

Bioassay-Guided Isolation of Iridoid Glucosides from *Stenaria nigricans*, Their Biting Deterrence Against *Aedes aegypti* (Diptera: Culicidae) and Repellency Assessment Against Imported Fire Ants (Hymenoptera: Formicidae)

Fazila Zulfiqar ¹, Abbas Ali ¹, Zulfiqar Ali ¹ and Ikhlas A. Khan ^{1,2,*}

¹ National Center for Natural Products Research, School of Pharmacy, The University of Mississippi, Oxford, MS 38677, USA

² Department of BioMolecular Sciences, Division of Pharmacognosy, School of Pharmacy, The University of Mississippi, Oxford, MS 38677, USA

* Correspondence: ikhan@olemiss.edu; Tel.: +1-(662)-915-1090.

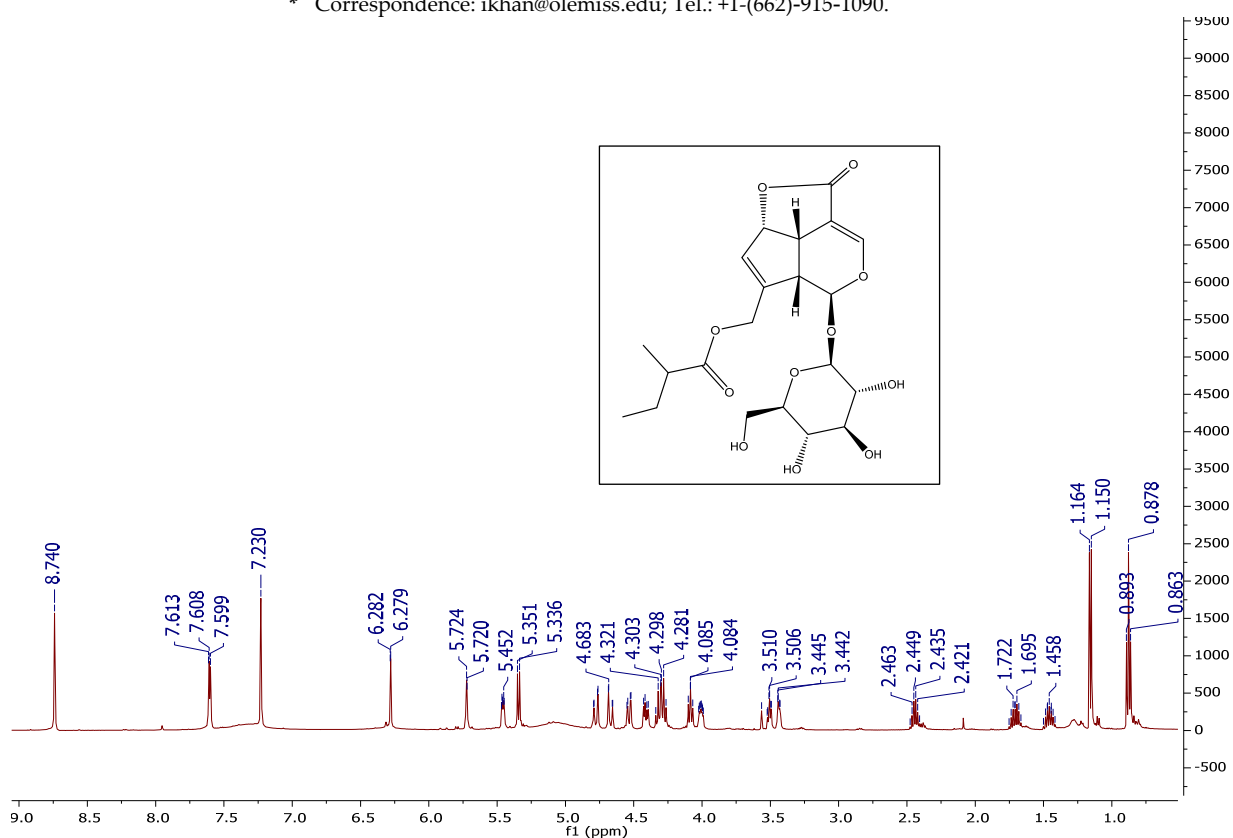


Figure S1. ¹H NMR spectrum of **1** at 500 MHz in pyridine-*d*₅.

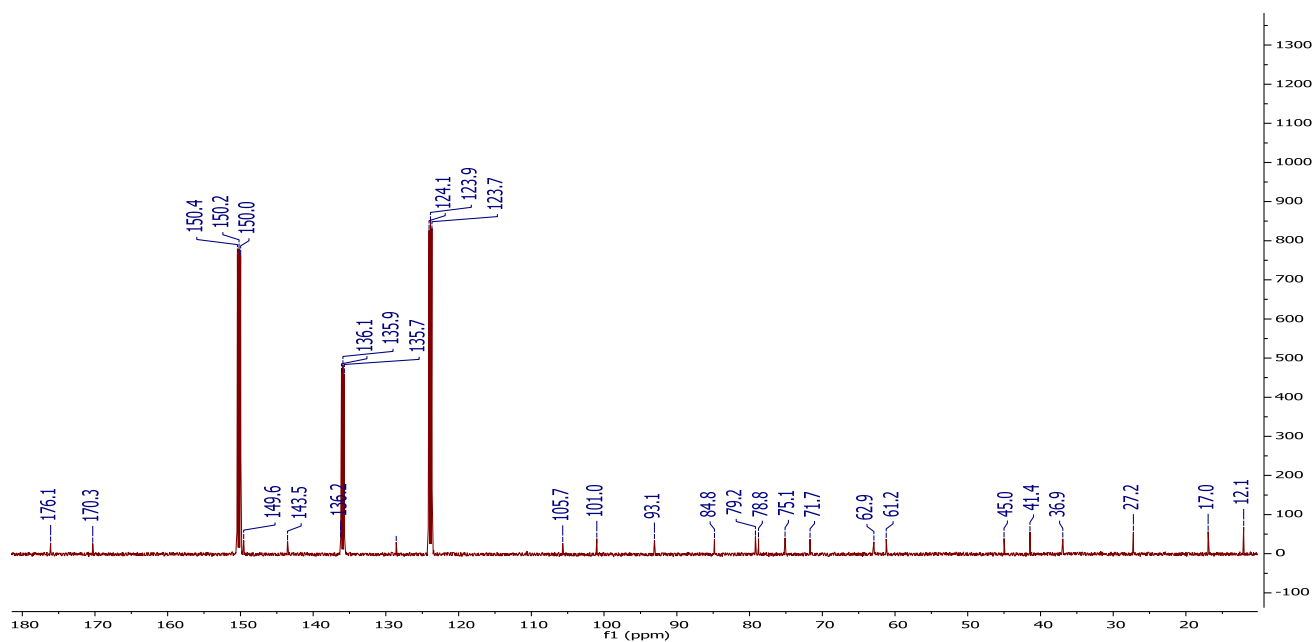


Figure S2. ¹³CNMR spectrum of 1 at 125 MHz in pyridine-*d*₅.

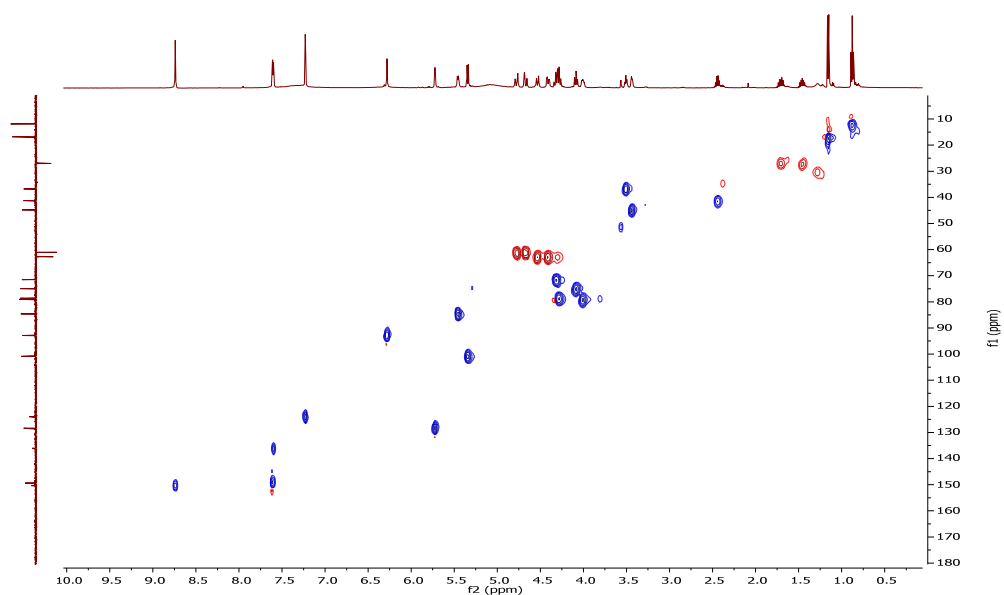


Figure S3. HSQC spectrum of 1 in pyridine-*d*₅.

