

SUPPLEMENTARY MATERIAL

Anti-neuroinflammatory components from *Clausena lenis* Drake

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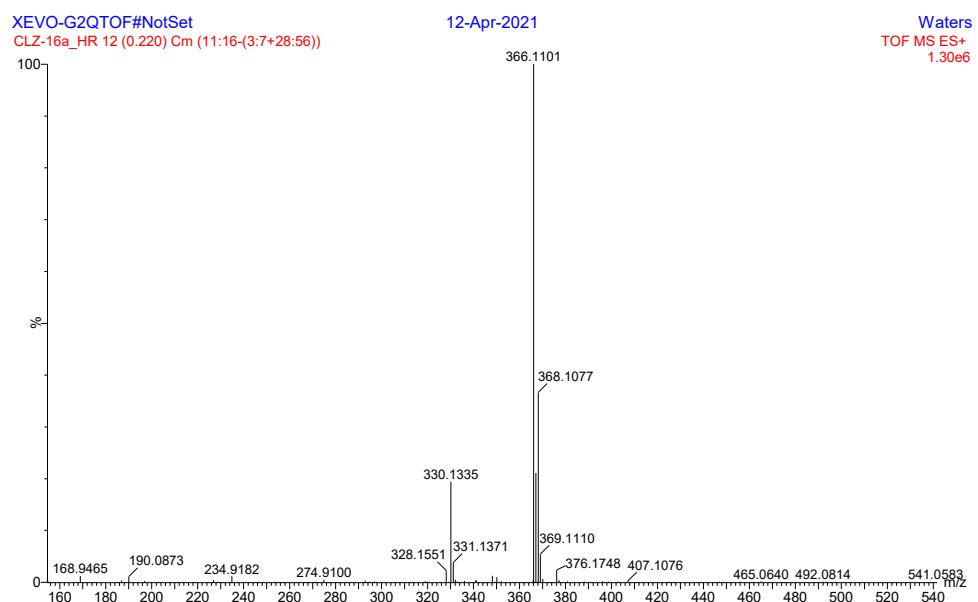


Figure S1. HR-ESI-MS of **1**.

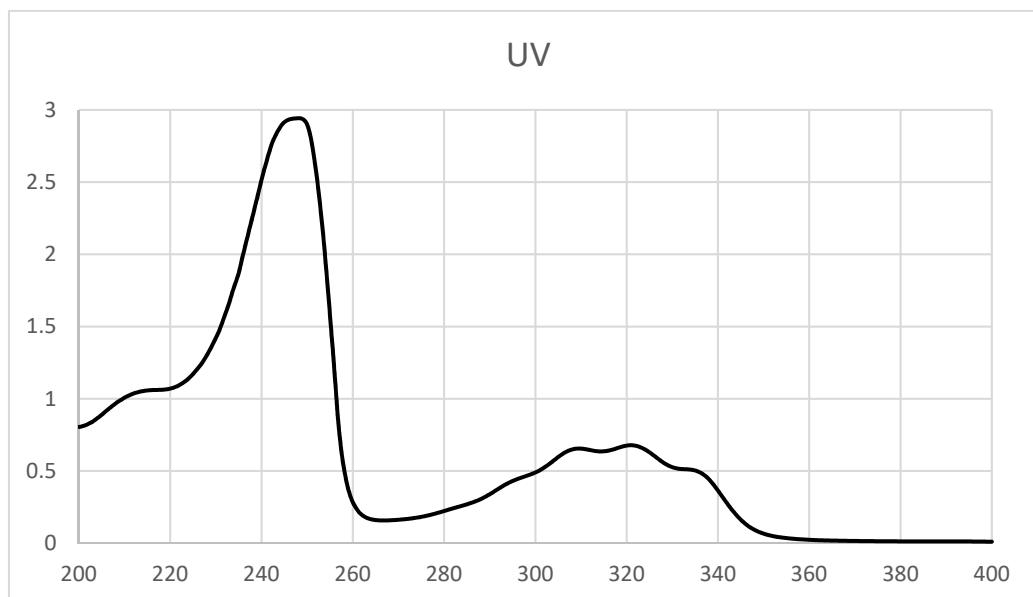


Figure S2. UV spectrum of **1** in MeOH.

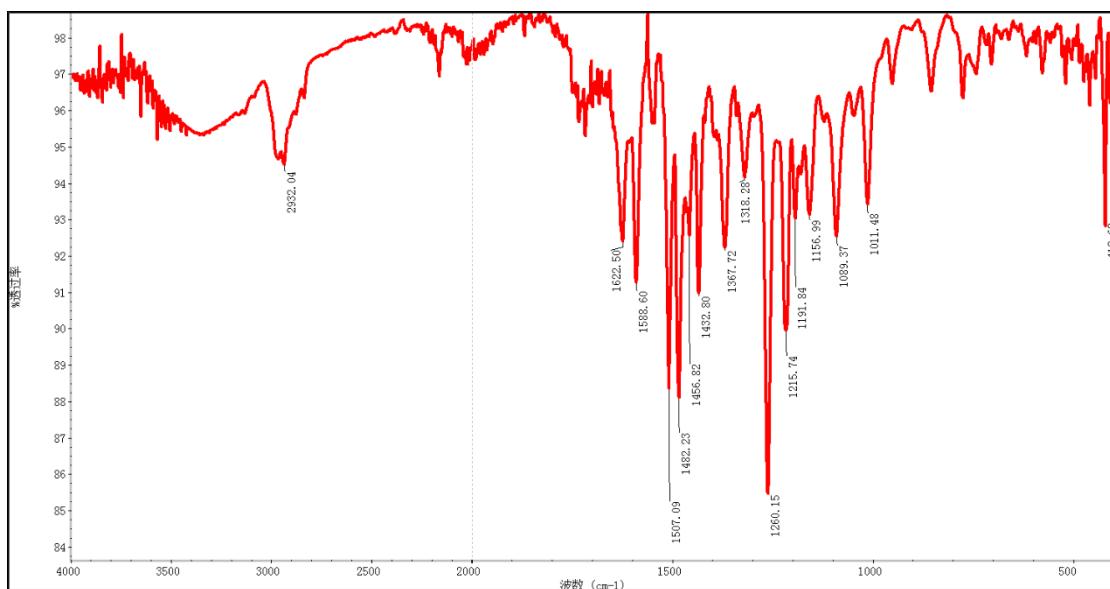


Figure S3. IR spectrum of **1**.

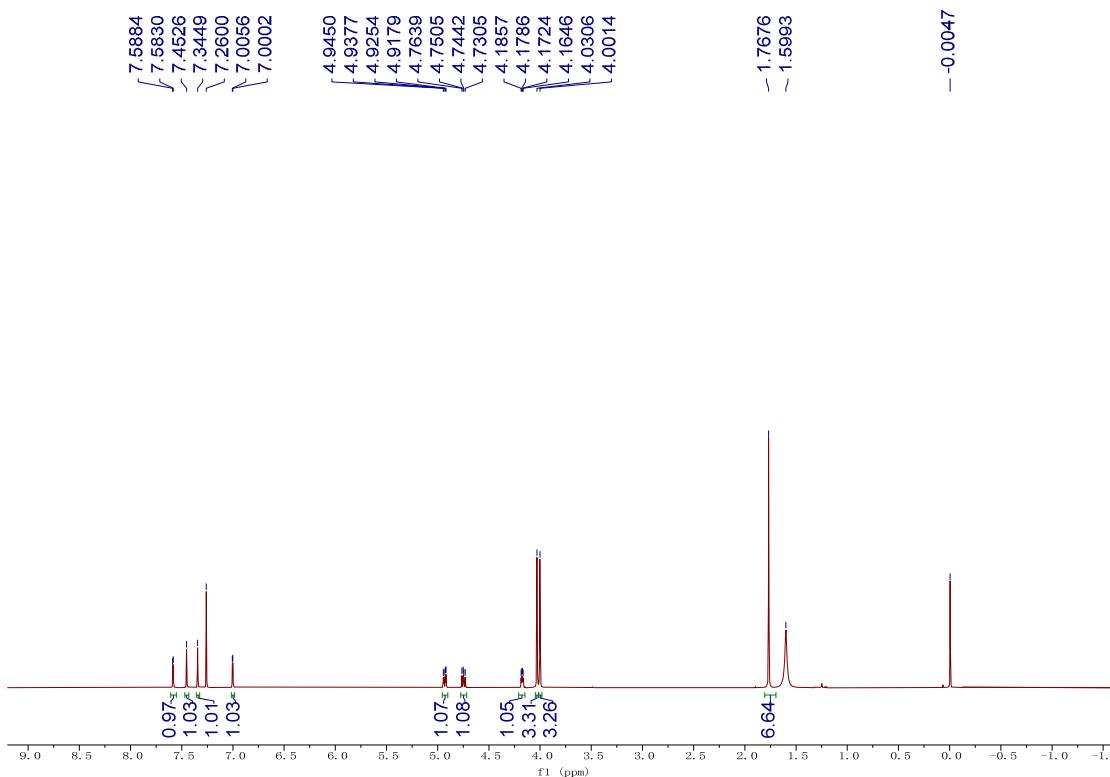
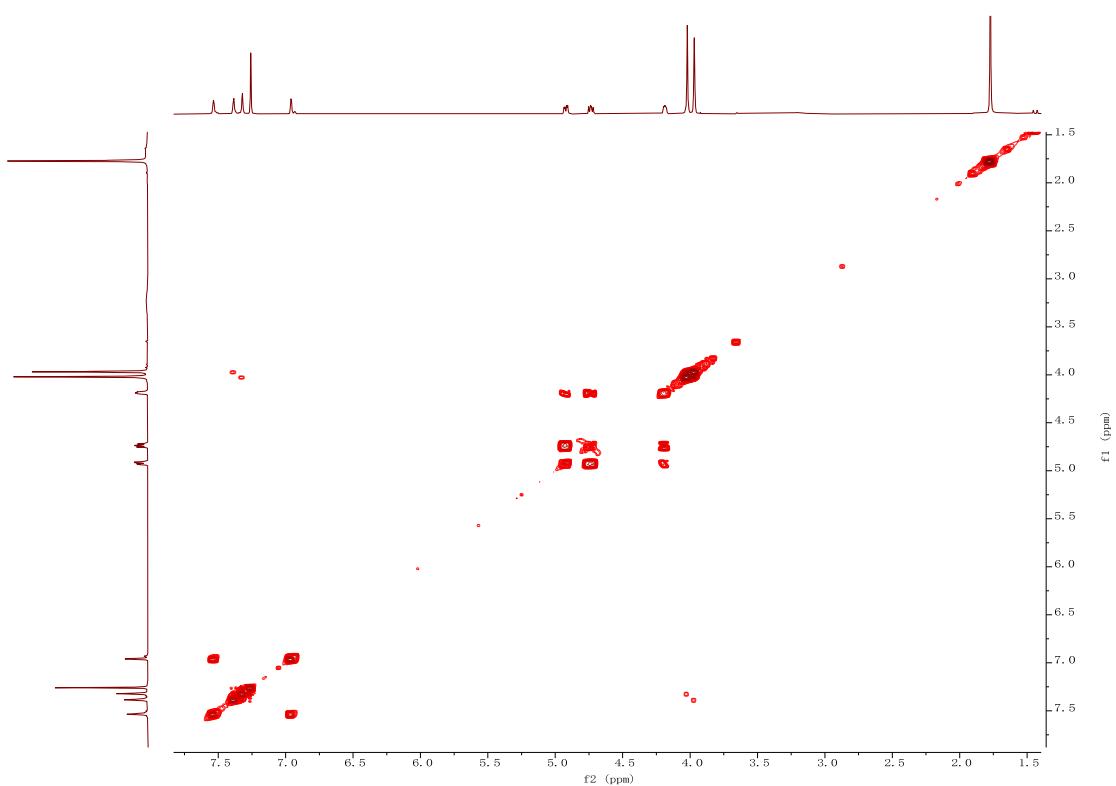
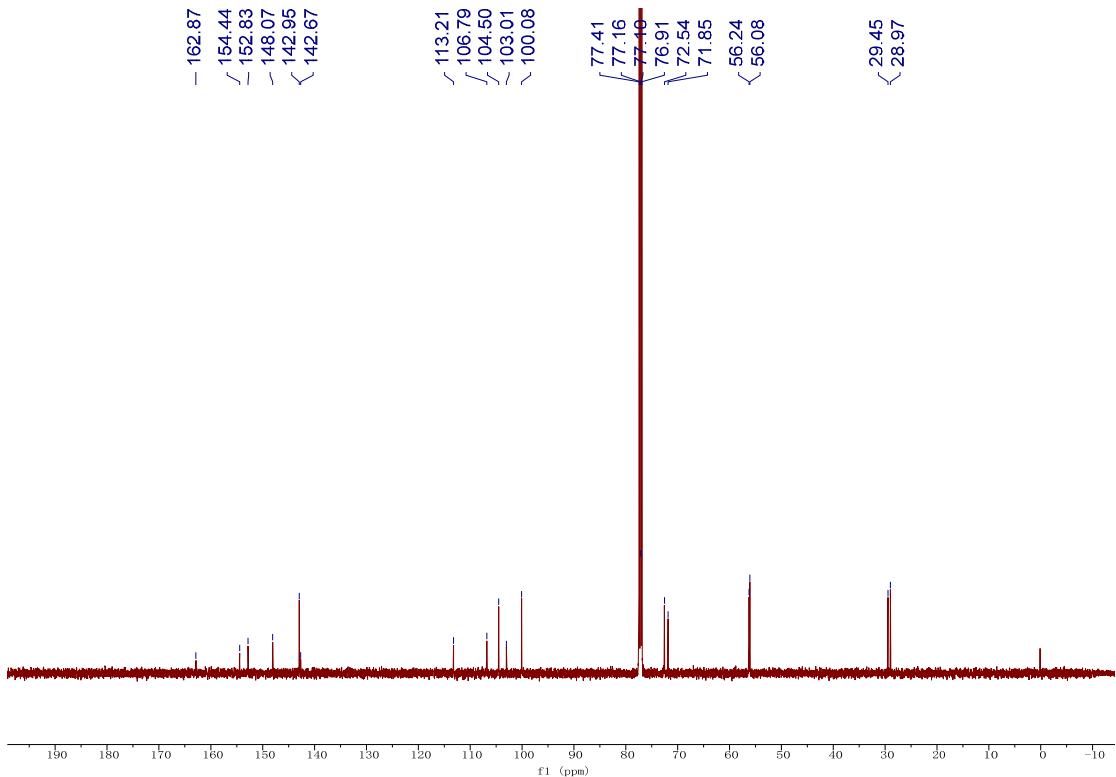


Figure S4. ^1H NMR (500 MHz) spectrum of **1** in CDCl_3 .



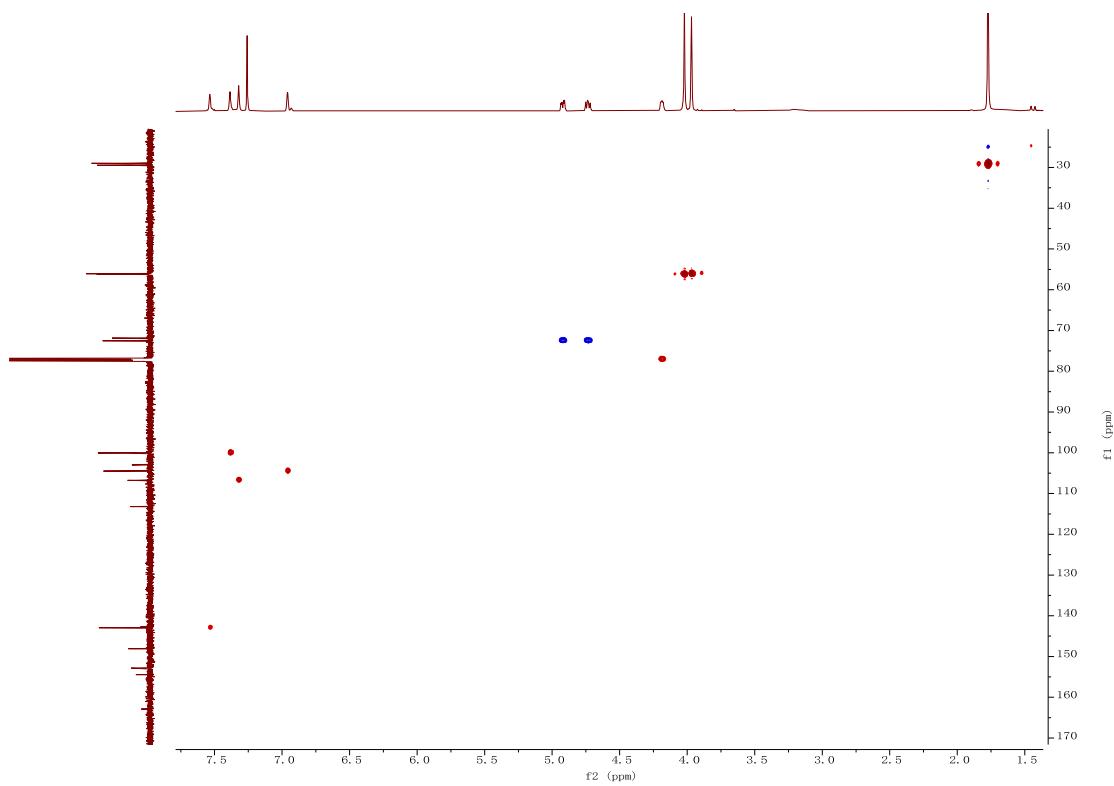


Figure S7. HSQC (500 MHz) spectrum of **1** in CDCl_3 .

