

SUPPORTING INFORMATION FOR

Tandem Cyclization-Michael Reaction by Combination of Metal- and Organocatalysis **

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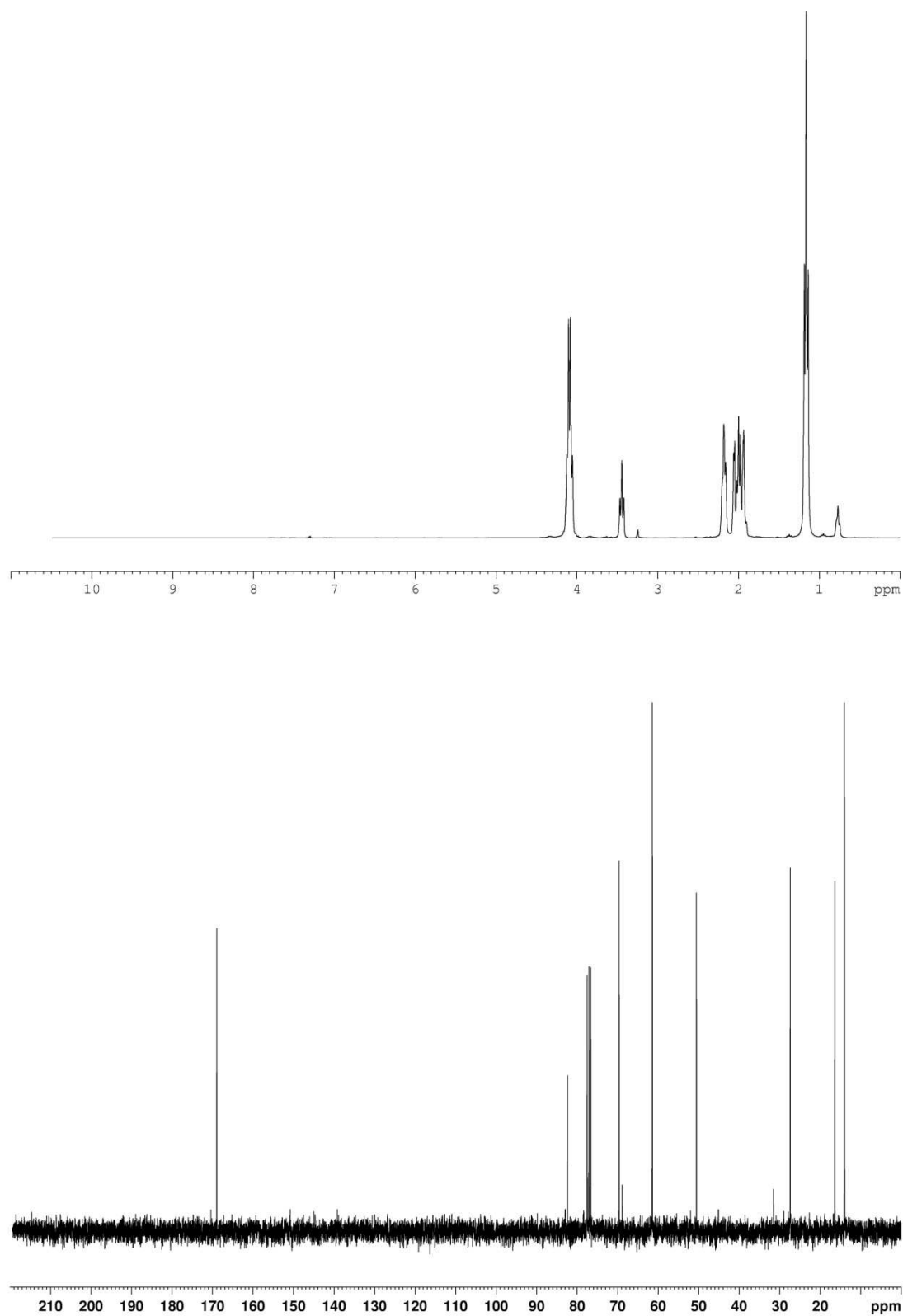


Figure S1. ^1H -NMR and ^{13}C -NMR of compound **1c**.

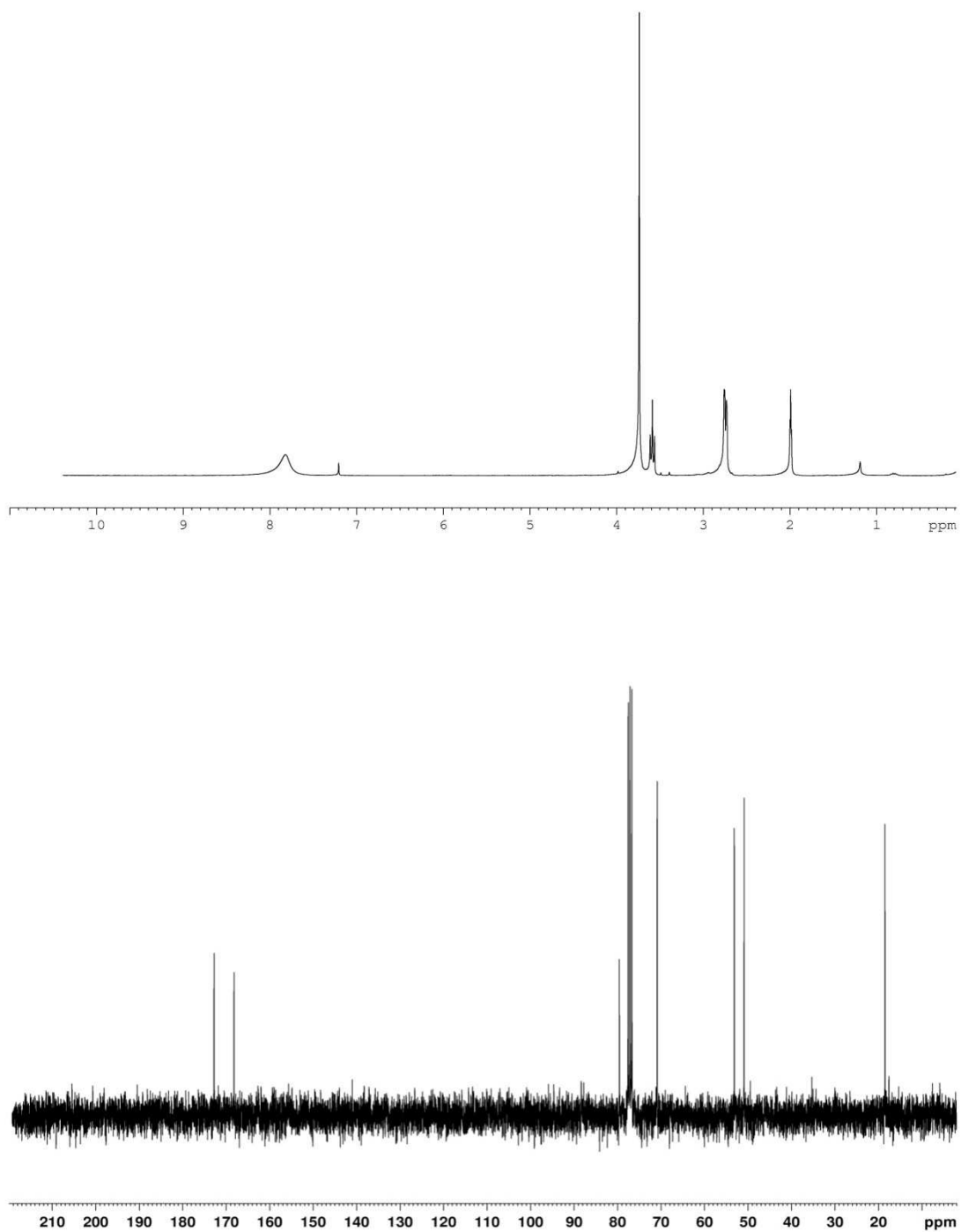


Figure S2. ^1H -NMR and ^{13}C -NMR of compound **2a**.

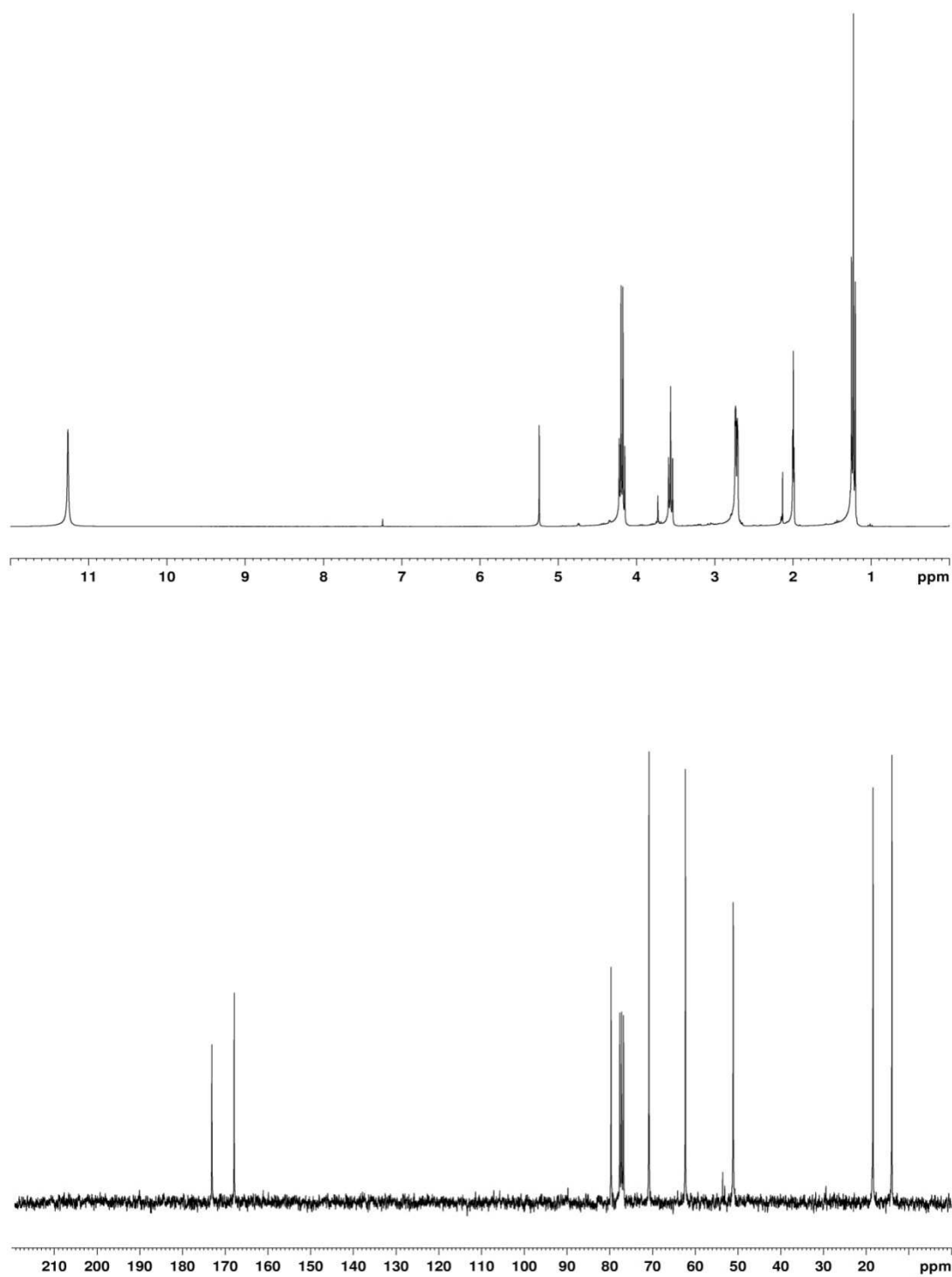


Figure S3. ^1H -NMR and ^{13}C -NMR of compound **2b**.

