Bis-iridoid glycosides and triterpenoids from *Kolkwitzia amabilis* and their potential as inhibitors of ACC1 and ACL

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Contents

Figure S1. Phenylpropanoids from the twigs/leaves and flower buds of *K. amabilis*.

Figure S2. HPLC-ELSD profiles of monosaccharide hydrolysis of compound **7**.

Figures S3–S4. ^{1}H-^{1}H COSY, HMBC, and NOESY correlations of compounds **2** and **4**–**6**.

Figure S5. Molecular docking model of compound **17** bound to ACC1 and ACL.

Figure S6. Molecular docking model of compound **29** bound to ACL.

Figures S7–S13: 1D/2D NMR and HRESIMS spectra for compound **1**.

Figures S14–S18: 1D/2D NMR and HRESIMS spectra for compound **2**.

Figures S19–S25: 1D/2D NMR and HRESIMS spectra for compound **3**.

Figure S26: ECD spectrum of compound **3**.

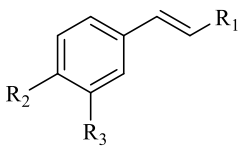
Figures S27–S33: 1D/2D NMR and HRESIMS spectra for compound **4**.

Figure S34: ECD spectrum of compound **4**.

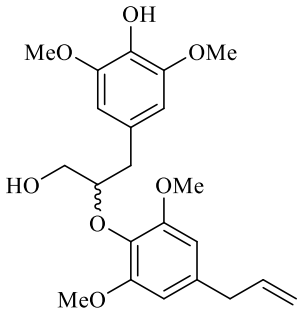
Figures S35–S40: 1D/2D NMR and HRESIMS spectra for compound **5**.

Figure S41: ECD spectrum of compound **5**.

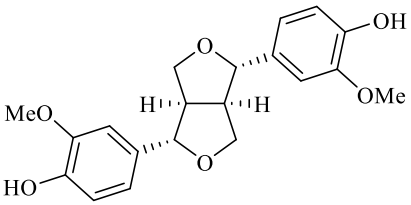
Figures S42–S47: 1D/2D NMR and HRESIMS spectra for compound **6**.



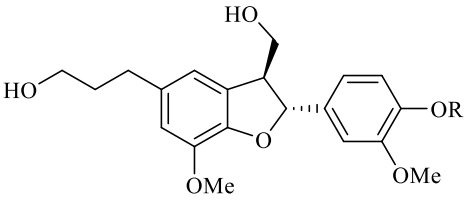
32: R_1 = CHO, R_2 = OMe, R_3 = OH
33: R_1 = COOH, R_2 = OMe, R_3 = OMe
34: R_1 = COOH, R_2 = OMe, R_3 = H
35: R_1 = COOH, R_2 = OH, R_3 = OMe
36: R_1 = CH_2OH, R_2 = β-D-Glu, R_3 = OMe



37



38



39: R = β-D-Glu

Figure S1. Phenylpropanoids (**32**–**39**) from the twigs/leaves and flower buds of *K. amabilis*.

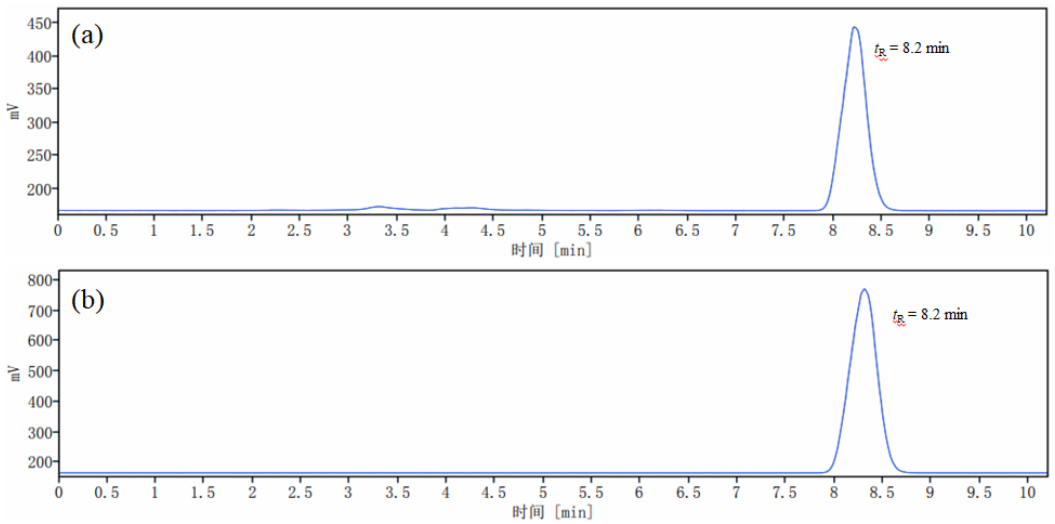


Figure S2. HPLC-ELSD profiles of monosaccharide hydrolysis of compound **7** (a: **7**; b: D-glucose).

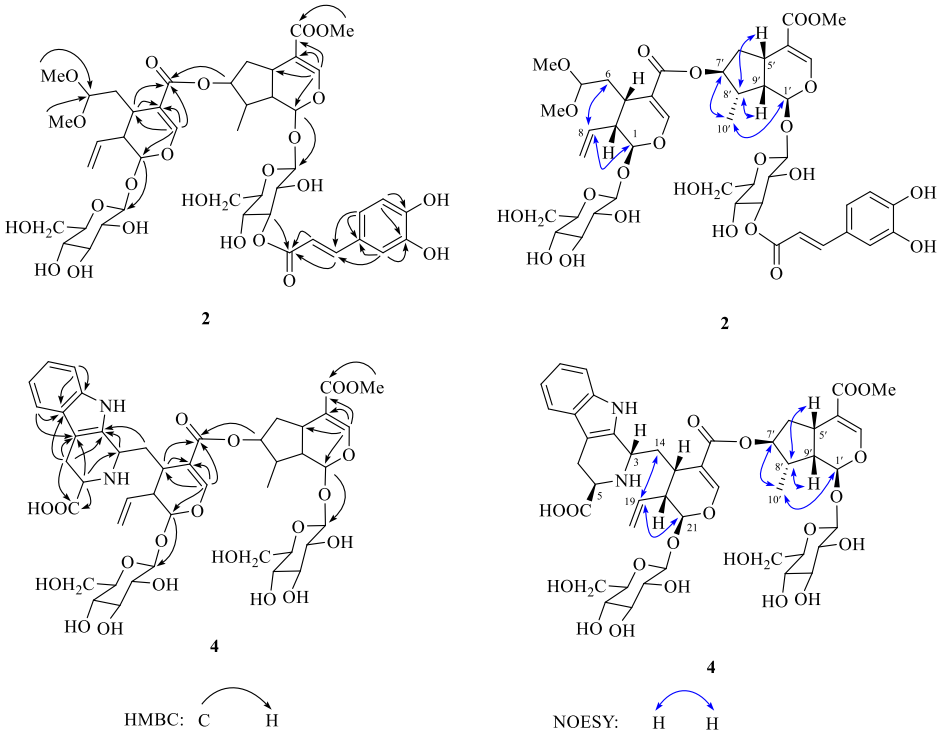


Figure S3. Observed key HMBC and NOESY correlations of **2** and **4**.

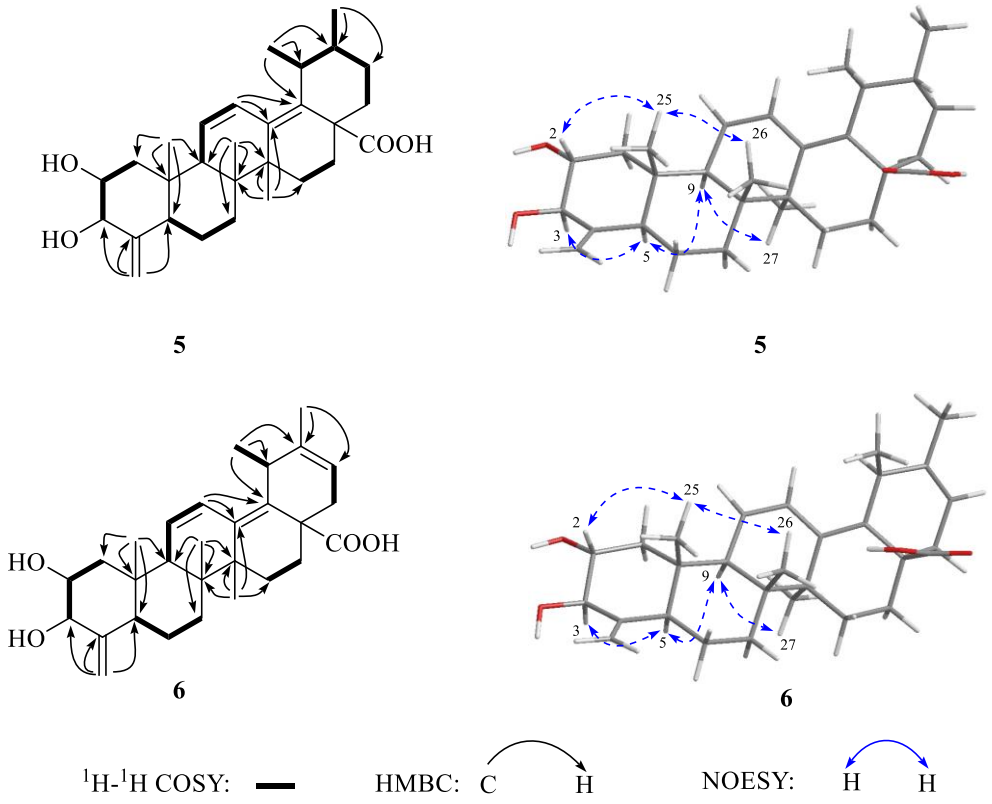


Figure S4. ^{1}H-^{1}H COSY and observed key HMBC and NOESY correlations of **5** and **6**.

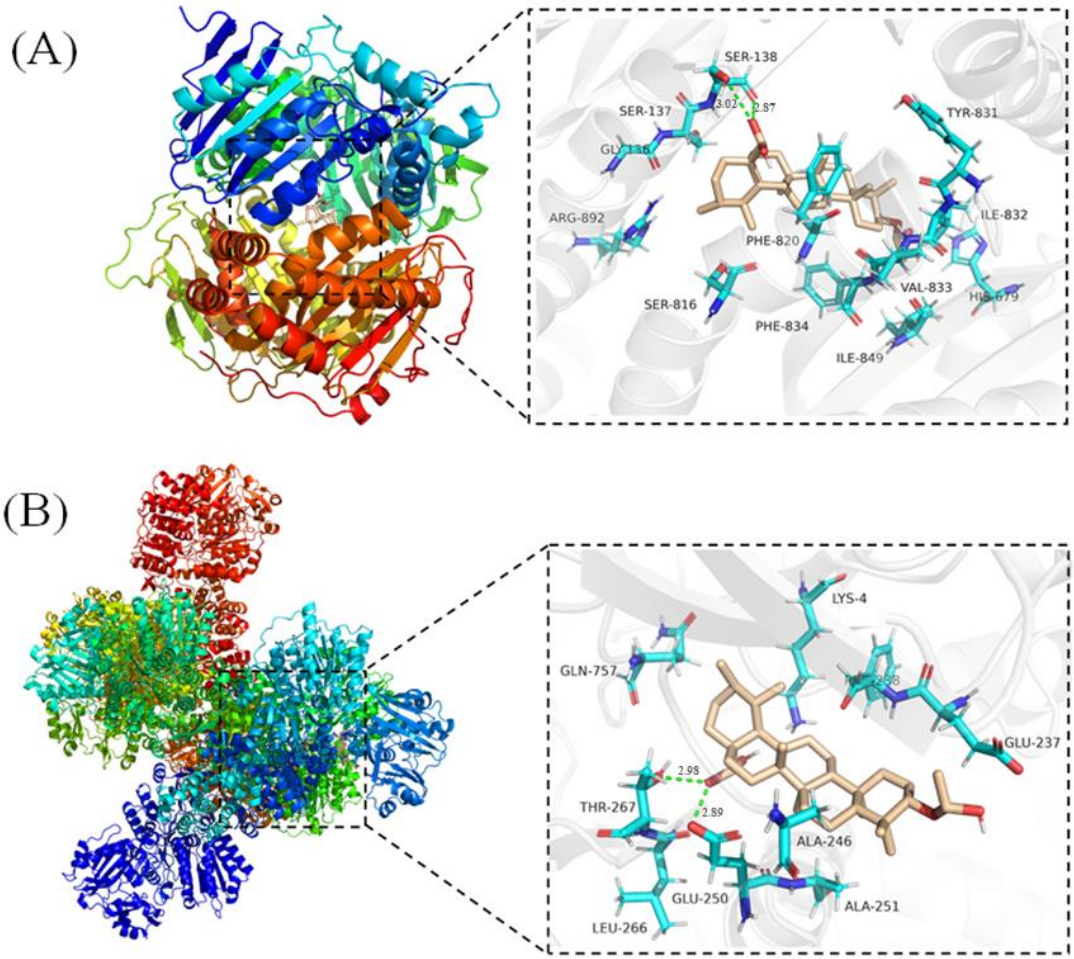


Figure S5. Molecular docking model of compound **17** bound to ACC1 (A, PDB ID: 3TVU) and ACL (B, PDB ID: 6HXH). These various interactions are displayed in dotted-lines (hydrogen bond: green).

