

Supporting Information for

Cucurbitane Glucosides from the Crude Extract of *Siraitia grosvenorii* with Moderate Effects on PGC-1 α Promoter Activity

Biao Niu,^{†,‡,§,♦} Chang-Qiang Ke,^{†,♦} Bo-Han Li,^{||,§} Yuanyuan Li,[⊥] Yongji Yi,[⊥] Yongwei Luo,[⊥] Lin Shuai,^{||,§} Sheng Yao,[†] Li-Gen Lin,[§] Jia Li,^{||,§} and Yang Ye^{*,†,‡,§}

[†]State Key Laboratory of Drug Research, and Natural Products Chemistry Department, Shanghai Institute of Materia Medica, Chinese Academy of Sciences, 555 Zu-Chong-Zhi Road, Zhangjiang Hi-Tech Park, Shanghai 201203, People's Republic of China

[‡]School of Life Science and Technology, ShanghaiTech University, Shanghai 201210, People's Republic of China

[§]University of Chinese Academy of Sciences, No.19A Yuquan Road, Beijing 100049, People's Republic of China

^{||}Chinese National Center for Drug Screening, State Key Laboratory of Drug Research, Shanghai Institute of Materia Medica, Chinese Academy of Sciences, 189 Guoshoujing Road, Zhangjiang Hi-Tech Park, Shanghai 201203, People's Republic of China

[⊥]Guilin Layn Natural Ingredients Corp, Guilin 541199, People's Republic of China

[§]State Key Laboratory of Quality Research in Chinese Medicine, Institute of Chinese Medical Sciences, University of Macau, Avenida da Universidade, Taipa, Macao 999078, People's Republic of China

Figure S1. ^1H NMR spectrum of 11-oxomogroside III E (**1**) in $\text{C}_5\text{D}_5\text{N}$

Figure S2. ^{13}C NMR spectrum of 11-oxomogroside III E (**1**) in $\text{C}_5\text{D}_5\text{N}$

Figure S3. HSQC spectrum of 11-oxomogroside III E (**1**) in $\text{C}_5\text{D}_5\text{N}$

Figure S4. HMBC spectrum of 11-oxomogroside III E (**1**) in $\text{C}_5\text{D}_5\text{N}$

Figure S5. ROESY spectrum of 11-oxomogroside III E (**1**) in $\text{C}_5\text{D}_5\text{N}$

Figure S6. ^1H - ^1H COSY spectrum of 11-oxomogroside III E (**1**) in $\text{C}_5\text{D}_5\text{N}$

Figure S7. TOCSY spectrum of 11-oxomogroside III E (**1**) in $\text{C}_5\text{D}_5\text{N}$

Figure S8. IR spectrum of 11-oxomogroside III E (**1**)

Figure S9. HRESIMS spectrum of 11-oxomogroside III E (**1**)

Figure S10. ^1H NMR spectrum of 11-oxomogroside IV (**2**) in $\text{C}_5\text{D}_5\text{N}$

Figure S11. ^{13}C NMR spectrum of 11-oxomogroside IV (**2**) in $\text{C}_5\text{D}_5\text{N}$

Figure S12. HSQC spectrum of 11-oxomogroside IV (**2**) in $\text{C}_5\text{D}_5\text{N}$

Figure S13. HMBC spectrum of 11-oxomogroside IV (**2**) in $\text{C}_5\text{D}_5\text{N}$

Figure S14. ROESY spectrum of 11-oxomogroside IV (**2**) in $\text{C}_5\text{D}_5\text{N}$

Figure S15. ^1H - ^1H COSY spectrum of 11-oxomogroside IV (**2**) in $\text{C}_5\text{D}_5\text{N}$

Figure S16. TOCSY spectrum of 11-oxomogroside IV (**2**) in $\text{C}_5\text{D}_5\text{N}$

Figure S17. IR spectrum of 11-oxomogroside IV (**2**)

Figure S18. HRESIMS spectrum of 11-oxomogroside IV (**2**)

Figure S19. ^1H NMR spectrum of 11-oxoisomogroside V (**3**) in $\text{C}_5\text{D}_5\text{N}$

Figure S20. ^{13}C NMR spectrum of 11-oxoisomogroside V (**3**) in $\text{C}_5\text{D}_5\text{N}$

Figure S21. HSQC spectrum of 11-oxoisomogroside V (**3**) in $\text{C}_5\text{D}_5\text{N}$

Figure S22. HMBC spectrum of 11-oxoisomogroside V (**3**) in $\text{C}_5\text{D}_5\text{N}$

Figure S23. ROESY spectrum of 11-oxoisomogroside V (**3**) in $\text{C}_5\text{D}_5\text{N}$

Figure S24. ^1H - ^1H COSY spectrum of 11-oxoisomogroside V (**3**) in $\text{C}_5\text{D}_5\text{N}$

Figure S25. TOCSY spectrum of 11-oxoisomogroside V (**3**) in $\text{C}_5\text{D}_5\text{N}$

Figure S26. IR spectrum of 11-oxoisomogroside V (**3**)

Figure S27. HRESIMS spectrum of 11-oxoisomogroside V (**3**)

Figure S28. ^1H NMR spectrum of 7-oxomogroside III E (**4**) in $\text{C}_5\text{D}_5\text{N}$

Figure S29. ^{13}C NMR spectrum of 7-oxomogroside III E (**4**) in $\text{C}_5\text{D}_5\text{N}$

Figure S30. HSQC spectrum of 7-oxomogroside III E (**4**) in $\text{C}_5\text{D}_5\text{N}$

Figure S31. HMBC spectrum of 7-oxomogroside III E (**4**) in $\text{C}_5\text{D}_5\text{N}$

Figure S32. ROESY spectrum of 7-oxomogroside III E (**4**) in $\text{C}_5\text{D}_5\text{N}$

Figure S33. ^1H - ^1H COSY spectrum of 7-oxomogroside III E (**4**) in $\text{C}_5\text{D}_5\text{N}$

Figure S34. TOCSY spectrum of 7-oxomogrosid III E (**4**) in $\text{C}_5\text{D}_5\text{N}$

Figure S35. IR spectrum of 7-oxomogroside III E (**4**)

Figure S36. HRESIMS spectrum of 7-oxomogroside III E (**4**)

Figure S37. ^1H NMR spectrum of 7-oxomogroside IV (**5**) in $\text{C}_5\text{D}_5\text{N}$

Figure S38. ^{13}C NMR spectrum of 7-oxomogroside IV (**5**) in $\text{C}_5\text{D}_5\text{N}$

Figure S39. HSQC spectrum of 7-oxomogroside IV (**5**) in C₅D₅N

Figure S40. HMBC spectrum of 7-oxomogroside IV (**5**) in C₅D₅N

Figure S41. ROESY spectrum of 7-oxomogroside IV (**5**) in C₅D₅N

Figure S42. ¹H-¹H COSY spectrum of 7-oxomogroside IV (**5**) in C₅D₅N

Figure S43. TOCSY spectrum of 7-oxomogroside IV (**5**) in C₅D₅N

Figure S44. IR spectrum of 7-oxomogroside IV (**5**)

Figure S45. HRESIMS spectrum of 7-oxomogroside IV (**5**)

Figure S46. ¹H NMR spectrum of Mogroside VI A (**6**) in C₅D₅N

Figure S47. ¹³C NMR spectrum of Mogroside VI A (**6**) in C₅D₅N

Figures S48. 1D TOCSY spectrum of Mogroside VI A (**6**) in C₅D₅N

Figure S49. Selective HSQC (C15-55) spectrum of Mogroside VI A (**6**) in C₅D₅N

Figure S50. Selective HSQC (C60-95) spectrum of Mogroside VI A (**6**) in C₅D₅N

Figure S51. Selective HSQC (C100-108) spectrum of Mogroside VI A (**6**) in C₅D₅N

Figure S52. Selective HMBC (C15-45) spectrum of Mogroside VI A (**6**) in C₅D₅N

Figure S53. Selective HMBC (C60-95) spectrum of Mogroside VI A (**6**) in C₅D₅N

Figure S54. Selective HMBC (C100-108) spectrum of Mogroside VI A (**6**) in C₅D₅N

Figure S55. COSY spectrum of Mogroside VI A (**6**) in C₅D₅N

Figure S56. ROESY spectrum of Mogroside VI A (**6**) in C₅D₅N

Figure S57. TOCSY spectrum of Mogroside VI A (**6**) in C₅D₅N

Figure S58. IR spectrum of Mogroside VI A (6)

Figure S59. HRESIMS spectrum of Mogroside VI A (6)

Figure S60. ^1H NMR spectrum of Mogroside VI B (7) in $\text{C}_5\text{D}_5\text{N}$

Figure S61. ^{13}C NMR spectrum of Mogroside VI B (7) in $\text{C}_5\text{D}_5\text{N}$

Figures S62. 1D TOCSY spectrum of Mogroside VI B (7) in $\text{C}_5\text{D}_5\text{N}$

Figure S63. Selective HSQC (C15-55) spectrum of Mogroside VI B (7) in $\text{C}_5\text{D}_5\text{N}$

Figure S64. Selective HSQC (C60-95) spectrum of Mogroside VI B (7) in $\text{C}_5\text{D}_5\text{N}$

Figure S65. Selective HSQC (C100-108) spectrum of Mogroside VI B (7) in $\text{C}_5\text{D}_5\text{N}$

Figure S66. Selective HMBC (C15-45) spectrum of Mogroside VI B (7) in $\text{C}_5\text{D}_5\text{N}$

Figure S67. Selective HMBC (C60-95) spectrum of Mogroside VI B (7) in $\text{C}_5\text{D}_5\text{N}$

Figure S68. Selective HMBC (C60-108) spectrum of Mogroside VI B (7) in $\text{C}_5\text{D}_5\text{N}$

Figure S69. COSY spectrum of Mogroside VI B (7) in $\text{C}_5\text{D}_5\text{N}$

Figure S70. ROESY spectrum of Mogroside VI B (7) in $\text{C}_5\text{D}_5\text{N}$

Figure S71. TOCSY spectrum of Mogroside VI B (7) in $\text{C}_5\text{D}_5\text{N}$

Figure S72. IR spectrum of Mogroside VI B (7)

Figure S73. HRESIMS spectrum of Mogroside VI B (7)

Figure S74. Crystallographic data of mogrol

Figure S75. The HPLC analysis of crude extract

Figure S76. The HPLC analysis of mogroside V

Figure S1. ^1H NMR spectrum of 11-oxomogroside III E (**1**) in $\text{C}_5\text{D}_5\text{N}$

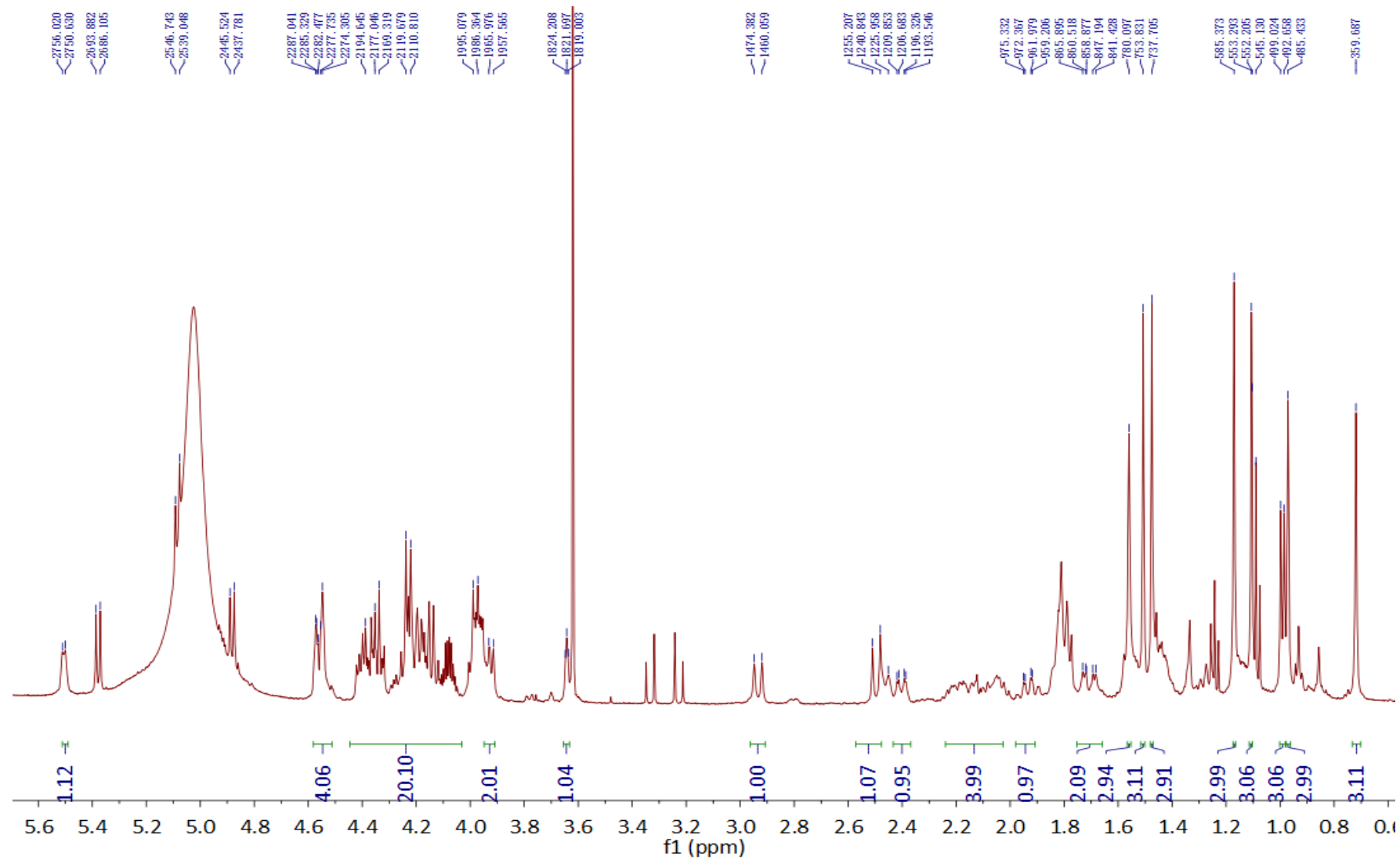


Figure S2. ^{13}C NMR spectrum of 11-oxomogroside III E (**1**) in $\text{C}_5\text{D}_5\text{N}$

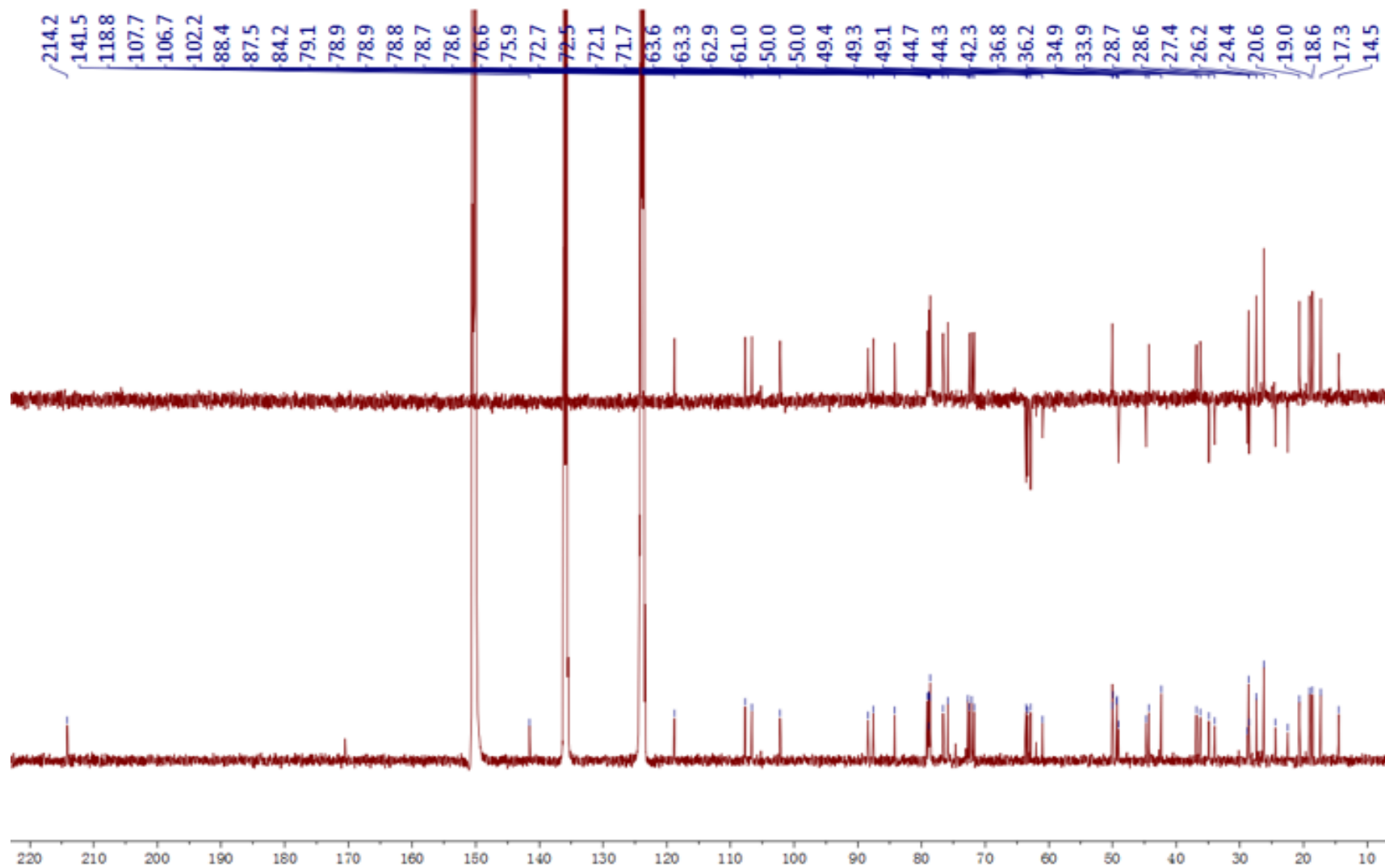


Figure S3. HSQC spectrum of 11-oxomogroside III E (**1**) in C_5D_5N

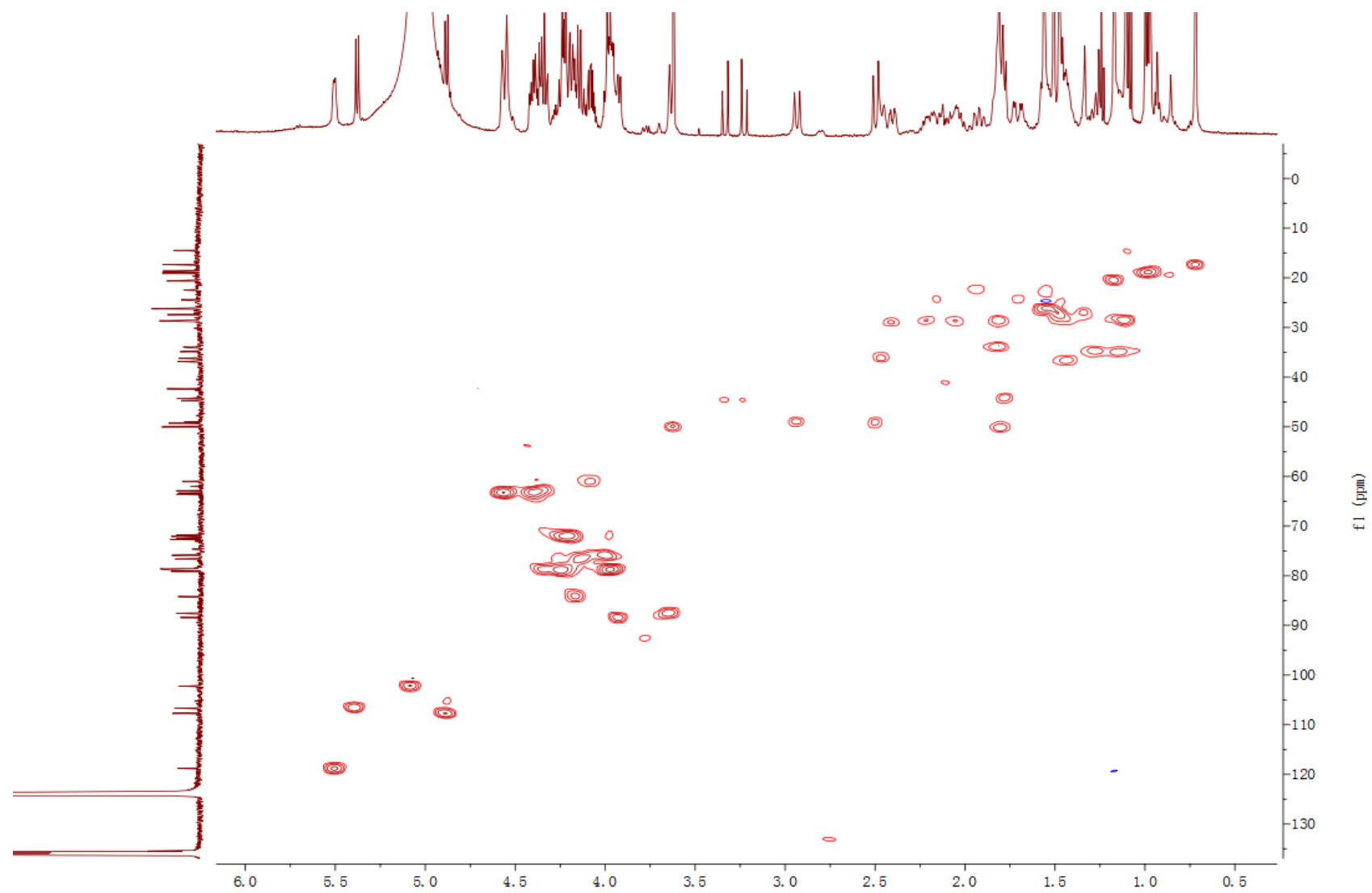


Figure S4. HMBC spectrum of 11-oxomogroside III E (**1**) in C_5D_5N

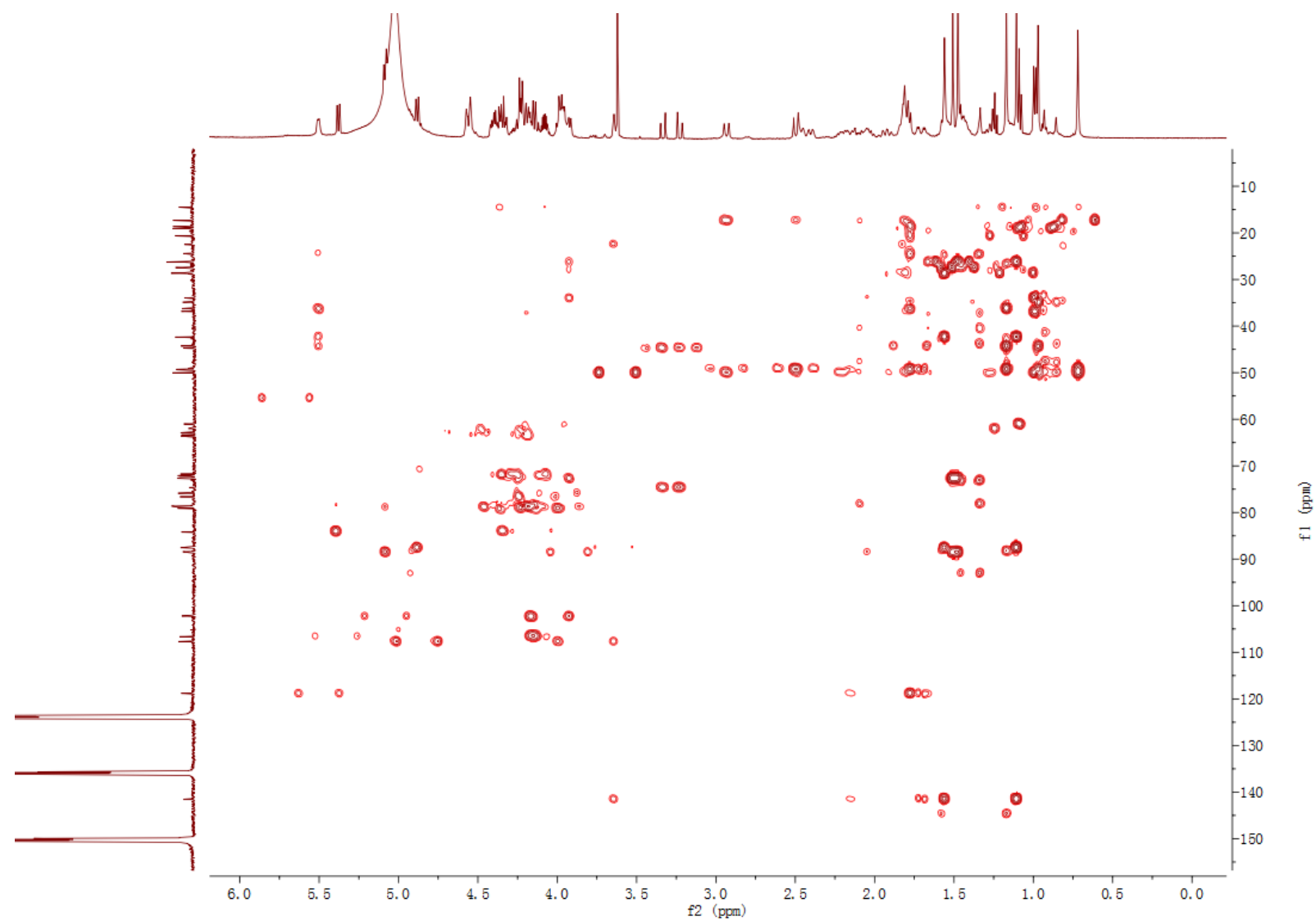


Figure S5. ROESY spectrum of 11-oxomogroside III E (**1**) in C_5D_5N

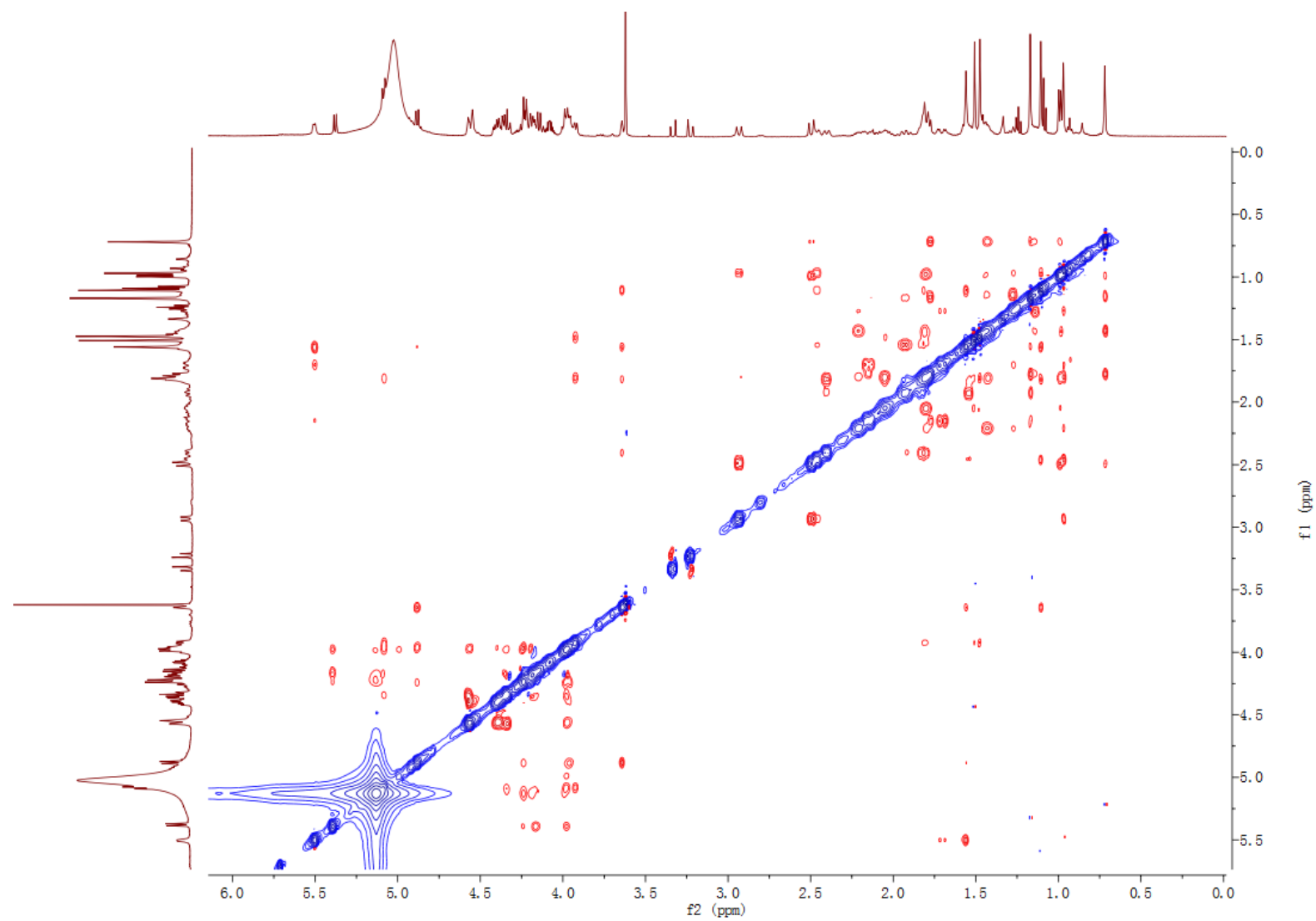


Figure S6. ^1H - ^1H COSY spectrum of 11-oxomogroside III E (**1**) in $\text{C}_5\text{D}_5\text{N}$

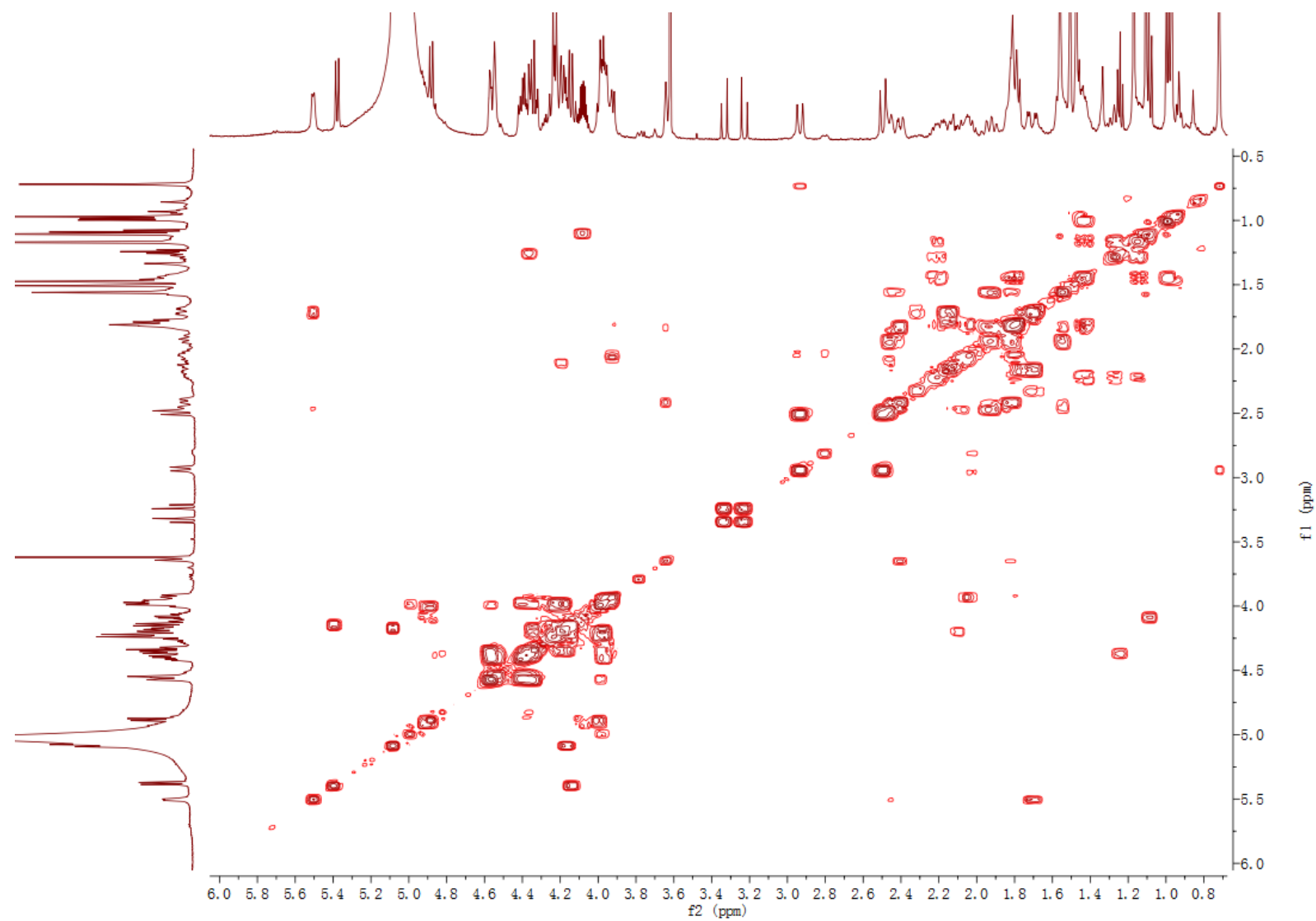


Figure S7. TOCSY spectrum of 11-oxomogroside III E (**1**) in C_5D_5N

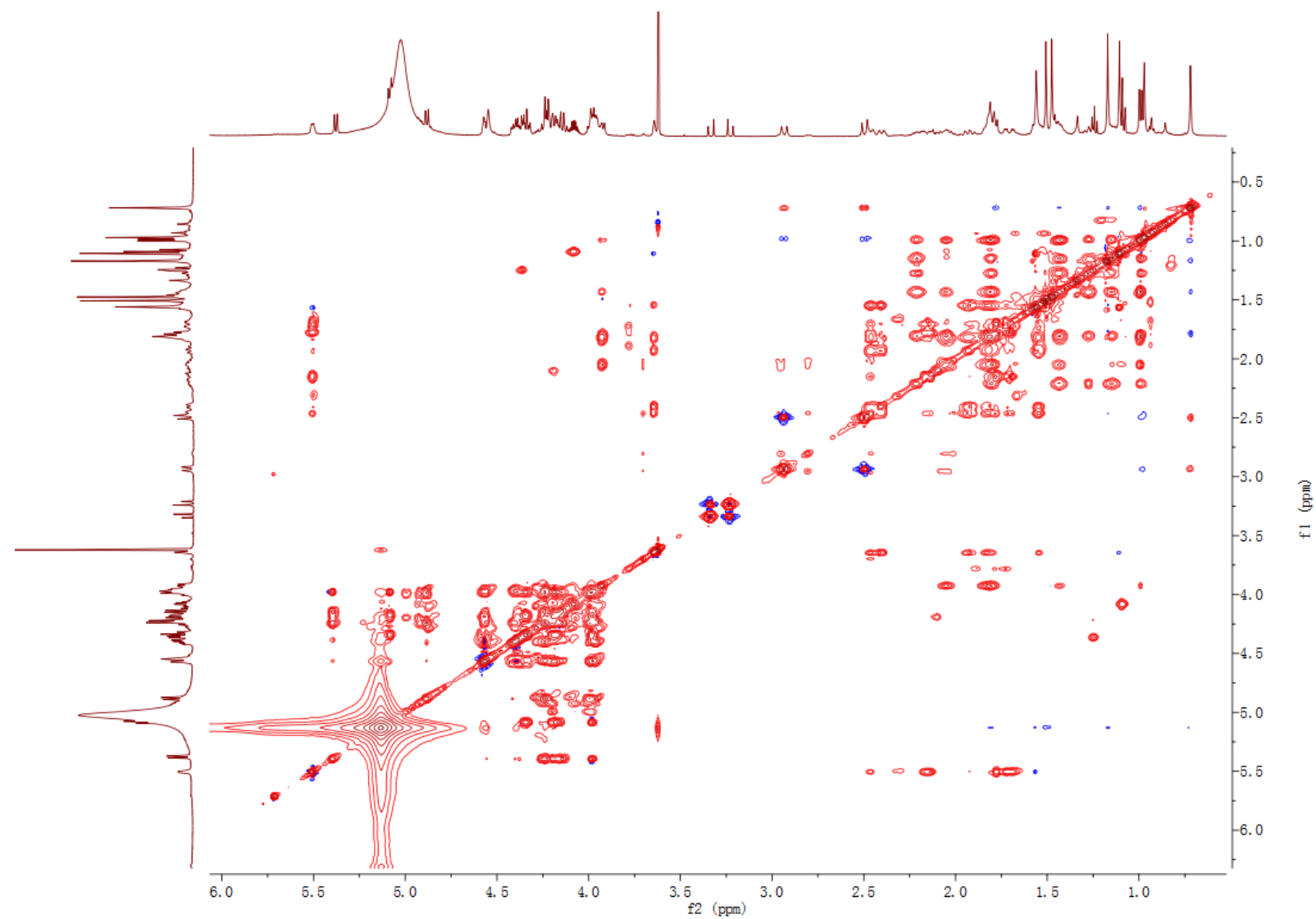


Figure S8. IR spectrum of 11-oxomogroside III E (**1**)

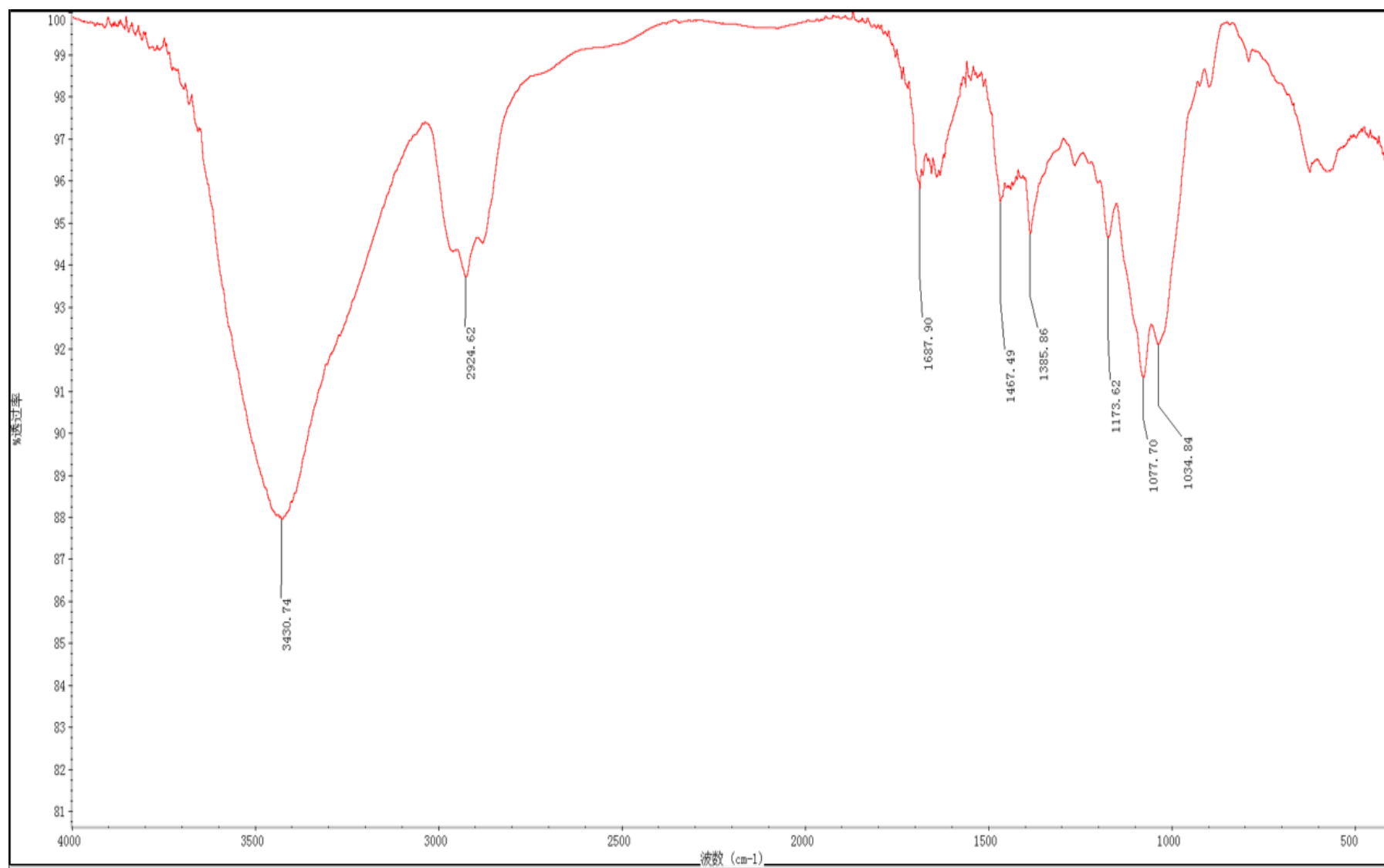


Figure S9. HRESIMS spectrum of 11-oxomogroside III E (**1**)

Elemental Composition Report

Page 1

Multiple Mass Analysis: 2 mass(es) processed

Tolerance = 20.0 PPM / DBE: min = -1.5, max = 50.0

Isotope cluster parameters: Separation = 1.0 Abundance = 1.0%

Monoisotopic Mass, Even Electron Ions

52 formula(e) evaluated with 1 results within limits (up to 20 closest results for each mass)

SIMM-Mass Spec

Q-ToF Ultima

02-Mar-2016

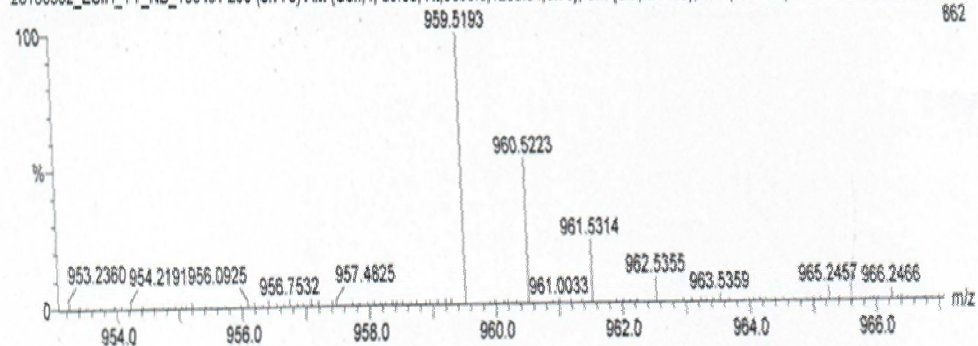
LHG-960

ZZY

20160302_ESIH_YY_NB_160401 200 (3.778) AM (Cen.4, 80.00, Ht.9000.0,1285.64,0.70); Sm (SG, 2x1.00); Cm (191.237)

TOF MS ES-

862



Minimum: 50.00
Maximum: 100.00

Mass	RA	Calc. Mass	mDa	PPM	DBE	Score	Formula
959.5193	100.00	959.5216	-2.3	-2.4	9.5	1	C48 H79 O19
960.5223	53.17	---					

¹H NMR spectrum of compound 10 in CDCl₃. The x-axis is chemical shift (f1) in ppm, ranging from 5.6 to 0.6. The y-axis is intensity, ranging from -5 to 75. The spectrum shows several peaks with integration values below them. Key peaks are labeled with their chemical shifts: 27.54, 27.46, 27.48, 26.94, 26.86, 26.93, 25.88, 25.81, 25.80, 25.46, 25.38, 24.29, 24.17, 24.09, 22.87, 22.85, 22.75, 22.73, 21.69, 21.68, 21.62, 21.38, 21.31, 19.67, 19.58, 18.46, 14.62, 14.68, 12.62, 12.58, 12.47, 12.27, 12.14, 9.71, 9.14, 9.05, 8.92, 8.83, 8.64, 8.58, 8.27, 8.13, 7.63, 7.53, 7.38, 5.90, 5.33, 5.08, 5.02, 4.83, 3.58.