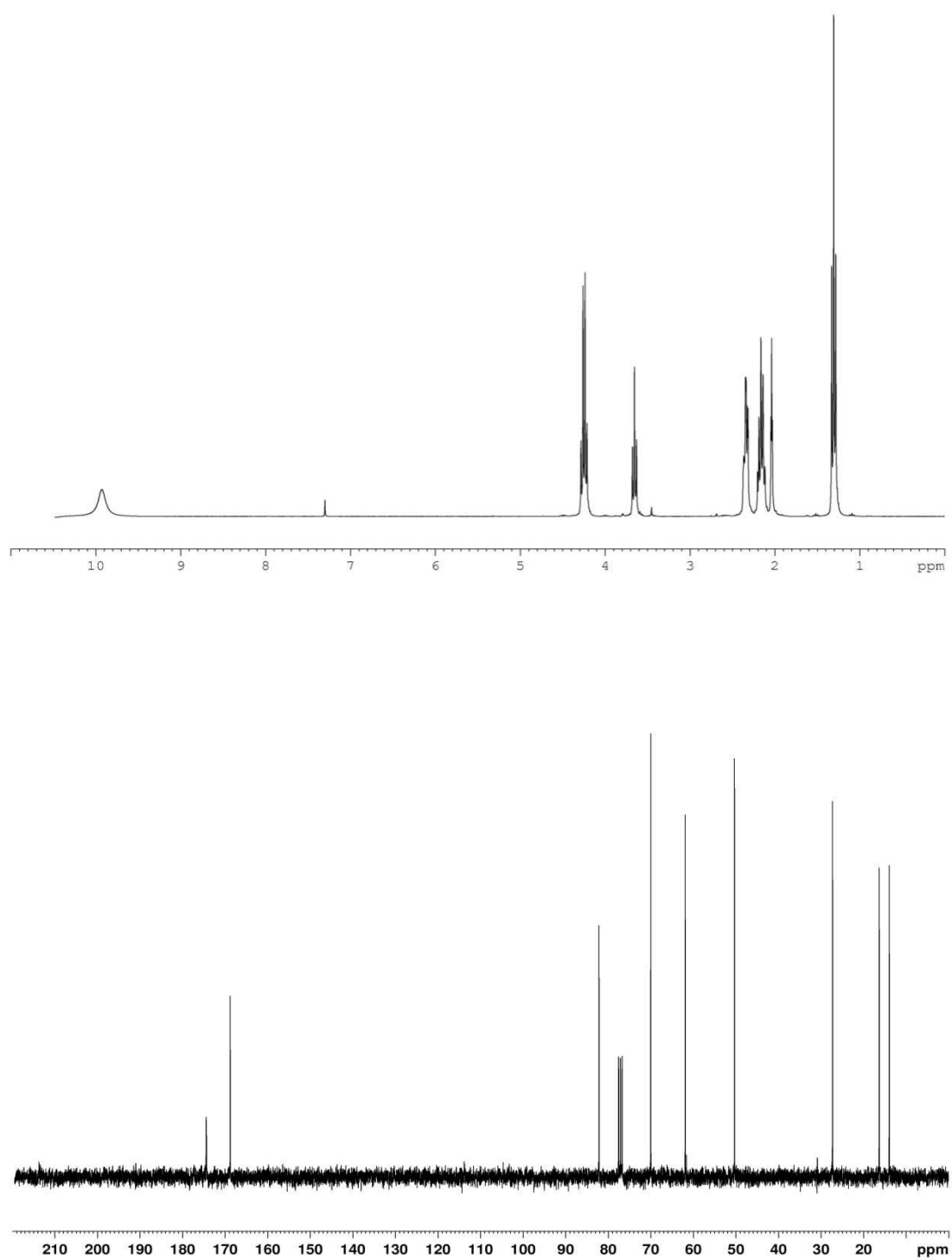


Figure S4. ^1H -NMR and ^{13}C -NMR of compound **2c**.

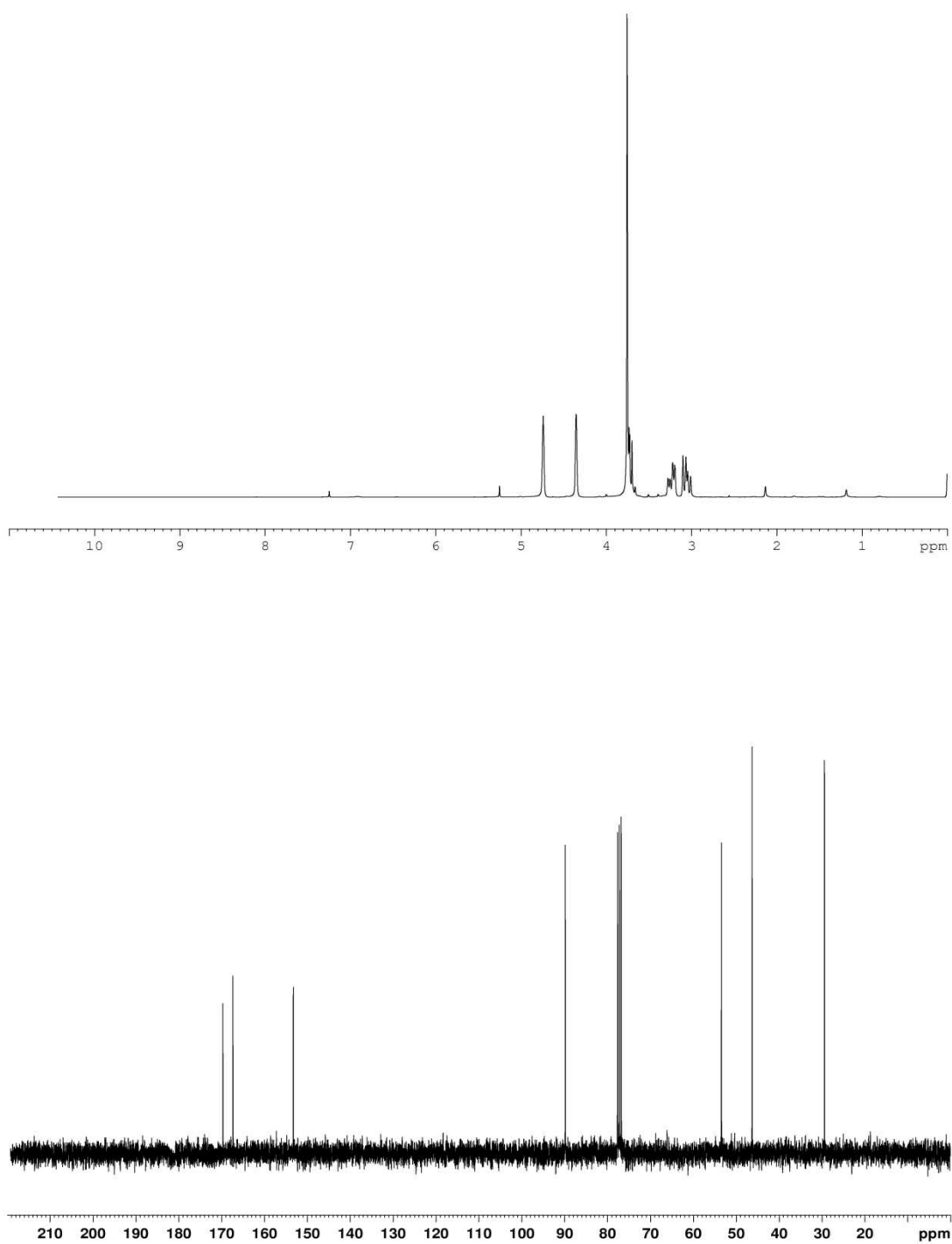


Figure S5. ^1H -NMR and ^{13}C -NMR of compound **3**.

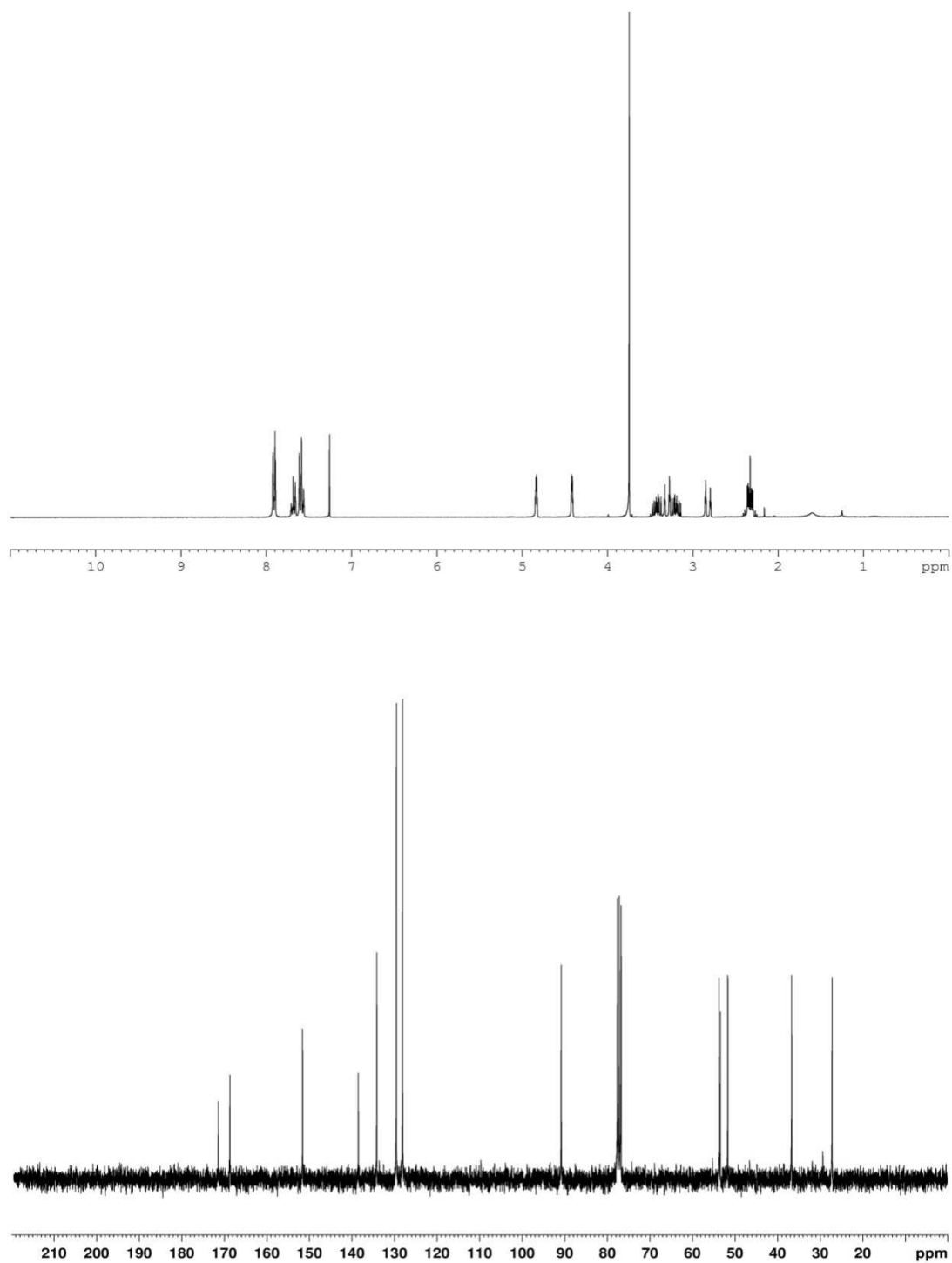


Figure S6. ^1H -NMR and ^{13}C -NMR of compound **4a**.