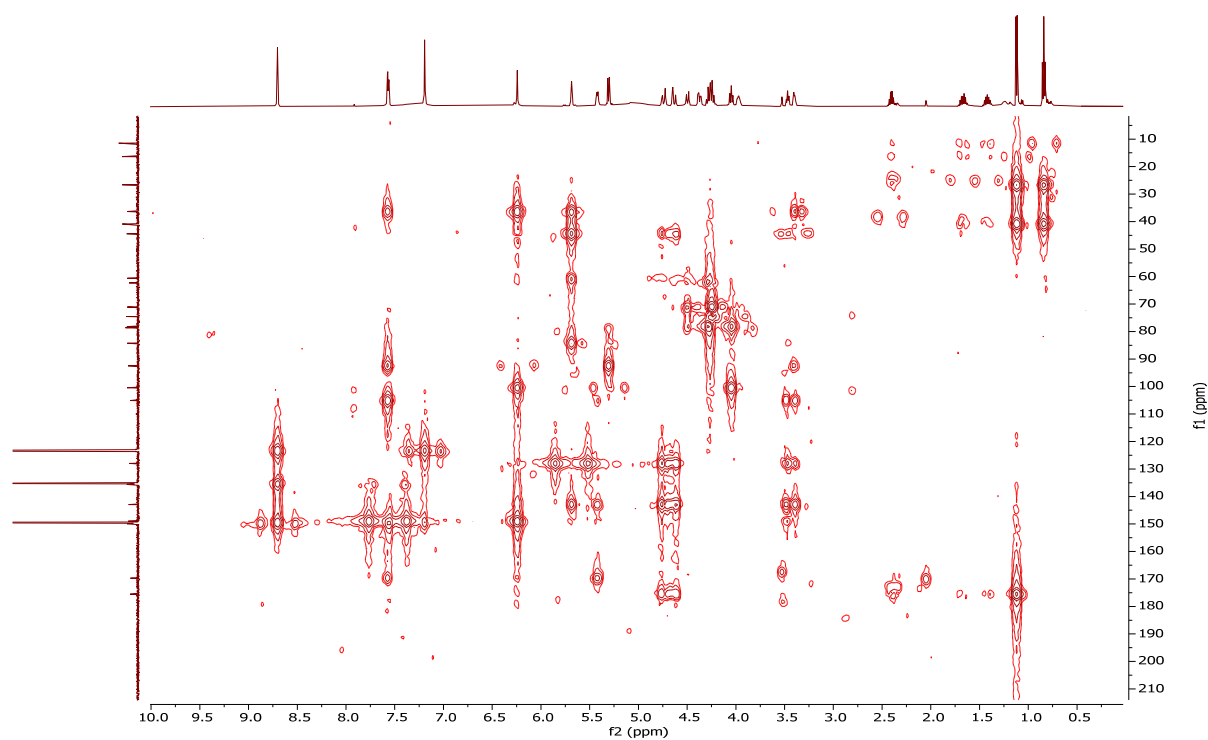


Figure S4. HMBC spectrum of **1** in pyridine-*d*₅.

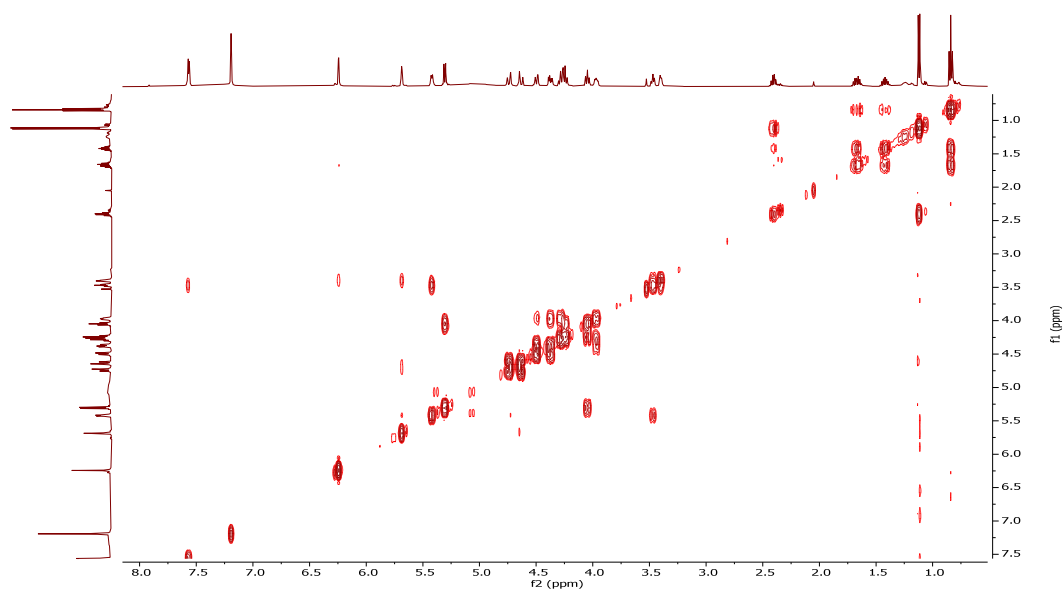


Figure S5. COSY spectrum of **1** in pyridine-*d*₅.

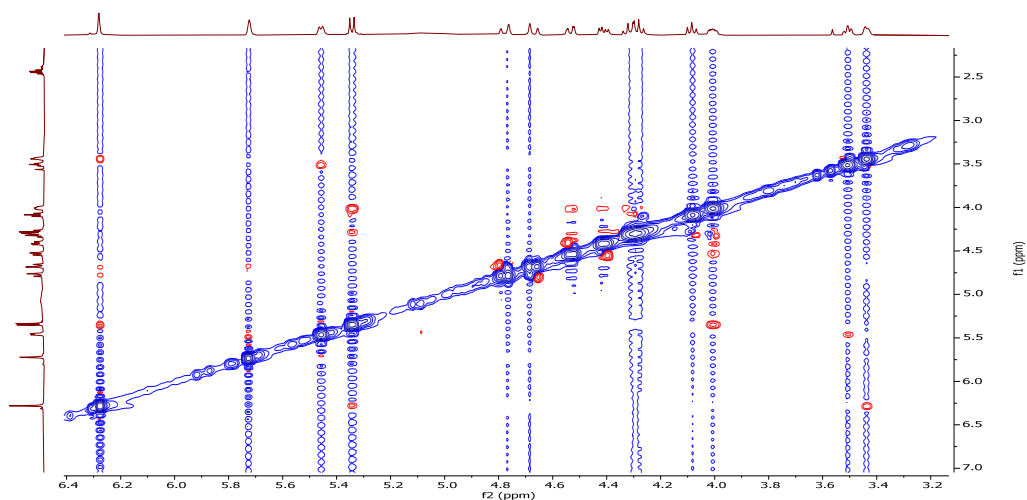


Figure S6. NOESY spectrum of **1** in pyridine-*d*₅.

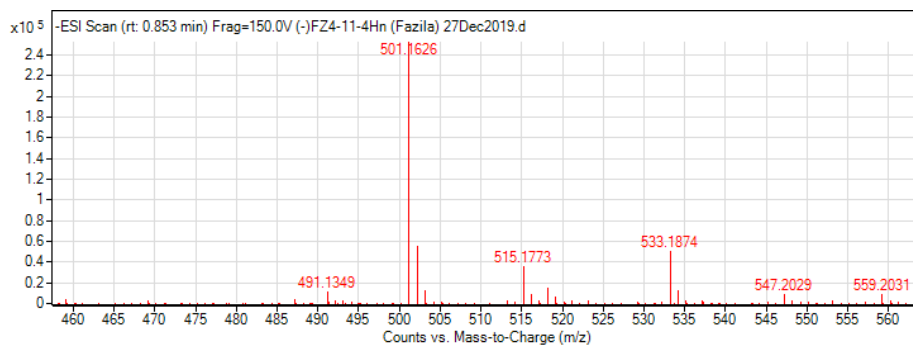


Figure S7. HRESIMS (negative ionization mode) of **1**.

