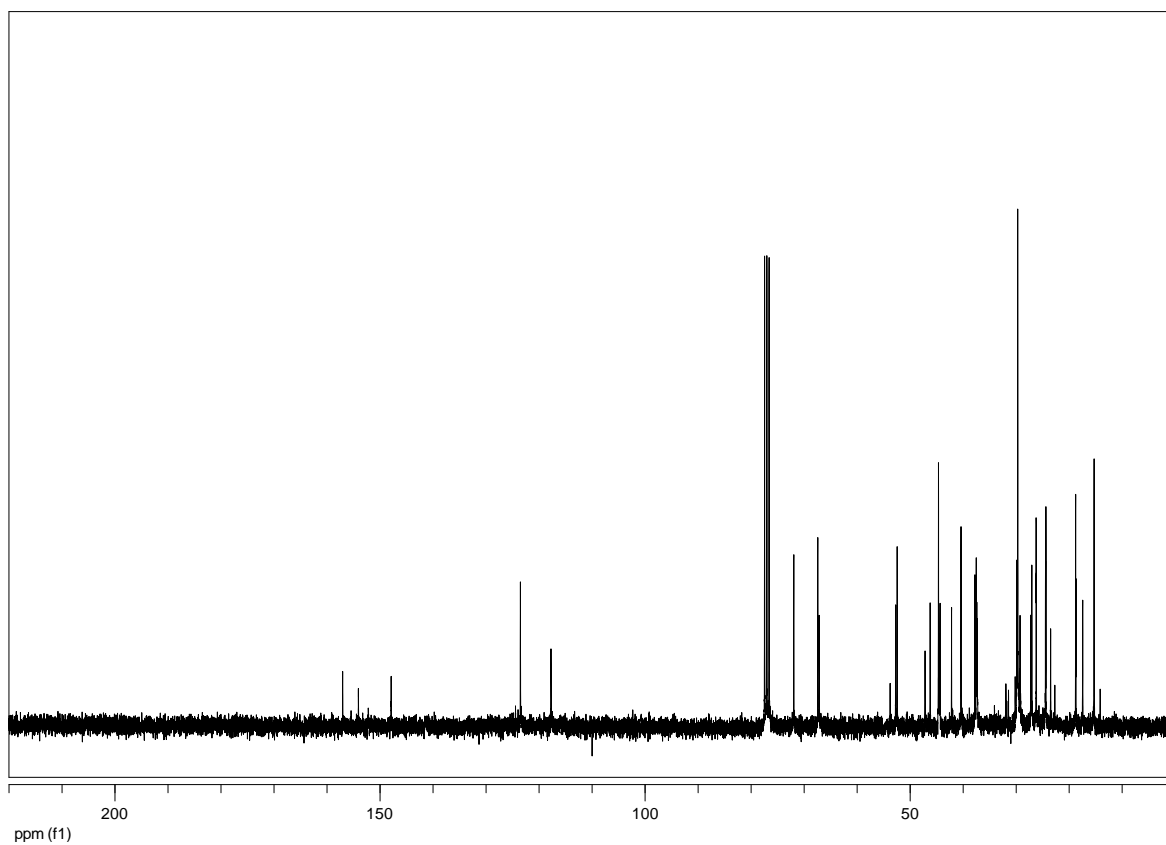


Figure S39. ^{13}C NMR spectrum (CDCl_3 , 75 MHz) of compound **12** (mixture of *E,Z* geometrical isomers).