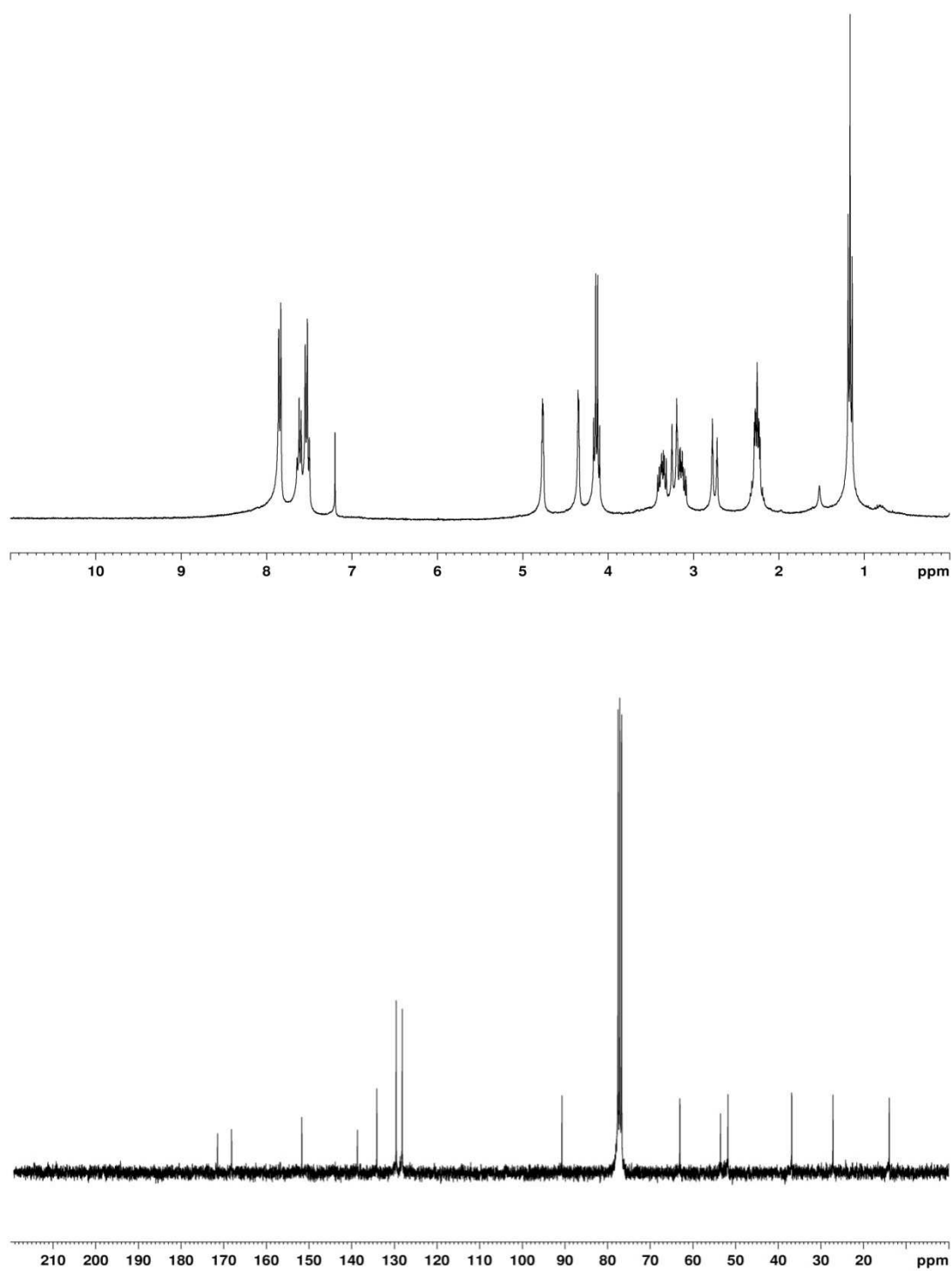


Figure S7. ^1H -NMR and ^{13}C -NMR of compound **4b**.

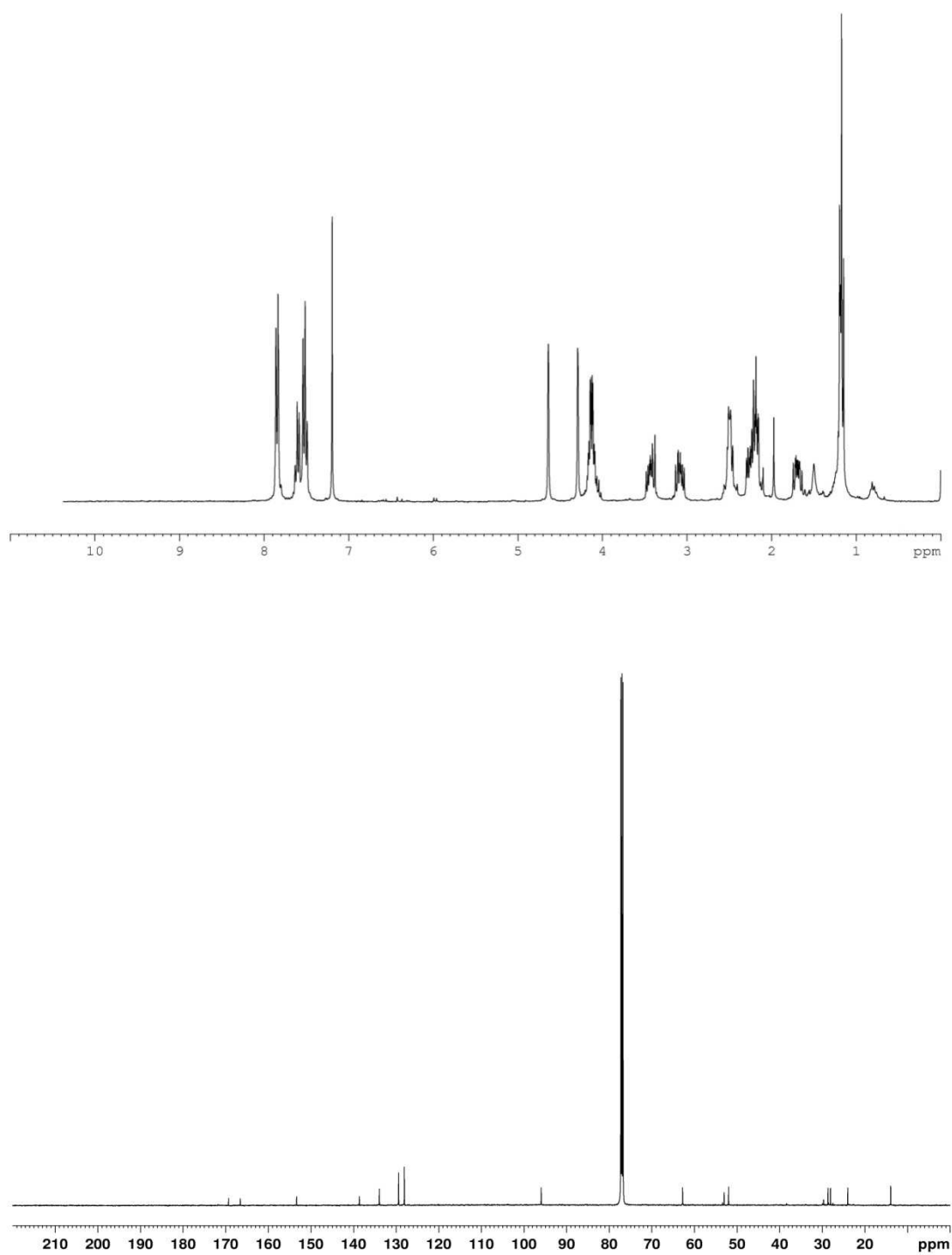


Figure S8. ^1H -NMR and ^{13}C -NMR of compound **4c**.

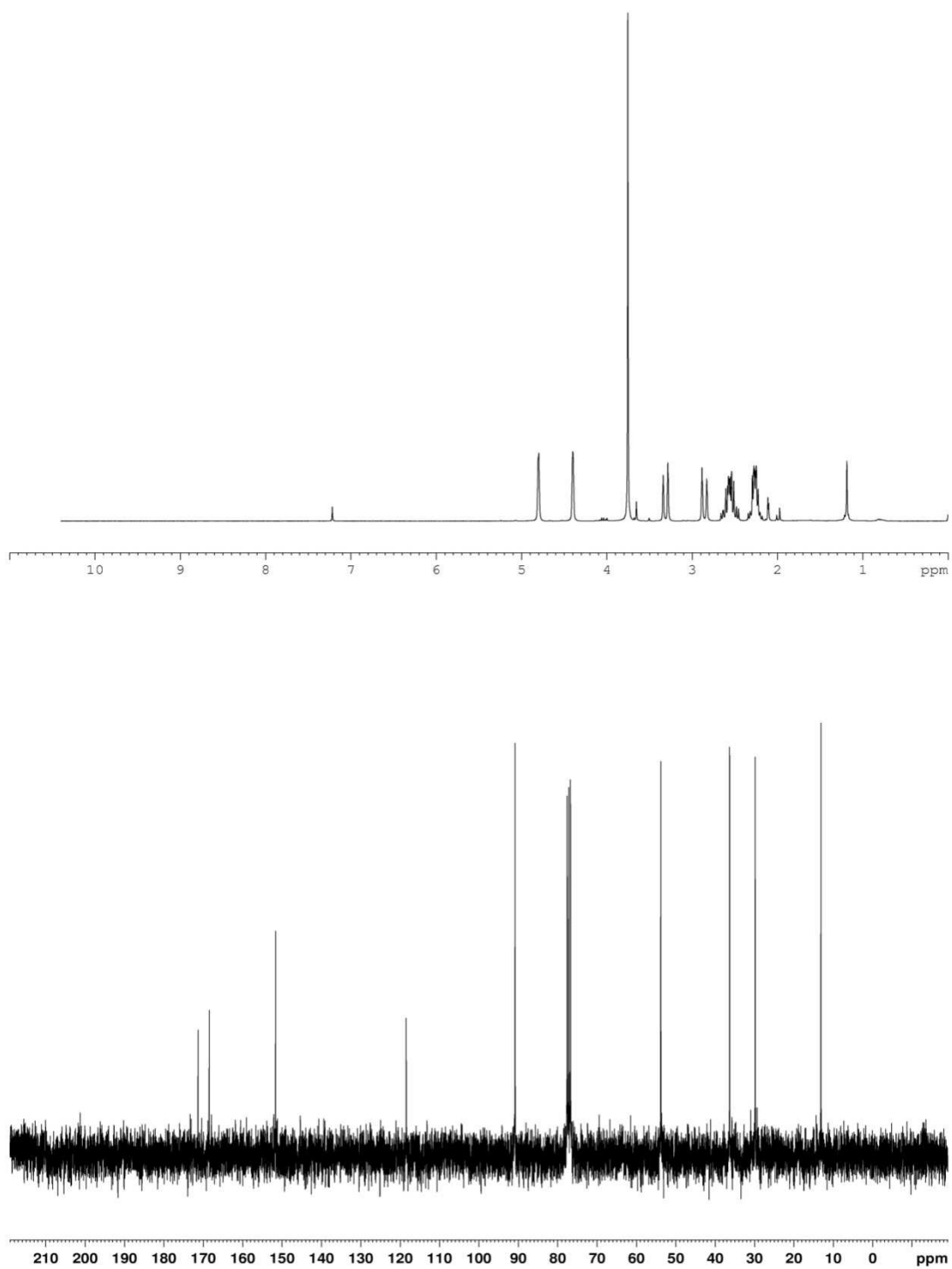


Figure S9. ^1H -NMR and ^{13}C -NMR of compound **4d**.