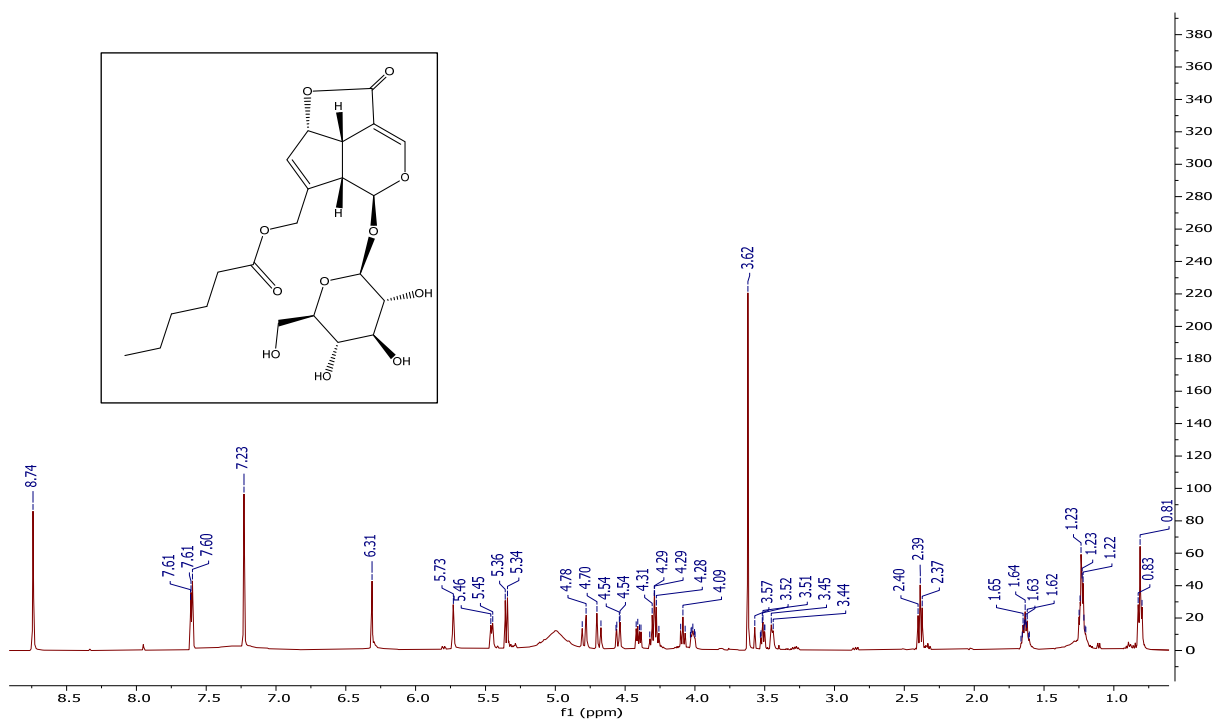


Figure S8. ¹H NMR spectrum of **2** at 500 MHz in pyridine-*d*₅.

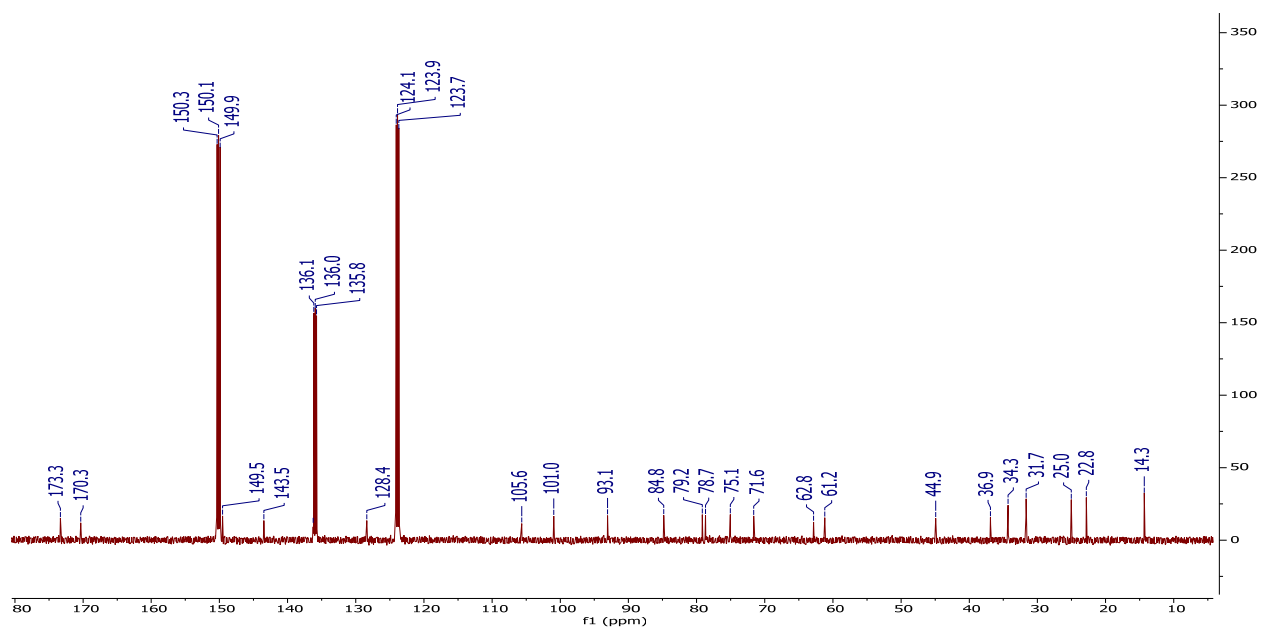


Figure S9. ¹³CNMR spectrum of 2 at 125 MHz in pyridine-*d*₅.

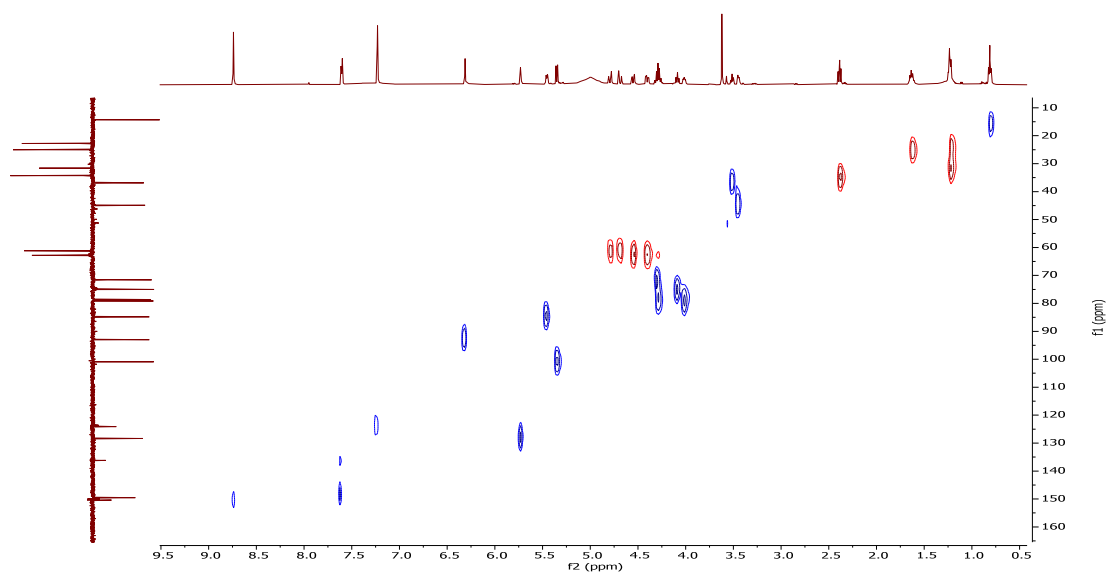


Figure S10. HSQC spectrum of 2 in pyridine-*d*₅.

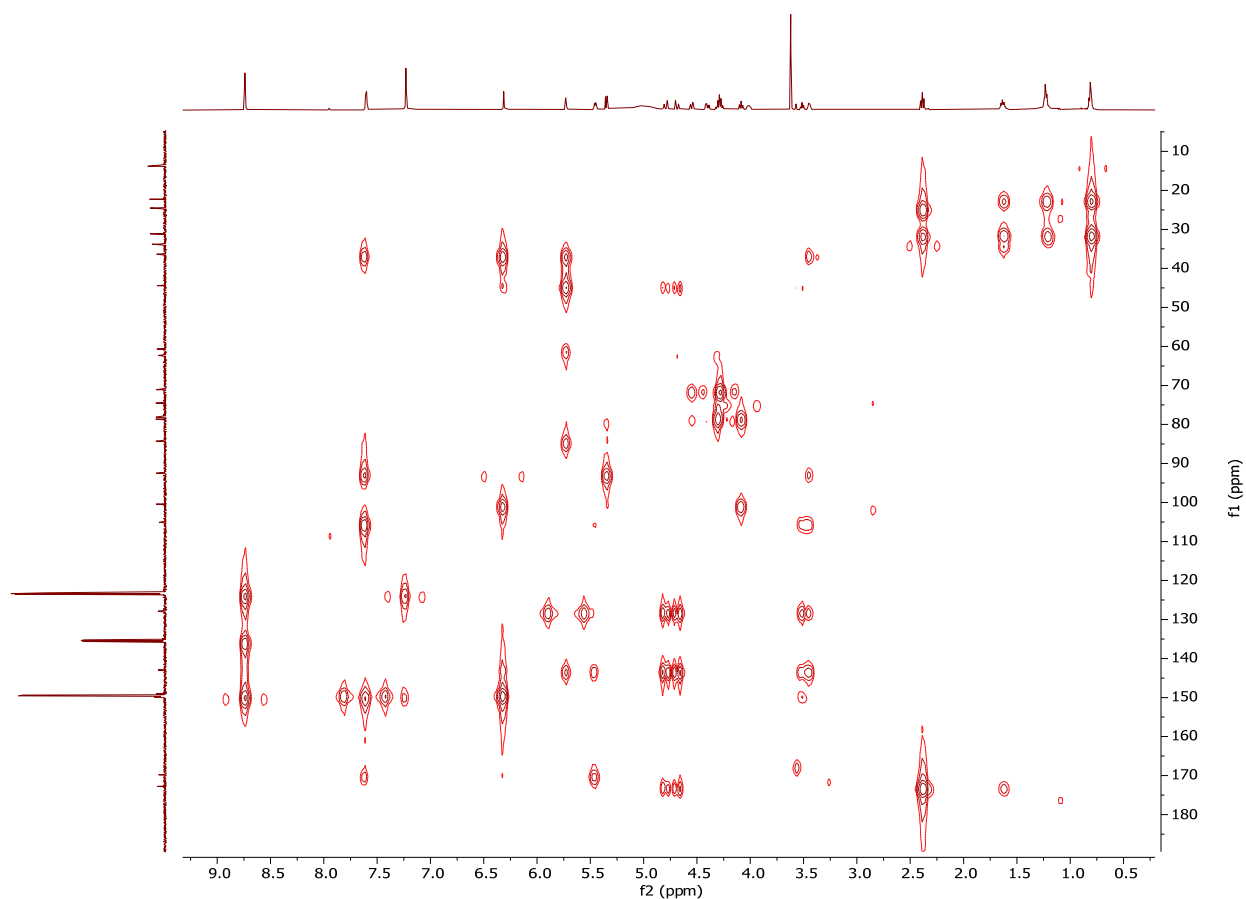


Figure S11. HMBC spectrum of **2** in pyridine-*d*₅.