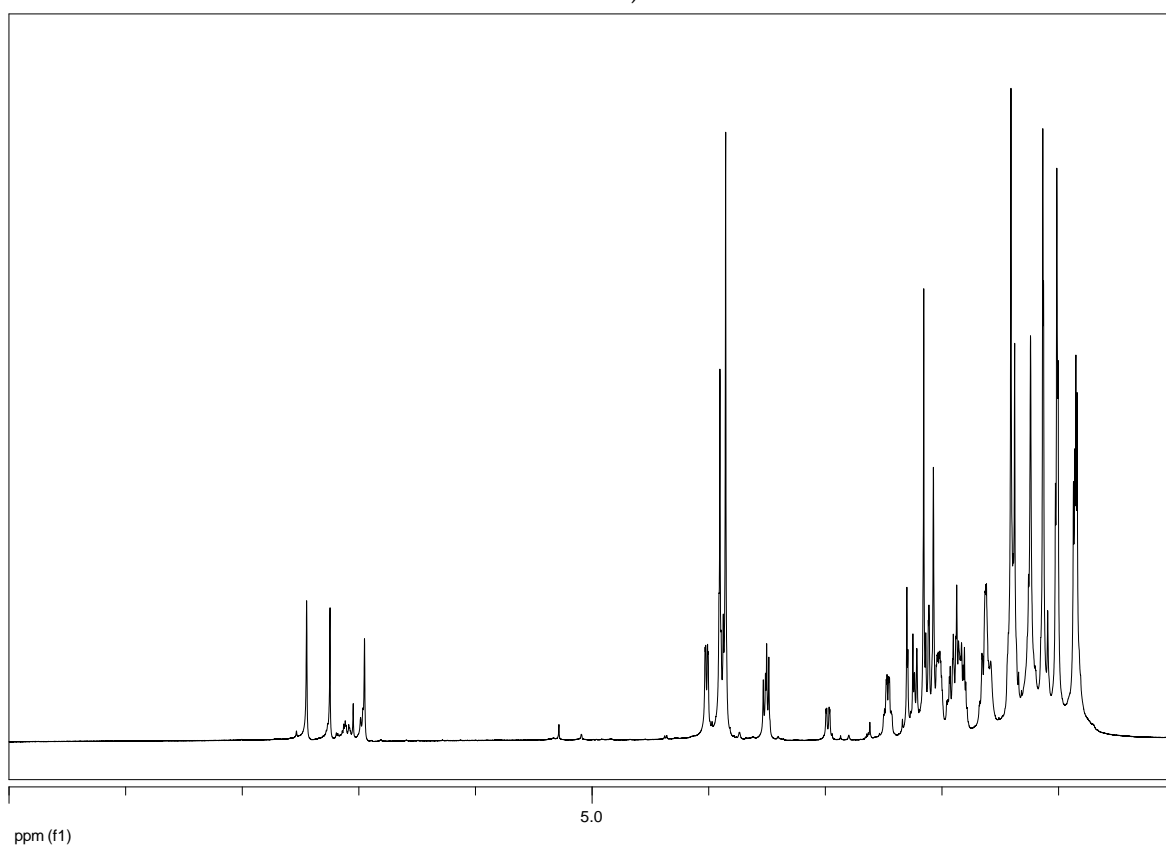


Figure S40. ^1H NMR spectrum (CDCl_3 , 600 MHz) of compound **13** (mixture of *E,Z* geometrical isomers).