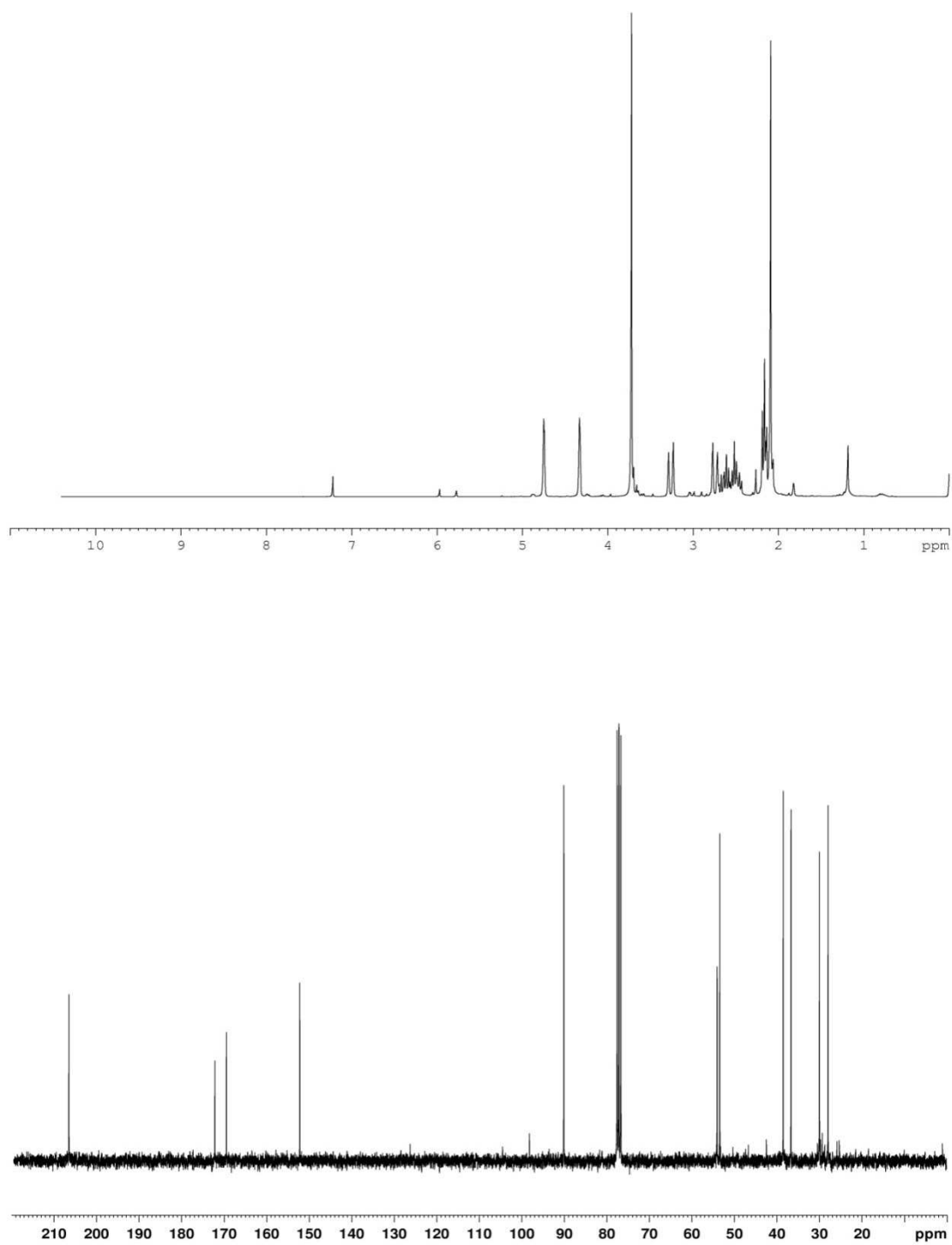


Figure S10. ^1H -NMR and ^{13}C -NMR of compound **4e**.

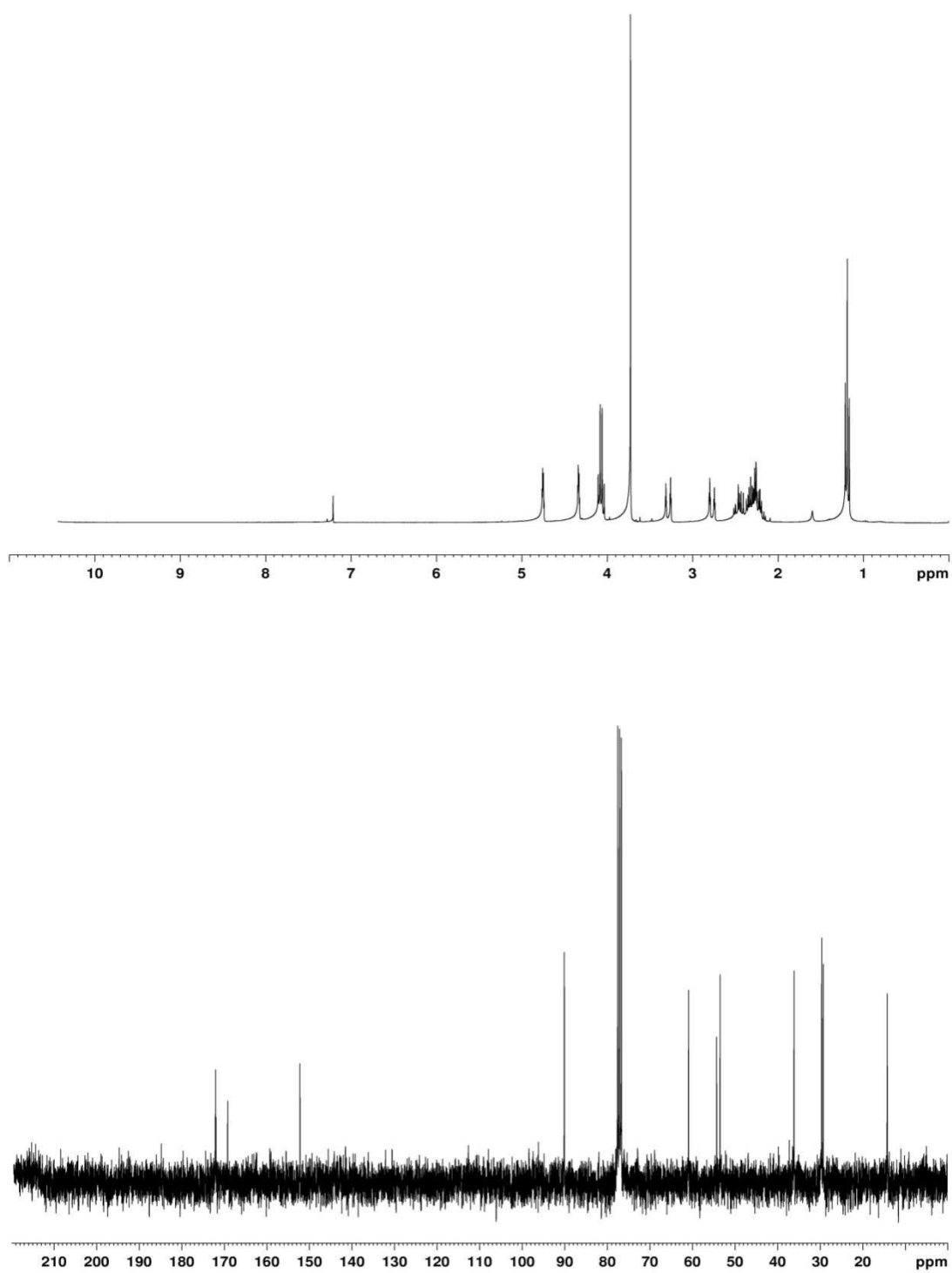


Figure S11. ^1H -NMR and ^{13}C -NMR of compound **4f**.

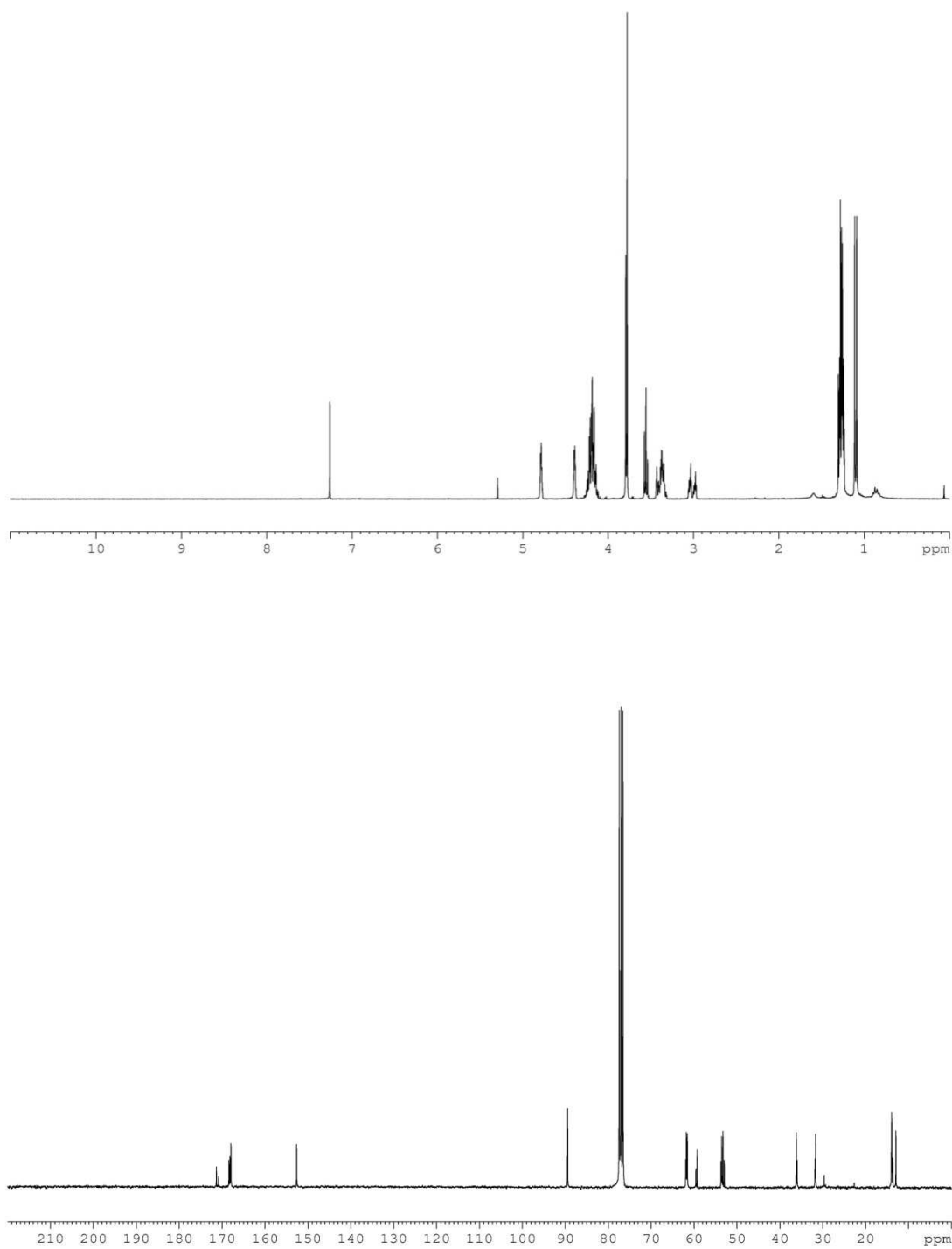


Figure S12. ^1H -NMR and ^{13}C -NMR of compound **4g/4g'**.