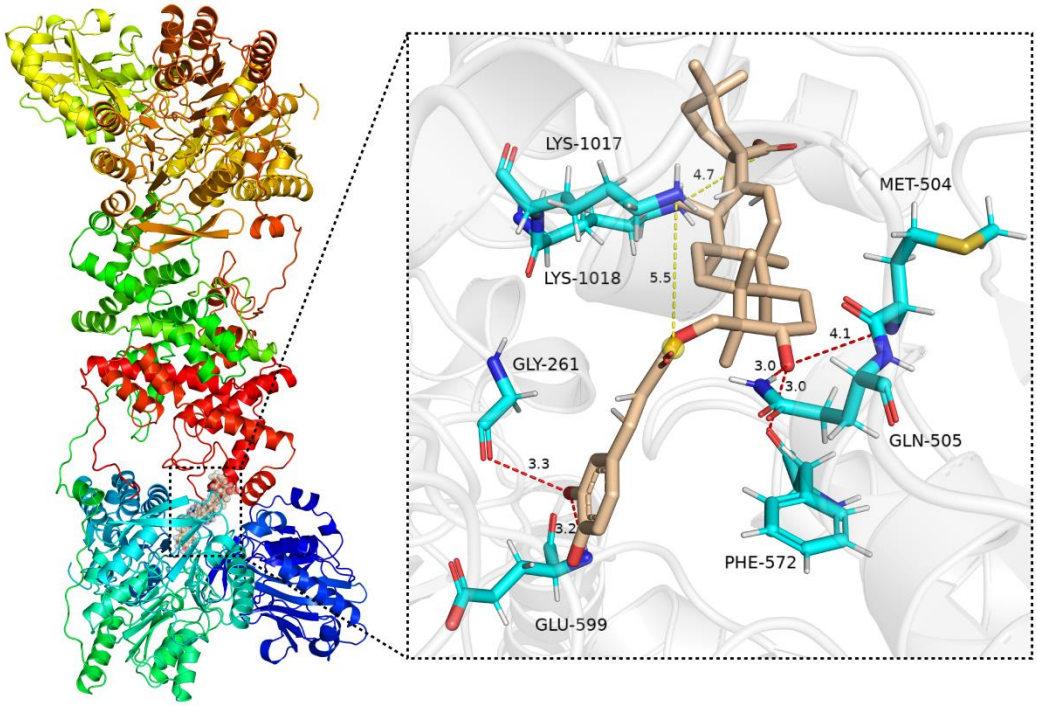


Figure S6. Molecular docking model of compound **29** bound to ACL (PDB ID: 6HXH). These various interactions are displayed in dotted-lines (hydrogen bond: red; salt bridge: yellow).

Figure S7. ^{1}H NMR spectrum of compound **1** in CD_3OD (400 MHz).

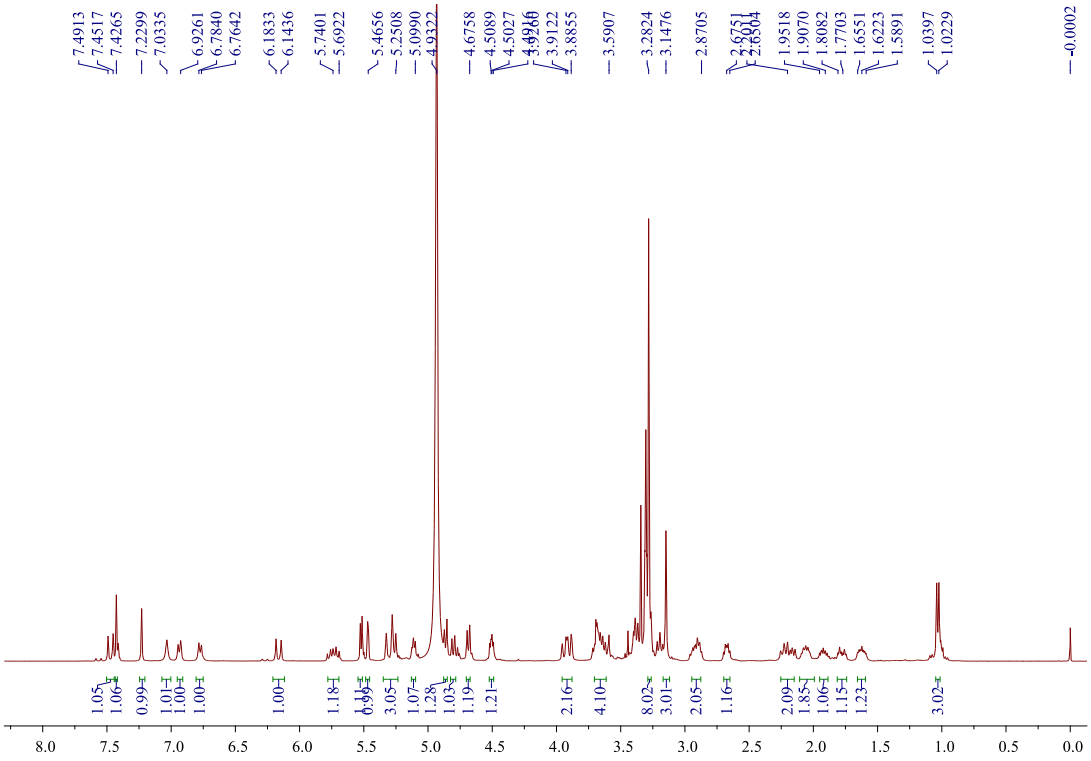


Figure S8. ^{13}C NMR spectra of compound **1** in CD_3OD (100 MHz).

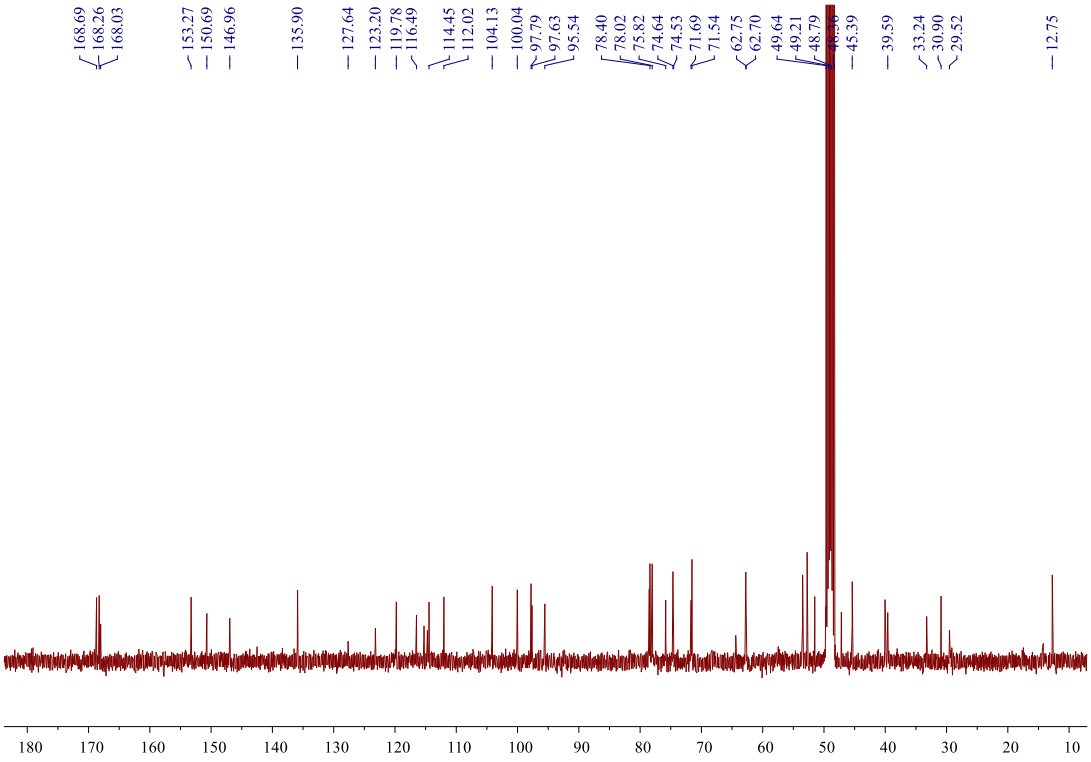


Figure S9. HSQC spectrum of compound **1** in CD_3OD (400 MHz).

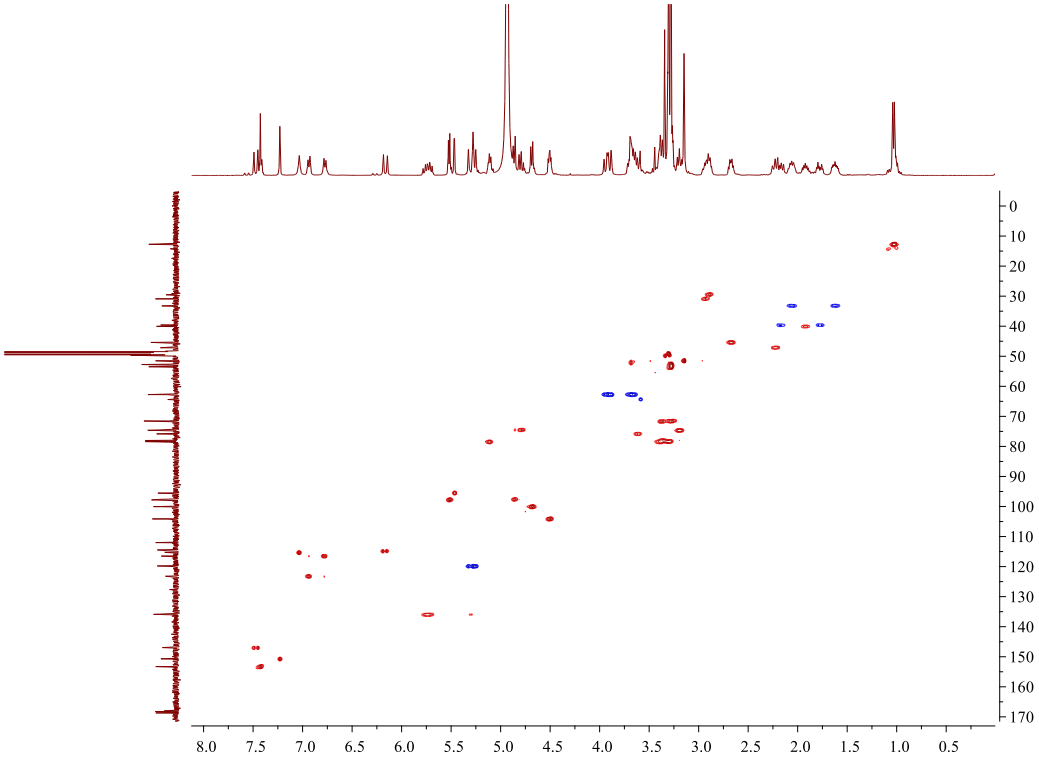


Figure S10. ^1H-^1H COSY spectrum of compound **1** in CD_3OD (400 MHz).

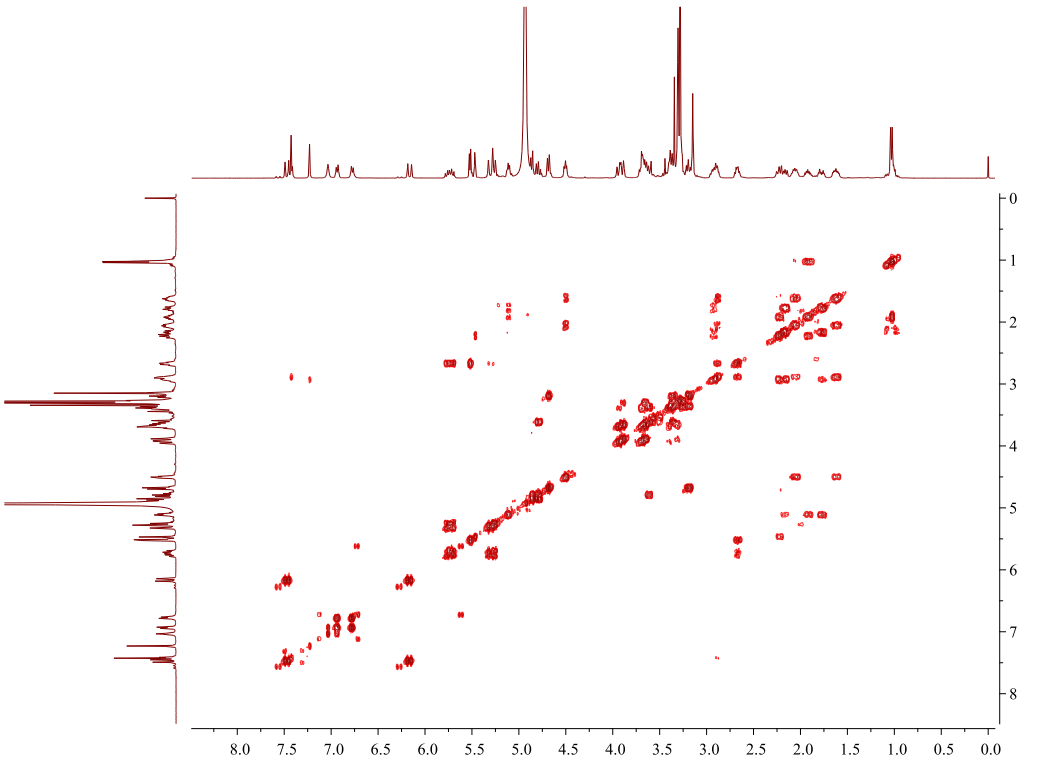


Figure S11. HMBC spectrum of compound **1** in CD_3OD (400 MHz).

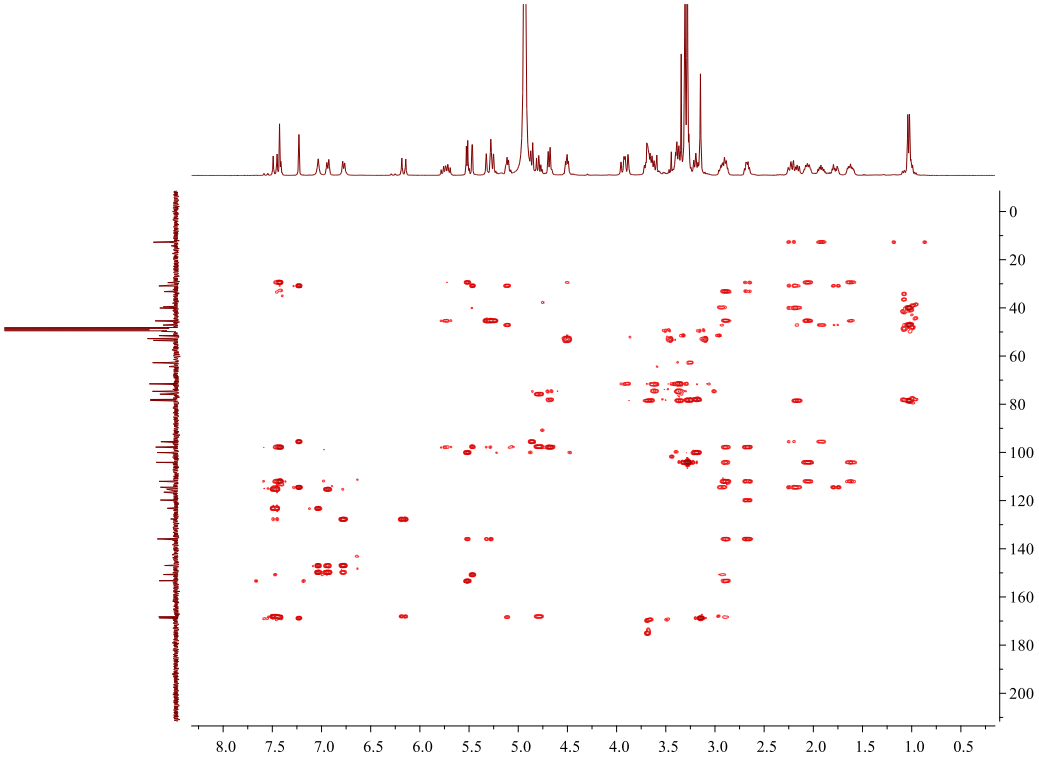


Figure S12. NOESY spectrum of compound **1** in CD_3OD (400 MHz).

