New 3-Hydroxyquinaldic Acid Derivatives from Cultures of the Marine Derived Actinomycete *Streptomyces cyaneofuscatus* M-157

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† These authors contributed equally to this work.

List of supplementary materials

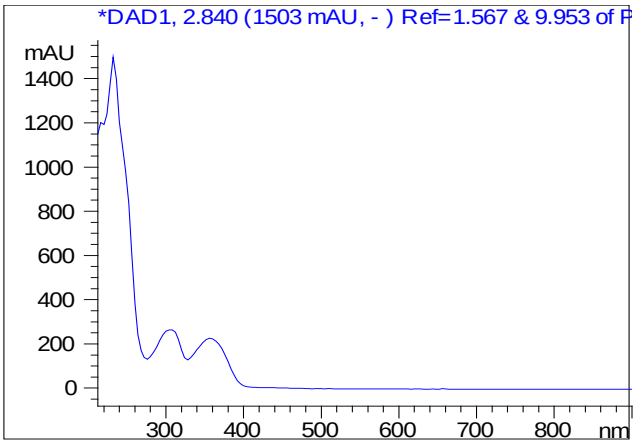


Figure S1. UV spectrum of compound **1**.

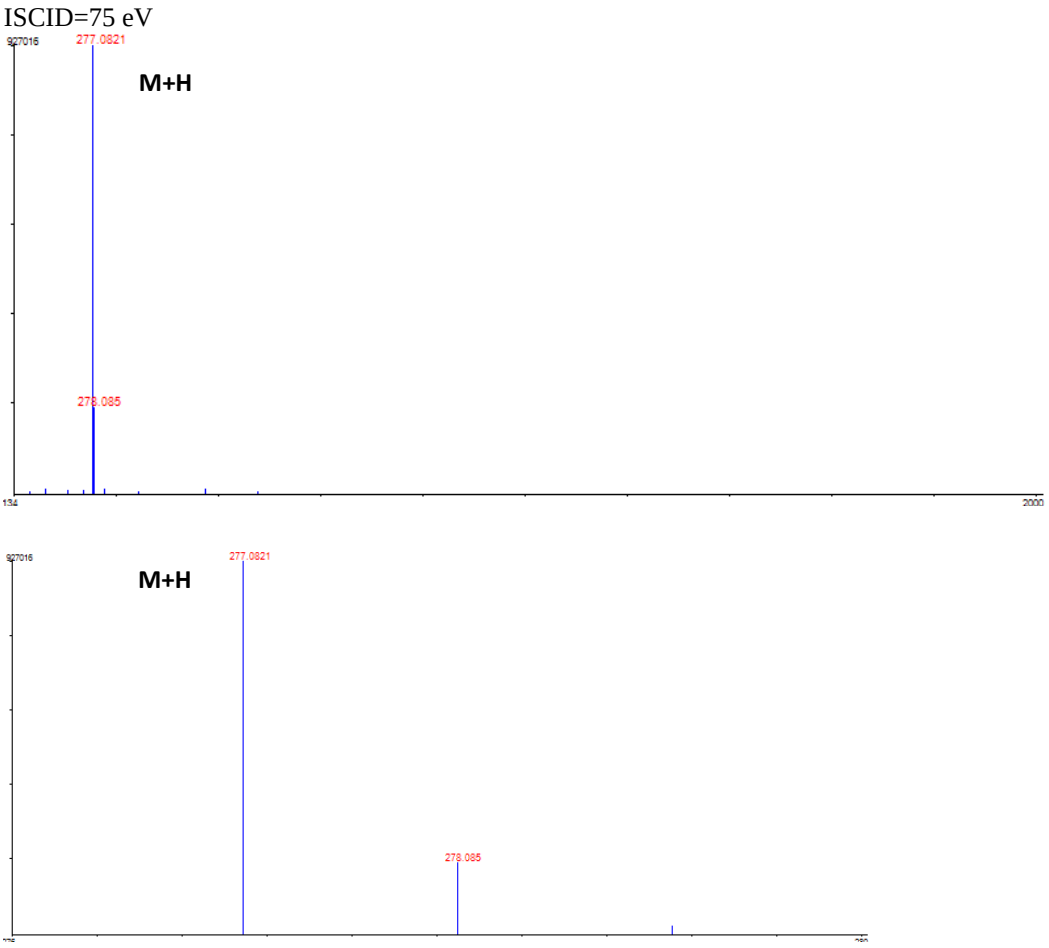


Figure S2. ESI TOF spectrum of compound **1**.

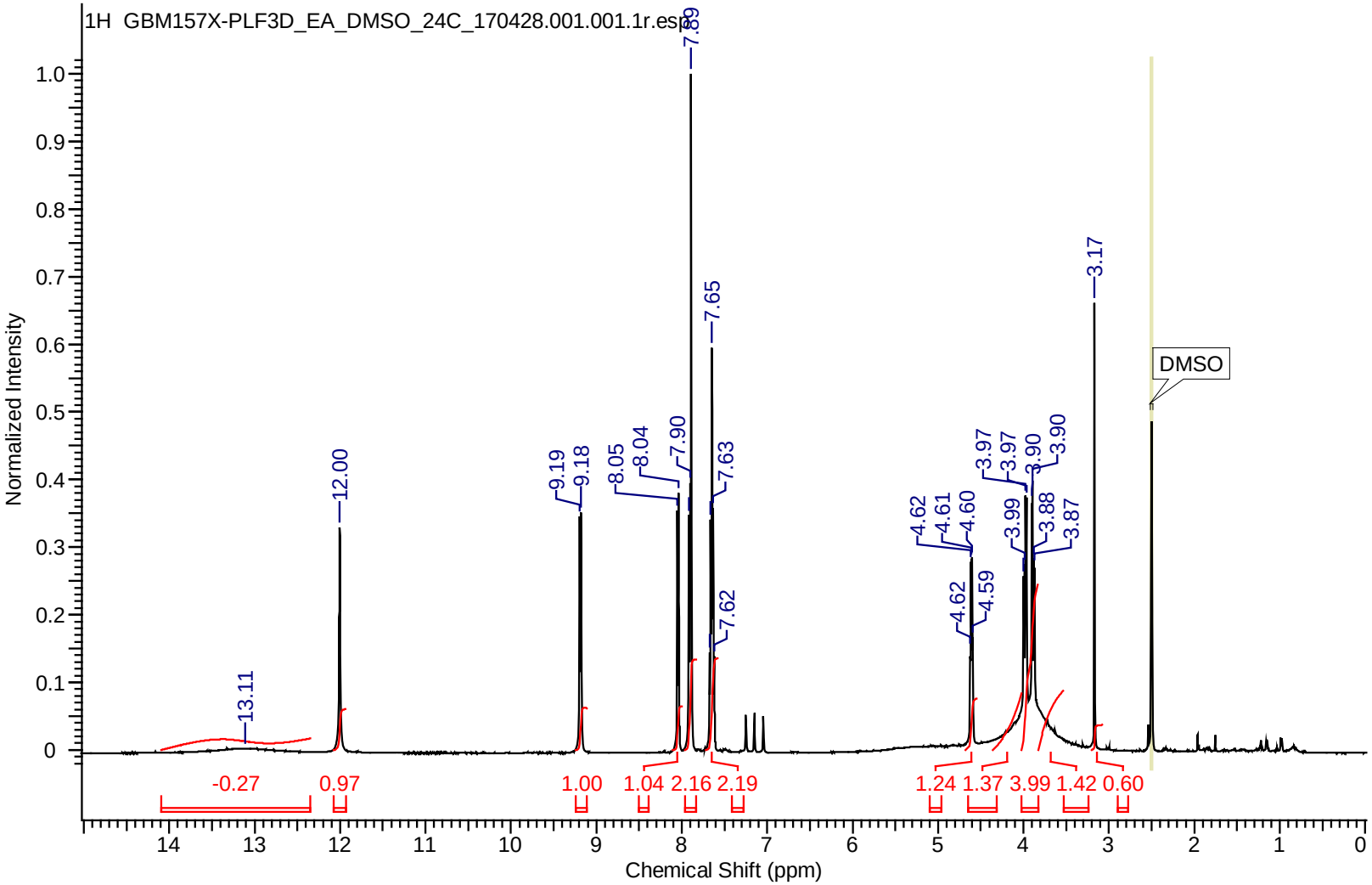


Figure S3. ^{1}H NMR (DMSO-*d6*, 500 MHz) of compound **1**.

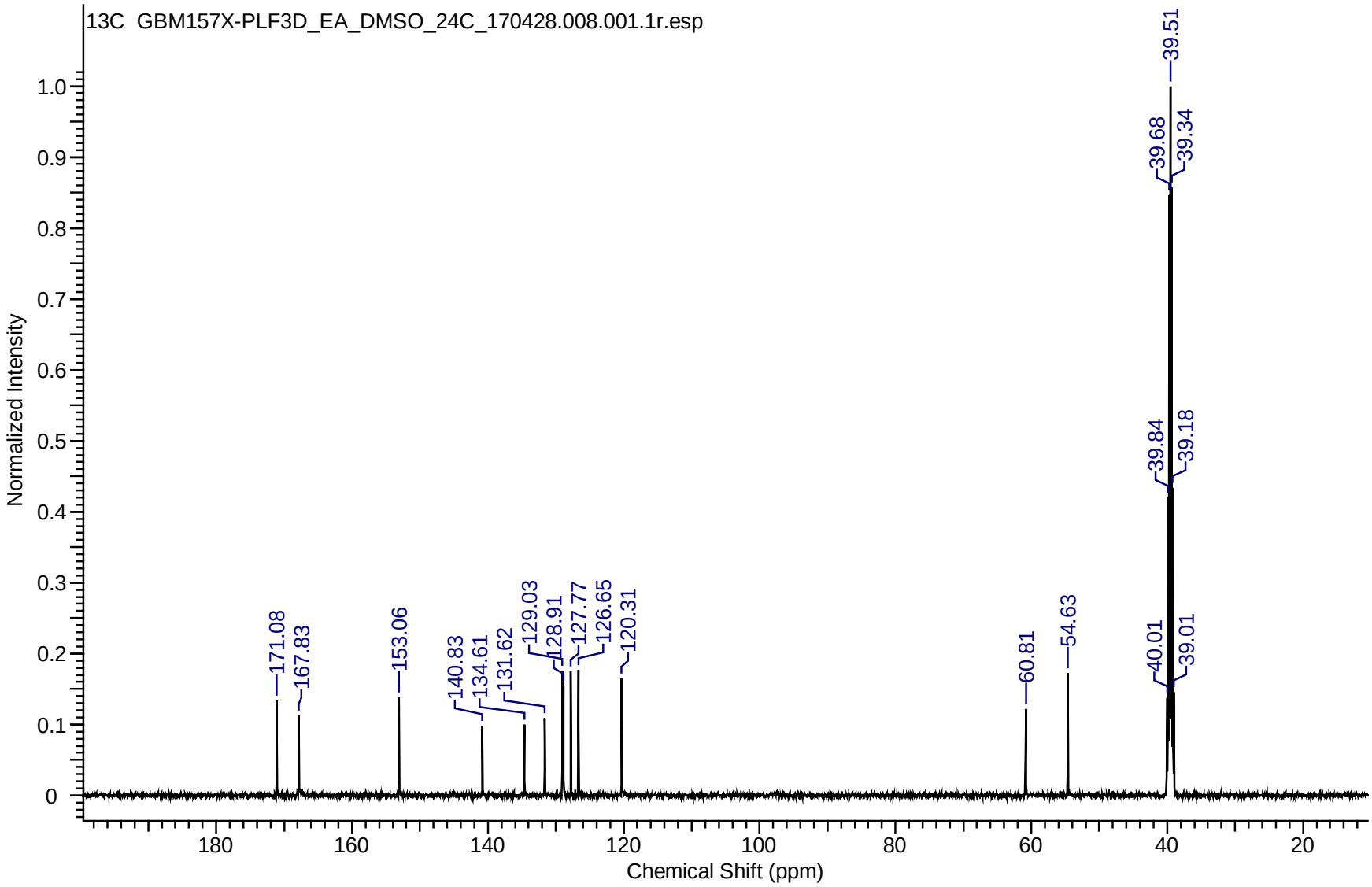


Figure S4. ^{13}C NMR (DMSO-*d6*, 125 MHz) of compound **1**.

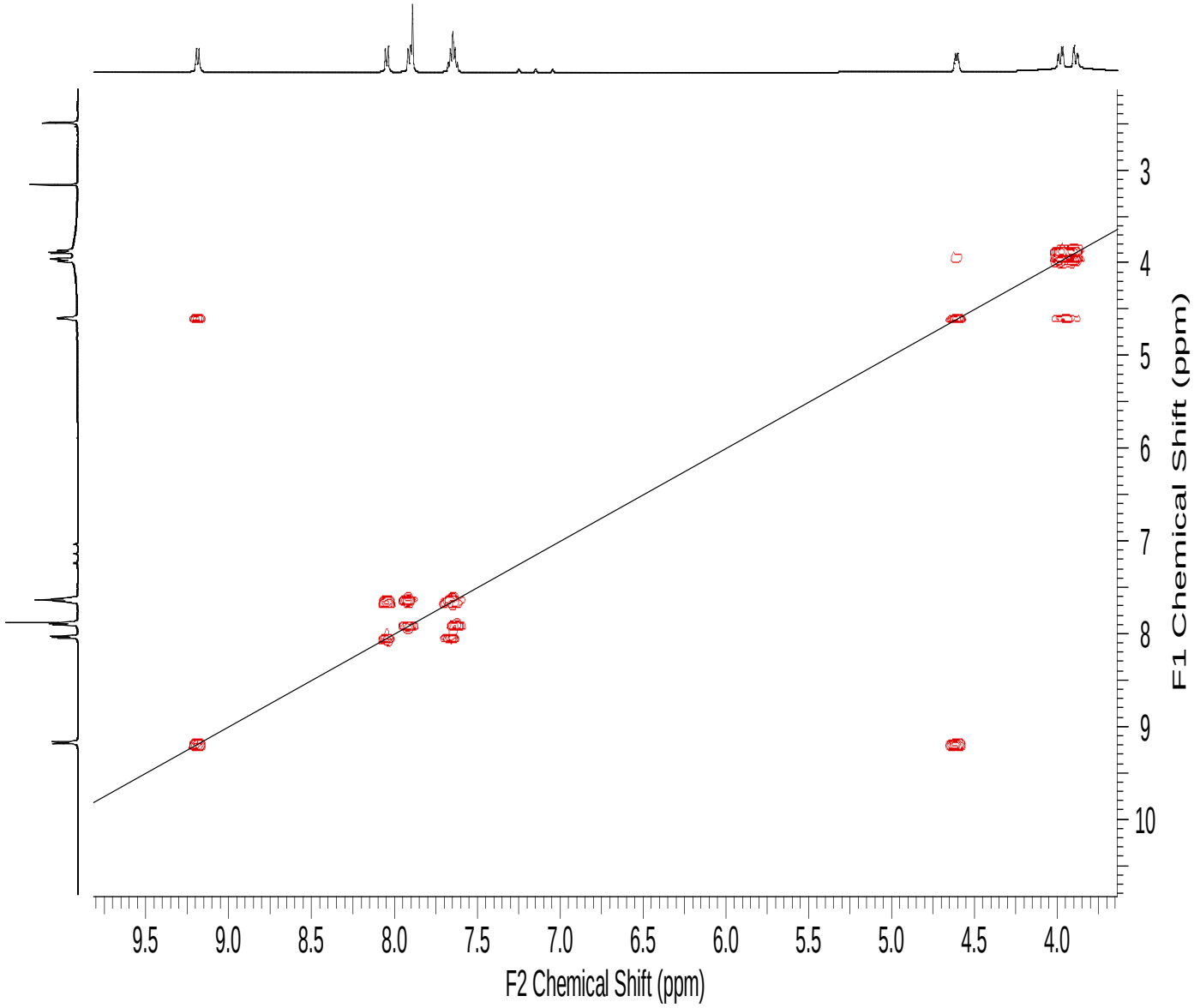


Figure S5. COSY spectrum of compound **1**.