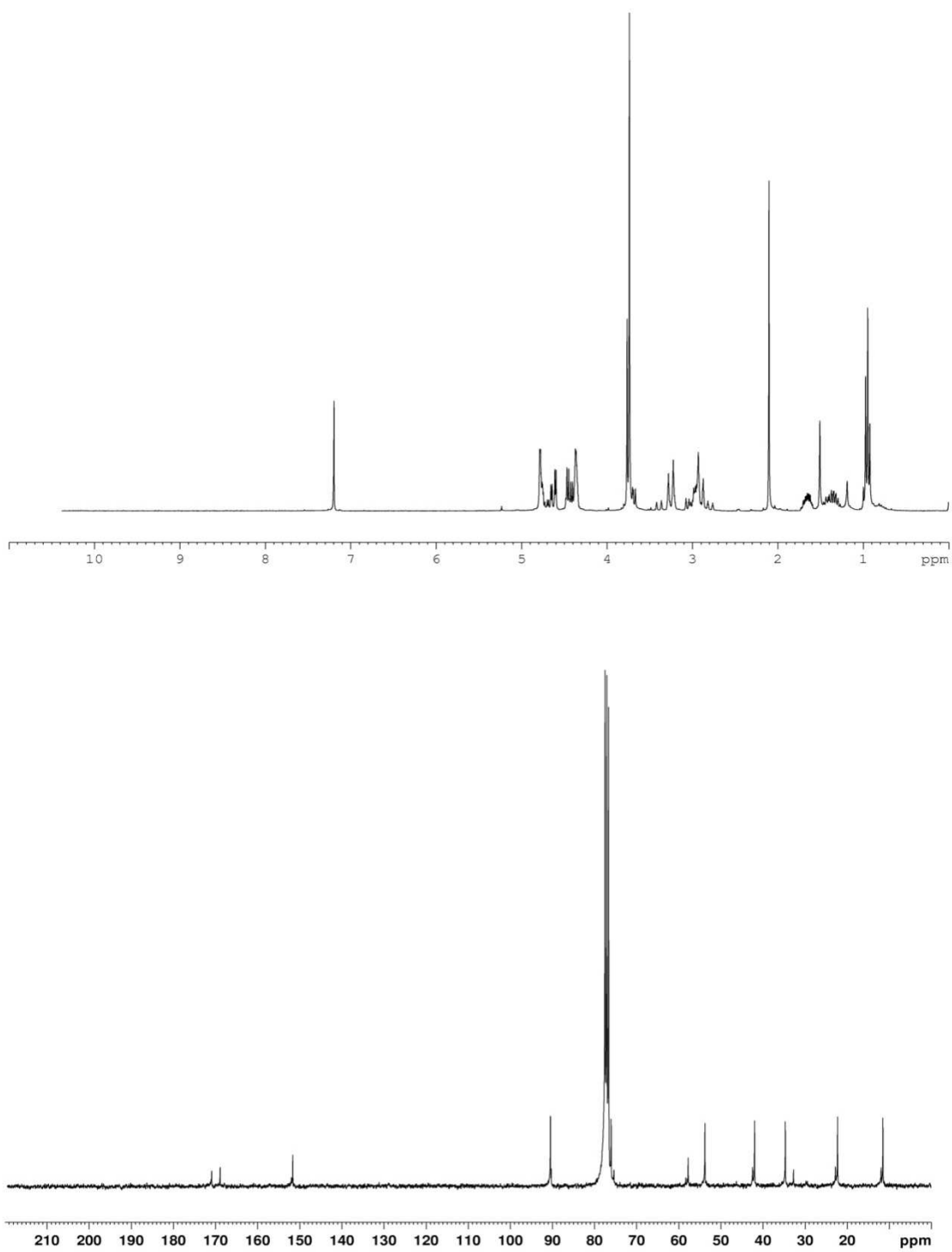


Figure S13. ^1H -NMR and ^{13}C -NMR of compound **4h/4h'**.

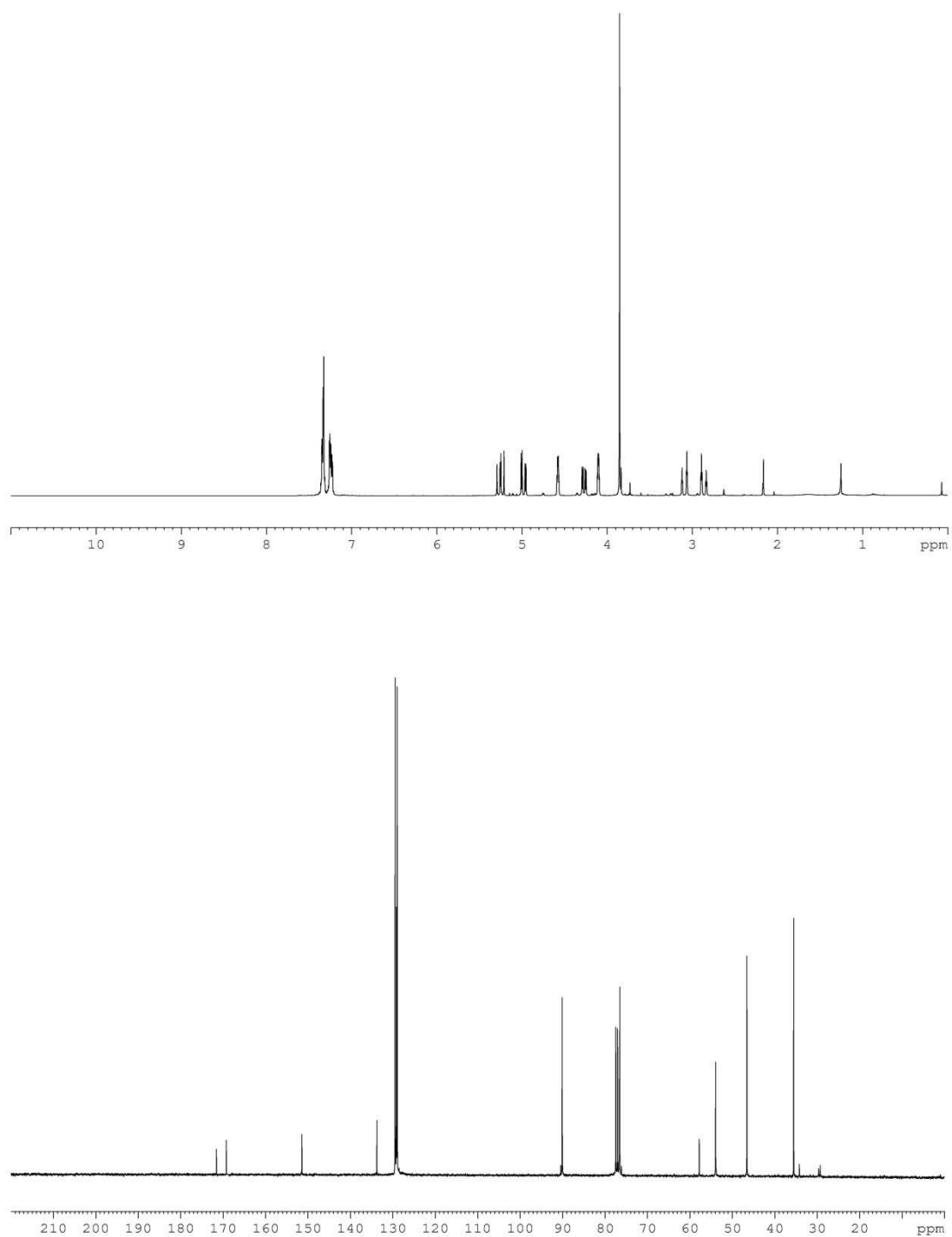


Figure S14. ^1H -NMR and ^{13}C -NMR of compound **4i**.

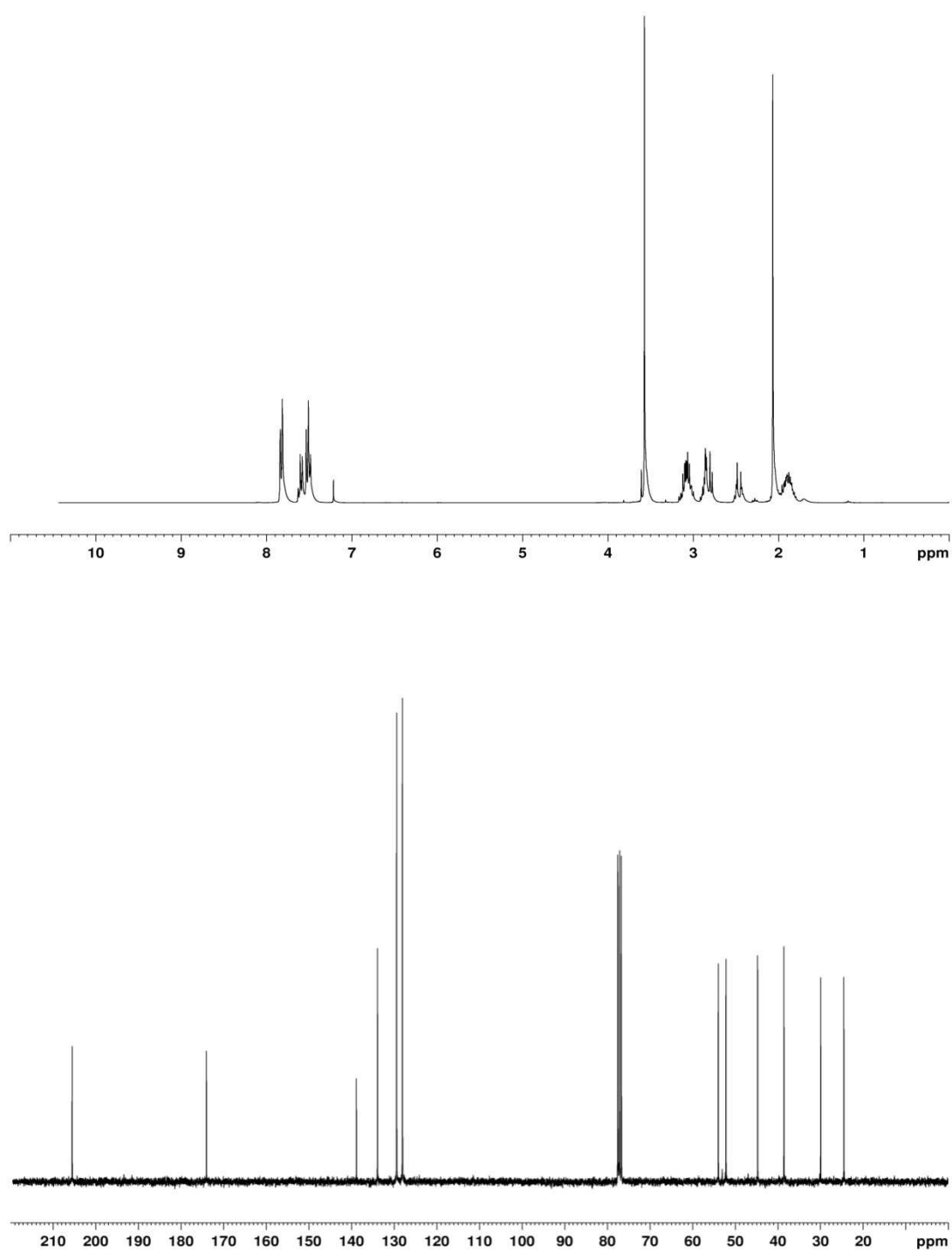


Figure S15. ^1H -NMR and ^{13}C -NMR of compound **8a**.