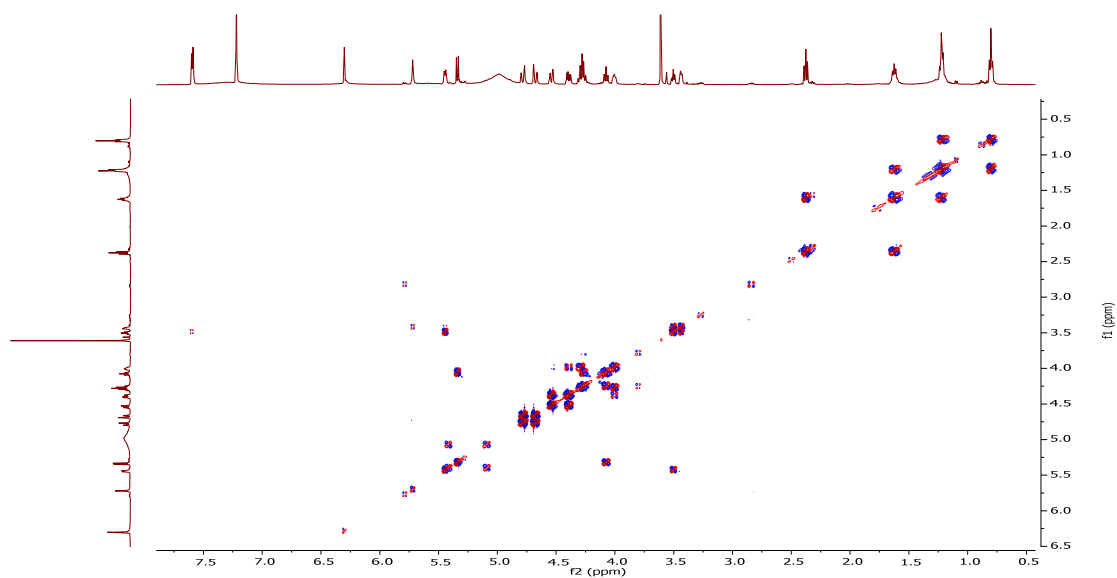


Figure S12. COSY spectrum of **2** in pyridine-*d*₅.

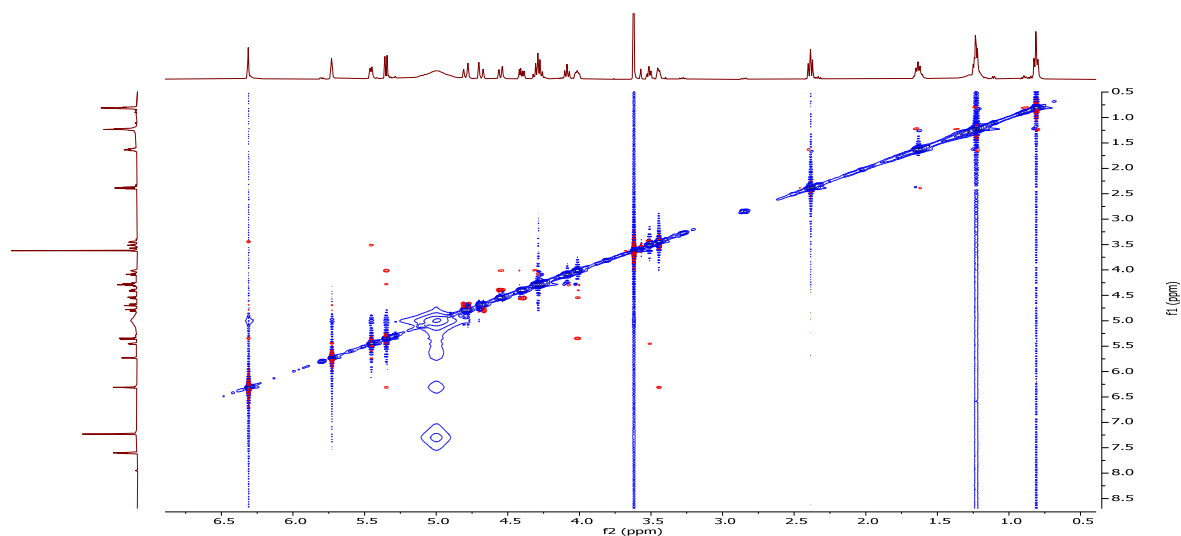


Figure S13. NOESY spectrum of **2** in pyridine-*d*₅.

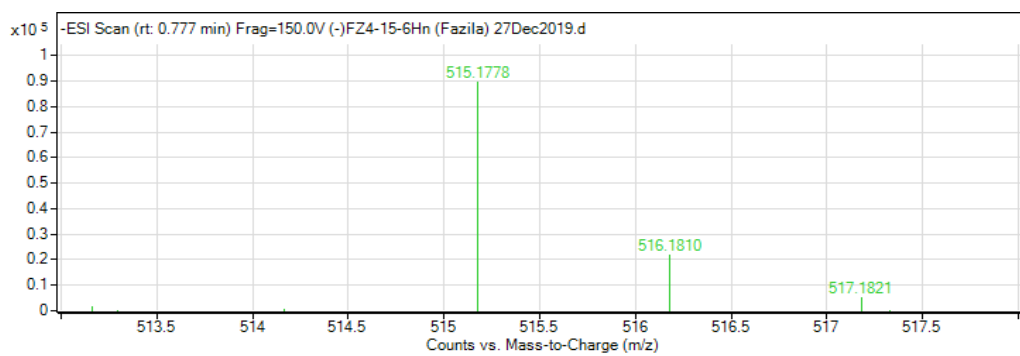


Figure S14. HRESIMS of **2**.

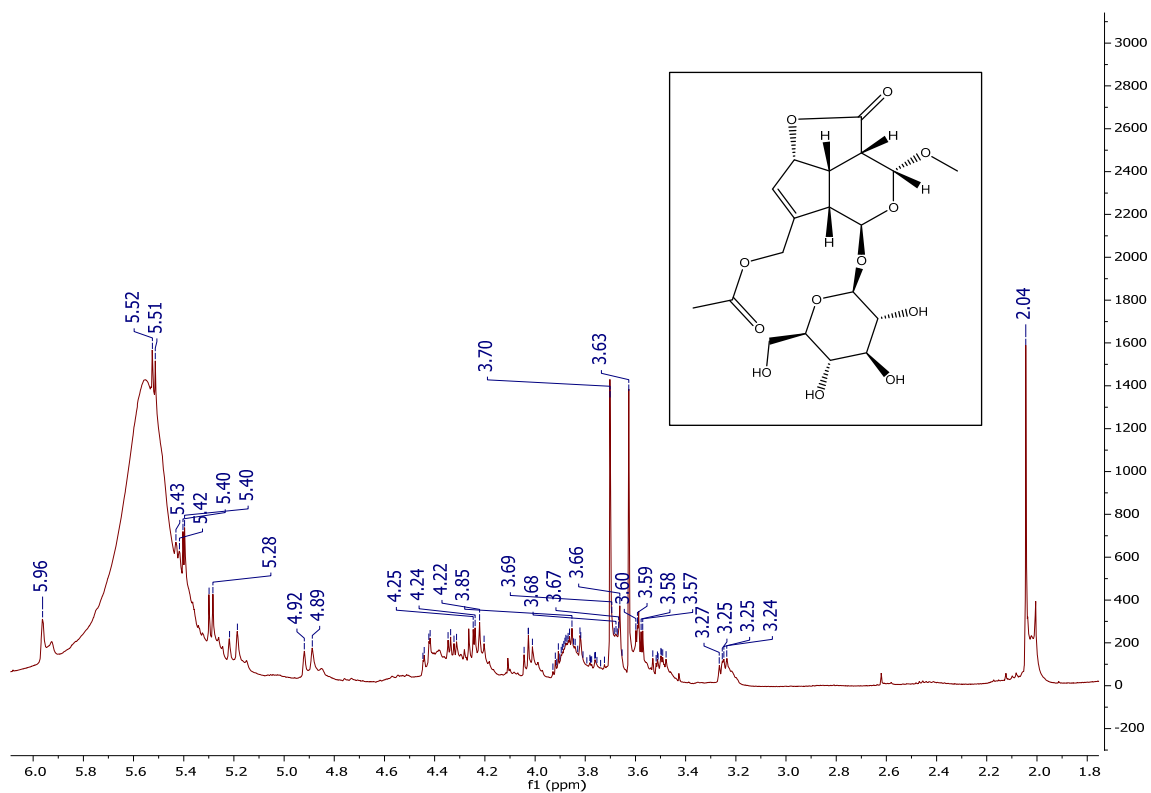


Figure S15. ¹H NMR spectrum of **3** at 500 MHz in pyridine-*d*₅.