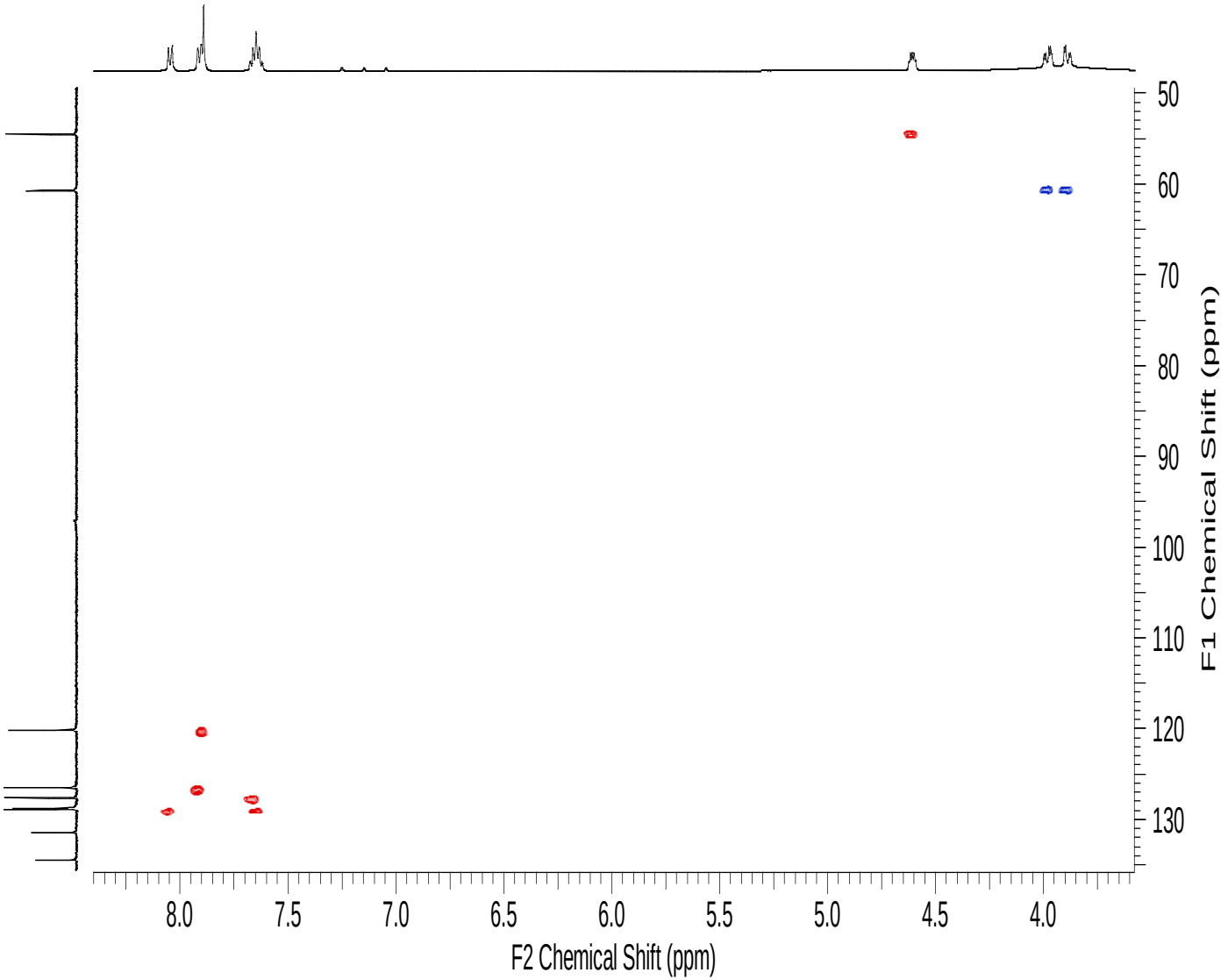


Figure S6. HSQC spectrum of compound **1**.

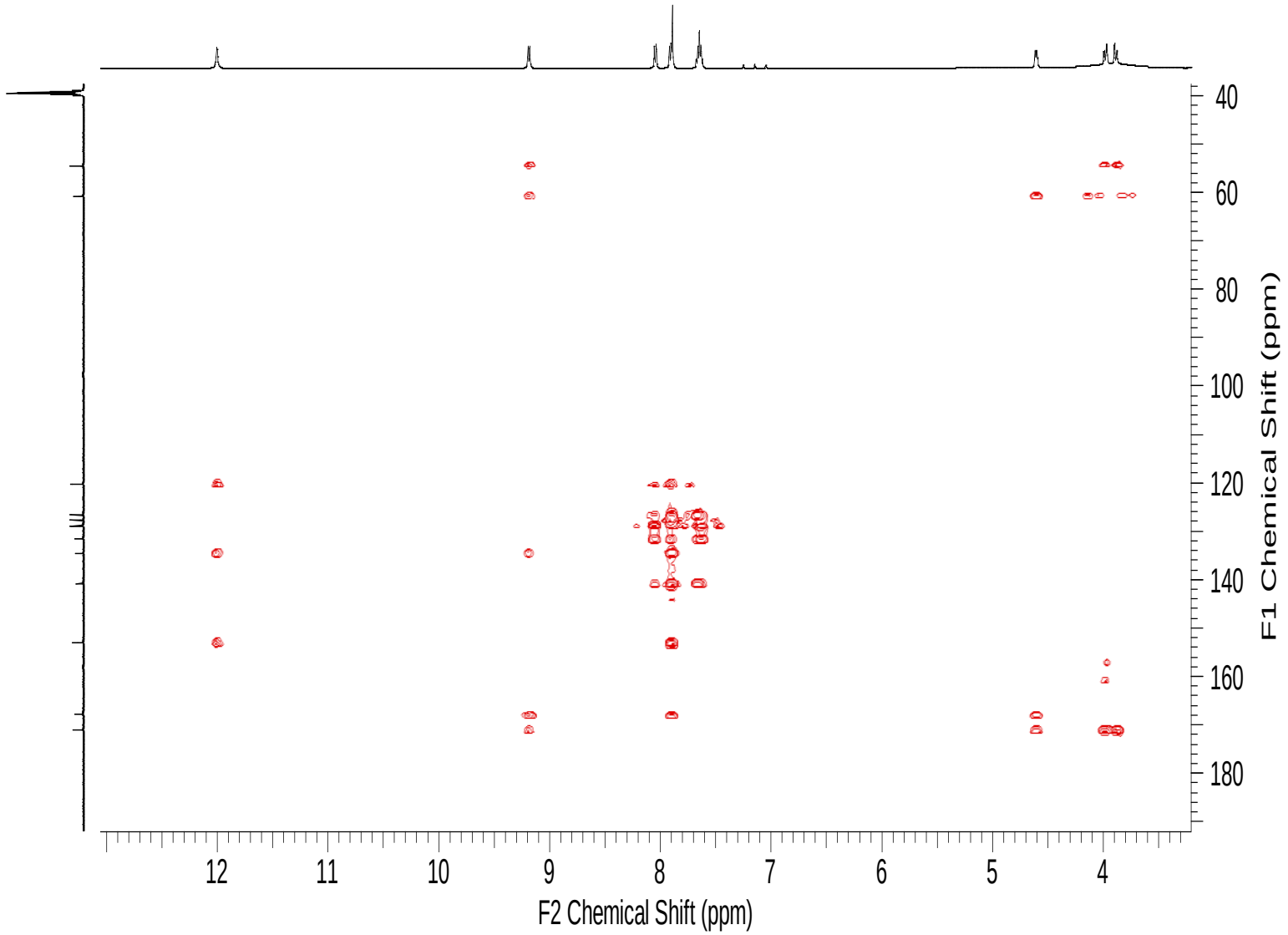


Figure S7. HMBC spectrum of compound **1**.

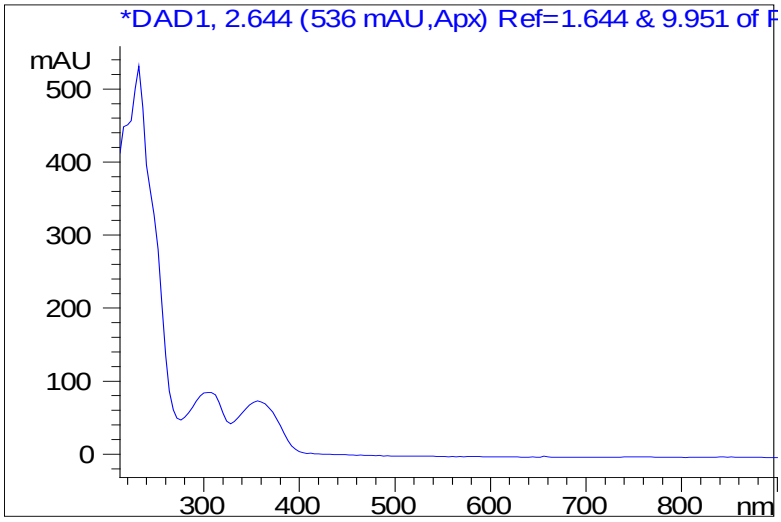


Figure S8. UV spectrum of compound **2**.

ISCID=75 eV

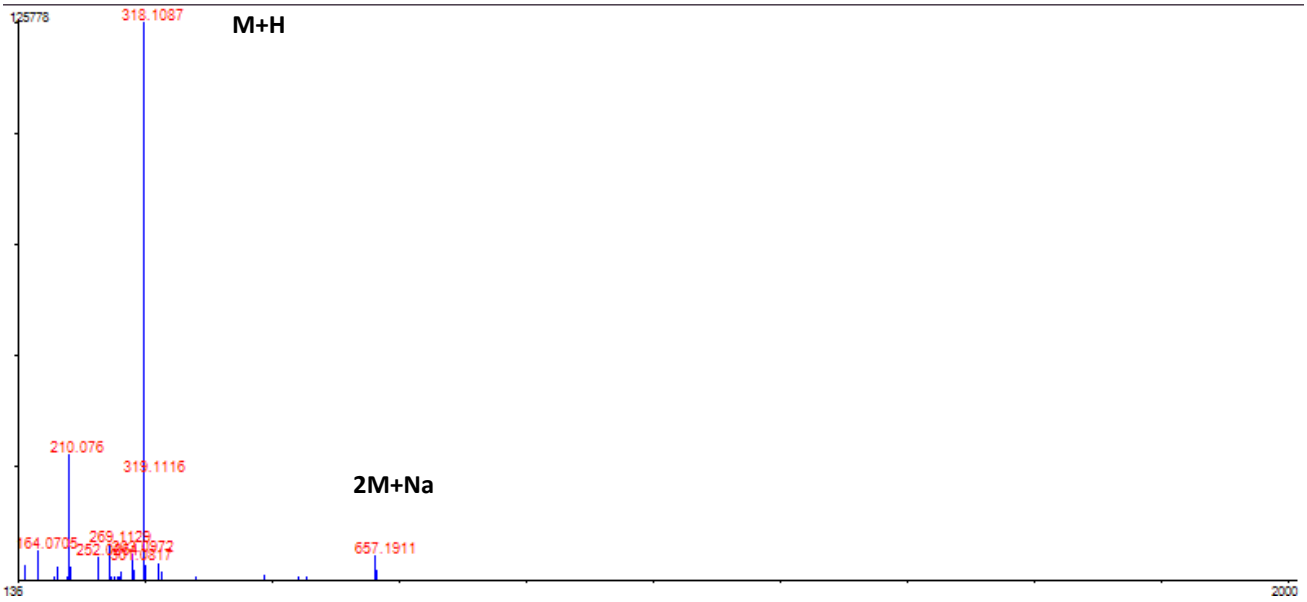


Figure S9. ESI TOF spectrum of compound **2**.

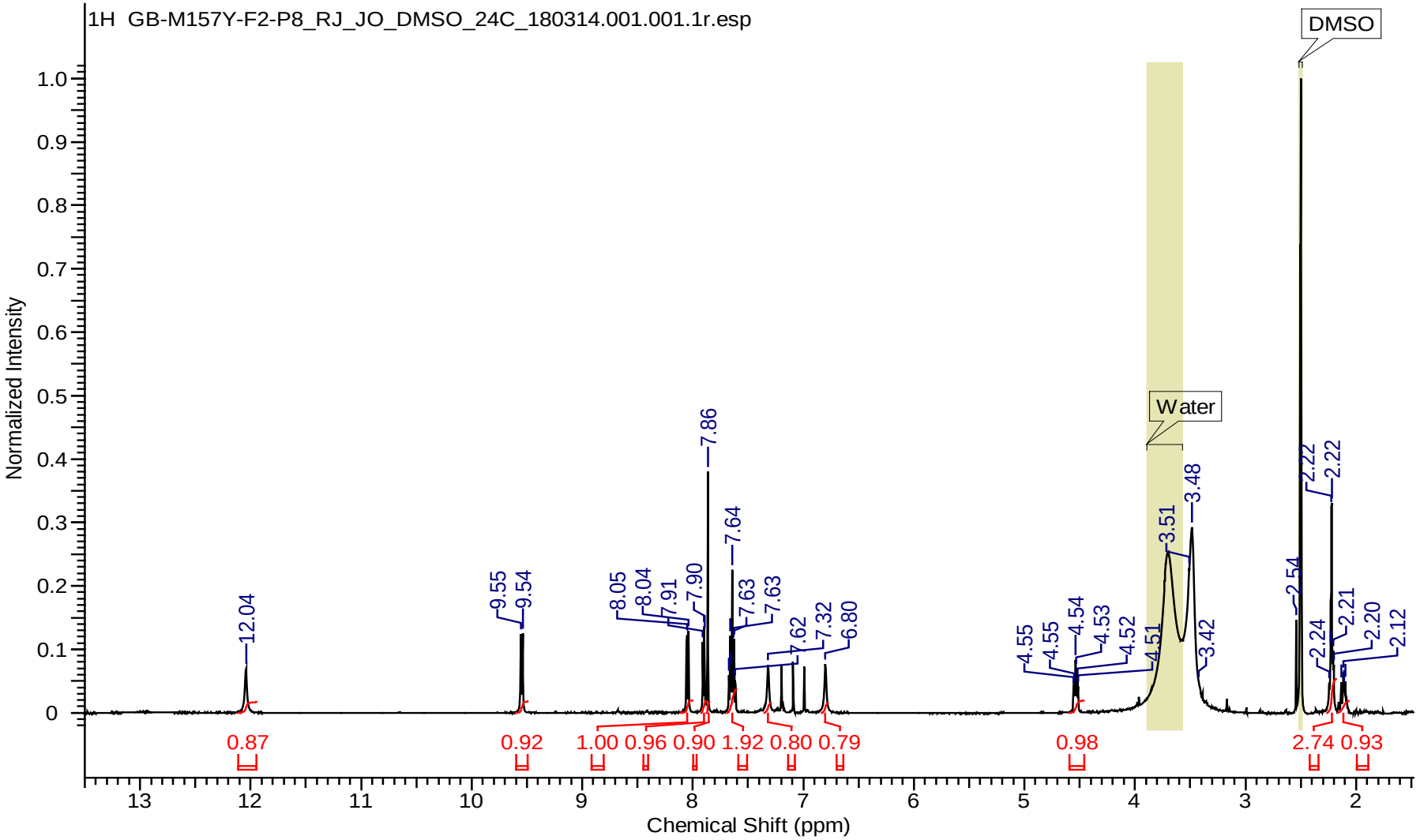


Figure S10. ^{1}H NMR (DMSO-*d6*, 500 MHz) of compound **2**.