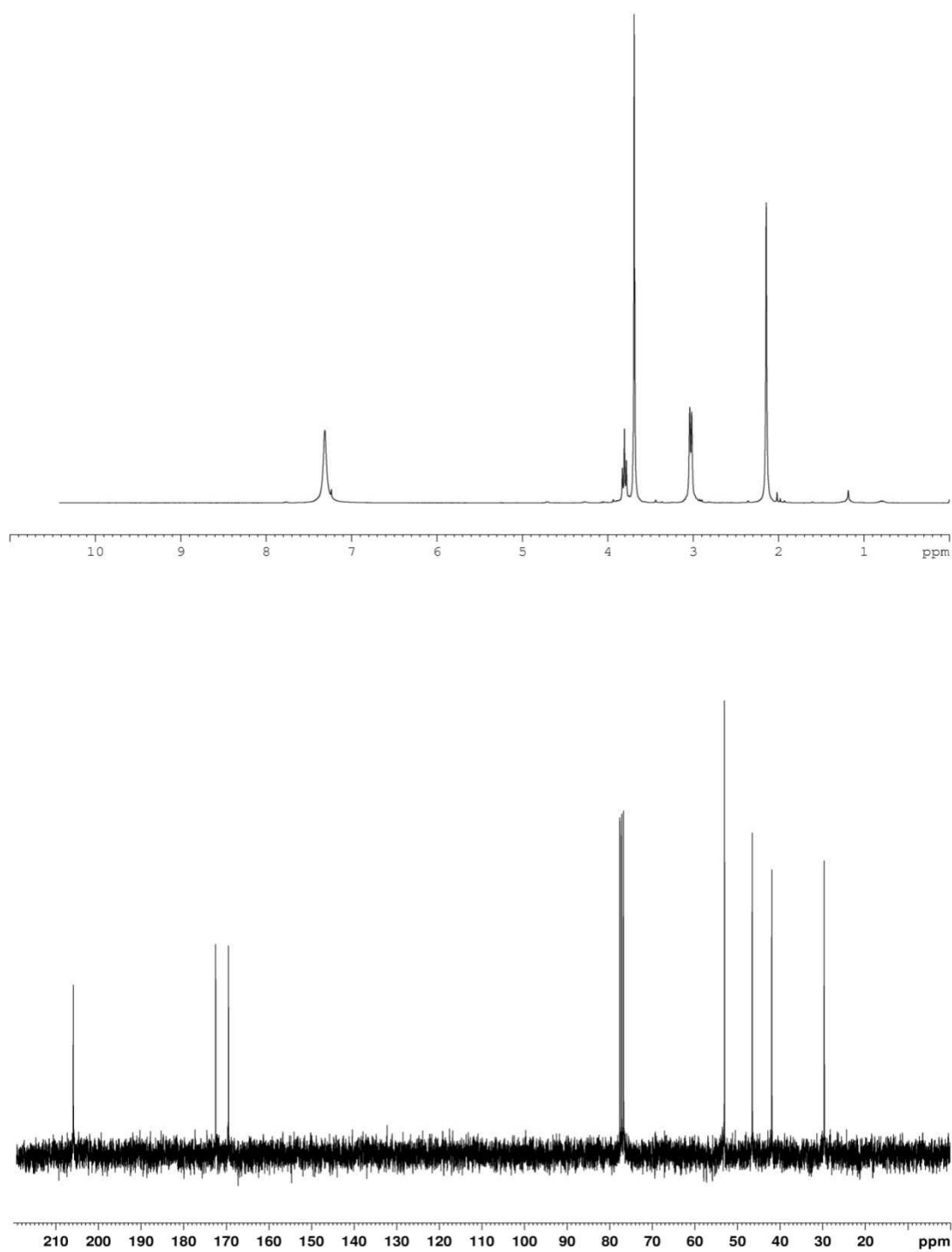


Figure S16. ^1H -NMR and ^{13}C -NMR of compound **9a**.

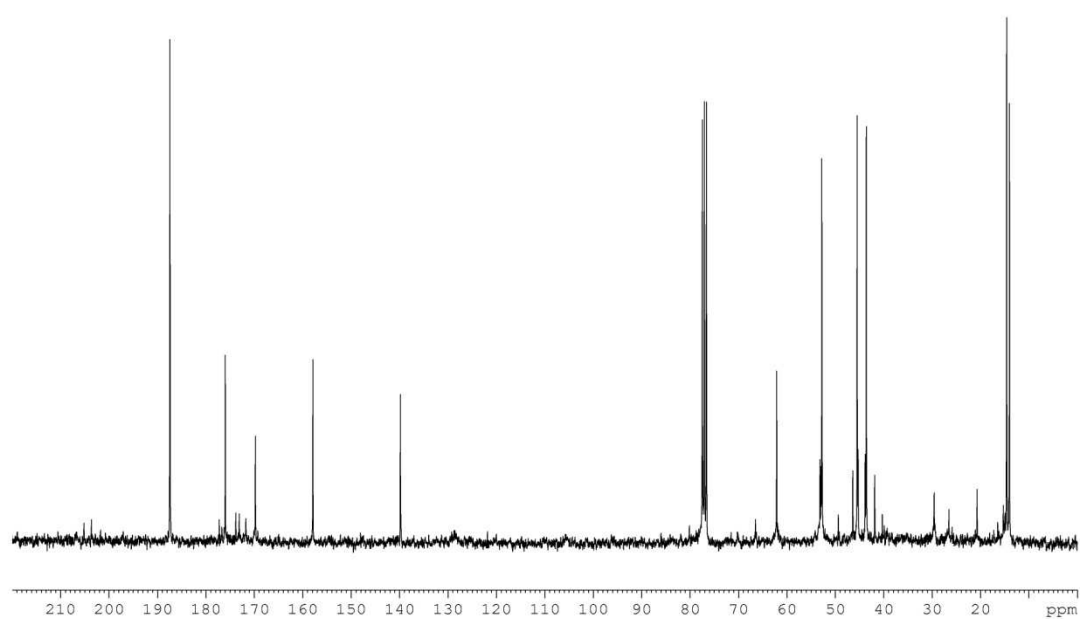
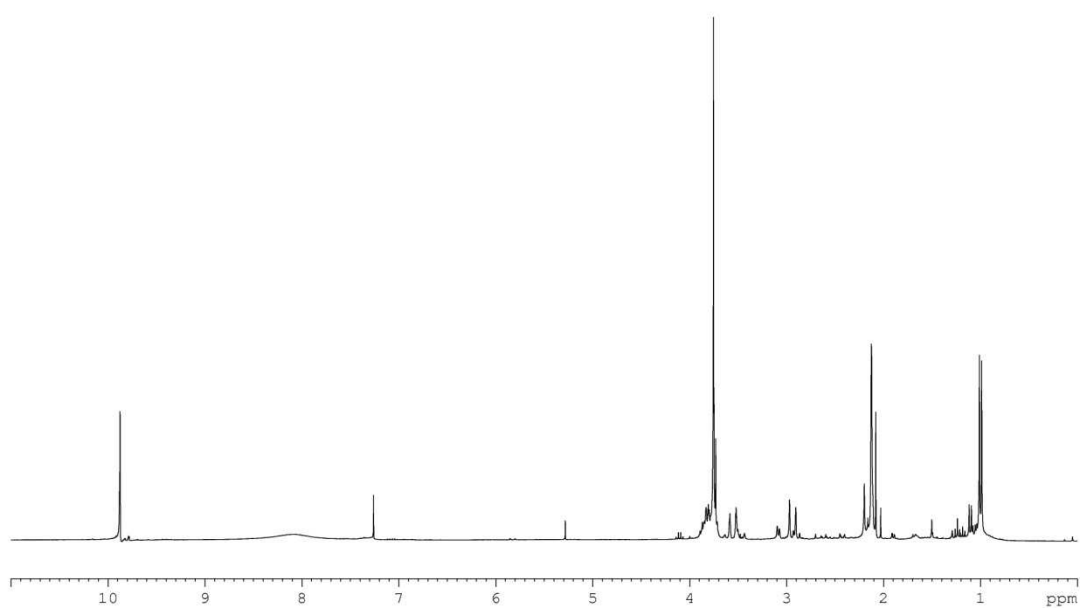


Figure S17. ^1H -NMR and ^{13}C -NMR of compound **14a**.

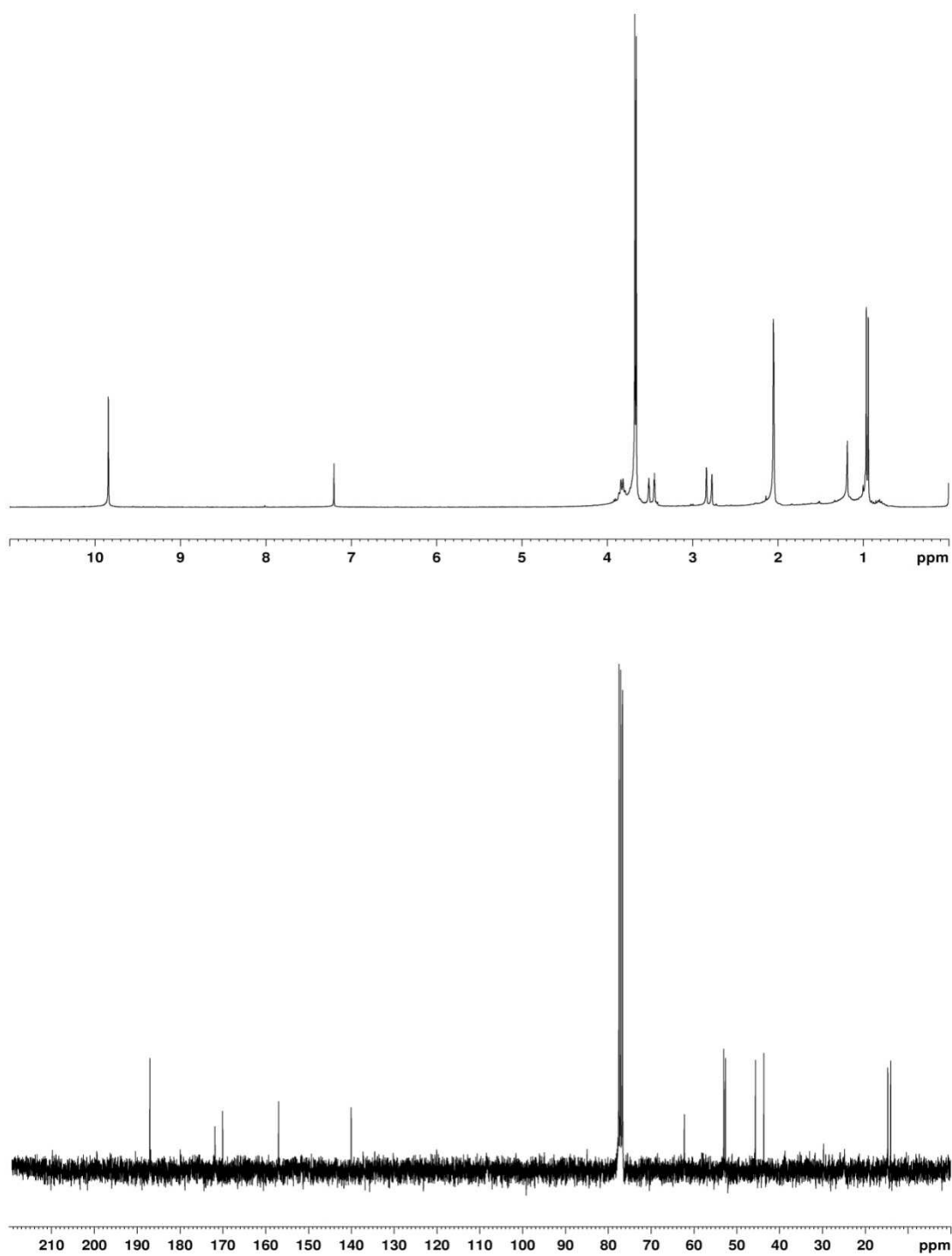


Figure S18. ^1H -NMR and ^{13}C -NMR of compound **16a**.