Figure S11. ^{13}C NMR spectrum of 11-oxomogroside IV (**2**) in $\text{C}_5\text{D}_5\text{N}$

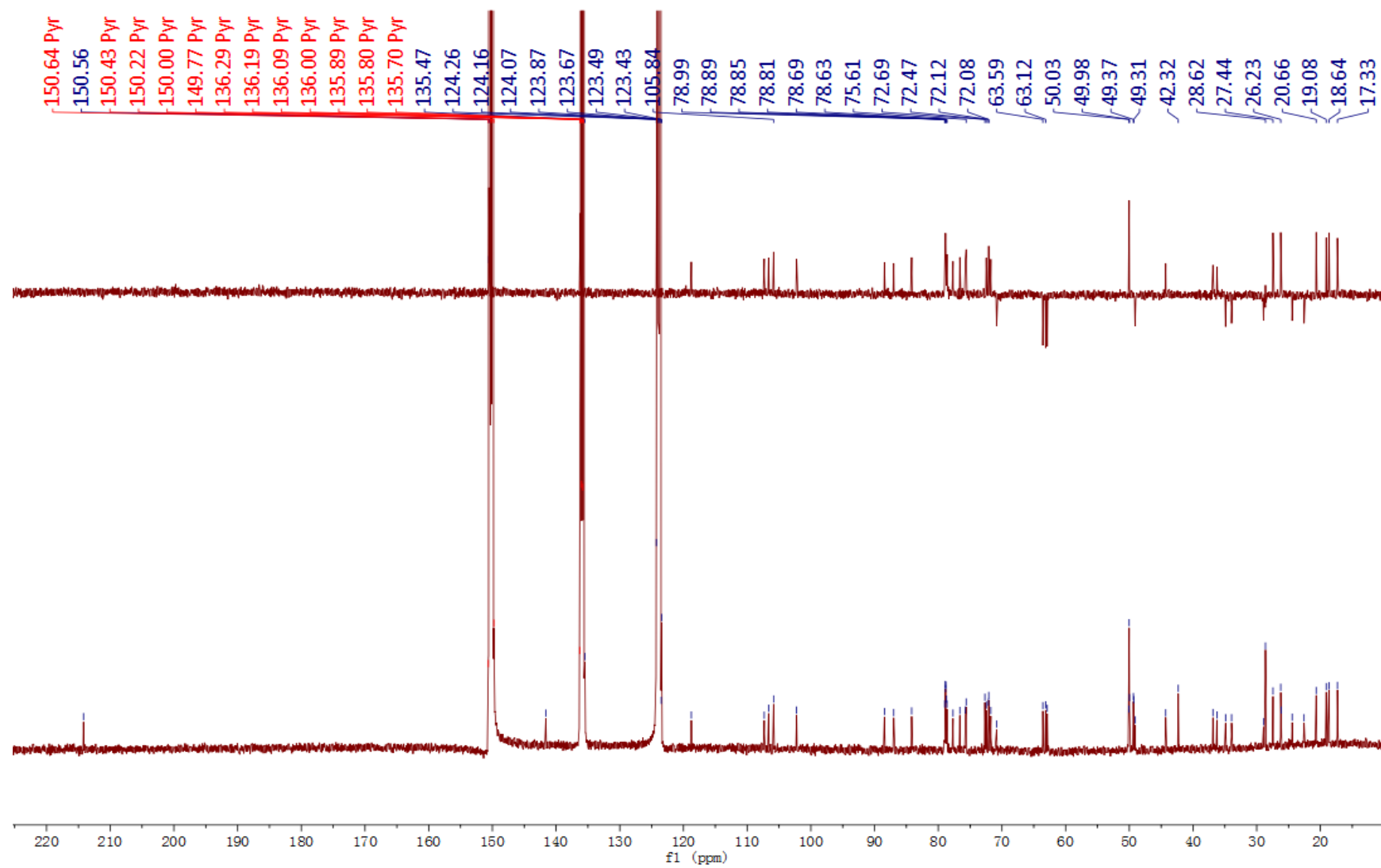


Figure S12. HSQC spectrum of 11-oxomogroside IV (**2**) in C_5D_5N

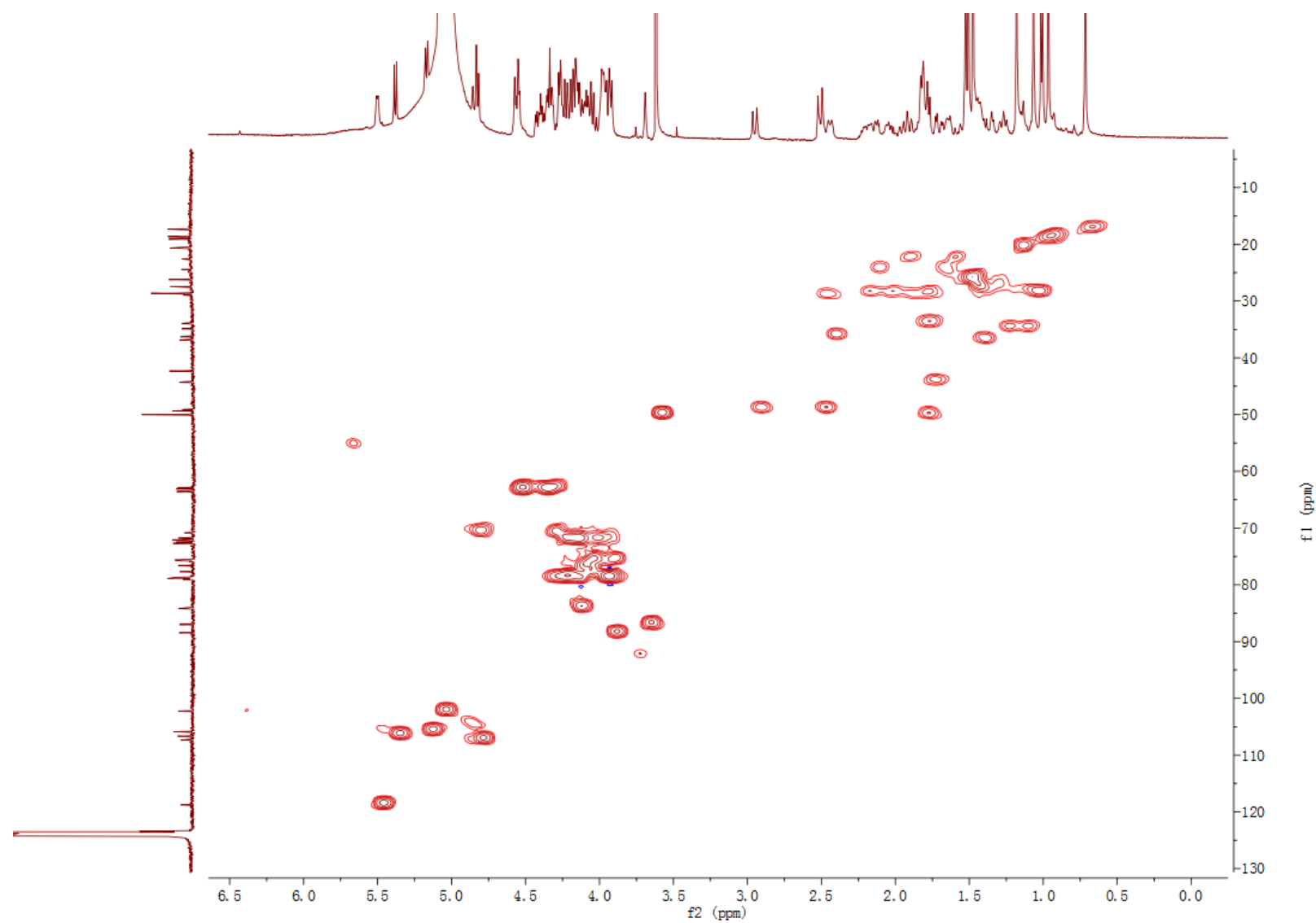


Figure S13. HMBC spectrum of 11-oxomogroside IV (**2**) in C₅D₅N

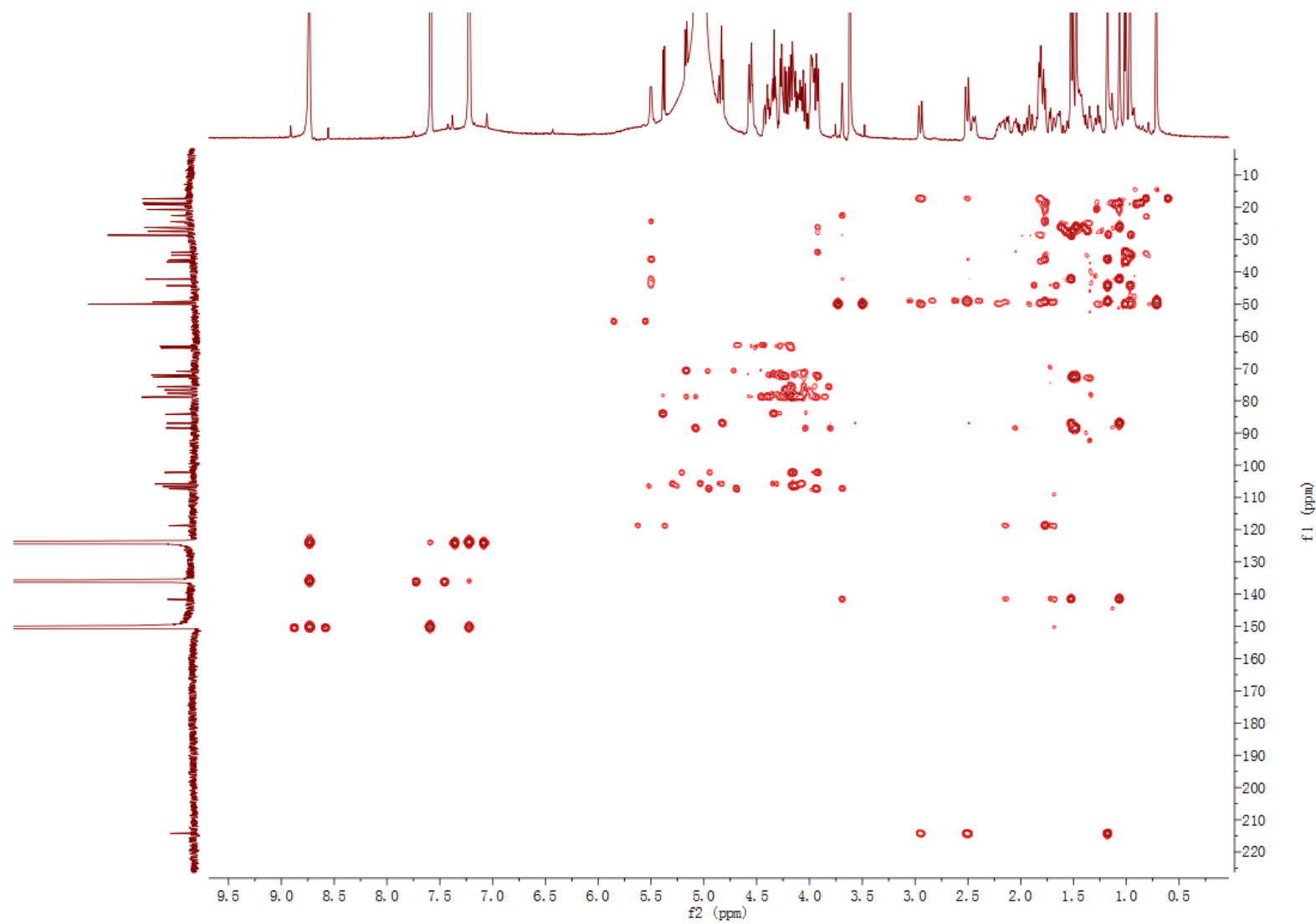


Figure S14. ROESY spectrum of 11-oxomogroside IV (**2**) in C_5D_5N

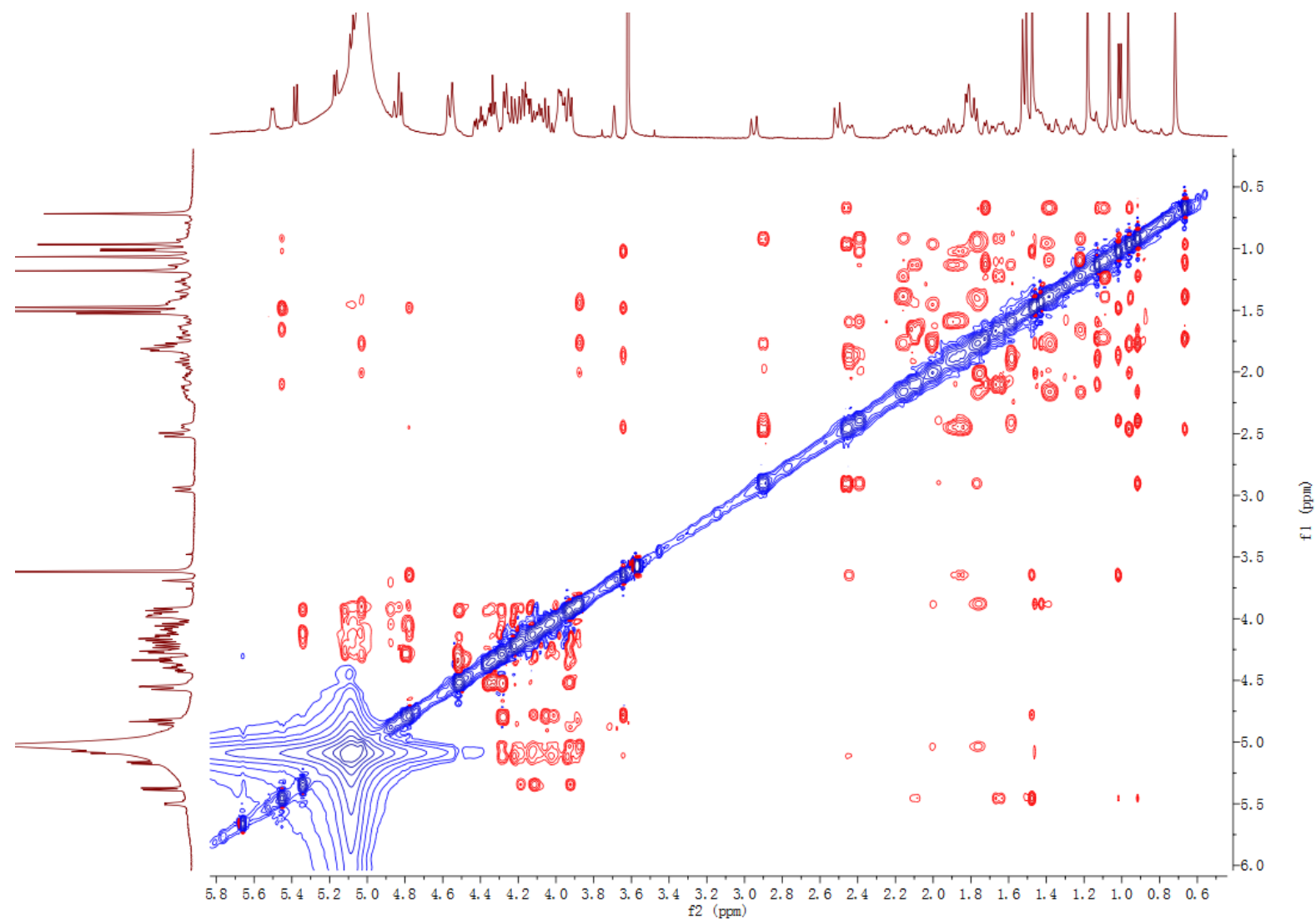


Figure S15. ^1H - ^1H COSY spectrum of 11-oxomogroside IV (**2**) in $\text{C}_5\text{D}_5\text{N}$

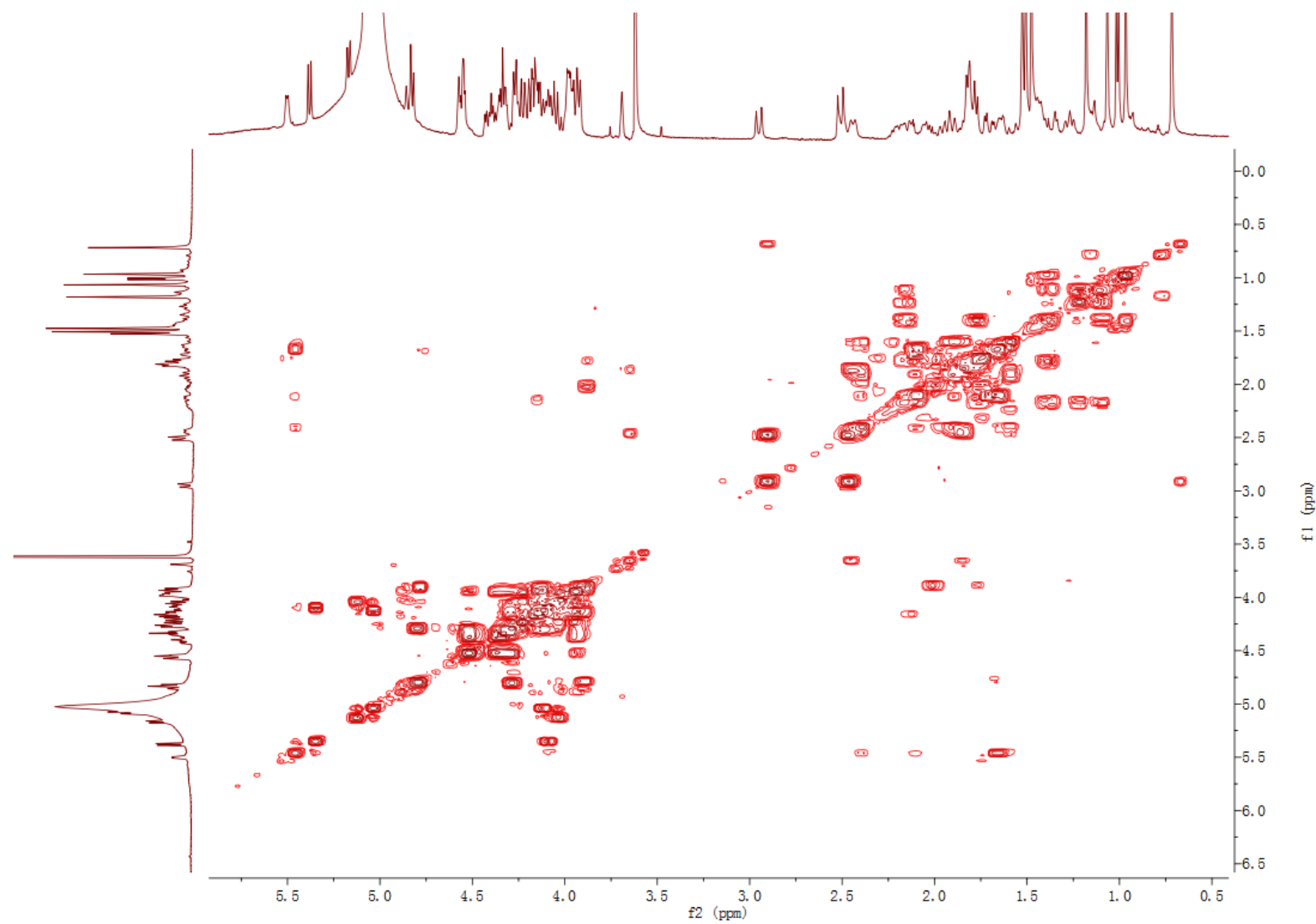


Figure S16. TOCSY spectrum of 11-oxomogroside IV (**2**) in C_5D_5N

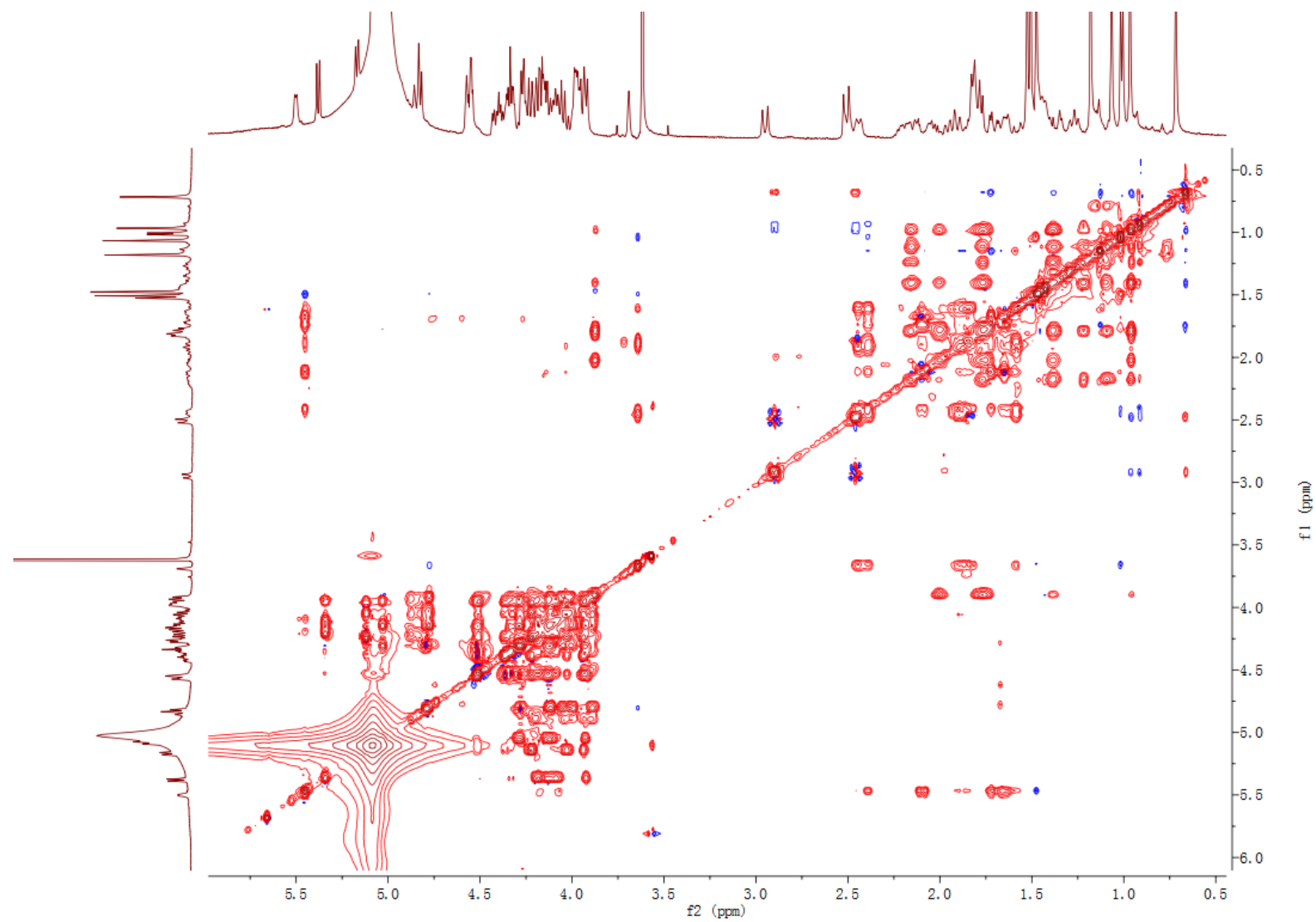


Figure S17. IR spectrum of 11-oxomogroside IV (2)

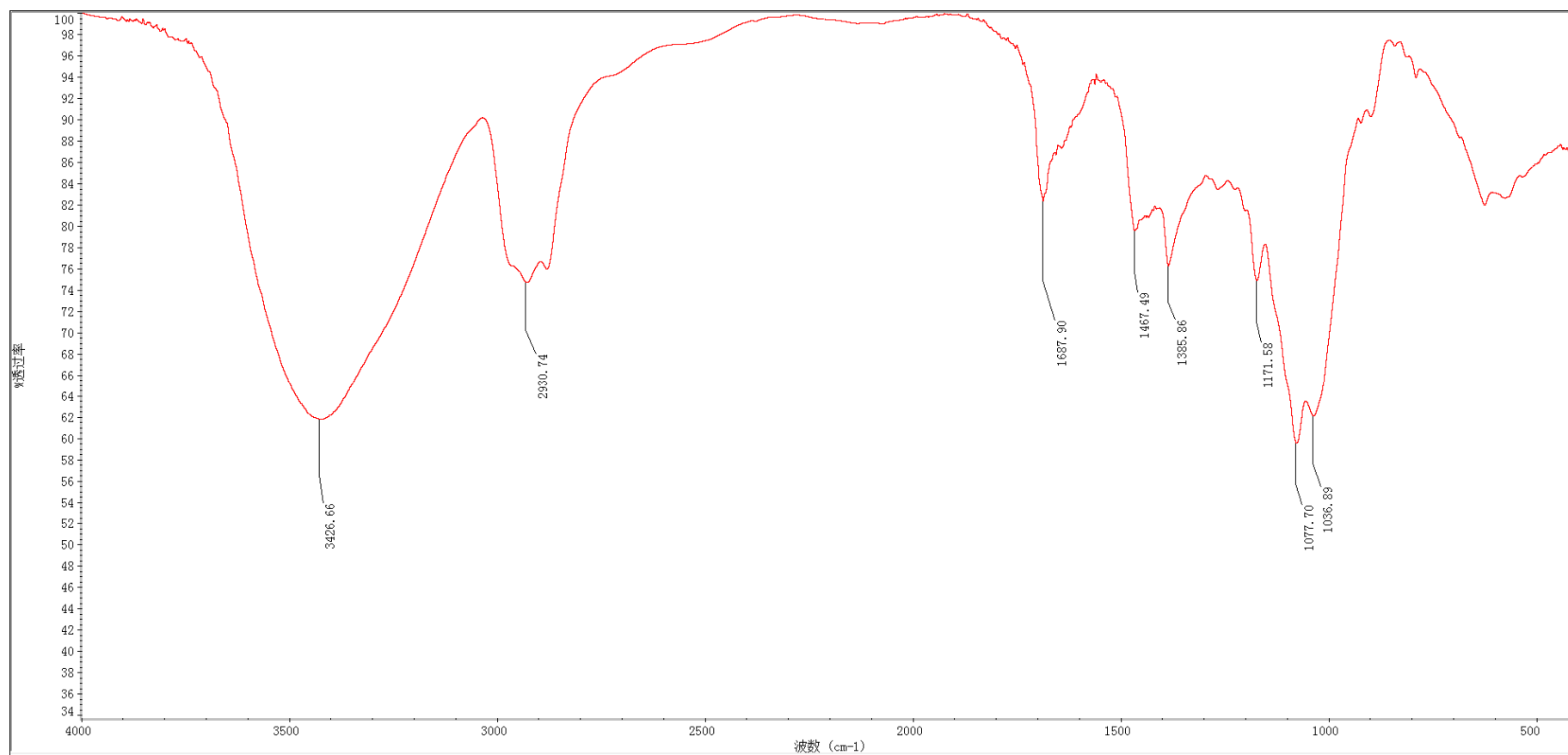


Figure S18. HRESIMS spectrum of 11-oxomogroside IV (**2**)

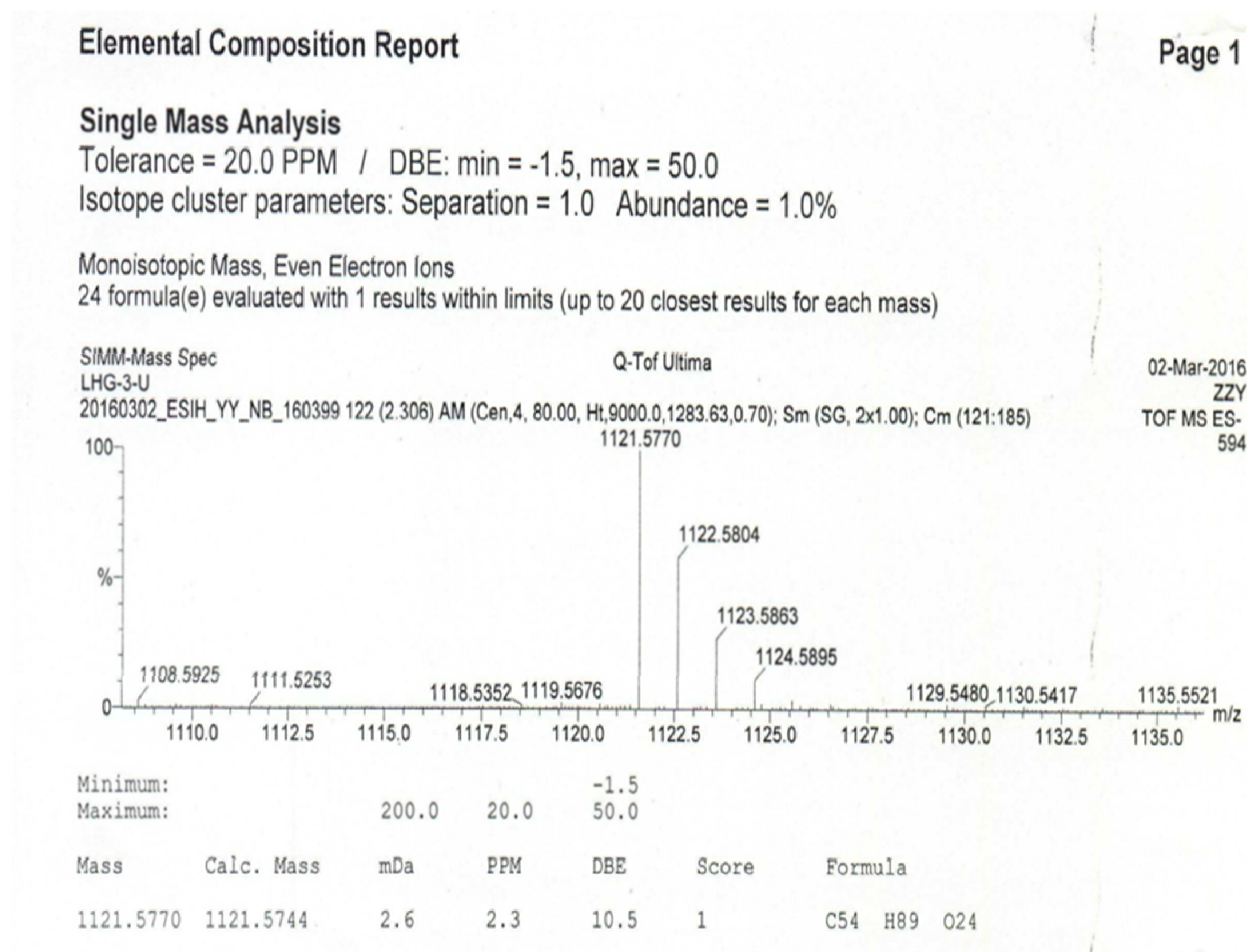


Figure S19. ^1H NMR spectrum of 11-oxoisomogroside V (**3**) in $\text{C}_5\text{D}_5\text{N}$

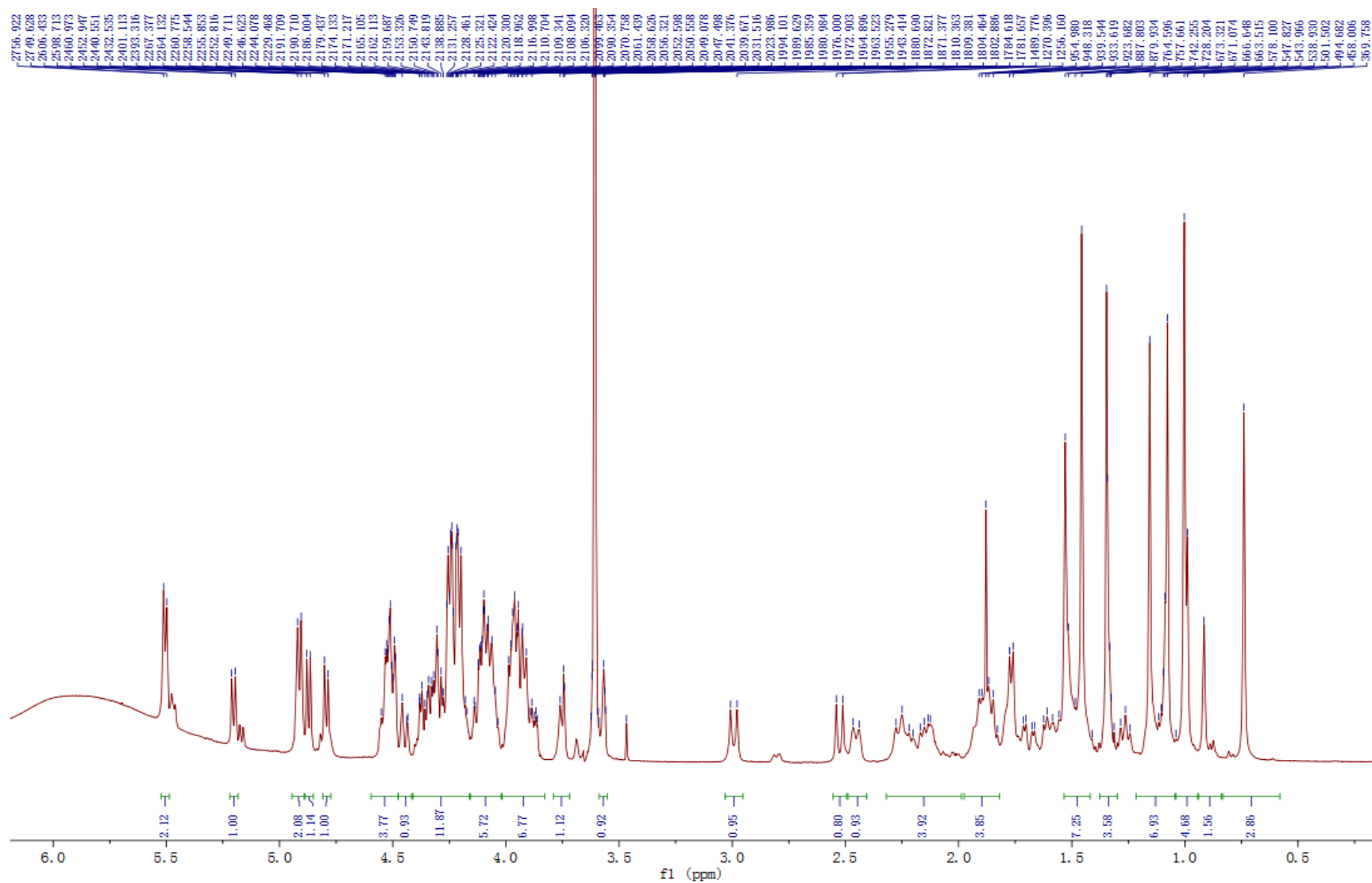


Figure S20. ^{13}C NMR spectrum of 11-oxoisomogroside V (**3**) in $\text{C}_5\text{D}_5\text{N}$