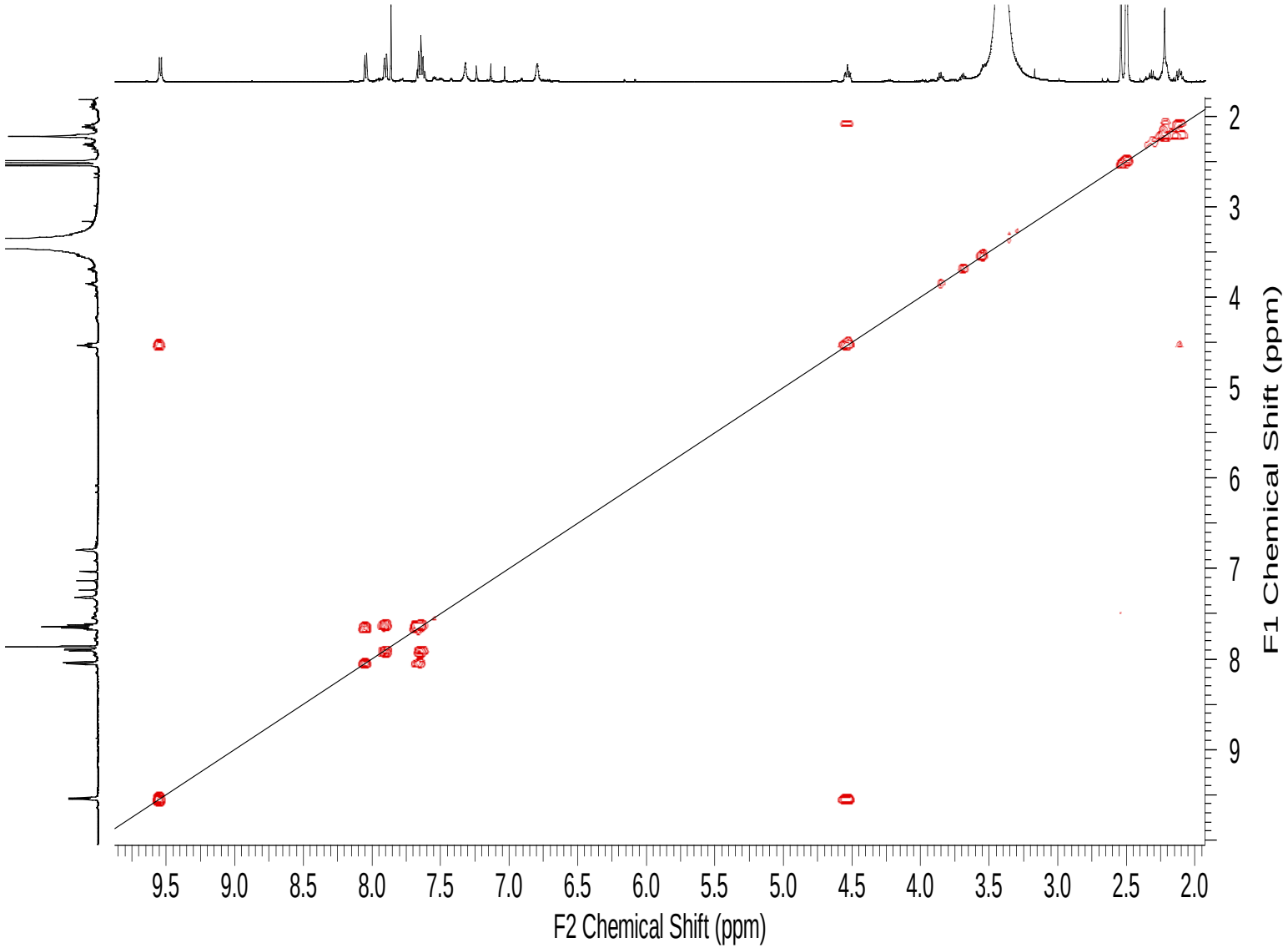


Figure S11. COSY spectrum of compound **2**.

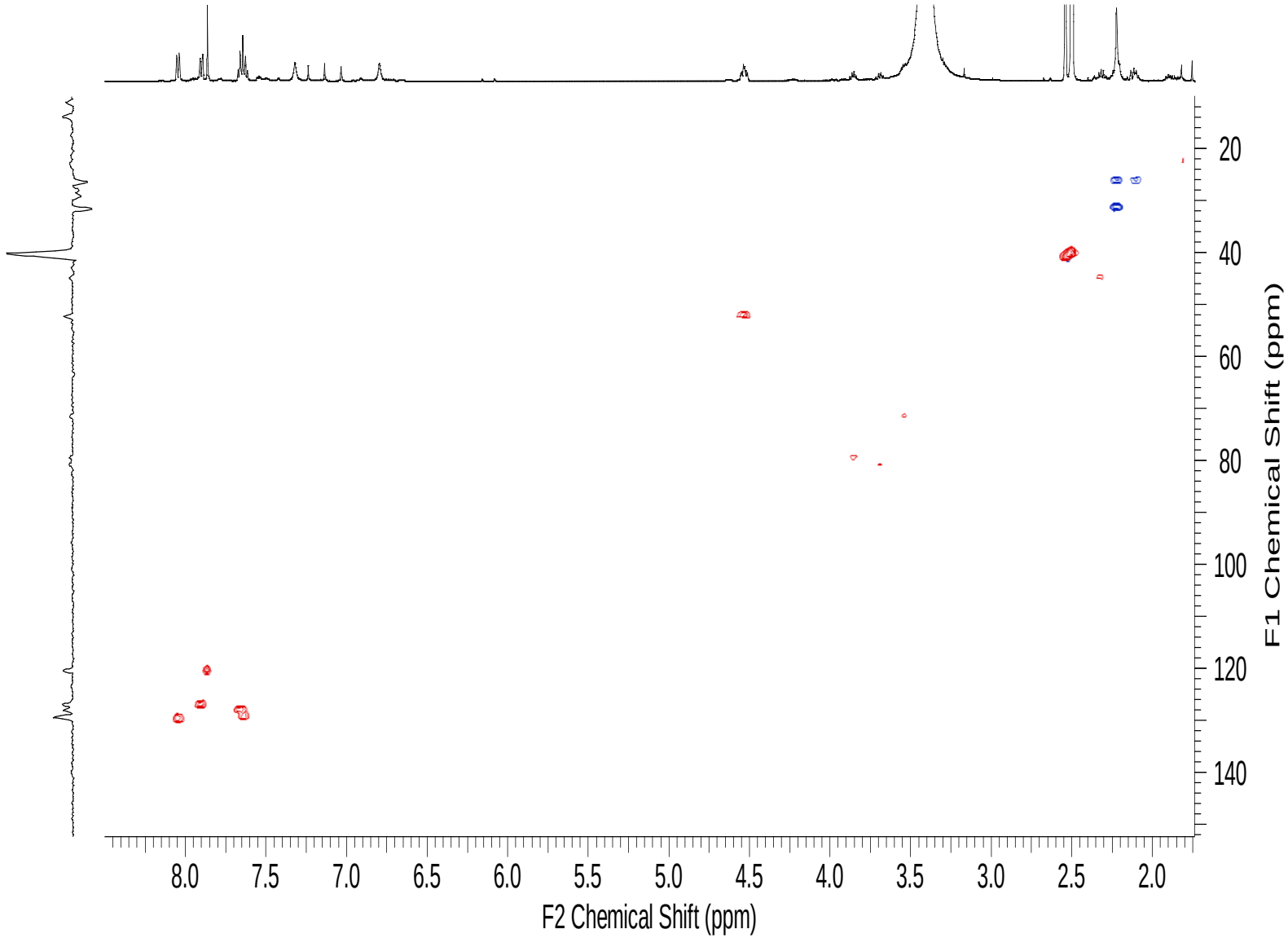


Figure S12. HSQC spectrum of compound **2**.

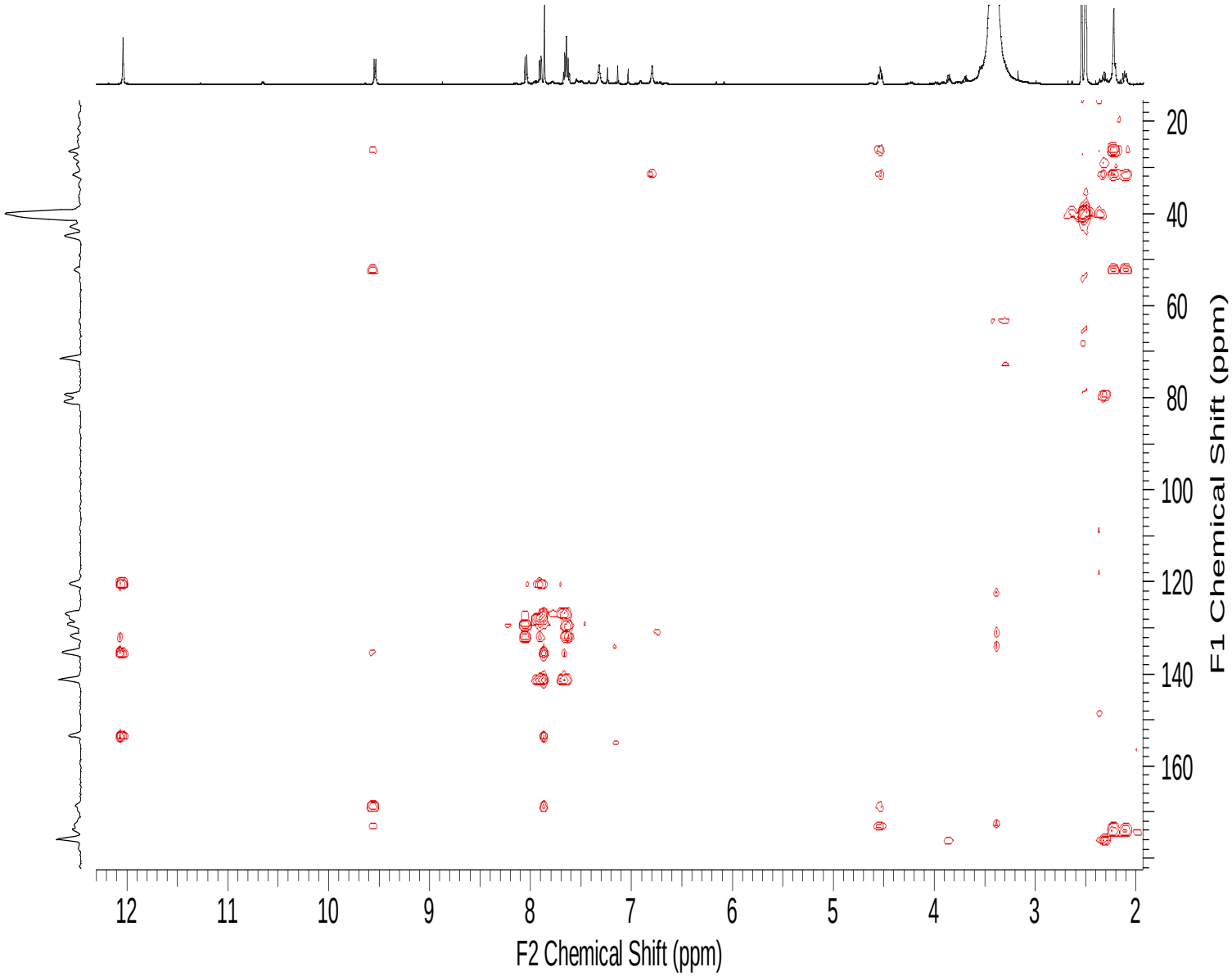


Figure S13. HMBC spectrum of compound **2**.

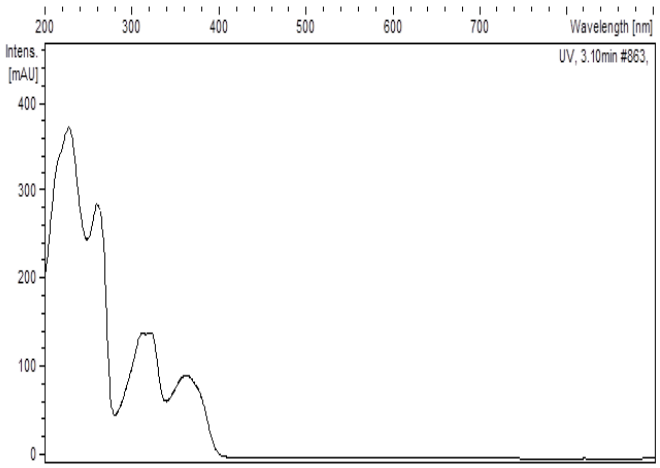


Figure S14. UV spectrum of compound **3**.

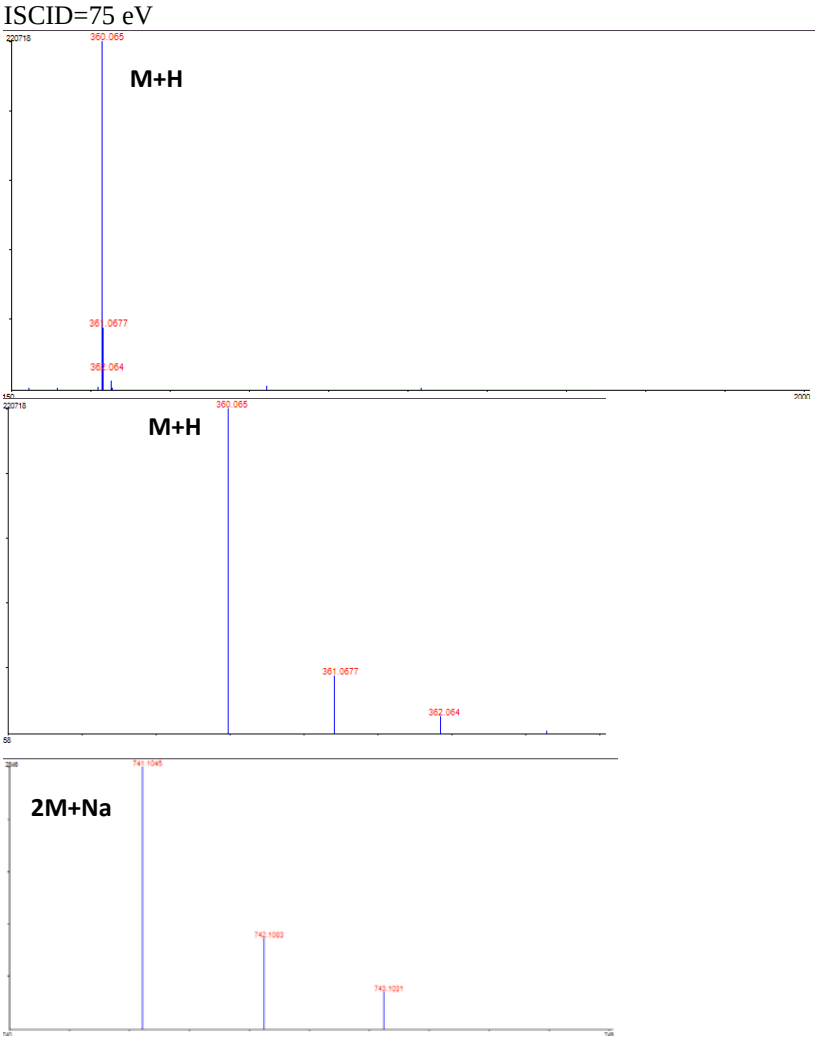


Figure S15. ESI TOF spectrum of compound **3**.