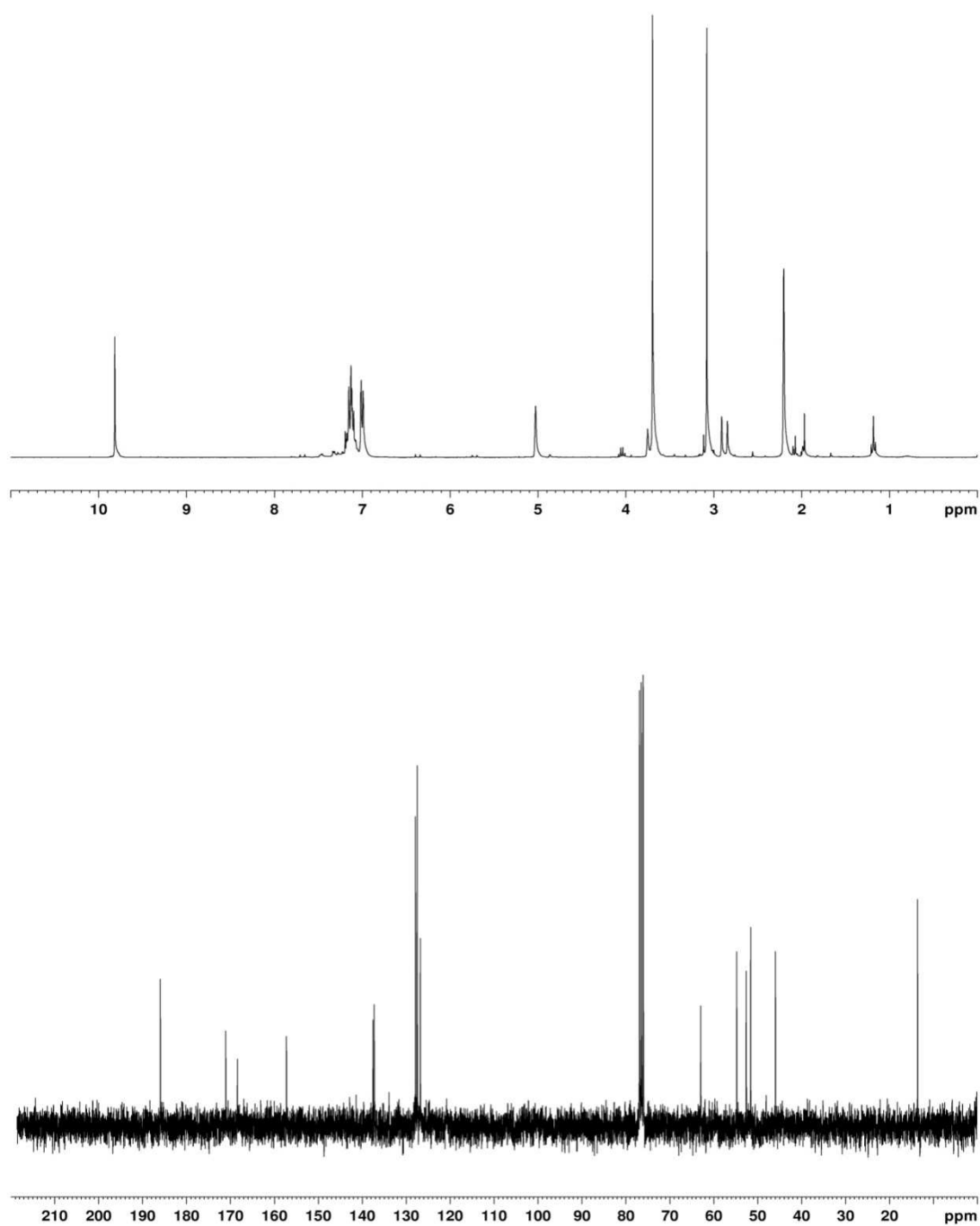


Figure S19. ^1H -NMR and ^{13}C -NMR of compound **16b**.

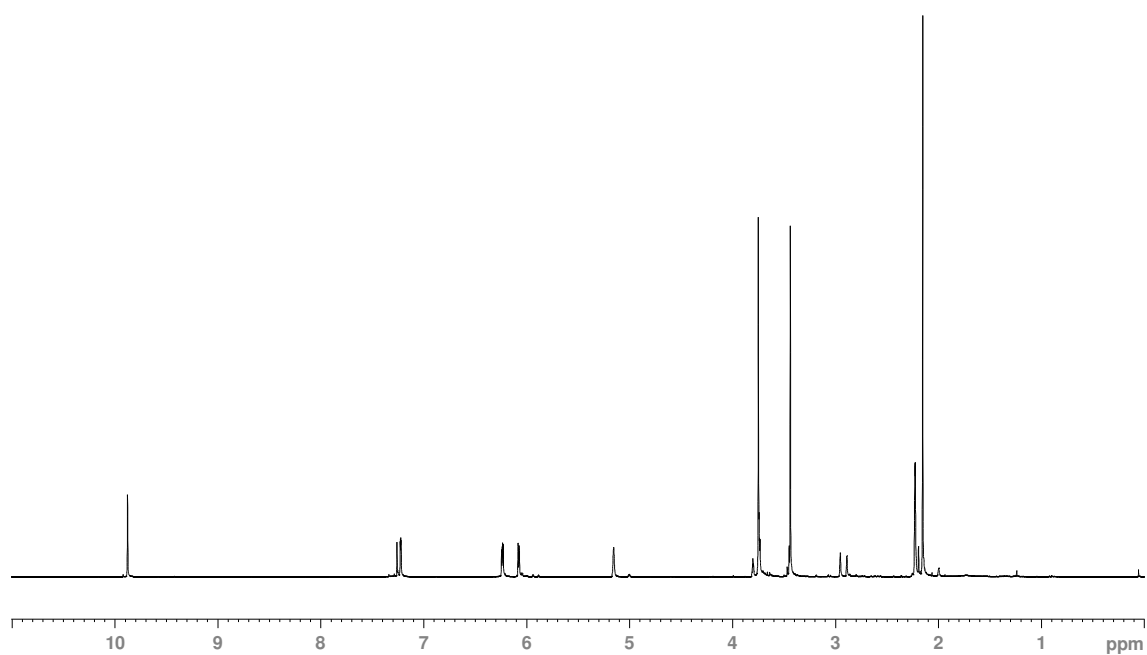


Figure S20. ^1H -NMR of compound **16c**.
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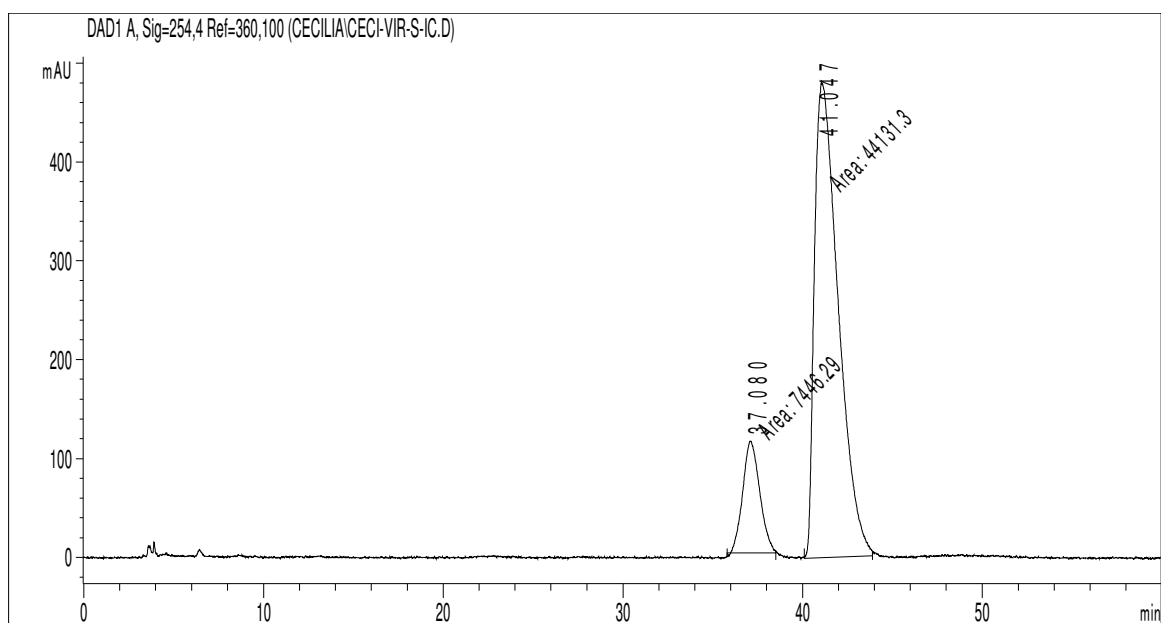
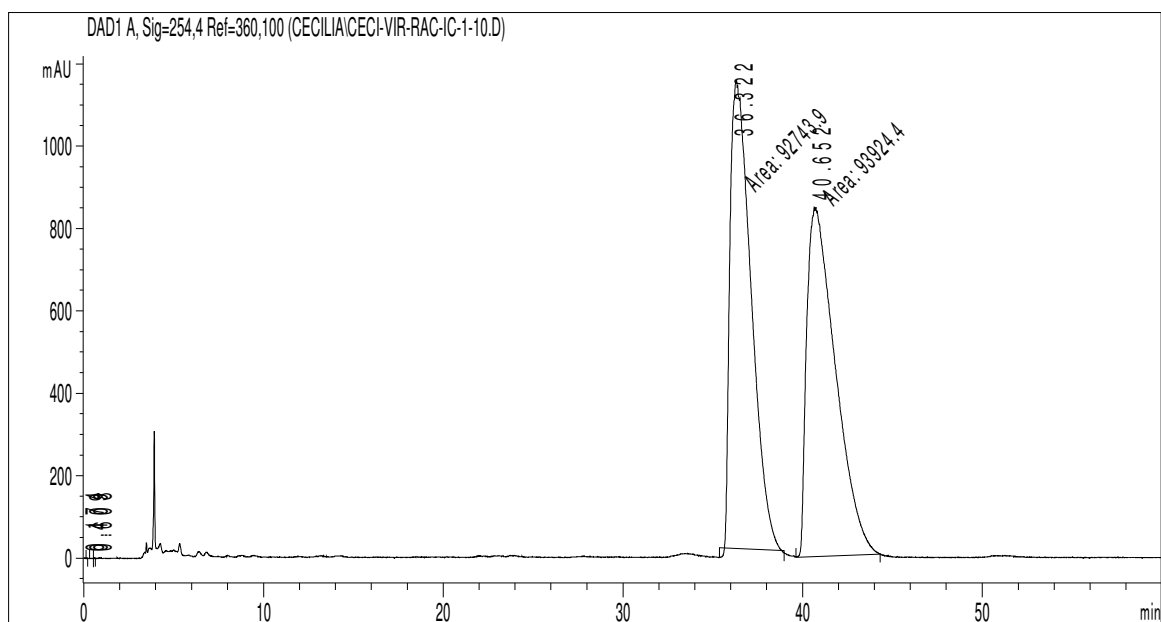


Figure S-21. Racemic and Optically enriched HPLC Chromatogram of compound **16a**.