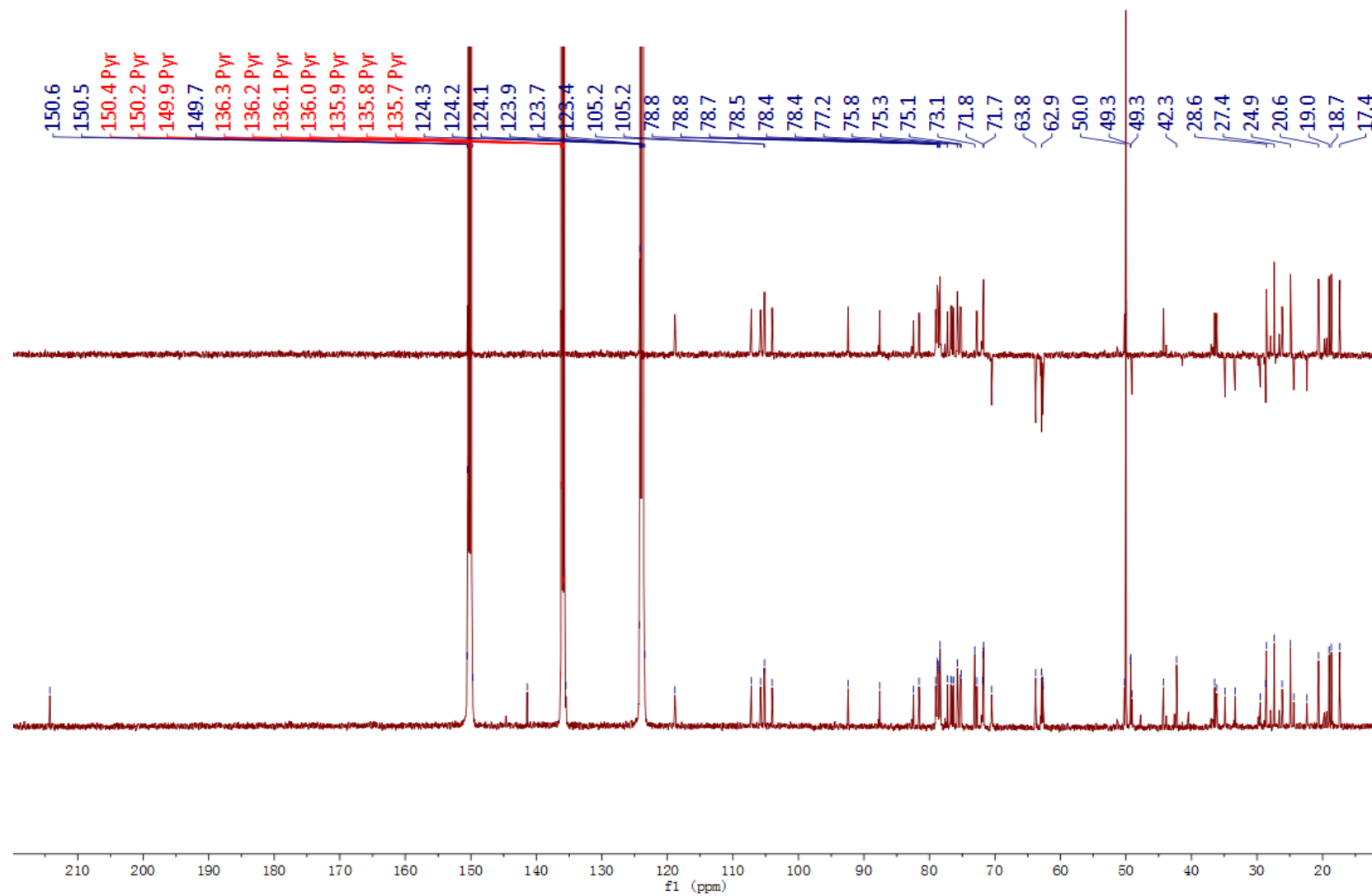


Figure S21. HSQC spectrum of 11-oxoisomogroside V (**3**) in C₅D₅N

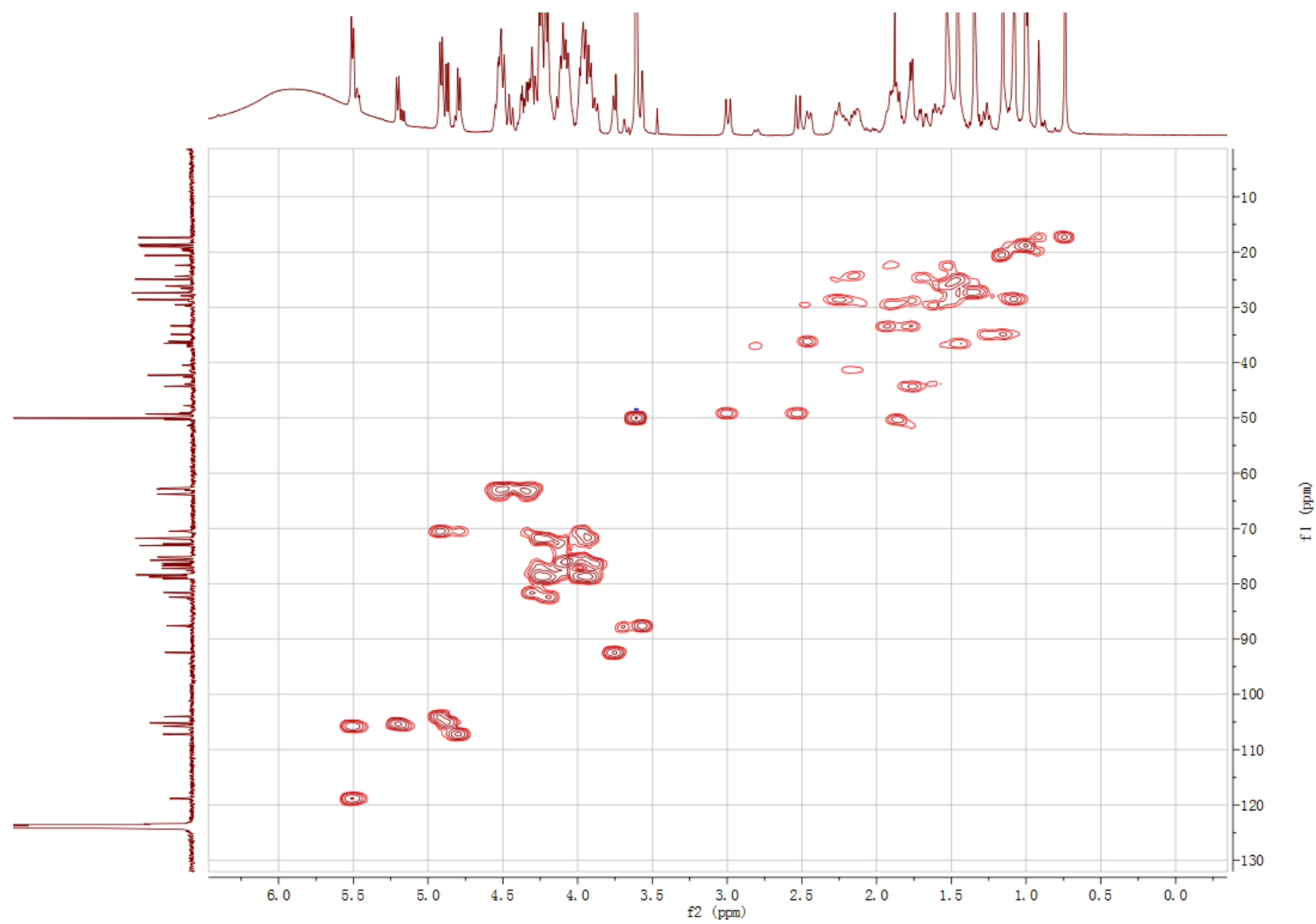


Figure S22. HMBC spectrum of 11-oxoisomogroside V (**3**) in C_5D_5N

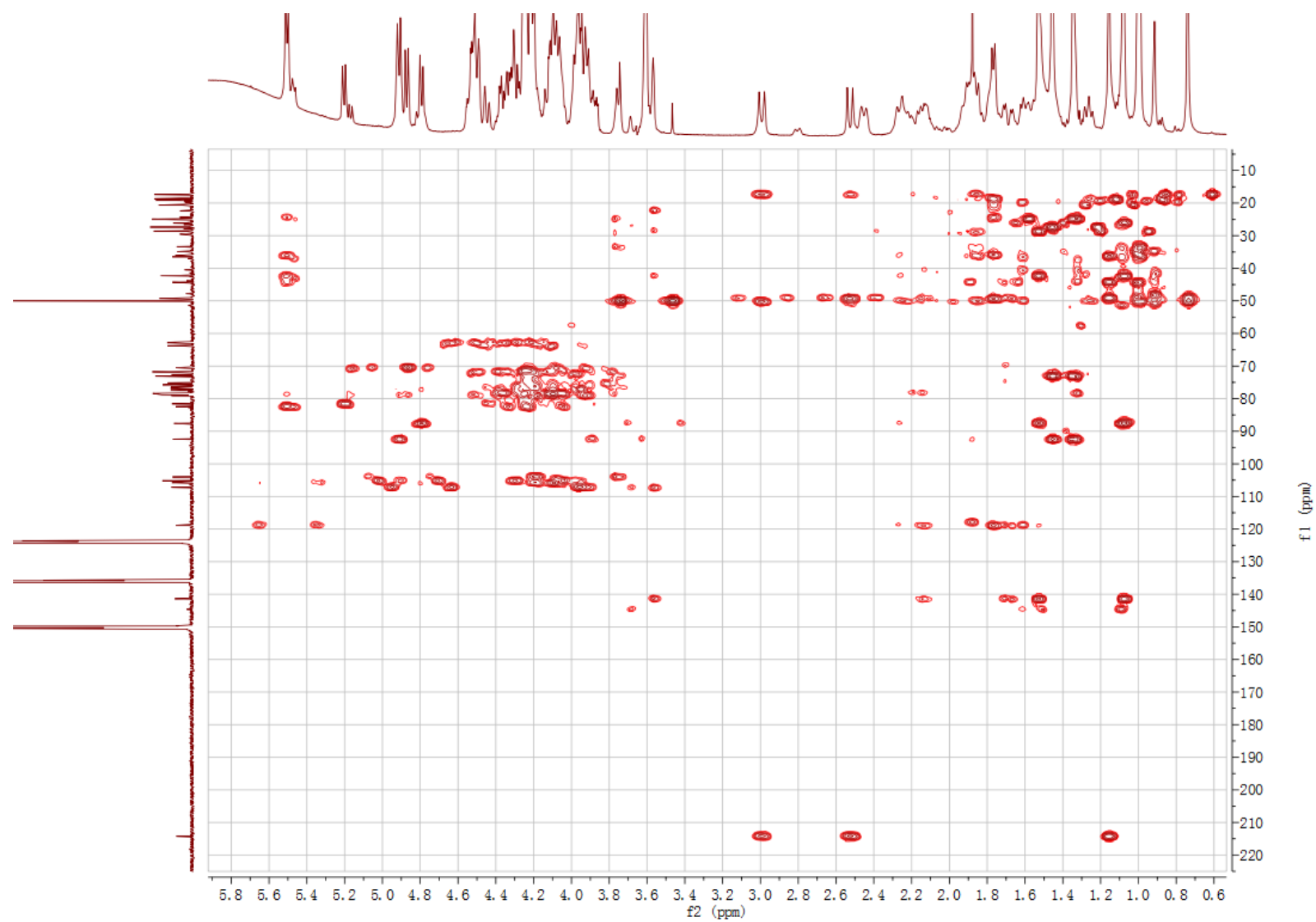


Figure S23. ROESY spectrum of 11-oxoisomogroside V (**3**) in C₅D₅N

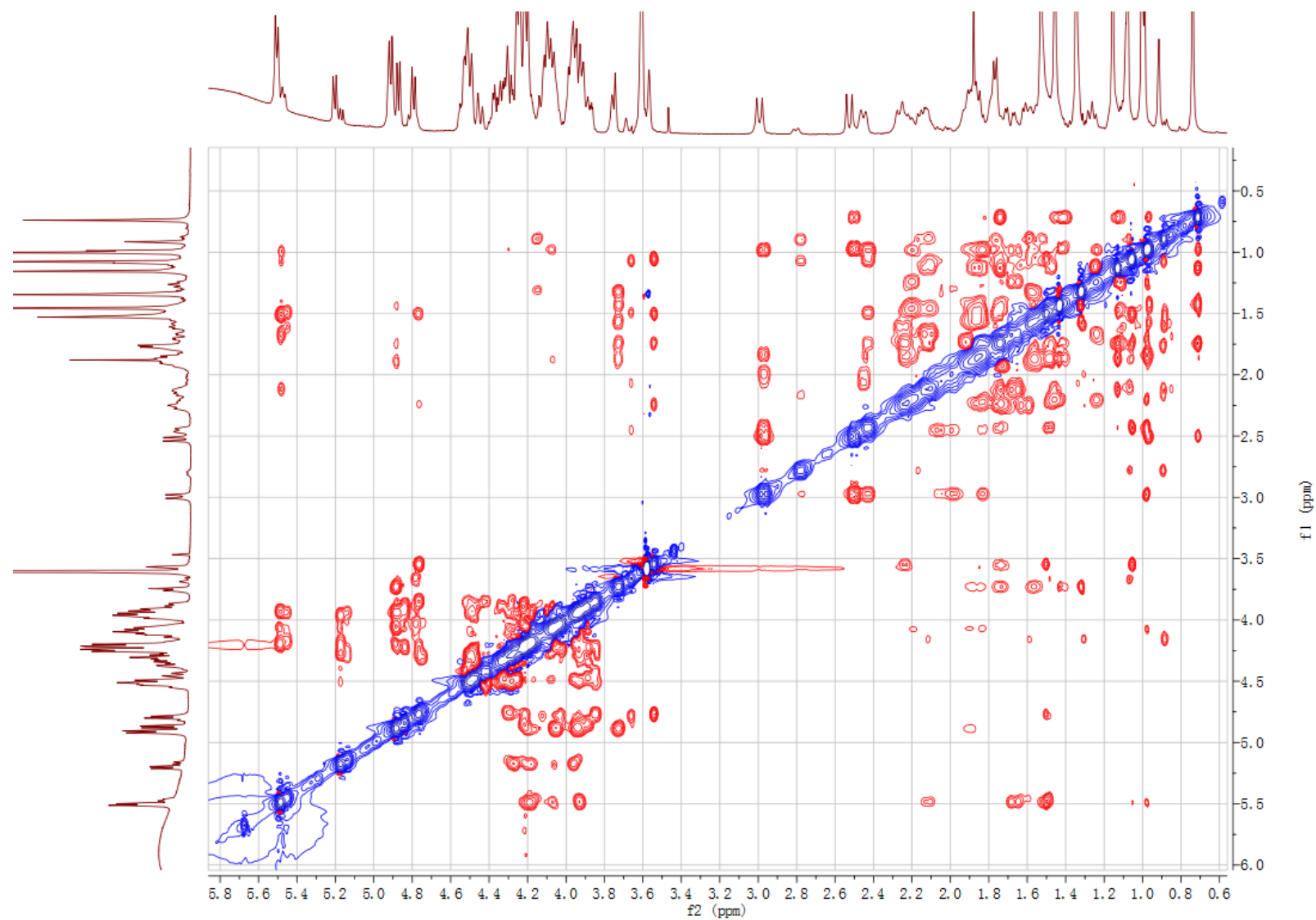


Figure S24. ^1H - ^1H COSY spectrum of 11-oxoisomogroside V (**3**) in $\text{C}_5\text{D}_5\text{N}$

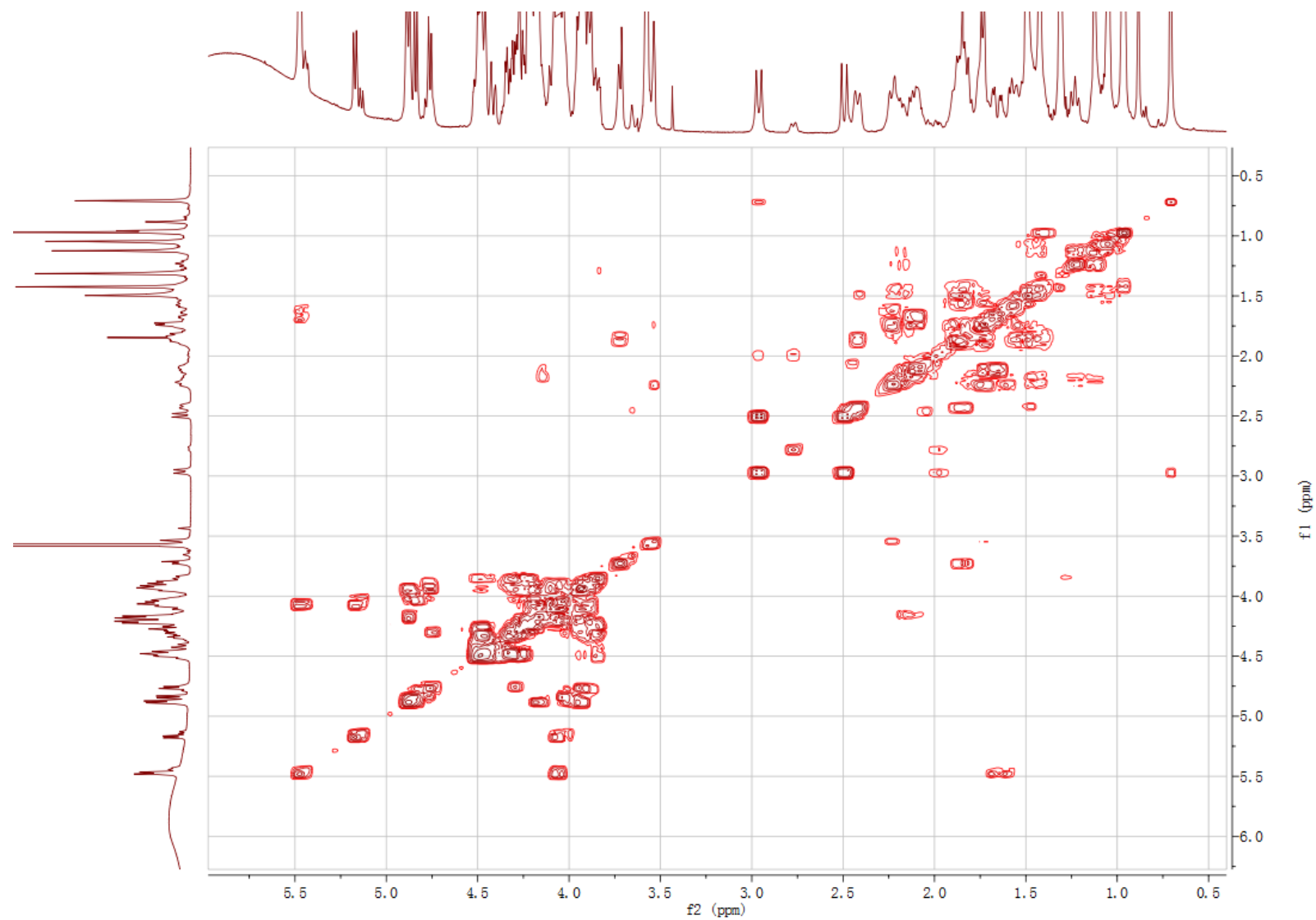


Figure S25. TOCSY spectrum of 11-oxoisomogroside V (**3**) in C₅D₅N



Figure S26. IR spectrum of 11-oxoisomogroside V (**3**)

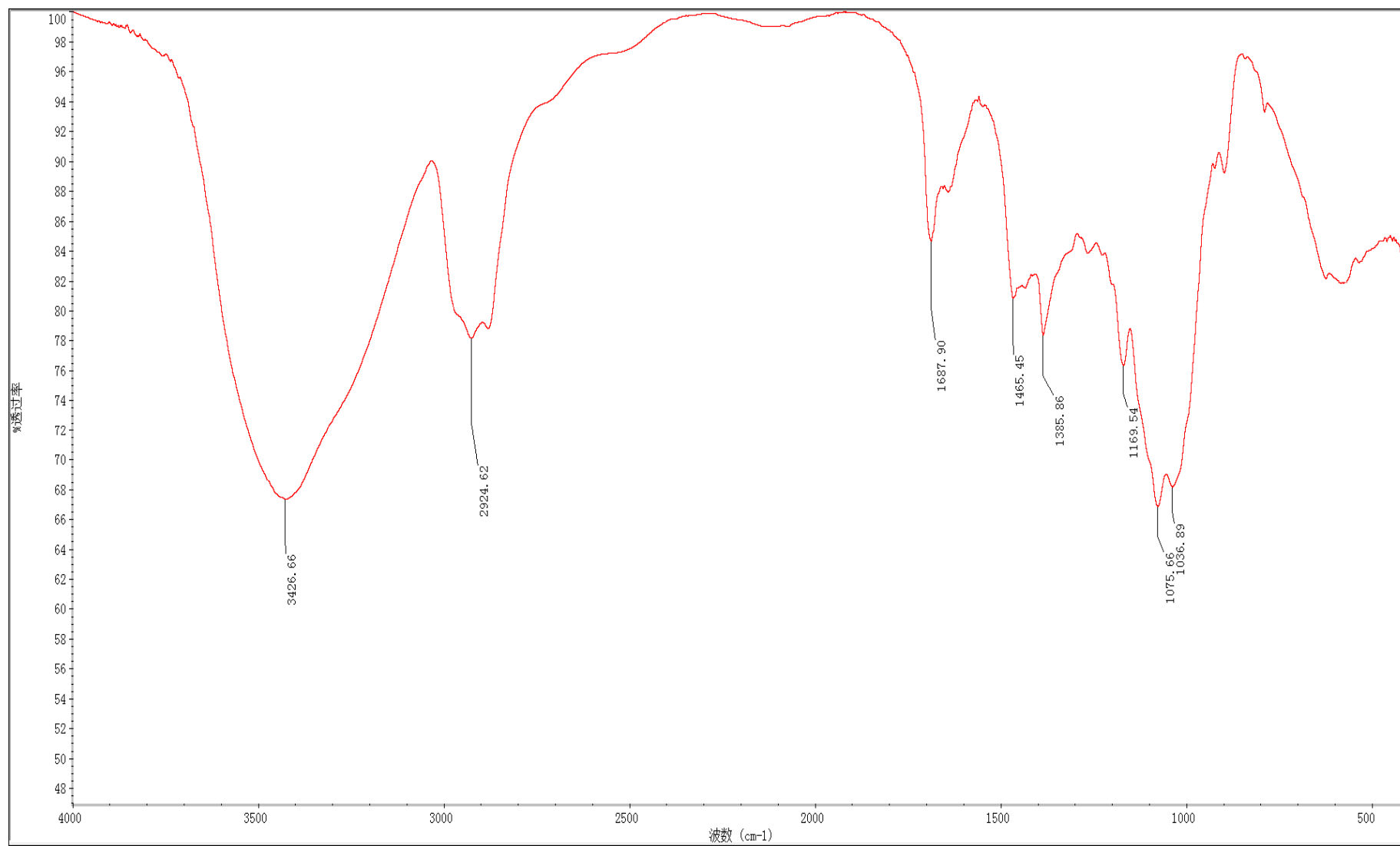


Figure S27. HRESIMS spectrum of 11-oxoisomogroside V (**3**)

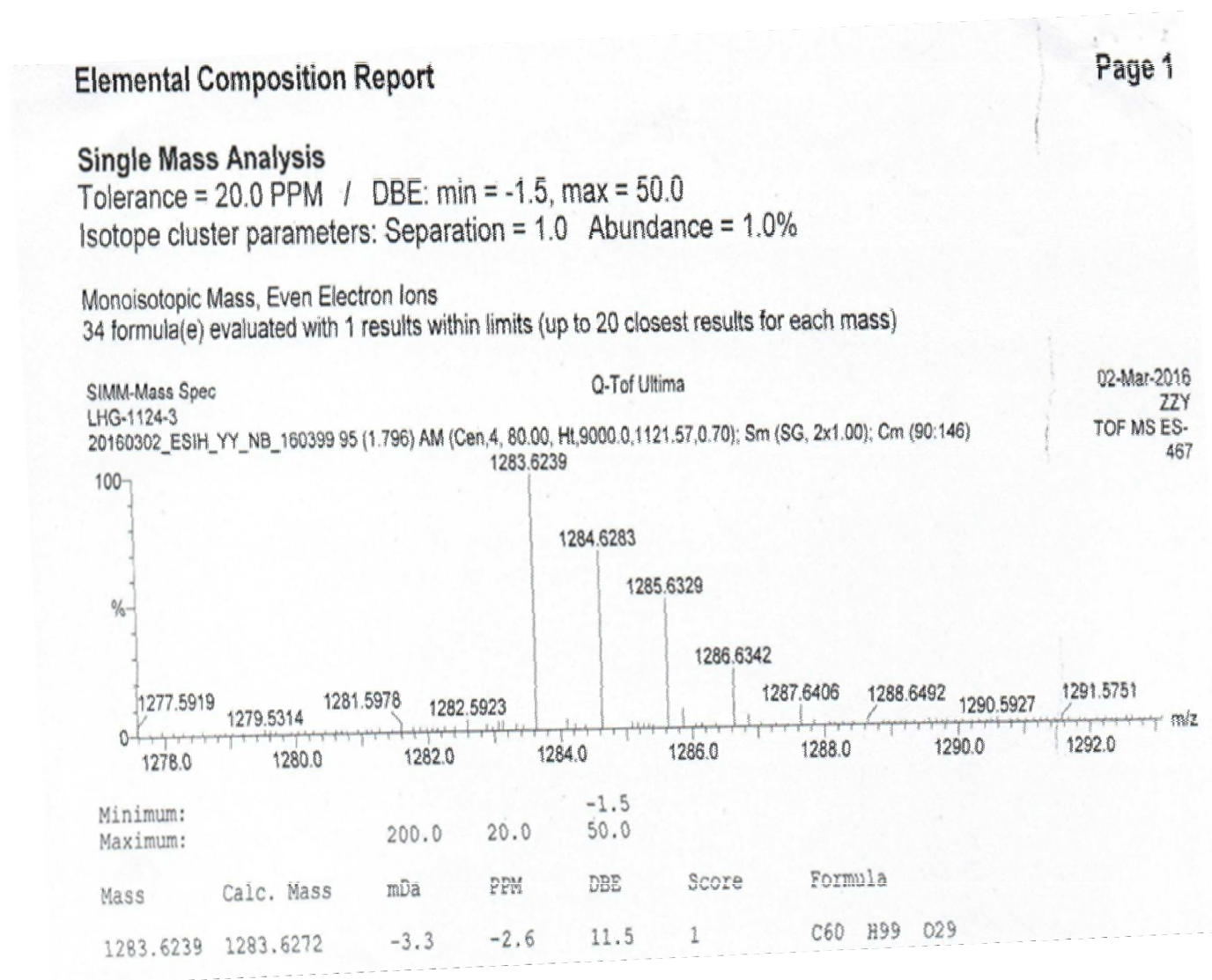


Figure S28. ^1H NMR spectrum of 7-oxomogroside III E (**4**) in $\text{C}_5\text{D}_5\text{N}$

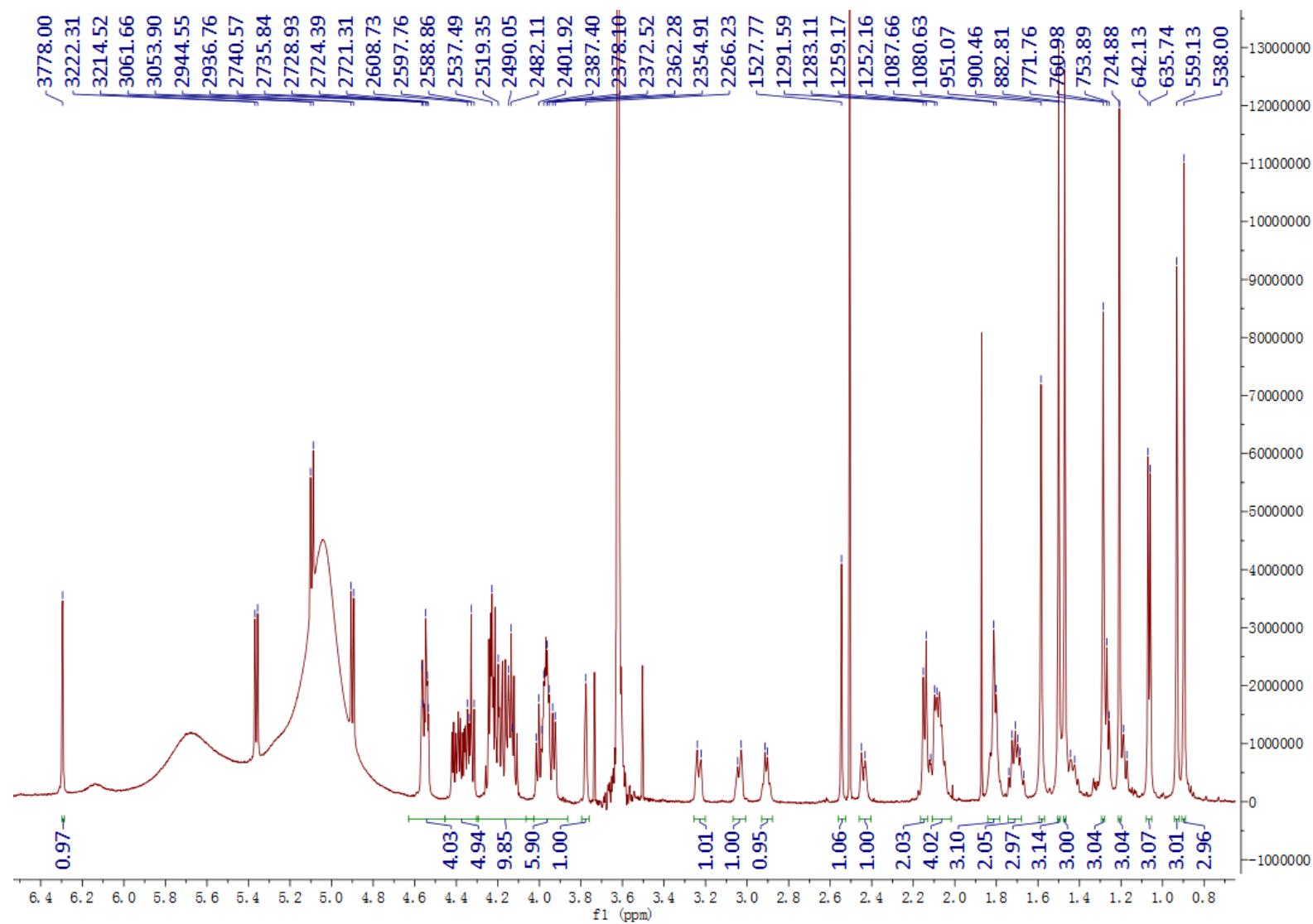


Figure S29. ^{13}C NMR spectrum of 7-oxomogroside III E (**4**) in $\text{C}_5\text{D}_5\text{N}$

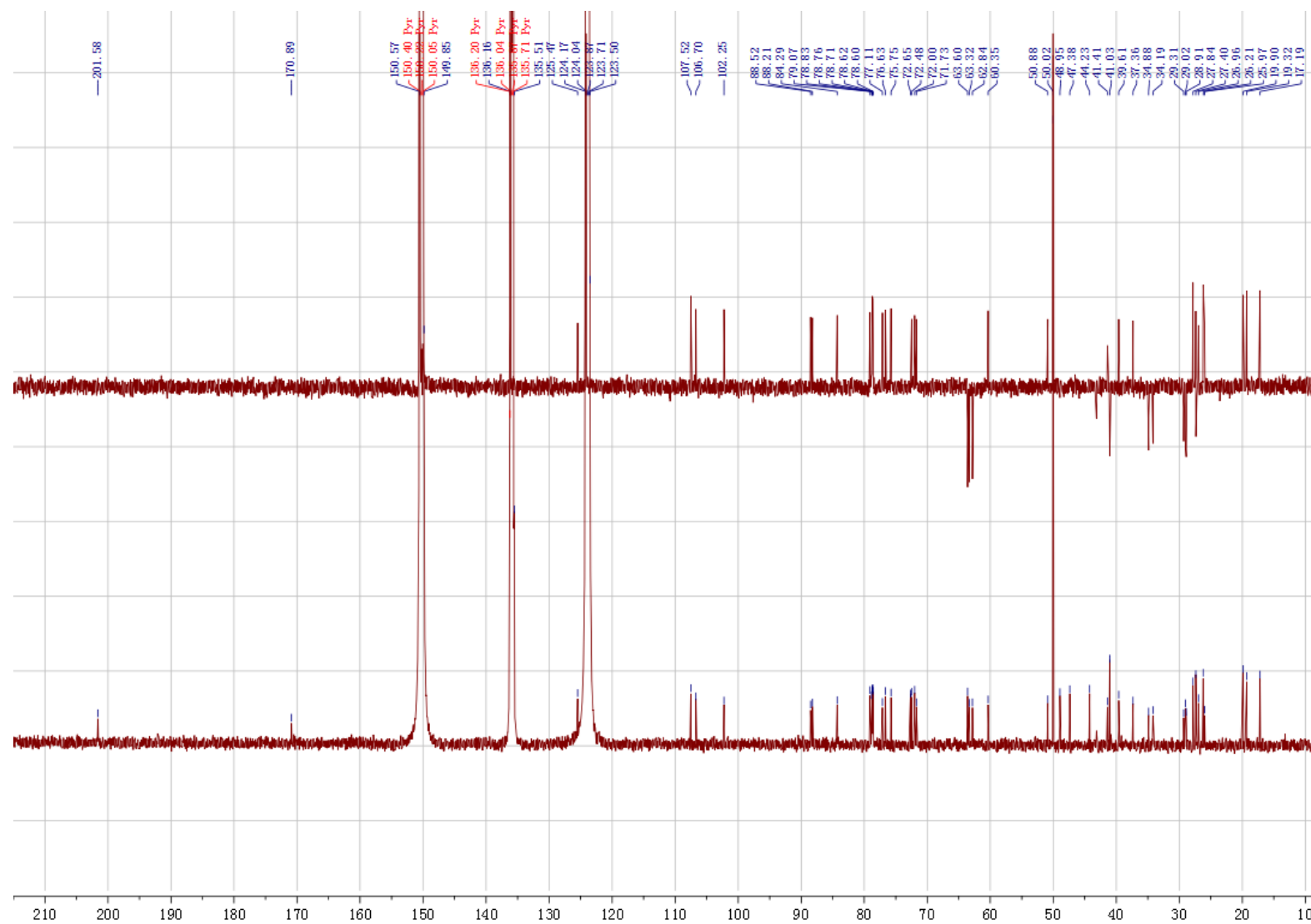


Figure S30. HSQC spectrum of 7-oxomogroside III E (**4**) in C₅D₅N

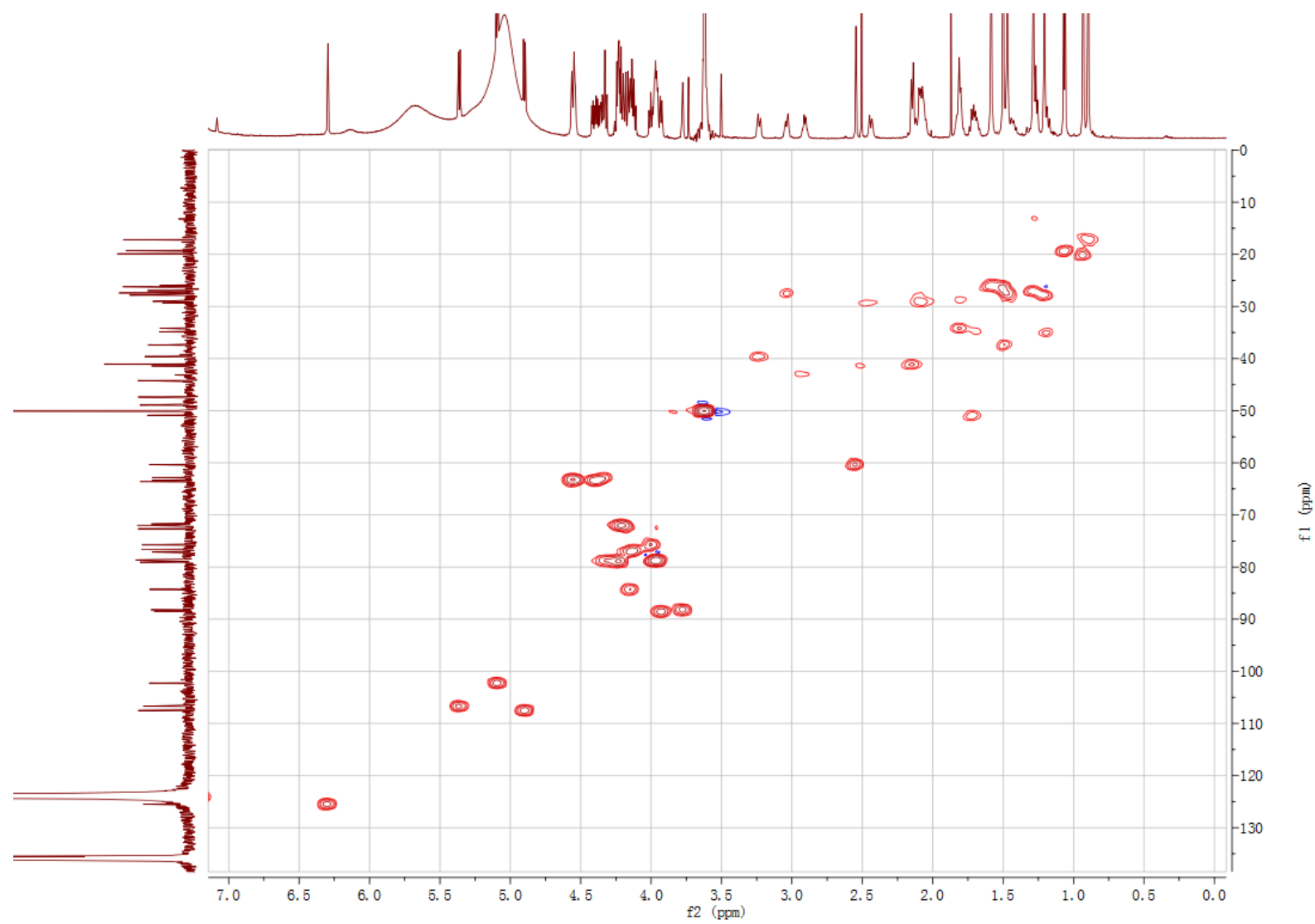


Figure S31. HMBC spectrum of 7-oxomogroside III E (**4**) in C_5D_5N

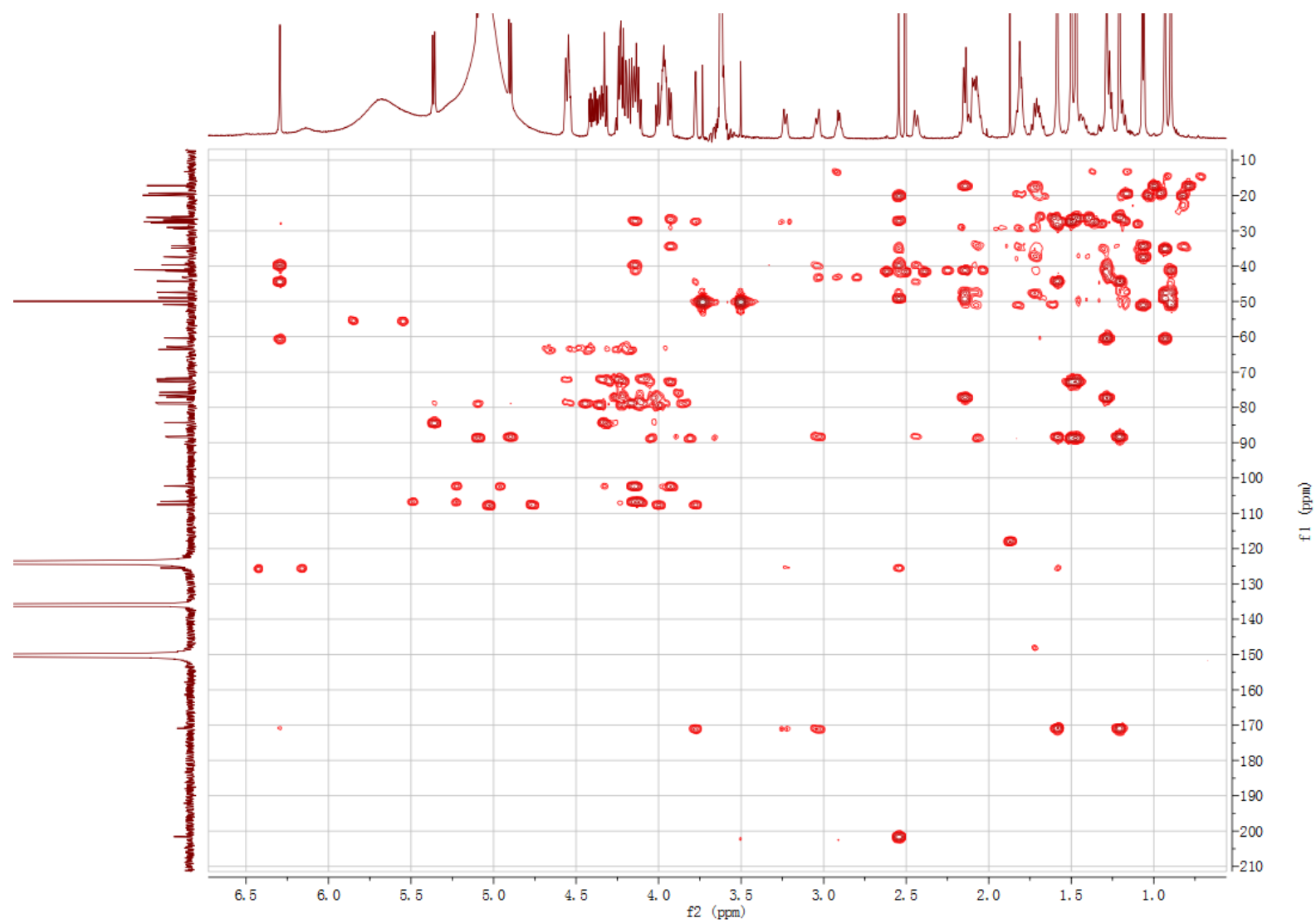


Figure S32. ROESY spectrum of 7-oxomogroside III E (**4**) in C₅D₅N

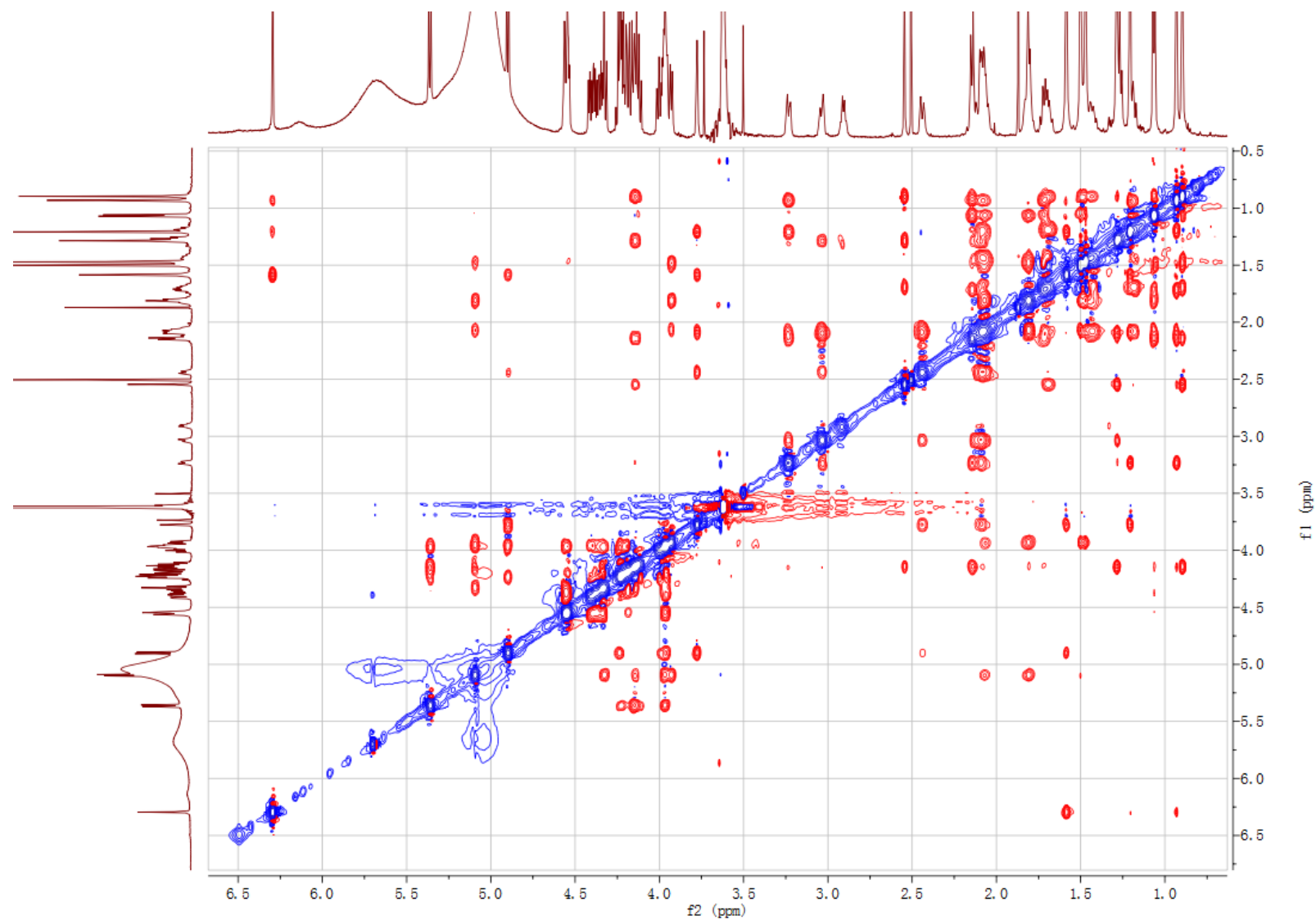


Figure S33. ^1H - ^1H COSY spectrum of 7-oxomogroside III E (**4**) in $\text{C}_5\text{D}_5\text{N}$