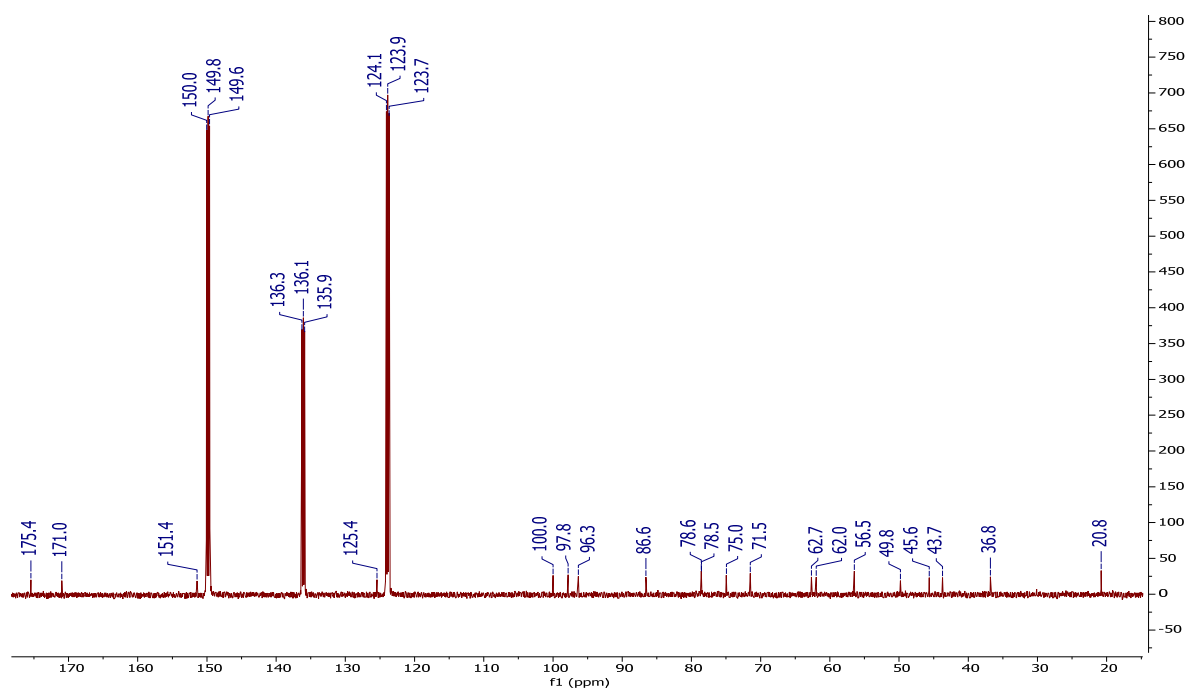


Figure S16. ¹³C NMR spectrum of 3 at 125 MHz in pyridine-*d*₅.

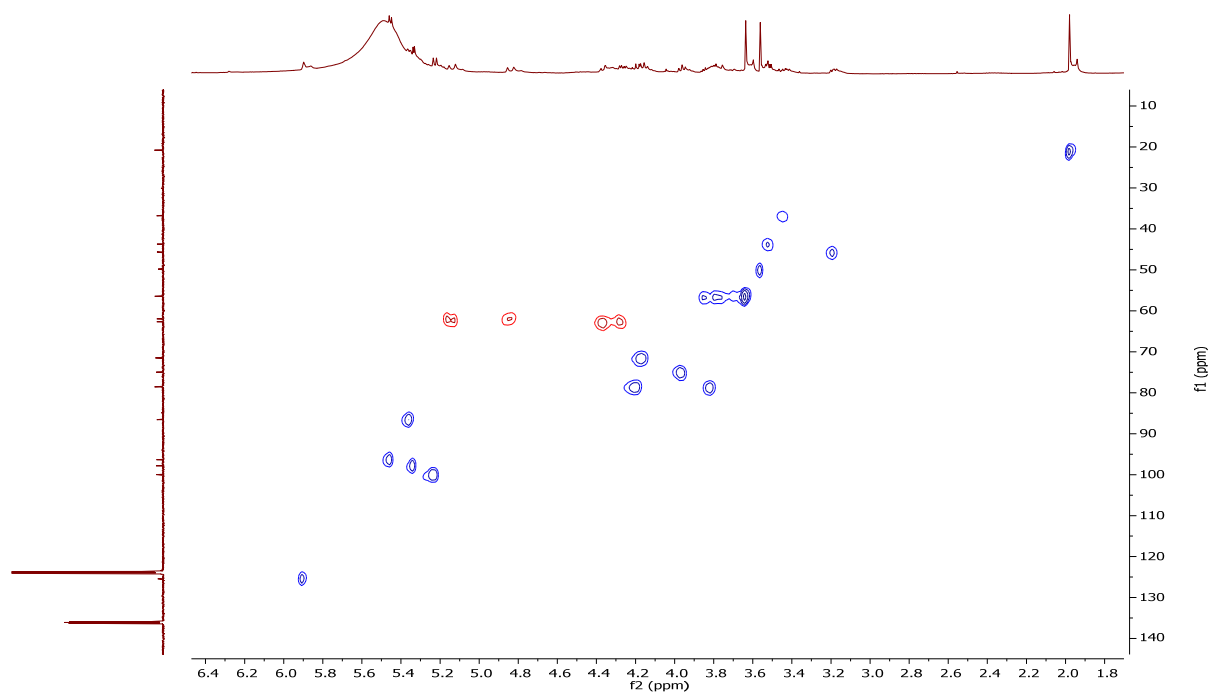


Figure S17. HSQC spectrum of 3 in pyridine-*d*₅.

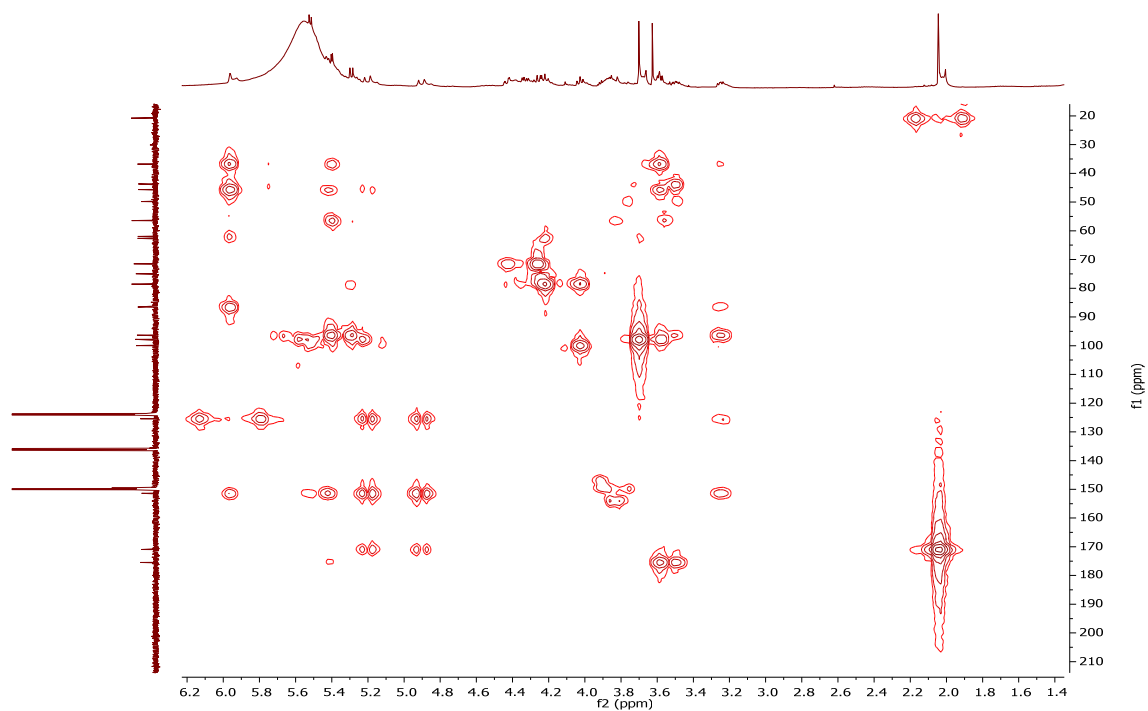


Figure S18. HMBC spectrum of **3** in pyridine-*d*₅.