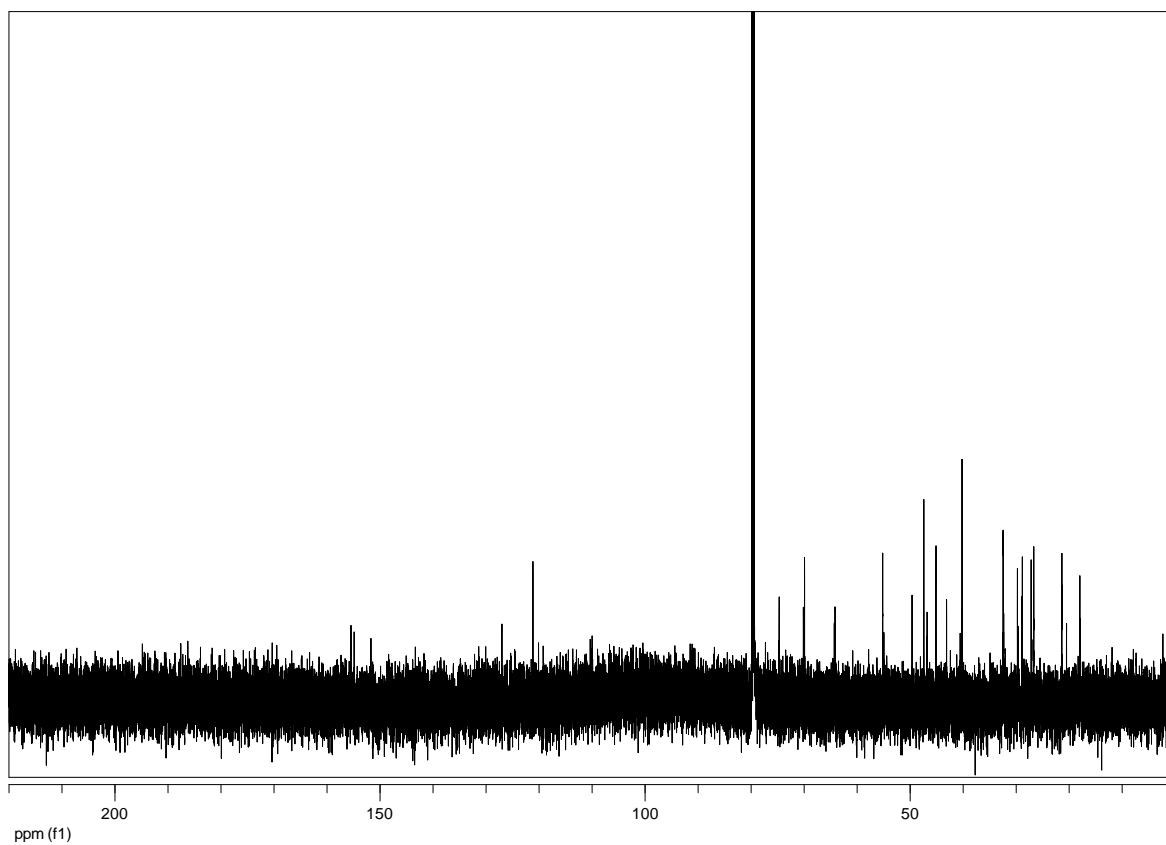


Figure S41. ^{13}C NMR spectrum (CDCl_3 , 75 MHz) of compound **13** (mixture of *E,Z* geometrical isomers).