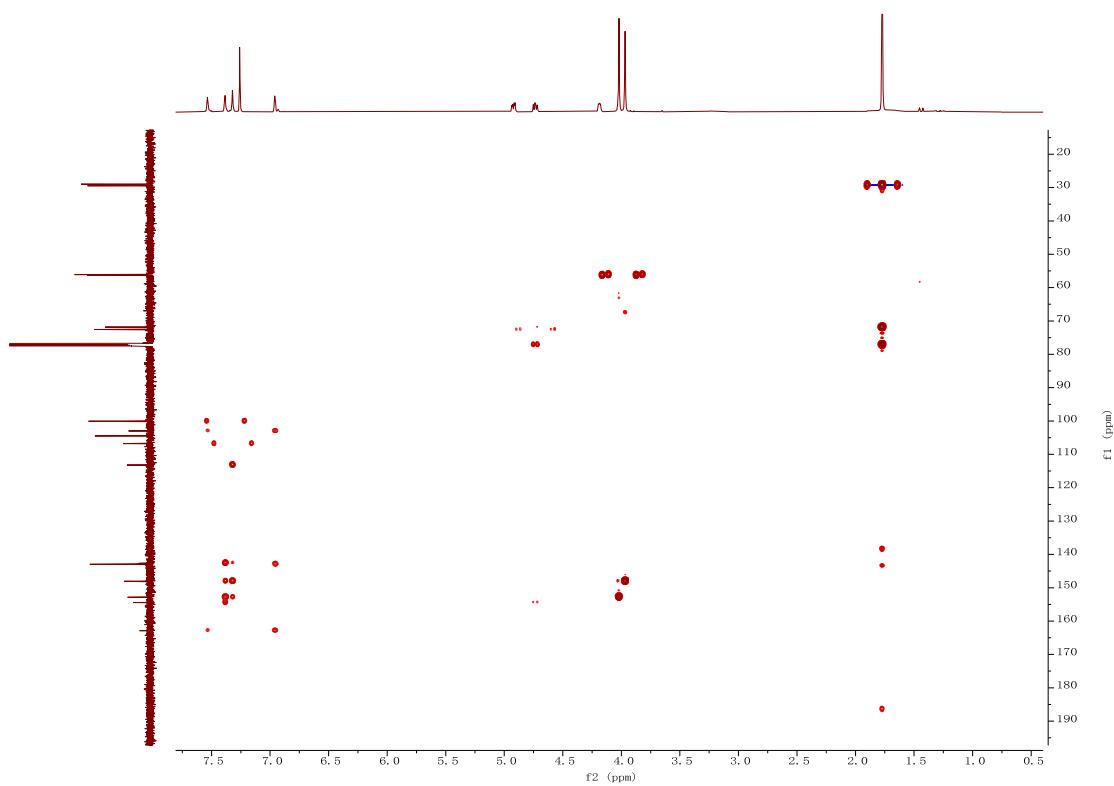


Figure S8. HMBC (500 MHz) spectrum of **1** in CDCl_3 .

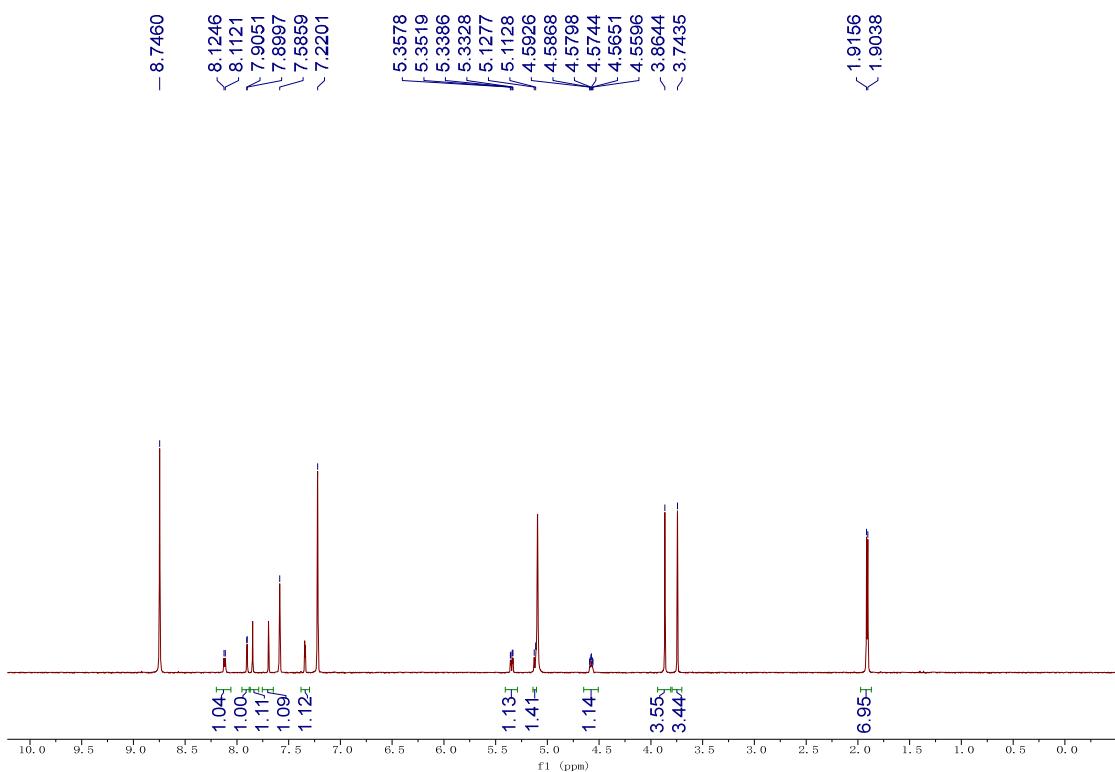


Figure S9. ^1H NMR (500 MHz) spectrum of **1** in $\text{C}_5\text{D}_5\text{N}$.

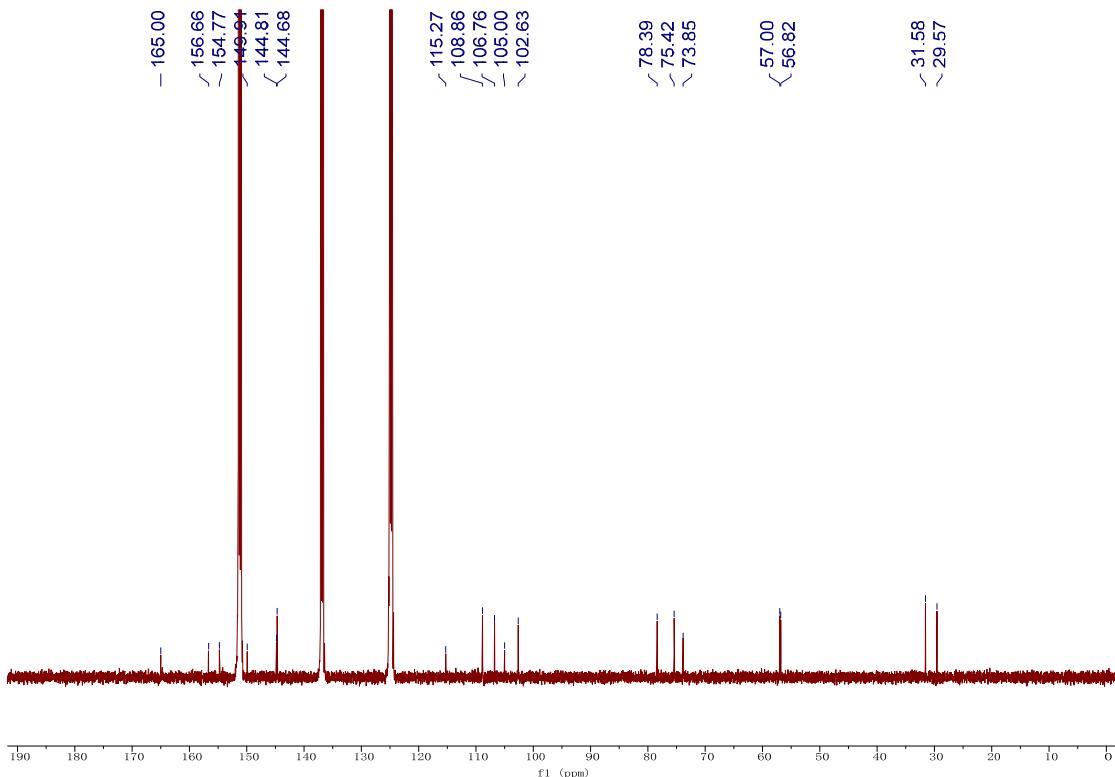


Figure S10. ^{13}C NMR (125 MHz) spectrum of **1** in $\text{C}_5\text{D}_5\text{N}$.

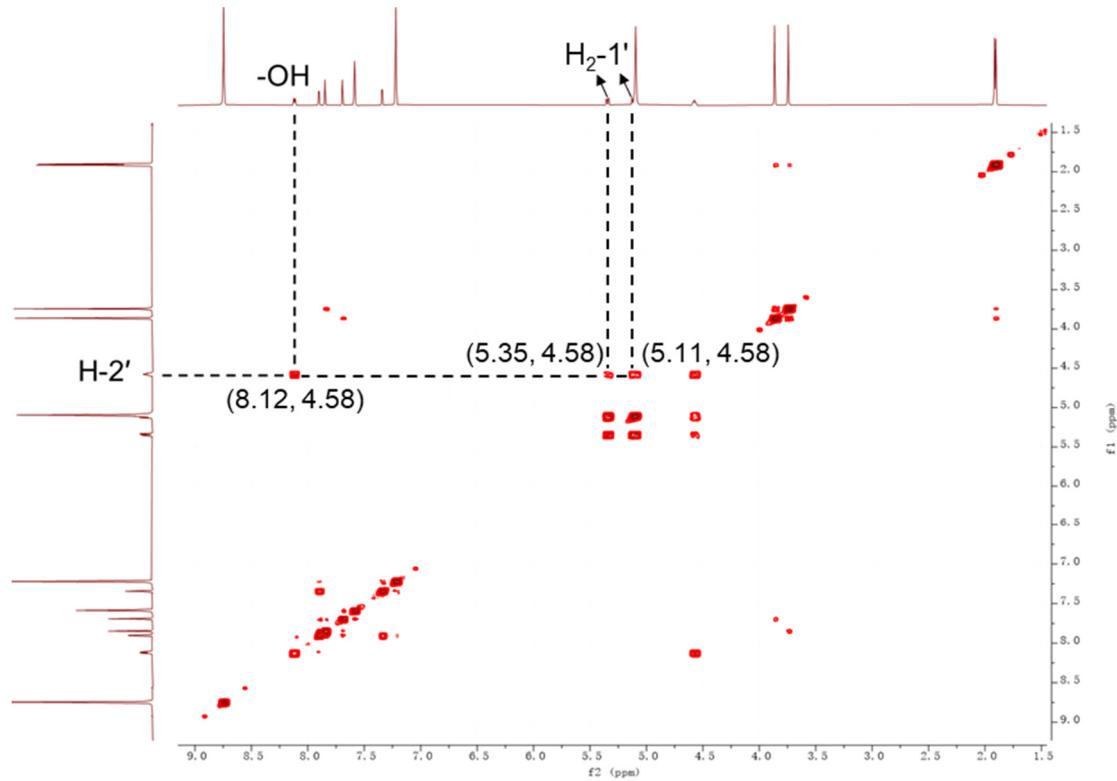


Figure S11. ^1H - ^1H COSY (500 MHz) spectrum of **1** in $\text{C}_5\text{D}_5\text{N}$.

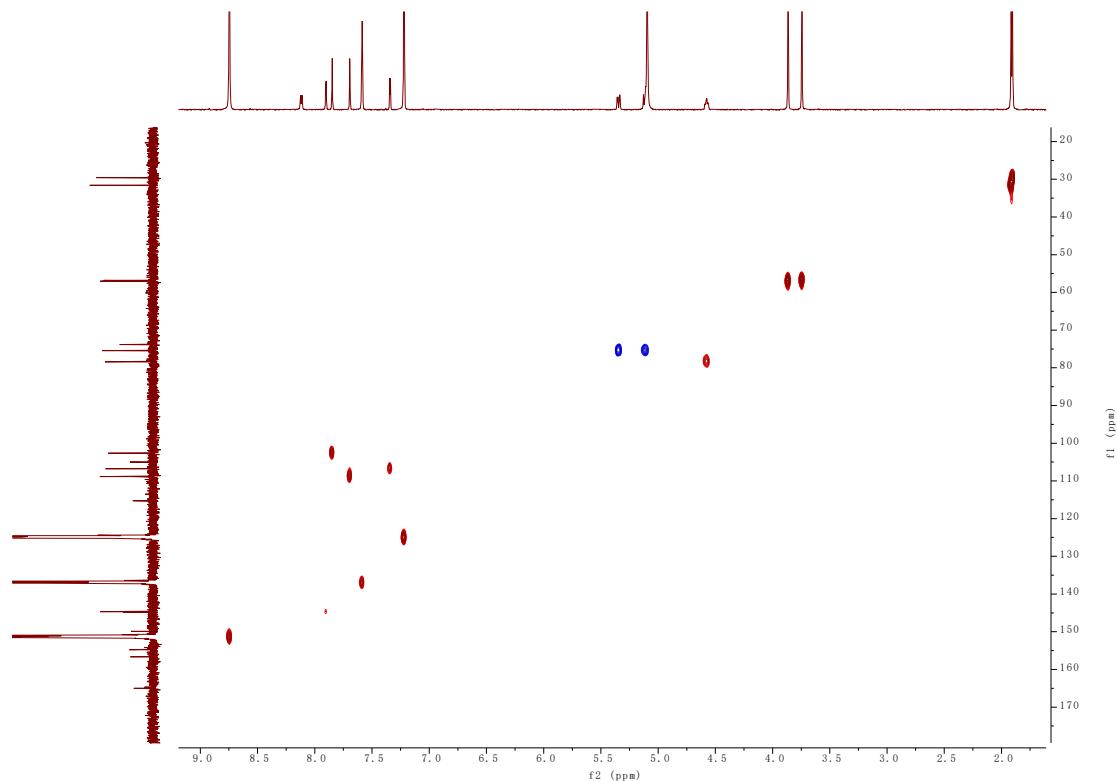


Figure S12. HSQC (500 MHz) spectrum of **1** in $\text{C}_5\text{D}_5\text{N}$.