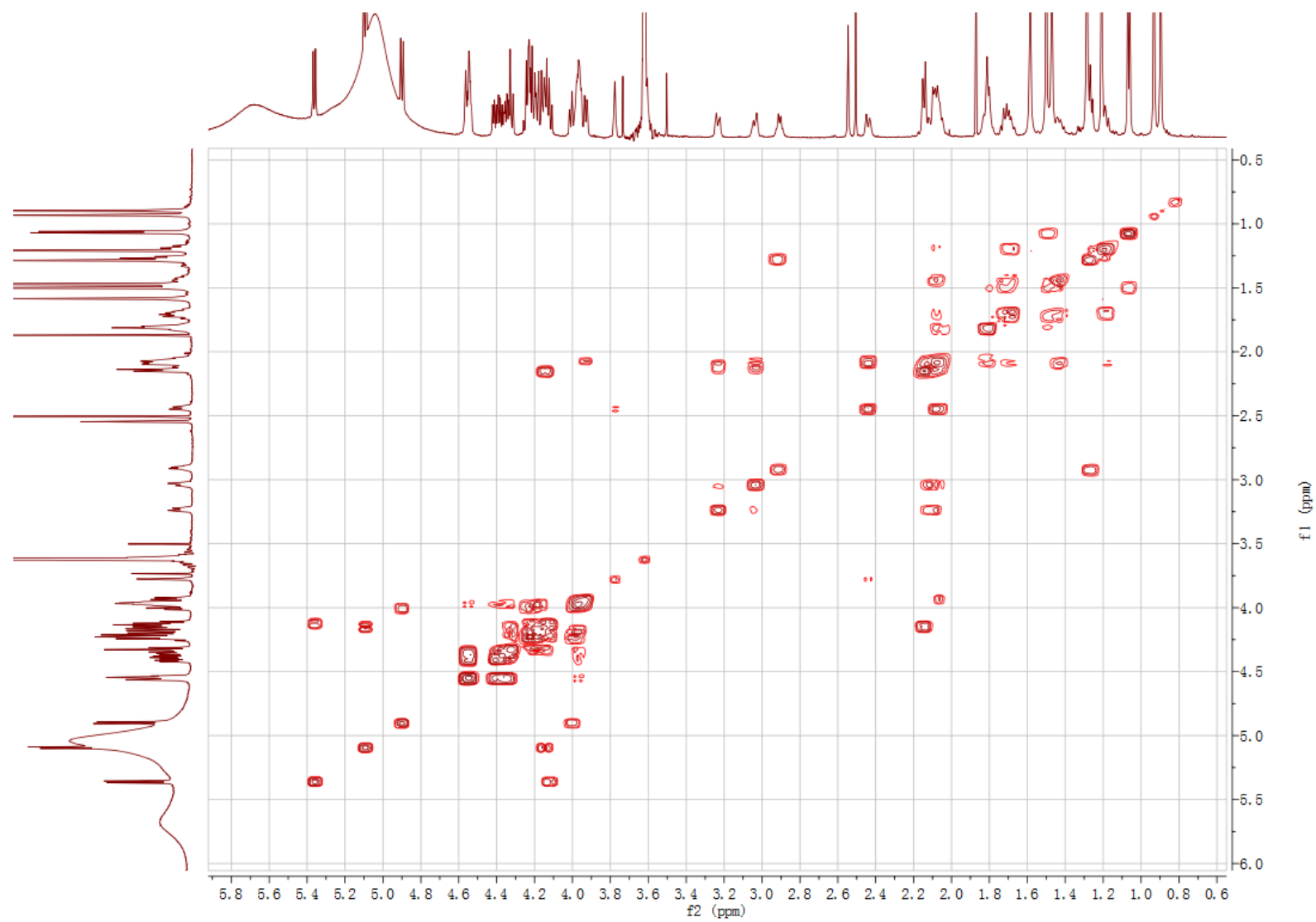


Figure S34. TOCSY spectrum of 7-oxomogrosid III E (**4**) in C₅D₅N

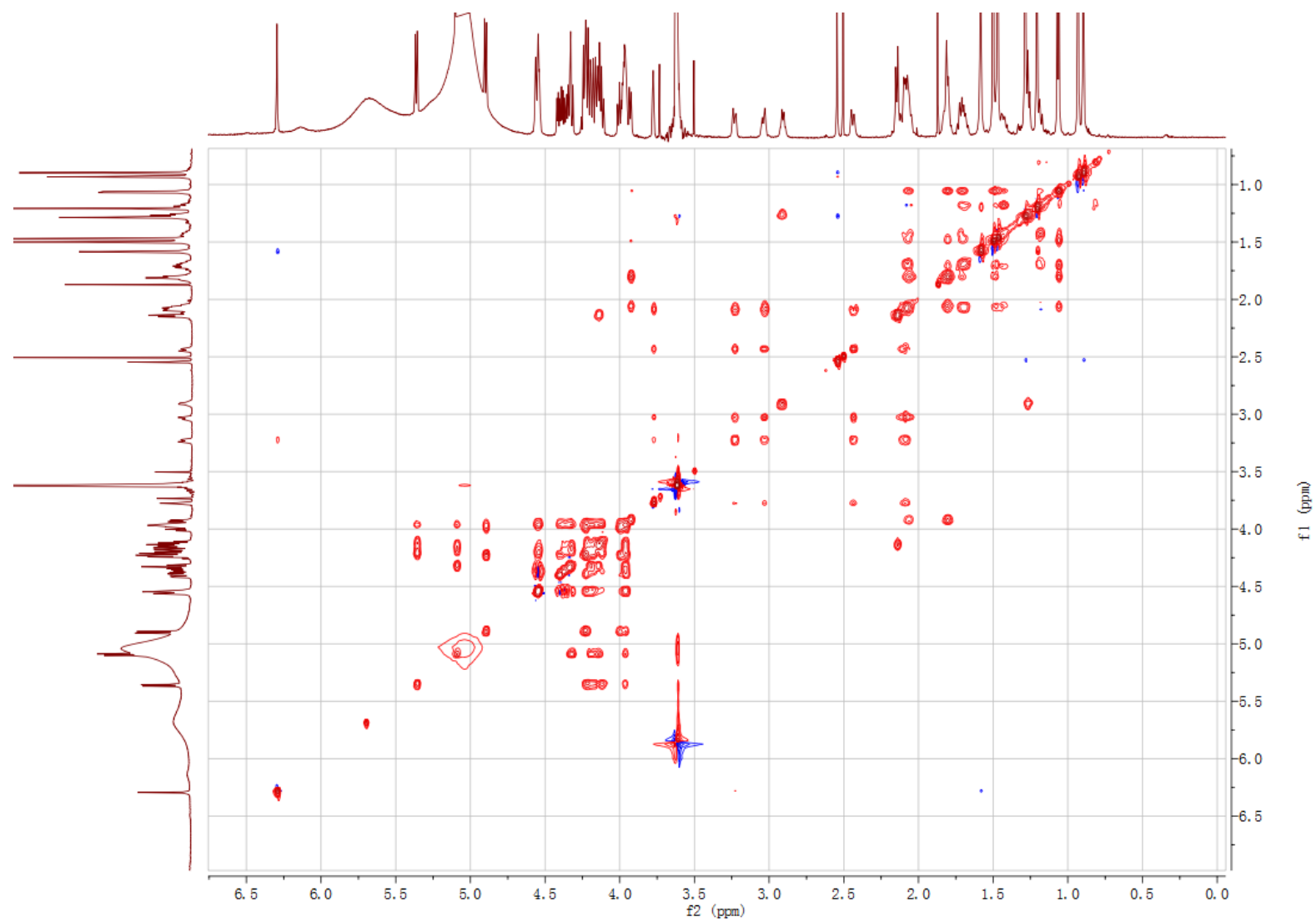


Figure S35. IR spectrum of 7-oxomogroside III E (4)

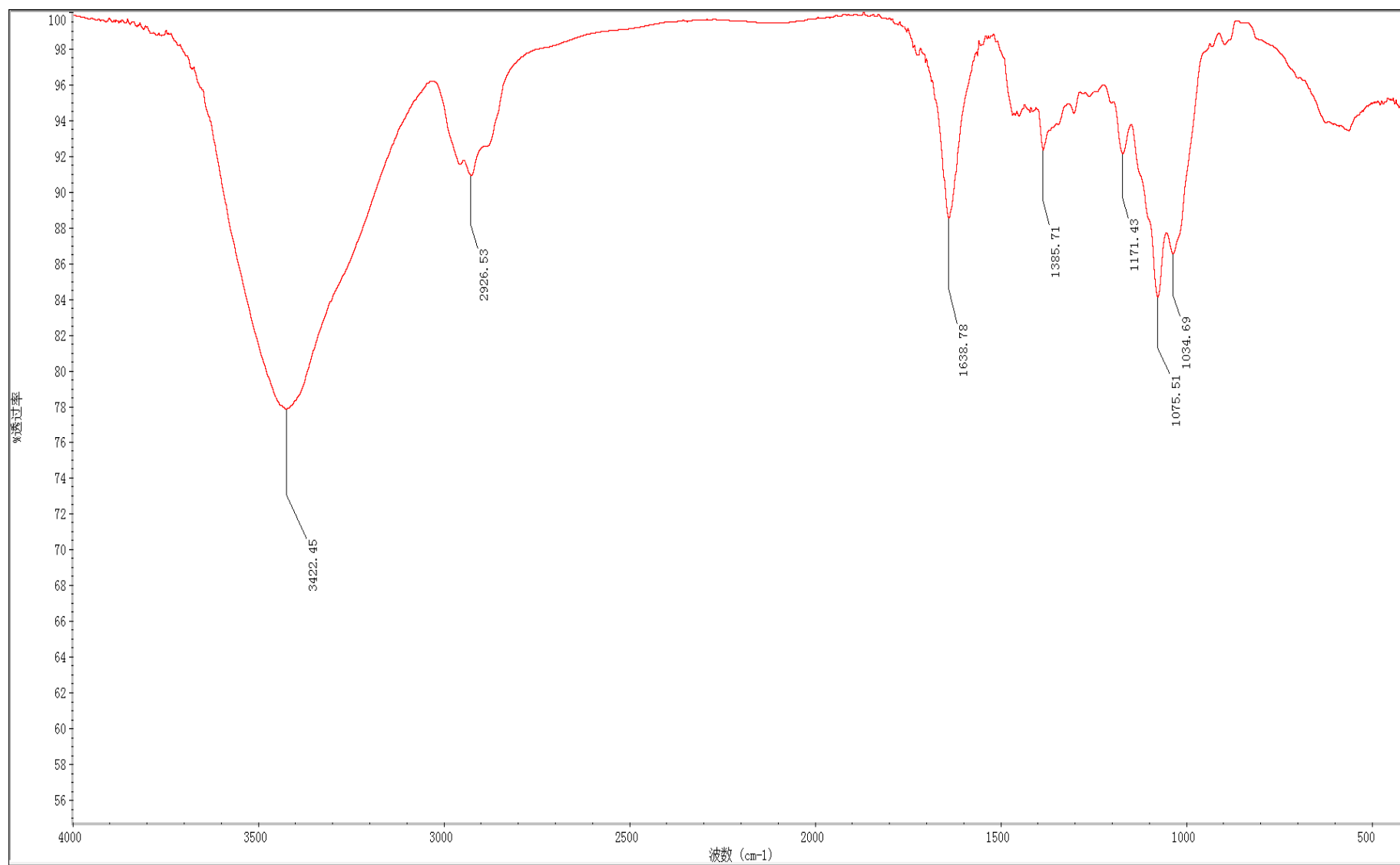


Figure S36. HRESIMS spectrum of 7-oxomogroside III E (4)

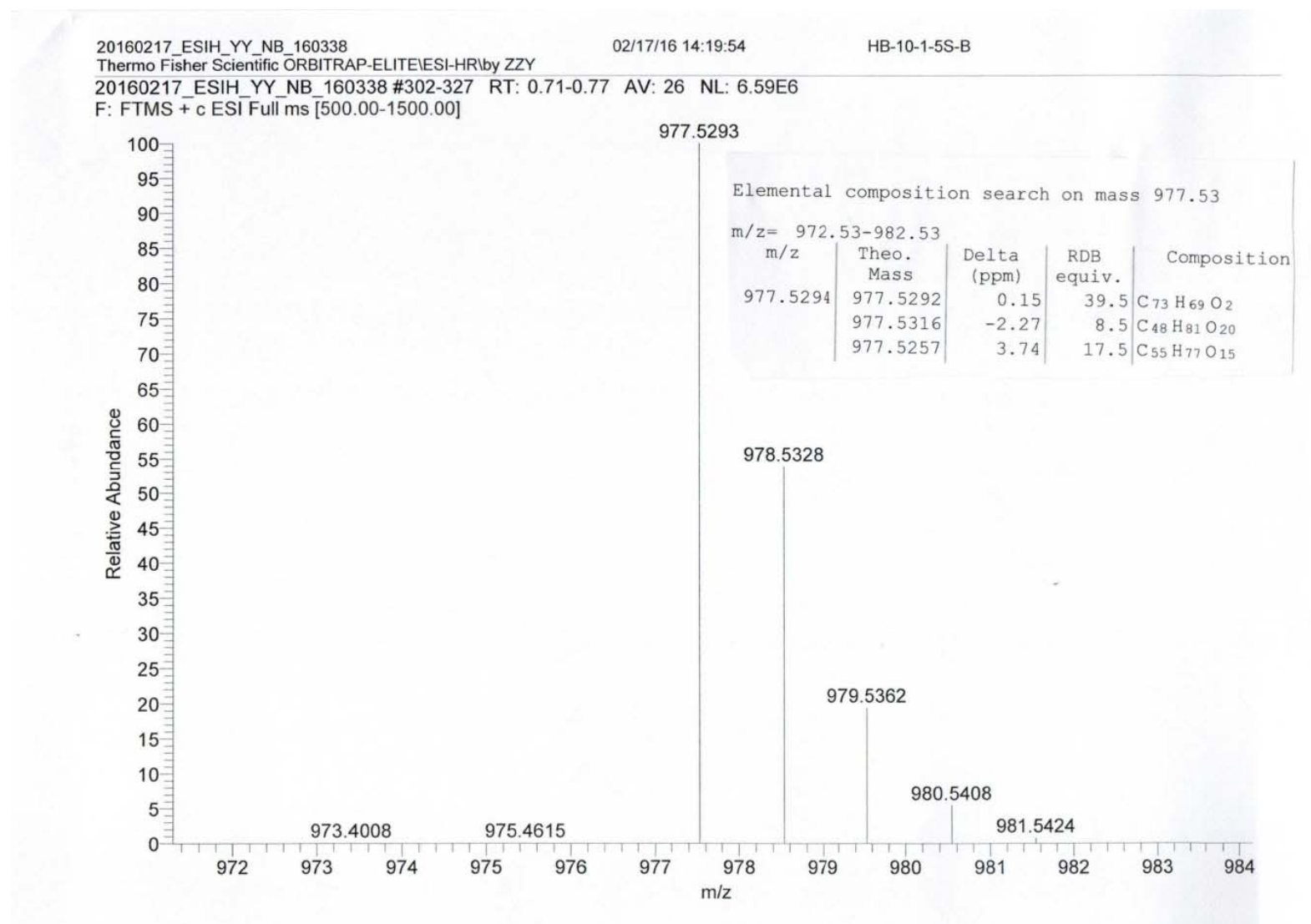


Figure S37. ^1H NMR spectrum of 7-oxomogroside IV (**5**) in $\text{C}_5\text{D}_5\text{N}$

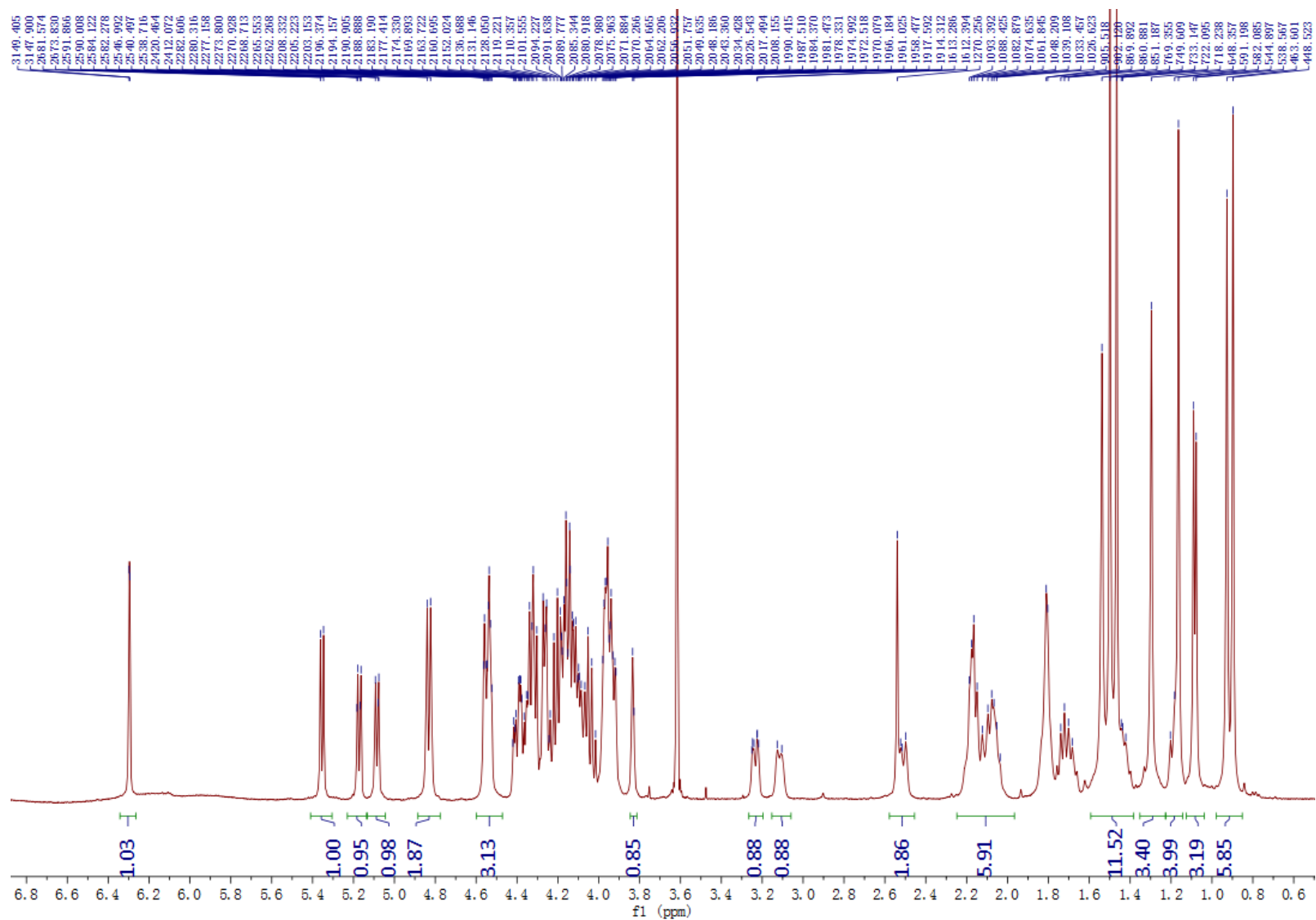


Figure S38. ^{13}C NMR spectrum of 7-oxomogroside IV (**5**) in $\text{C}_5\text{D}_5\text{N}$

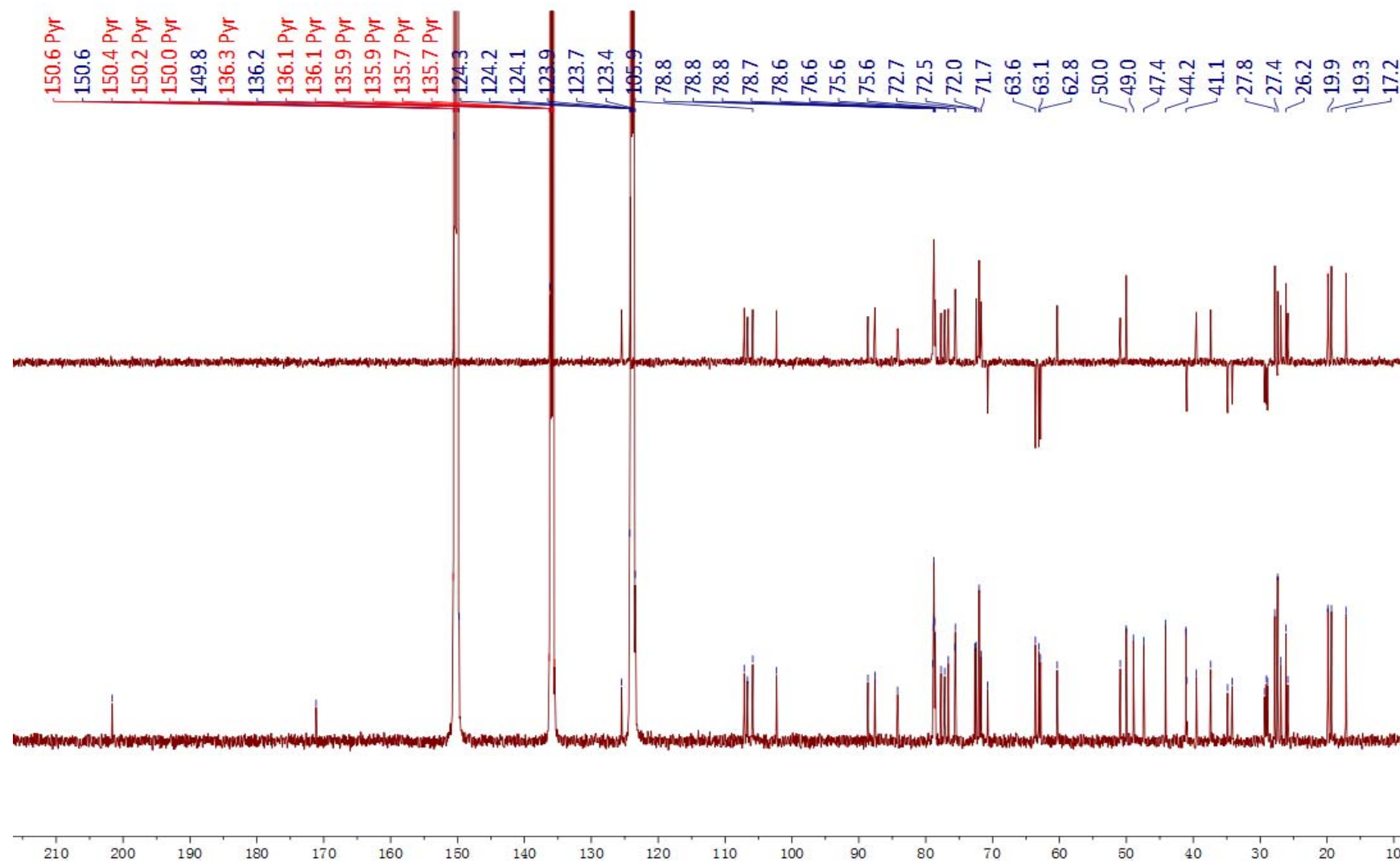


Figure S39. HSQC spectrum of 7-oxomogroside IV (**5**) in C₅D₅N

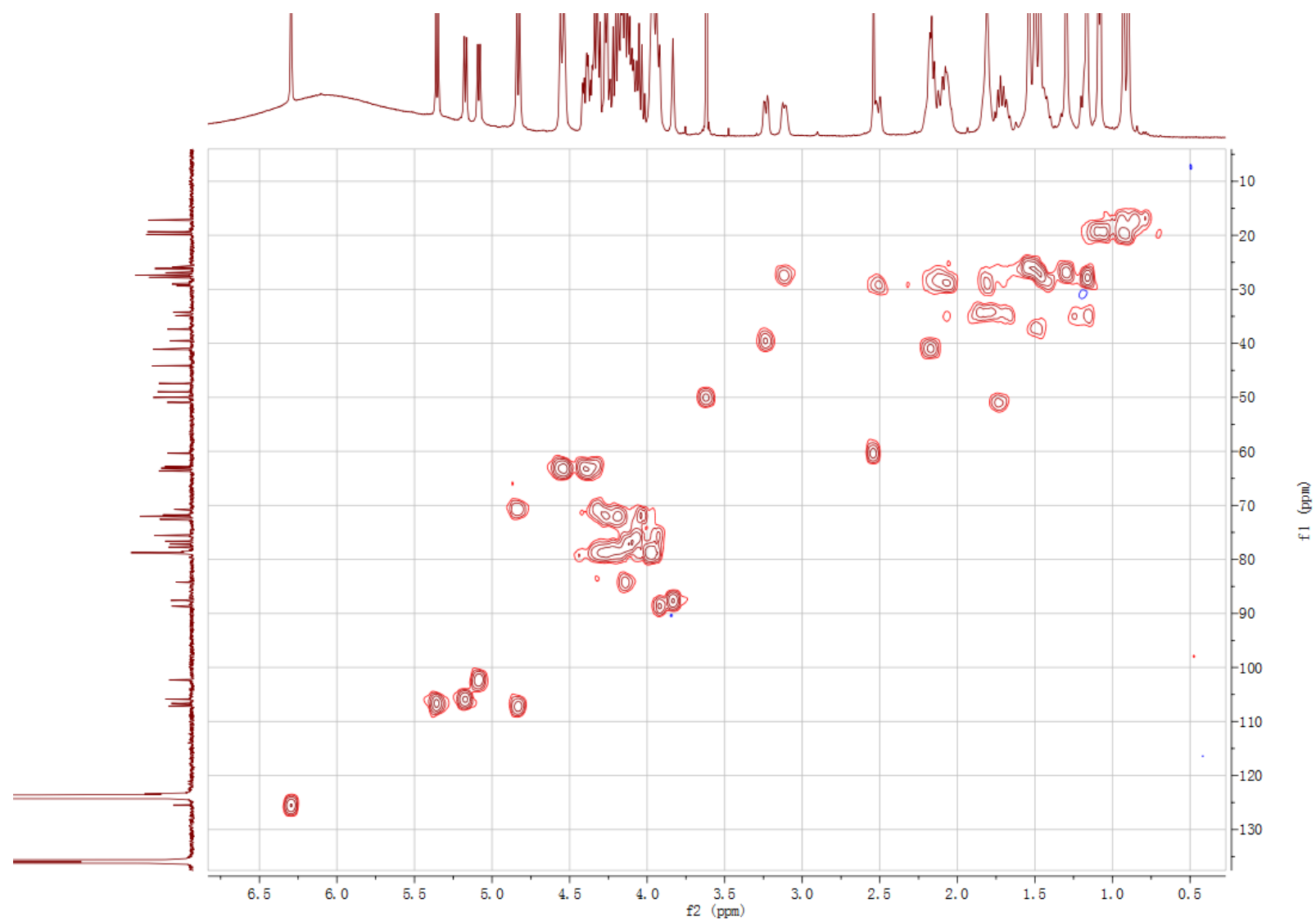


Figure S40. HMBC spectrum of 7-oxomogroside IV (**5**) in C₅D₅N

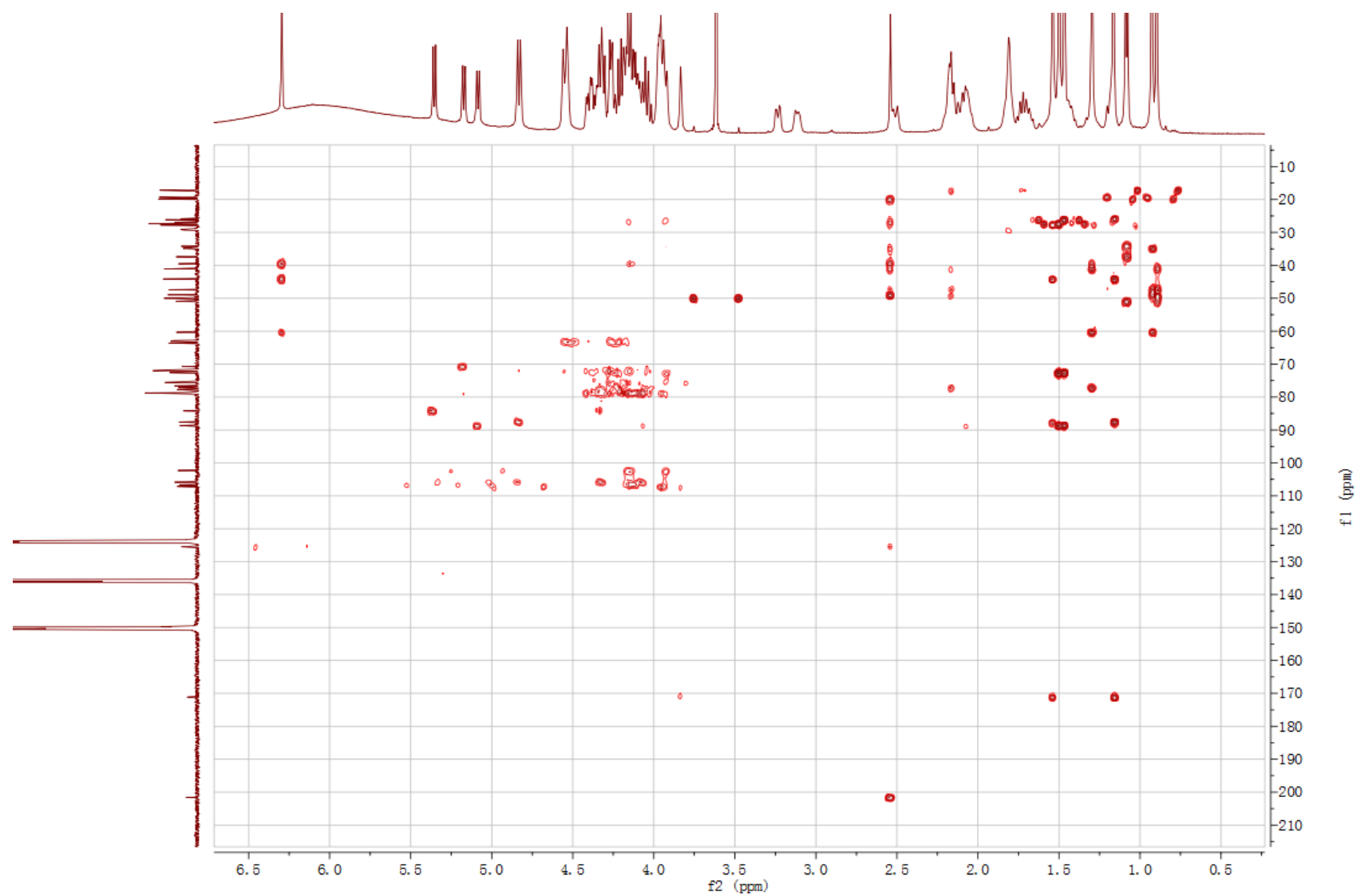


Figure S41. ROESY spectrum of 7-oxomogroside IV (**5**) in C_5D_5N

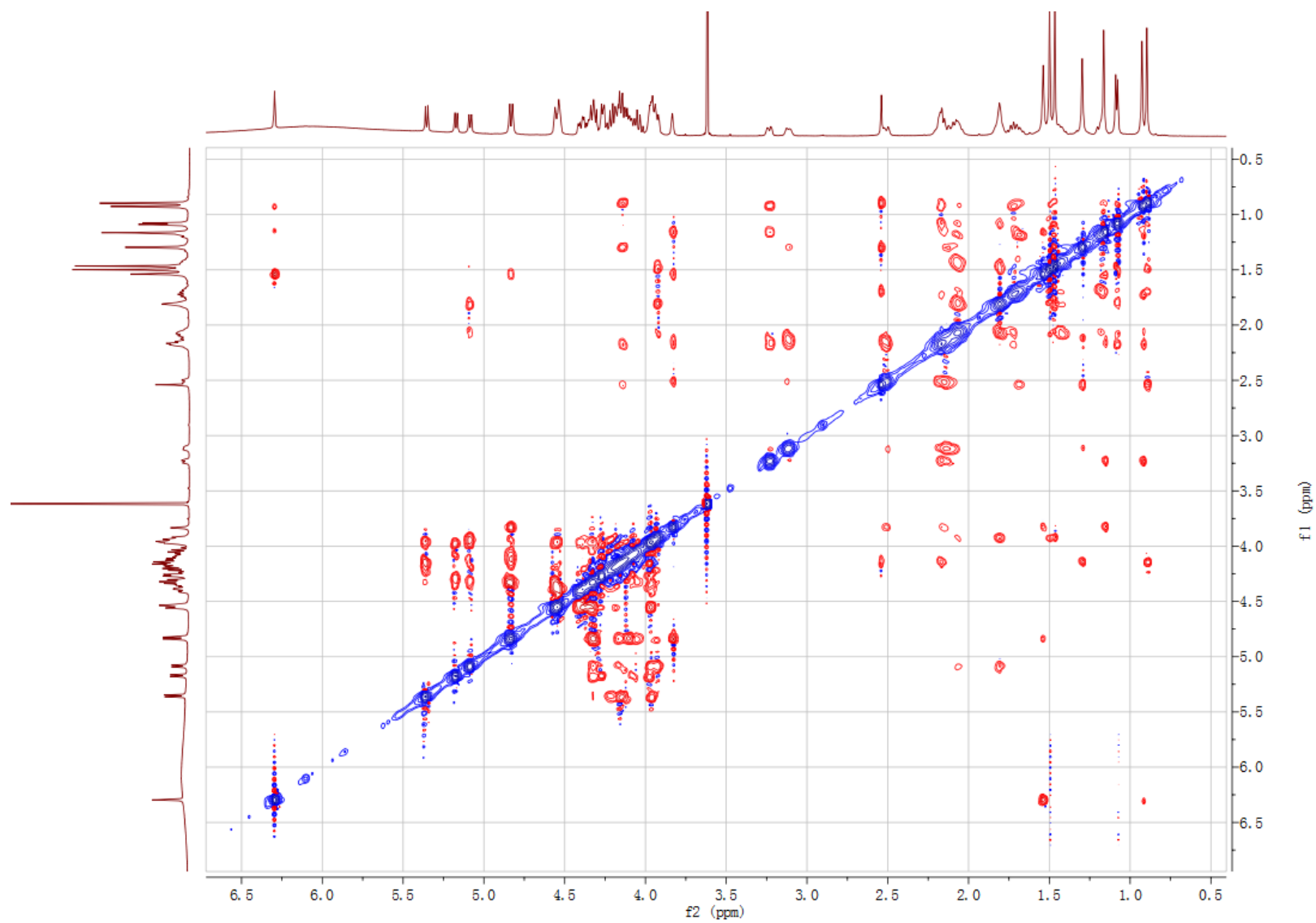


Figure S42. ^1H - ^1H COSY spectrum of 7-oxomogroside IV (**5**) in $\text{C}_5\text{D}_5\text{N}$

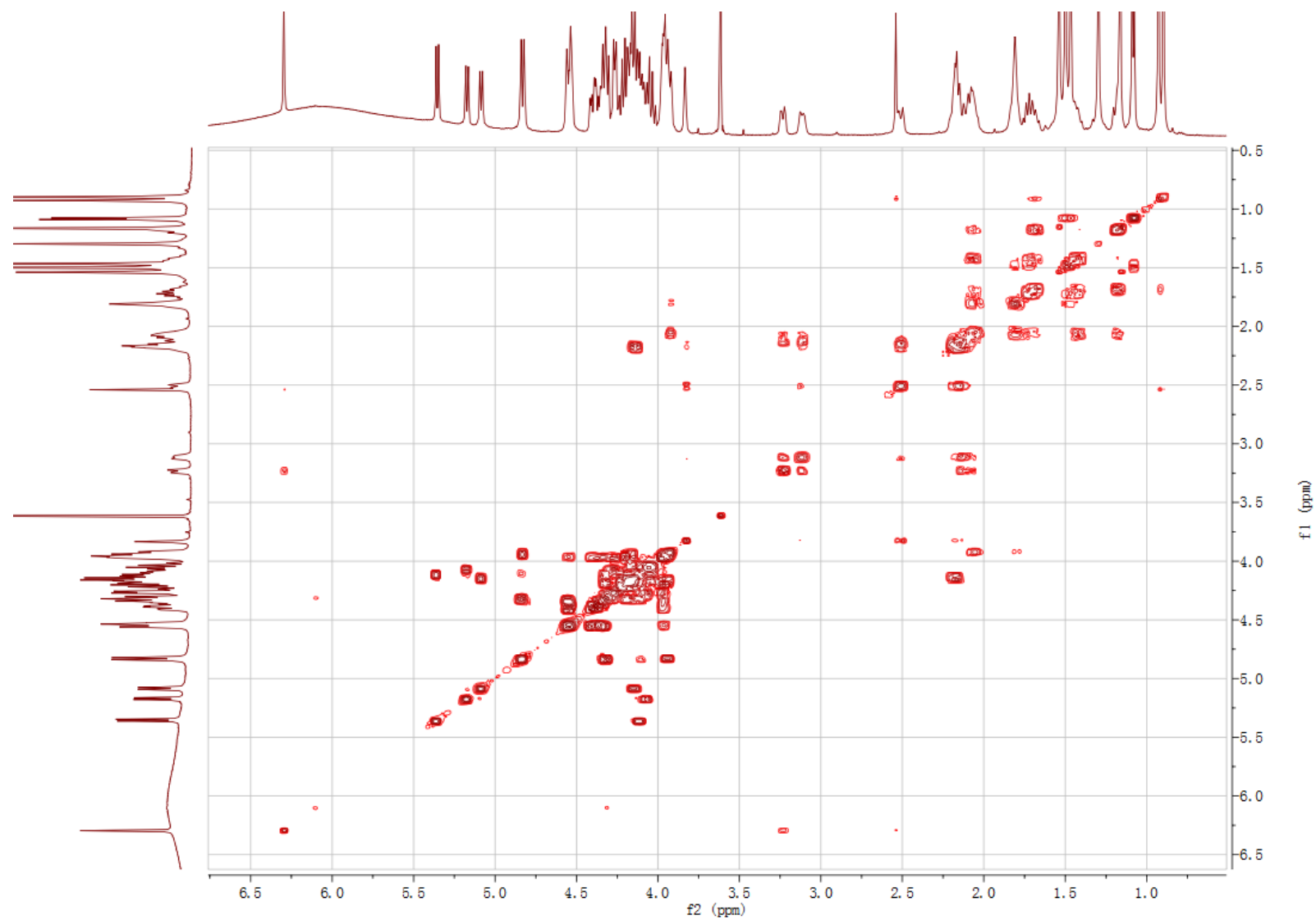


Figure S43. TOCSY spectrum of 7-oxomogroside IV (**5**) in C_5D_5N

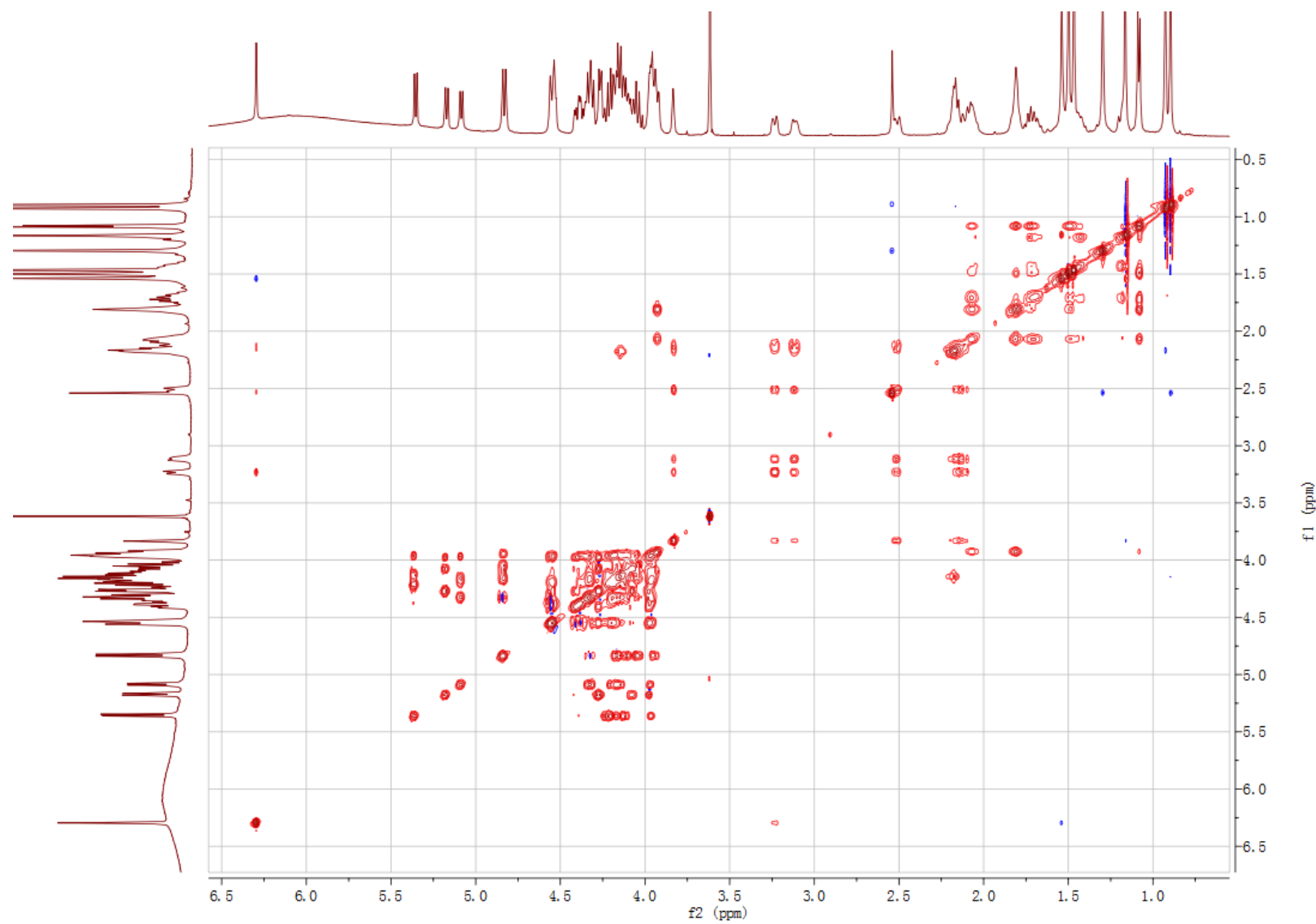


Figure S44. IR spectrum of 7-oxomogroside IV (5)