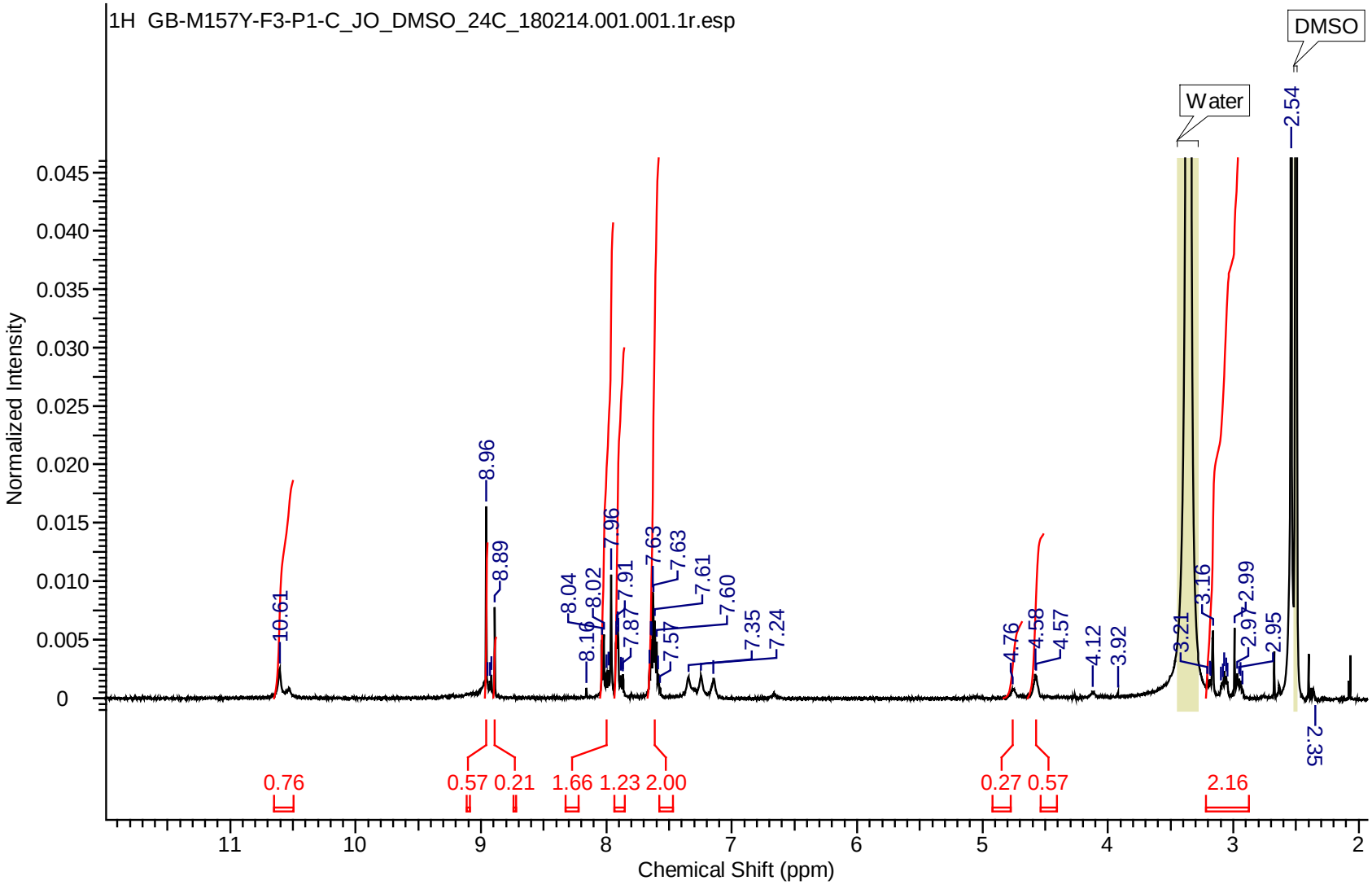


Figure S16. ^{1}H NMR (DMSO-*d6*, 500 MHz) of compound **3**.

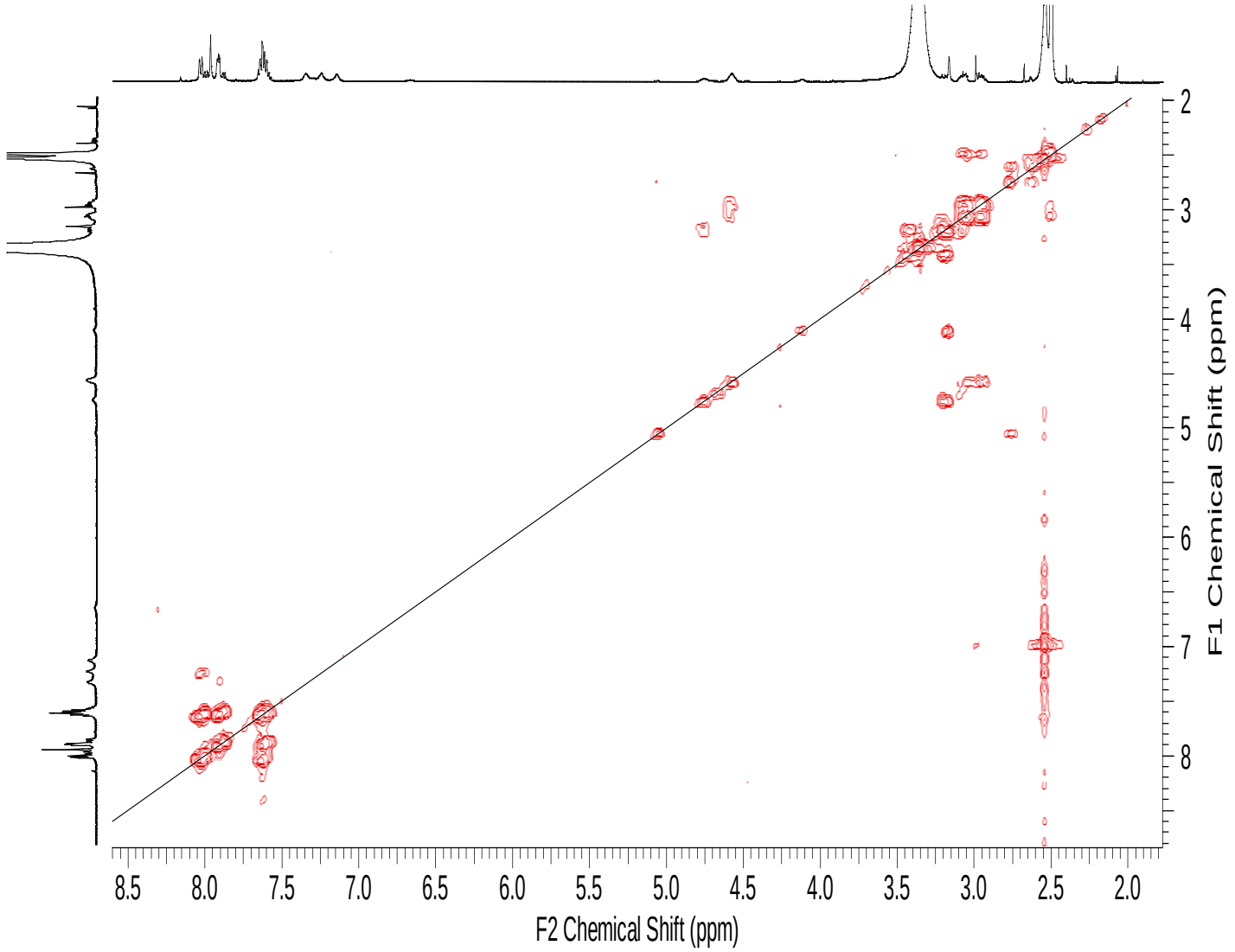


Figure S17. COSY spectrum of compound **3**.

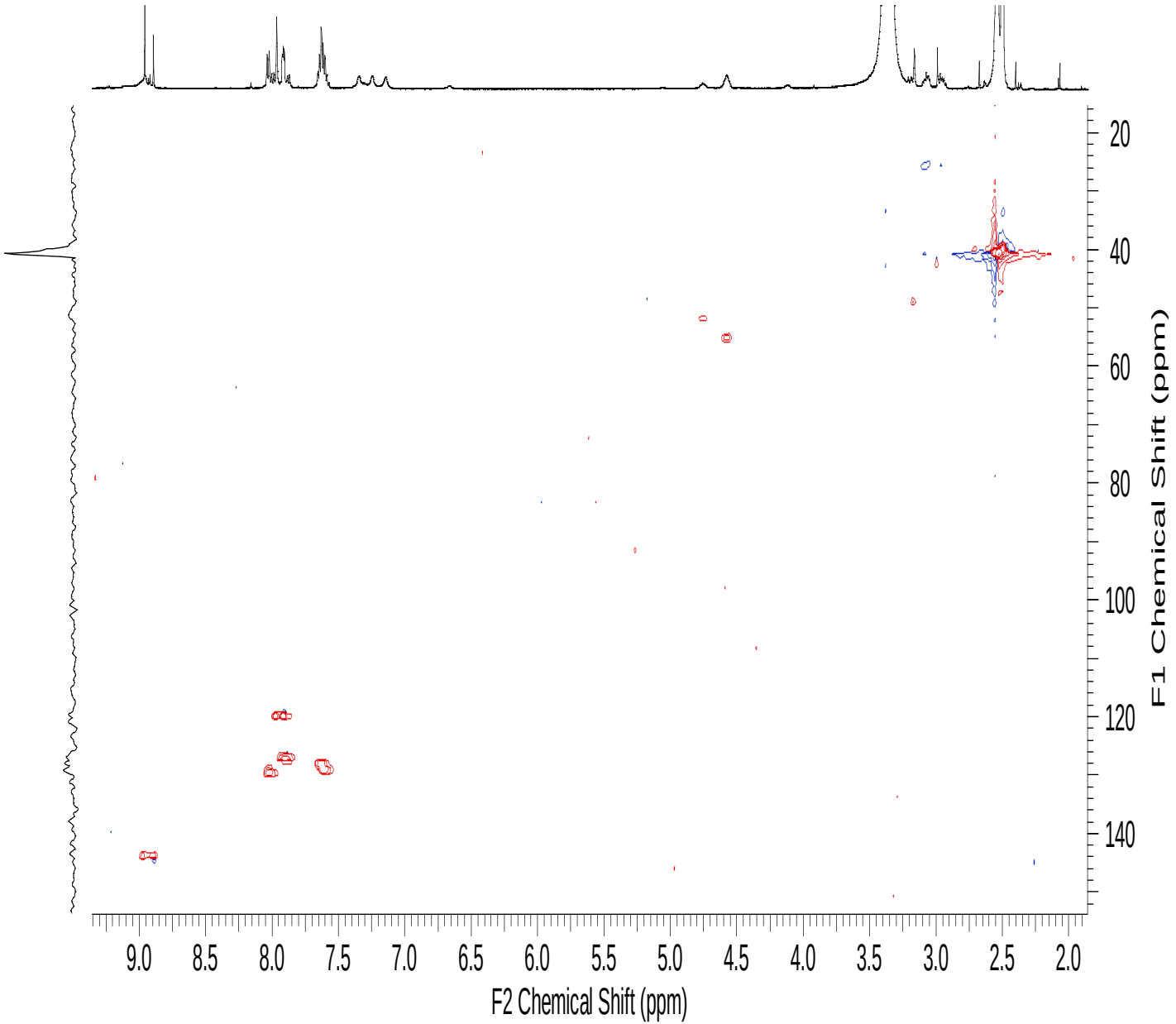


Figure S18. HSQC spectrum of compound **3**.

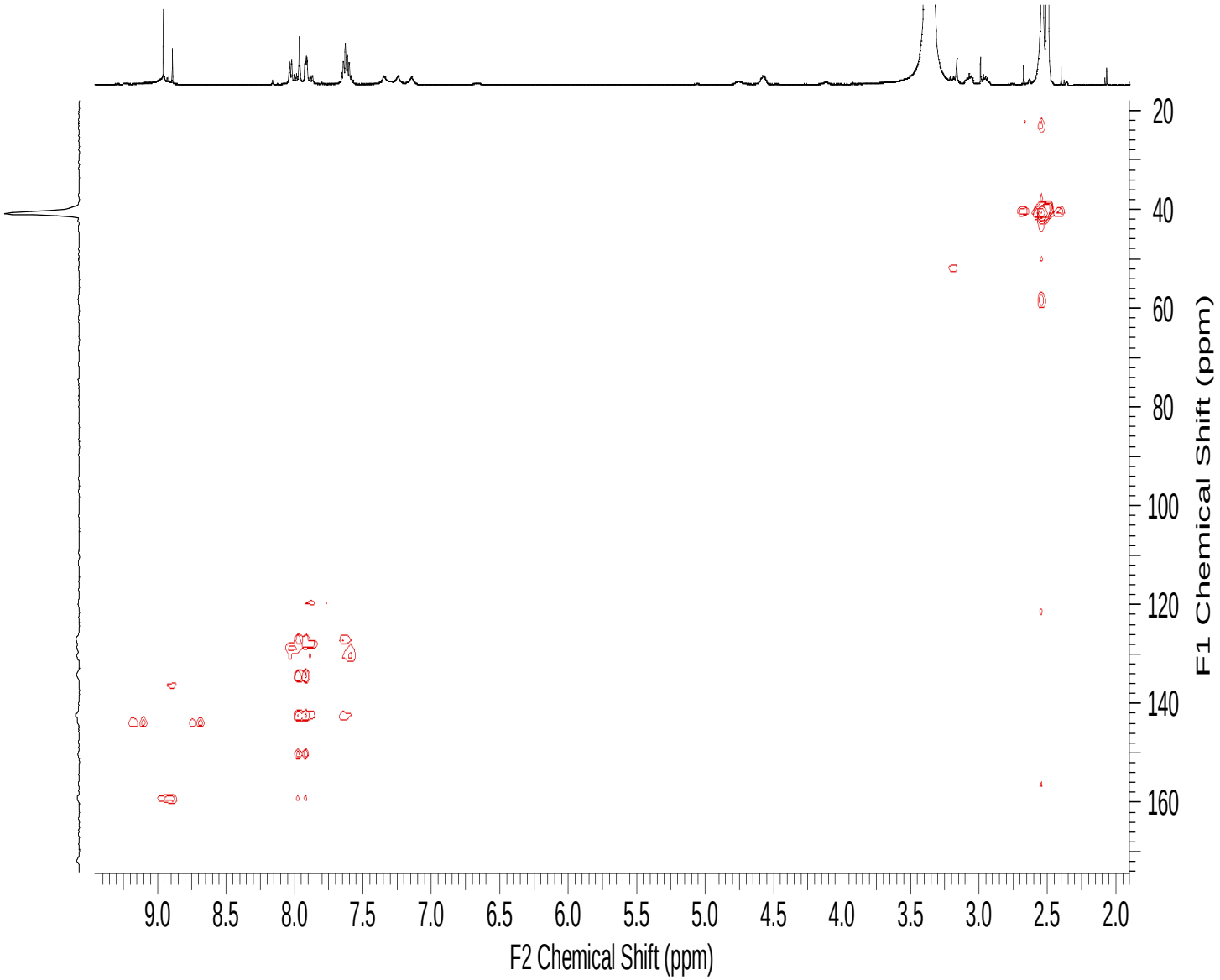


Figure S19. HMBC spectrum of compound **3**.