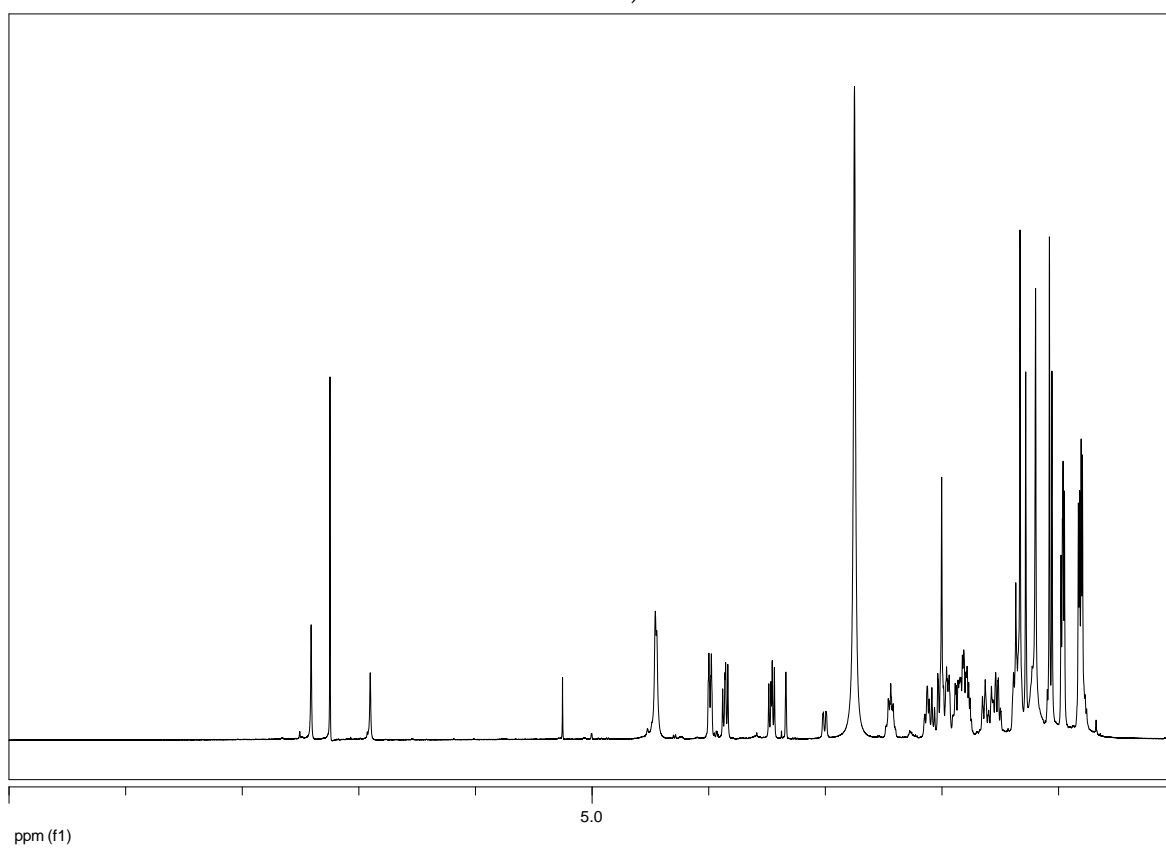


Figure S42. ^1H NMR spectrum ($\text{CDCl}_3 / \text{CD}_3\text{OD}$, 600 MHz) of compound **14** (mixture of *E,Z* geometrical isomers).