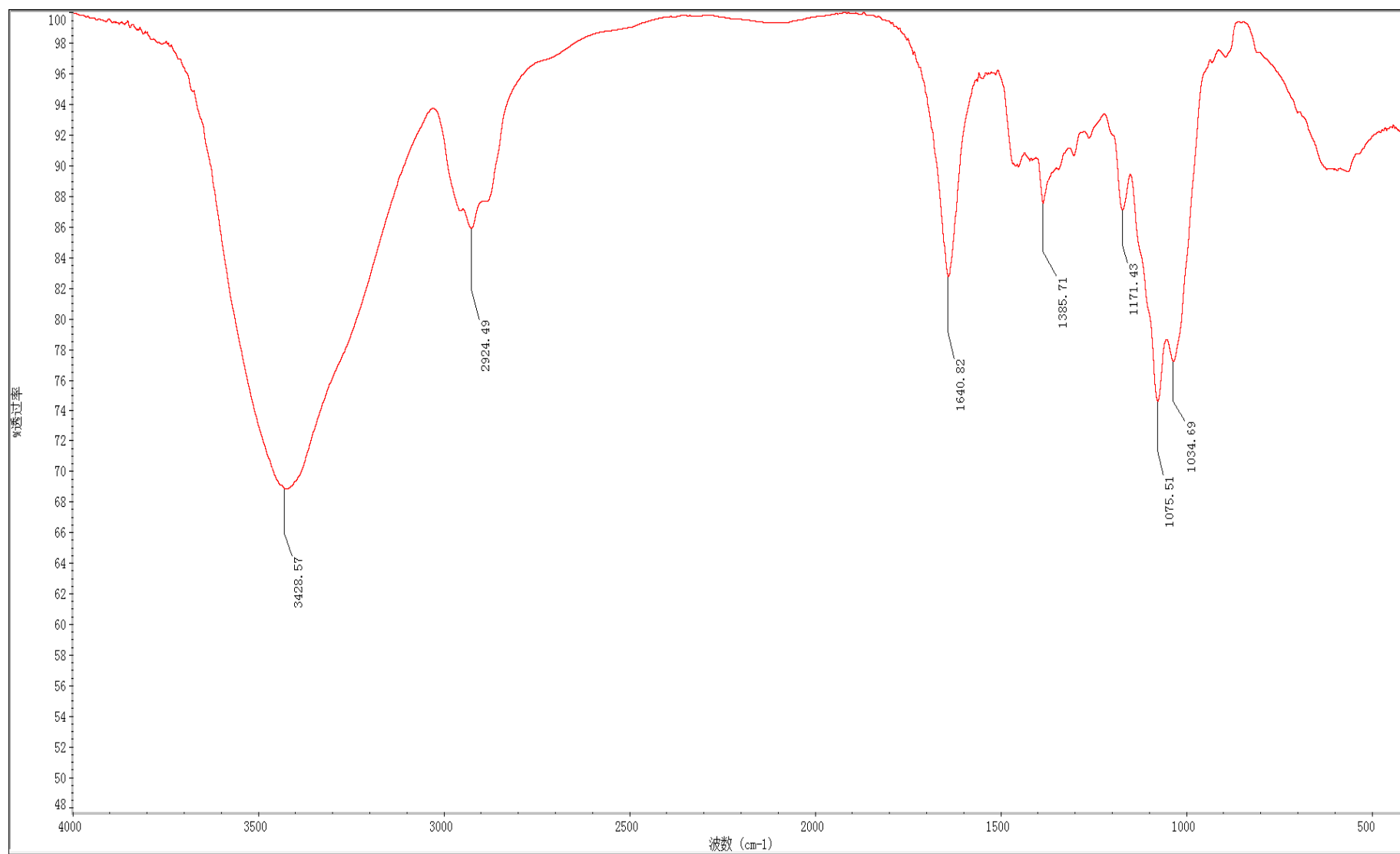


Figure S45. HRESIMS spectrum of 7-oxomogroside IV (5)

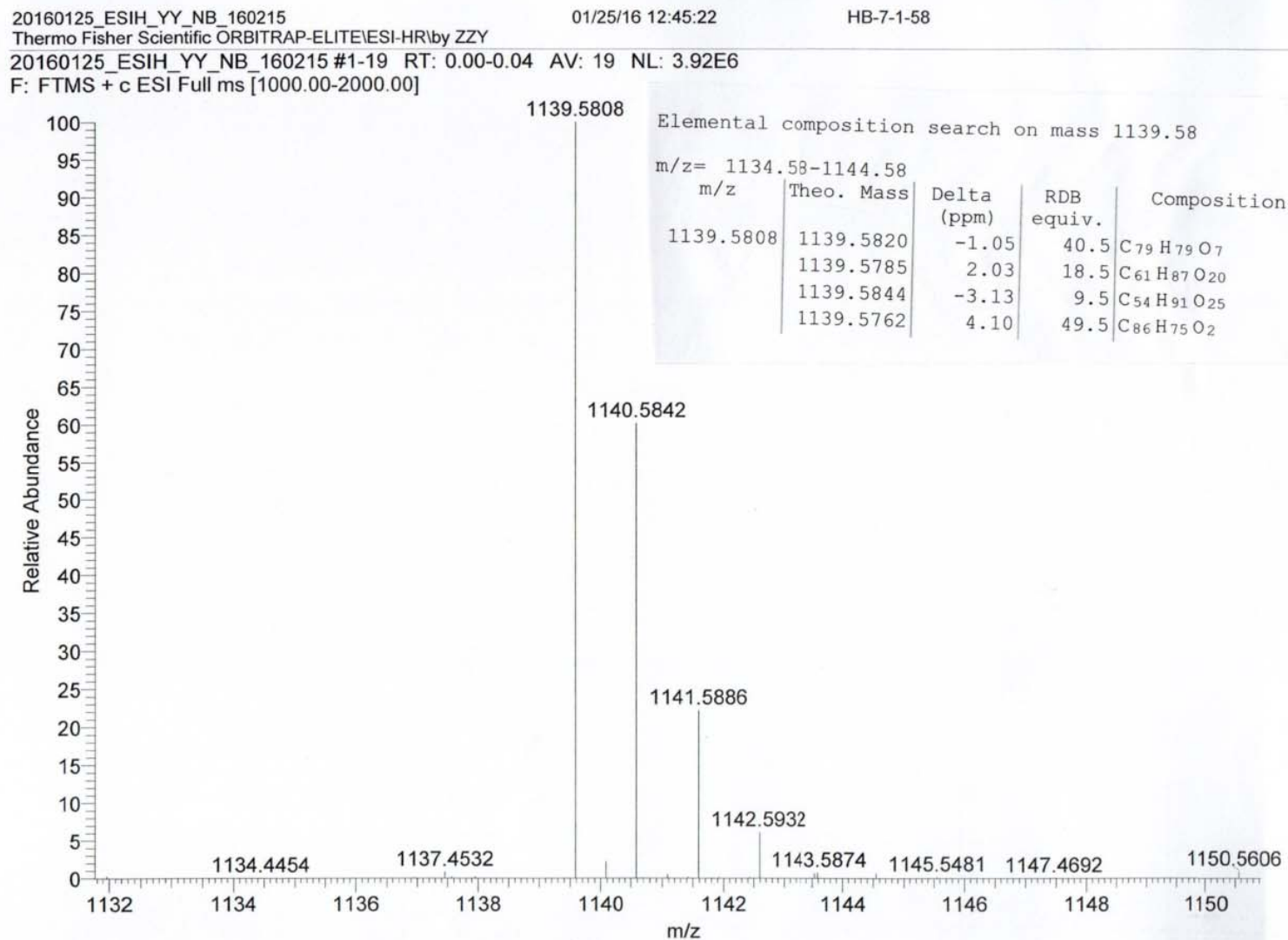


Figure S46. ^1H NMR spectrum of Mogroside VI A (6) in $\text{C}_5\text{D}_5\text{N}$

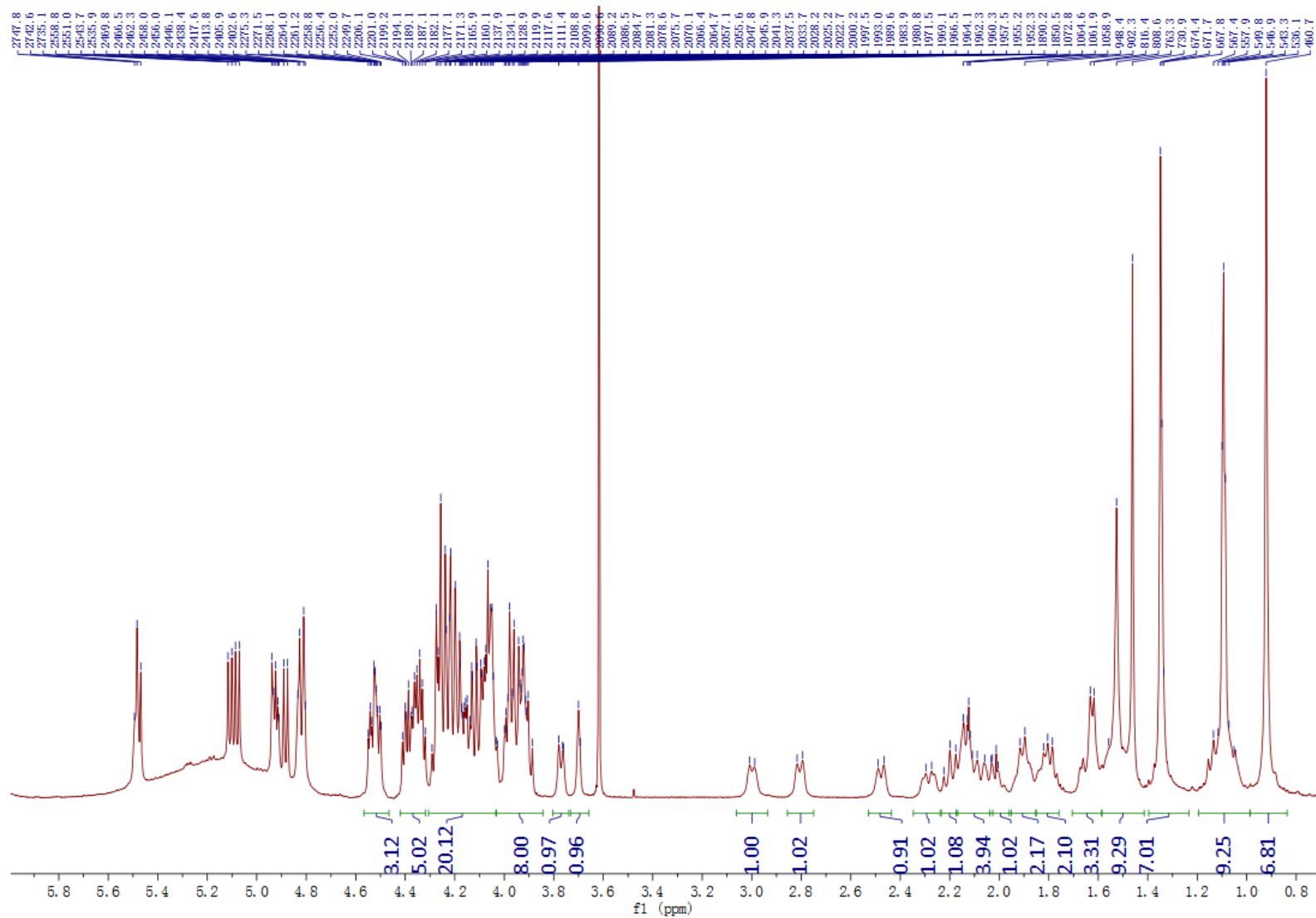
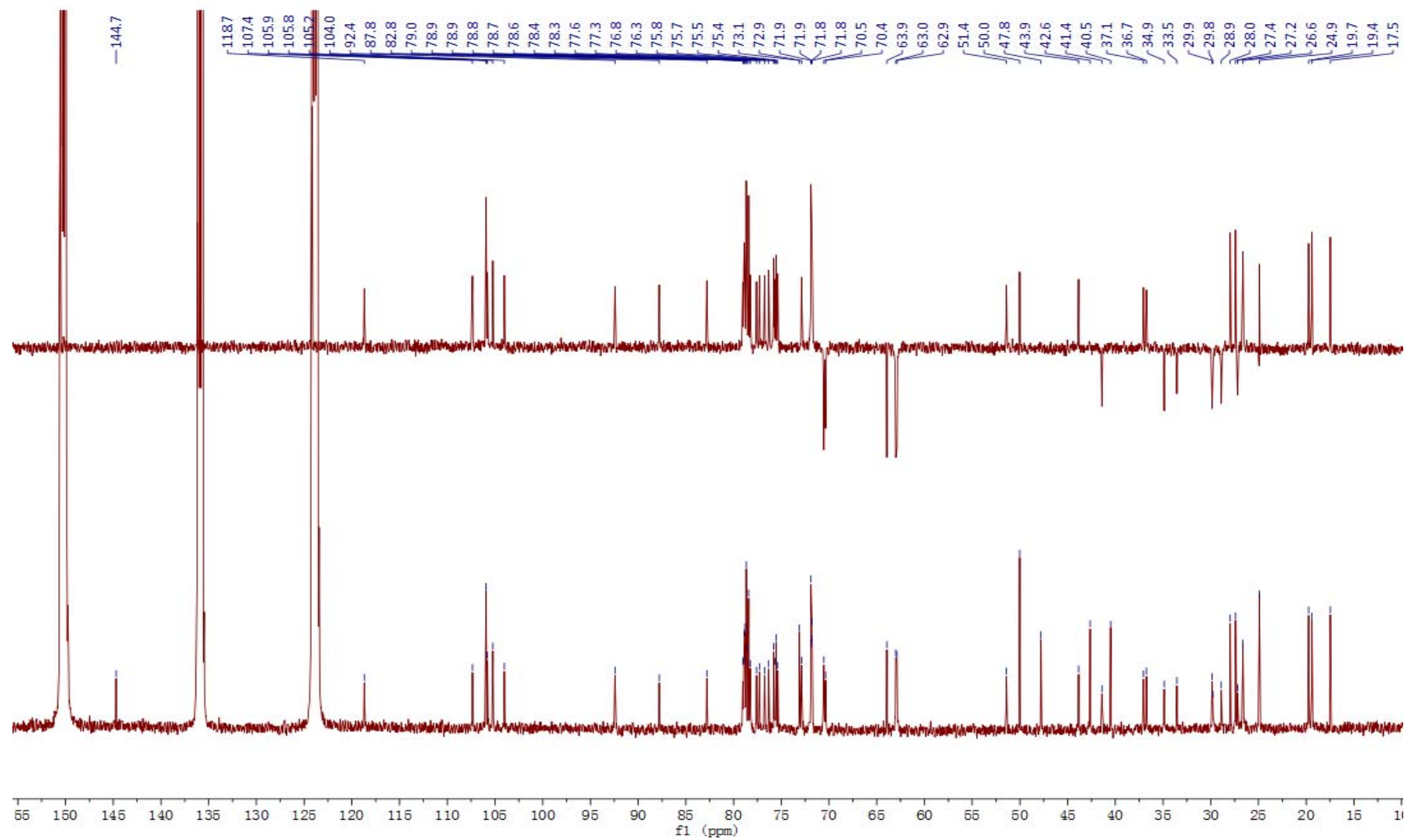
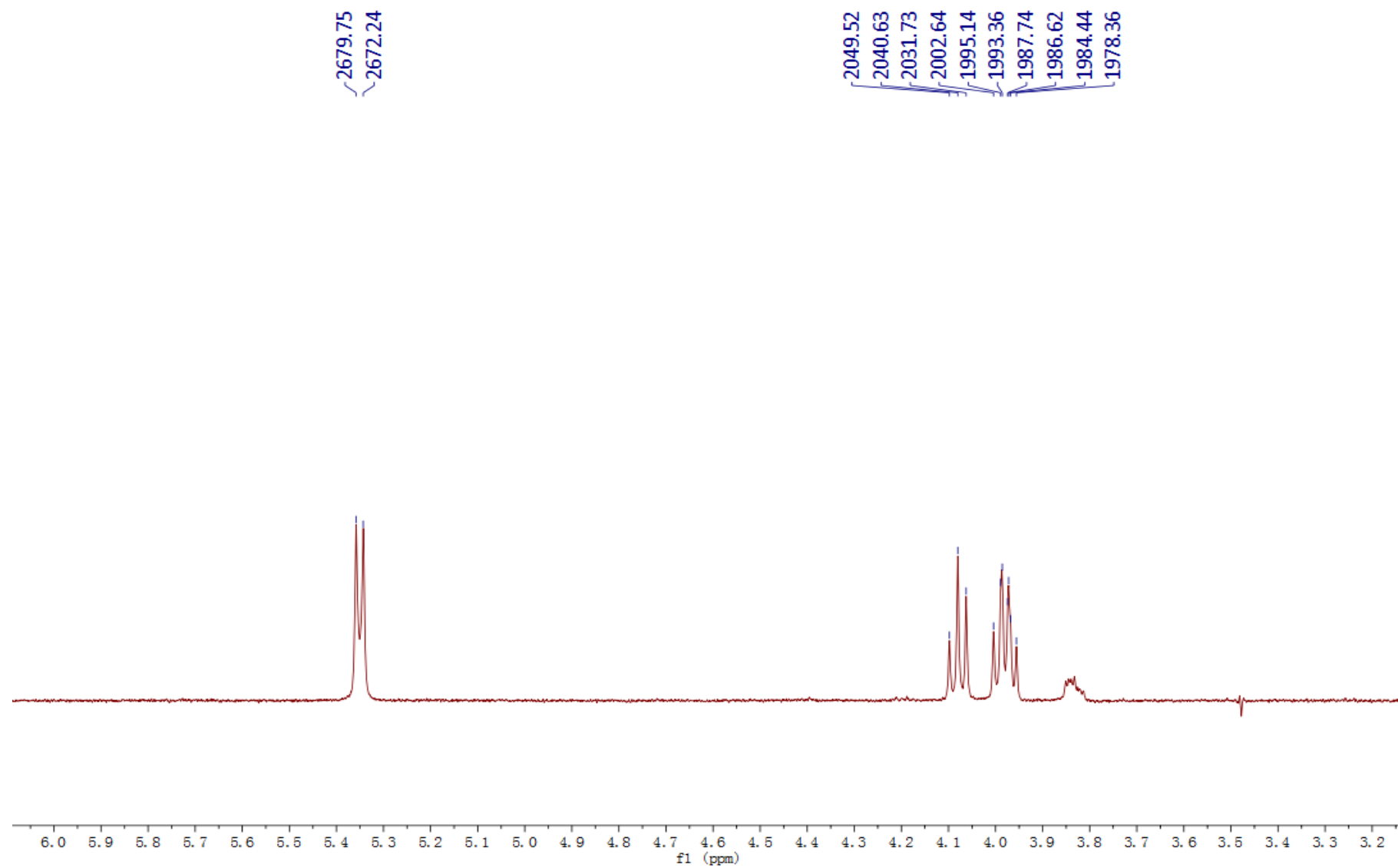
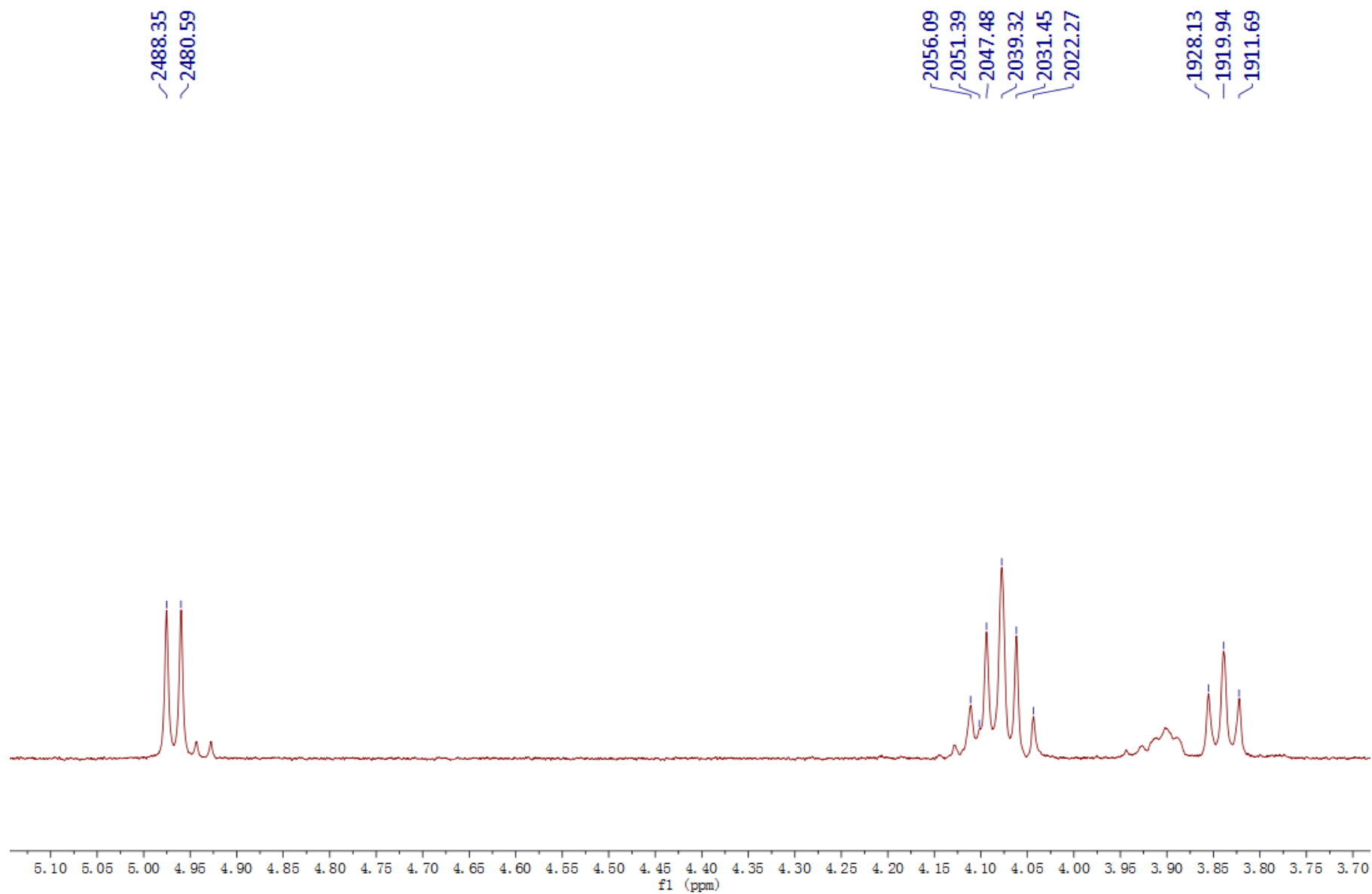


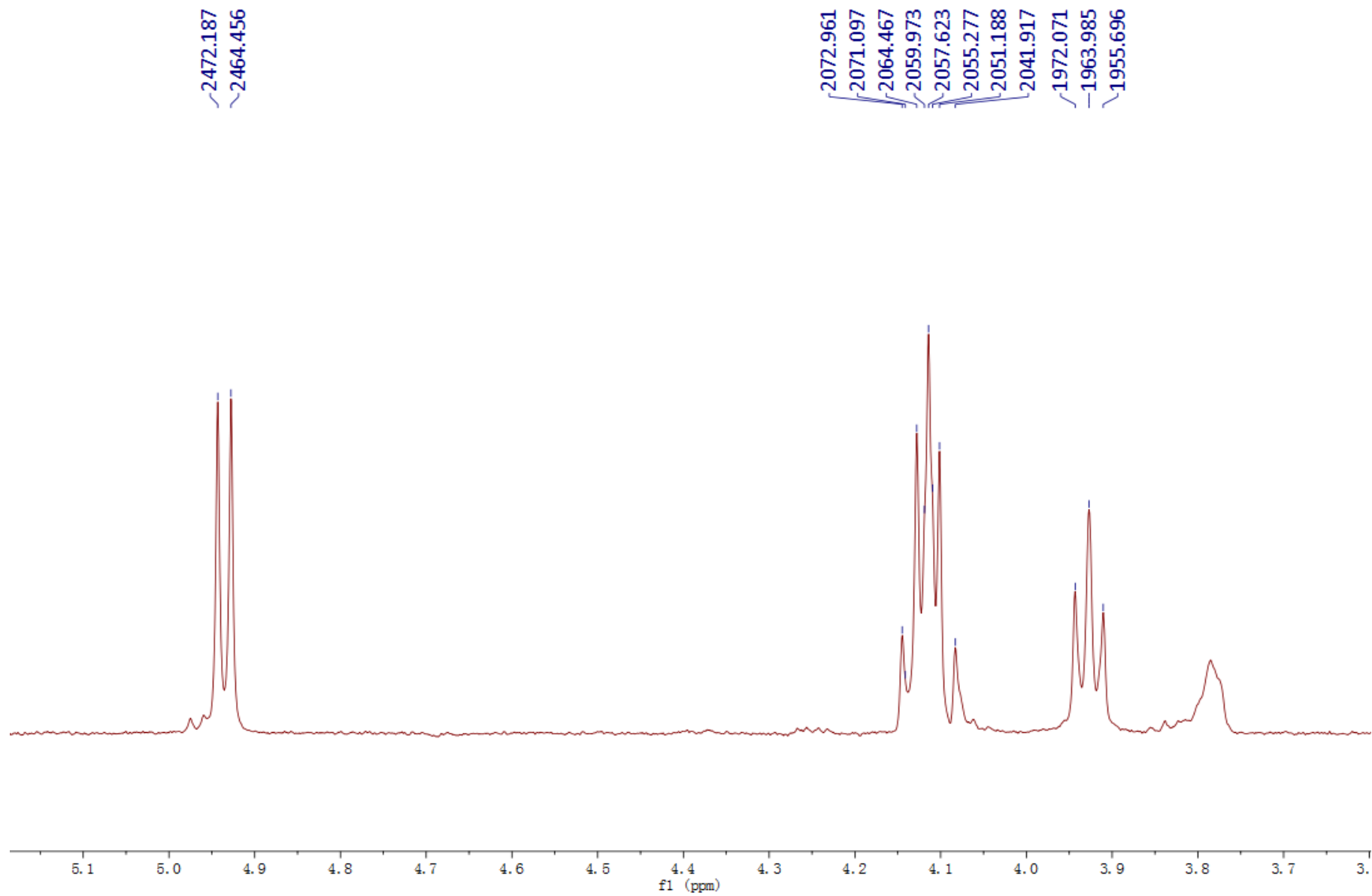
Figure S47. ^{13}C NMR spectrum of Mogroside VI A (**6**) in $\text{C}_5\text{D}_5\text{N}$

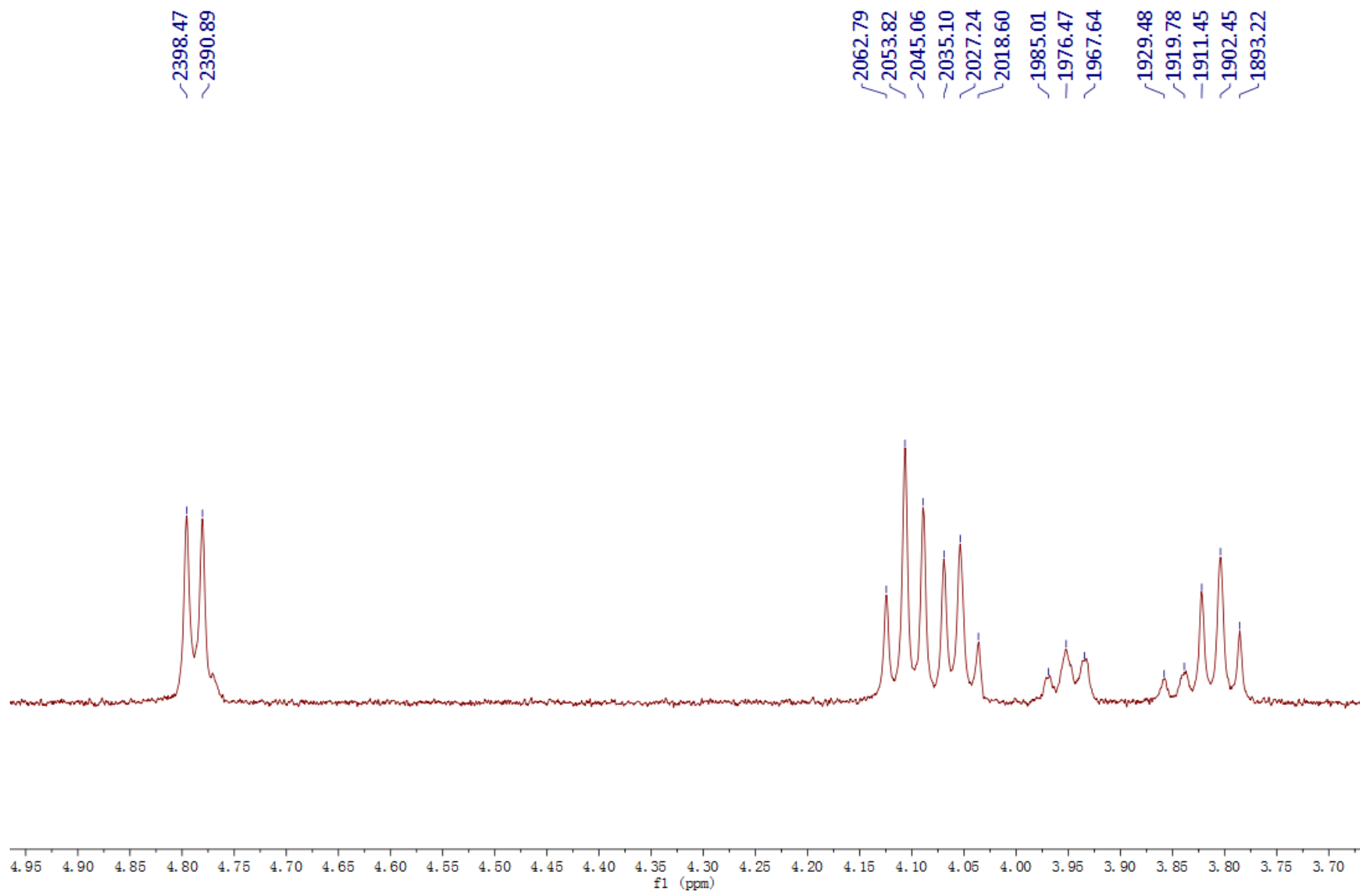


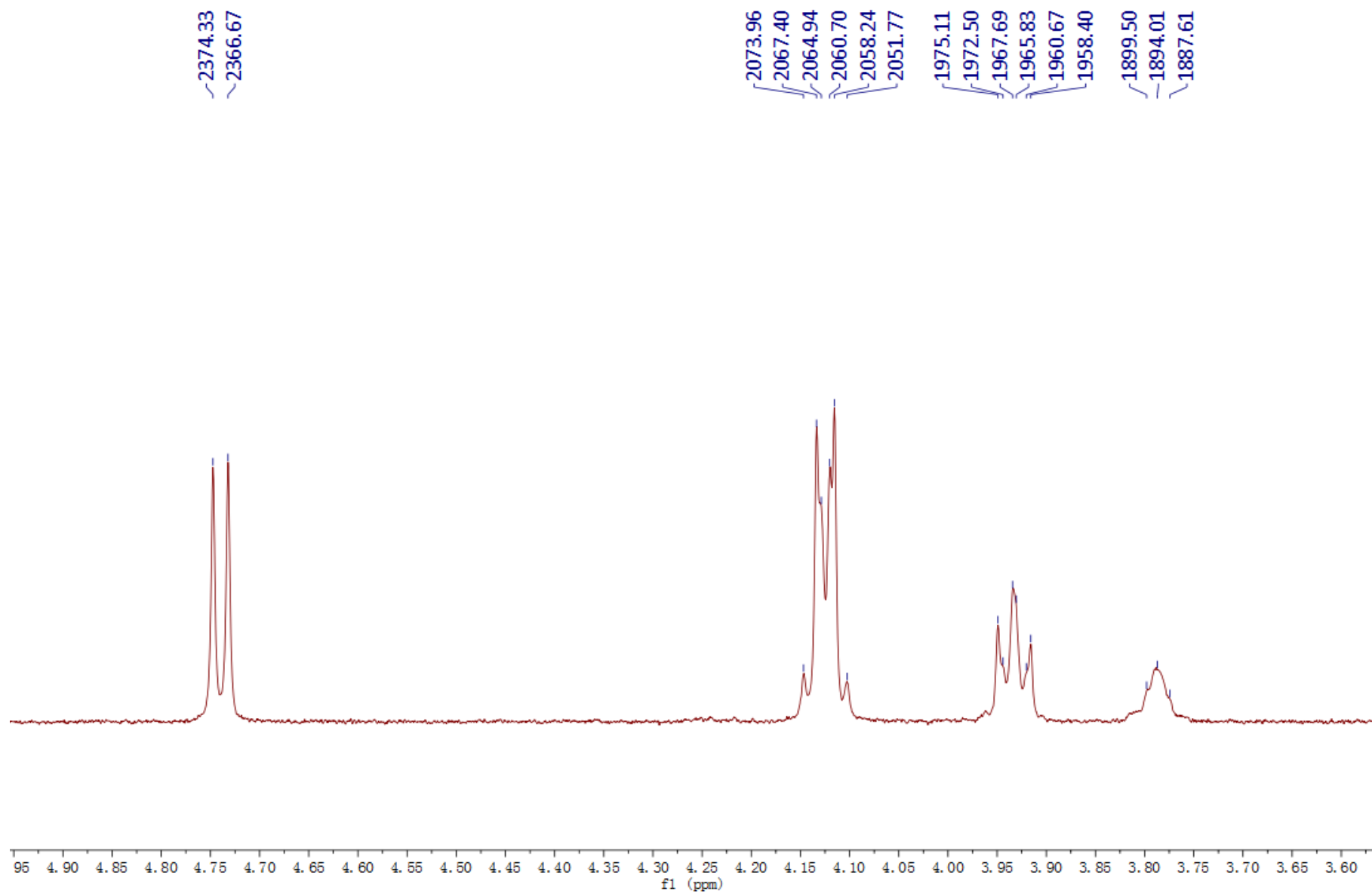
Figures S48. 1D TOCSY spectrum of Mogroside VI A (**6**) in C₅D₅N