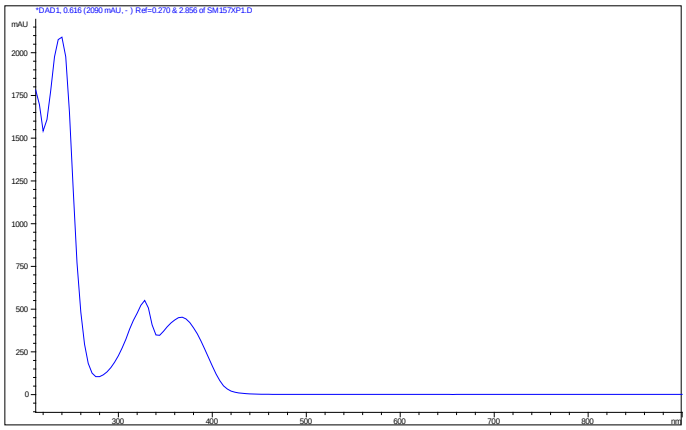


Figure S20. UV spectrum of compound **4**

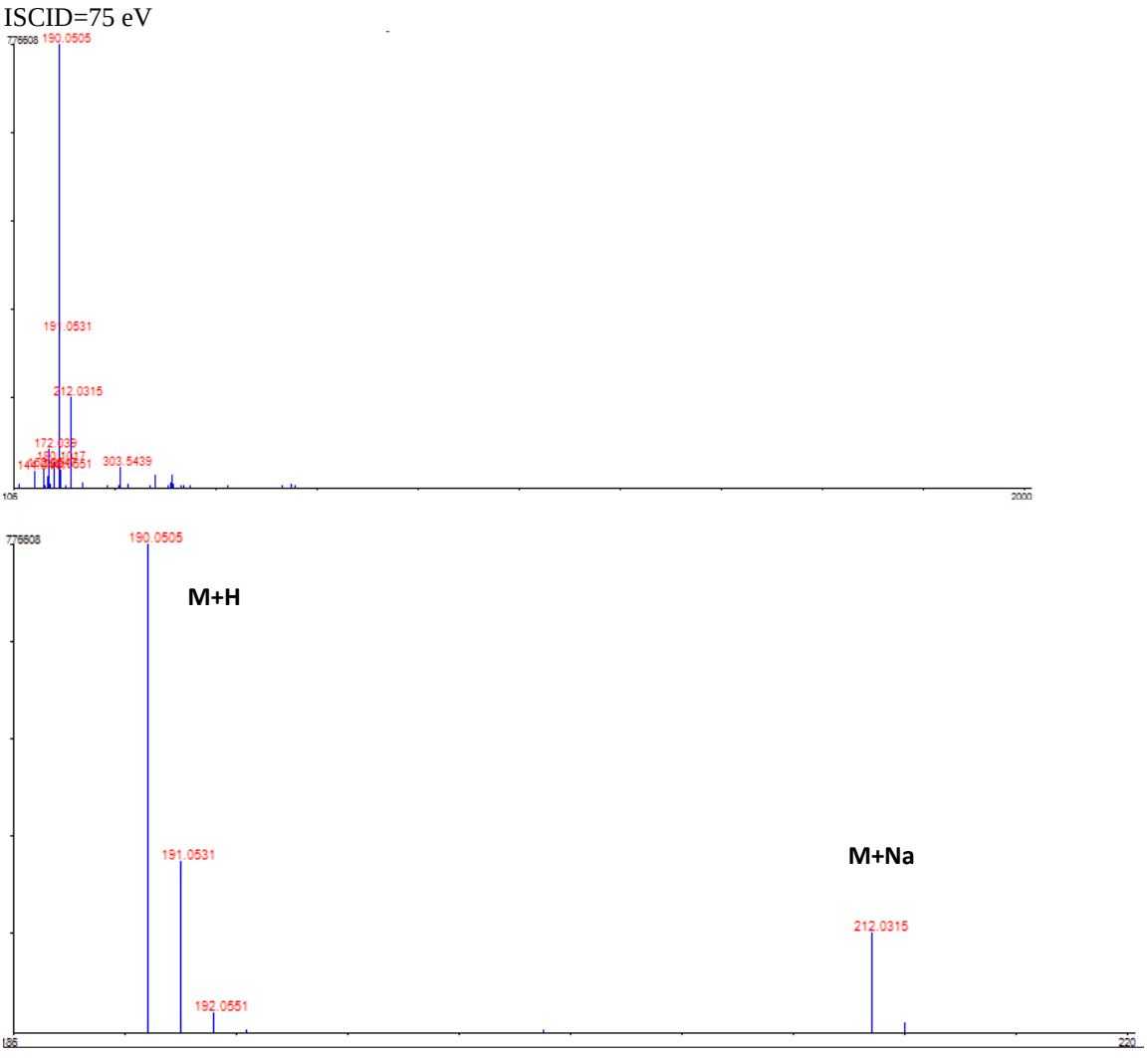


Figure S21. ESI TOF spectrum of compound **4**

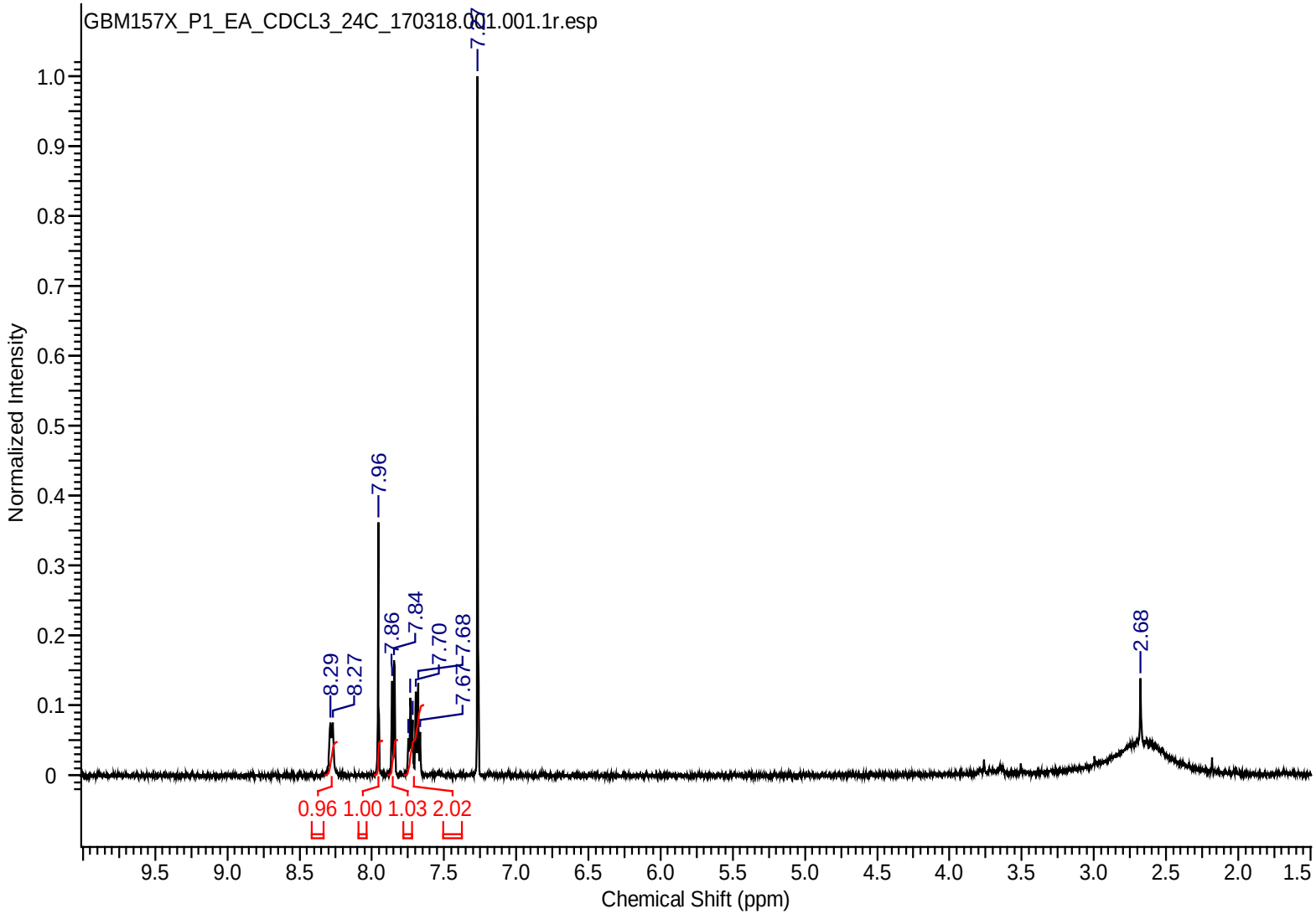


Figure S22. ^{1}H NMR ($CDCl_3$, 500 MHz) of compound **4**

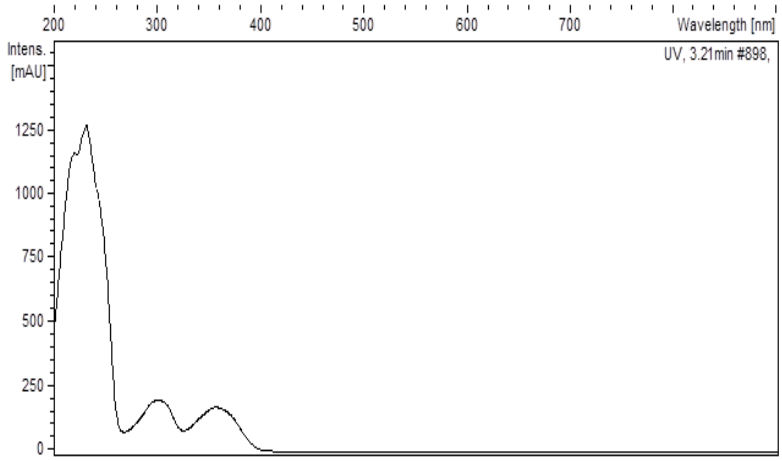


Figure S23. UV spectrum of compound **5**

ISCID=75 eV

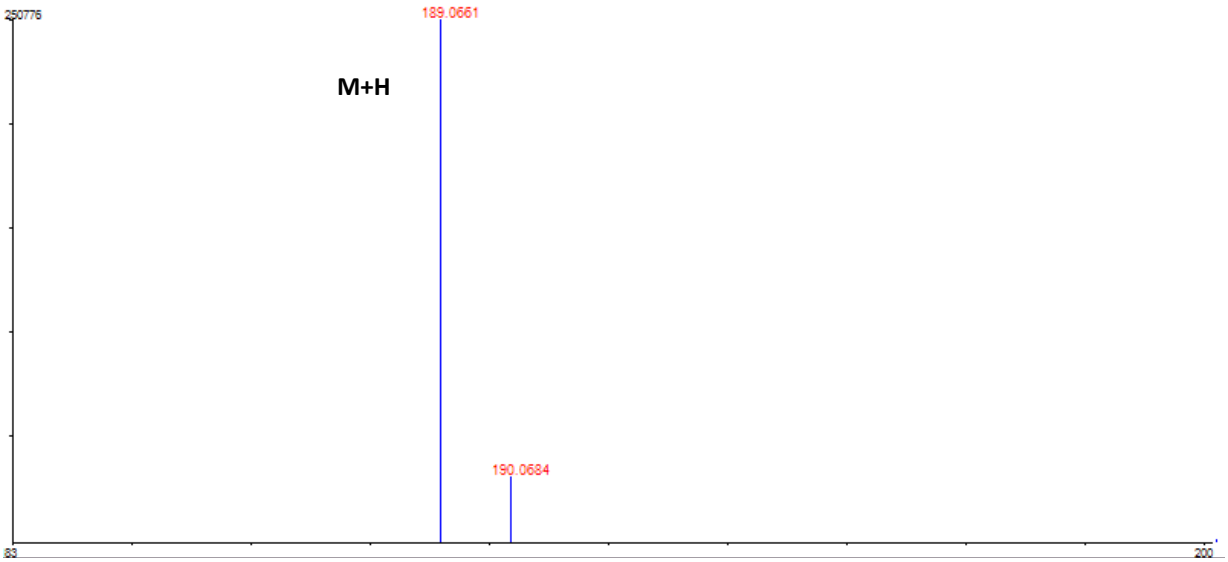


Figure S24. ESI TOF spectrum of compound **5**

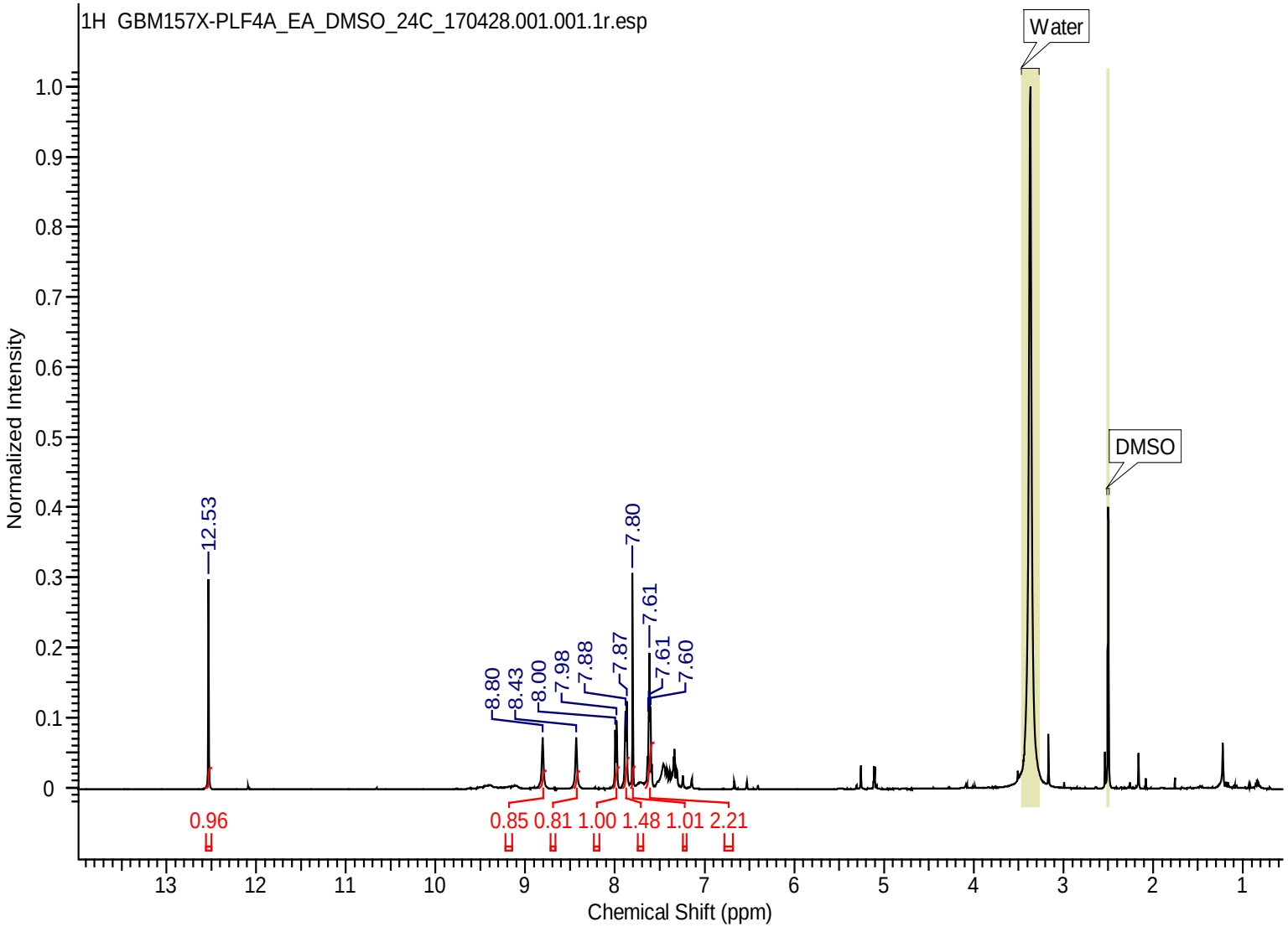