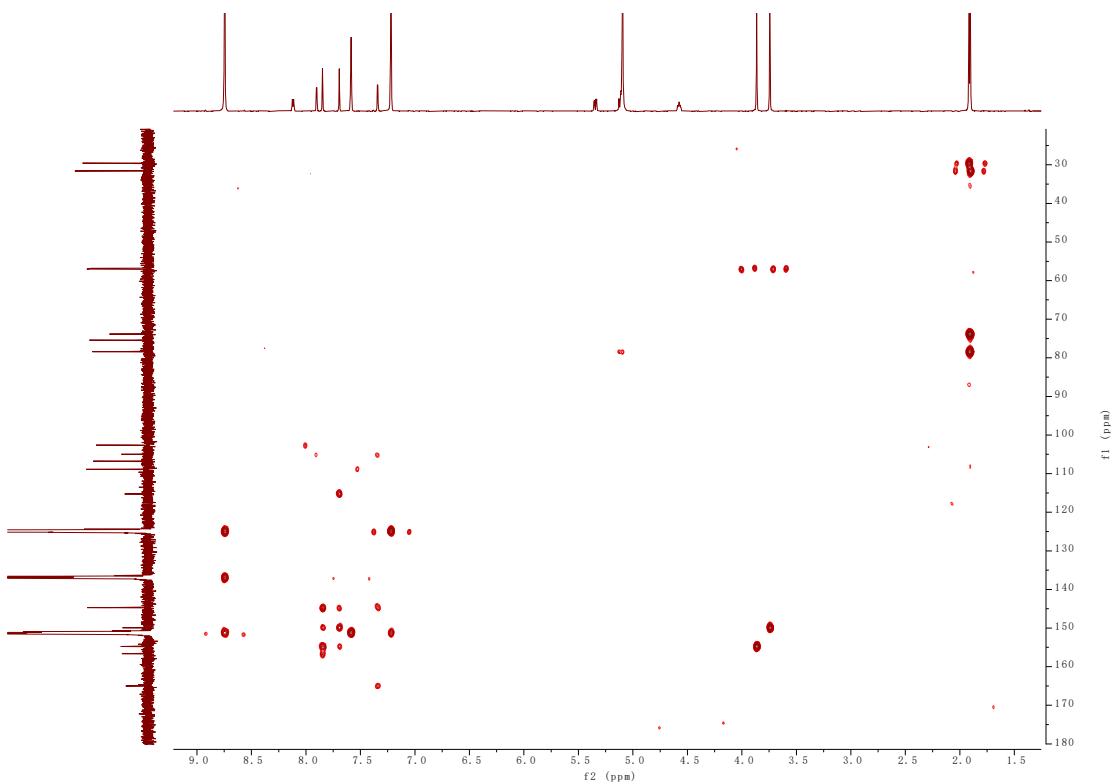


Figure S13. HMBC (500 MHz) spectrum of **1** in $\text{C}_5\text{D}_5\text{N}$.

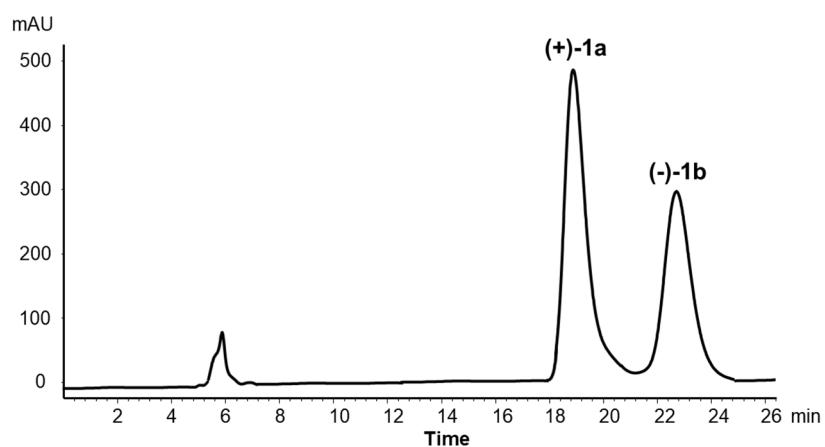


Figure S14. Chiral HPLC separation of racemate **1** (*n*-hexane/isopropanol, 85:15; $T = 30^\circ\text{C}$; flow rate: 3.0 mL/min; wavelength: 254 nm).

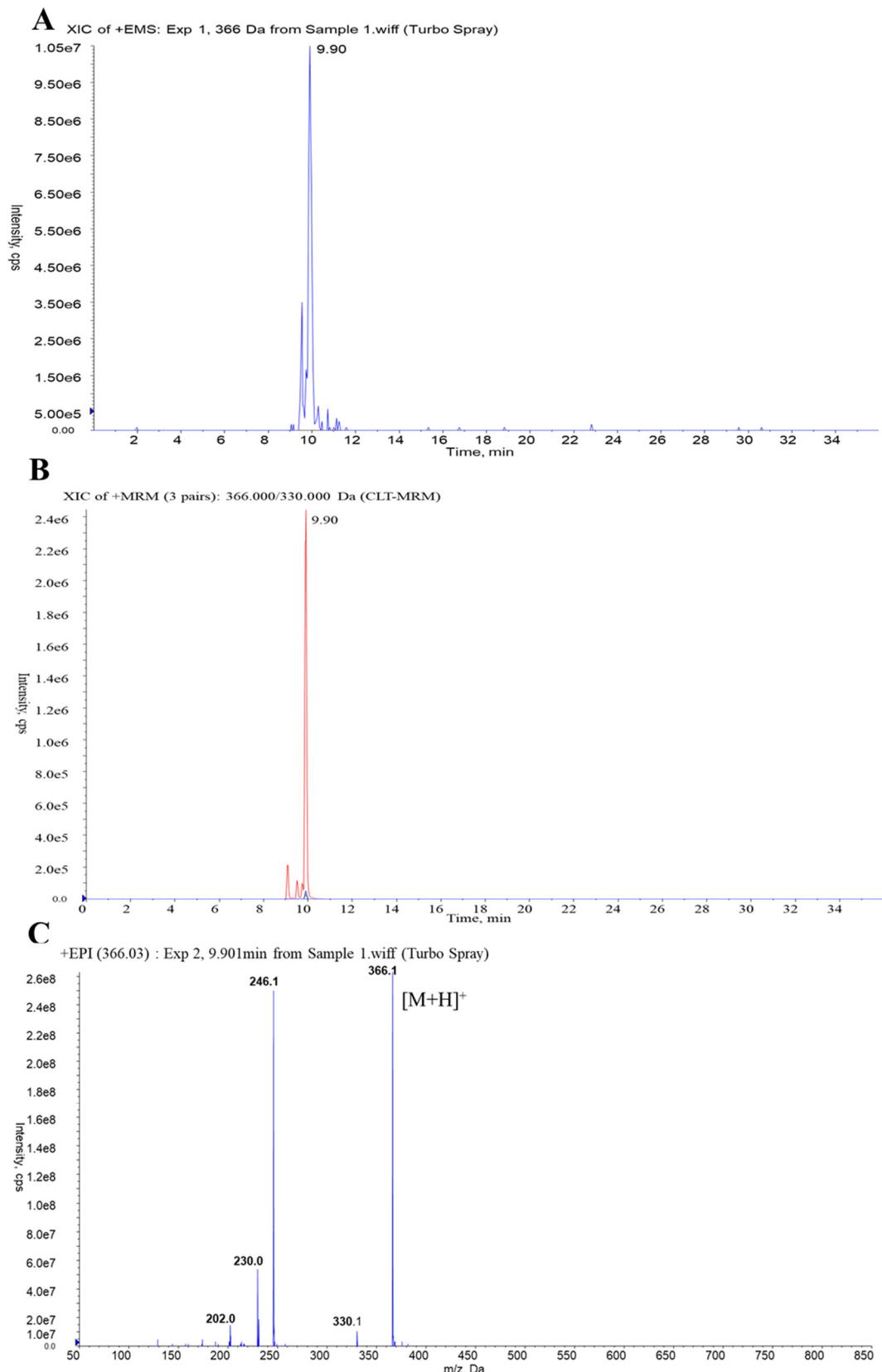
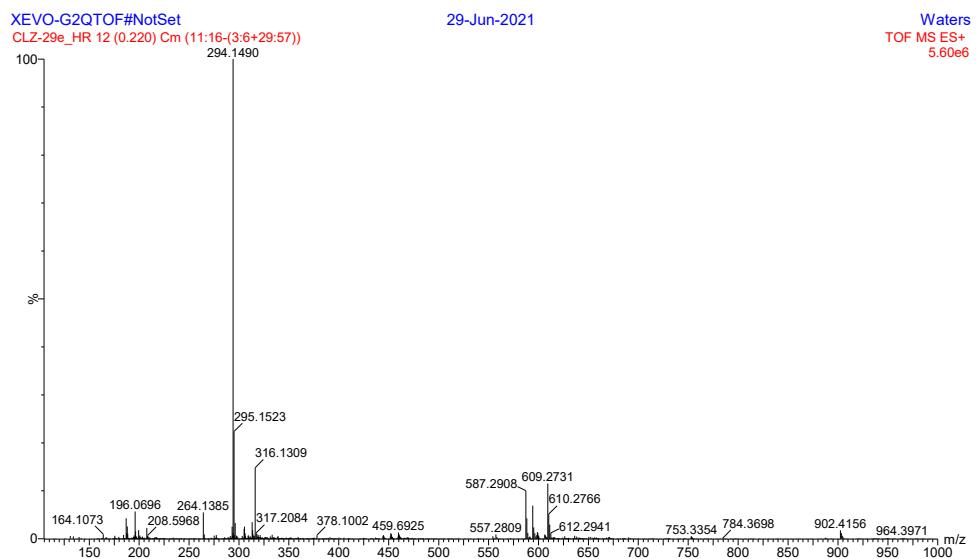


Figure S15. LC/MS chromatograms of detection of **1** in the crude extract of *C. lenis*. (A: EIC of **1** (m/z 366); B: XIC of **1** (m/z 366) from the crude extract of *C. lenis* under the MRM mode; C: The fragmentation behavior of **1** (m/z 366).



Mass	Calc. Mass	mDa	PPM	DBE	i-FIT	Norm	Conf(%)	Formula
294.1490	294.1494	-0.4	-1.4	10.5	515.3	n/a	n/a	C ₁₉ H ₂₀ NO ₂

Figure S16. HR-ESI-MS of **2**.

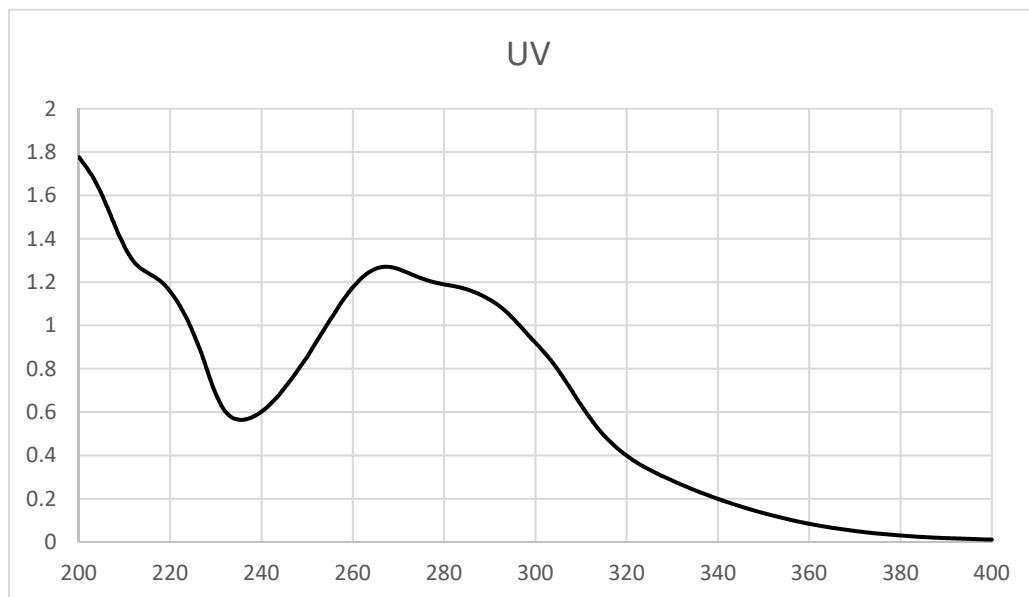


Figure S17. UV spectrum of **2** in MeOH.

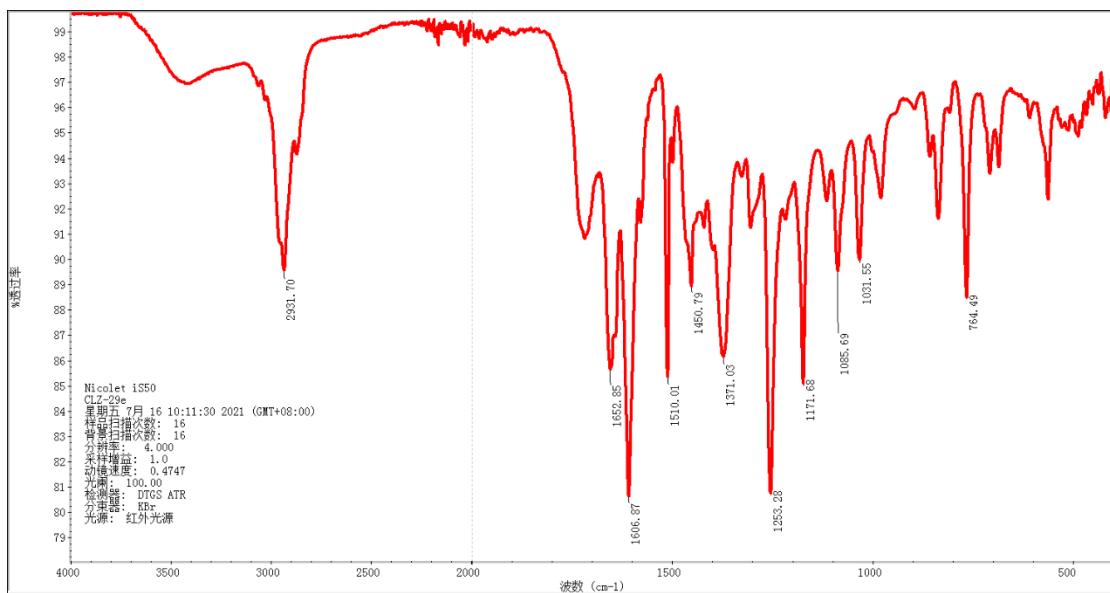


Figure S18. IR spectrum of **2**.