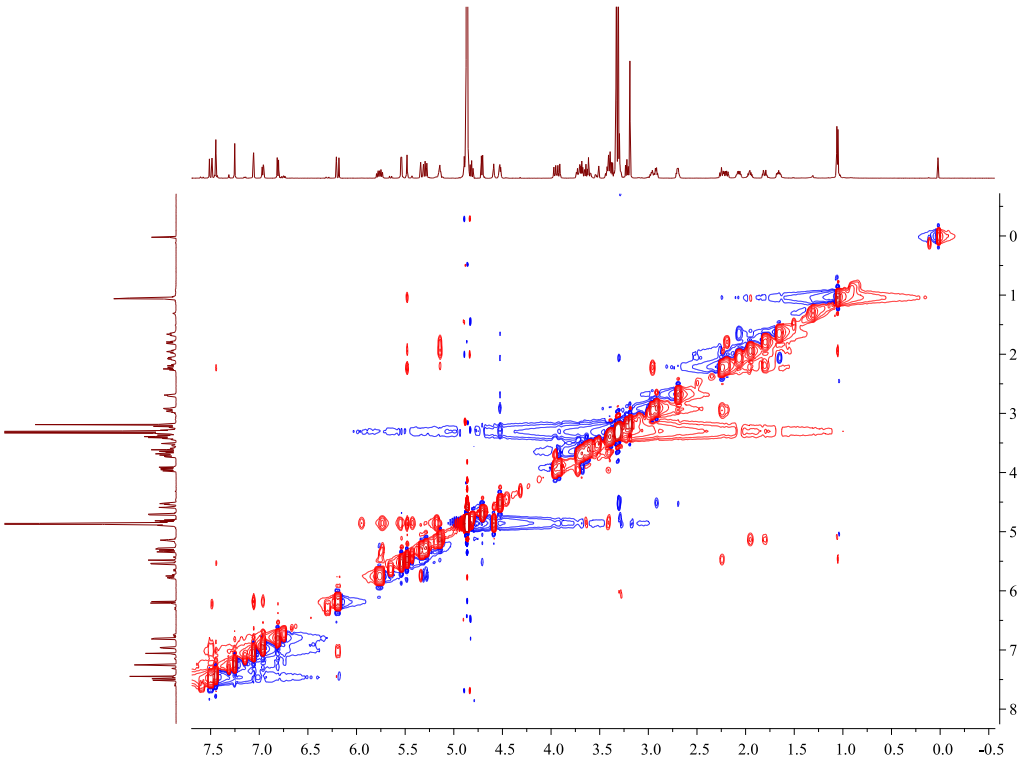


Figure S13. HRESIMS report of compound **1**.

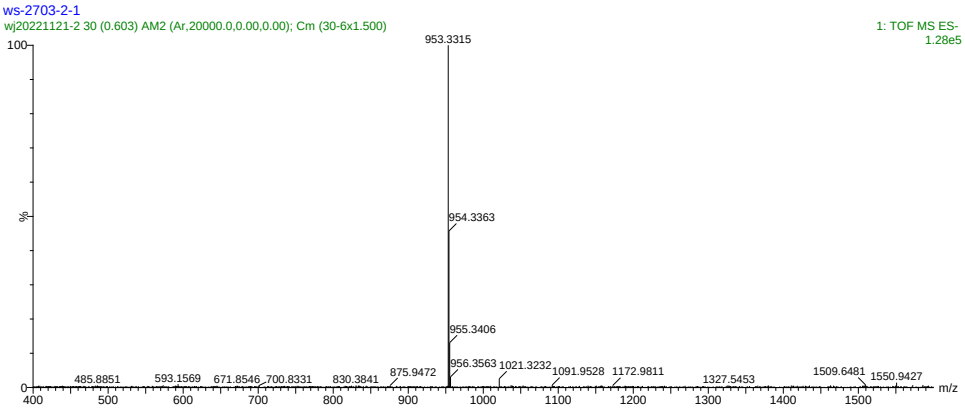


Figure S14. ^{1}H NMR spectrum of compound **2** in CD_3OD (400 MHz).

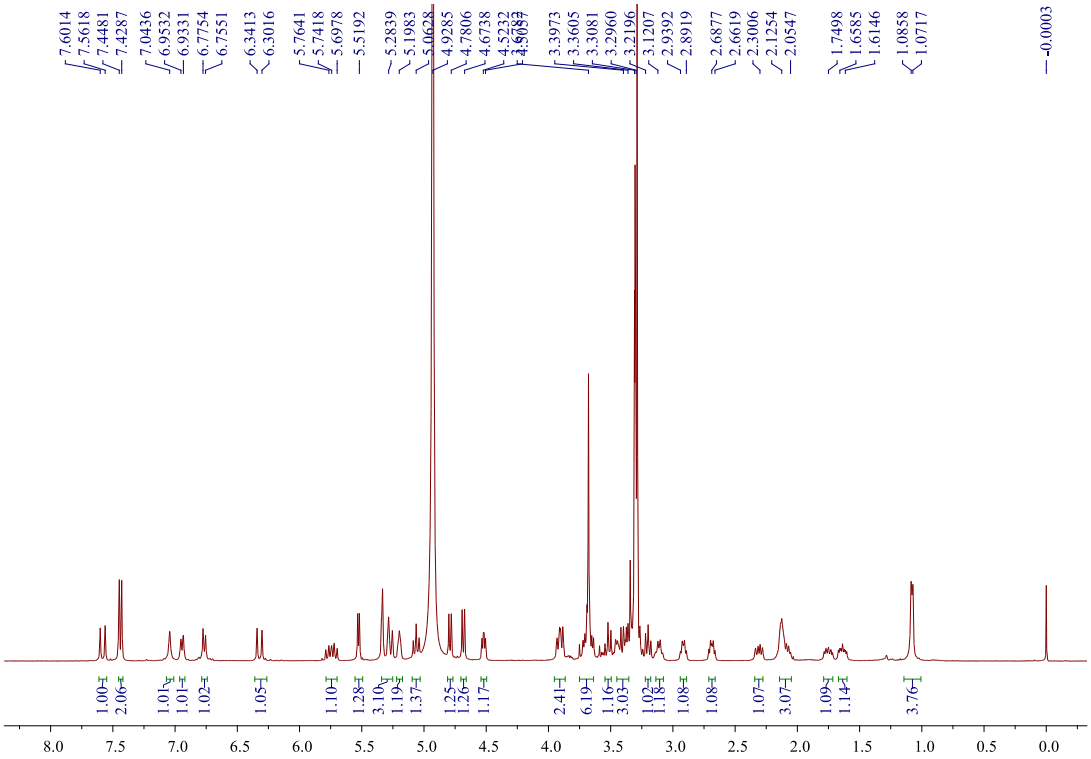


Figure S15. ^{13}C NMR spectrum of compound **2** in CD_3OD (100 MHz).

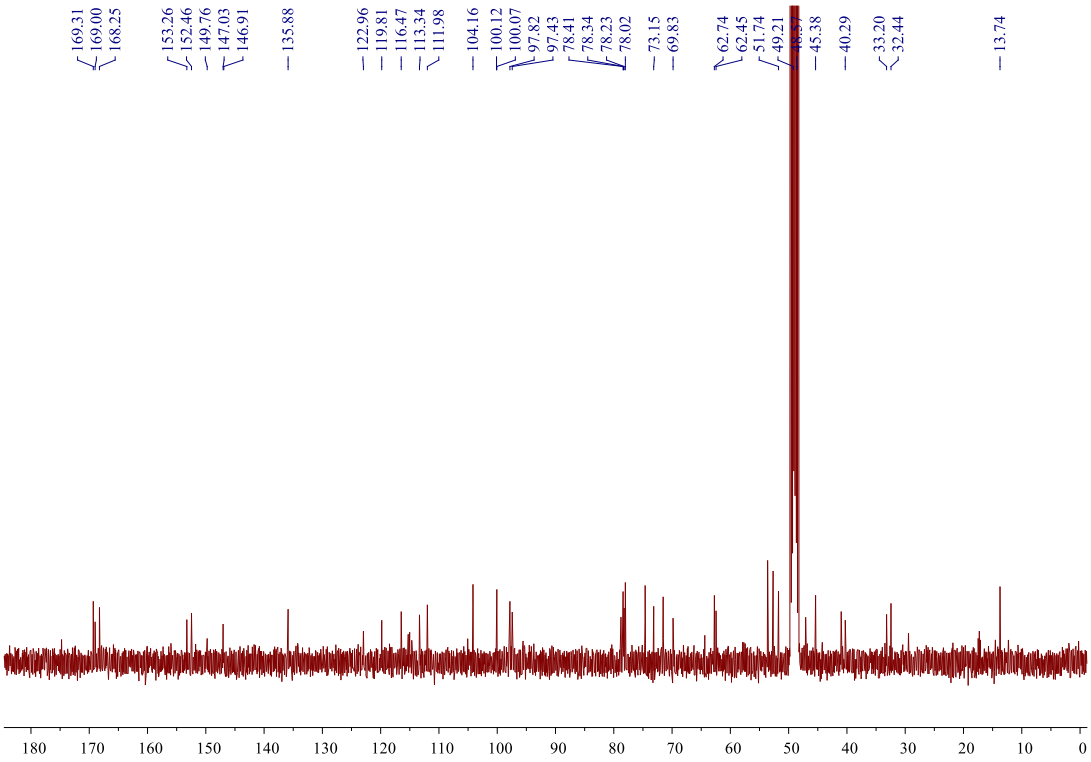


Figure S16. HMBC spectrum of compound **2** in CD_3OD (400 MHz).

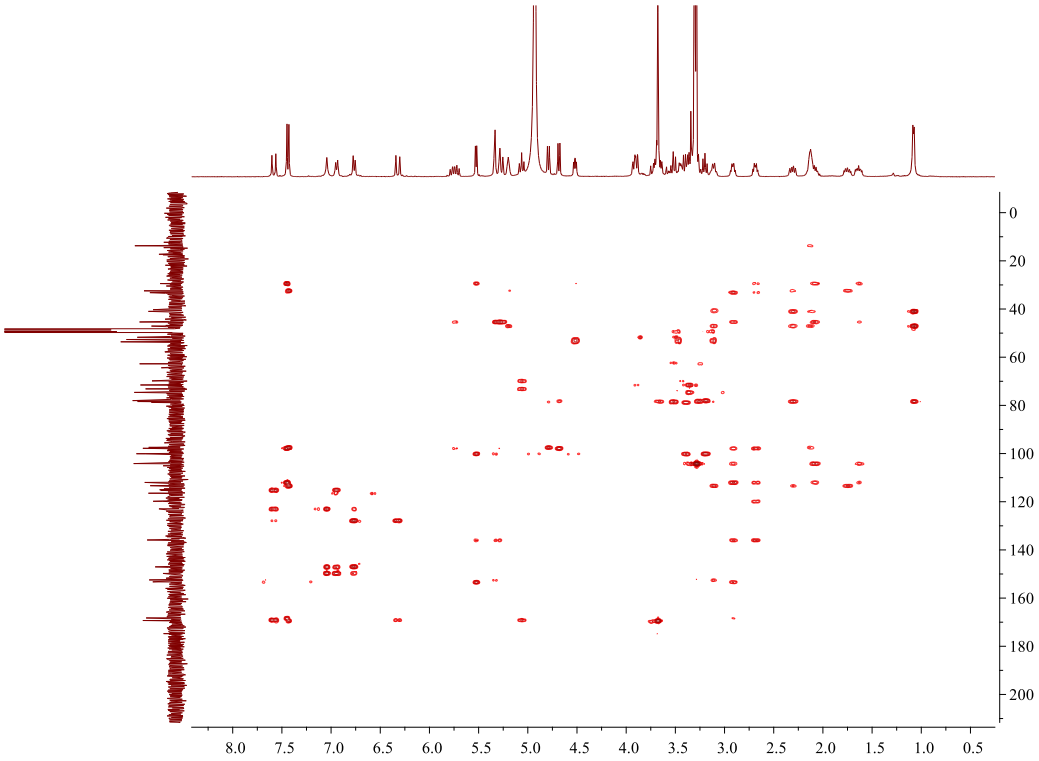


Figure S17. NOESY spectrum of compound **2** in CD_3OD (400 MHz).