Figure S25. ^{1}H NMR (DMSO-*d6*, 500 MHz) of compound **5**

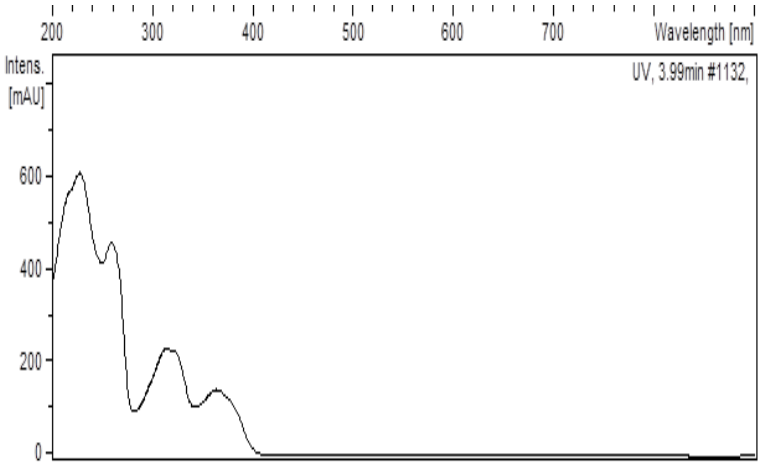


Figure S26. UV spectrum of compound **6**

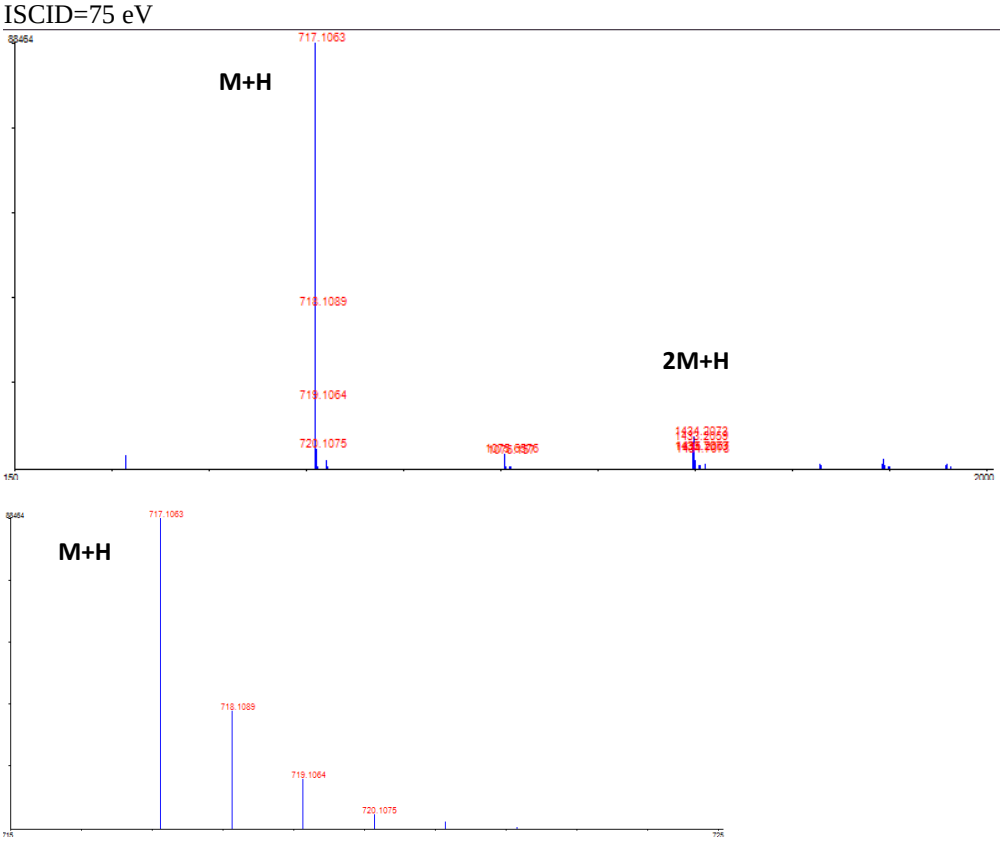


Figure S27. ESI TOF spectrum of compound **6**.

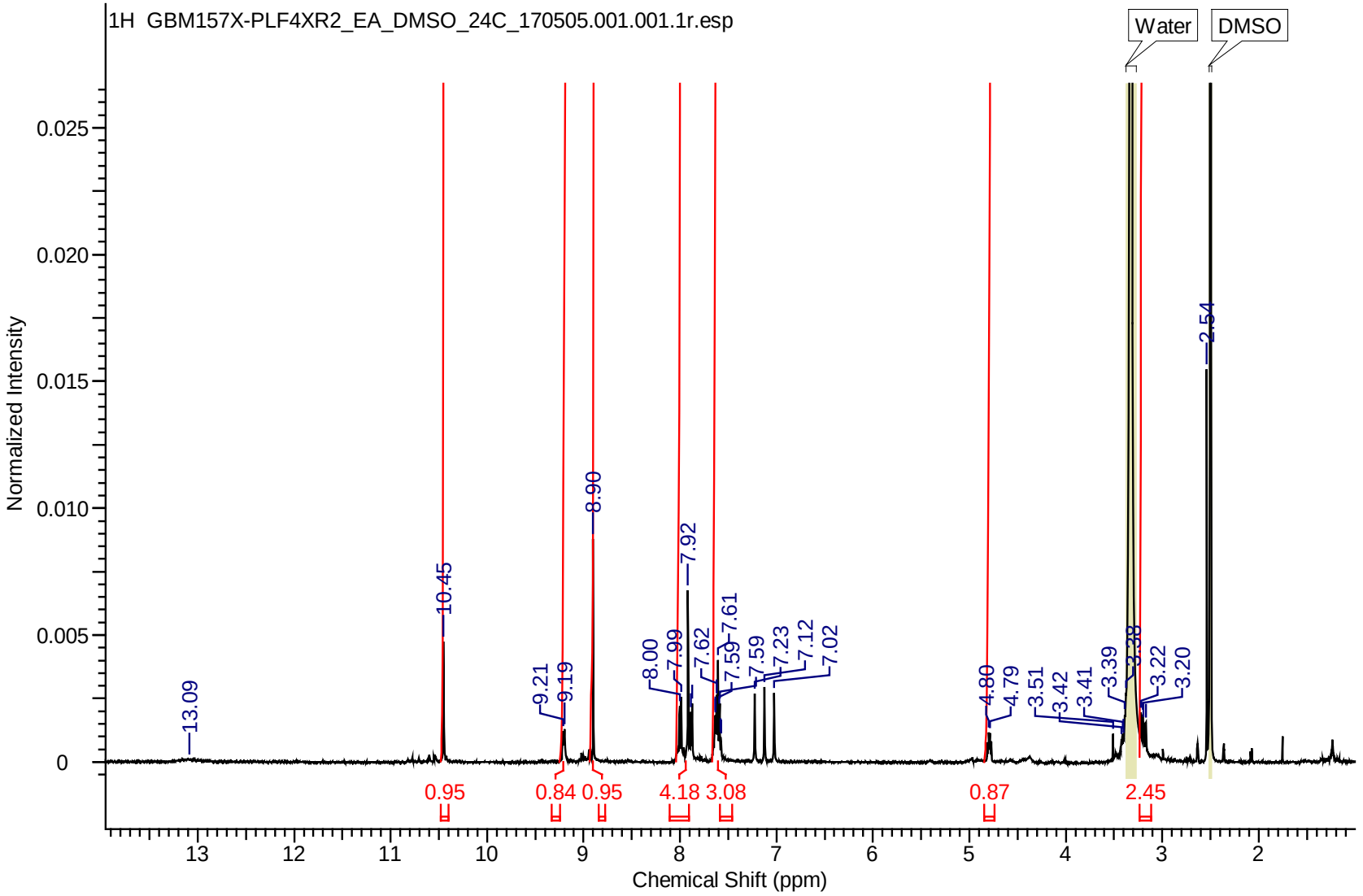


Figure S28. ^{1}H NMR (DMSO-*d6*, 500 MHz) of compound **6**.

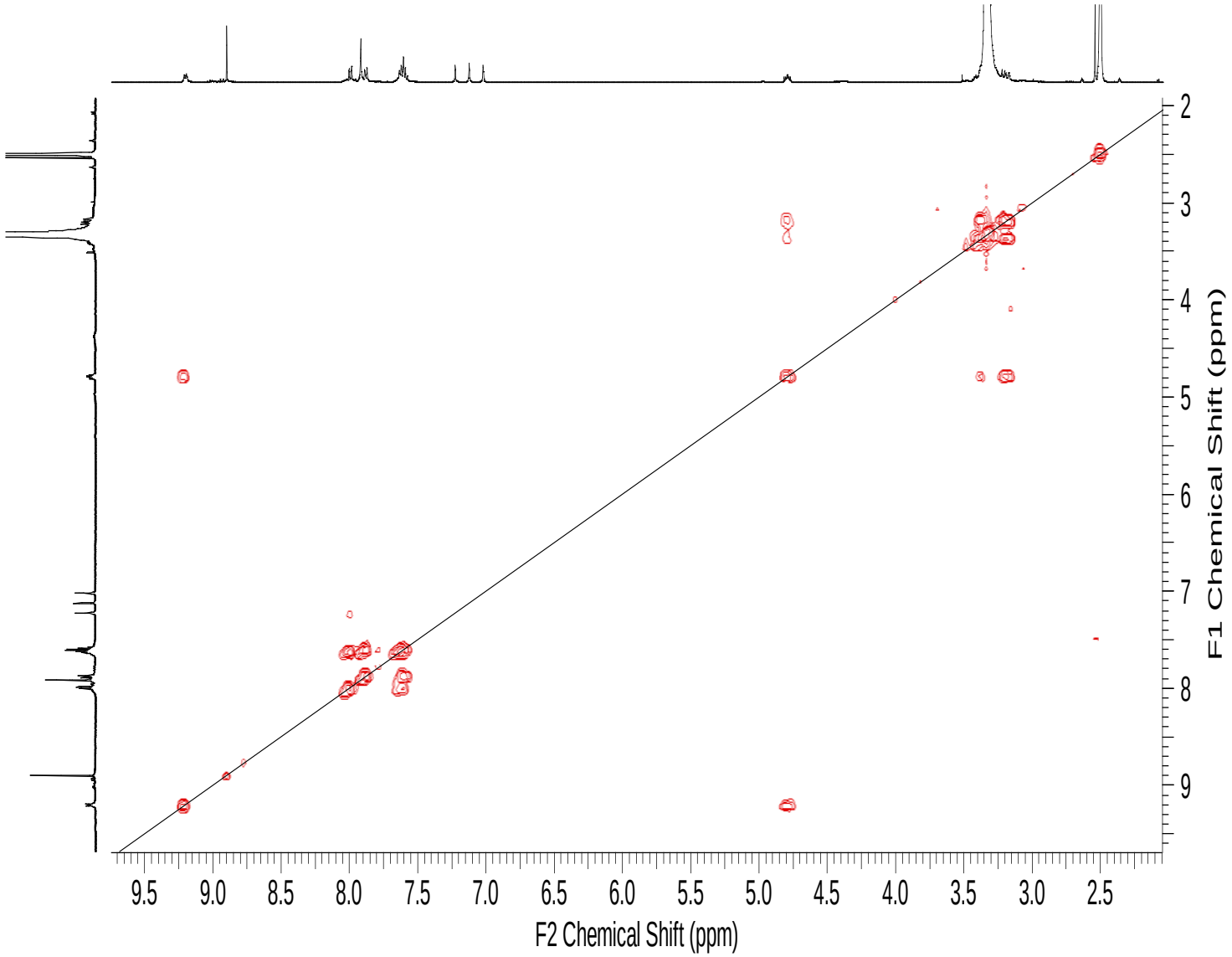


Figure S29. COSY spectrum of compound **6**.

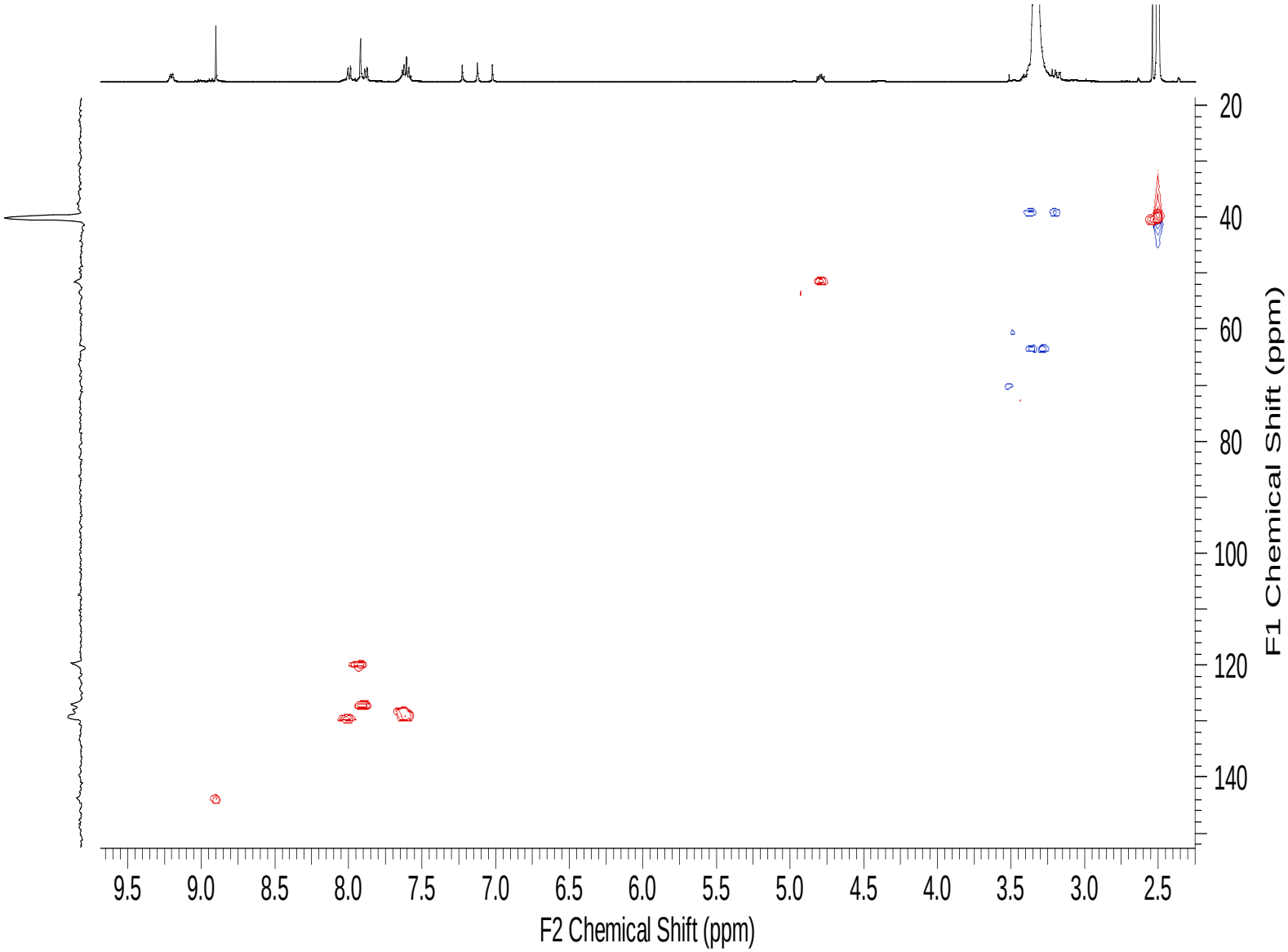


Figure S30. HSQC spectrum of compound **6**.