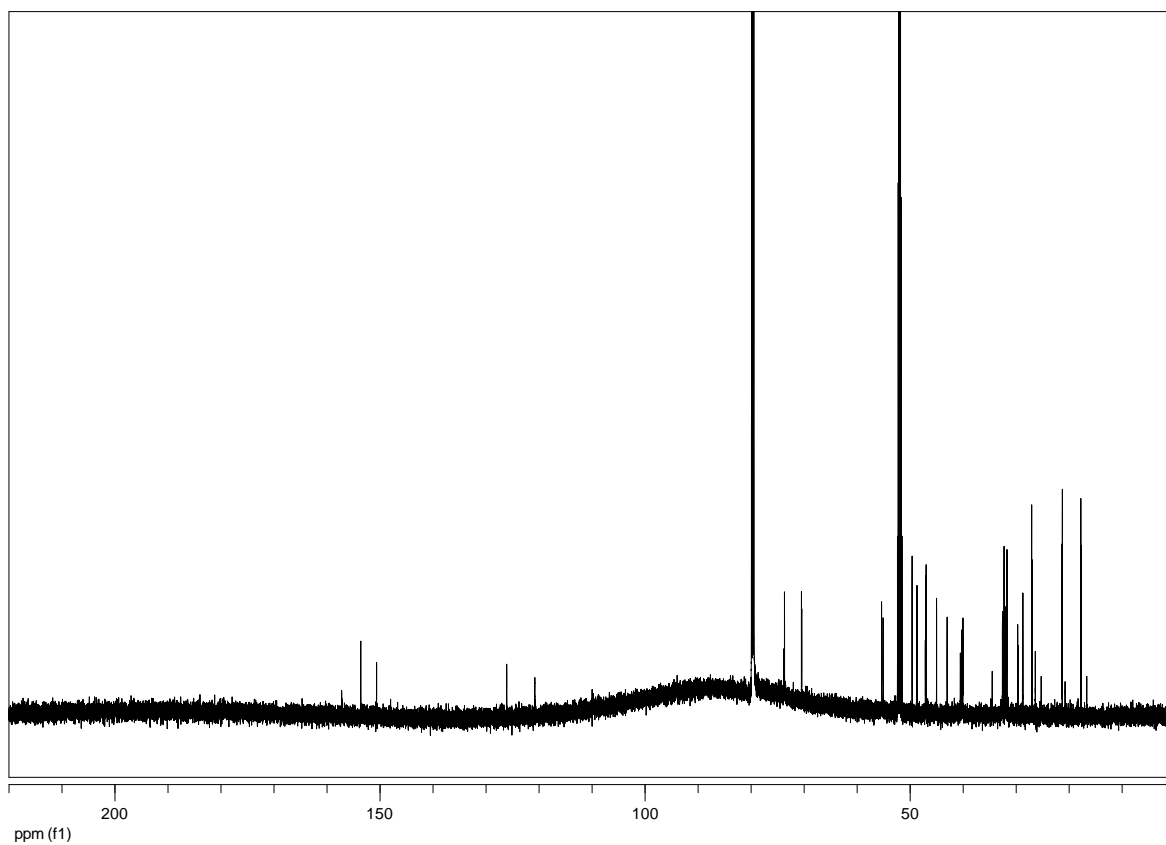


Figure S43. ^{13}C NMR spectrum ($\text{CDCl}_3 / \text{CD}_3\text{OD}$, 150 MHz) of compound **14** (mixture of *E,Z* geometrical isomers).