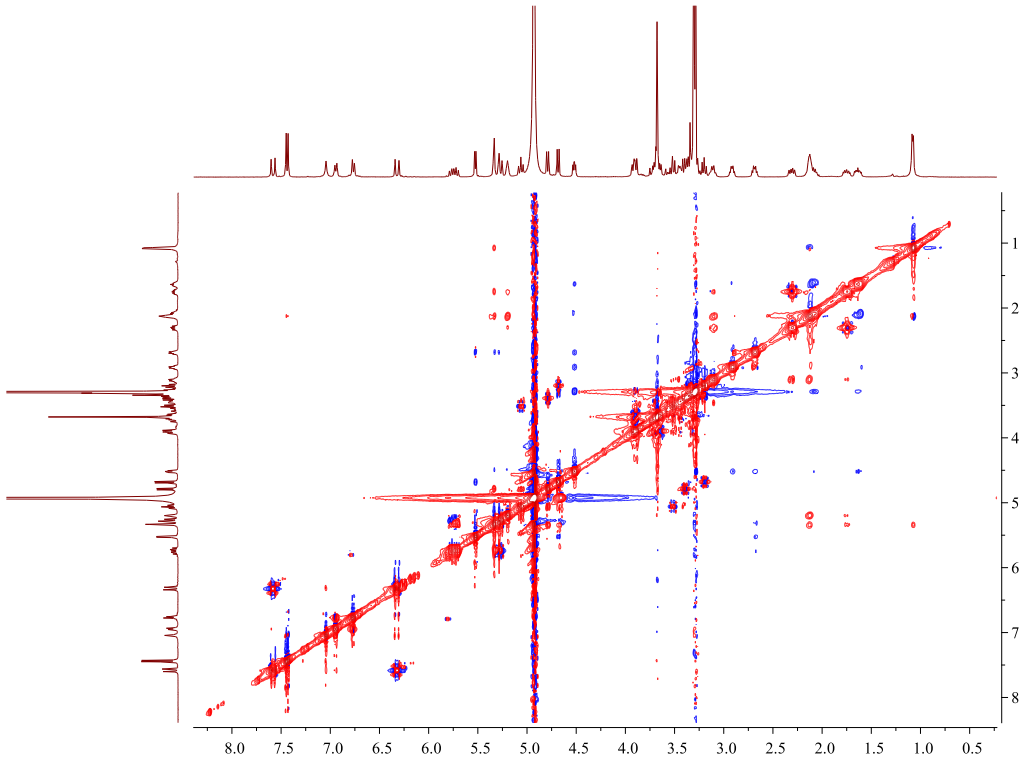


Figure S18. HRESIMS report of compound **2**.

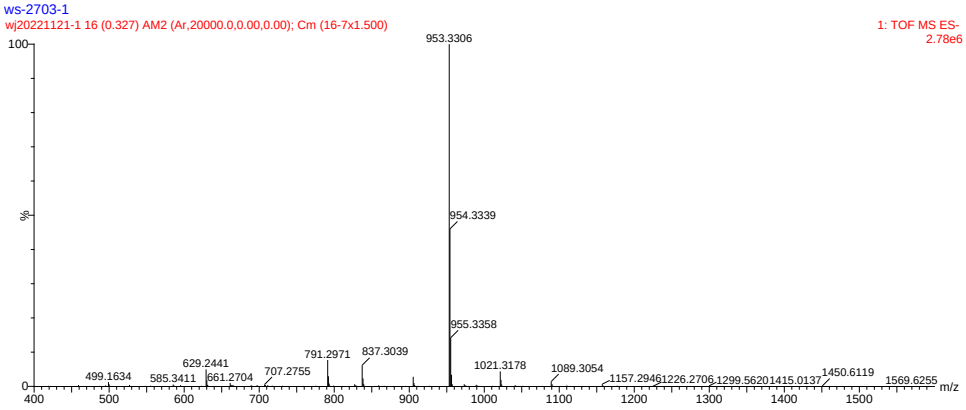


Figure S19. ^{1}H NMR spectrum of compound **3** in CD_3OD (400 MHz).

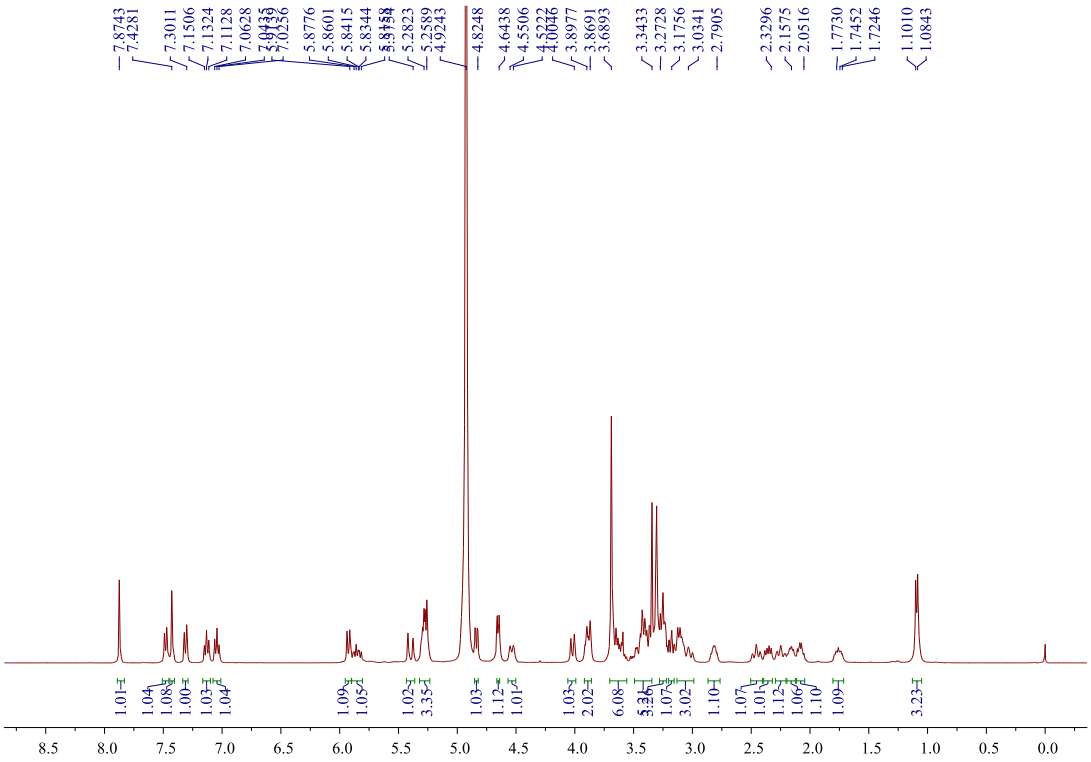


Figure S20. ^{13}C NMR spectrum of compound **3** in CD_3OD (100 MHz).



Figure S21. HSQC spectrum of compound **3** in CD_3OD (400 MHz).

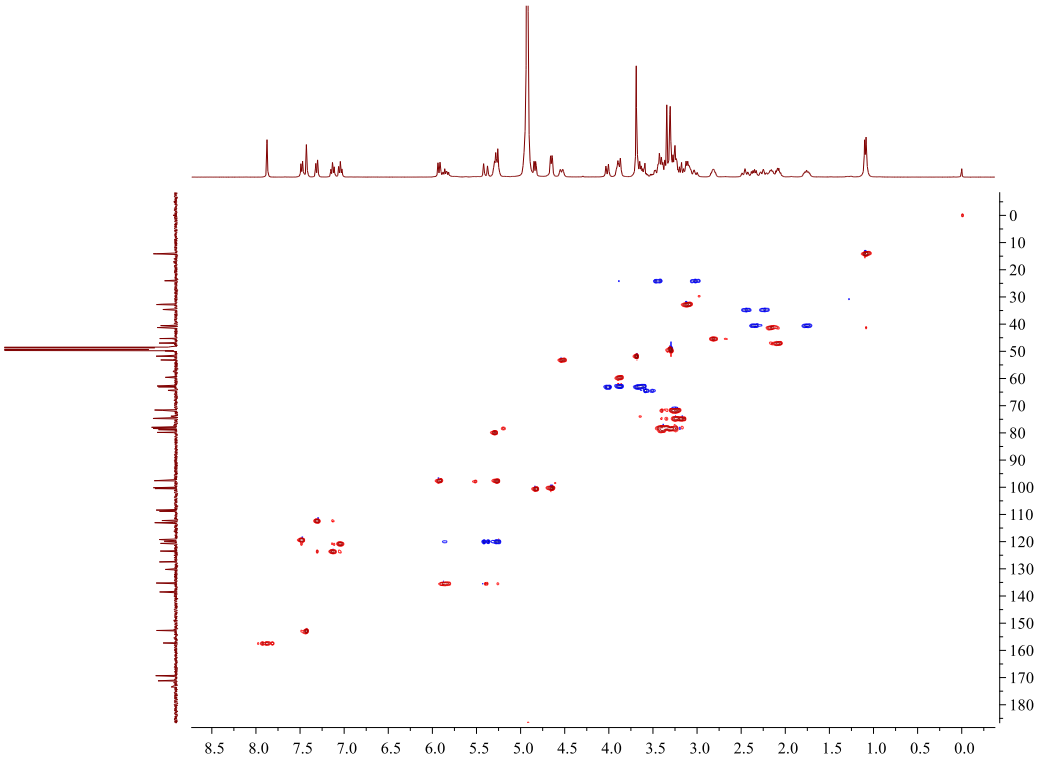


Figure S22. ^{1}H-^{1}H COSY spectrum of compound **3** in CD_3OD (400 MHz).

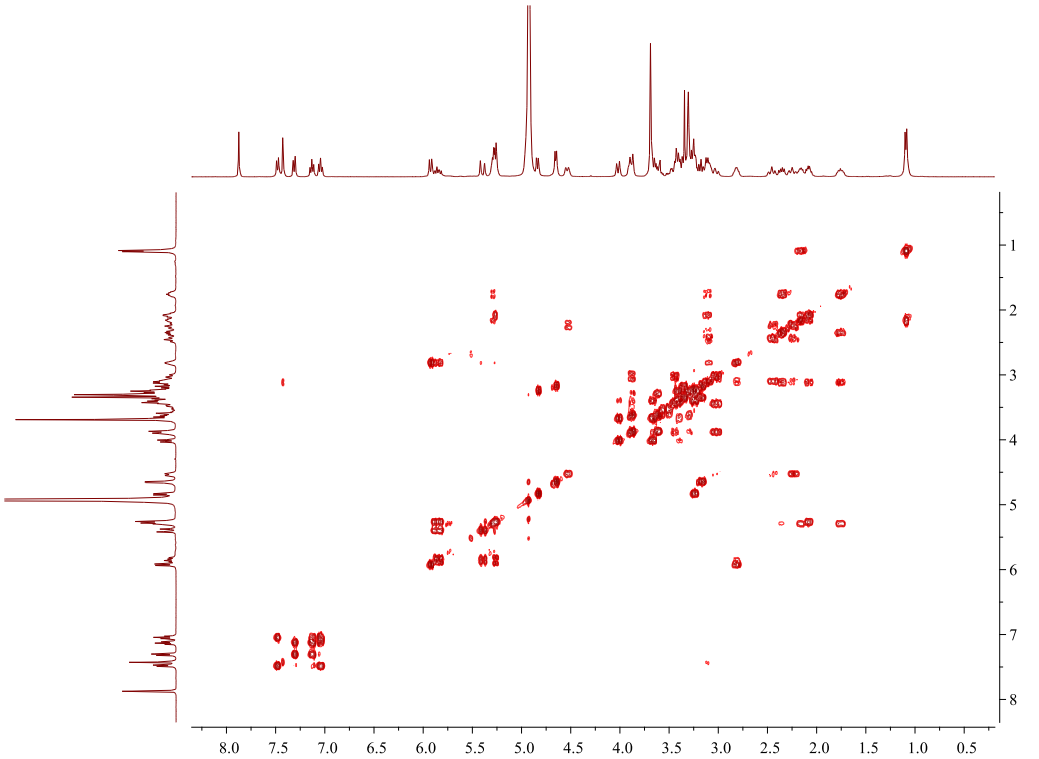


Figure S23. HMBC spectrum of compound **3** in CD_3OD (400 MHz).

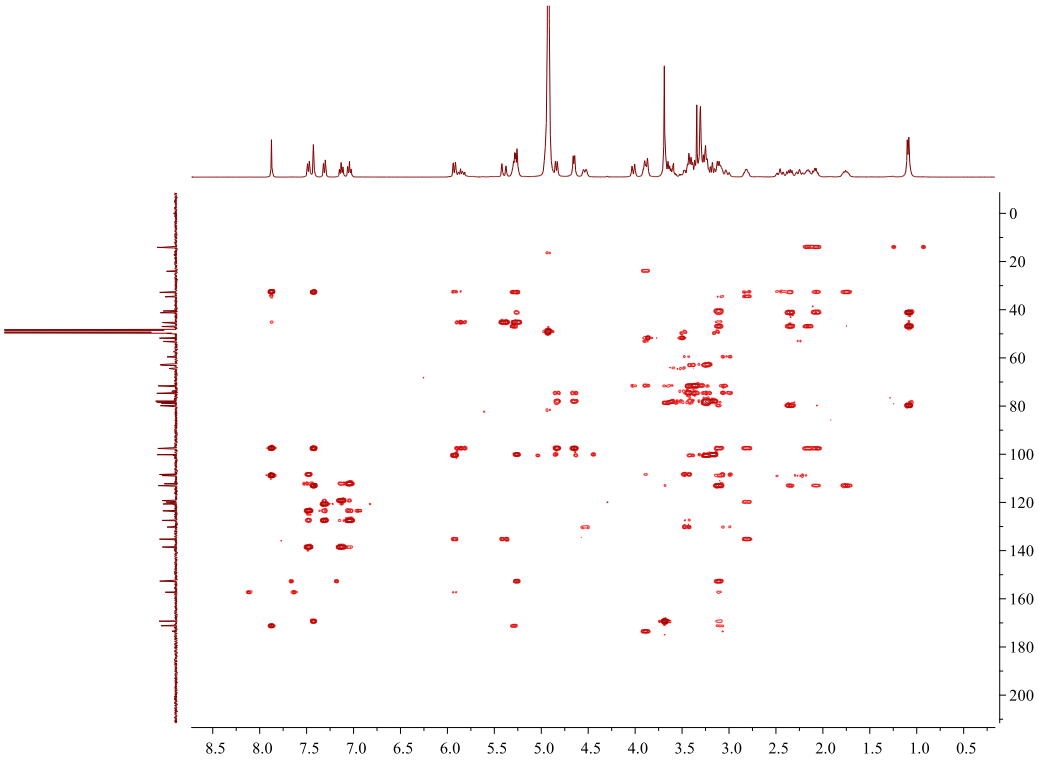


Figure S24. NOESY spectrum of compound **3** in CD_3OD (400 MHz).