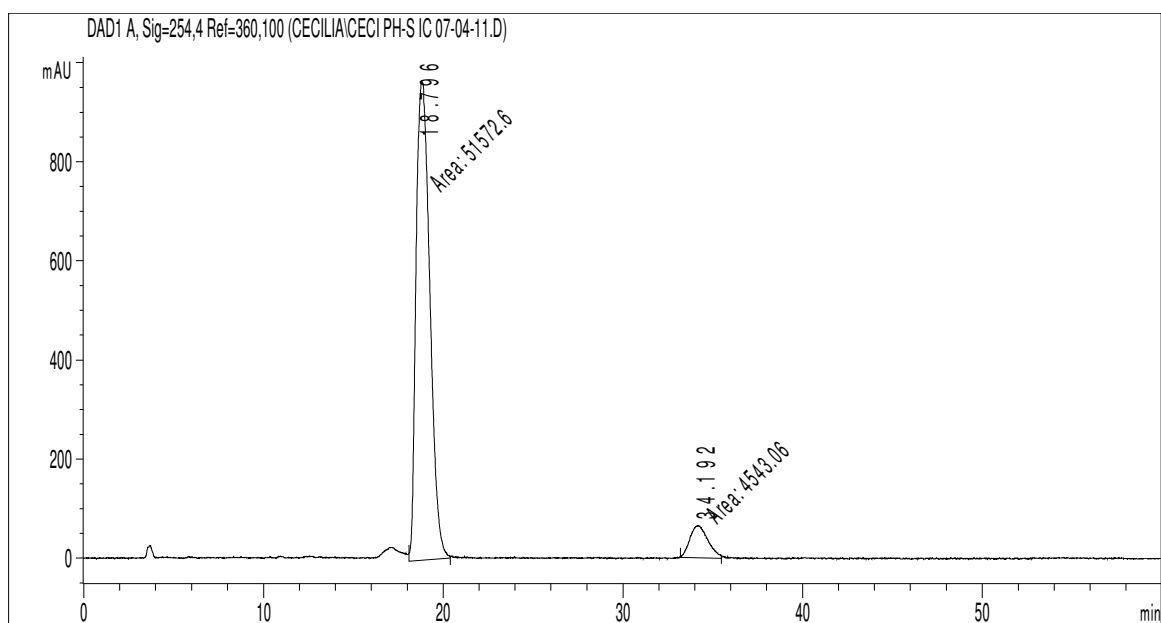
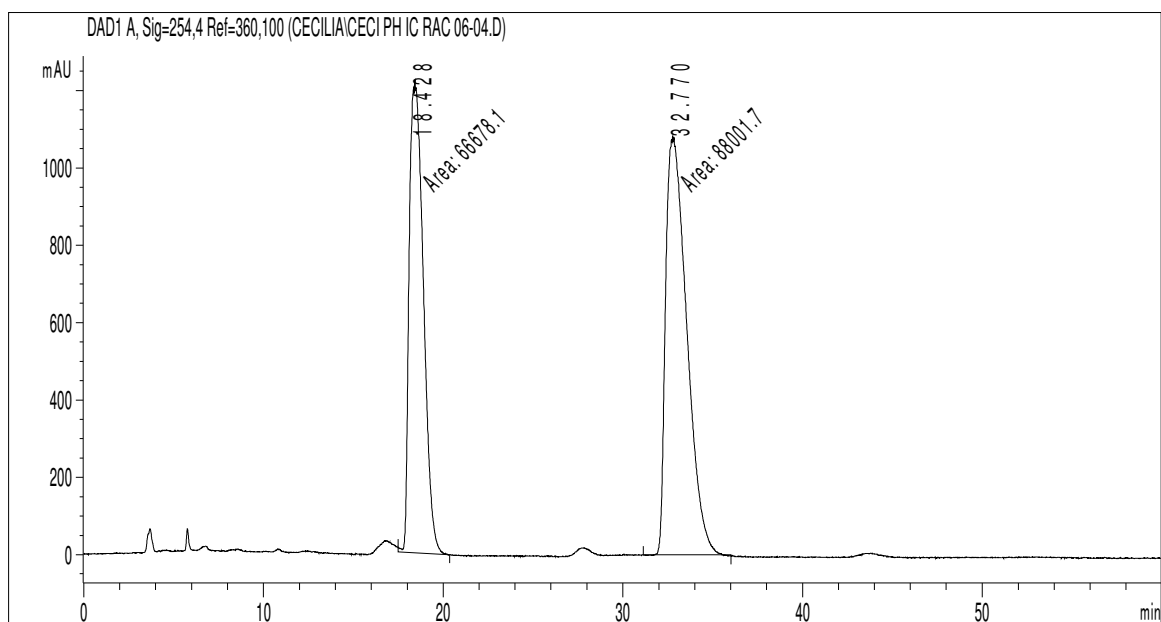


Figure S-22. Racemic and Optically enriched HPLC Chromatogram of compound **16b**.

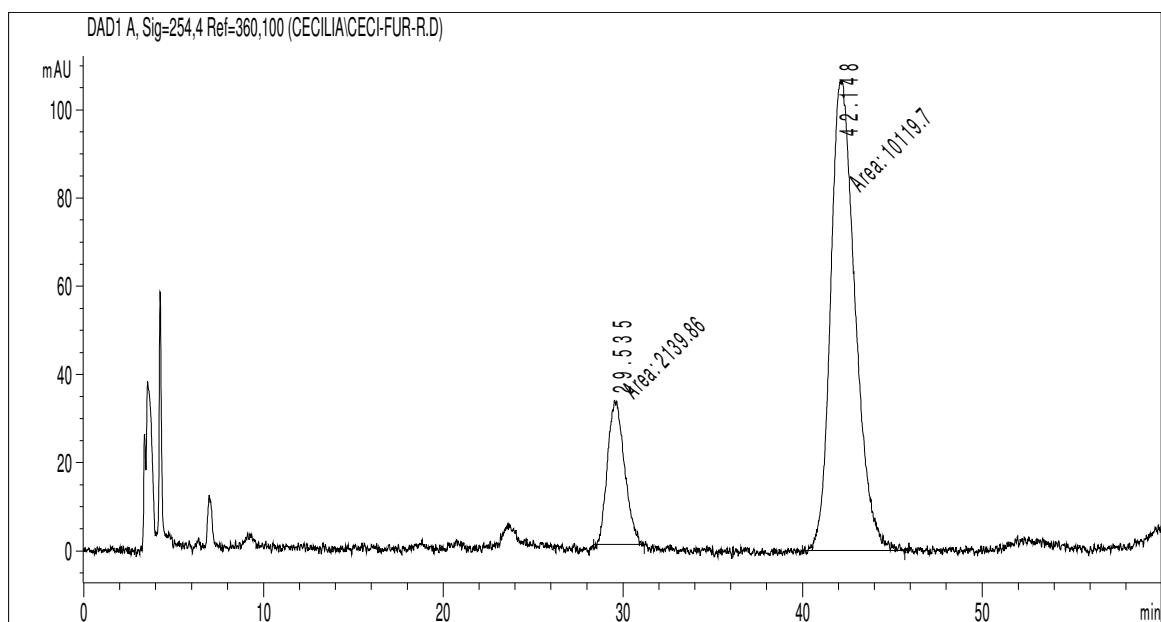
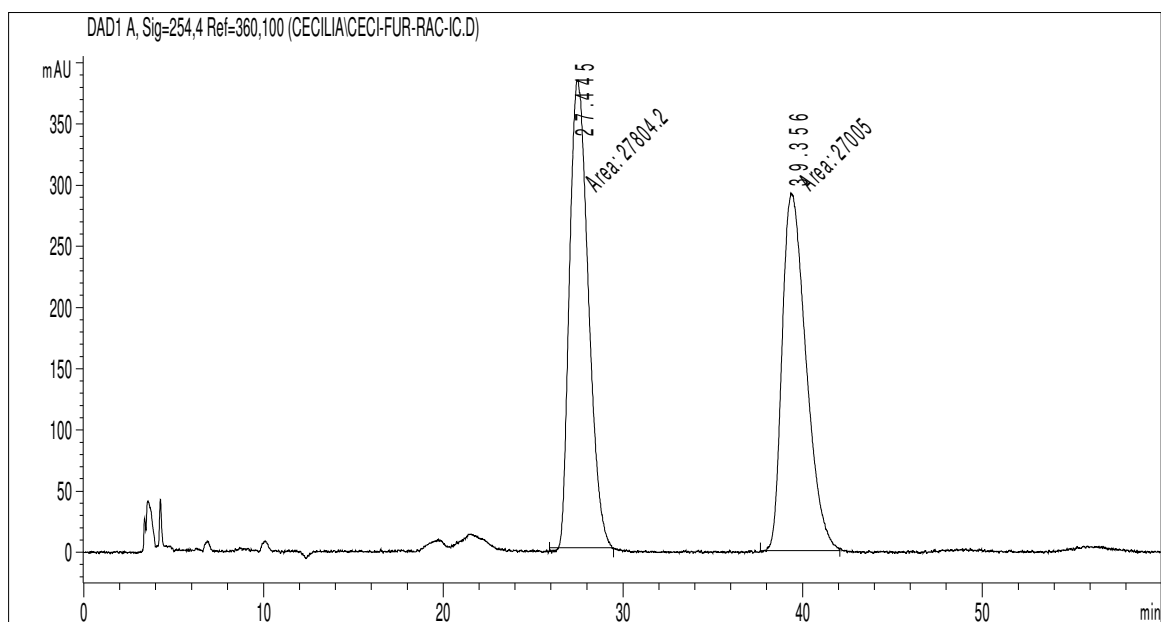


Figure S23. Racemic and Optically enriched HPLC Chromatogram of compound *ent*-16c.

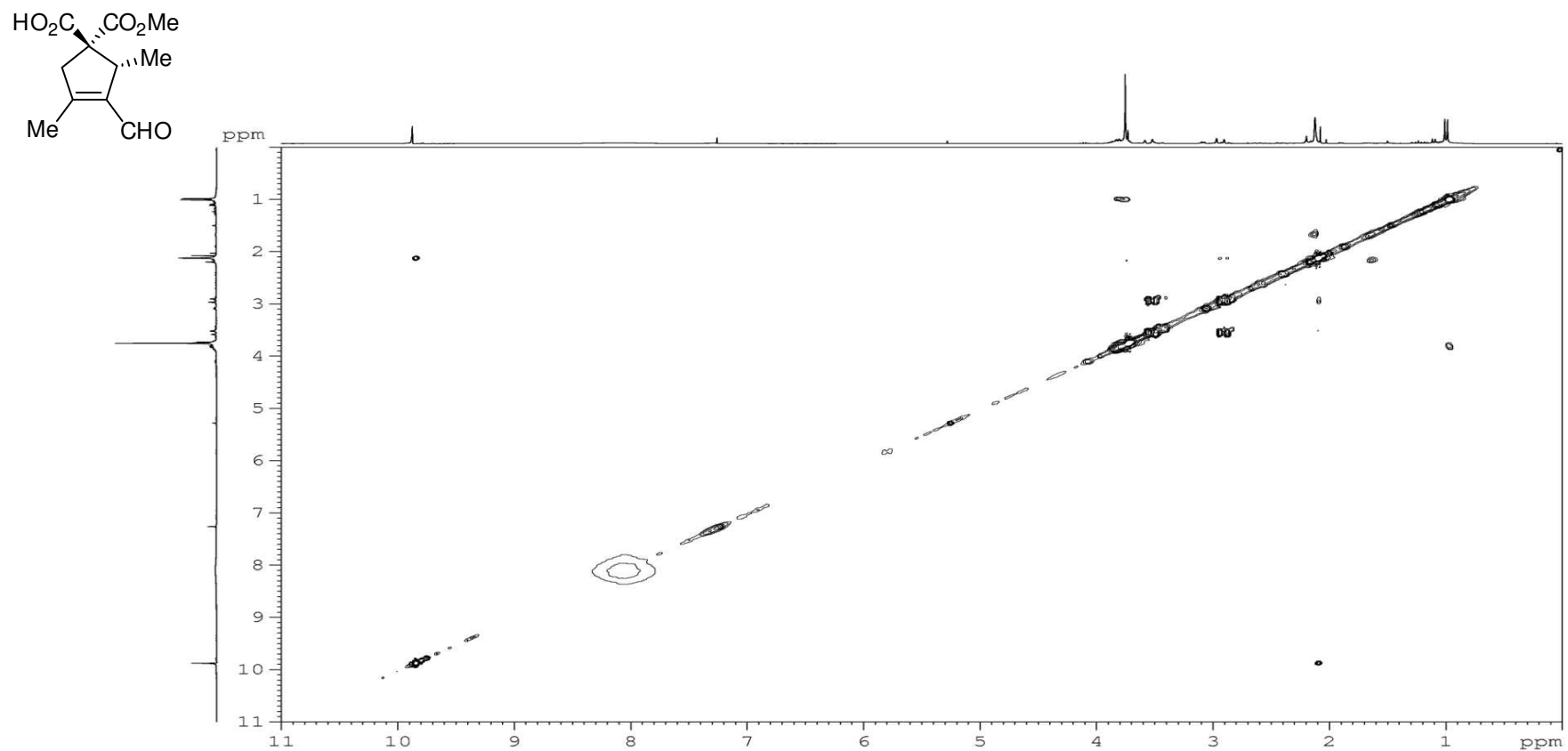


Figure S24. NOESY-NMR of compound 14.