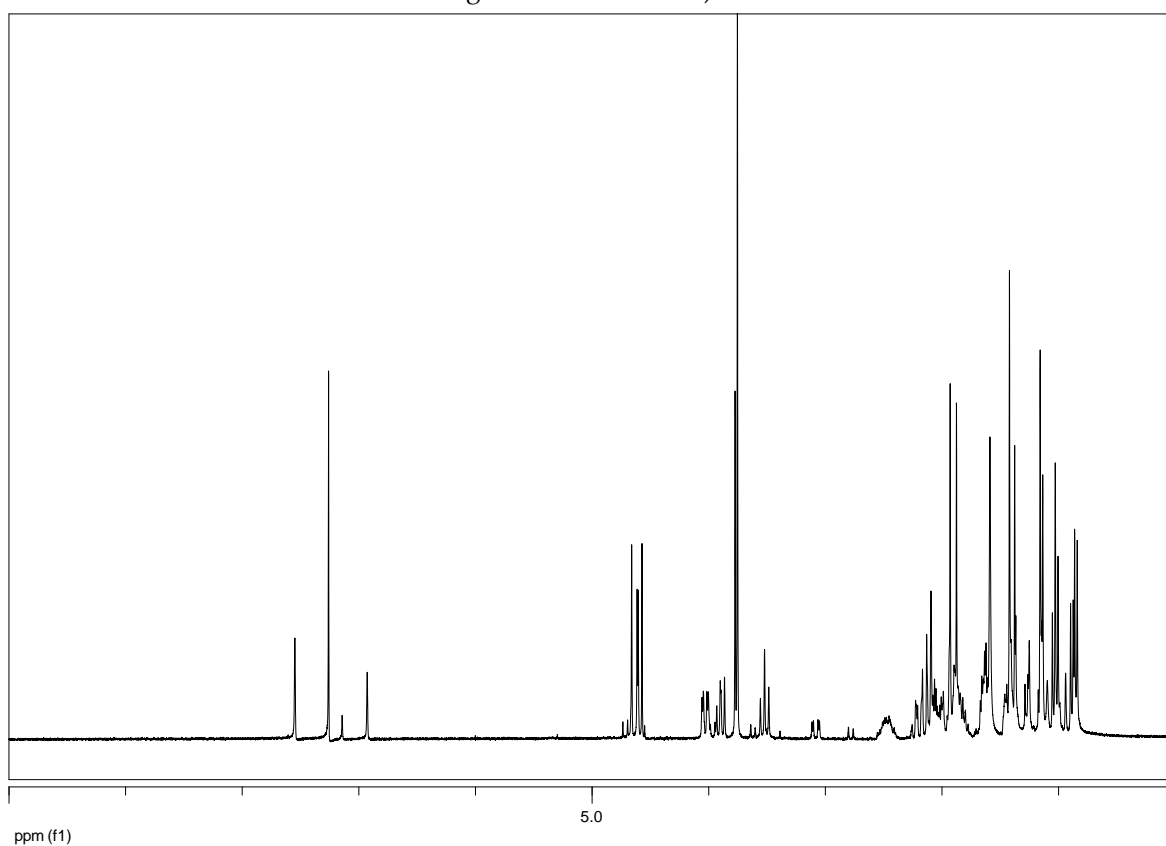


Figure S44. ^1H NMR spectrum (CDCl_3 , 300 MHz) of compound **15** (mixture of *E,Z* geometrical isomers).