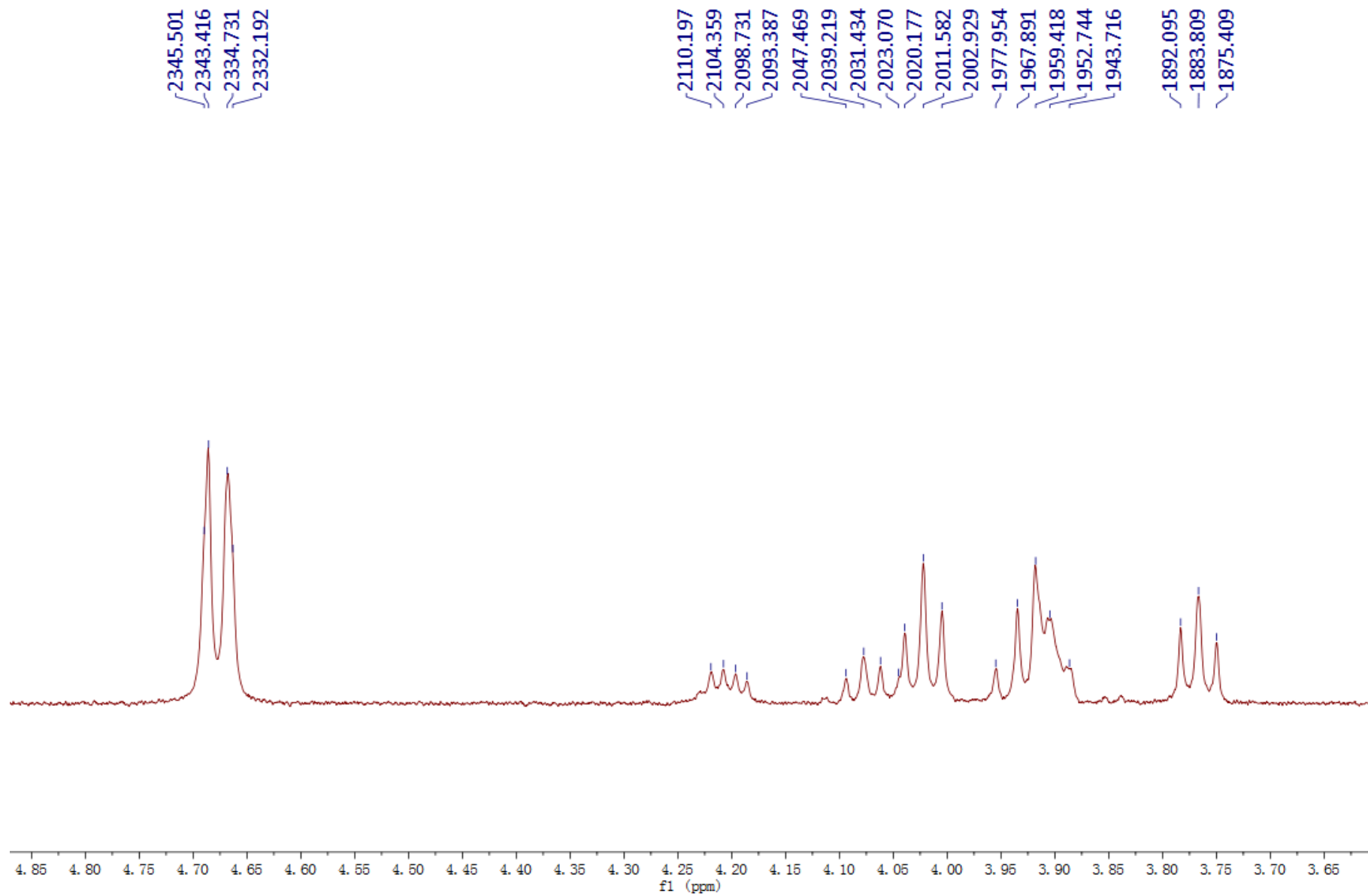


Figure S49. Selective HSQC (C15-55) spectrum of Mogroside VI A (6) in C_5D_5N

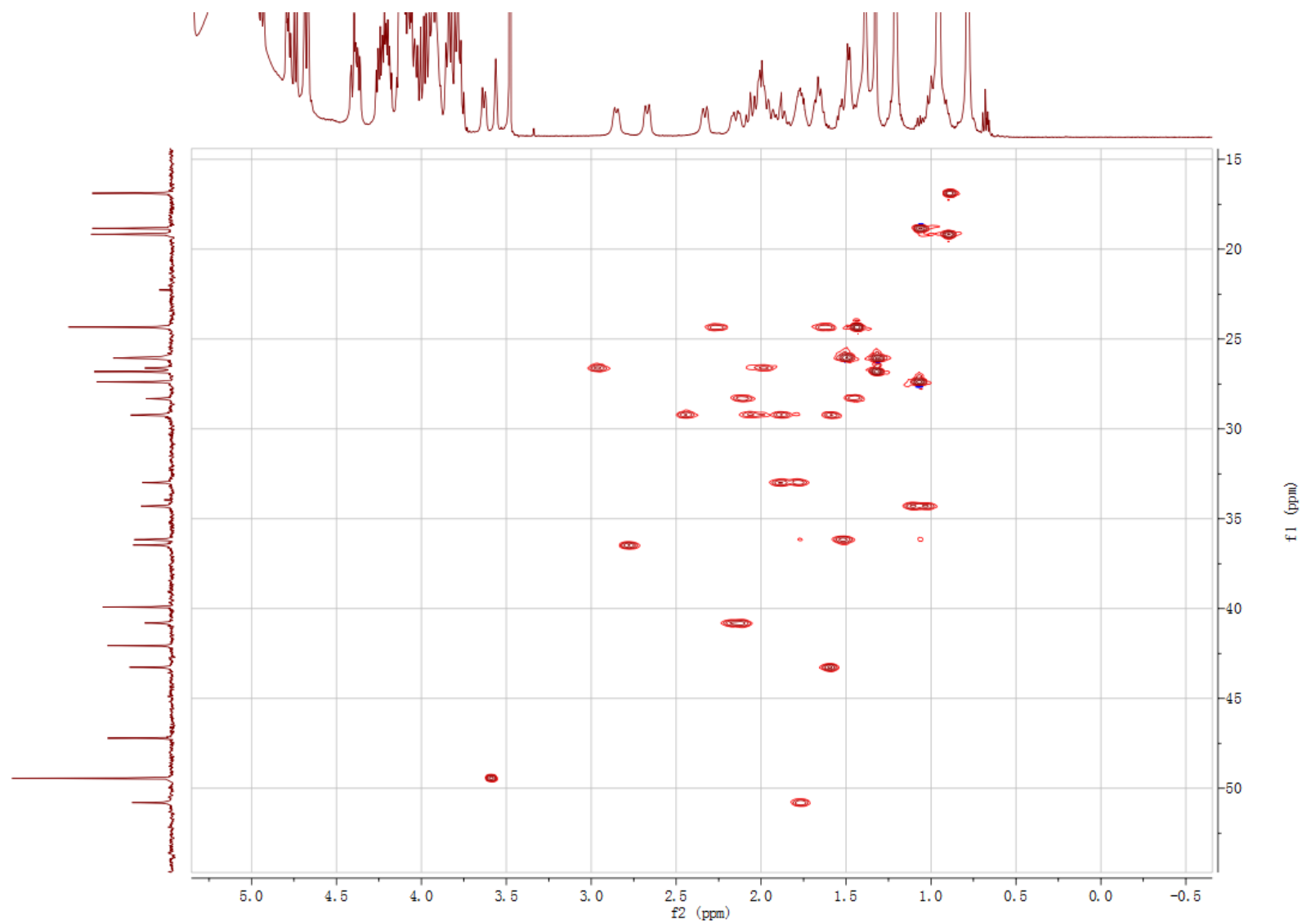


Figure S50. Selective HSQC (C60-95) spectrum of Mogroside VI A (6) in C_5D_5N

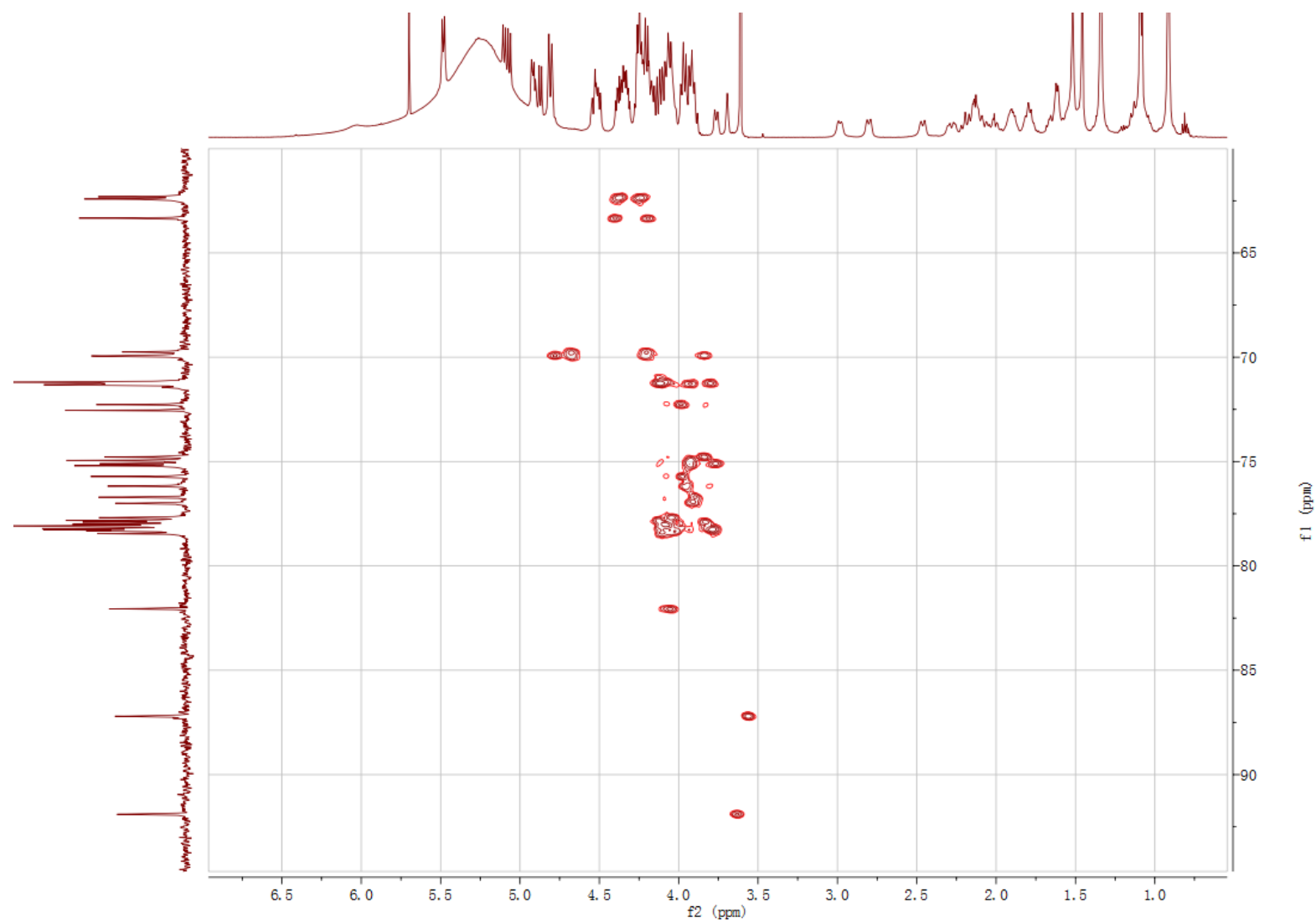


Figure S51. Selective HSQC (C100-108) spectrum of Mogroside VI A (6) in C_5D_5N

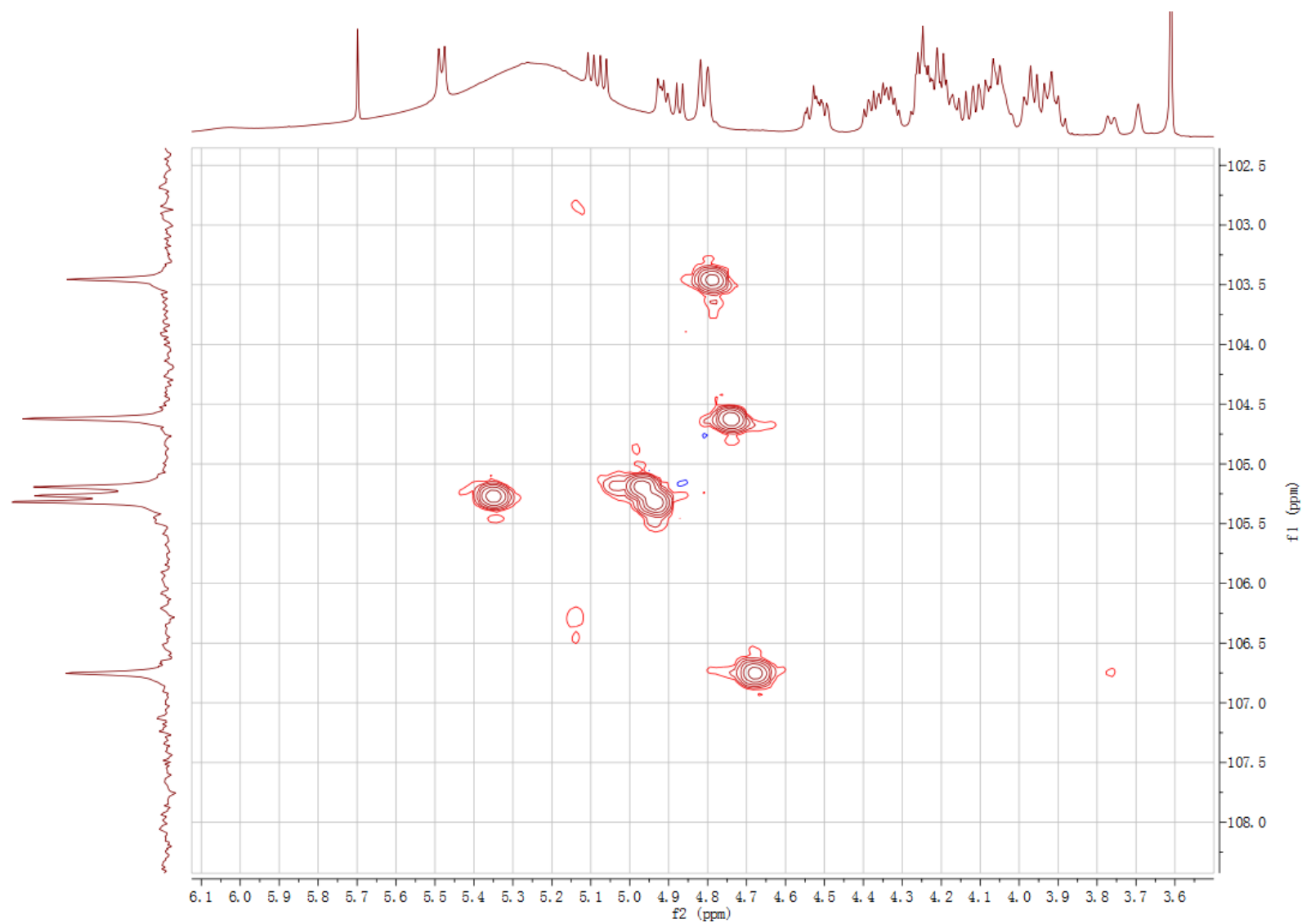


Figure S52. Selective HMBC (C15-45) spectrum of Mogroside VI A (6) in C₅D₅N

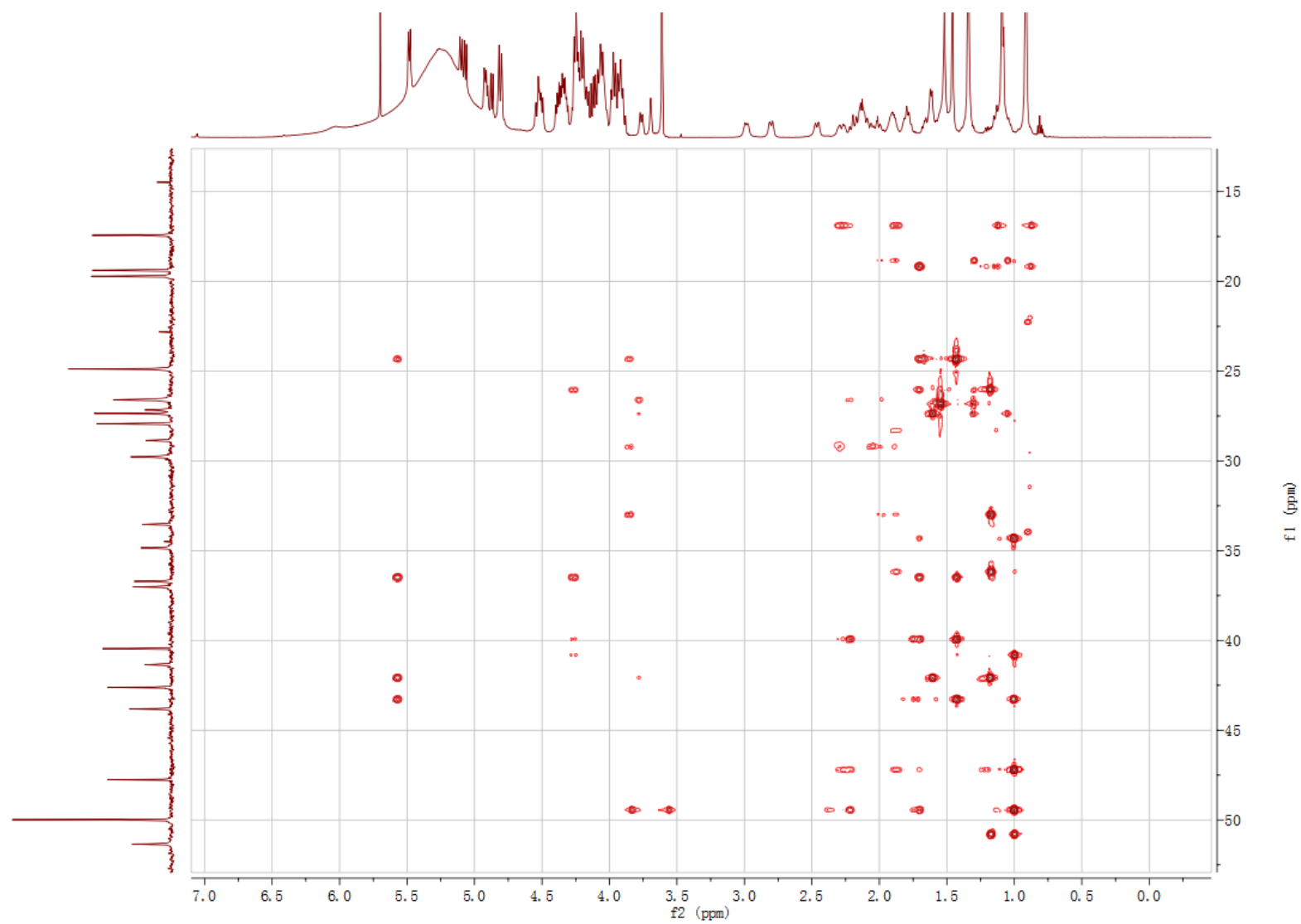


Figure S53. Selective HMBC (C60-95) spectrum of Mogroside VI A (**6**) in C₅D₅N

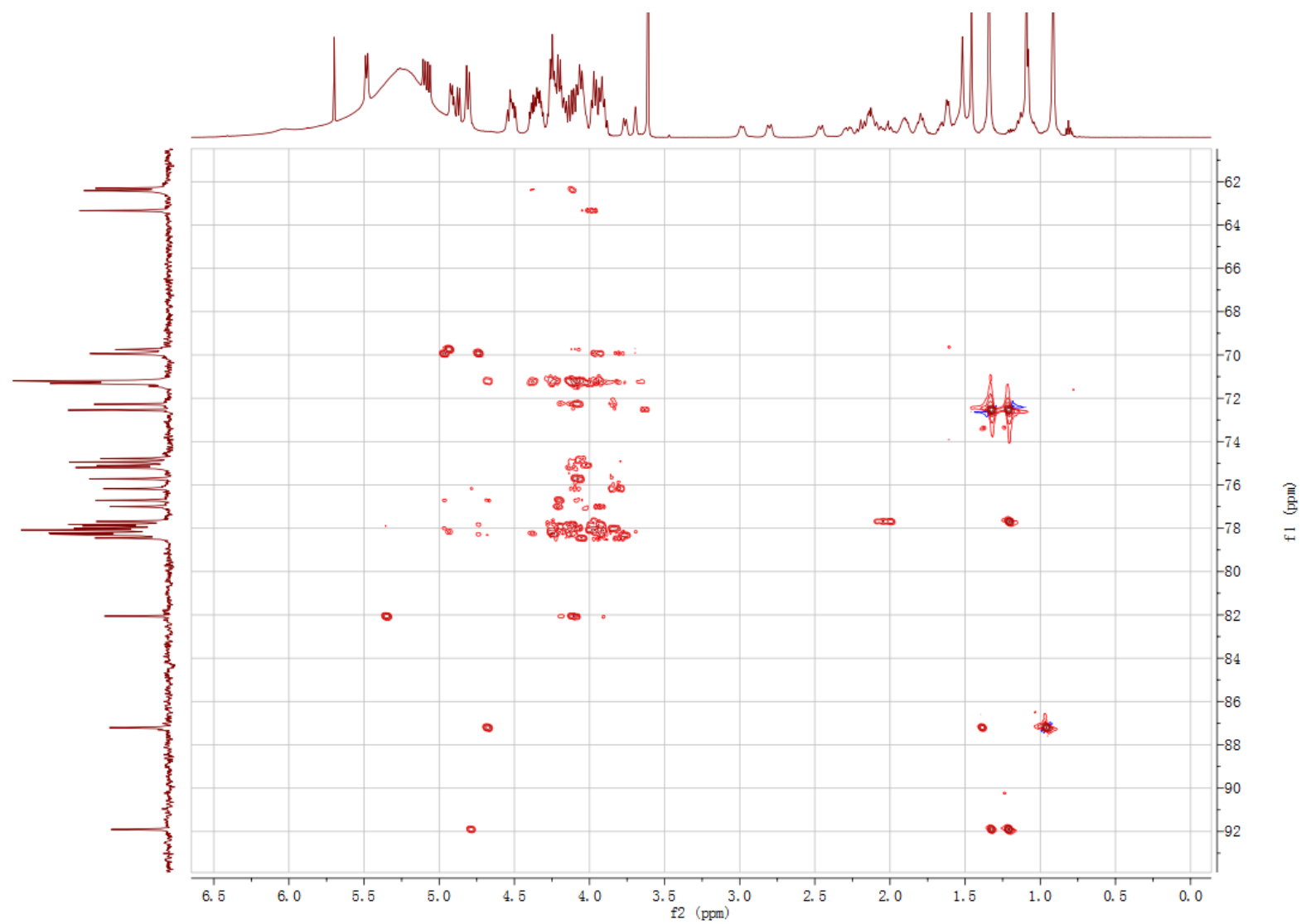


Figure S54. Selective HMBC (C100-108) spectrum of Mogroside VI A (**6**) in C₅D₅N

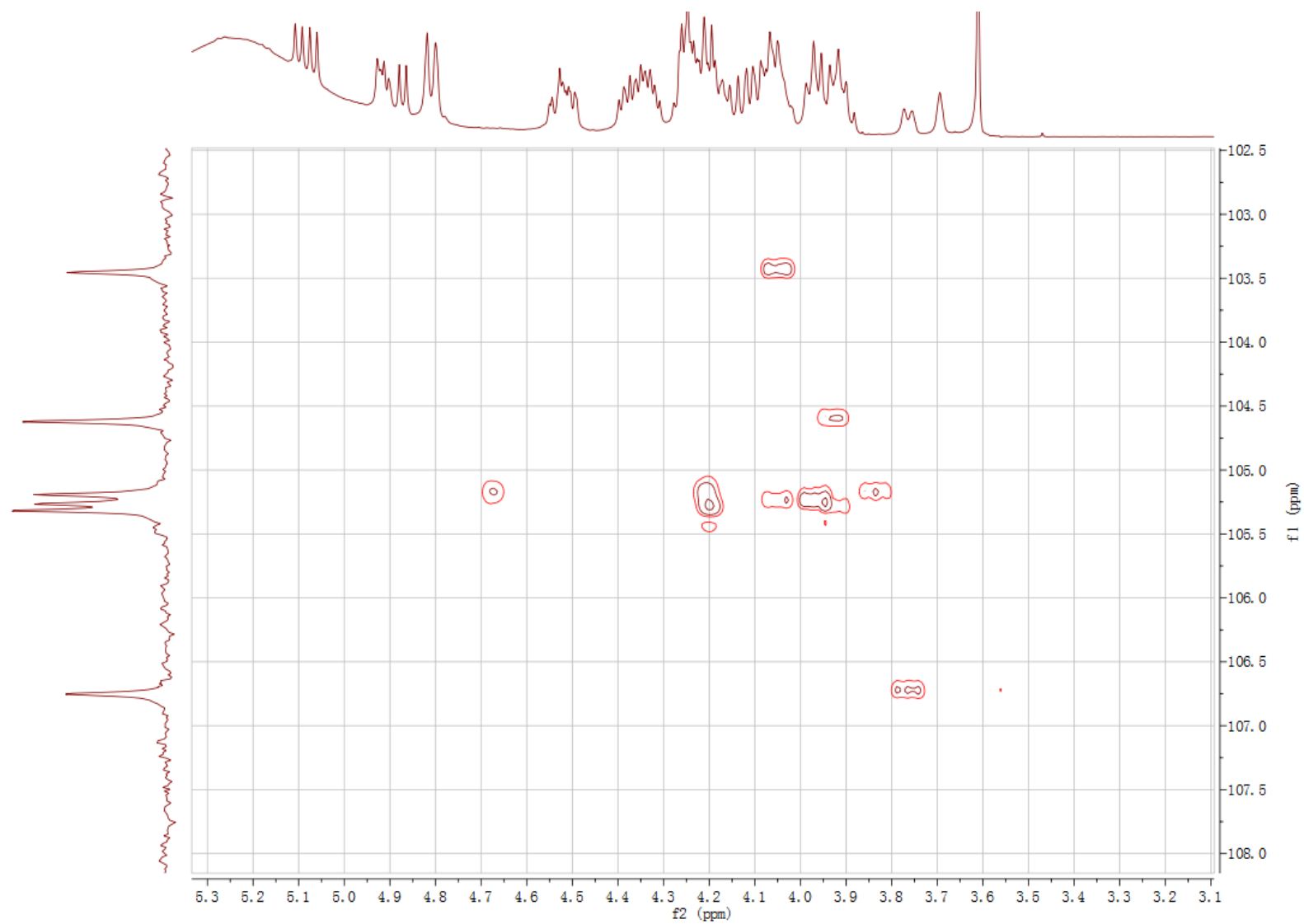


Figure S55. COSY spectrum of Mogroside VI A (6) in C_5D_5N

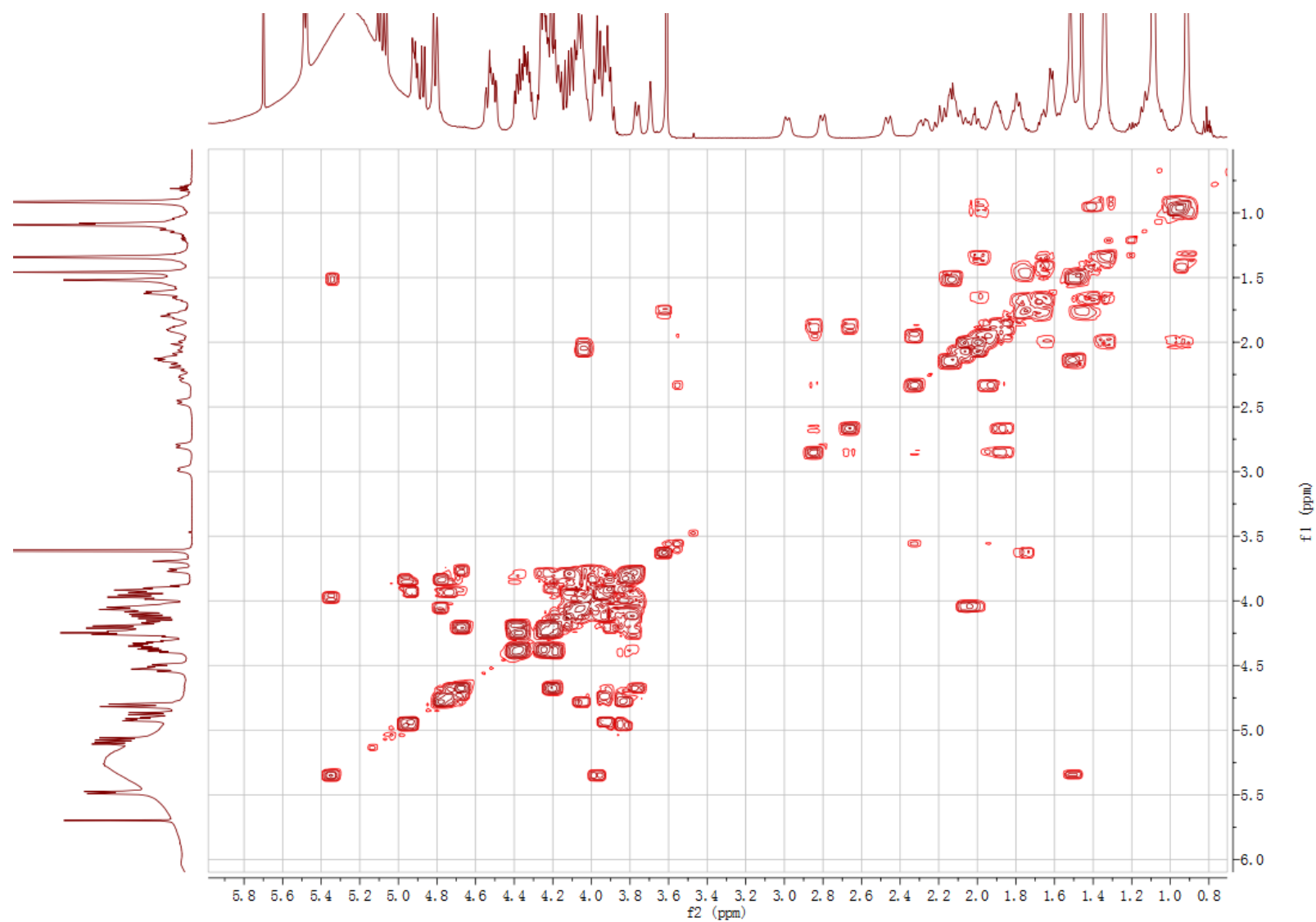


Figure S56. ROESY spectrum of Mogroside VI A (**6**) in C₅D₅N

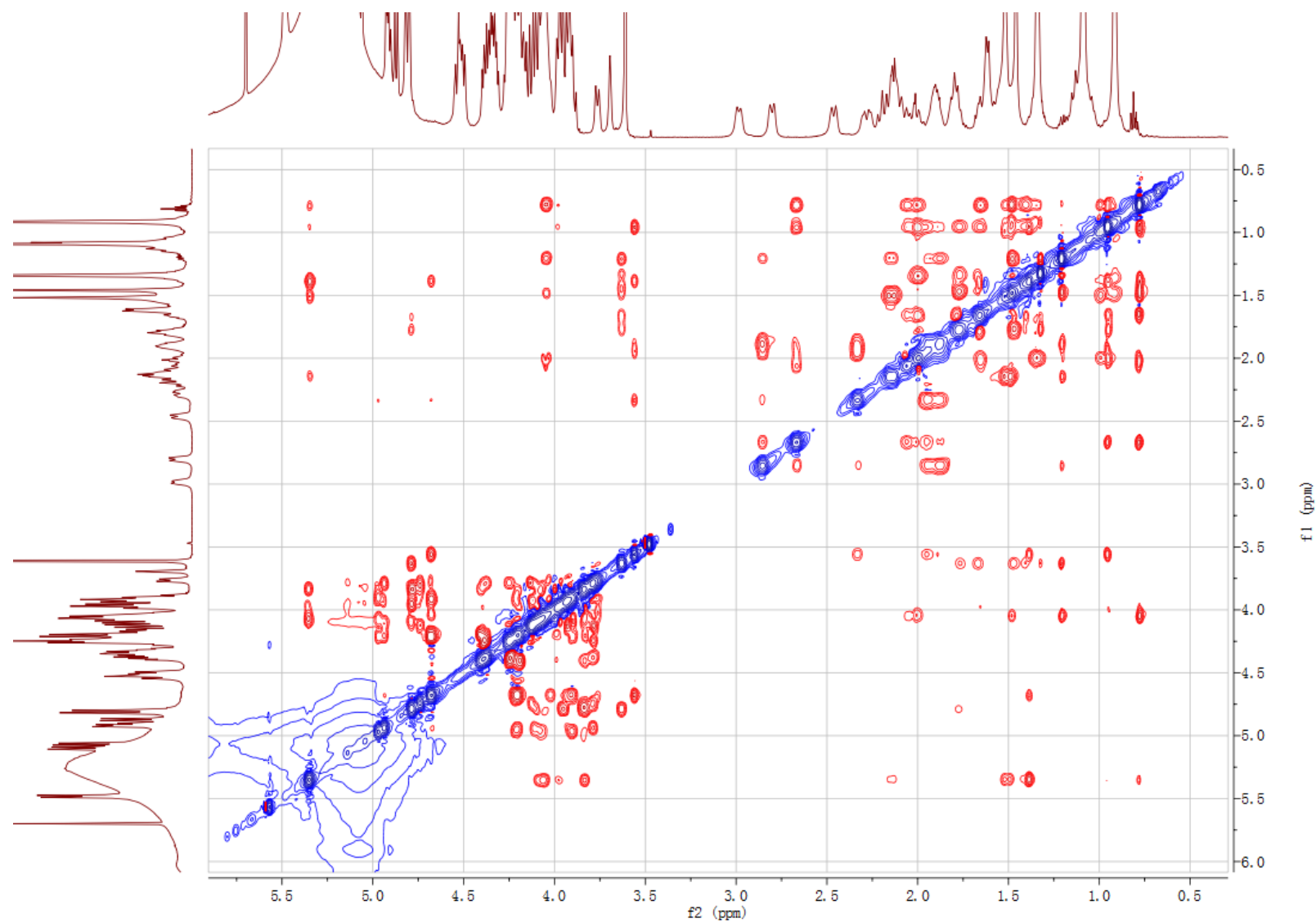


Figure S57. TOCSY spectrum of Mogroside VI A (**6**) in C₅D₅N

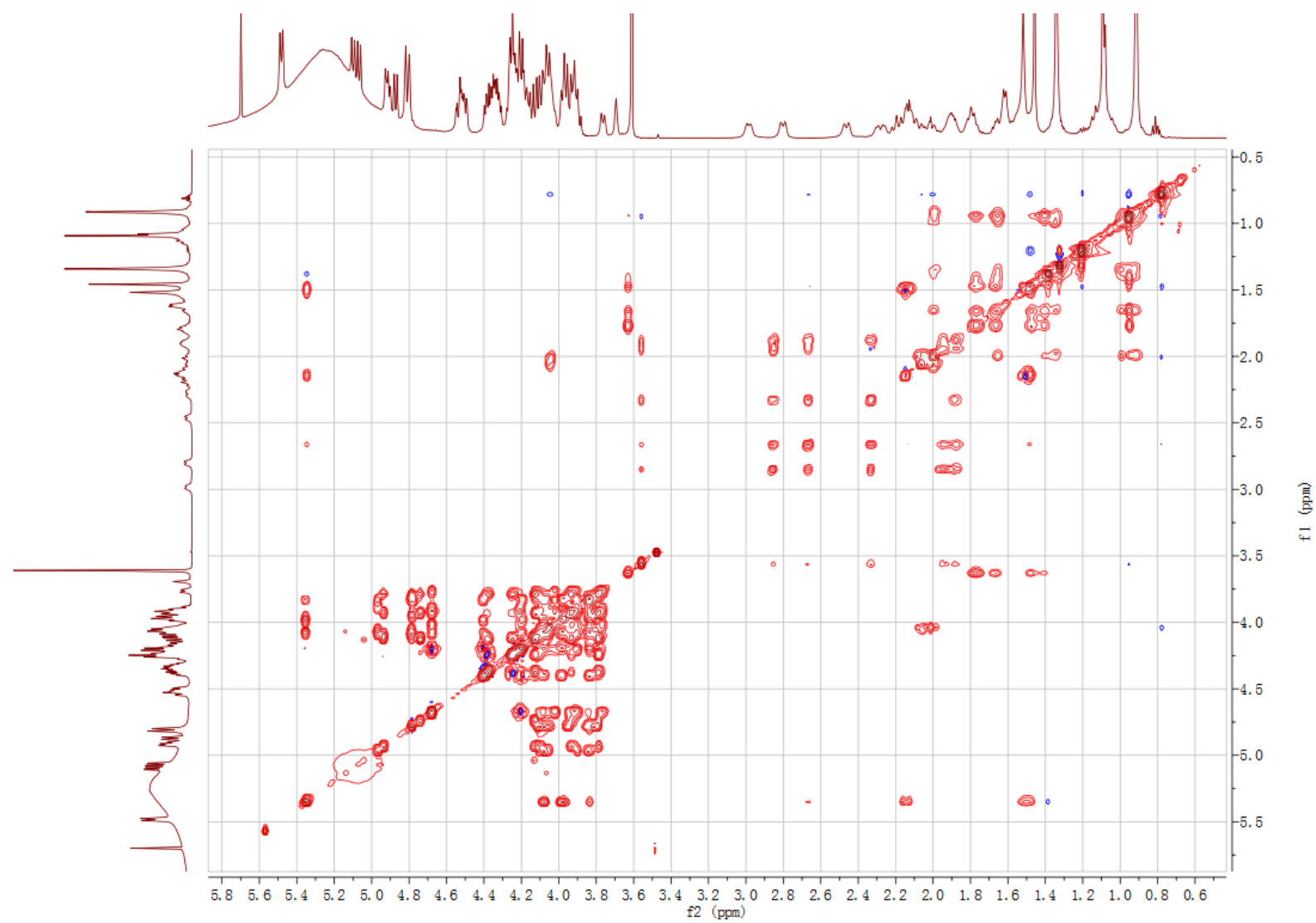


Figure S58. IR spectrum of Mogroside VI A (6)

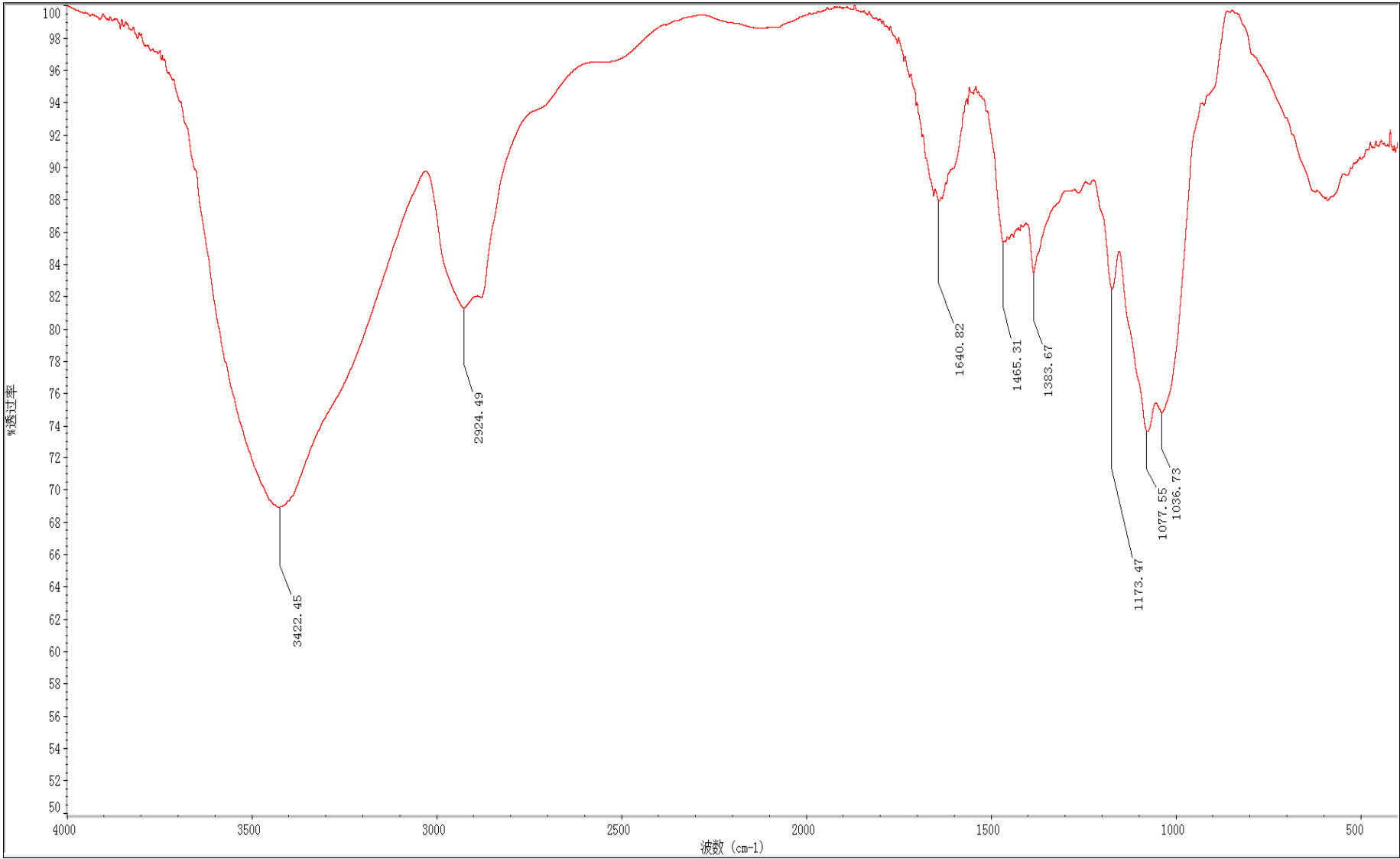
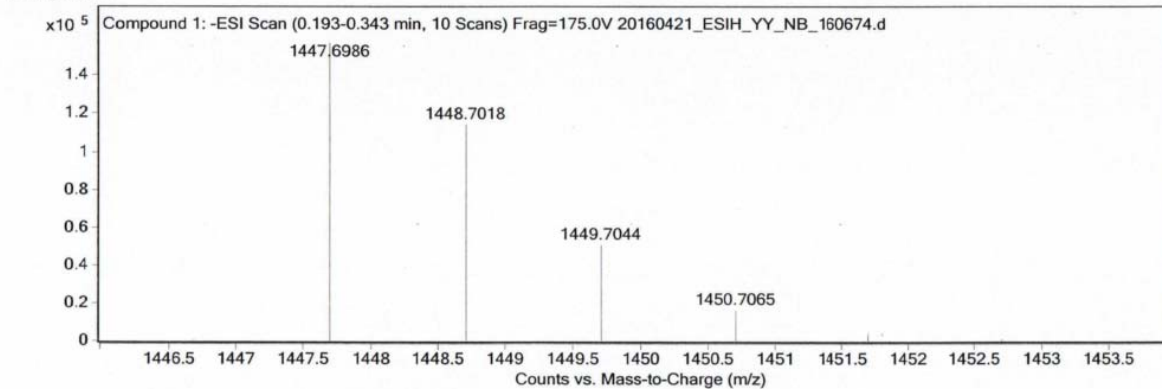


Figure S59. HRESIMS spectrum of Mogroside VI A (6)

Qualitative Compound Report

Data File	20160421_ESIH_YY_NB_160674.d	Sample Name	LHG-T-6-2
Sample Type	Sample	Position	P1-B1
Instrument Name	Agilent G6520 Q-TOF	Acq Method	20160322_MS_ESIH_NEG_1min_-2000.m
Acquired Time	4/21/2016 12:56:53 PM	IRM Calibration Status	Success
DA Method	small molecular data analysis method.m	Comment	ESIH



MS Spectrum Peak List

m/z	Calc m/z	Diff(ppm)	z	Formula	Ion
126.9047					
148.9524			1		
746.3505			2		
1447.6986	1447.6962	-1.67	1	C ₆₆ H ₁₁₂ O ₃₄	(M-H) ⁻

Predicted Isotope Match Table

Isotope	m/z	Calc m/z	Abund %	Calc Abund %
1	1447.6986	1447.6962	100	100
2	1448.7018	1448.6996	72.93	73.96
3	1449.7044	1449.7025	32.67	33.95
4	1450.7065	1450.7053	10.42	11.62
5	1451.708	1451.708	2.62	3.26

Figure S60. ^1H NMR spectrum of Mogroside VI B (7) in $\text{C}_5\text{D}_5\text{N}$