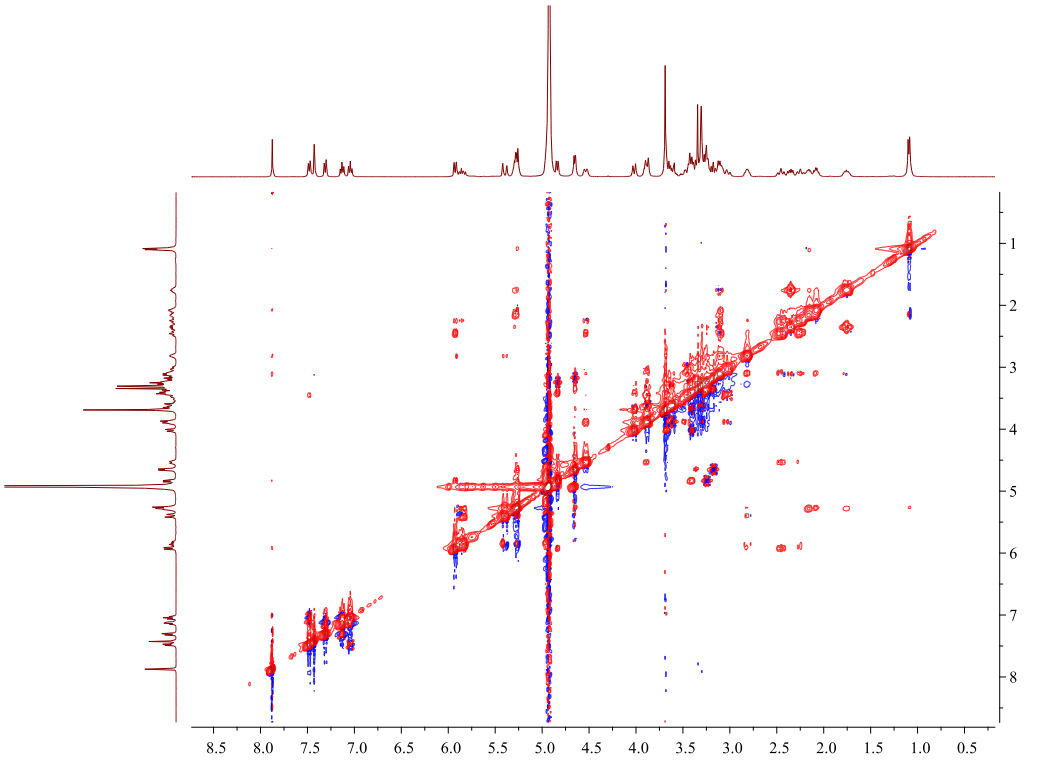


Figure S25. HRESIMS report of compound **3**.

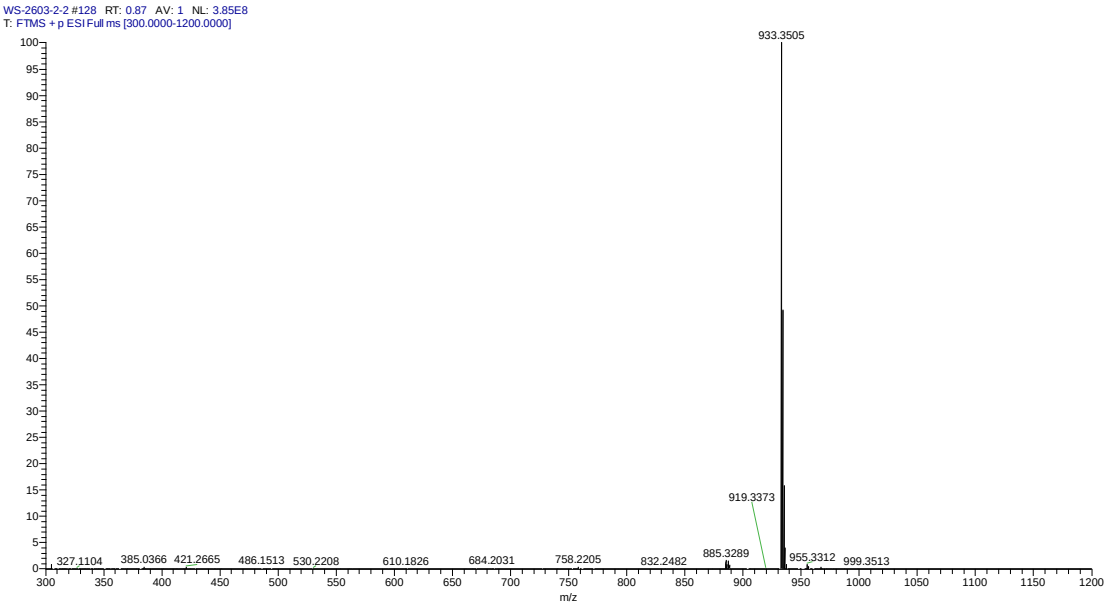


Figure S26. Experimental CD spectrum of **3** in MeOH.

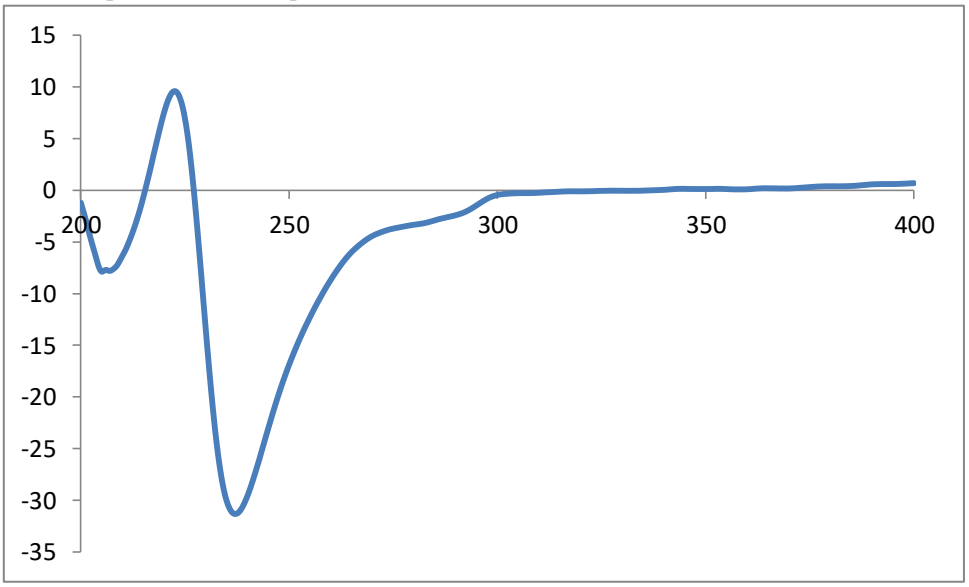


Figure S27. ^{1}H NMR spectrum of compound **4** in CD_3OD (400 MHz).

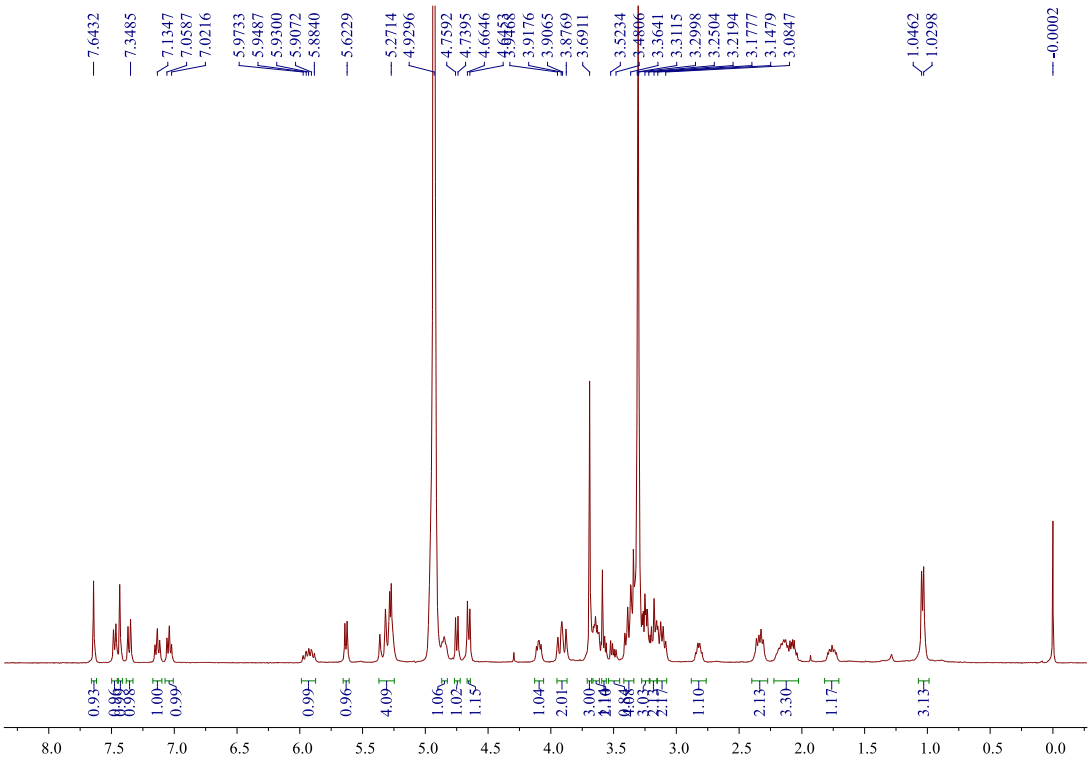


Figure S28. ^{13}C NMR spectrum of compound **4** in CD_3OD (100 MHz).

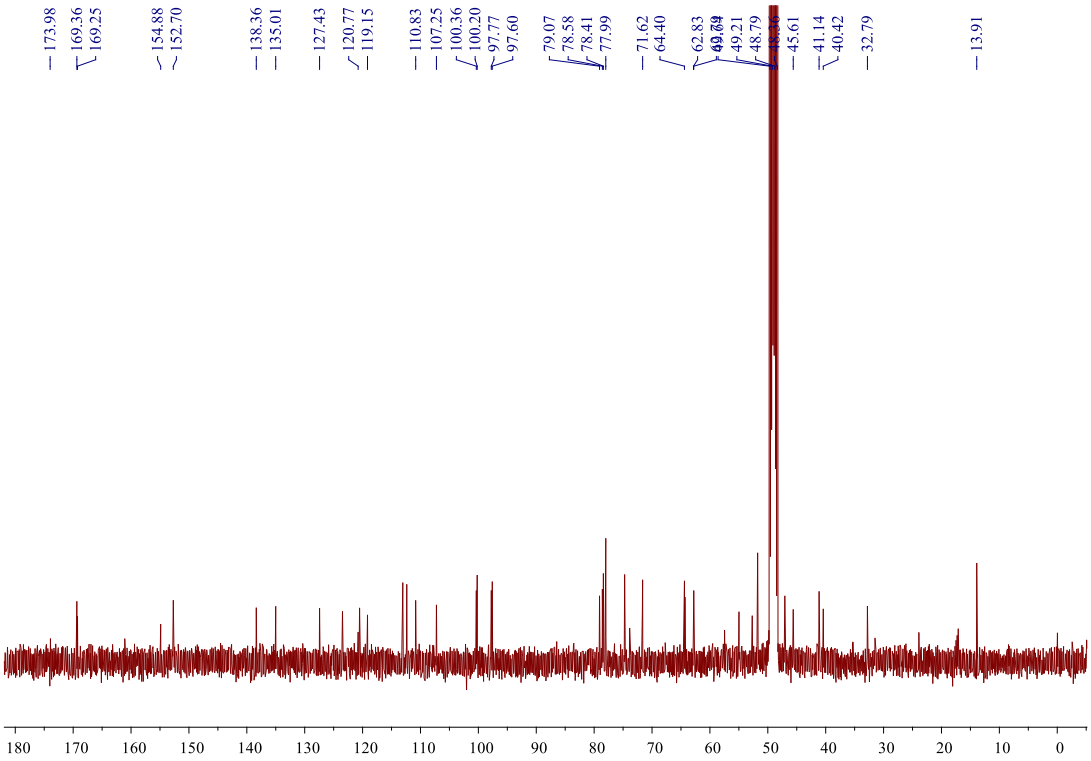


Figure S29. HSQC spectrum of compound **4** in CD_3OD (400 MHz).

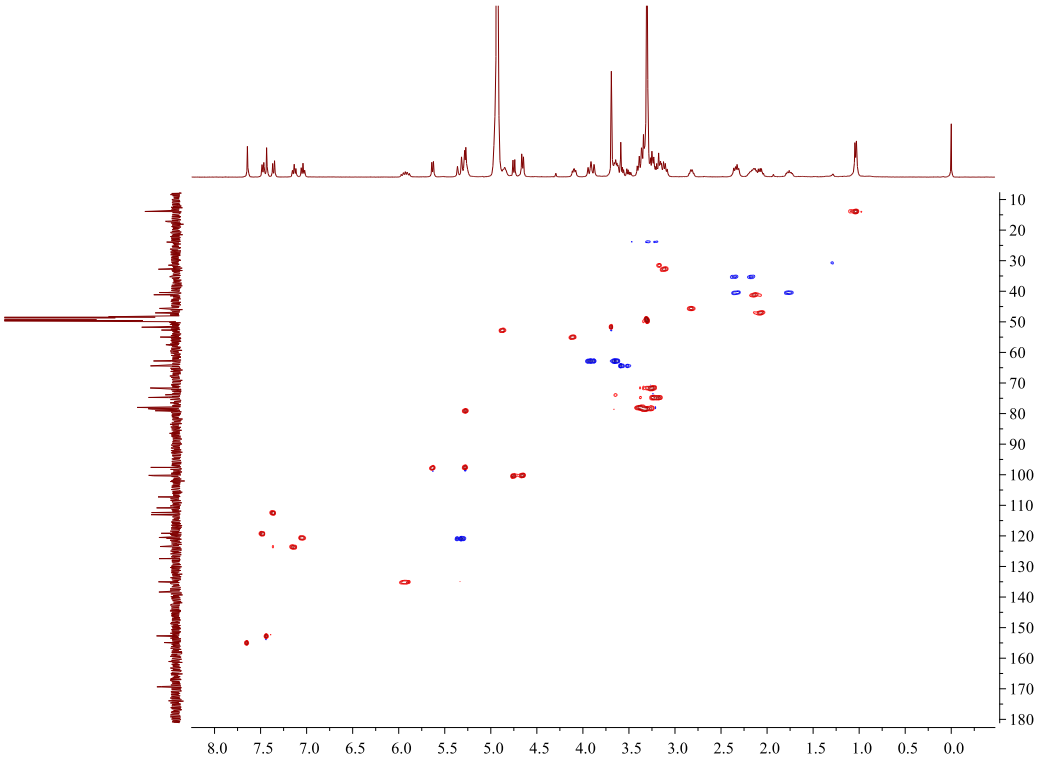


Figure S30. ^1H-^1H COSY spectrum of compound **4** in CD_3OD (400 MHz).