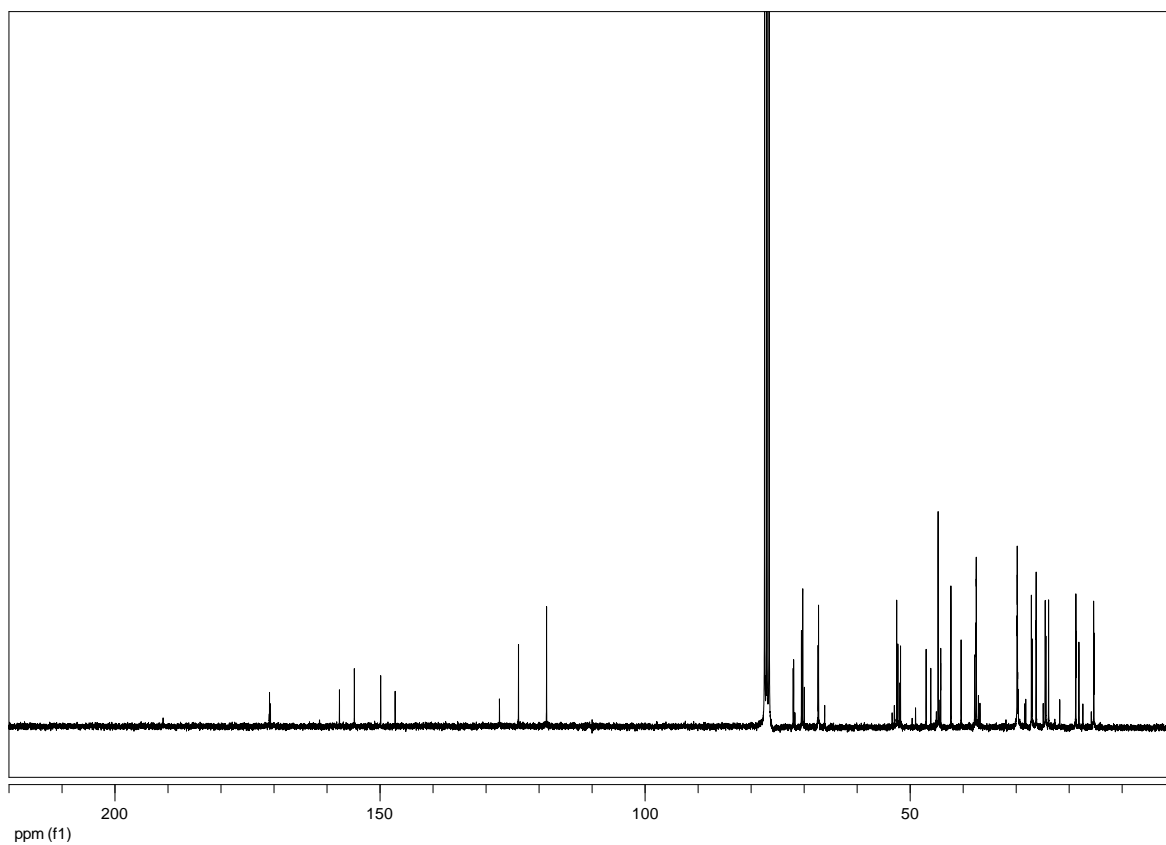


Figure S45. ^{13}C NMR spectrum (CDCl_3 , 75 MHz) of compound **15** (mixture of *E,Z* geometrical isomers).

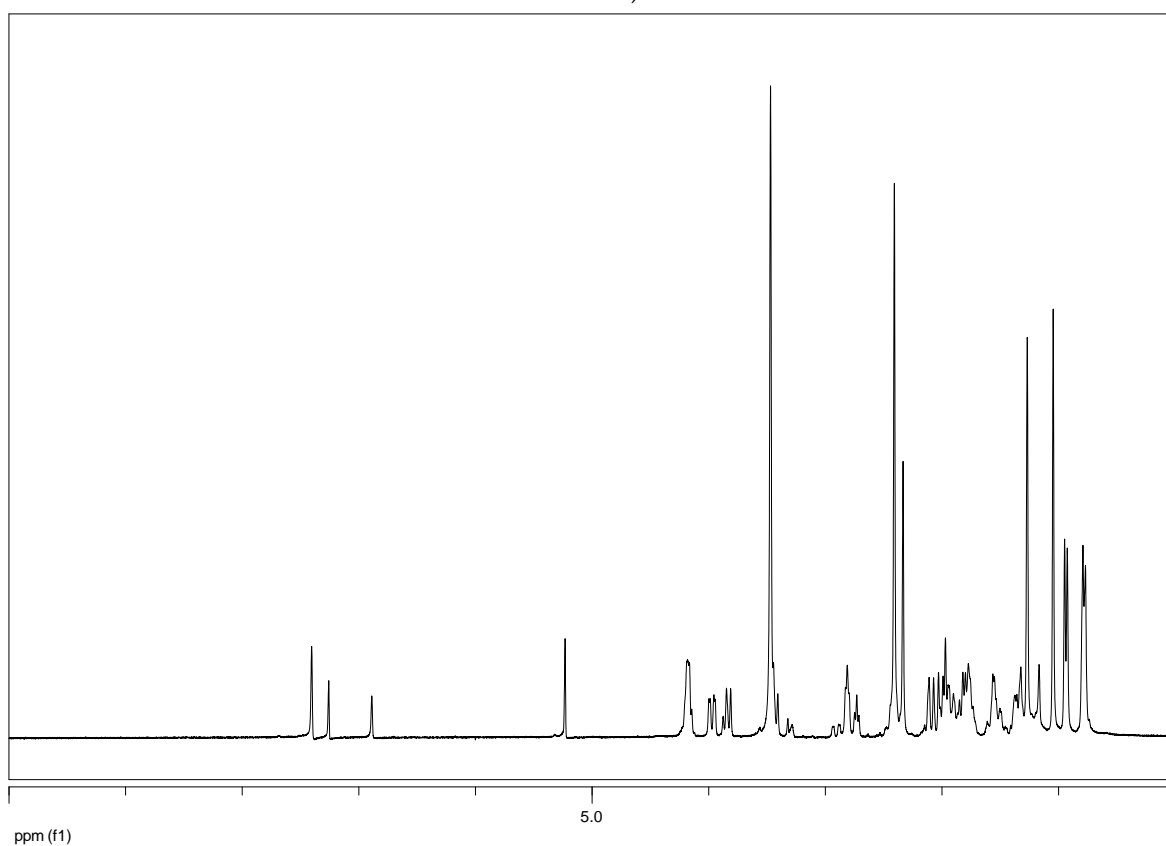


Figure S46. ^1H NMR spectrum ($\text{CDCl}_3 / \text{CD}_3\text{OD}$, 300 MHz) of compound **16** (mixture of *E,Z* geometrical isomers).