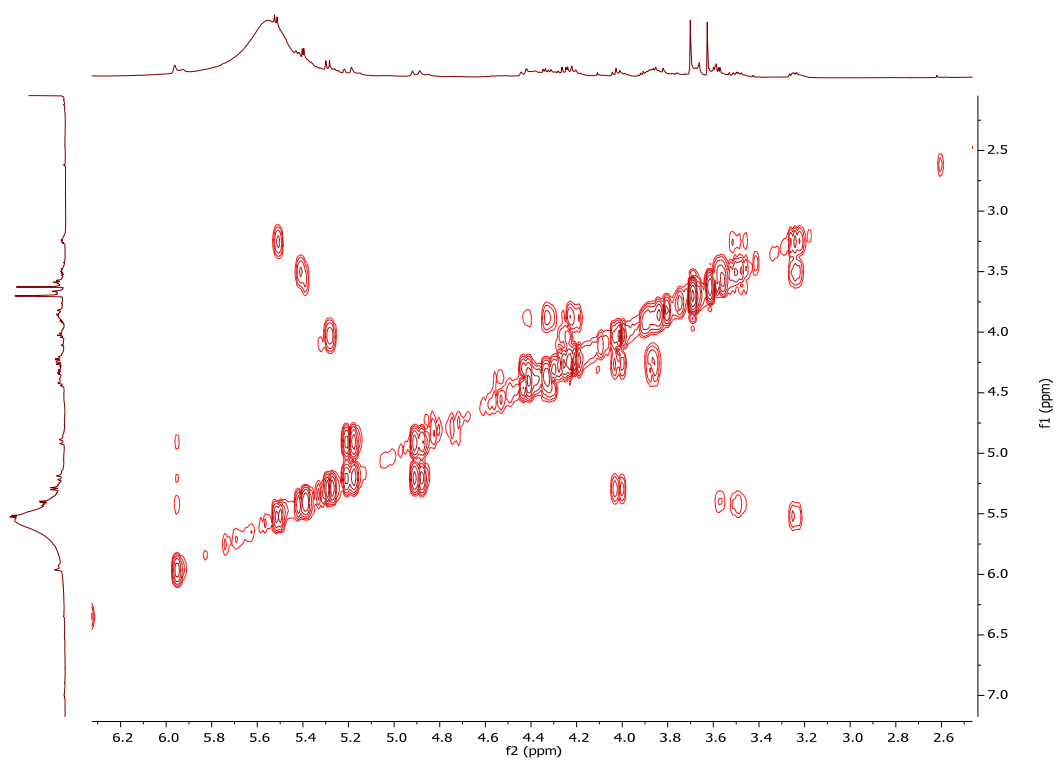


Figure S19. COSY spectrum of **3** in pyridine-*d*₅.

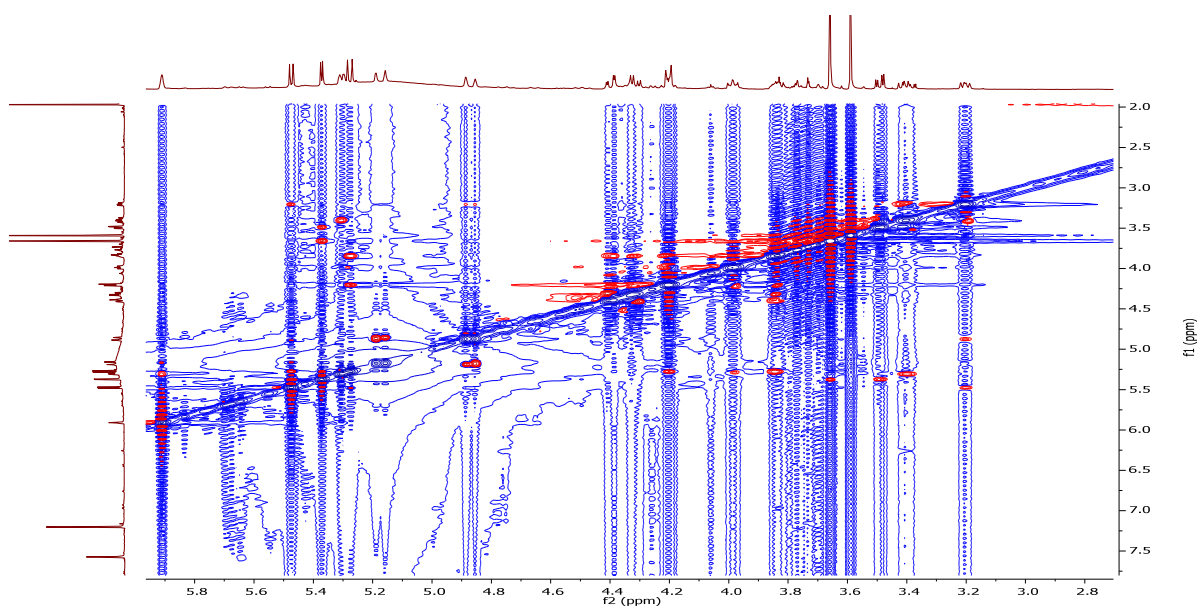


Figure S20. NOESY spectrum of **3** in pyridine- d_5 .

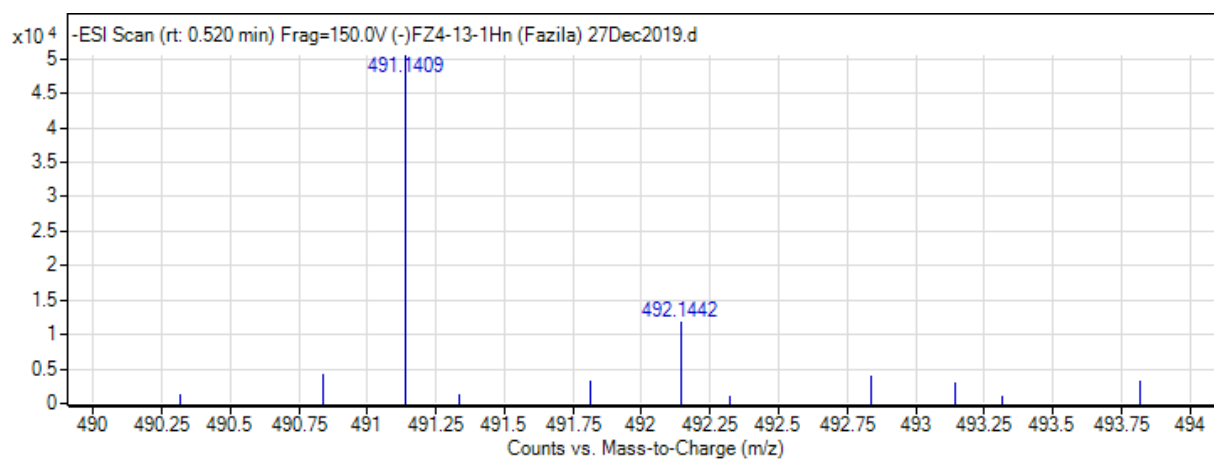


Figure S21. HRESIMS of **3**.

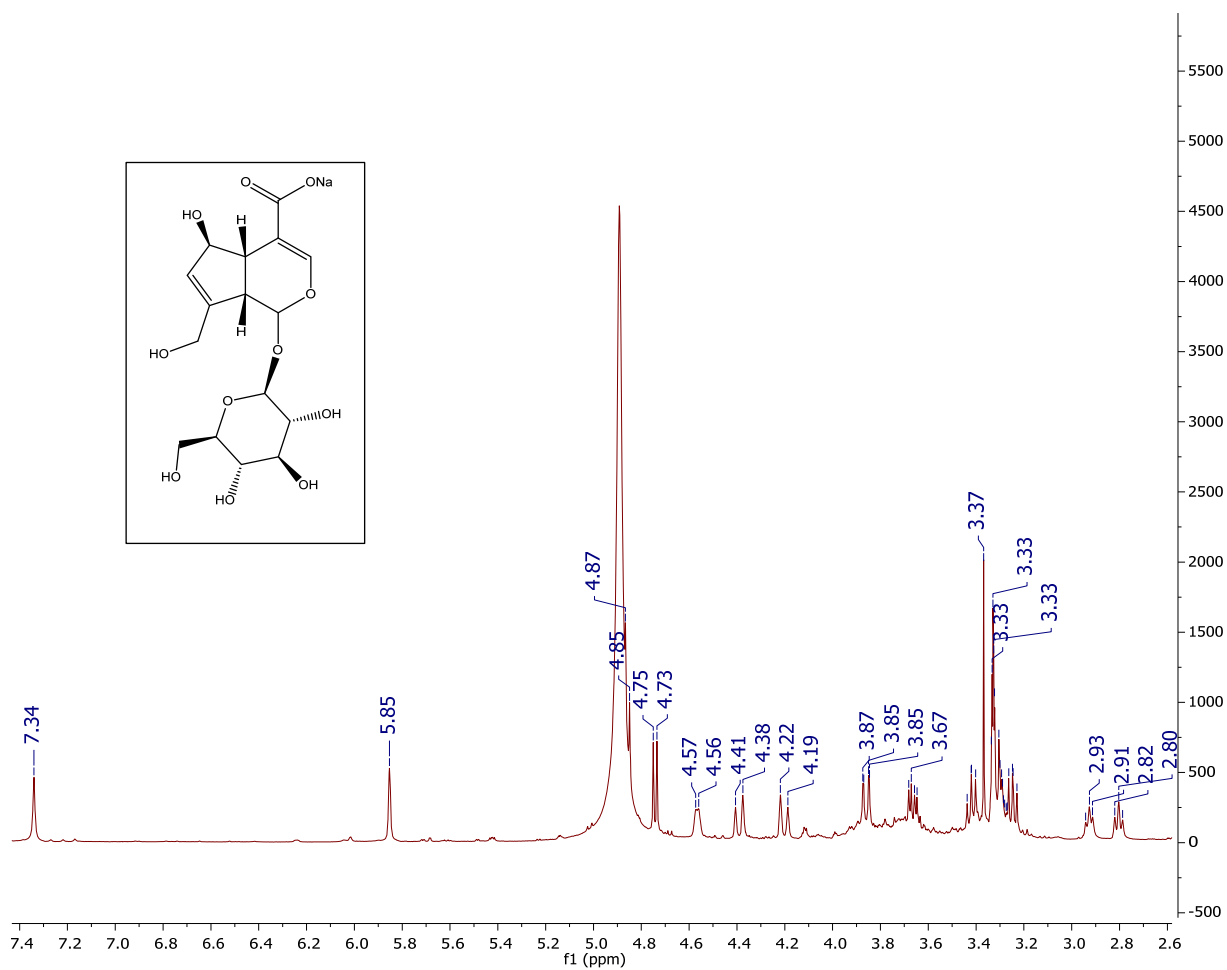


Figure S22. ¹H NMR spectrum of **4** in CD₃OD.