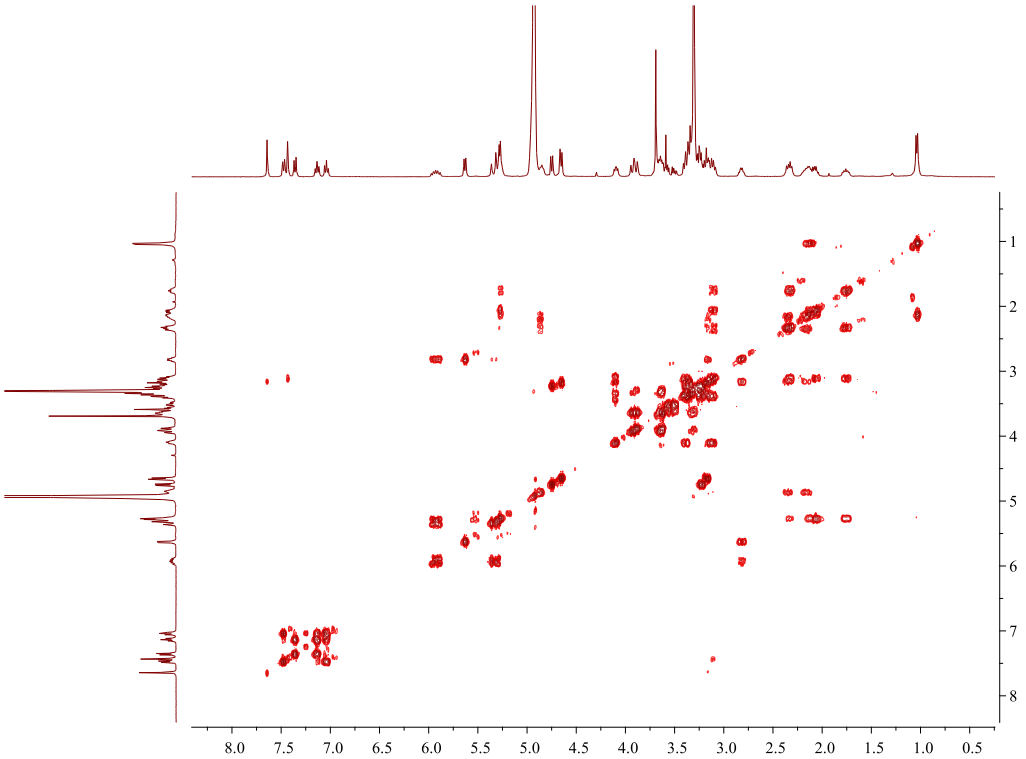


Figure S31. HMBC spectrum of compound **4** in CD_3OD (400 MHz).

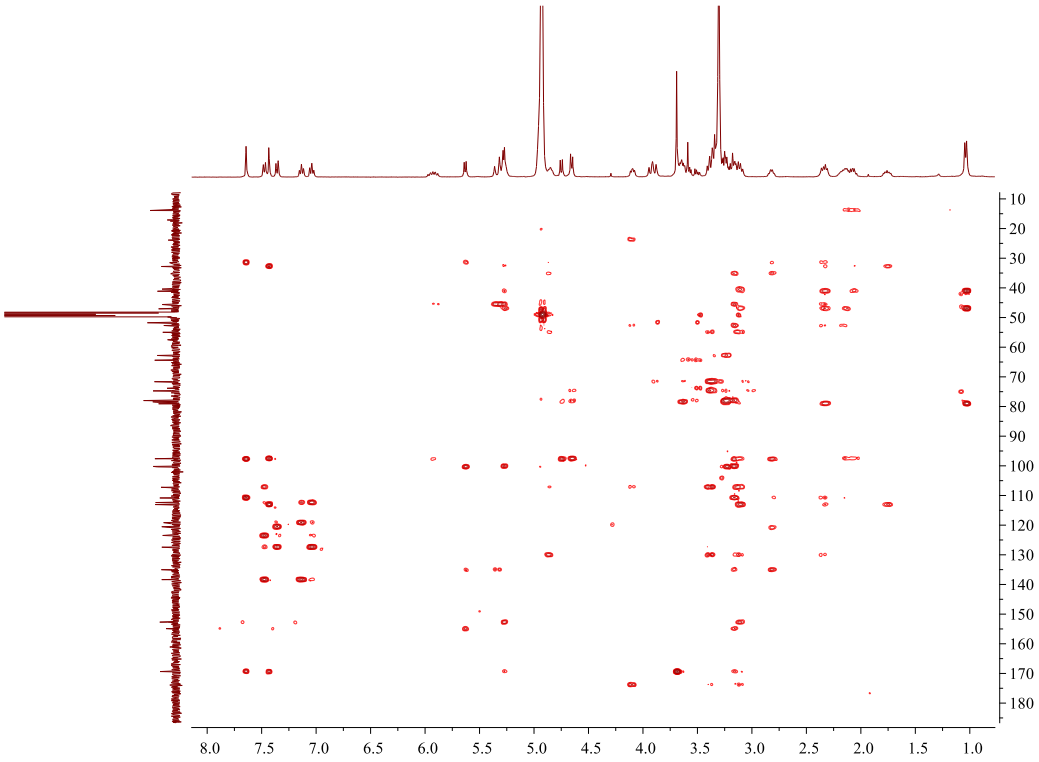


Figure S32. NOESY spectrum of compound **4** in CD_3OD (400 MHz).

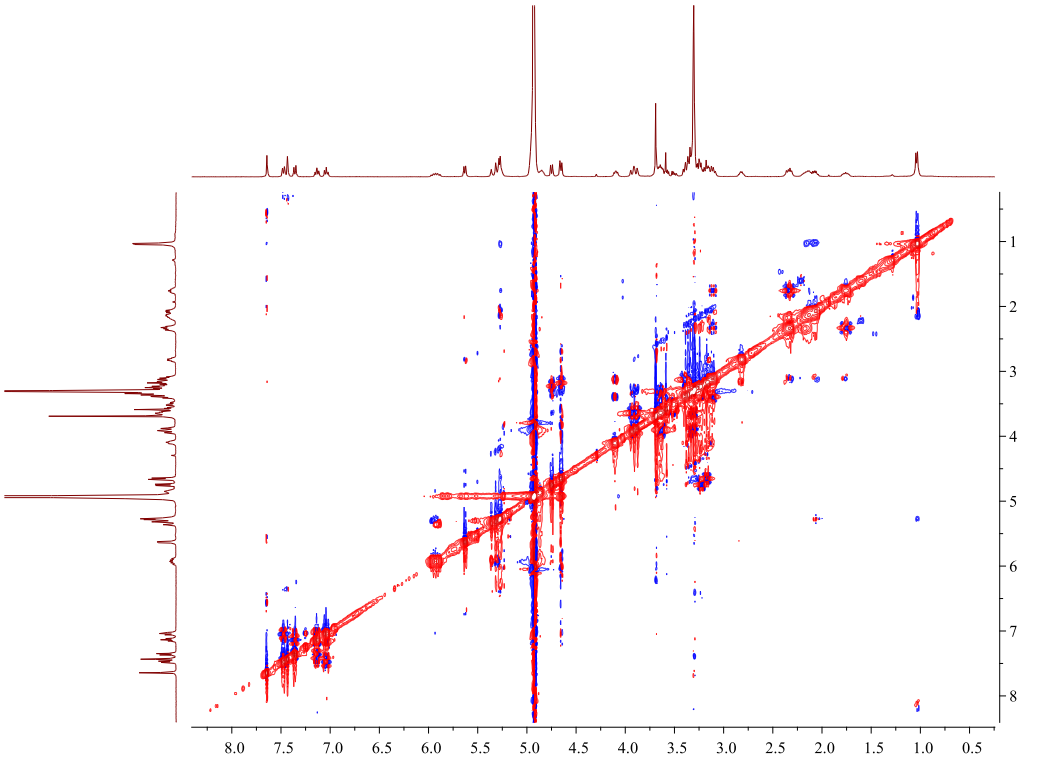


Figure S33. HRESIMS report of compound **4**.

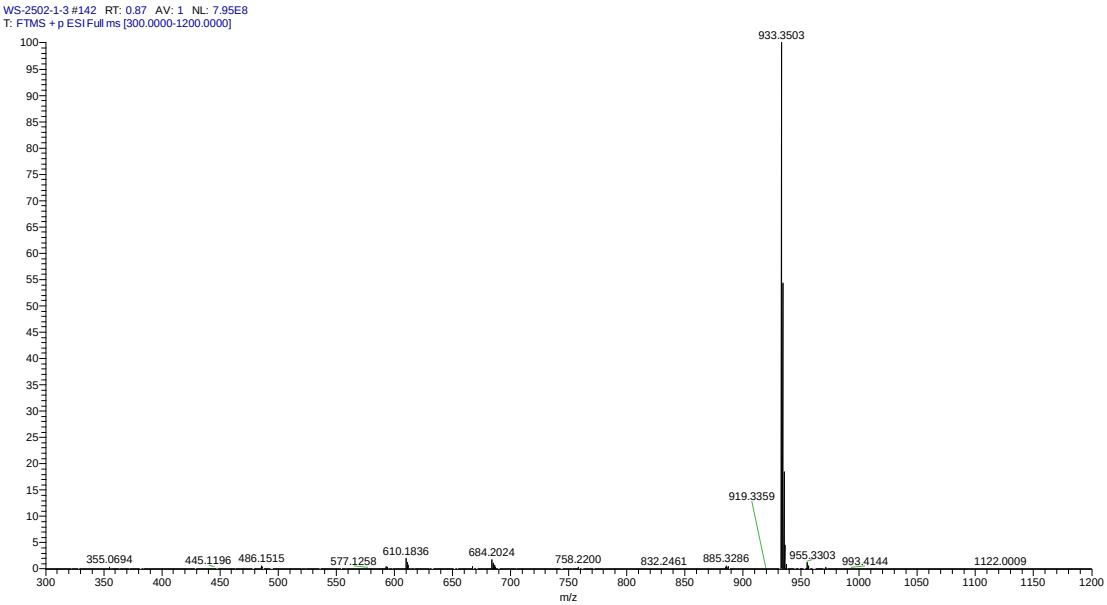


Figure S34. Experimental CD spectrum of **4** in MeOH.

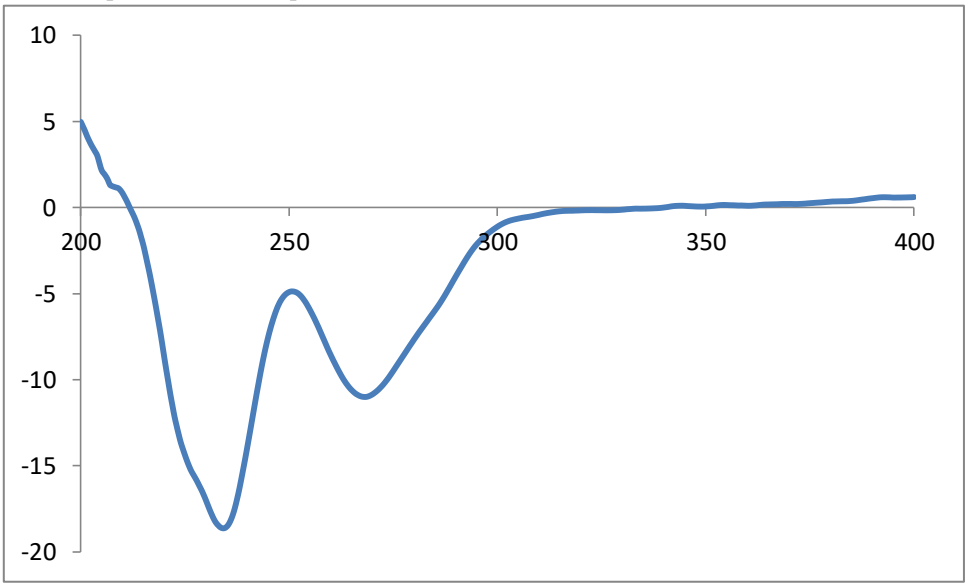


Figure S35. ^{1}H NMR spectrum of compound **5** in CD_3OD (400 MHz).