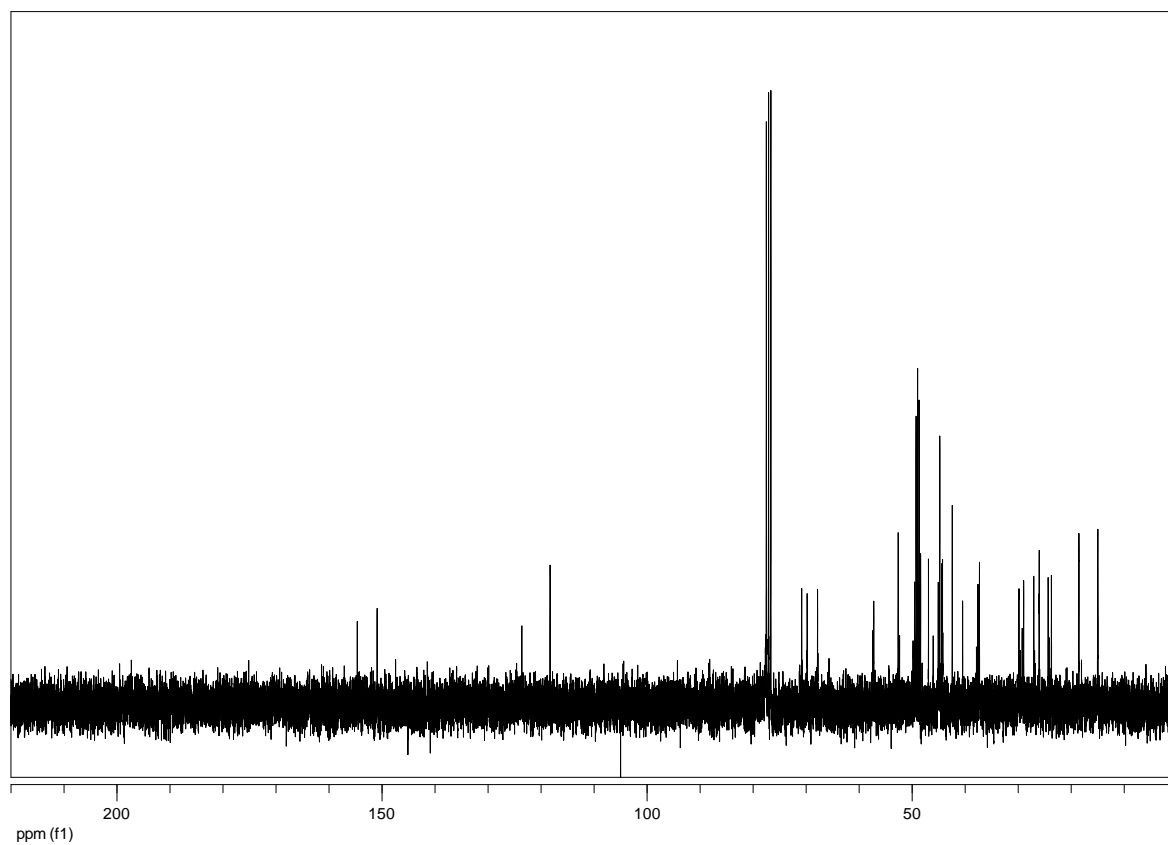


Figure S47. ^{13}C NMR spectrum ($\text{CDCl}_3 / \text{CD}_3\text{OD}$, 75 MHz) of compound **16** (mixture of *E,Z* geometrical isomers).