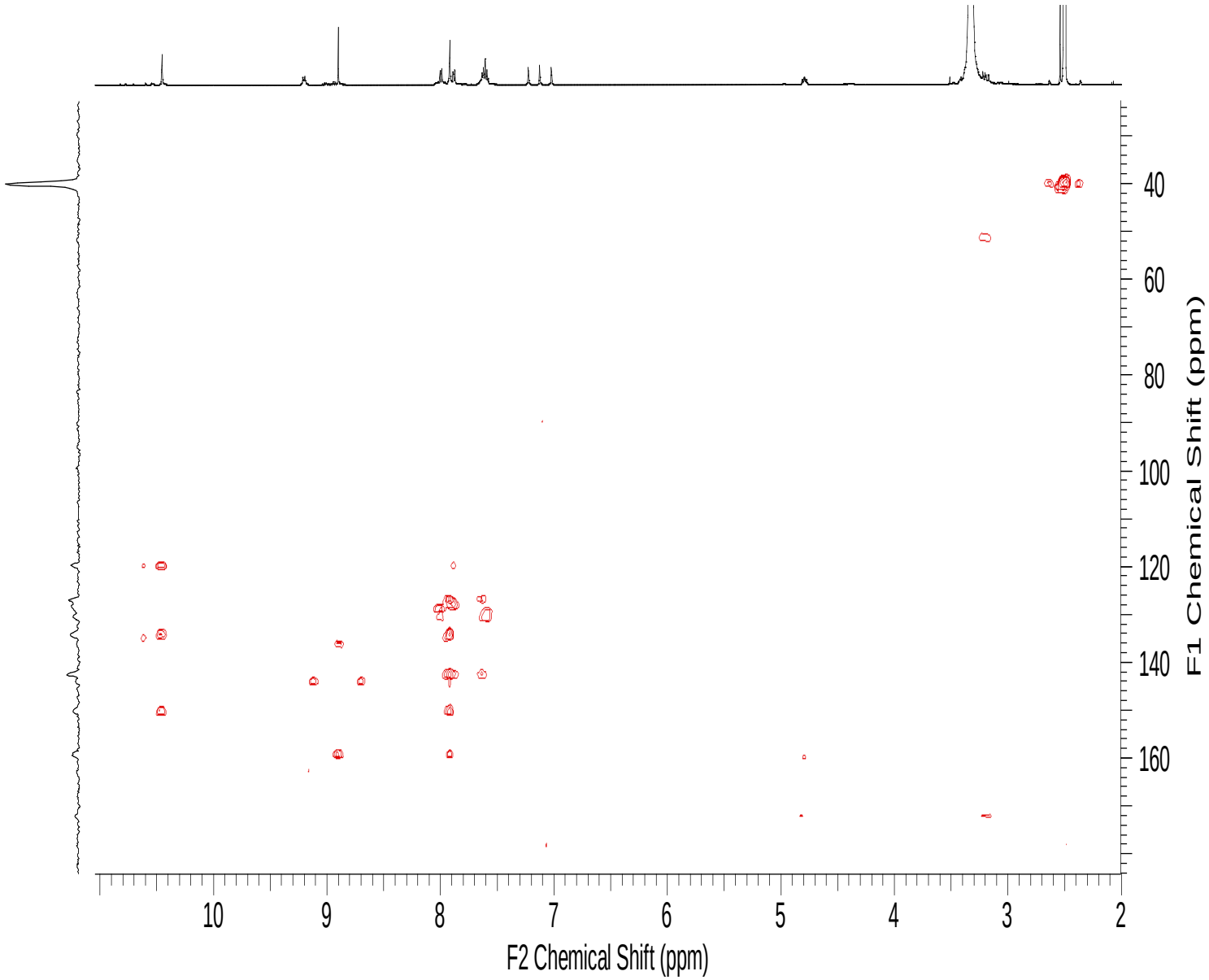


Figure S31. HMBC spectrum of compound **6**.

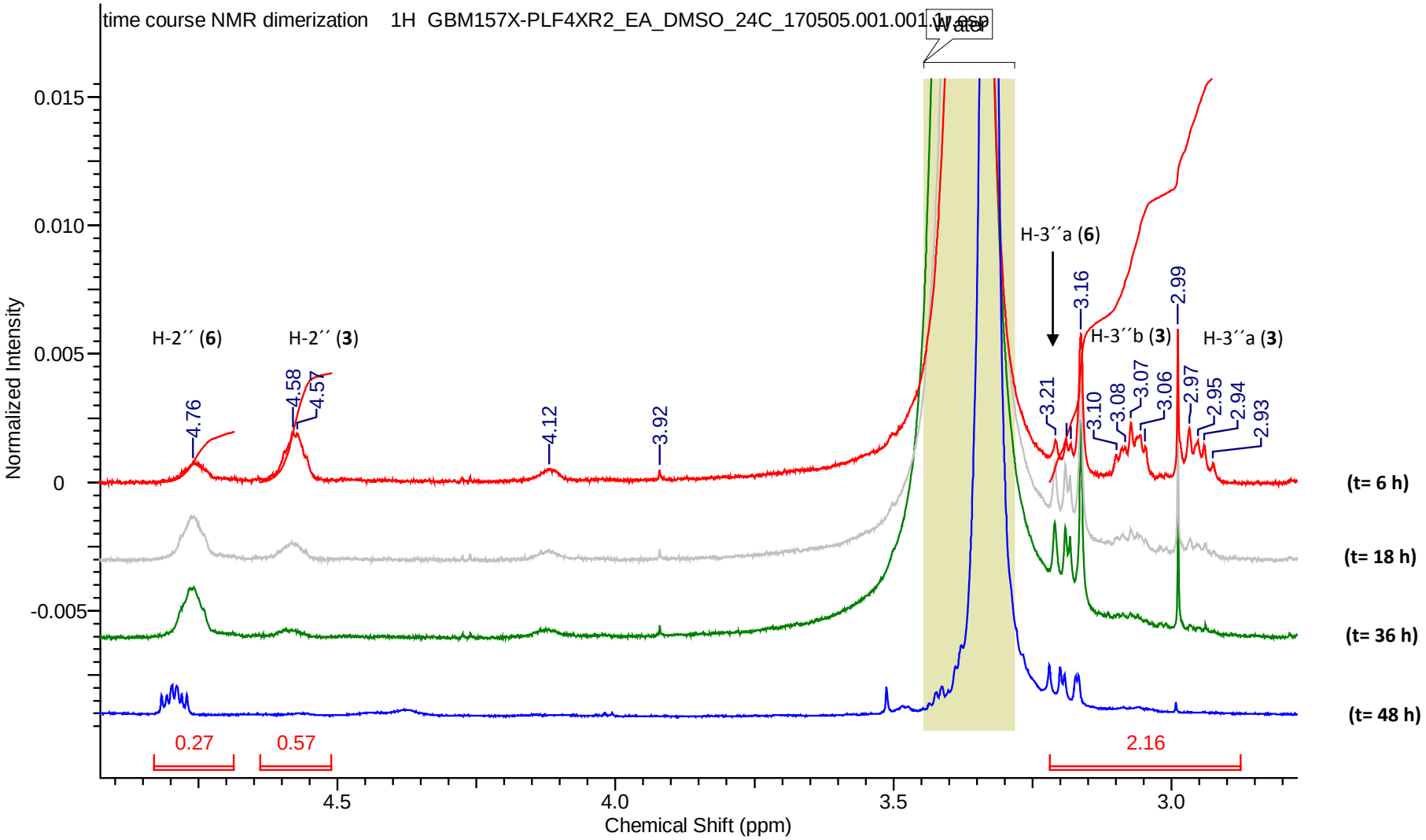


Figure S32. ^{1}H-NMR (DMSO-*d6*, 500 MHz) time-course conversion of **3** into **6**. Overlay of ^{1}H-NMR experiments (zoom).

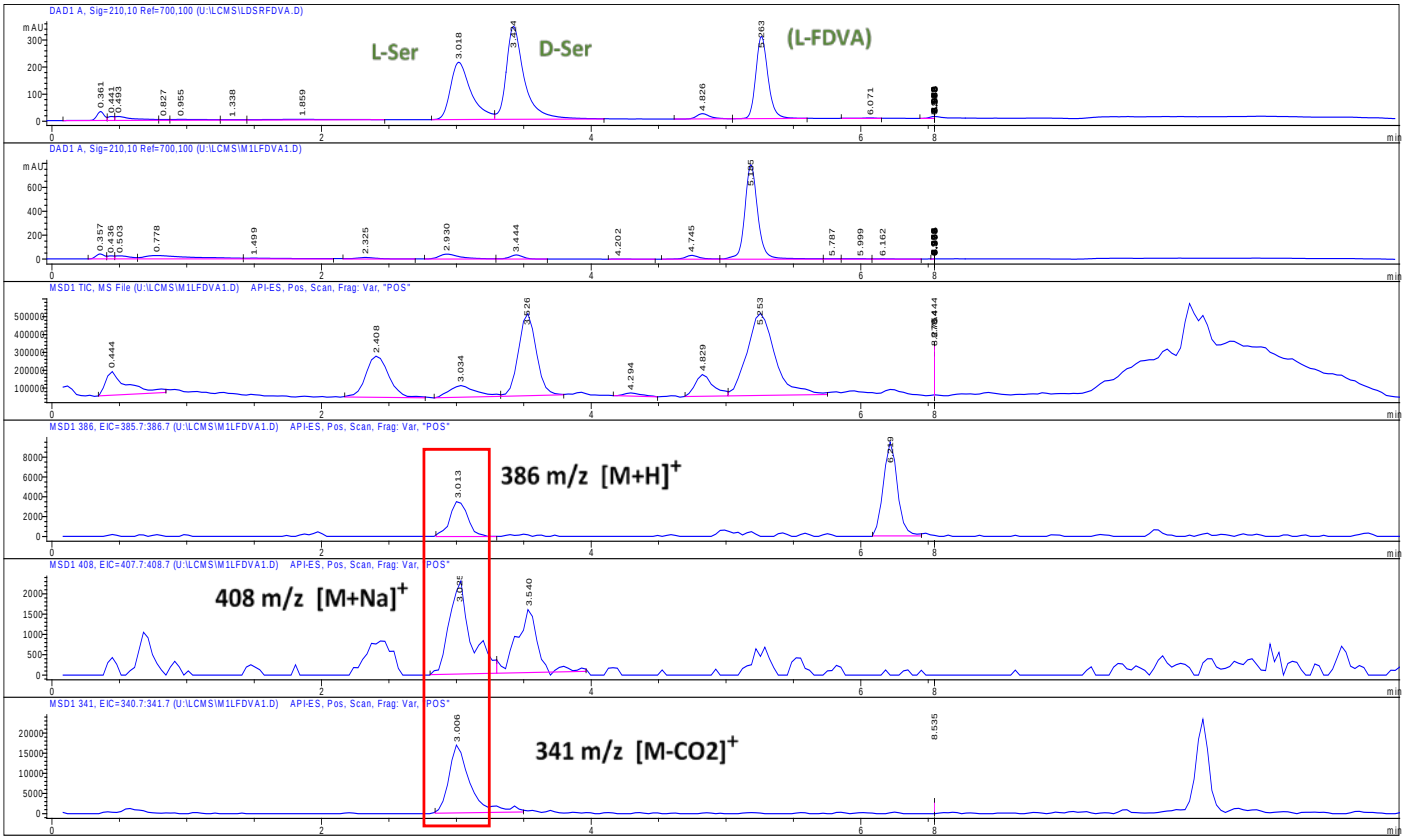


Fig. S33. HPLC traces of Marfey´s analysis of compound **1**

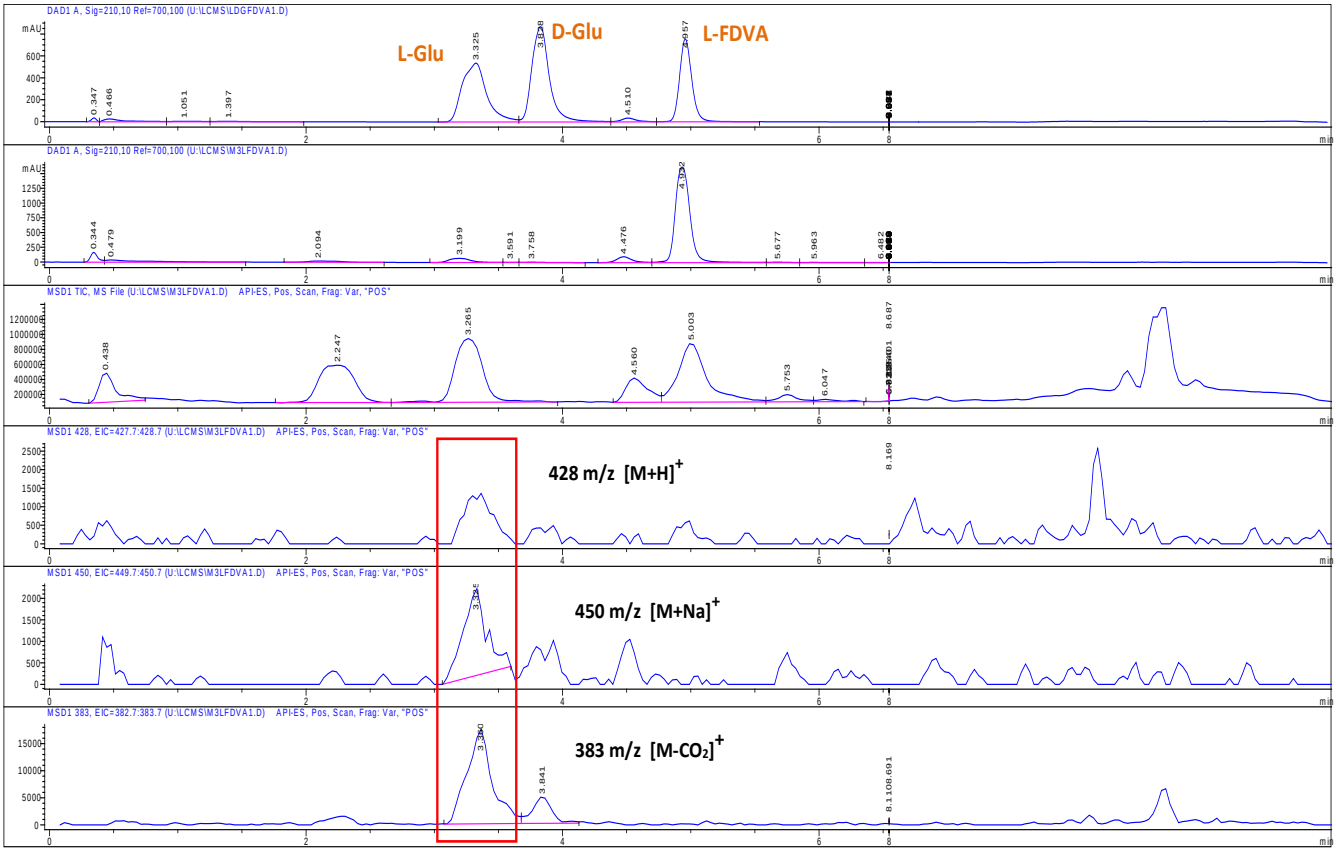
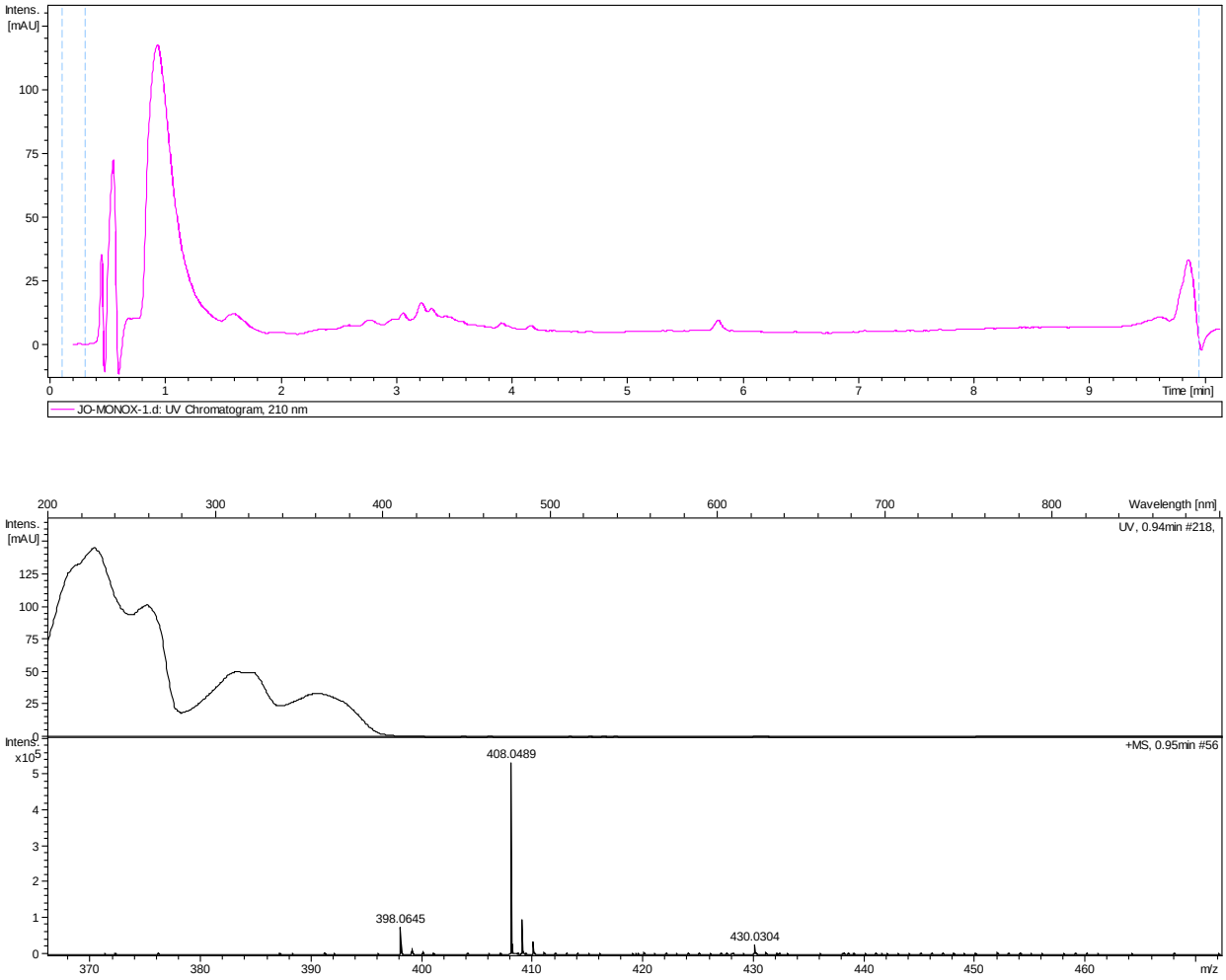