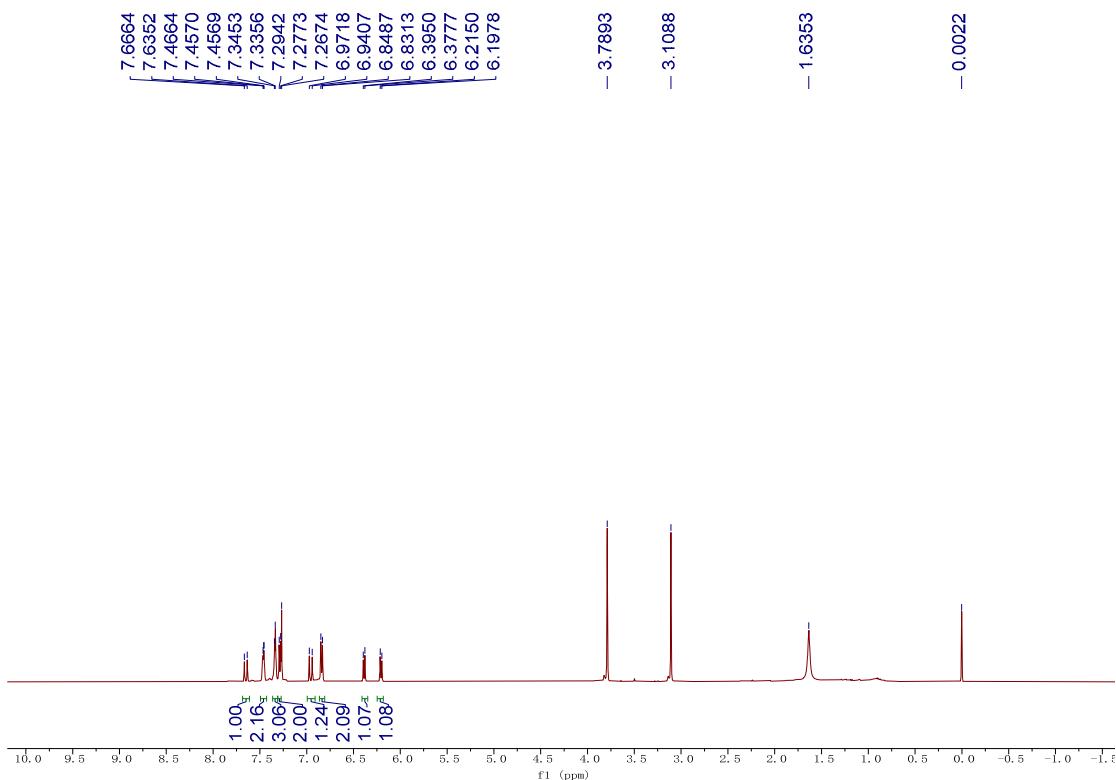
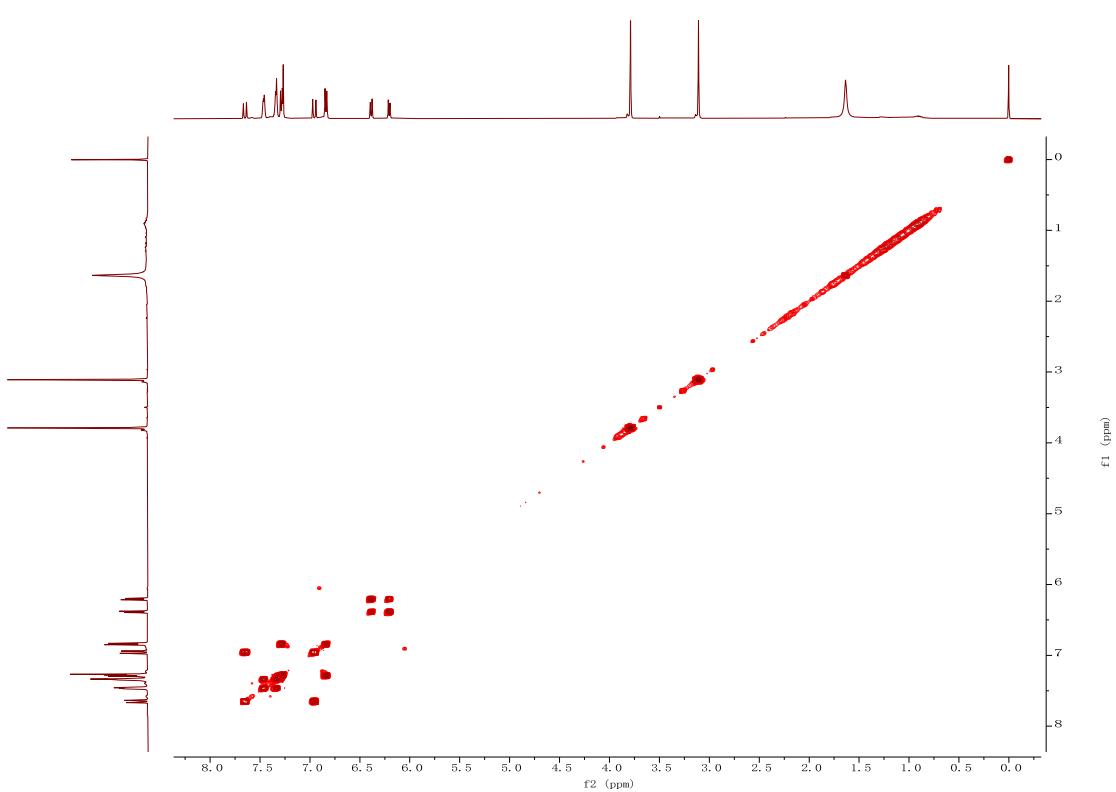
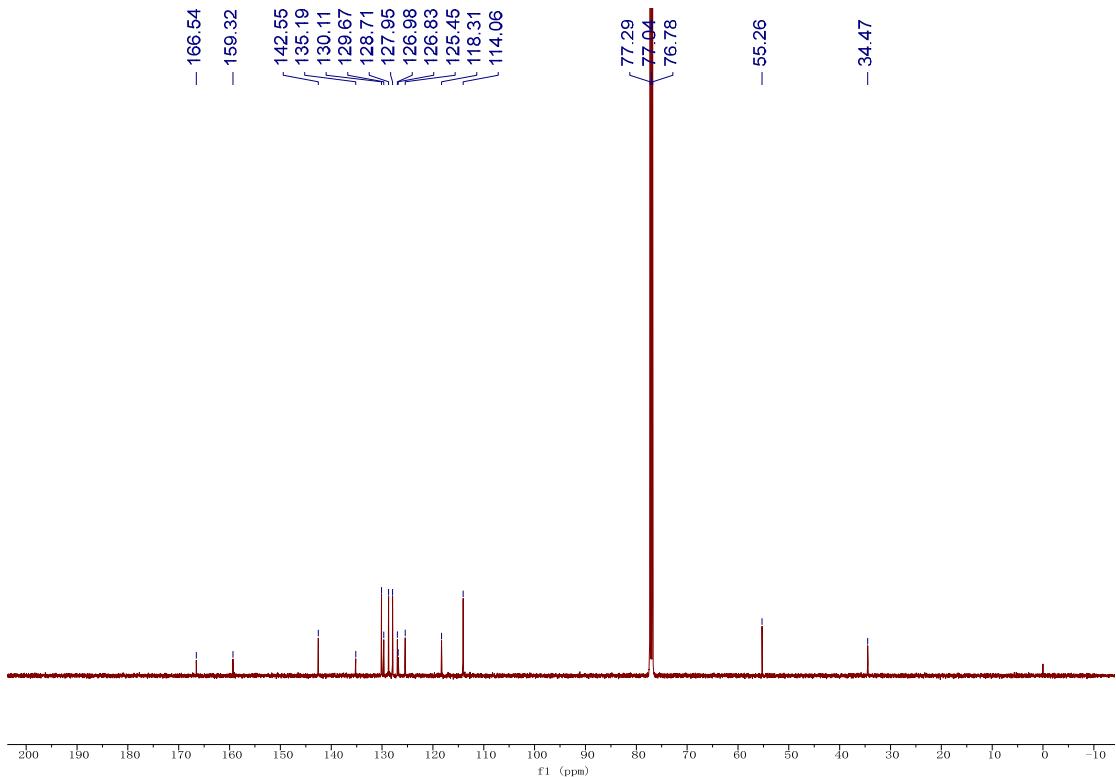


Figure S19. ^1H NMR (500 MHz) spectrum of **2** in CDCl_3 .



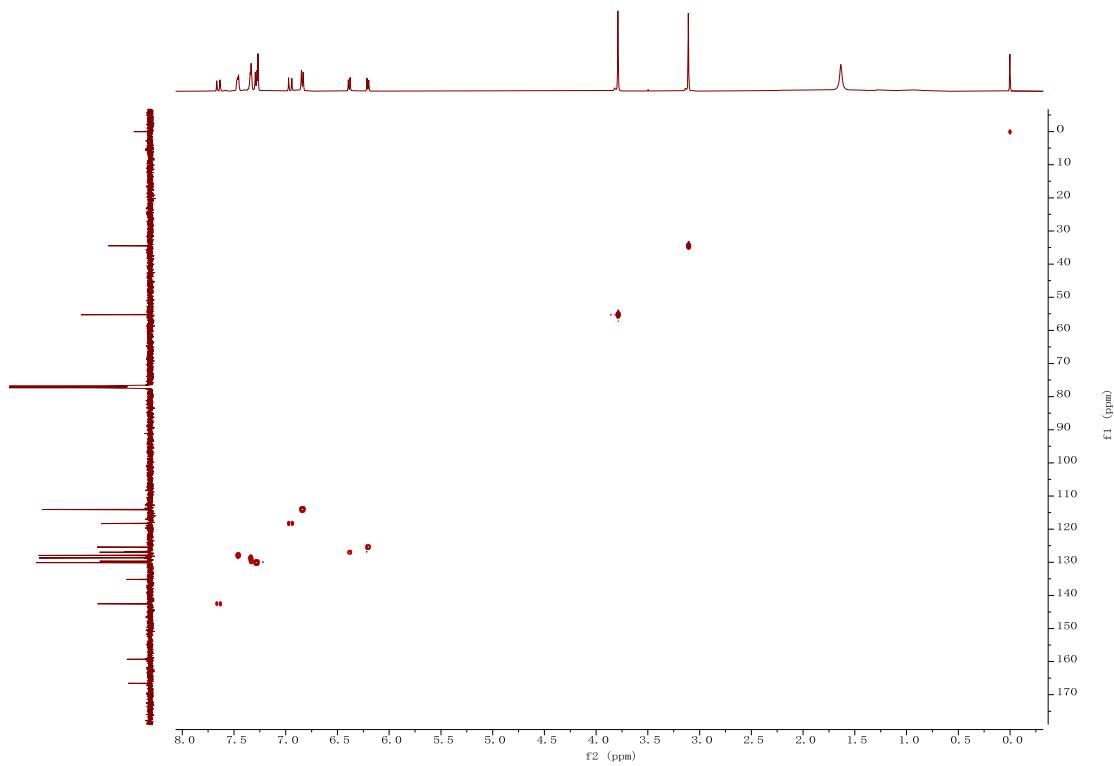


Figure S22. HSQC (500 MHz) spectrum of **2** in CDCl_3 .

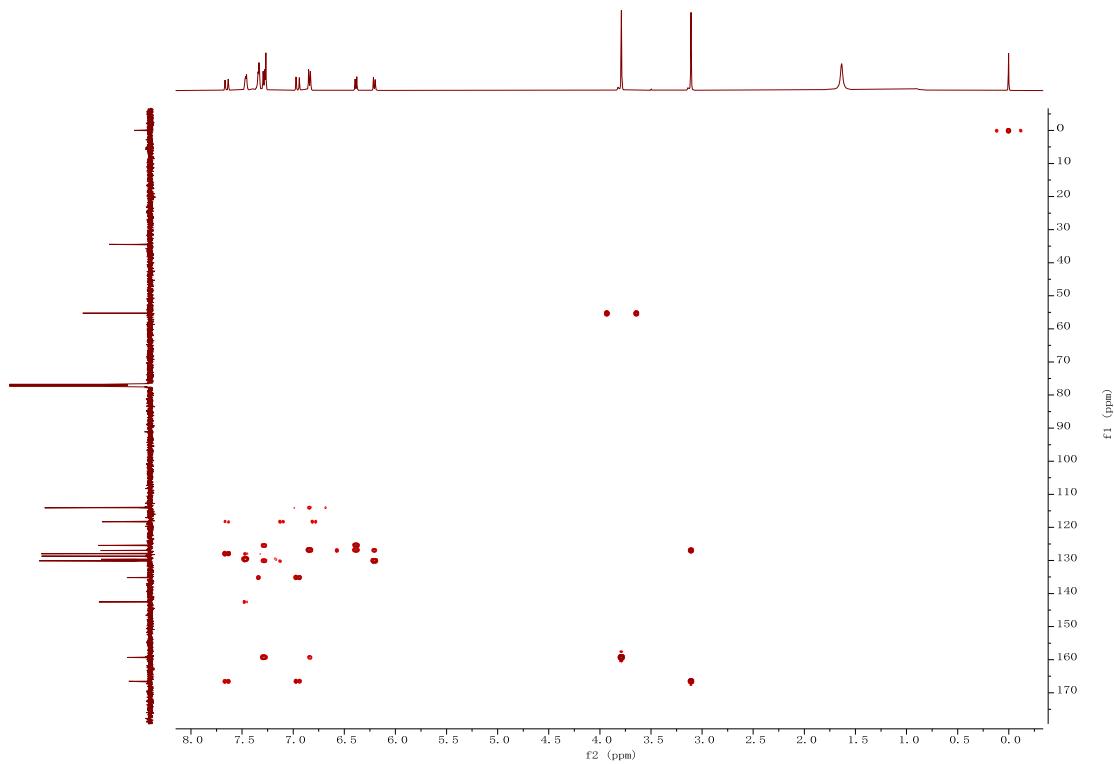


Figure S23. HMBC (500 MHz) spectrum of **2** in CDCl_3 .

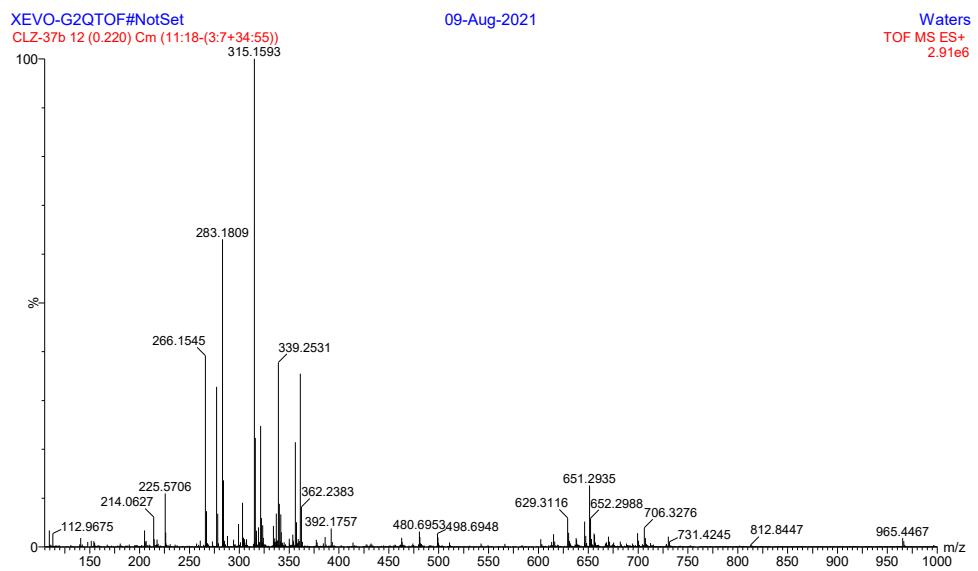


Figure S24. HR-ESI-MS of **3**.

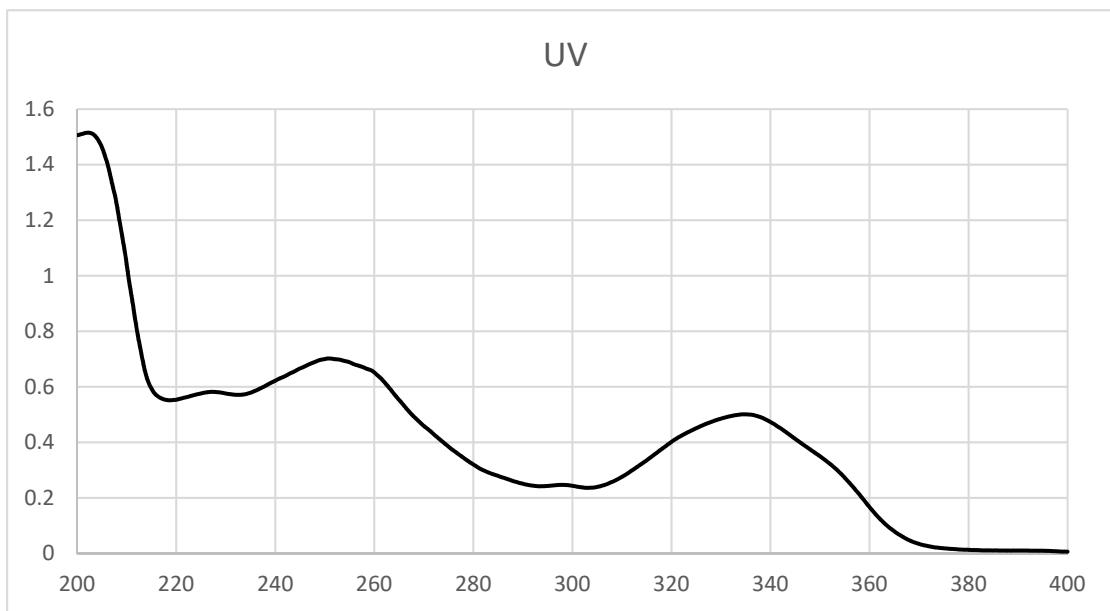


Figure S25. UV spectrum of **3** in MeOH.