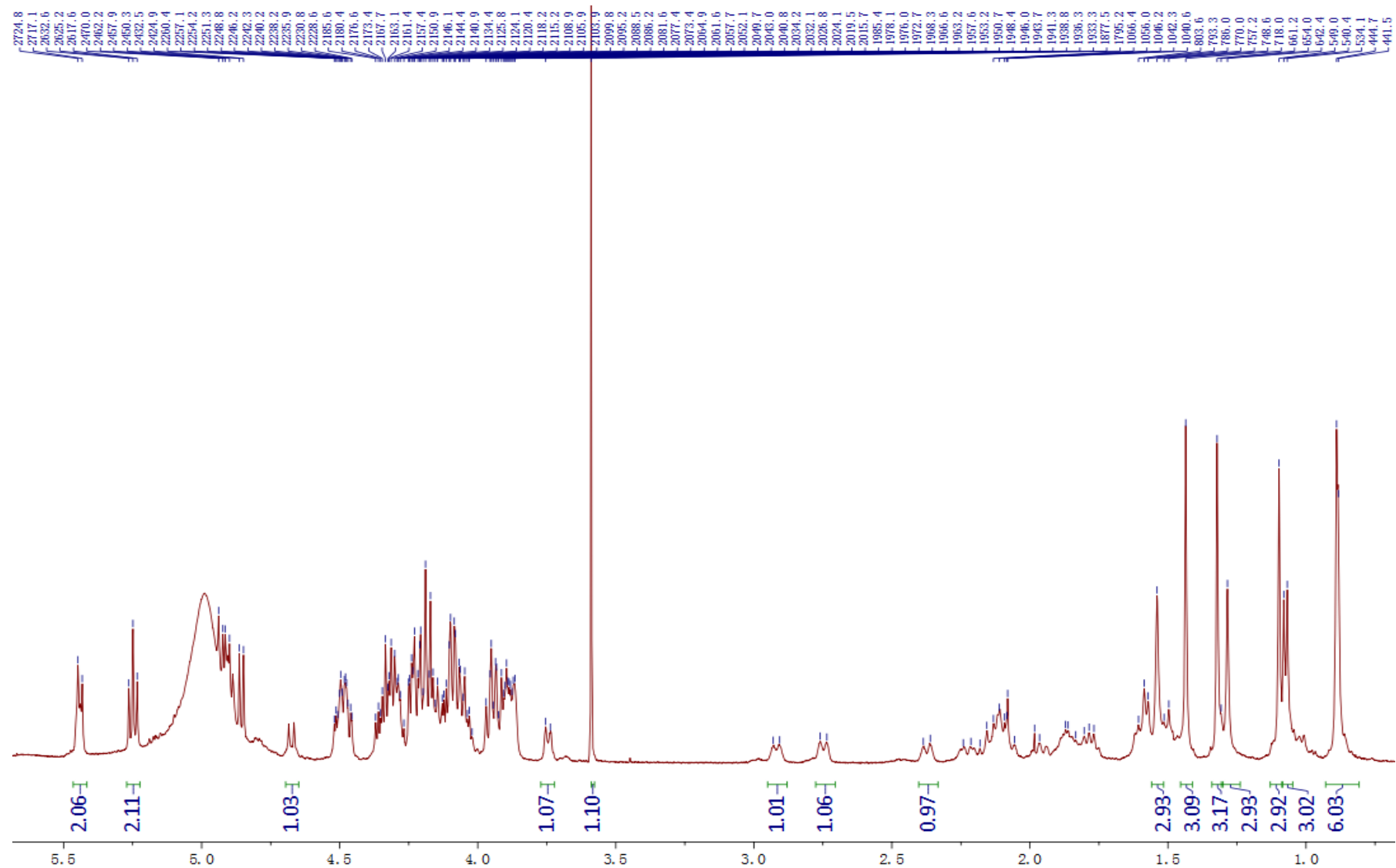
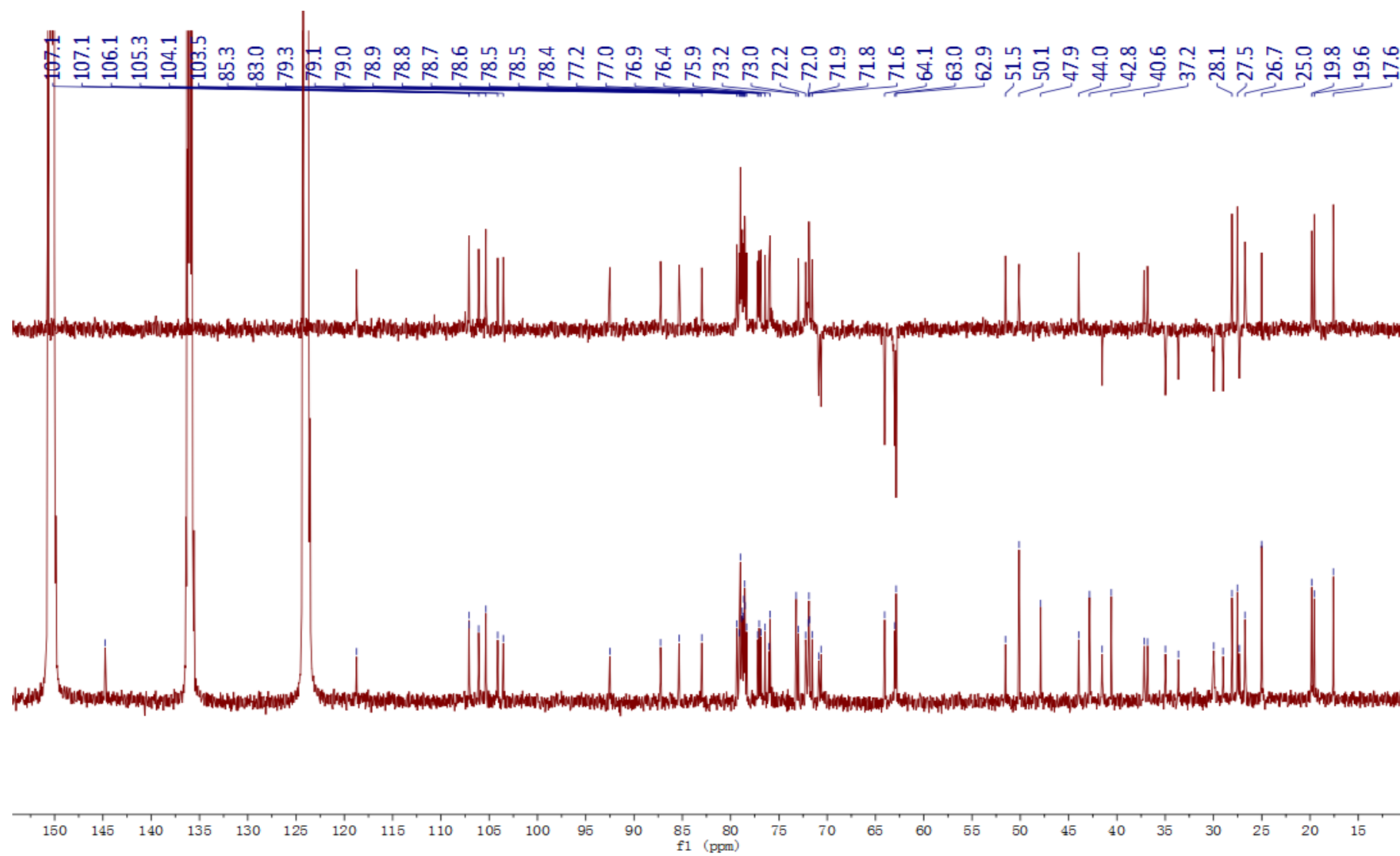
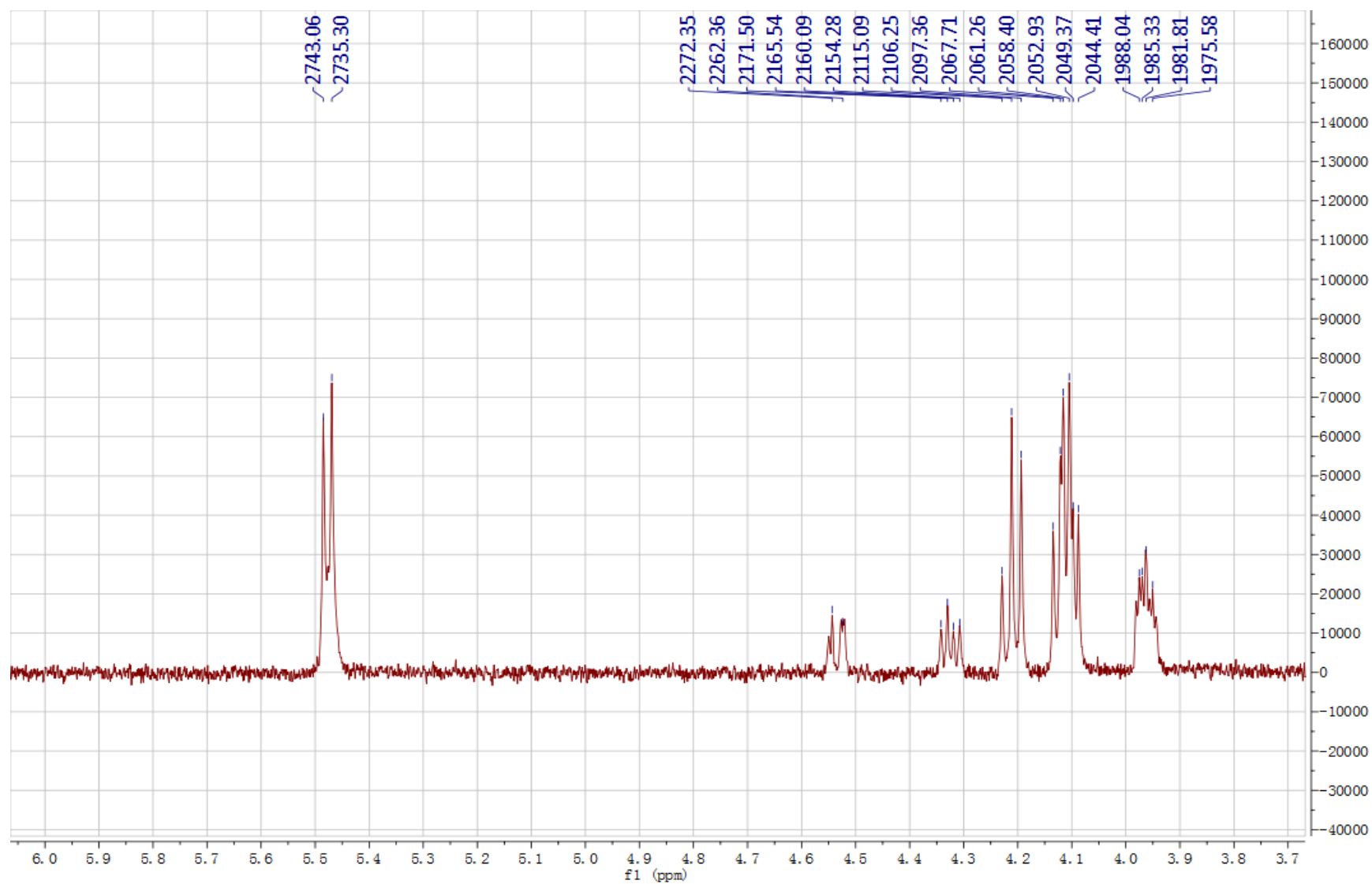
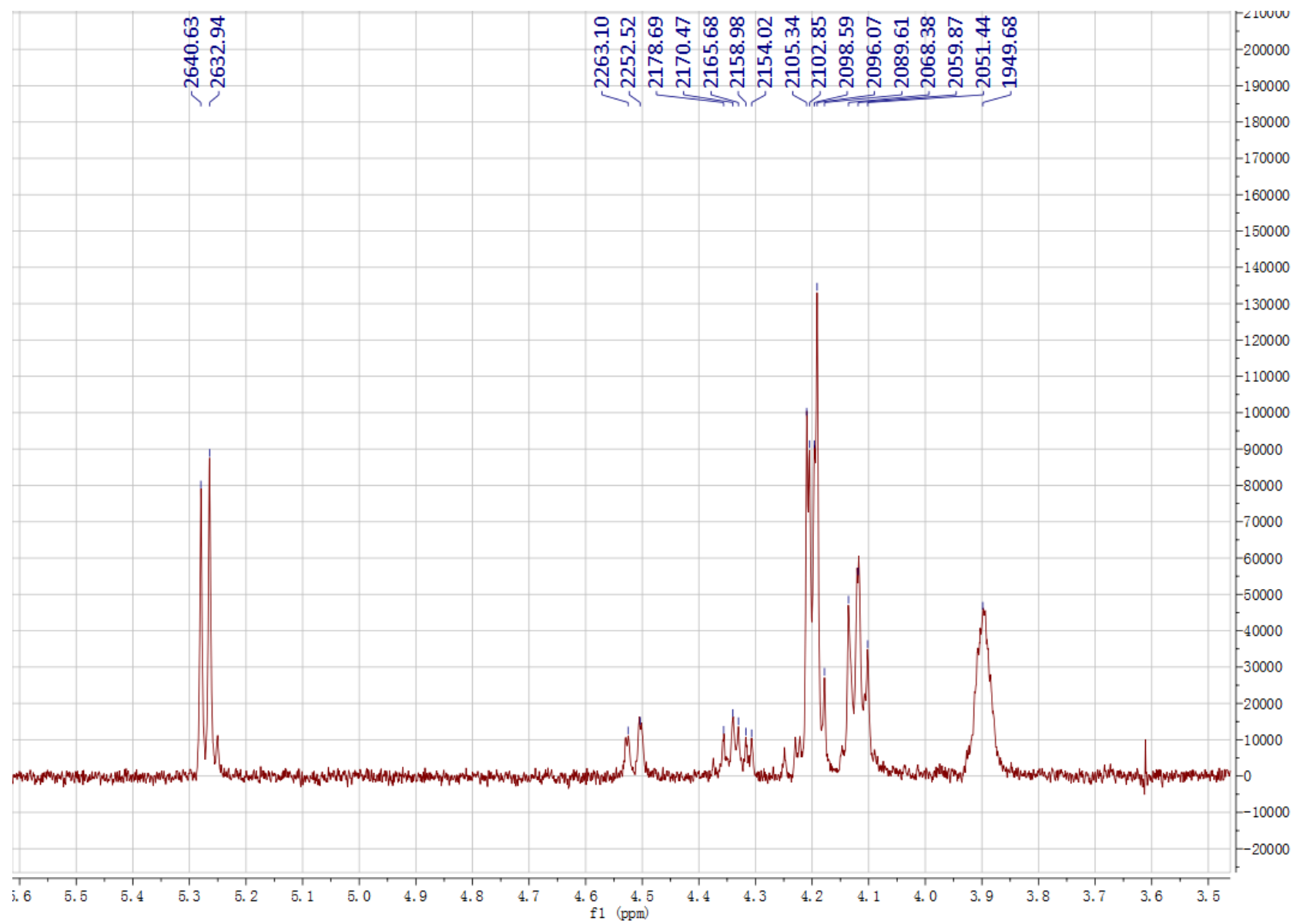


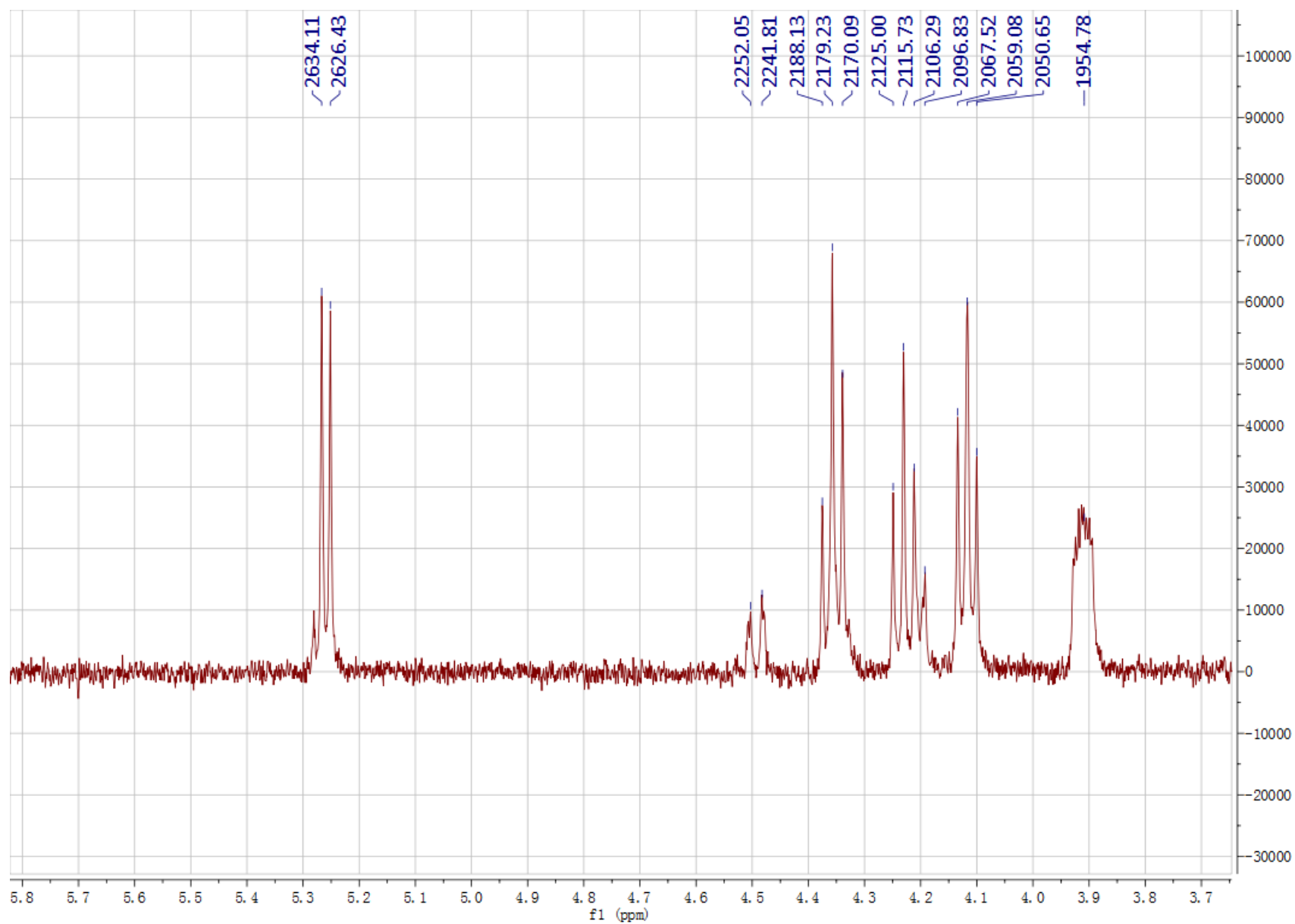
Figure S61. ^{13}C NMR spectrum of Mogroside VI B (7) in $\text{C}_5\text{D}_5\text{N}$

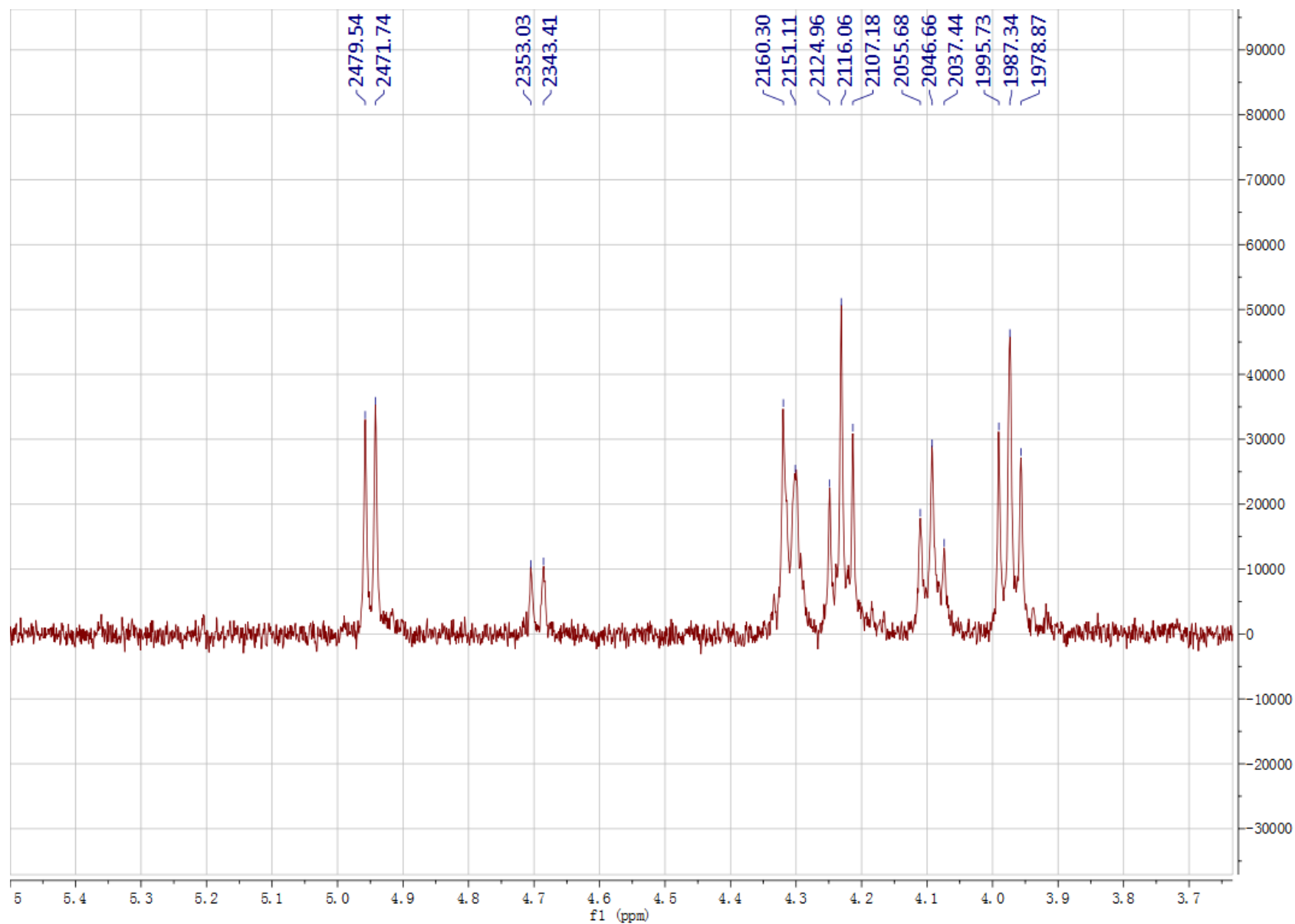


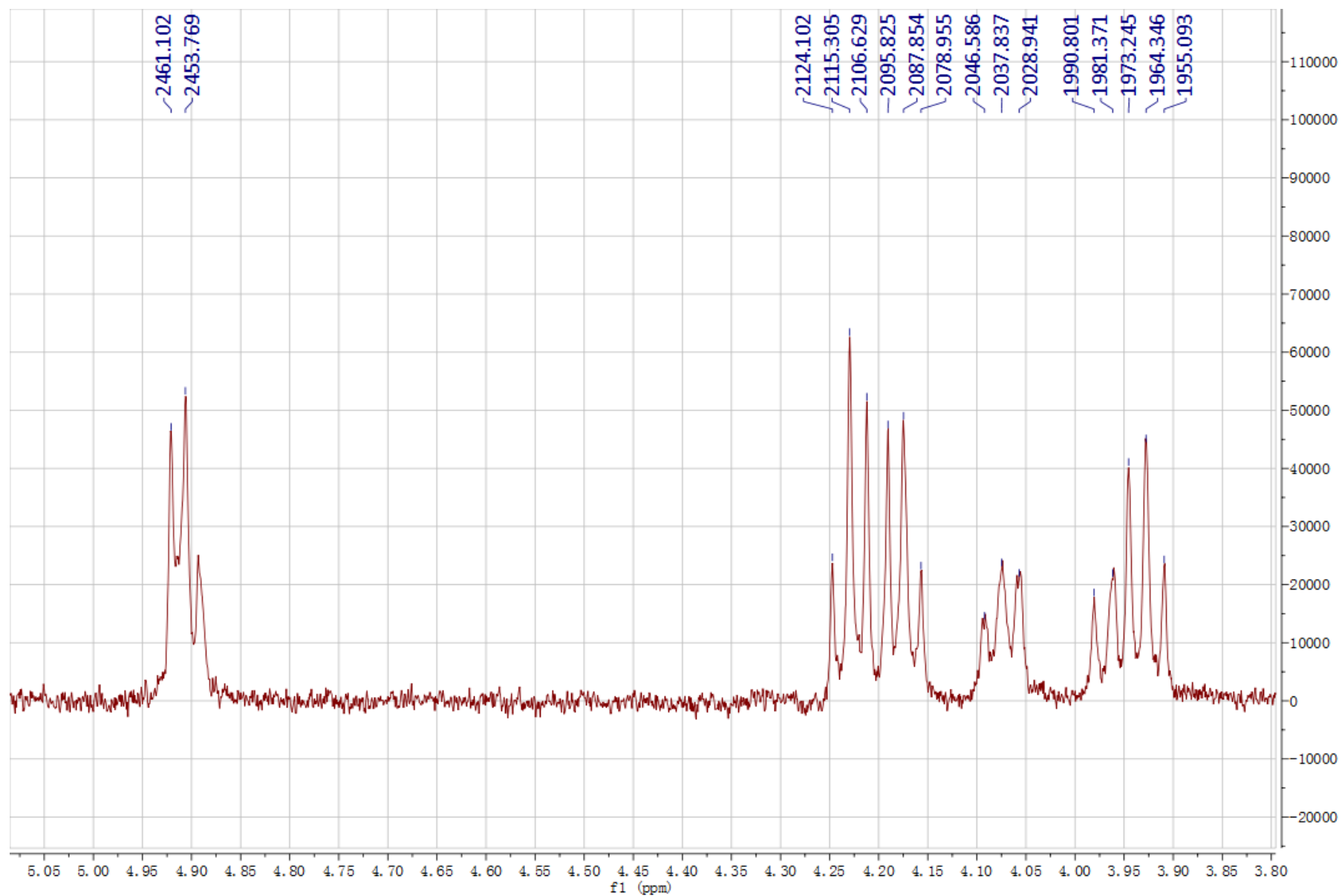
Figures S62. 1D TOCSY spectrum of Mogroside VI B (7) in C₅D₅N