Fig. S34. HPLC traces of Marfey´s analysis of compound **2**



(zoom)

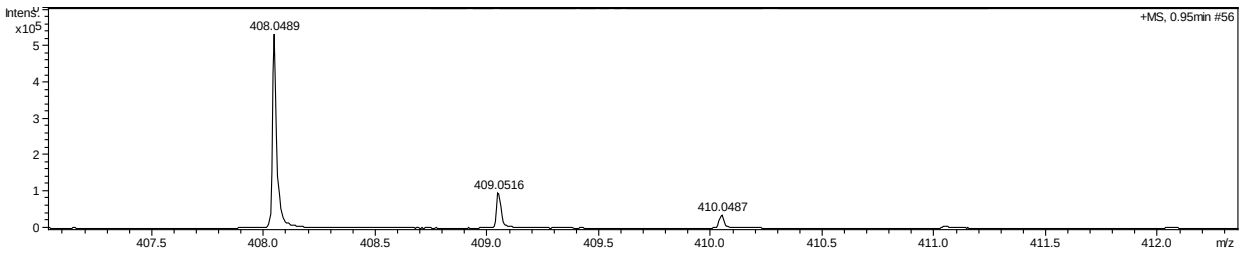
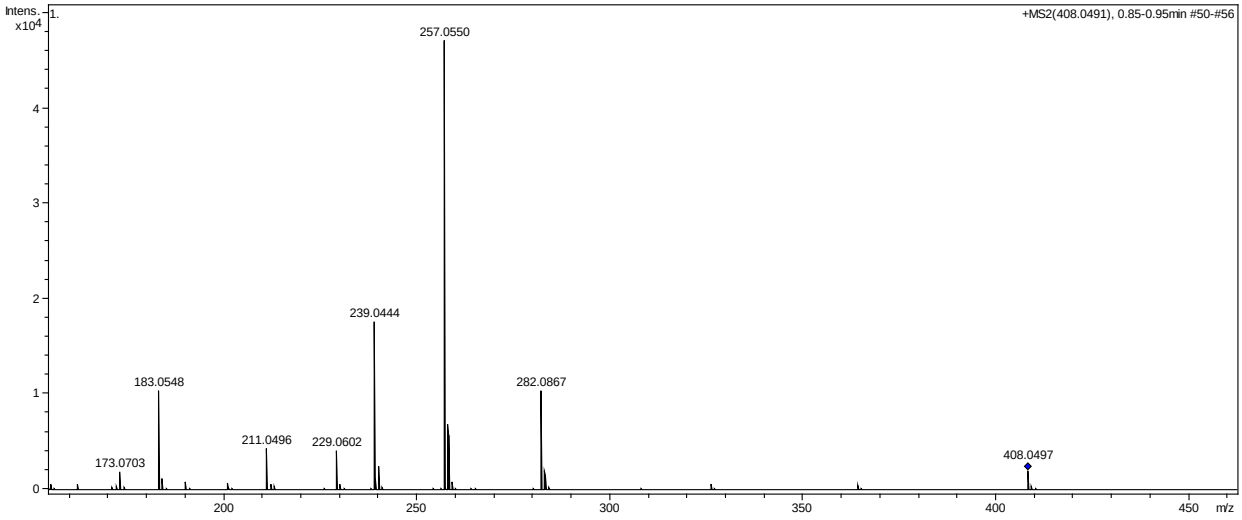
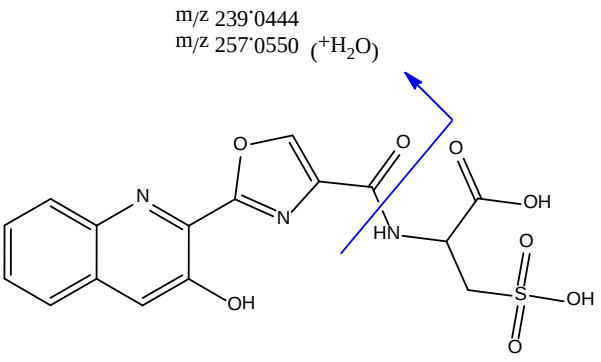


Fig. S35. LC-HRMS analysis of the oxidation crude of compound **3** (LC-HRMS chromatogram, UV spectrum and (+)-ESI-TOF spectrum of the oxidation product of **3**)

Sample Name: **JO-MONOX-1**
Sample ID: \\maXis01\D\Data\20180927\JO-MONOX-1.d
Plate Pos: V09
RT: 0.95
Area: 19854148
Intensity: 1008983
Signal To Noise: 62965
Suggested mass: 407.0410
Suggested formula: C16H13N3O8S
Medina ID: MED-203610





$C_{16}H_{13}N_3O_8S$

Fig. S36. HRMS-MS spectrum of the oxidation product of compound **3**

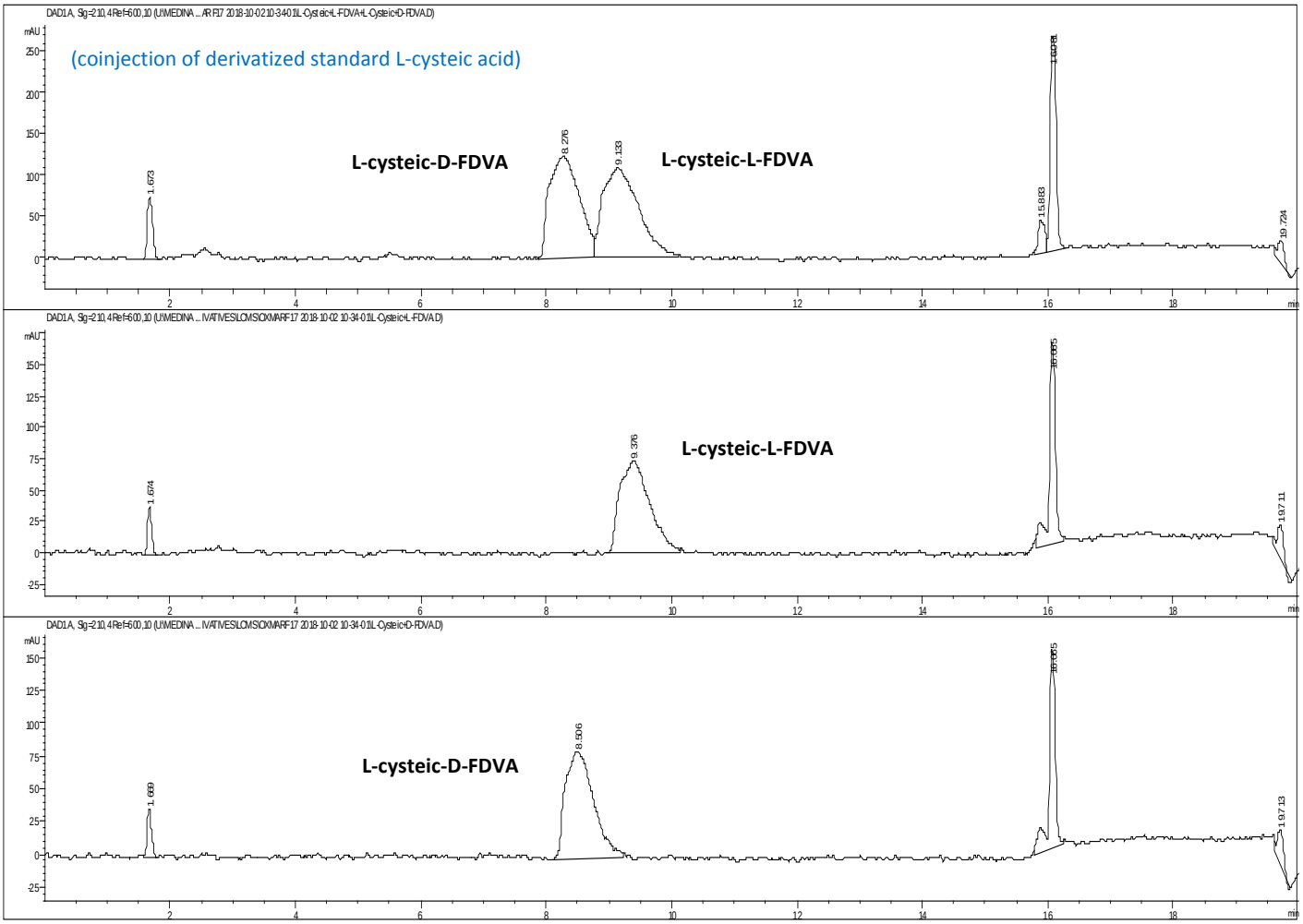


Fig. S37. HPLC traces of L- and D-FDVA derivatives of standard L-cysteic acid

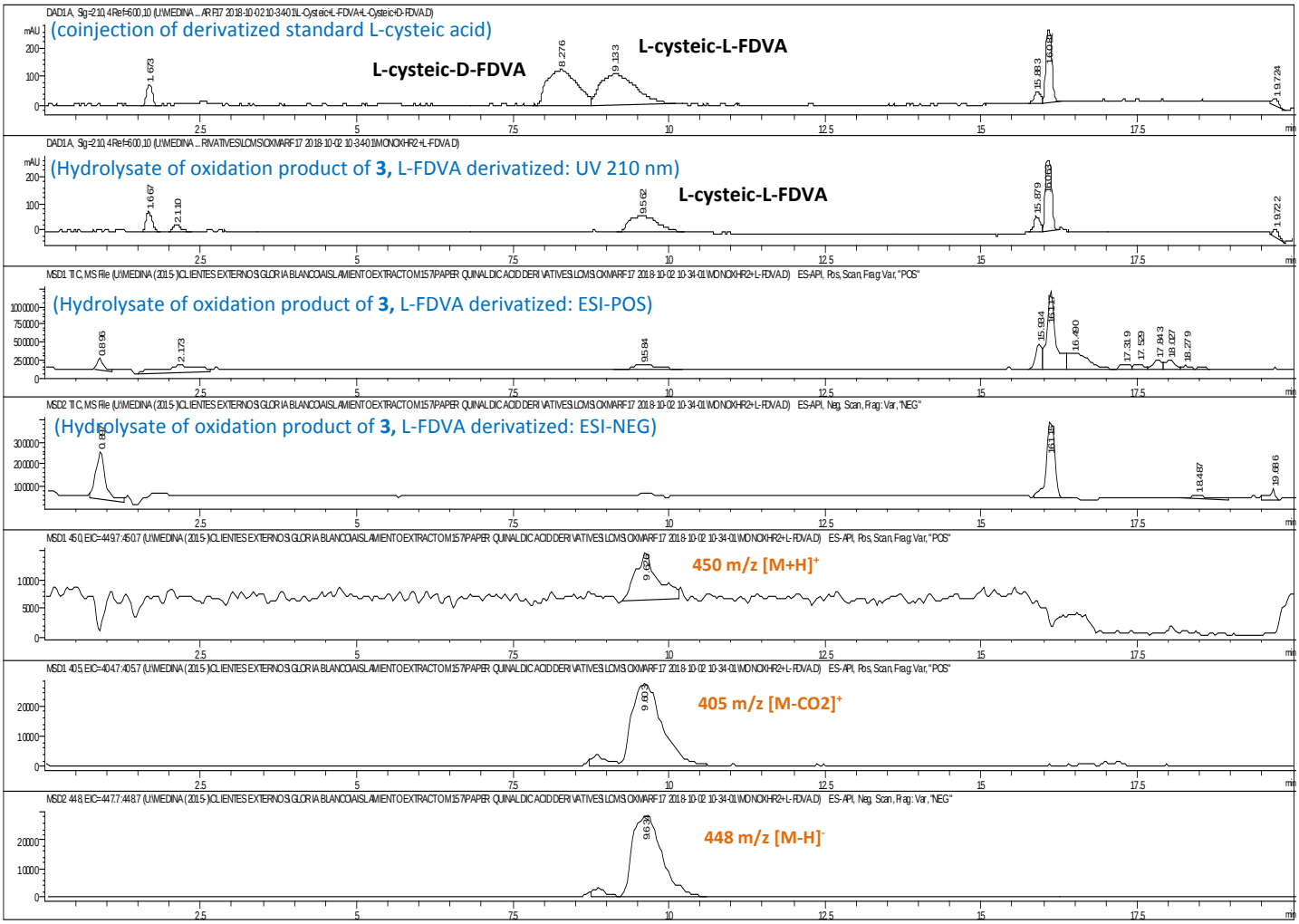


Fig. S38. HPLC traces of Marfey´s analysis of oxidation product of compound **3**