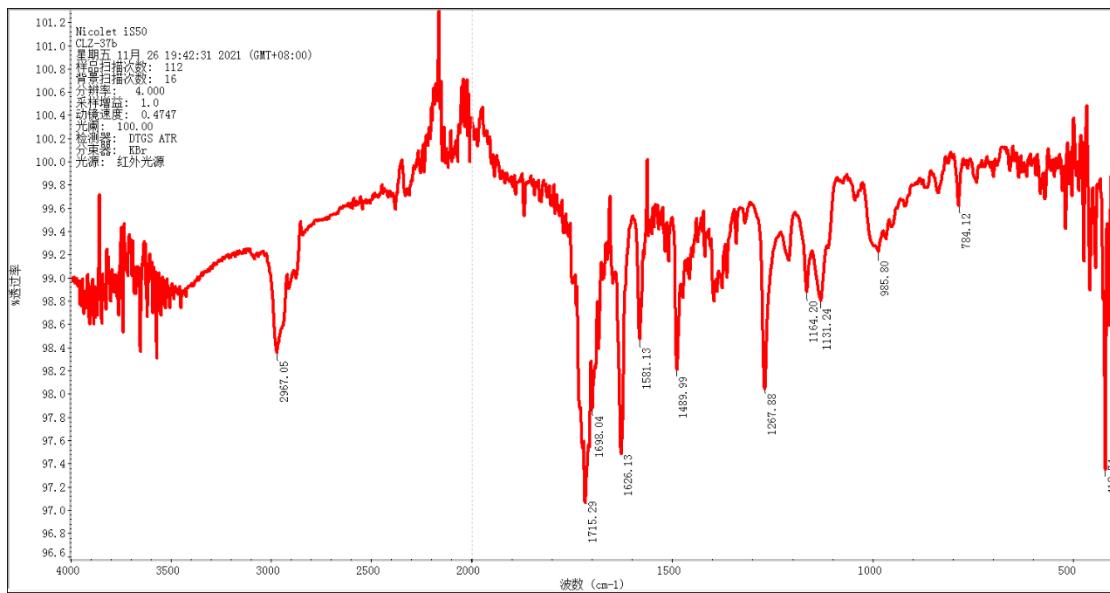


Figure S26. IR spectrum of **3**.

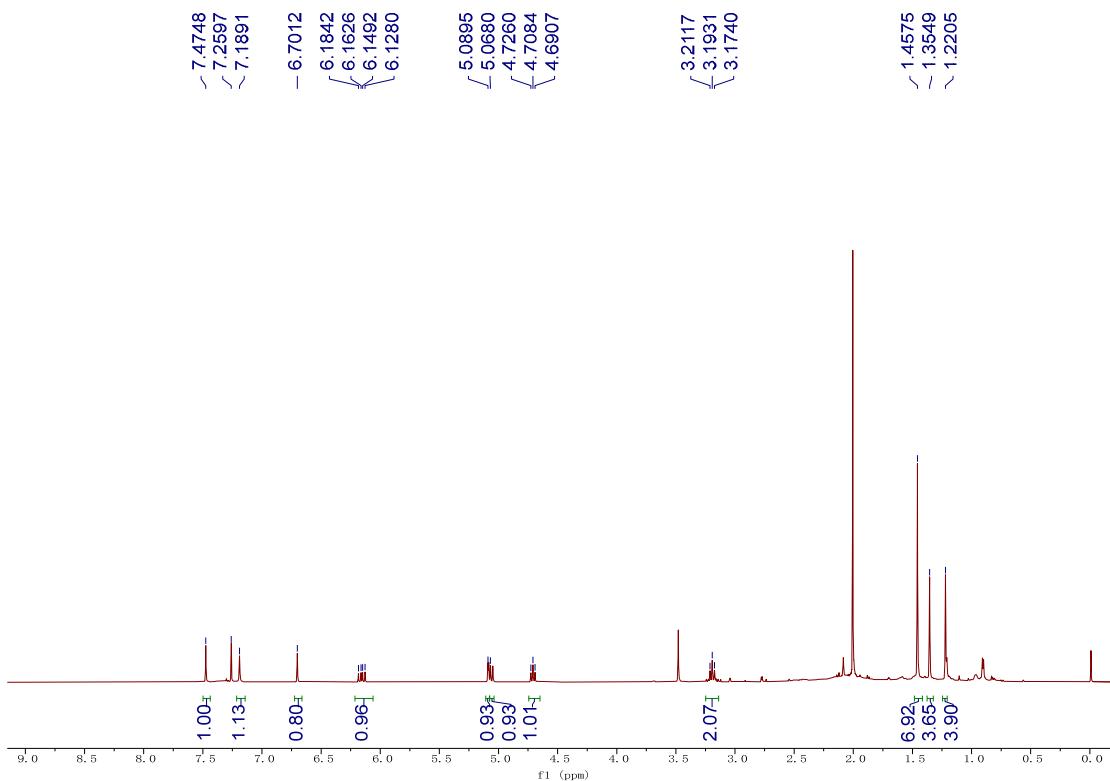


Figure S27. ^1H NMR (500 MHz) spectrum of **3** in CDCl_3 .

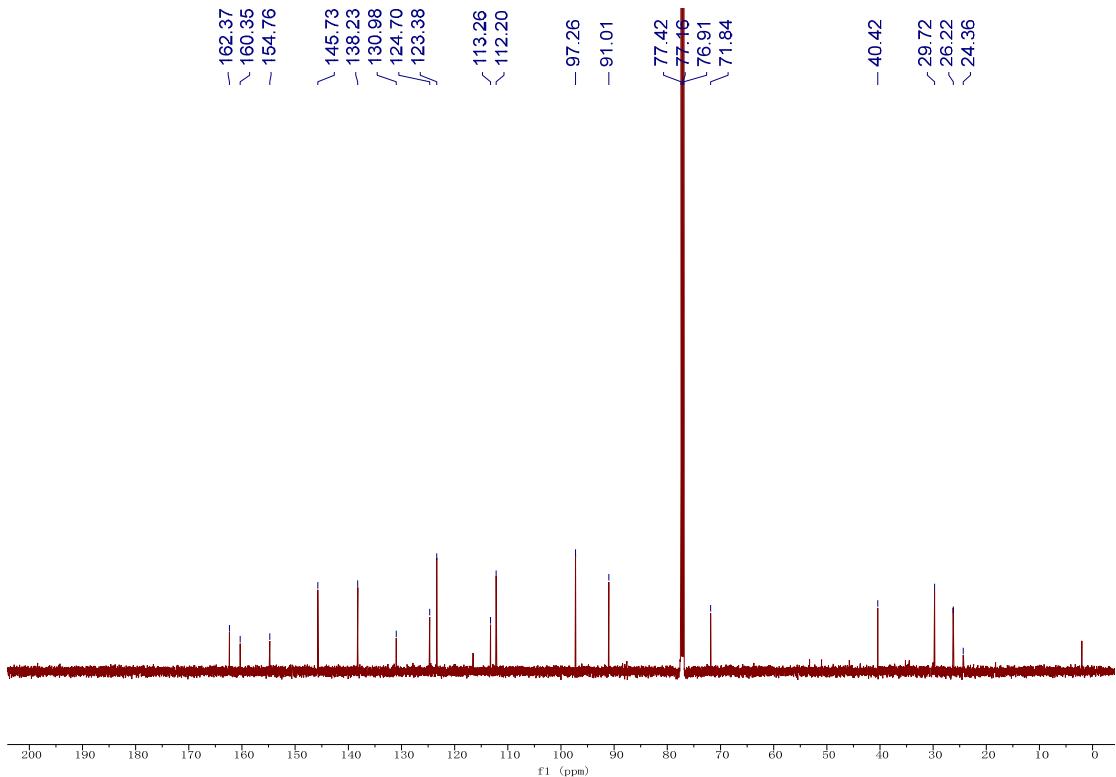


Figure S28. ^{13}C NMR (125 MHz) spectrum of **3** in CDCl_3 .

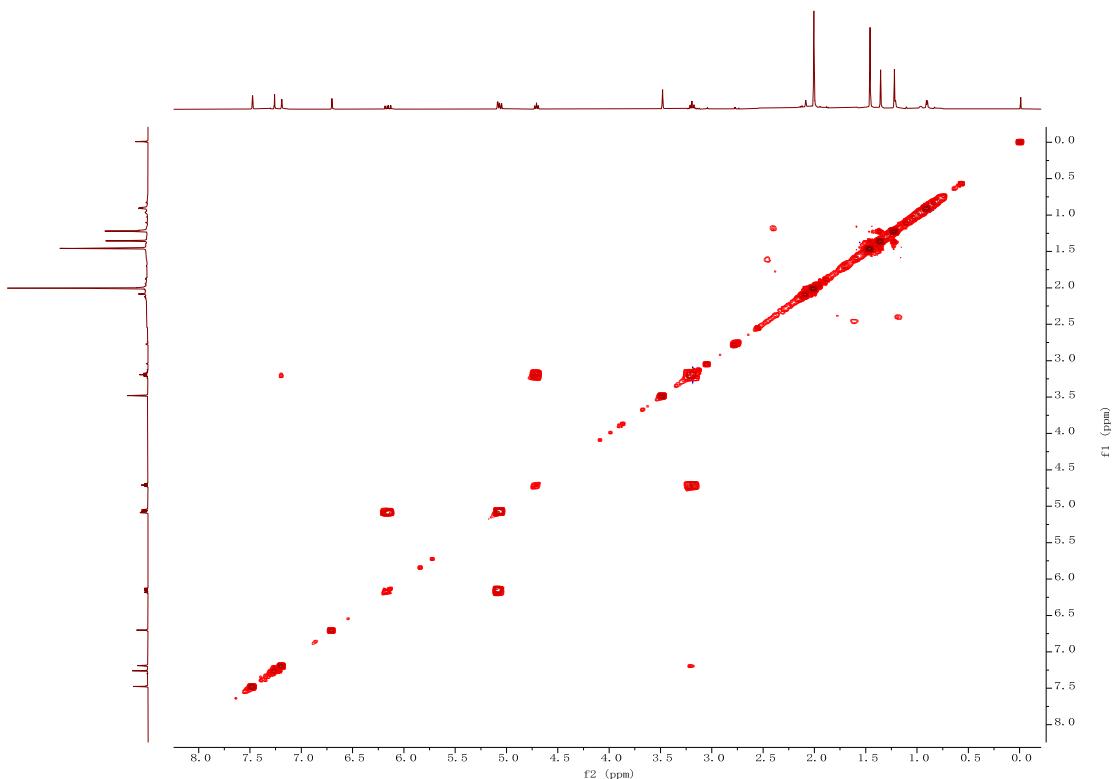


Figure S29. ^1H - ^1H COSY (500 MHz) spectrum of **3** in CDCl_3 .

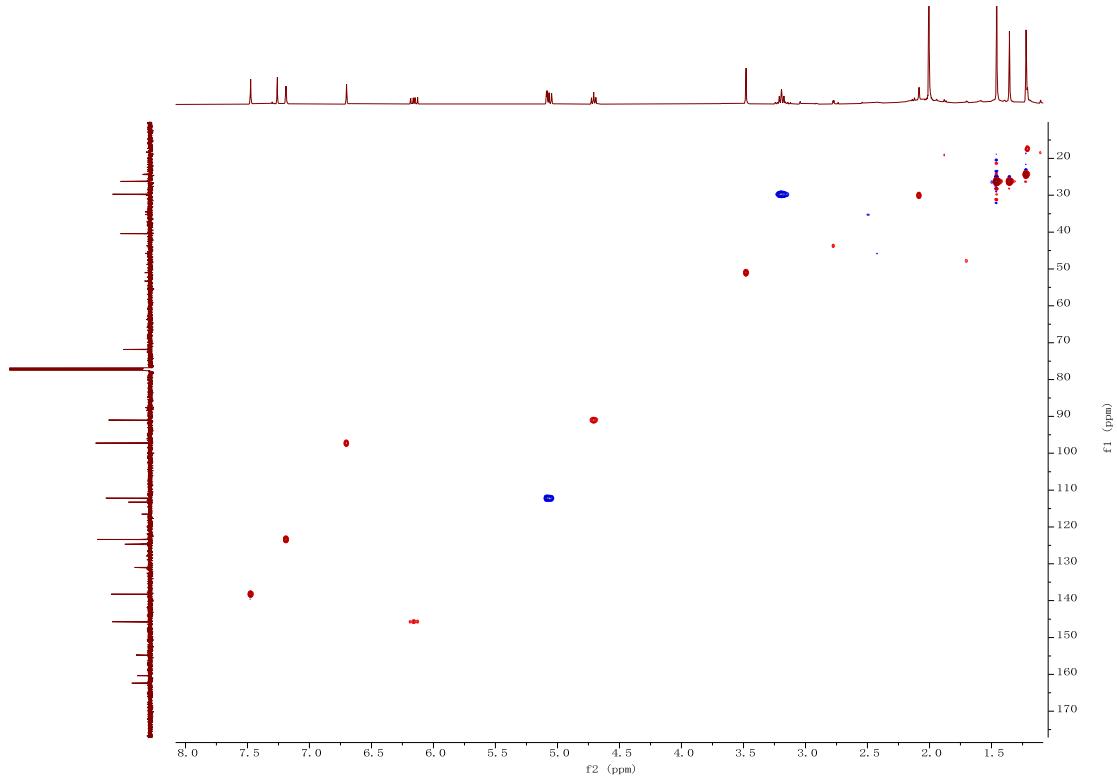


Figure S30. HSQC (500 MHz) spectrum of **3** in CDCl_3 .

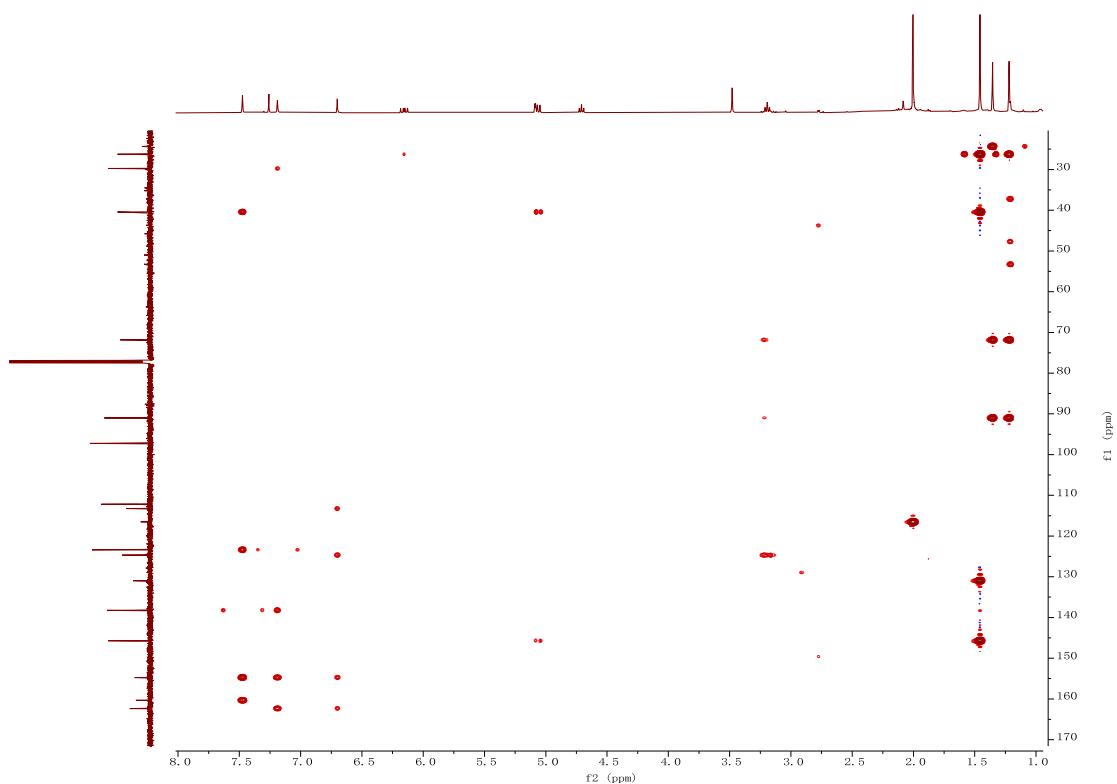
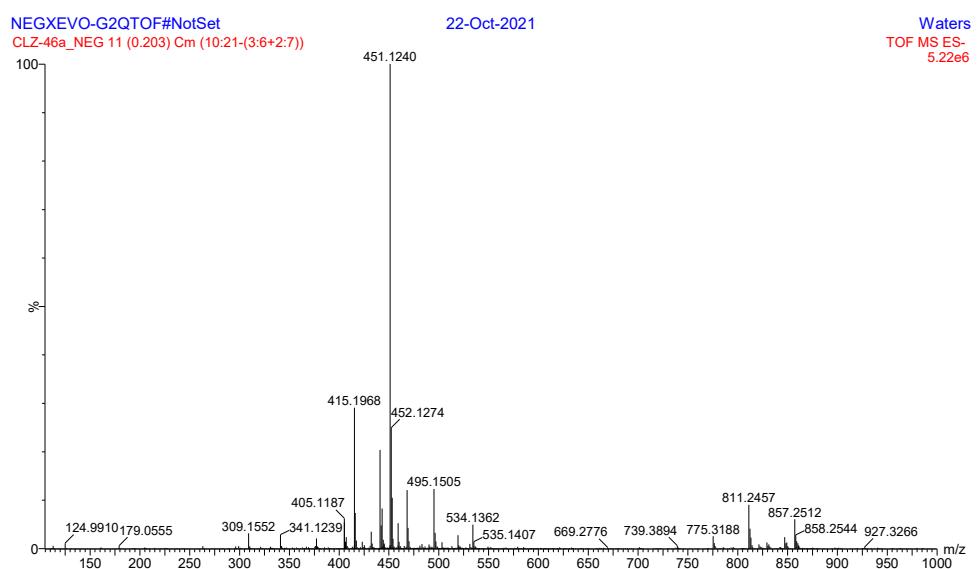


Figure S31. HMBC (500 MHz) spectrum of **3** in CDCl_3 .