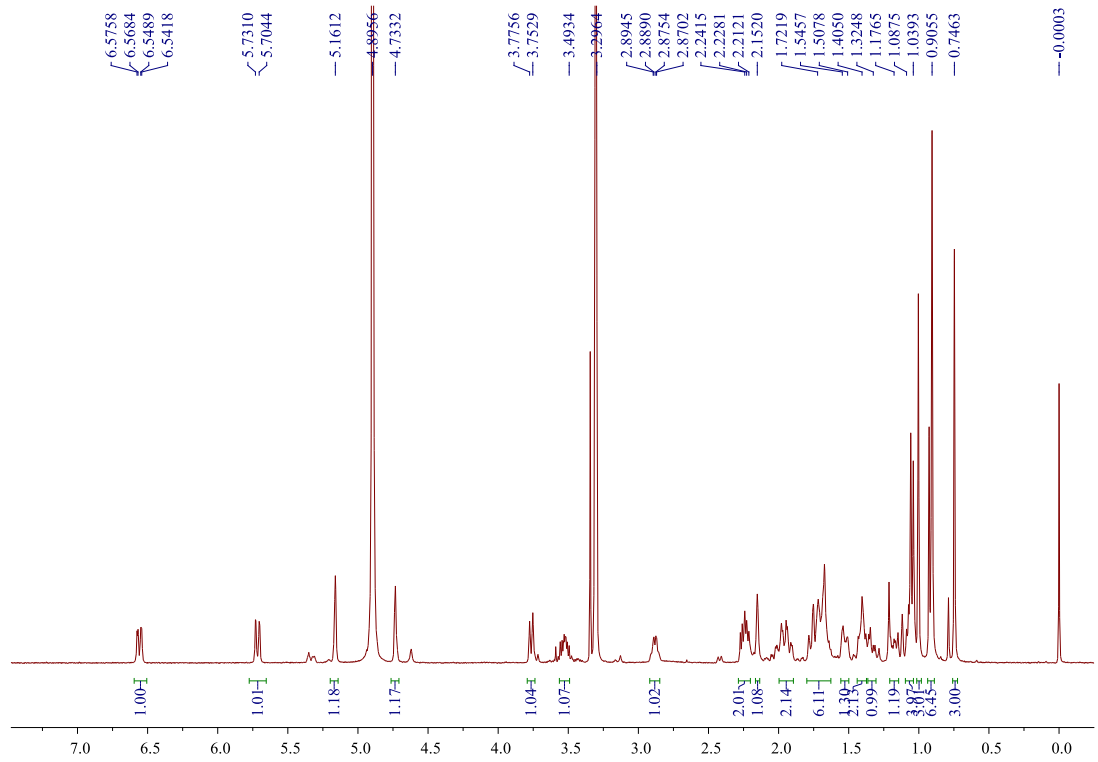


Figure S36. ^{13}C NMR spectrum of compound **5** in CD_3OD (100 MHz)

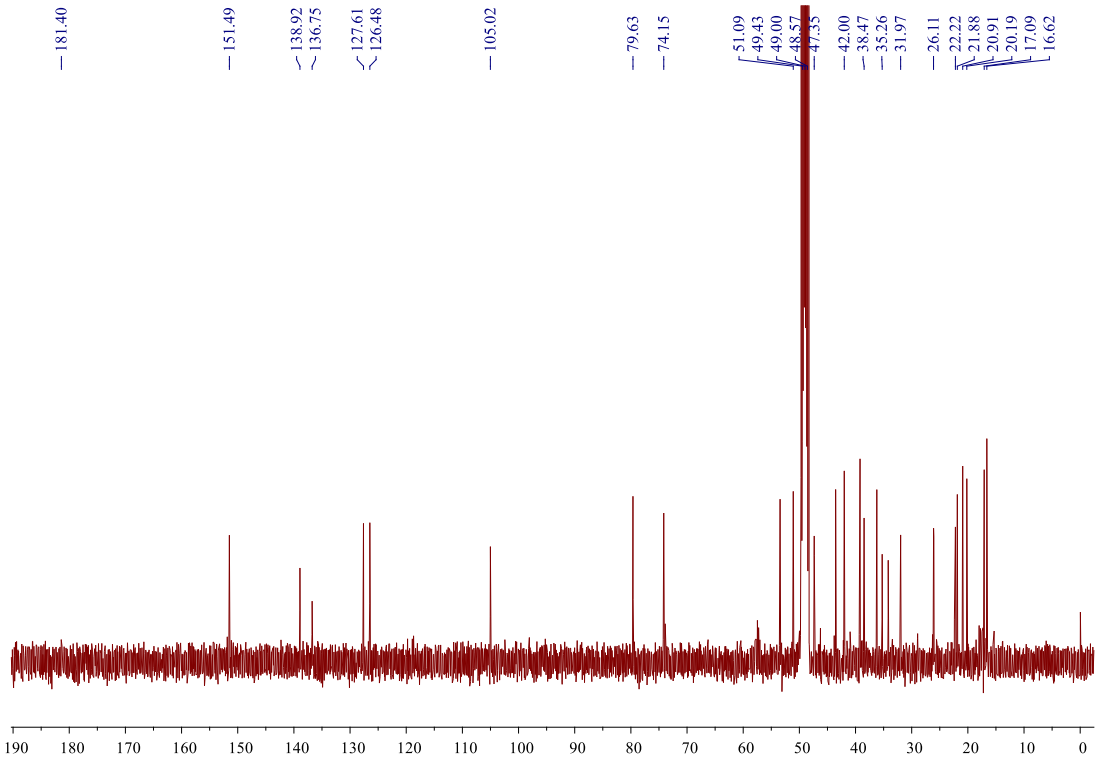


Figure S37. ^{1}H-^{1}H COSY spectrum of compound **5** in CD_3OD (400 MHz).

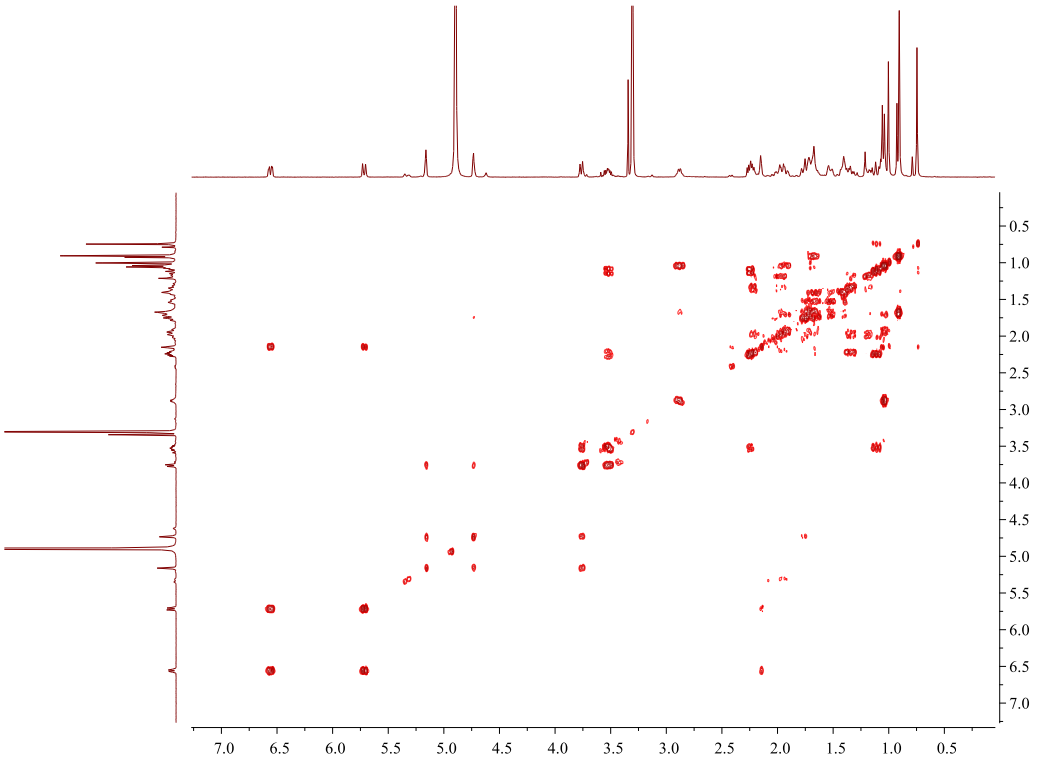


Figure S38. HMBC spectrum of compound **5** in CD_3OD (400 MHz).

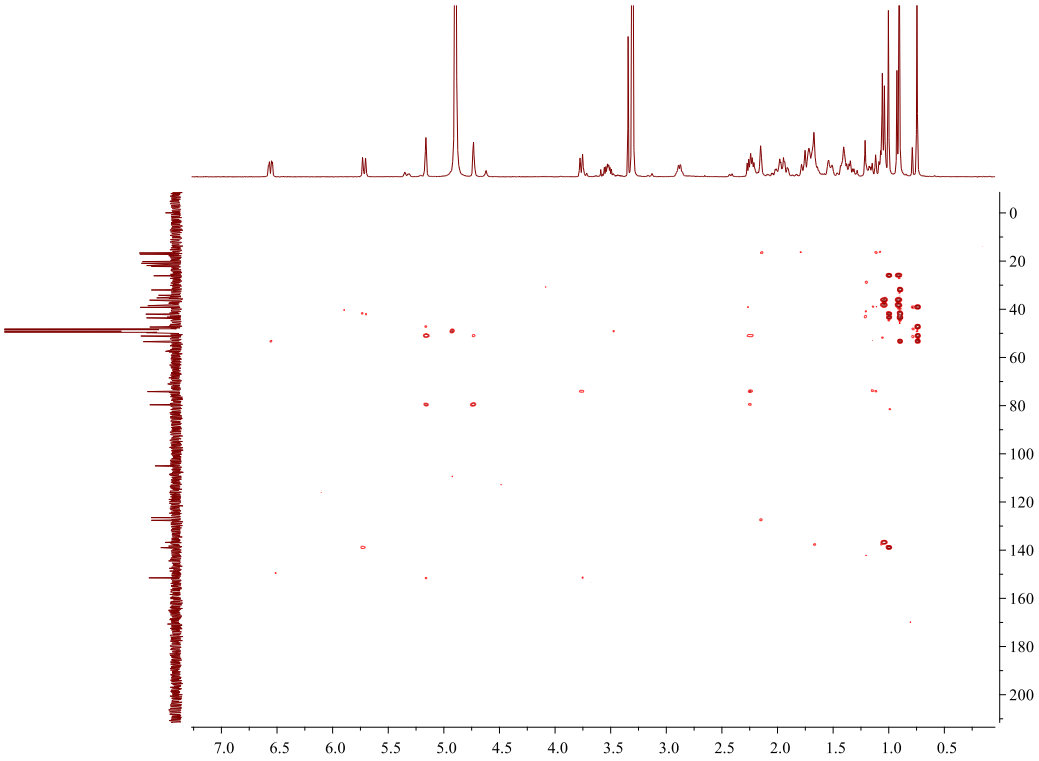


Figure S39. NOESY spectrum of compound **5** in CD_3OD (400 MHz).

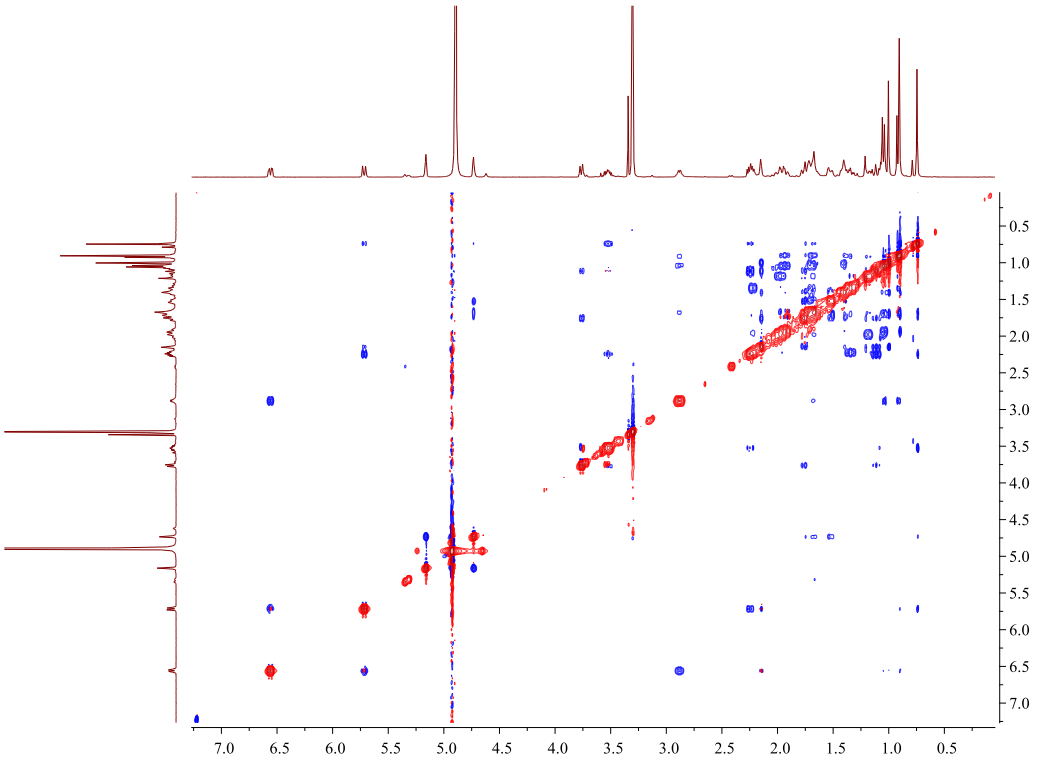


Figure S40. HRESIMS report of compound **5**.

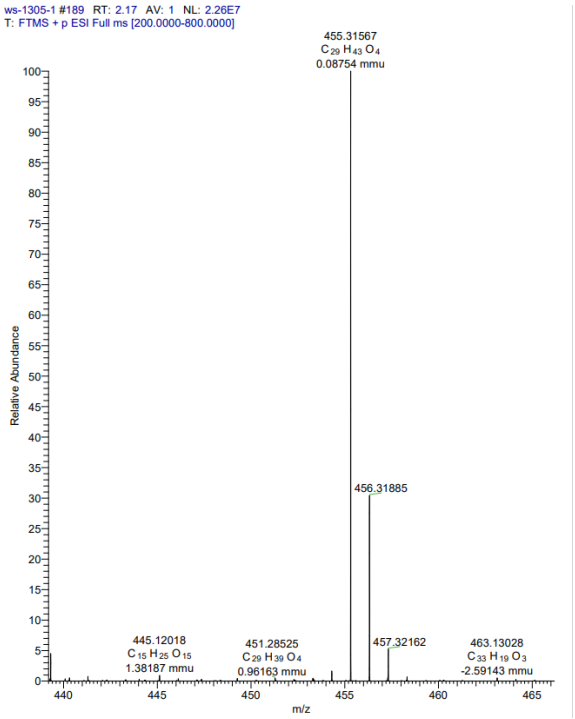


Figure S41. Experimental CD spectrum of **5** in MeOH.

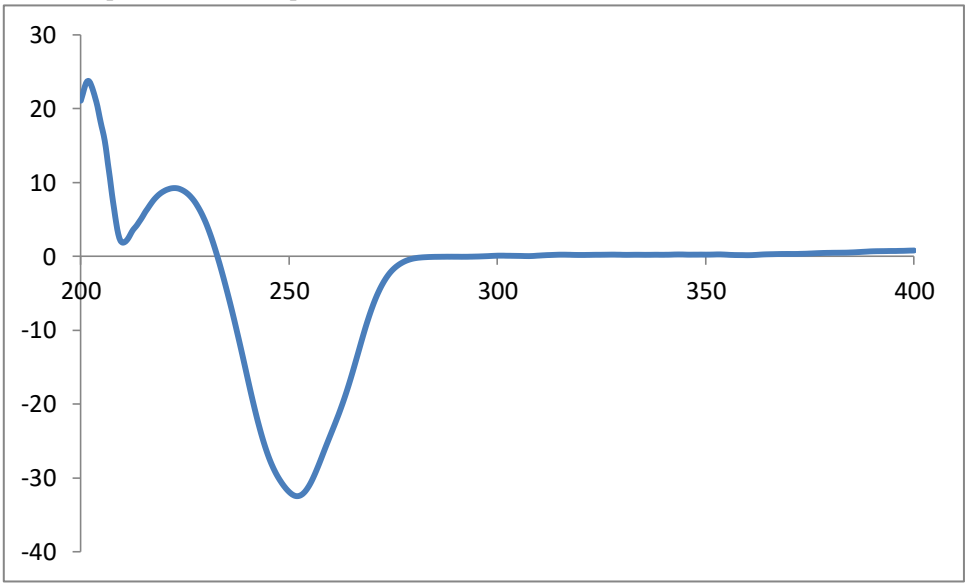


Figure S42. ^{1}H NMR spectrum of compound **6** in CD_3OD (400 MHz).