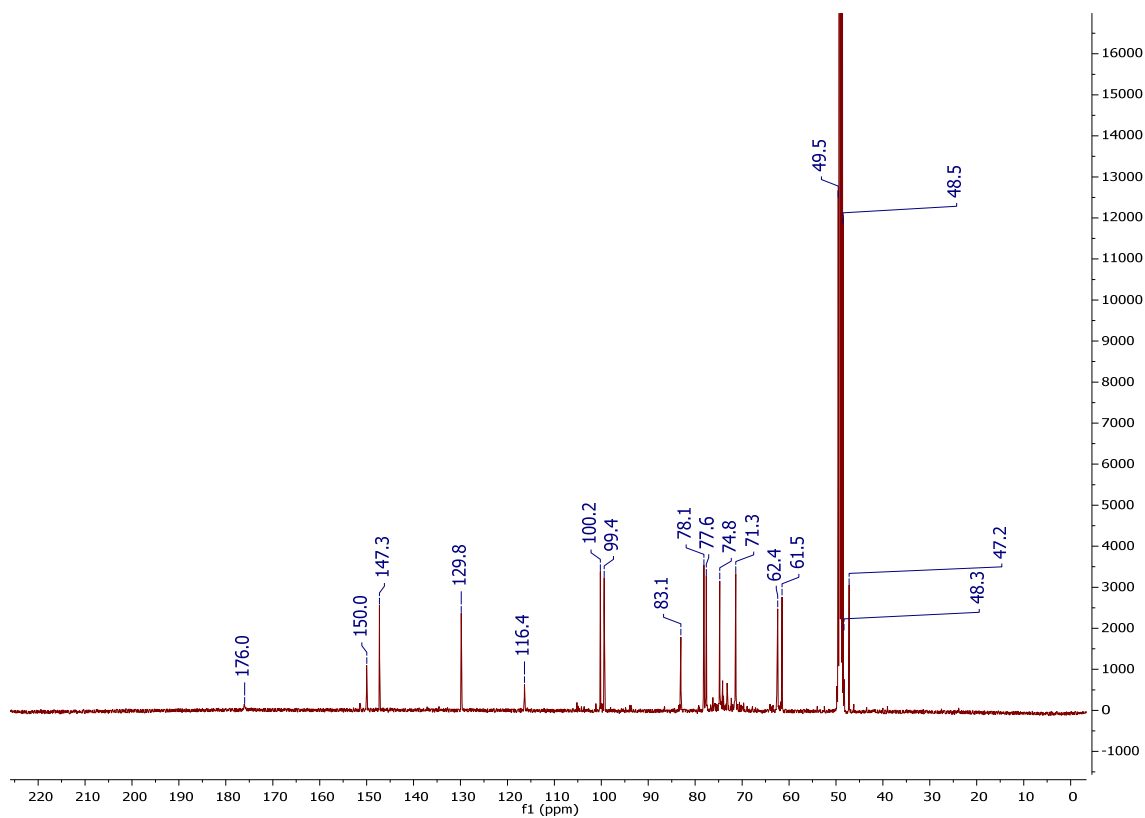


Figure S23. ¹³C NMR spectrum of **4** in CD₃OD.

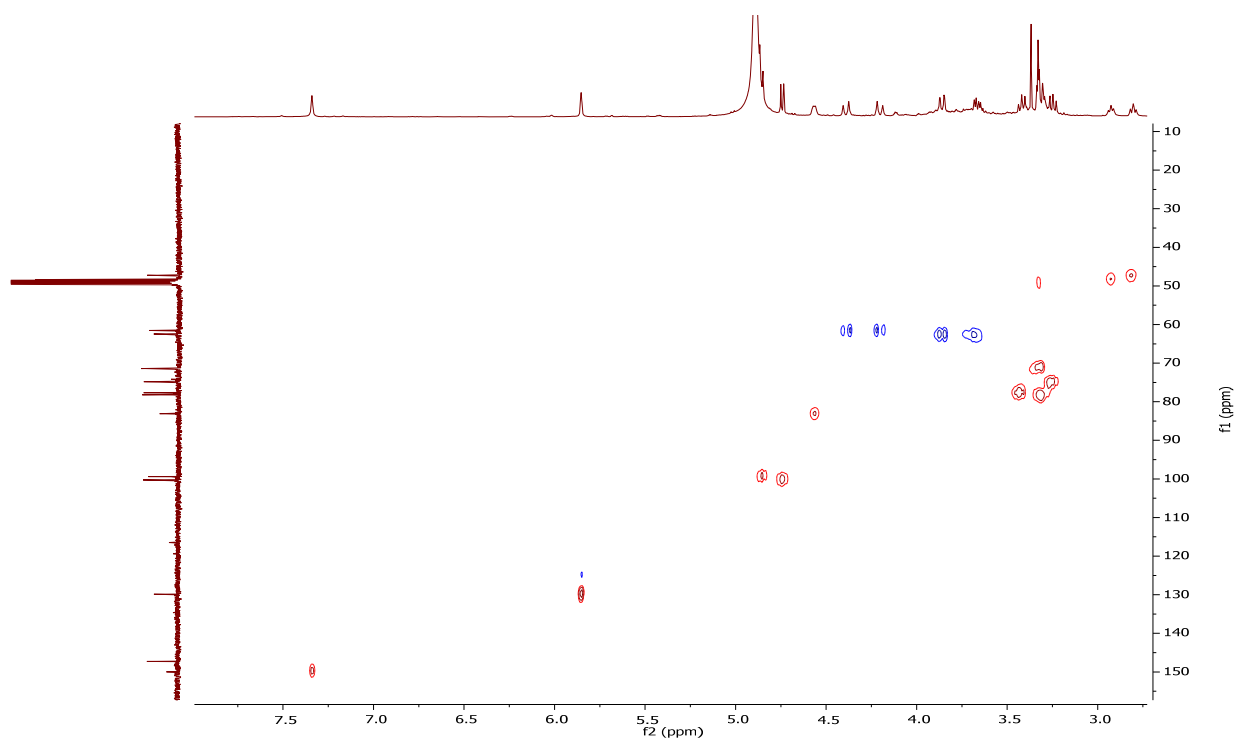


Figure S24. HSQC spectrum of **4** in CD₃OD.

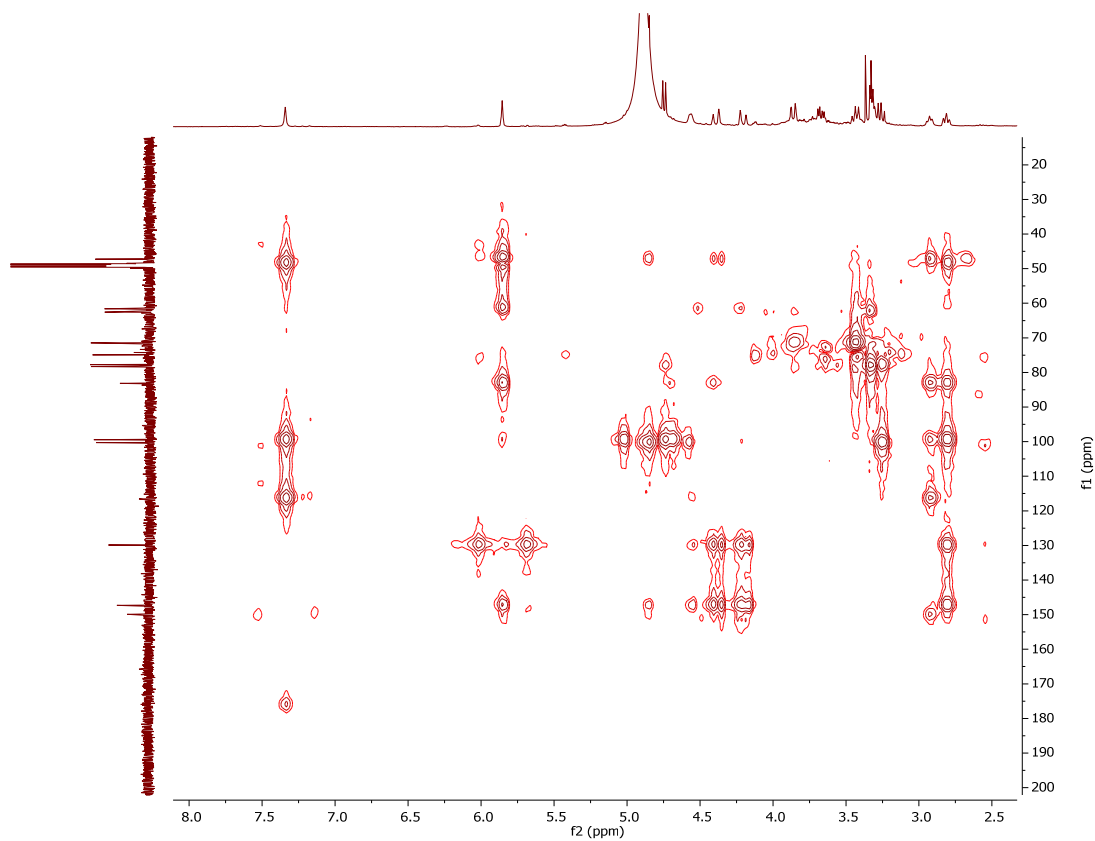


Figure S25. HMBC spectrum of **4** in CD₃OD.