Mass	Calc. Mass	mDa	PPM	DBE	i-FIT	Norm	Conf(%)	Formula
405.1187	405.1186	0.1	0.2	10.5	491.6	n/a	n/a	C ₂₀ H ₂₁ O ₉

Figure S32. HR-ESI-MS of 4.

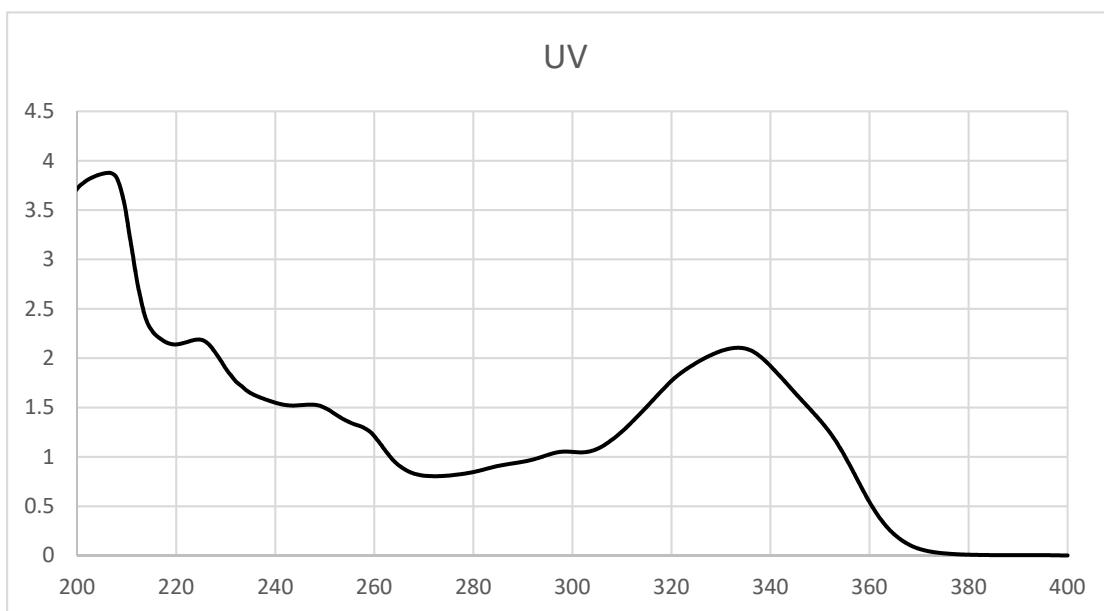


Figure S33. UV spectrum of 4 in MeOH.

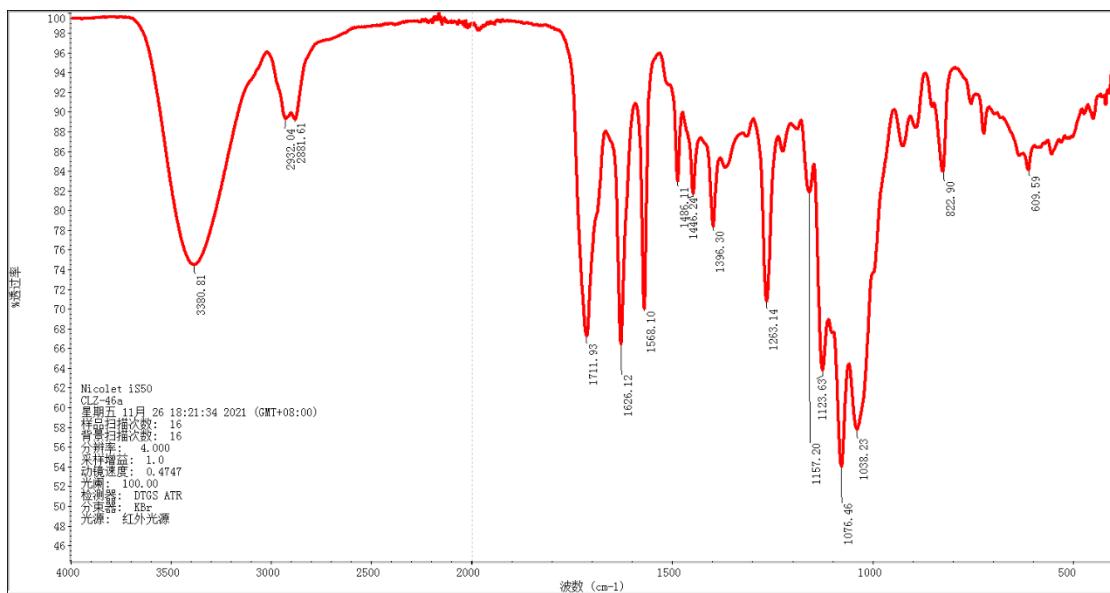


Figure S34. IR spectrum of **4**.

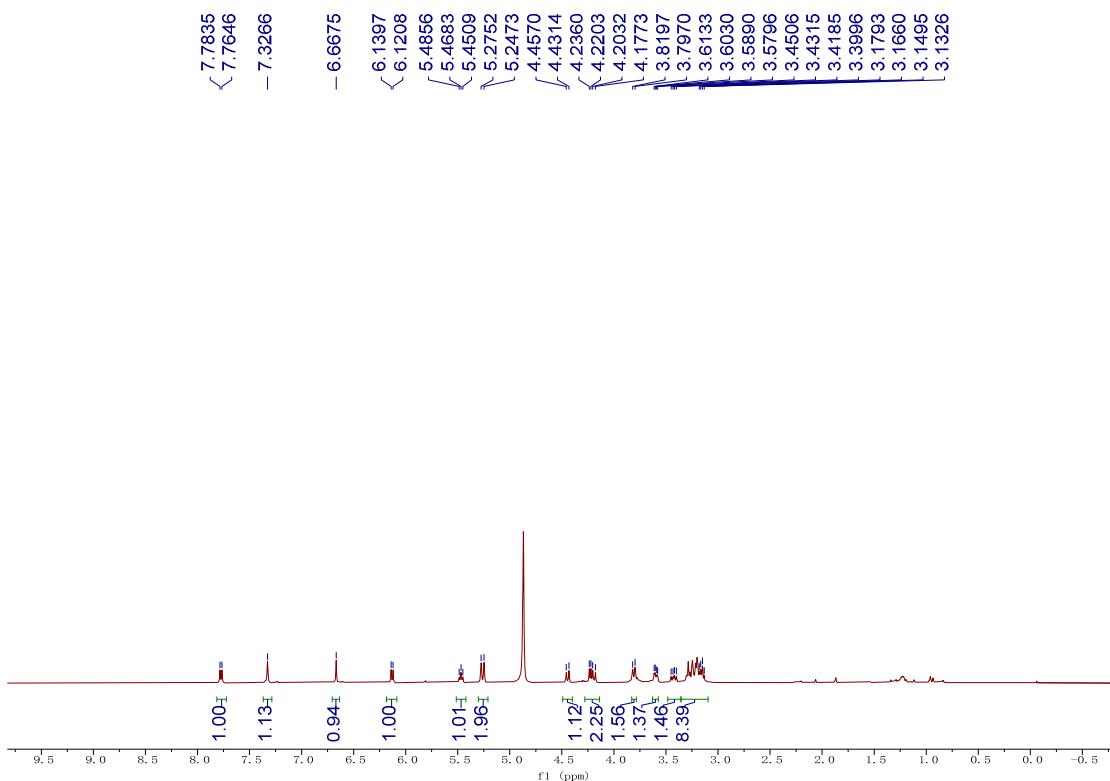


Figure S35. ^1H NMR (500 MHz) spectrum of **4** in MeOD.

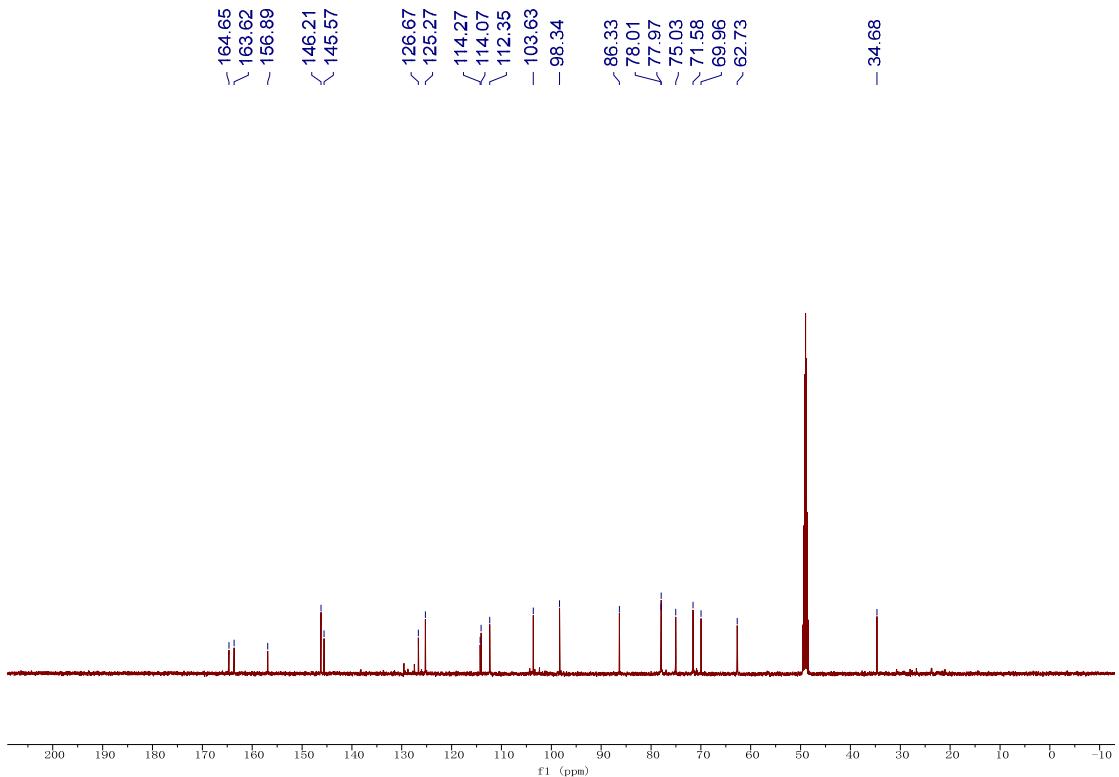


Figure S36. ^{13}C NMR (125 MHz) spectrum of **4** in MeOD.

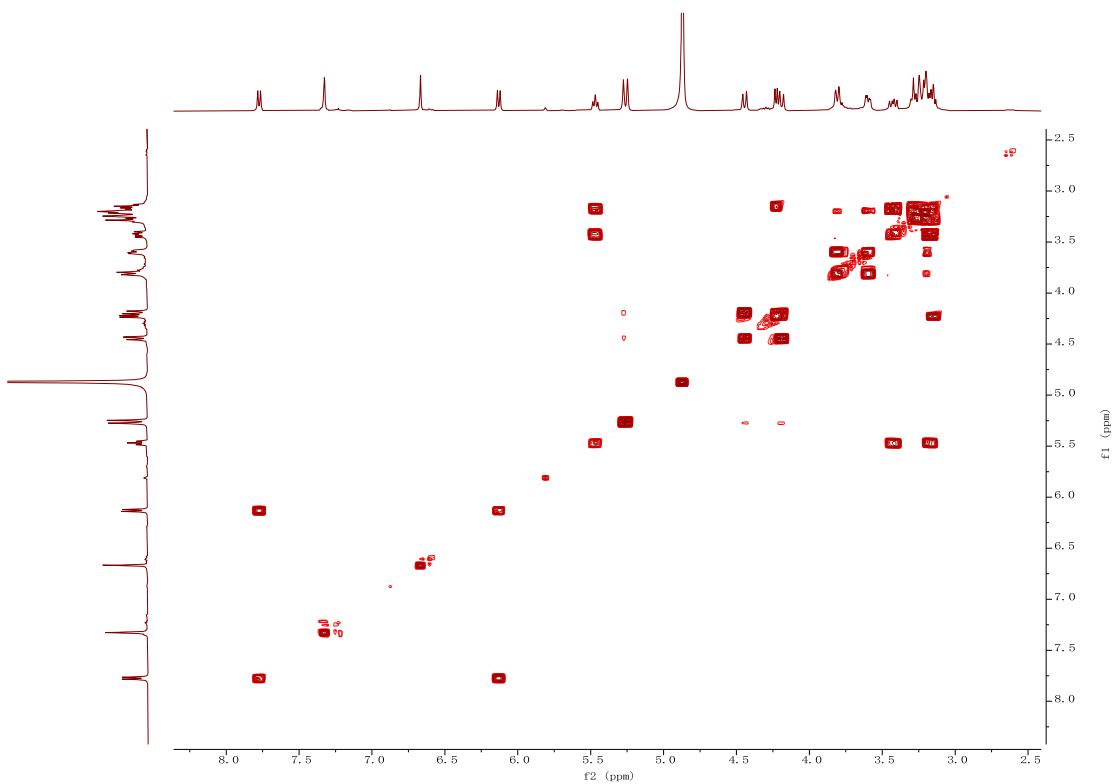


Figure S37. ^1H - ^1H COSY (500 MHz) spectrum of **4** in MeOD.