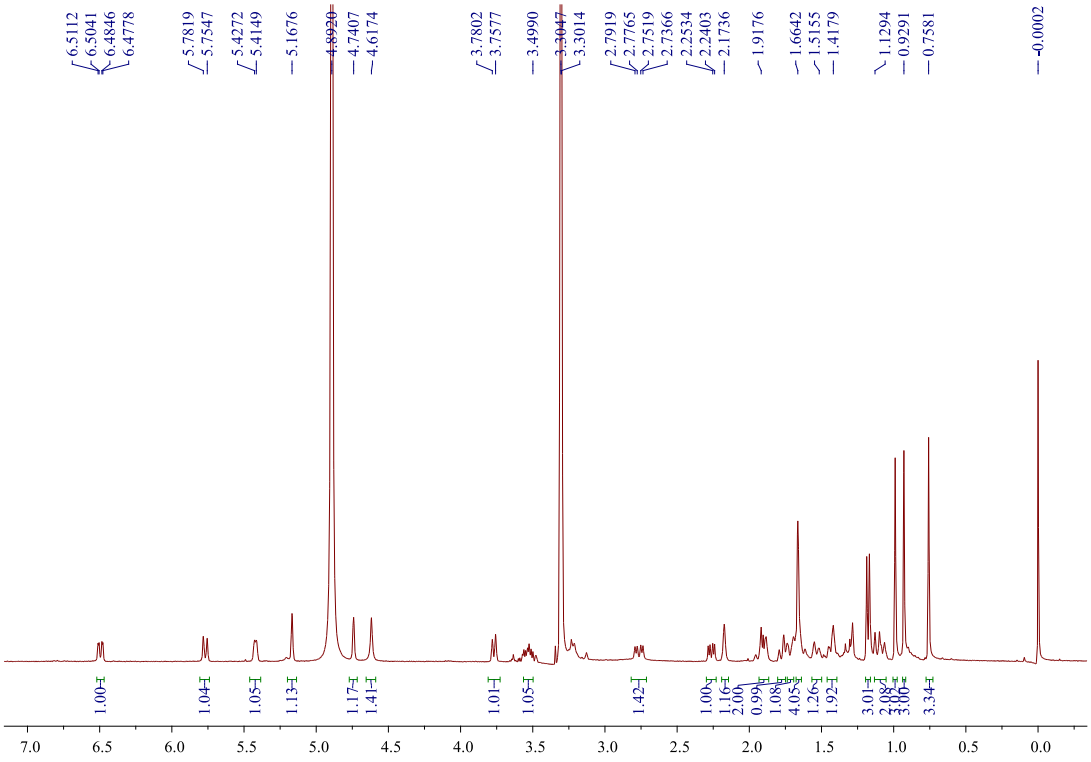


Figure S43. ^{13}C NMR spectrum of compound **6** in CD_3OD (100 MHz).

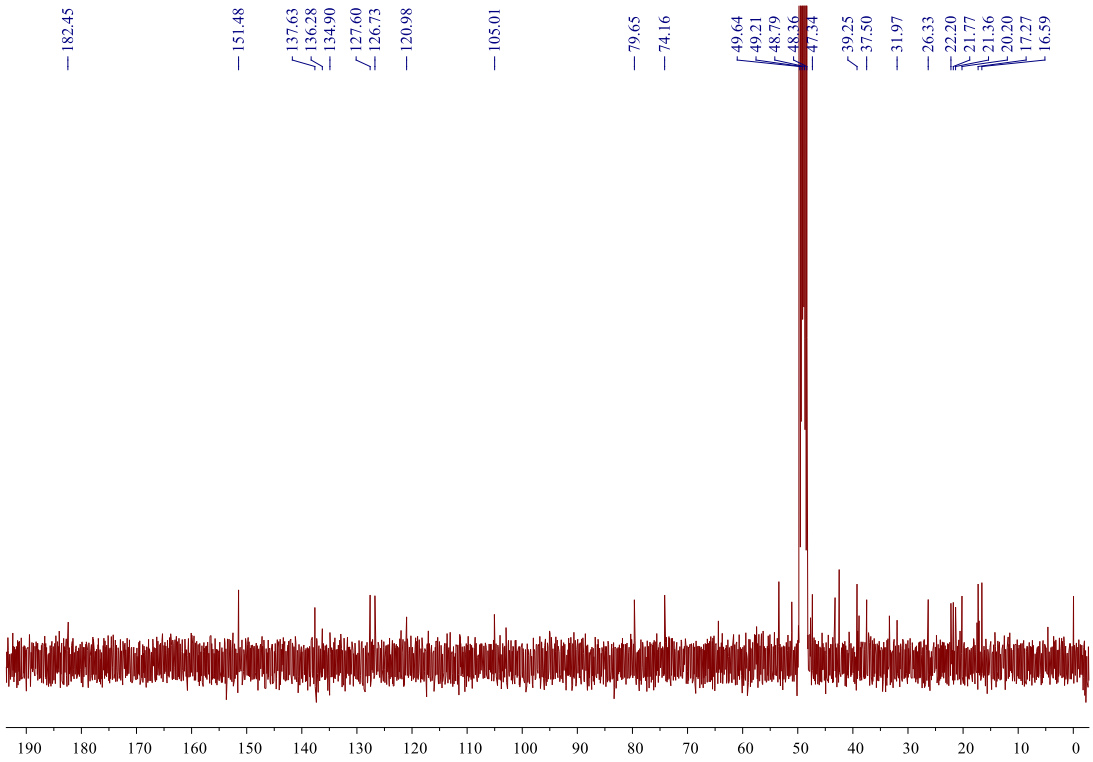


Figure S44. ^{1}H-^{1}H COSY spectrum of compound **6** in CD_3OD (400 MHz).

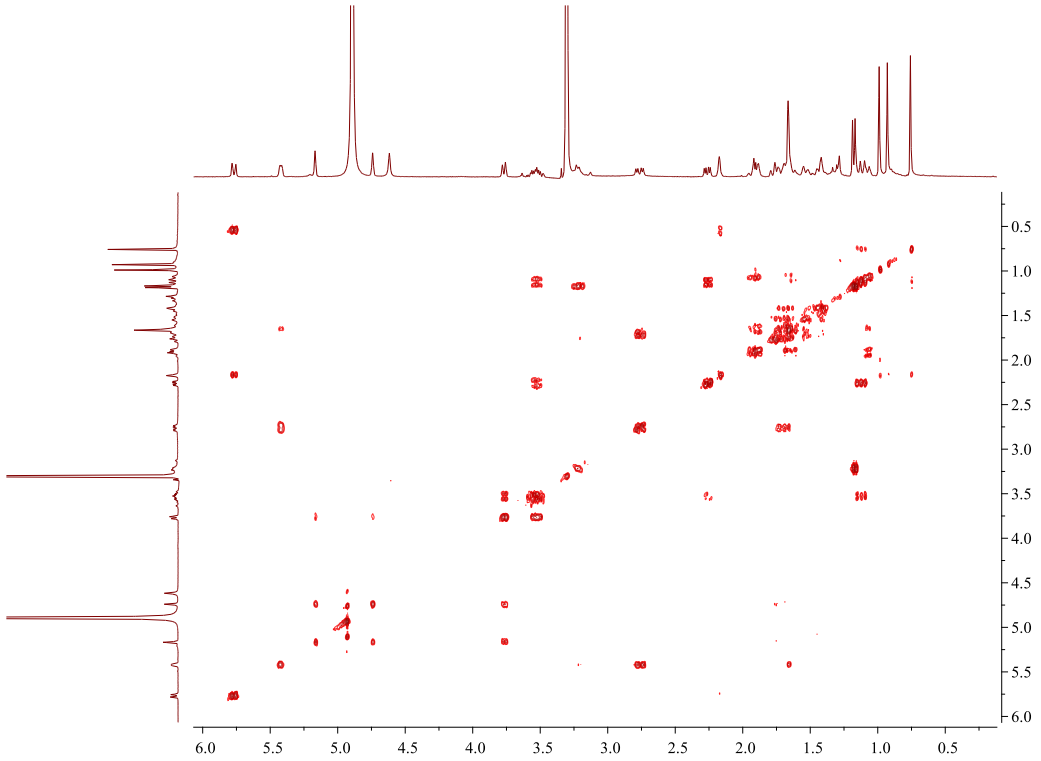


Figure S45. HMBC spectrum of compound **6** in CD_3OD (400 MHz).

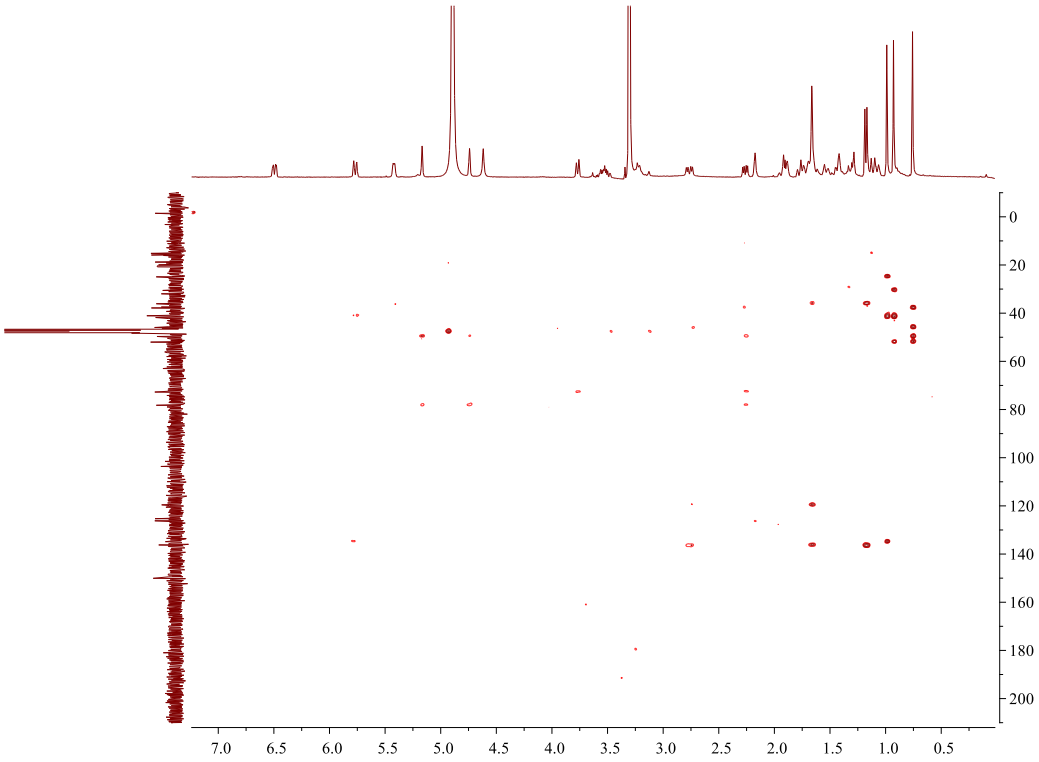


Figure S46. NOESY spectrum of compound **6** in CD_3OD (400 MHz).

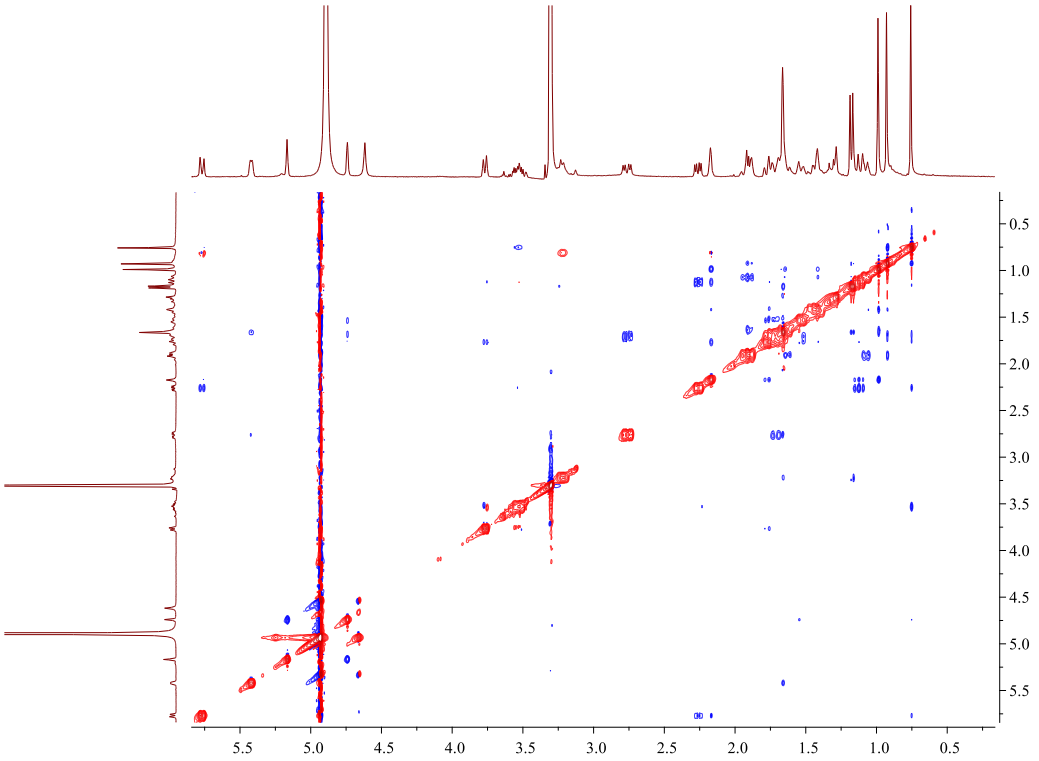


Figure S47. HRESIMS report of compound **6**.