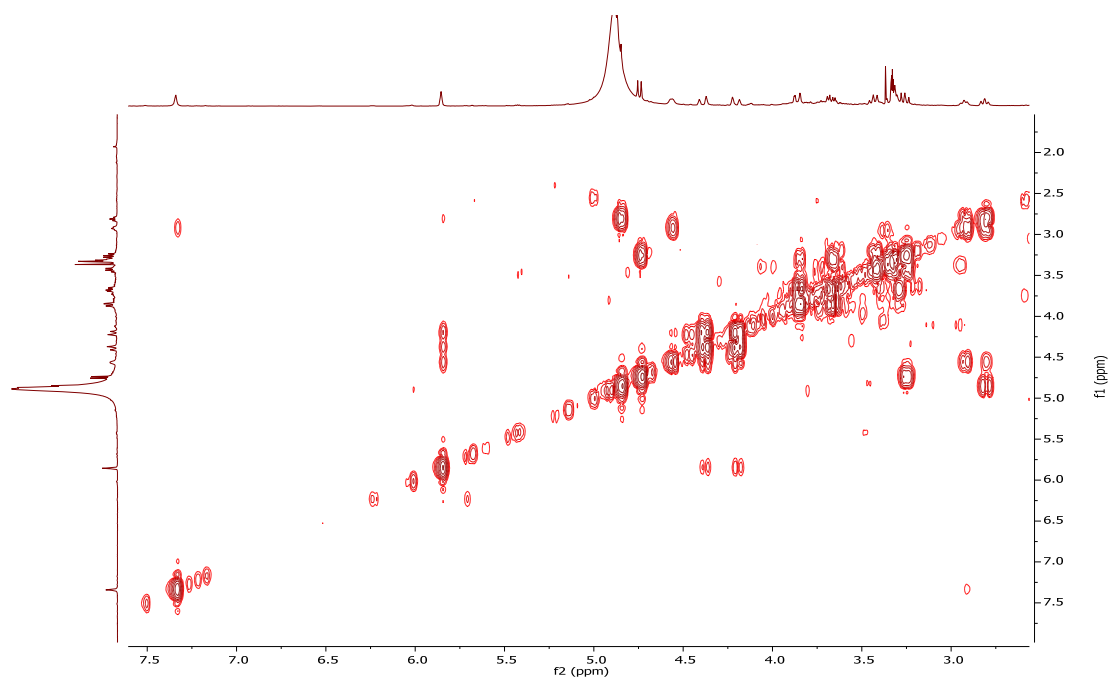


Figure S26. COSY spectrum of 4 in CD₃OD.

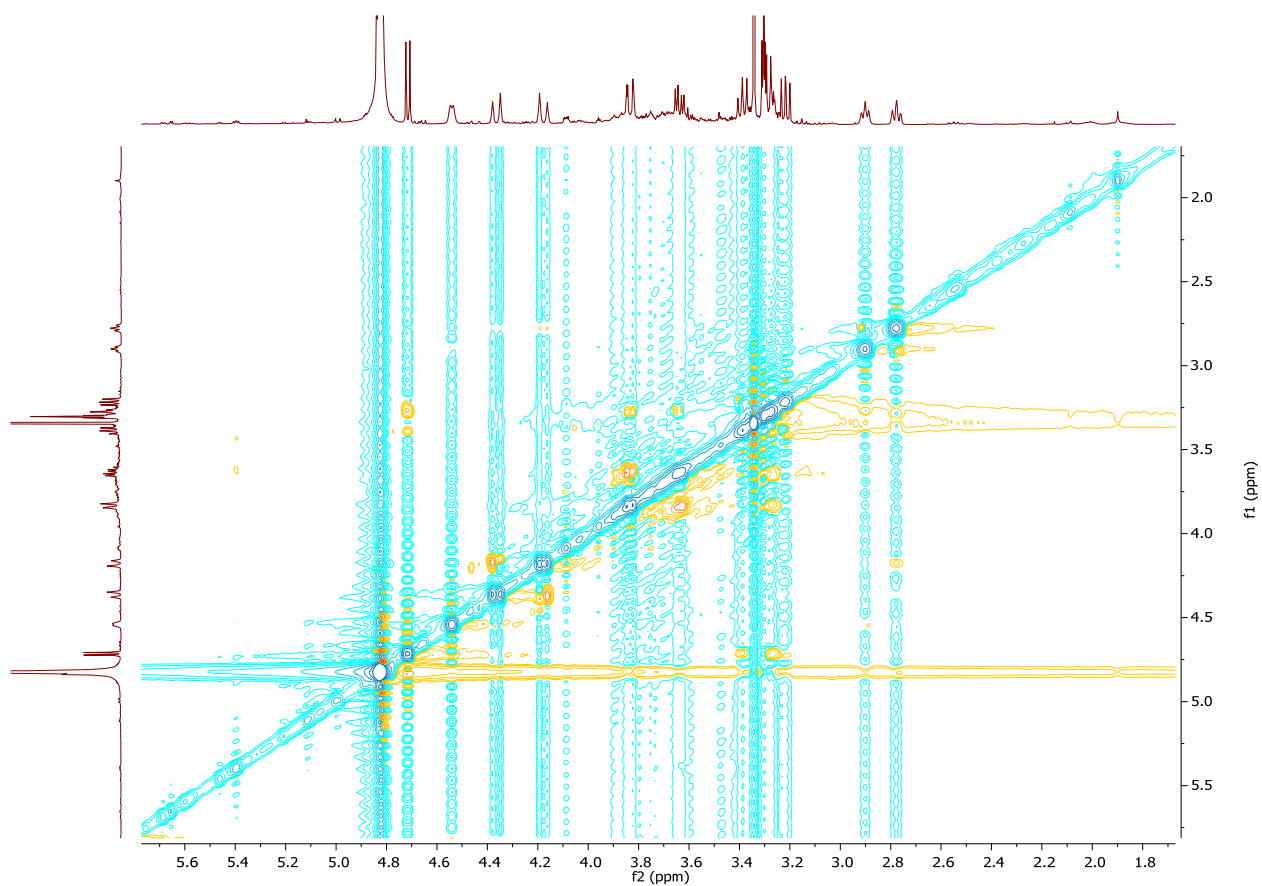


Figure S27. NOESY spectrum of 4 in CD₃OD.

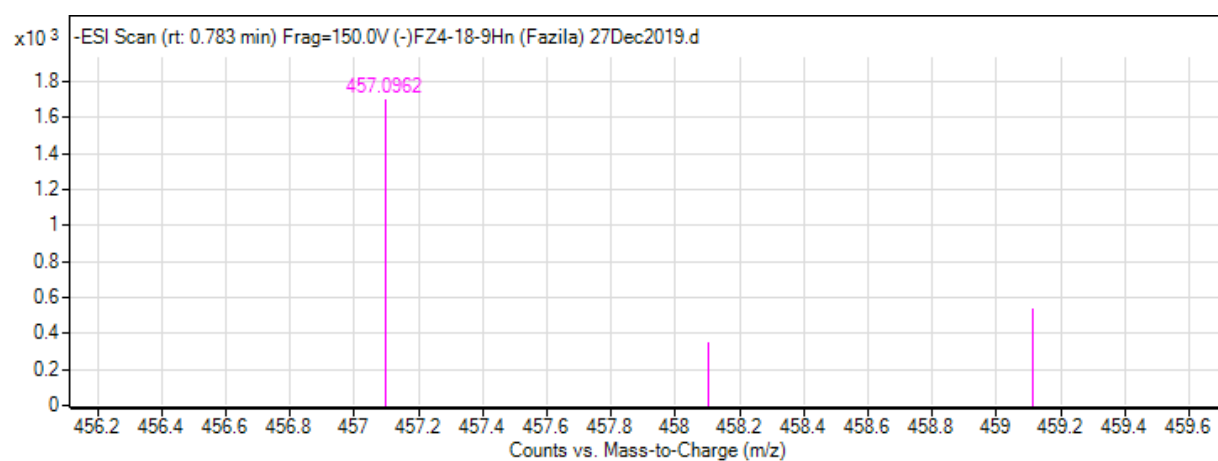


Figure S28. HRESIMS of 4.