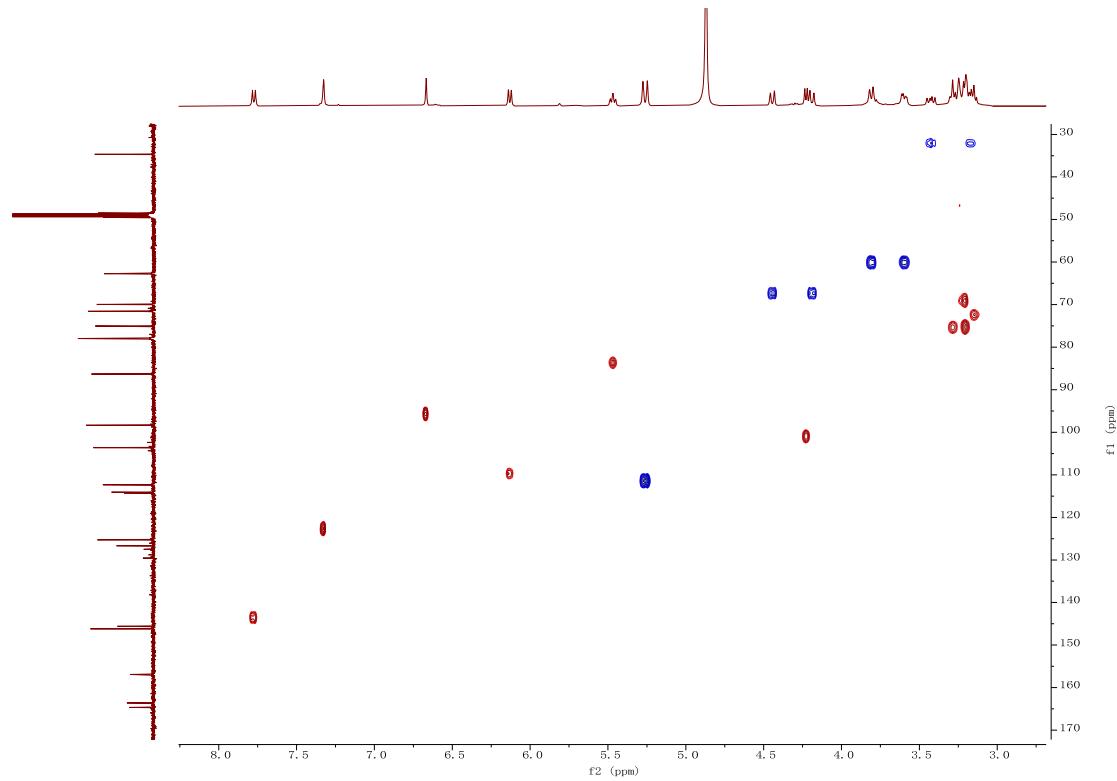


Figure S38. HSQC (500 MHz) spectrum of **4** in MeOD.

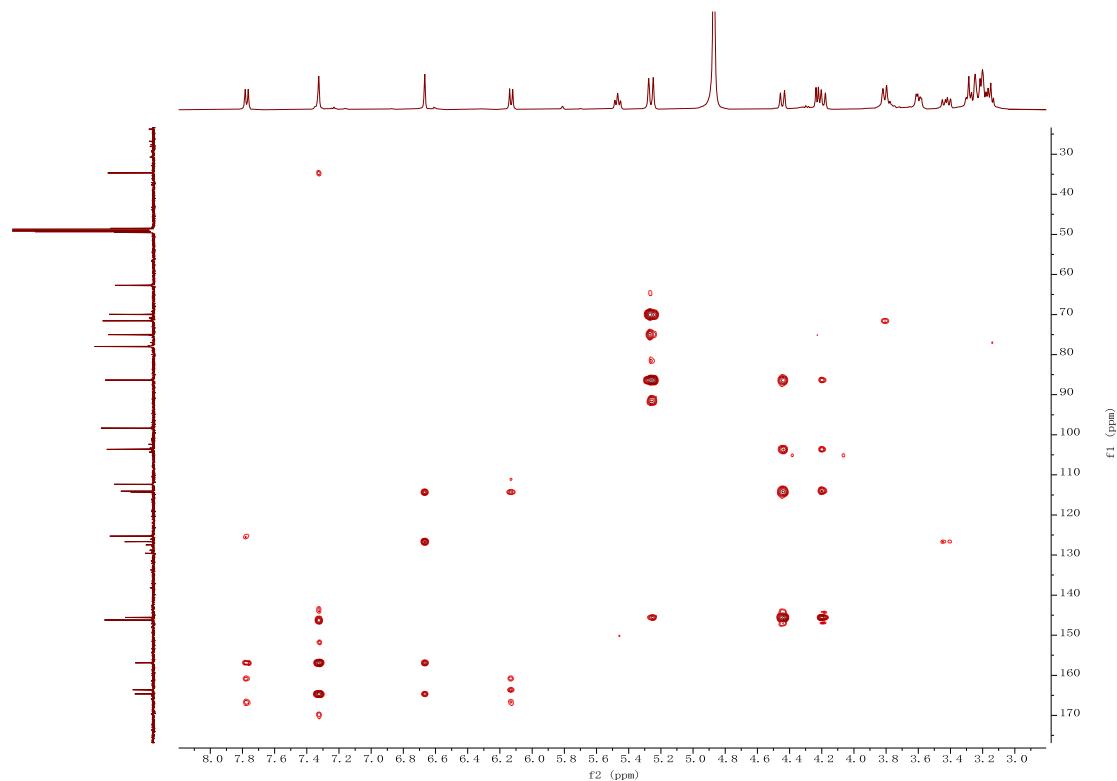


Figure S39. HMBC (500 MHz) spectrum of **4** in MeOD.

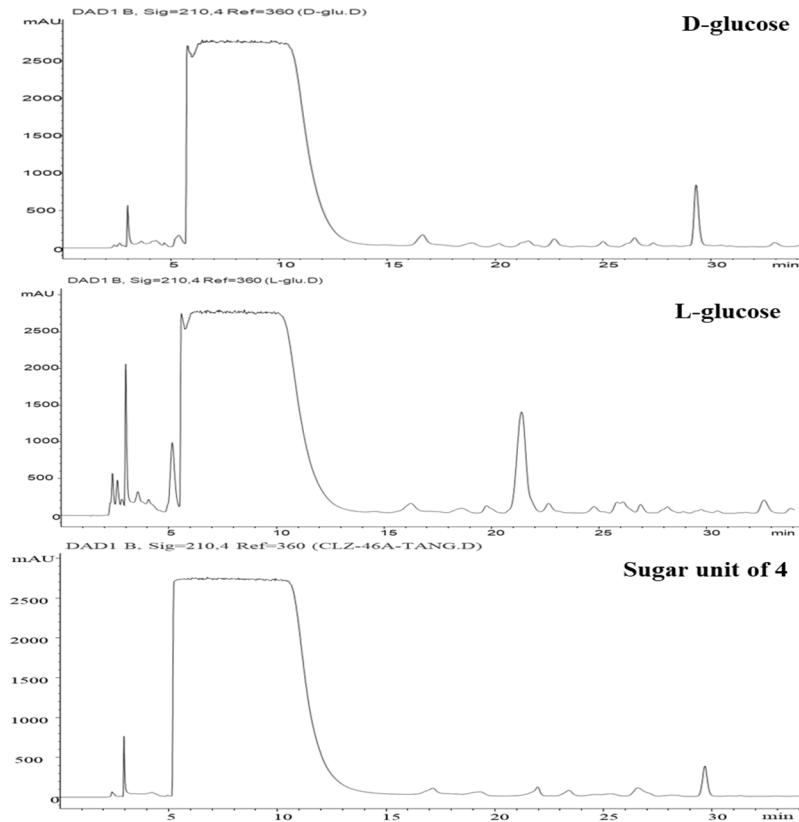


Figure S40. HPLC-UV (210 nm) chromatograms of the derivatives of D-glucose, L-glucose, and the sugar units of clauenoside A (**4**).

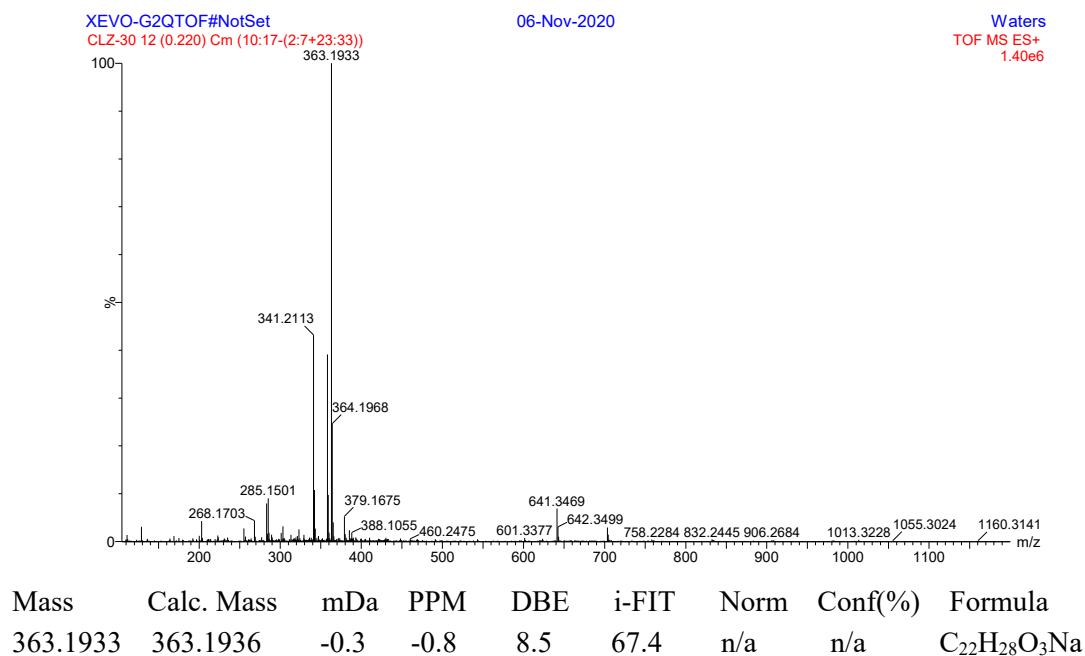


Figure S41. HR-ESI-MS of **5**.

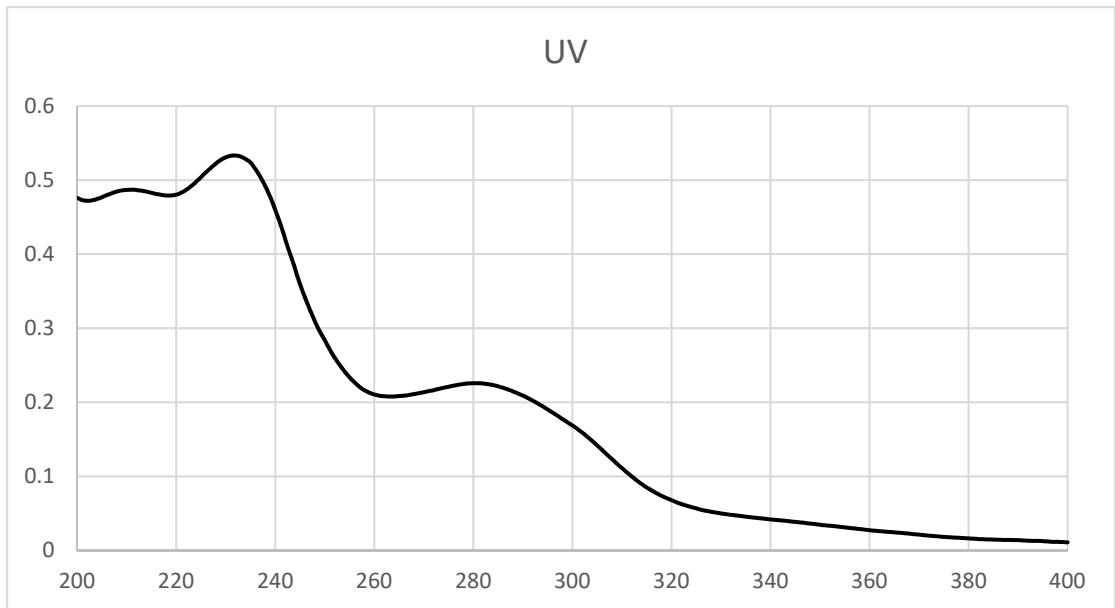


Figure S42. UV spectrum of **5** in MeOH.

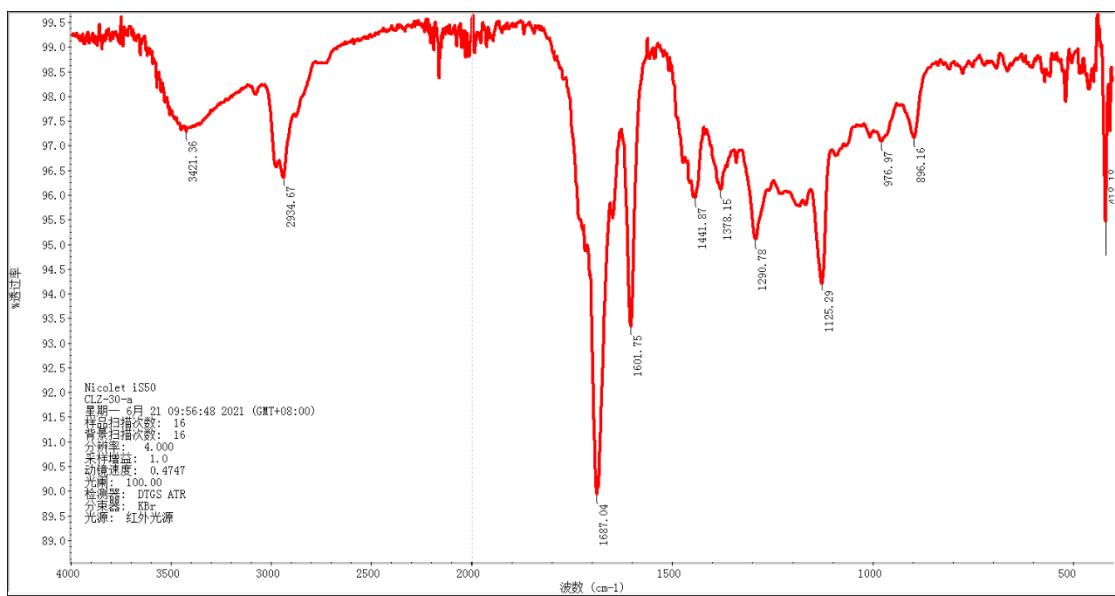


Figure S43. IR spectrum of **5**.

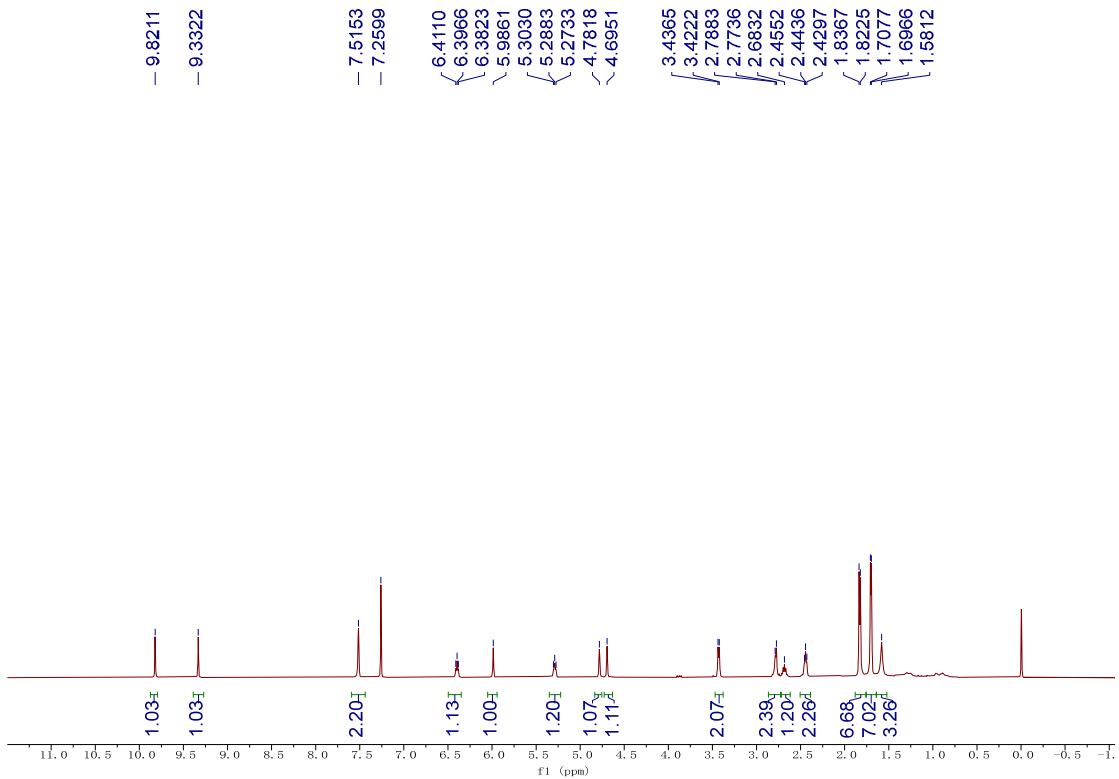


Figure S44. ^1H NMR (500 MHz) spectrum of **5** in CDCl_3 .

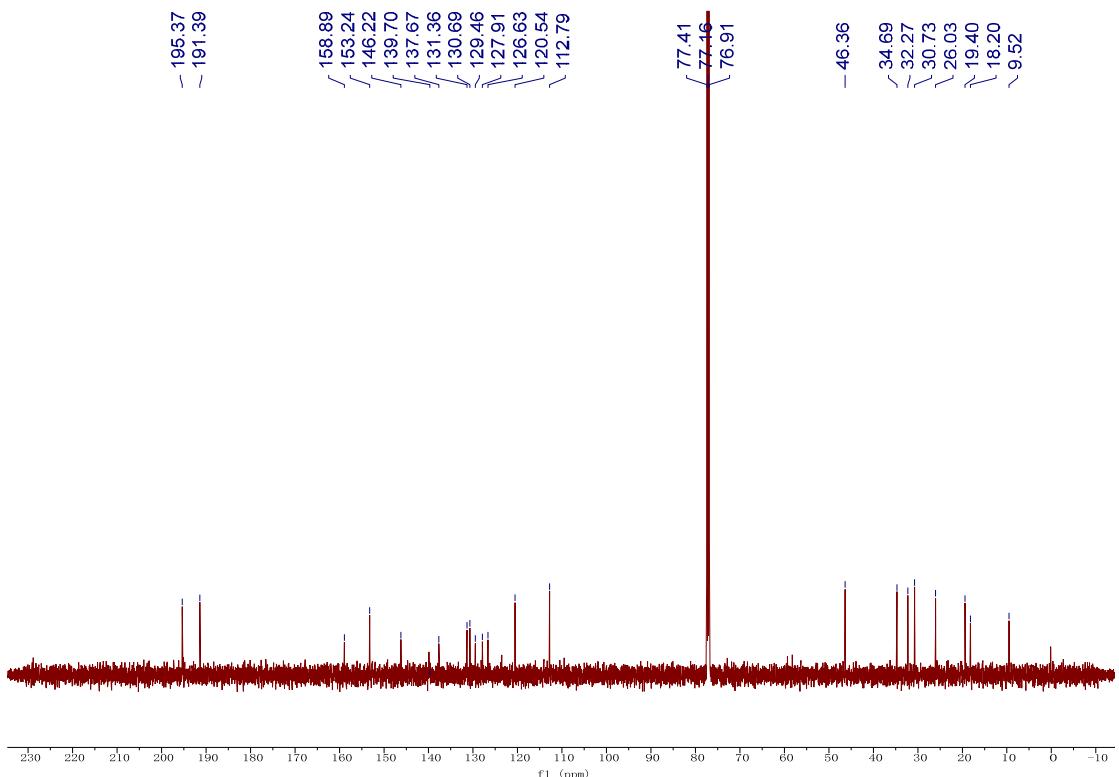


Figure S45. ^{13}C NMR (125 MHz) spectrum of **5** in CDCl_3 .

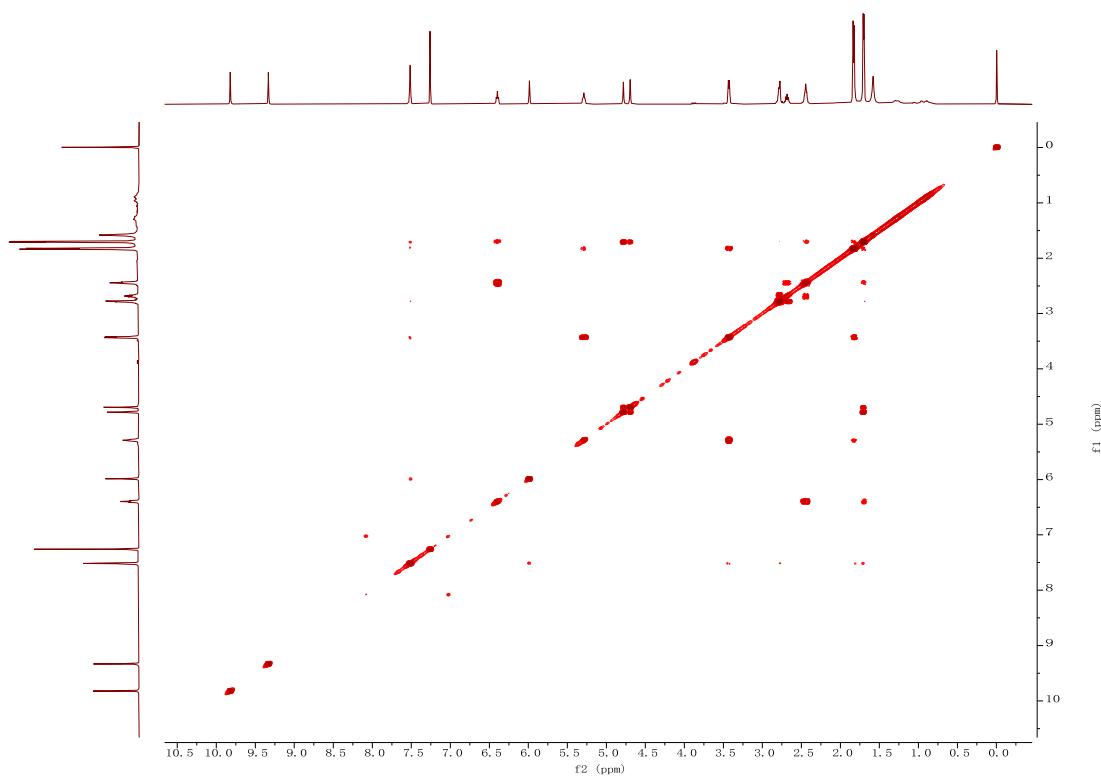


Figure S46. ^1H - ^1H COSY (500 MHz) spectrum of **5** in CDCl_3 .

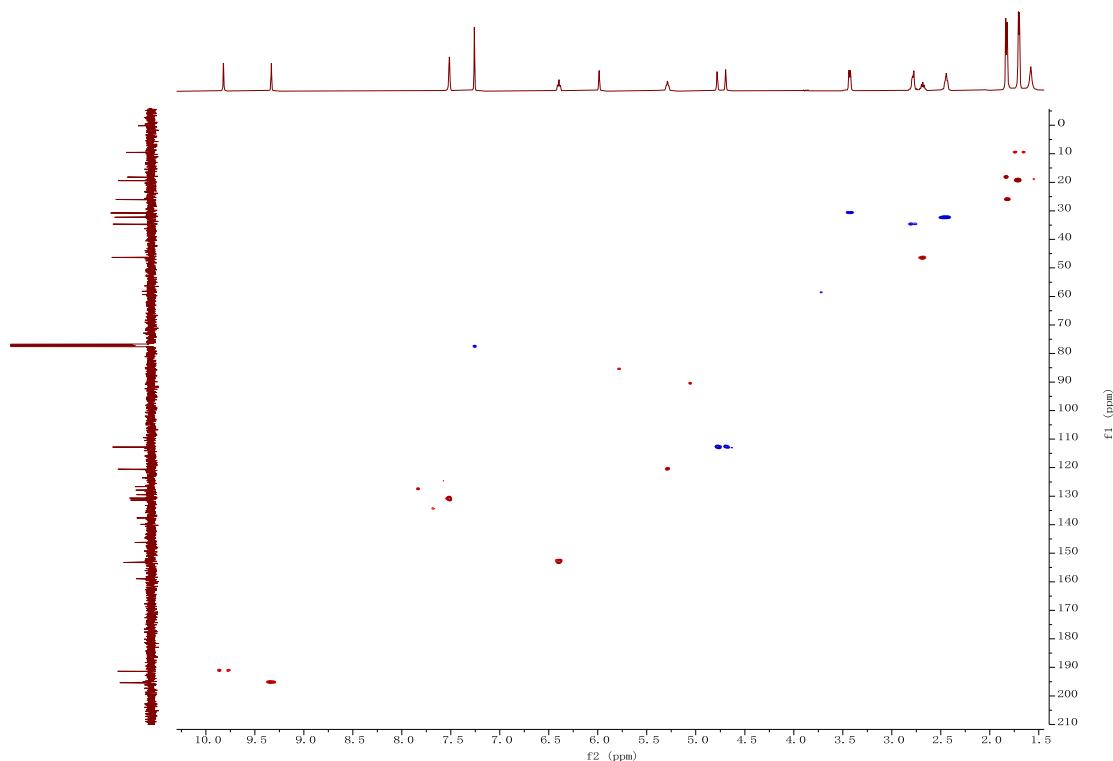


Figure S47. HSQC (500 MHz) spectrum of **5** in CDCl_3 .

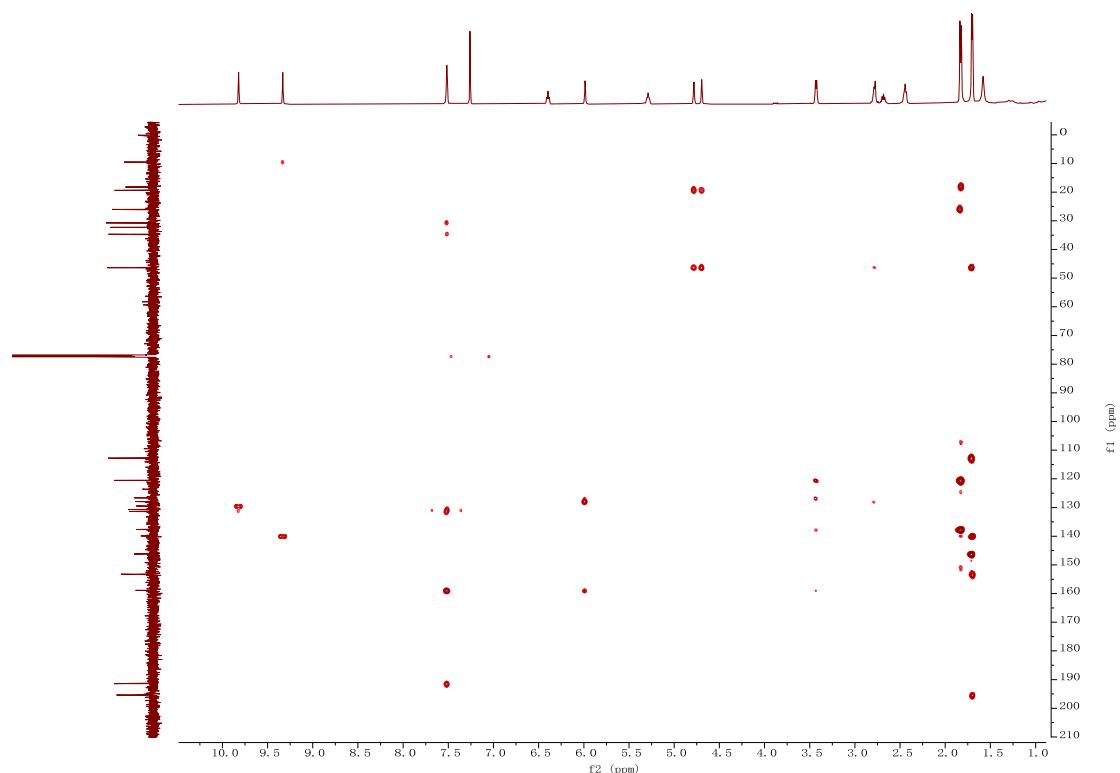


Figure S48. HMBC (500 MHz) spectrum of **5** in CDCl_3 .

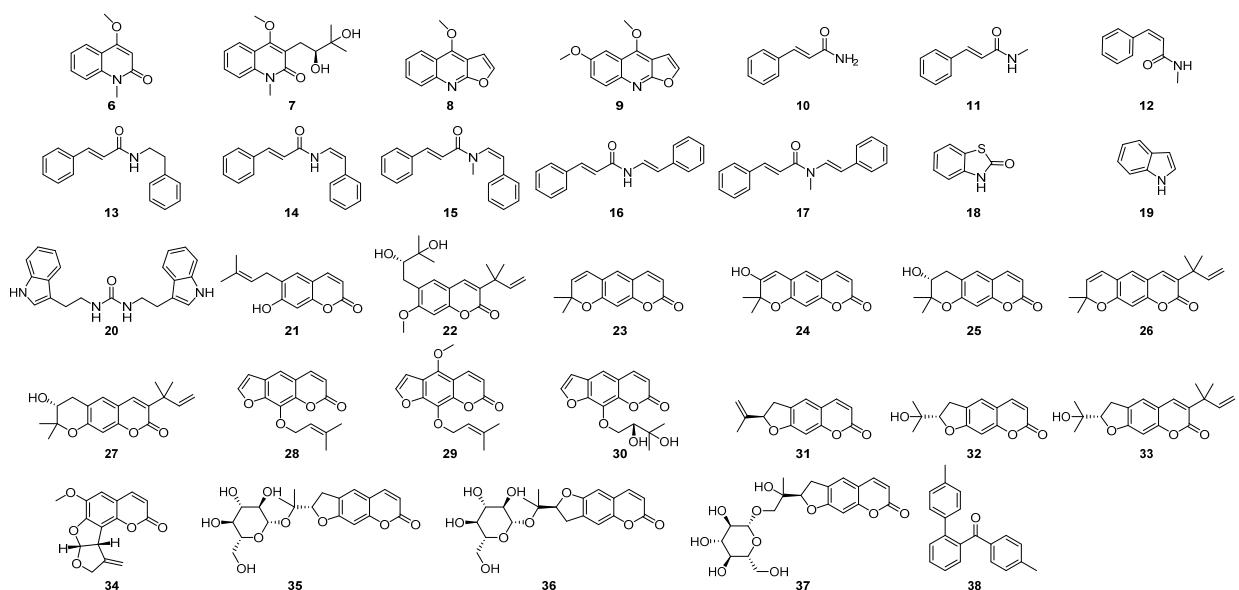


Figure S49. Chemical structures of compounds **6–38**.

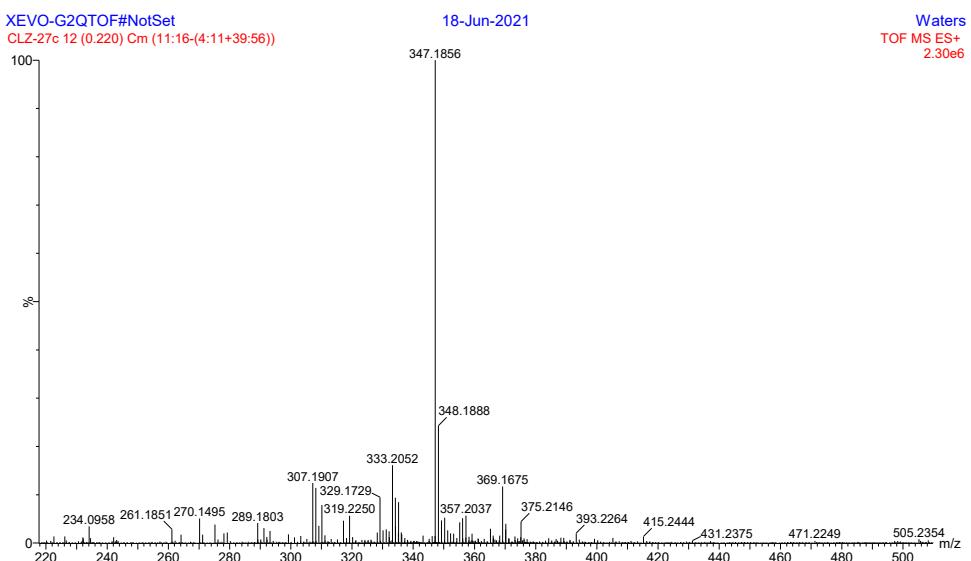


Figure S50. ESI-MS of **22**.

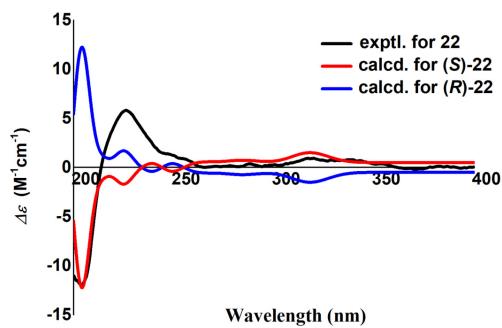


Figure S51. Experimental and calculated ECD spectra of **22**.