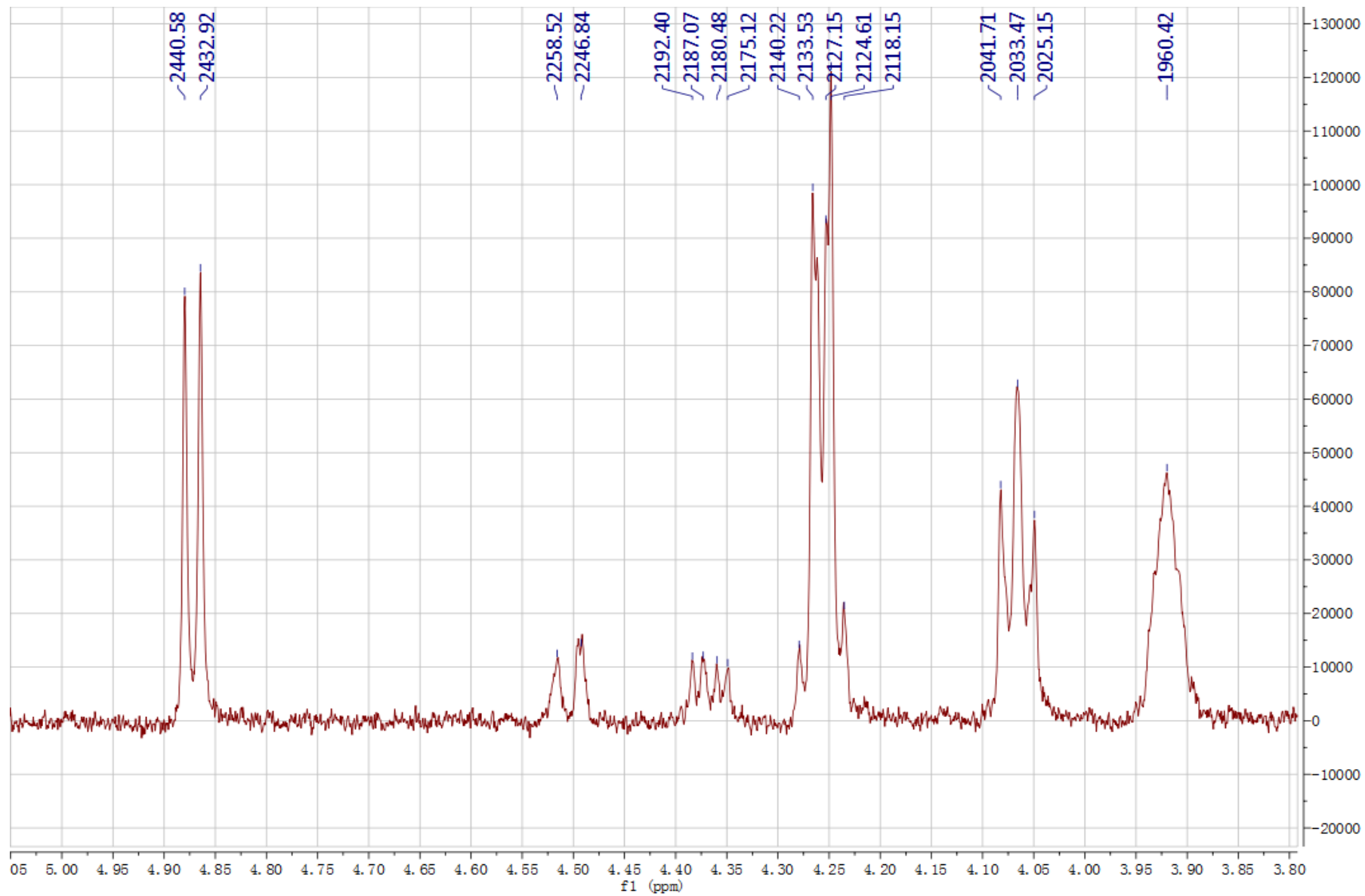


Figure S63. Selective HSQC (C15-55) spectrum of Mogroside VI B (7) in C_5D_5N

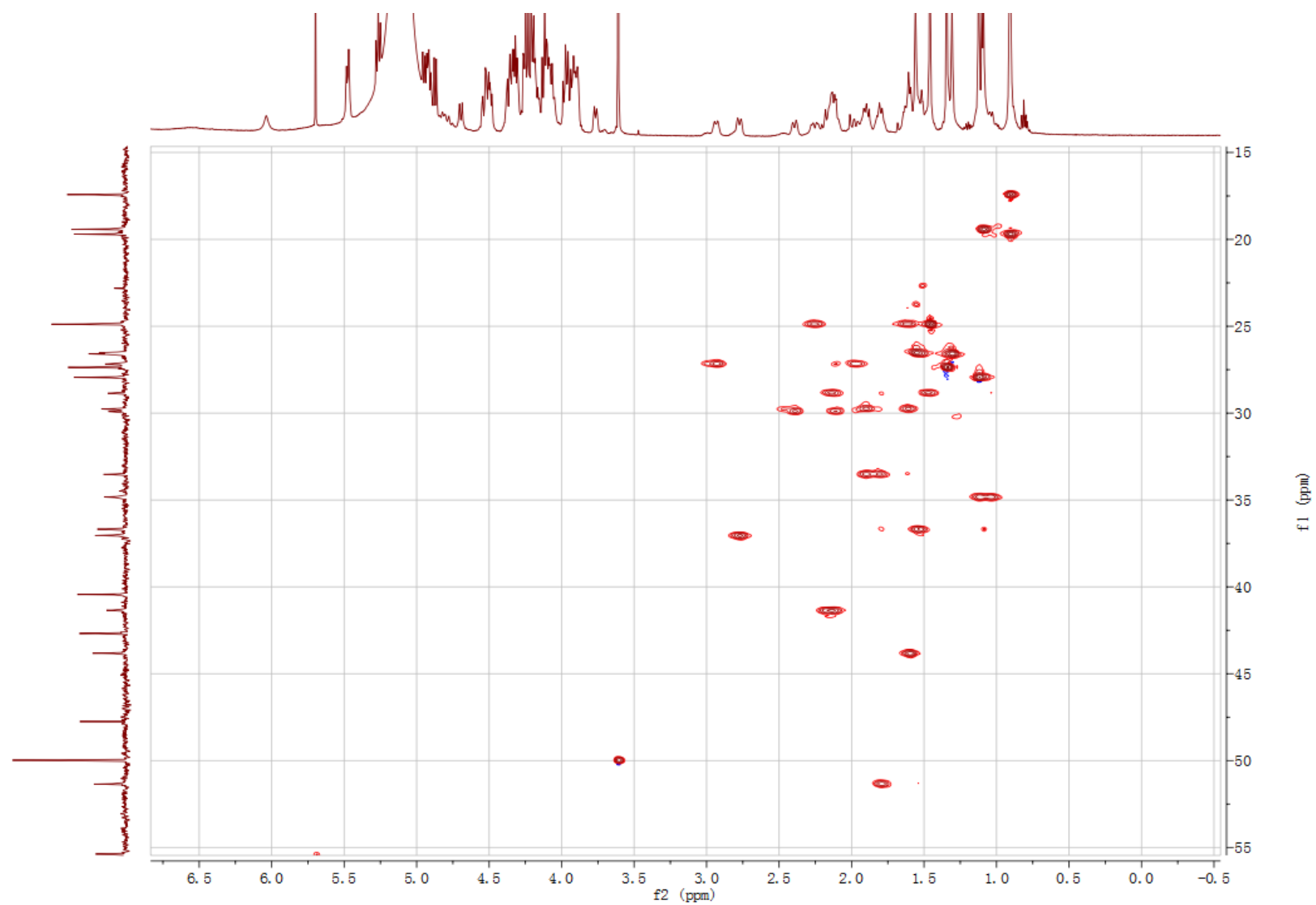


Figure S64. Selective HSQC (C60-95) spectrum of Mogroside VI B (7) in C_5D_5N

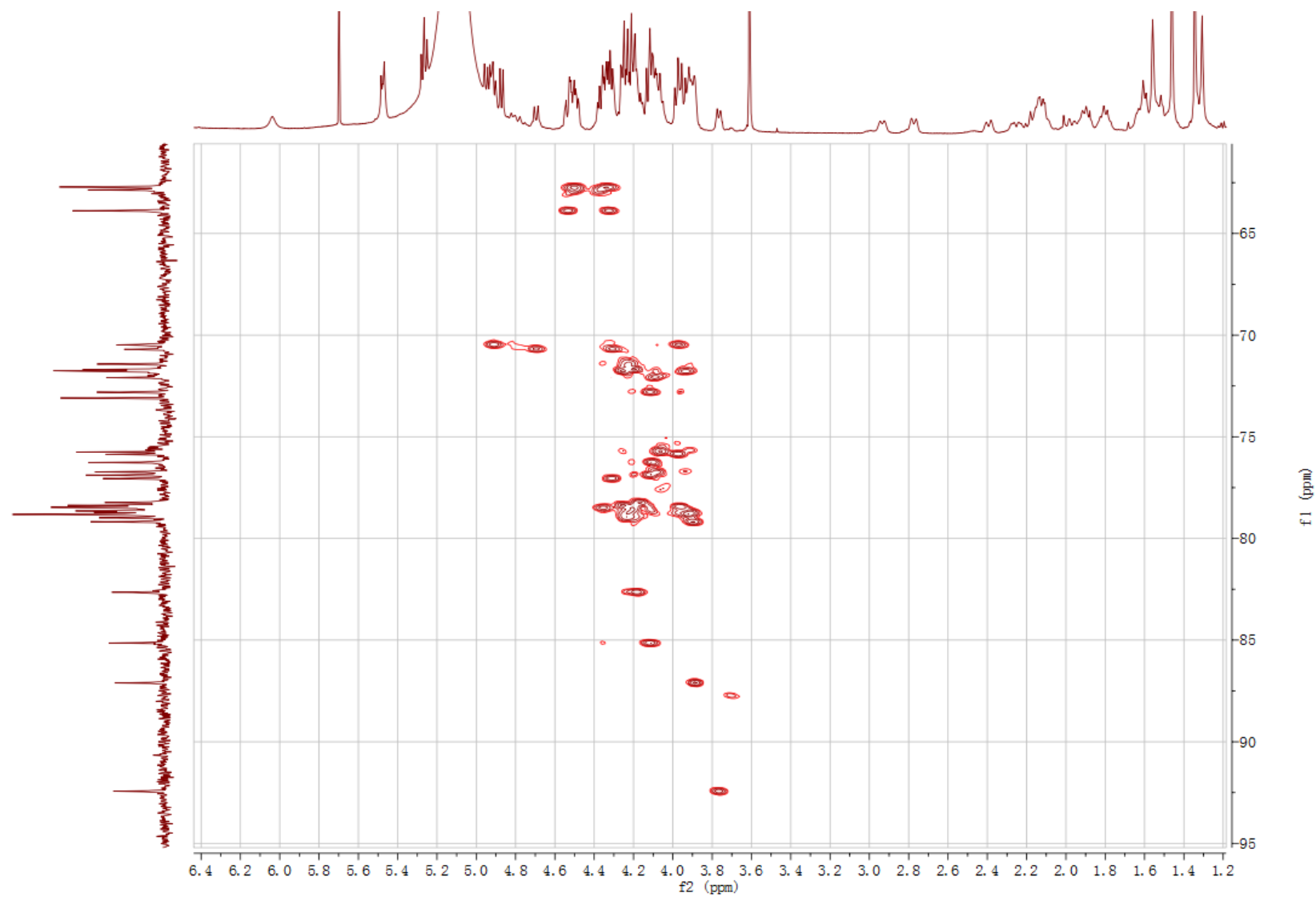


Figure S65. Selective HSQC (C100-108) spectrum of Mogroside VI B (7) in C_5D_5N

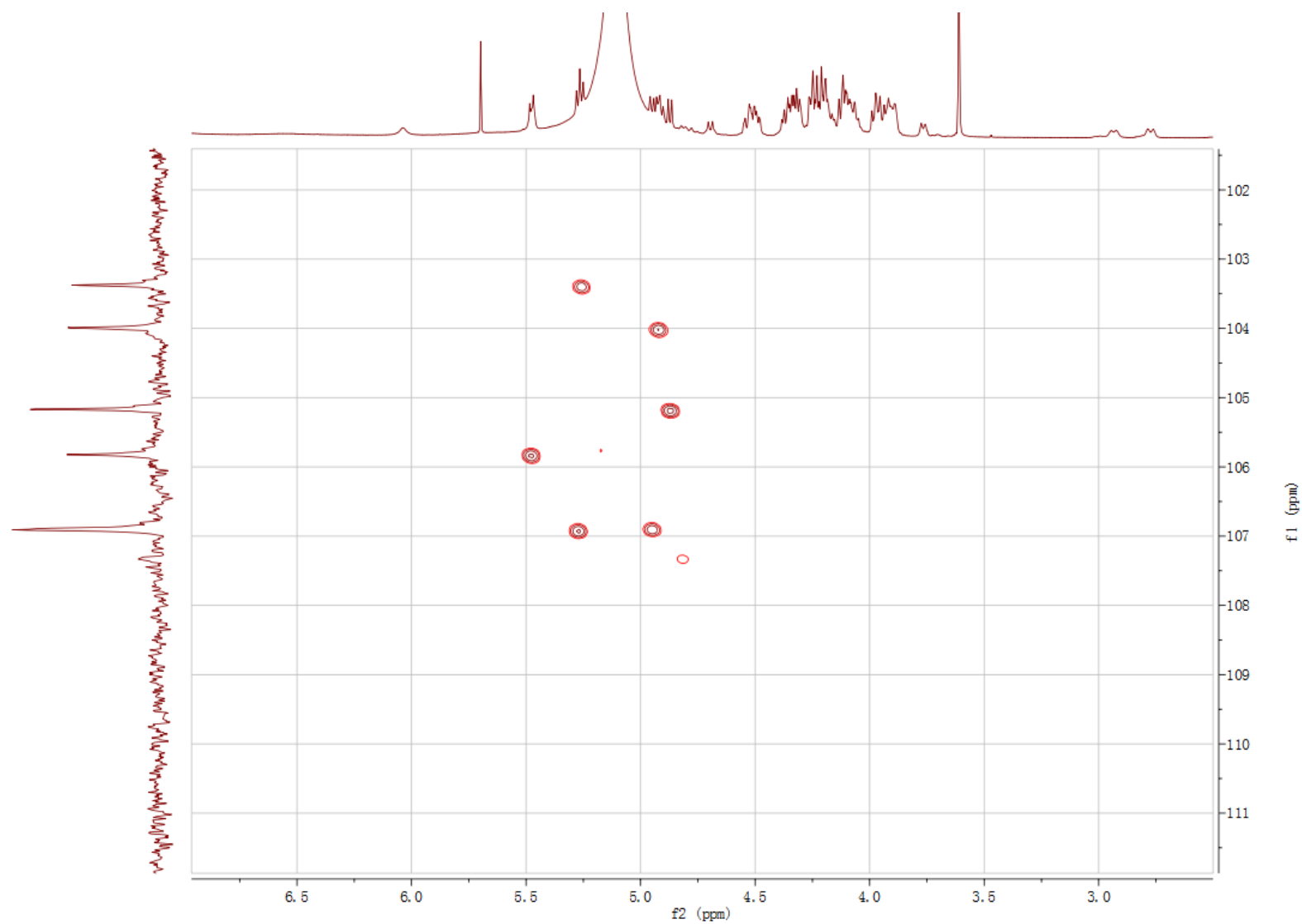


Figure S66. Selective HMBC (C15-45) spectrum of Mogroside VI B (7) in C₅D₅N

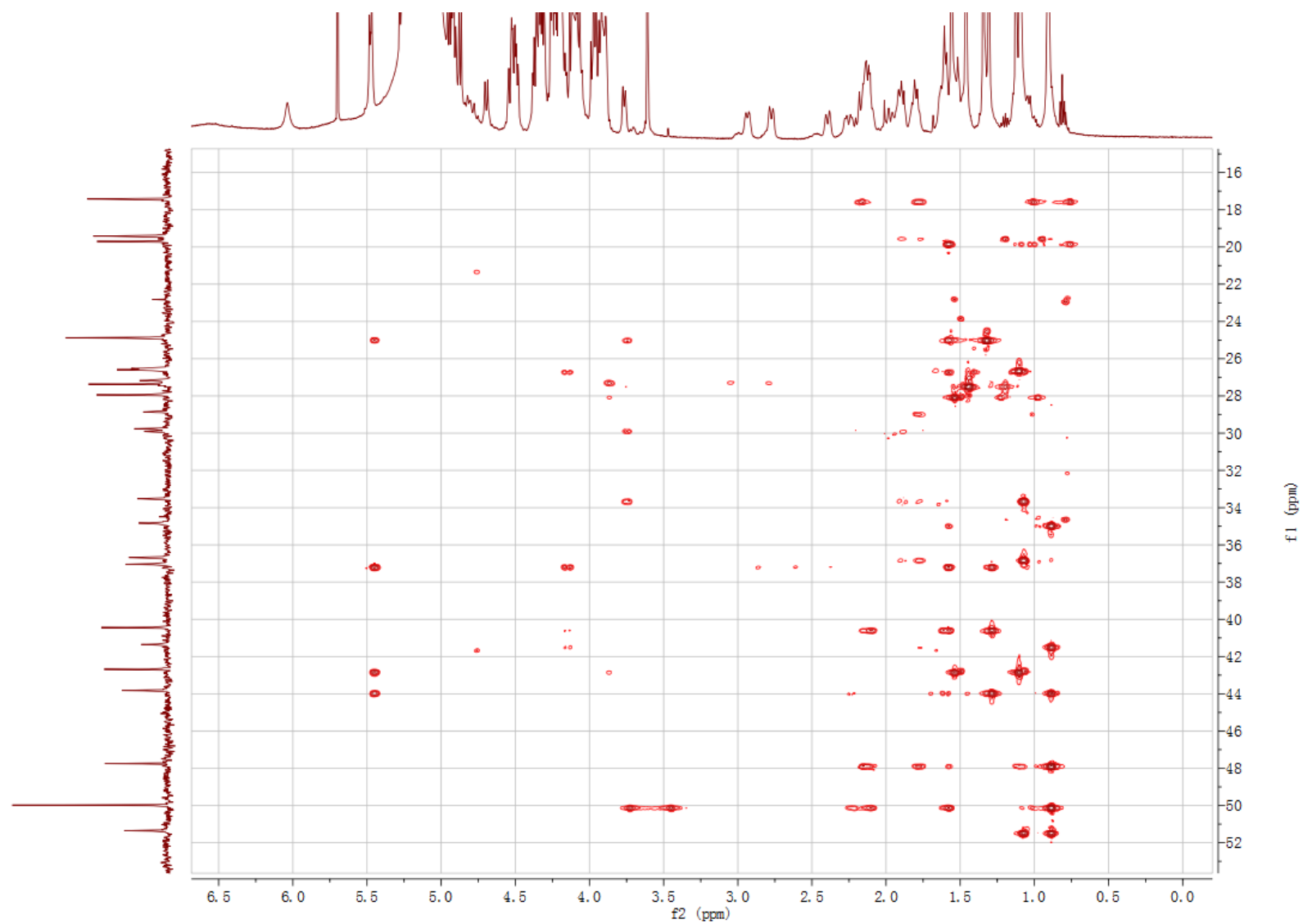


Figure S67. Selective HMBC (C60-95) spectrum of Mogroside VI B (7) in C₅D₅N

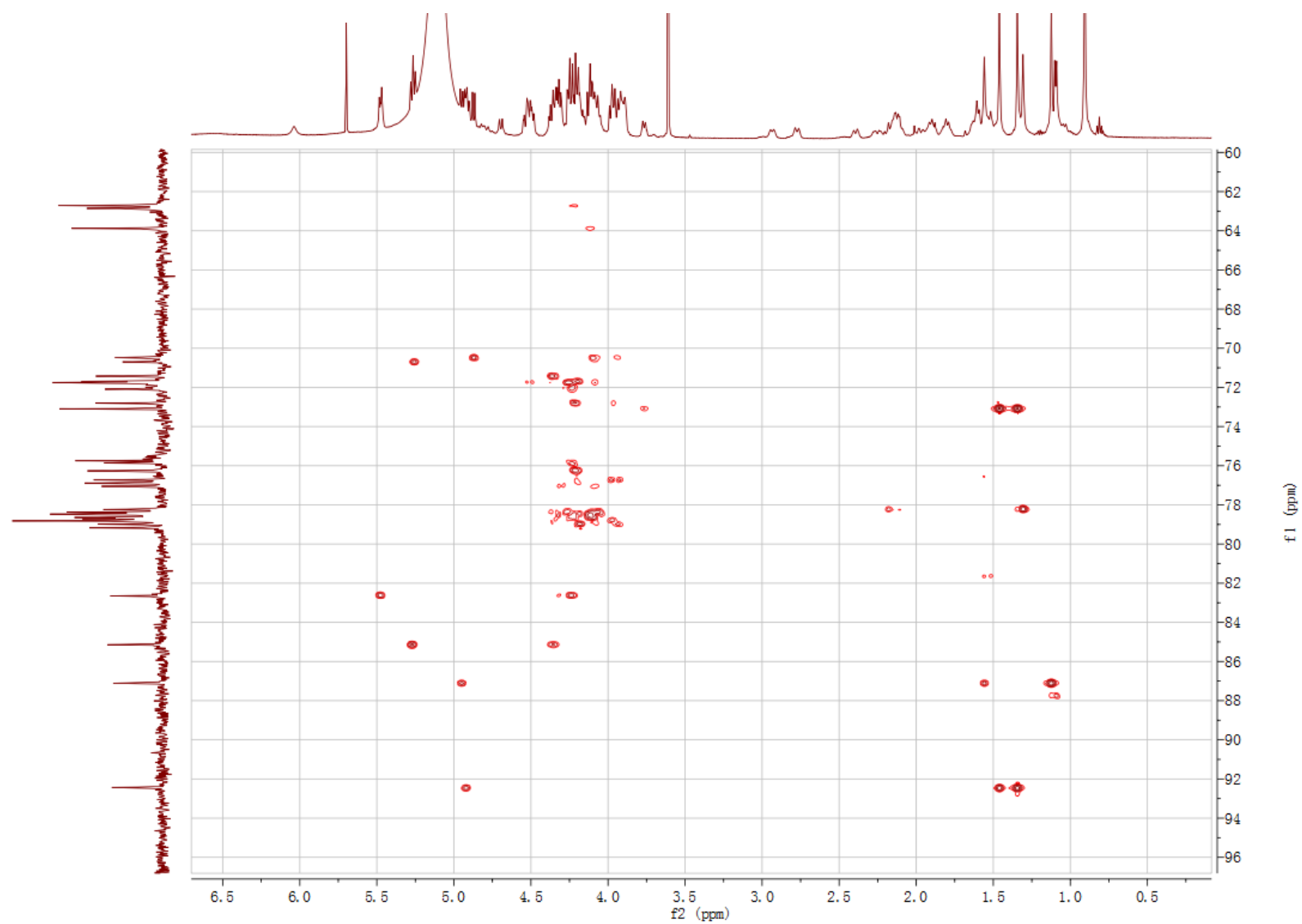


Figure S68. Selective HMBC (C60-108) spectrum of Mogroside VI B (7) in C₅D₅N

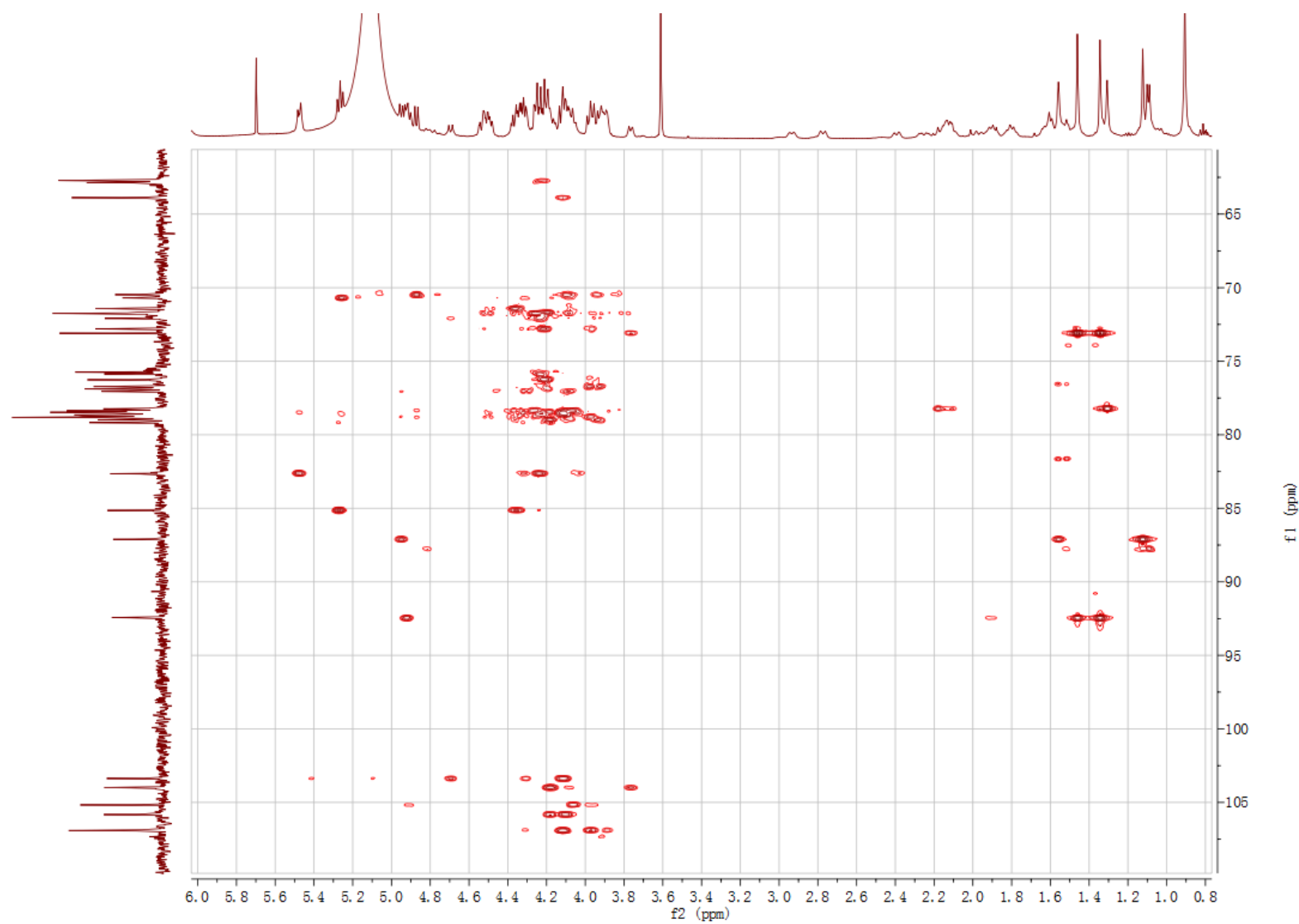


Figure S69. COSY spectrum of Mogroside VI B (7) in C₅D₅N

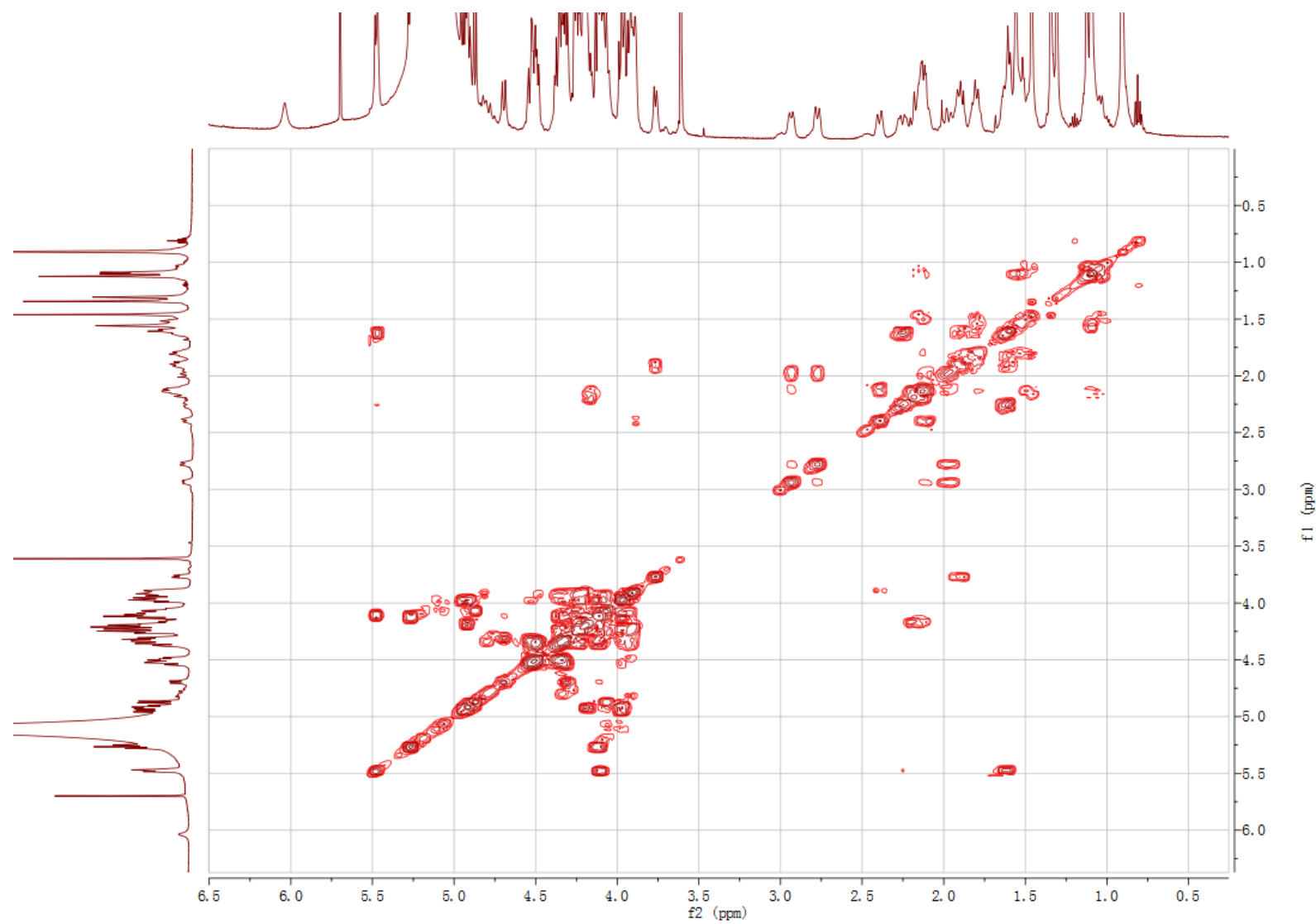


Figure S70. ROESY spectrum of Mogroside VI B (7) in C₅D₅N

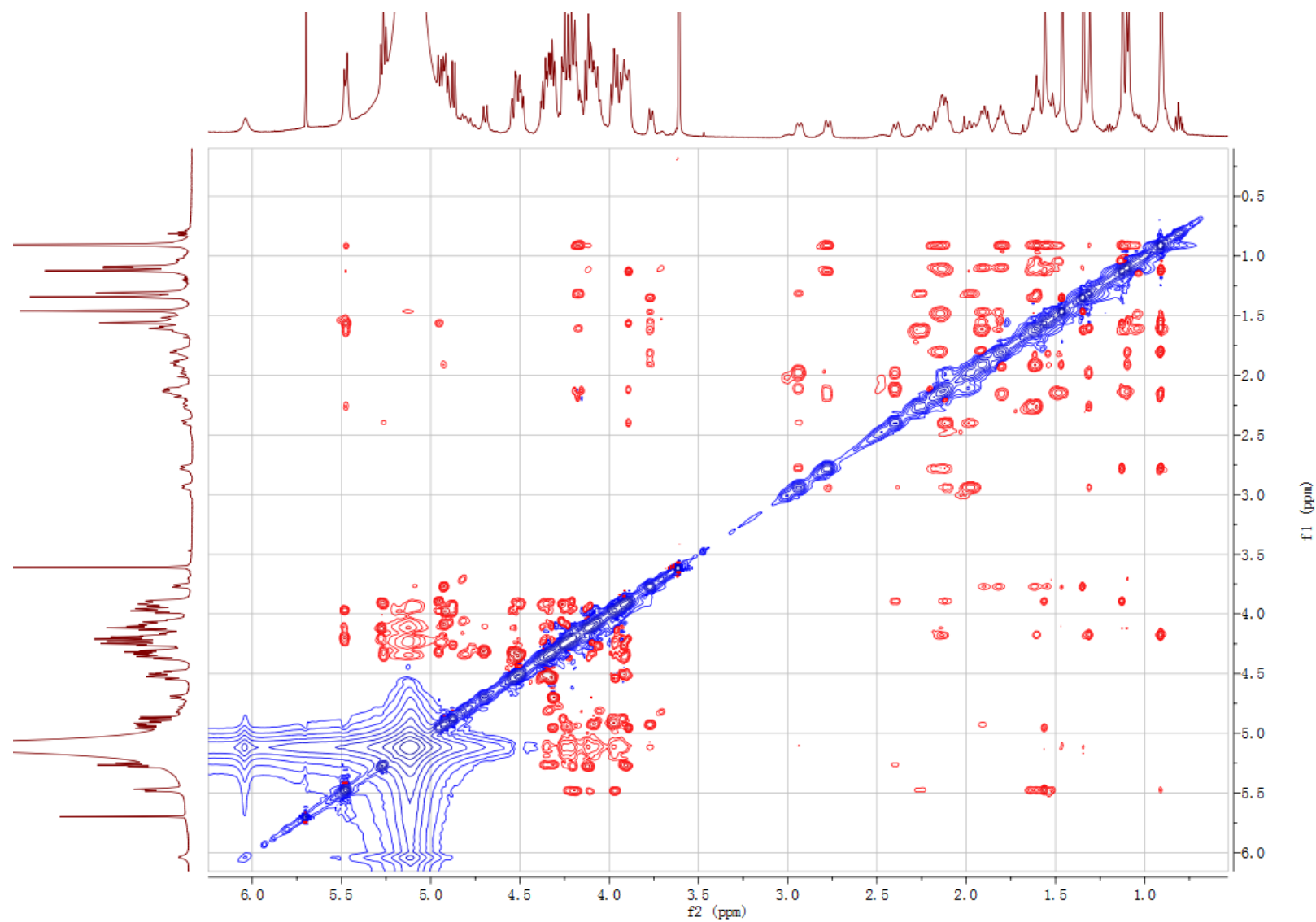


Figure S71. TOCSY spectrum of Mogroside VI B (7) in C₅D₅N

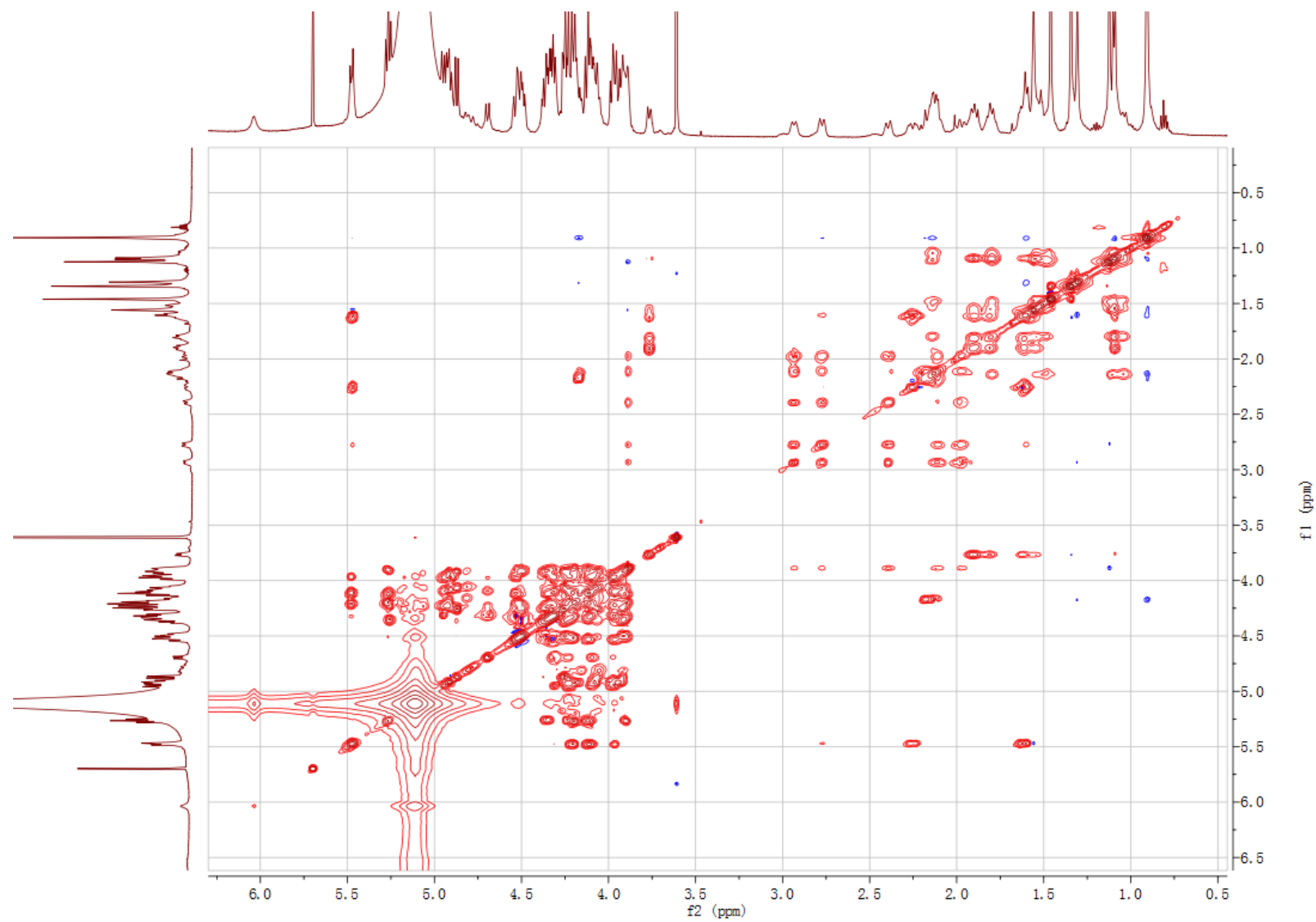


Figure S72. IR spectrum of Mogroside VI B (7)

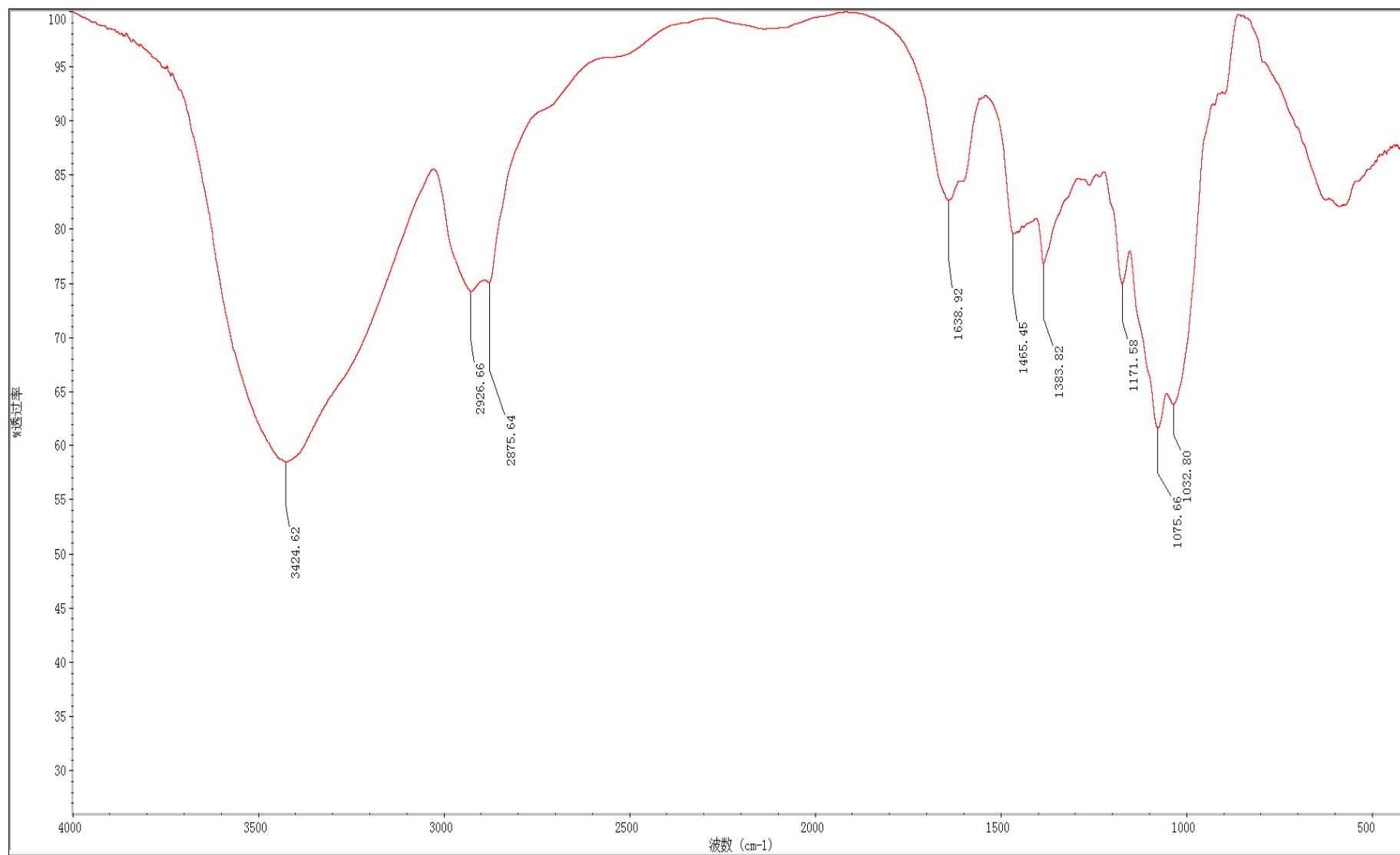


Figure S73. HRESIMS spectrum of Mogroside VI B (7)

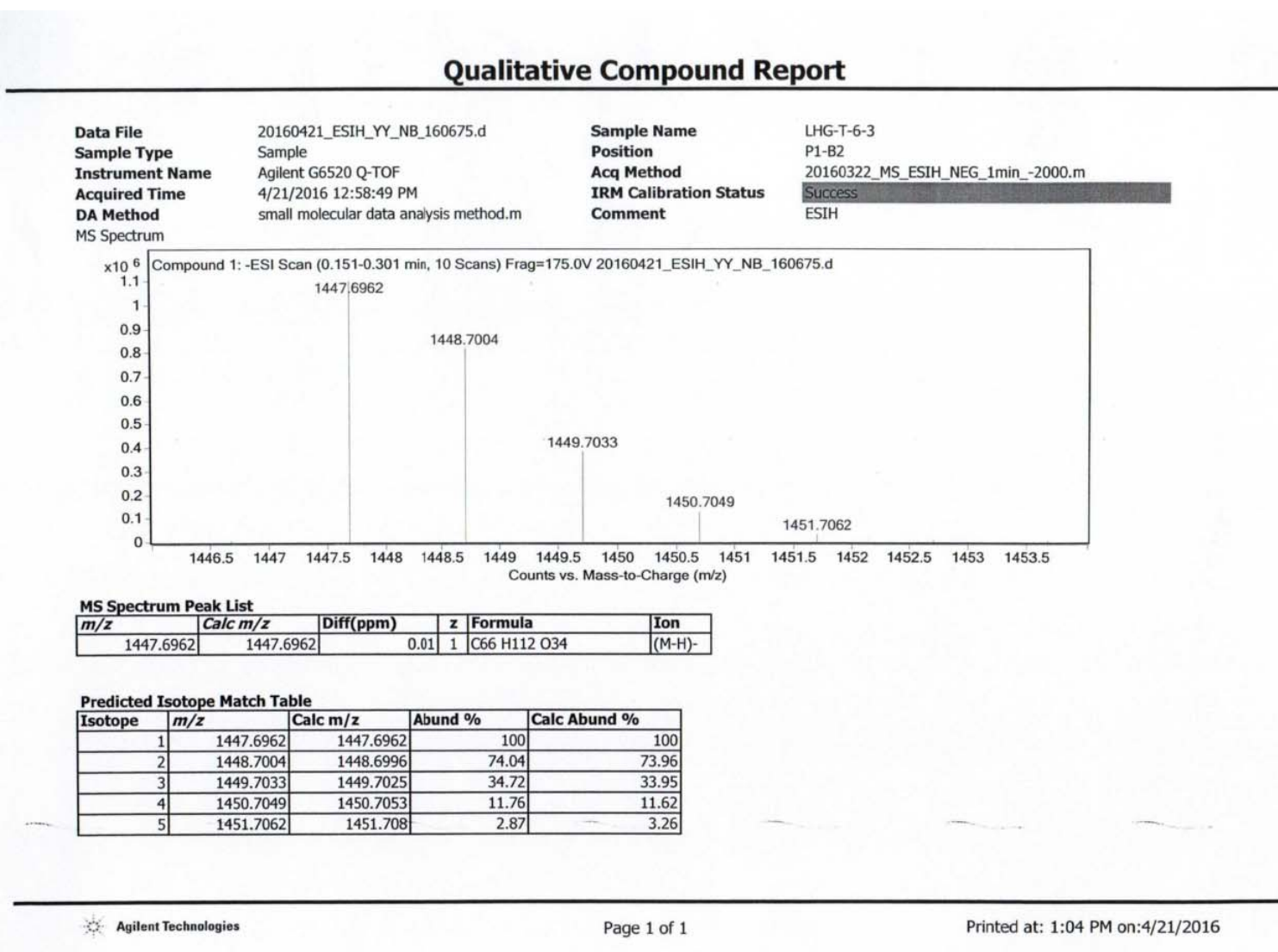


Figure S74. Crystallographic data of mogrol

Crystal data

$5(\text{C}_{30}\text{H}_{52}\text{O}_4) \cdot \text{C}_{31}\text{H}_{54}\text{O}_3 \cdot 8(\text{O}) \cdot 3(\text{CH}_4\text{O})$	$Z = 1$
$M_r = 3082.43$	$F(000) = 1702$
Triclinic, $P1$	$D_x = 1.123 \text{ Mg m}^{-3}$
$a = 14.9136 (6) \text{ \AA}$	Cu $K\alpha$ radiation, $\lambda = 1.54178 \text{ \AA}$
$b = 14.9888 (6) \text{ \AA}$	Cell parameters from 9890 reflections
$c = 22.7918 (9) \text{ \AA}$	$\theta = 3.3\text{--}68.3^\circ$
$\alpha = 97.926 (2)^\circ$	$\mu = 0.59 \text{ mm}^{-1}$
$\beta = 93.125 (2)^\circ$	$T = 170 \text{ K}$
$\gamma = 114.454 (2)^\circ$	Block, colourless
$V = 4558.1 (3) \text{ \AA}^3$	$0.25 \times 0.18 \times 0.12 \text{ mm}$

Data collection

Bruker APEX-II CCD diffractometer	25315 reflections with $I > 2\sigma(I)$
ϕ and ω scans	$R_{\text{int}} = 0.035$
Absorption correction: multi-scan SADABS2014/5 (Bruker, 2014/5) was used for absorption correction. $wR2(\text{int})$ was 0.0808 before and 0.0611 after correction. The Ratio of minimum to maximum transmission is 0.0828. The $\lambda/2$ correction factor is Not present.	$\theta_{\text{max}} = 64.0^\circ$, $\theta_{\text{min}} = 3.3^\circ$
$T_{\text{min}} = 0.005$, $T_{\text{max}} = 0.065$	$h = -17 \rightarrow 17$
83600 measured reflections	$k = -17 \rightarrow 17$
29290 independent reflections	$l = -26 \rightarrow 26$

Refinement

Refinement on F^2	Hydrogen site location: mixed
Least-squares matrix: full	H atoms treated by a mixture of independent and constrained refinement
$R[F^2 > 2\sigma(F^2)] = 0.082$	$w = 1/[\sigma^2(F_o^2) + (0.1554P)^2 + 0.4496P]$ where $P = (F_o^2 + 2F_c^2)/3$
$wR(F^2) = 0.220$	$(\Delta/\sigma)_{\text{max}} = 0.055$
$S = 1.07$	$\Delta_{\text{max}} = 0.59 \text{ e \AA}^{-3}$
29290 reflections	$\Delta_{\text{min}} = -0.29 \text{ e \AA}^{-3}$
2080 parameters	Absolute structure: Flack x determined using 10316 quotients $[(I^+)-(I^-)]/[(I^+)+(I^-)]$ (Parsons, Flack and Wagner, Acta Cryst. B69 (2013) 249-259).
2012 restraints	Flack parameter: 0.02 (5)

Figure S75. The HPLC analysis of crude extract.

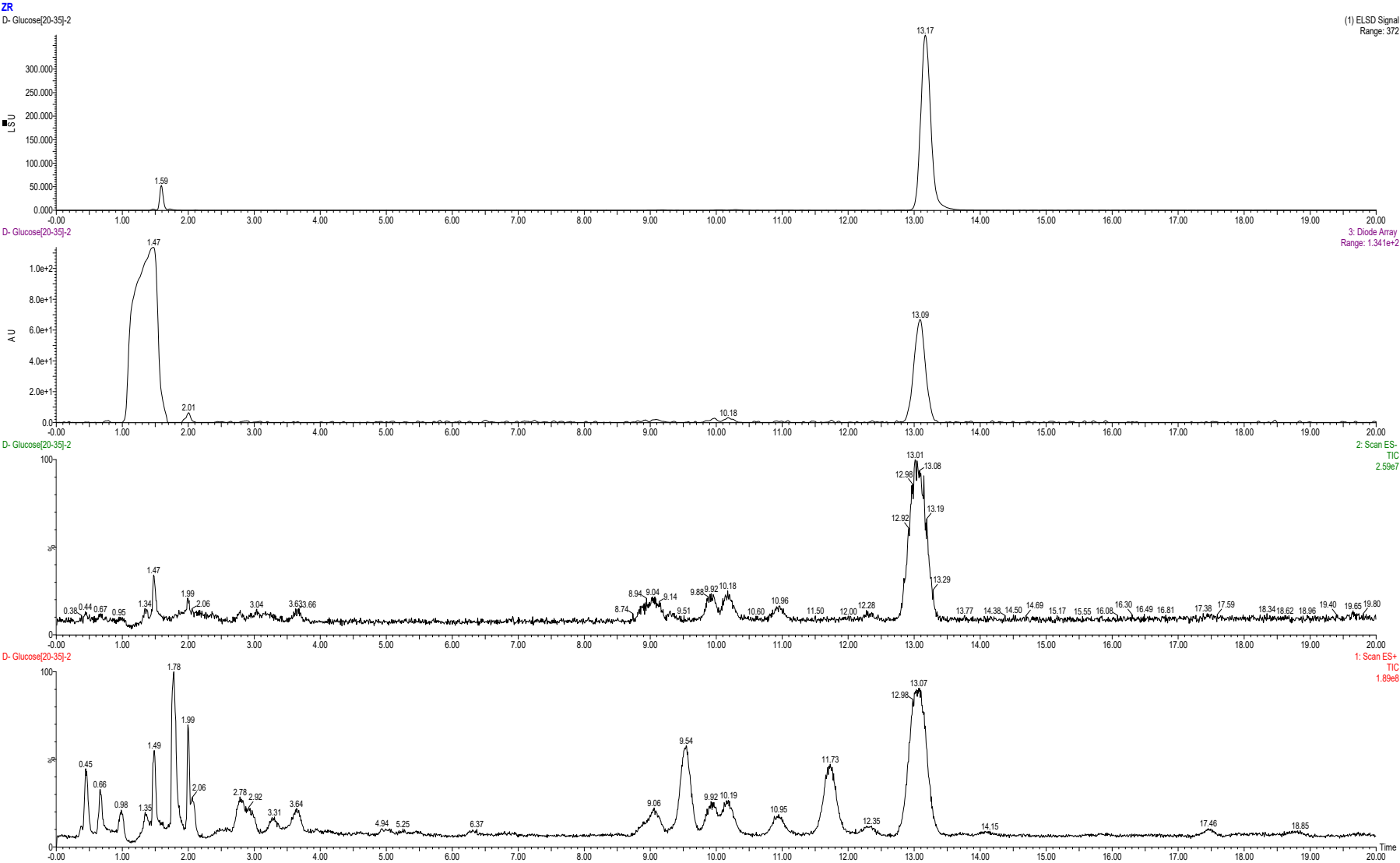


Figure S76. The retention time of L-glucose in HPLC

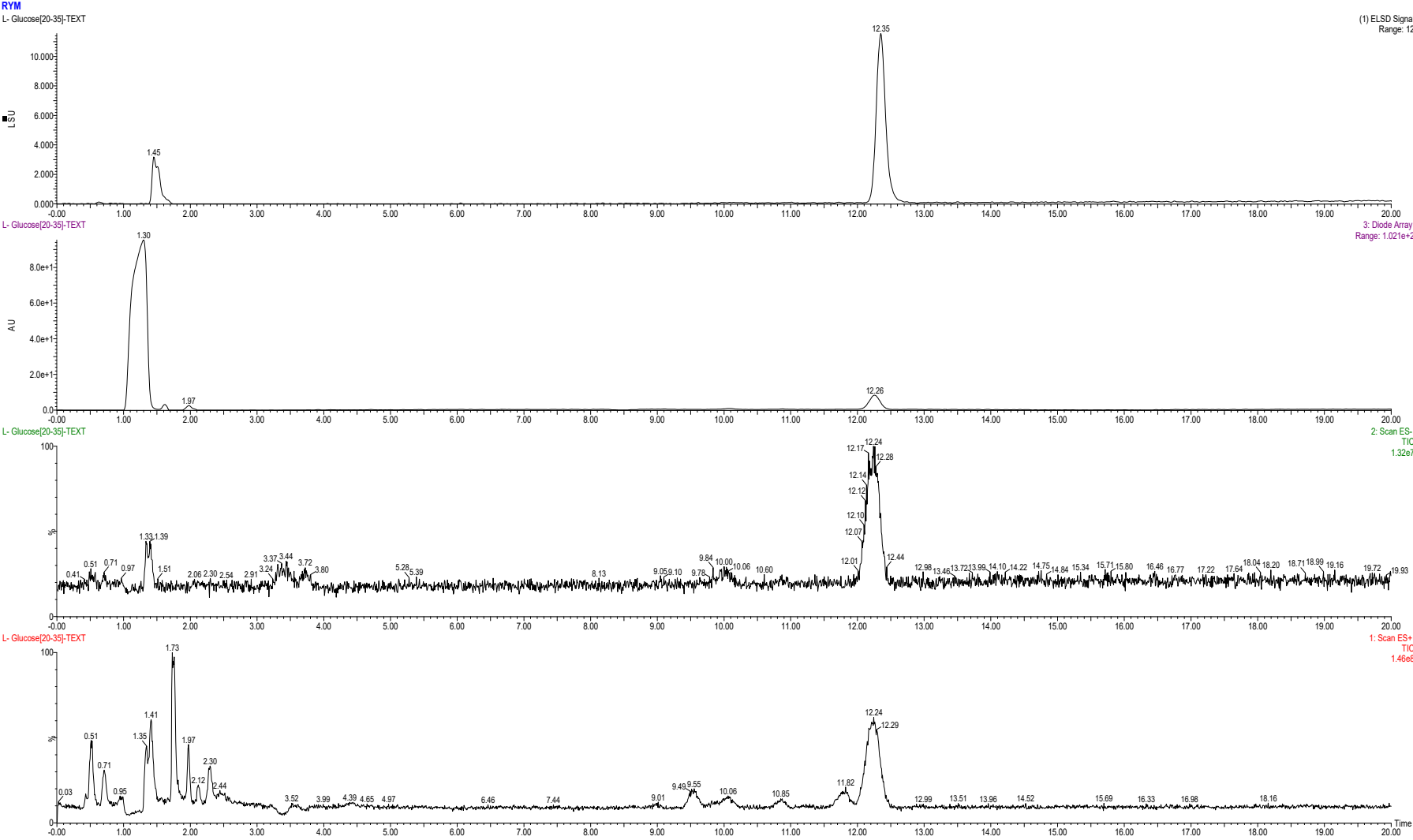


Figure S77. The retention time of glucose of compounds **1-7** in HPLC

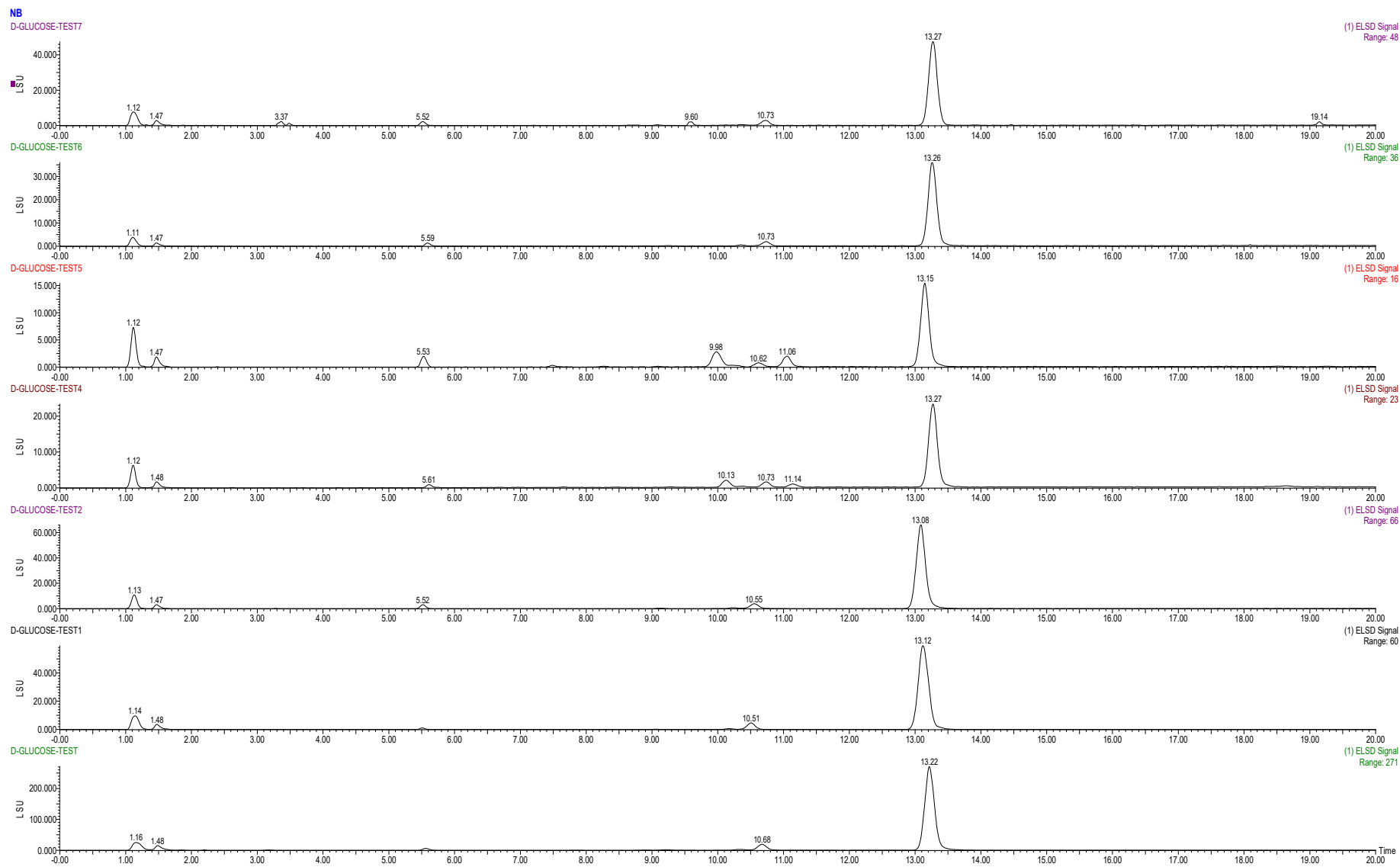
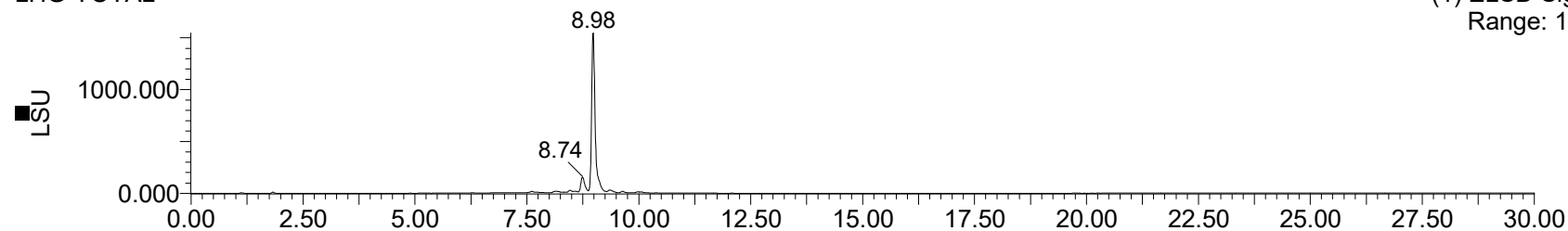


Figure S75. The HPLC analysis of crude extract.

13:47:09

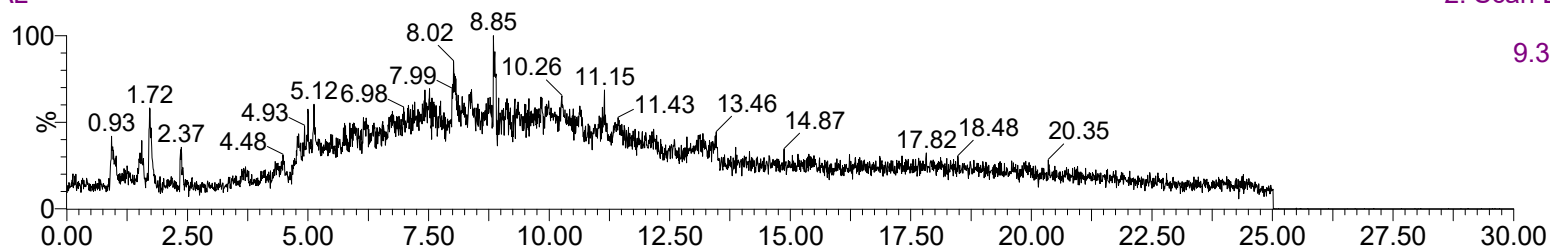
LHG-TOTAL

(1) ELSD Signal
Range: 1548



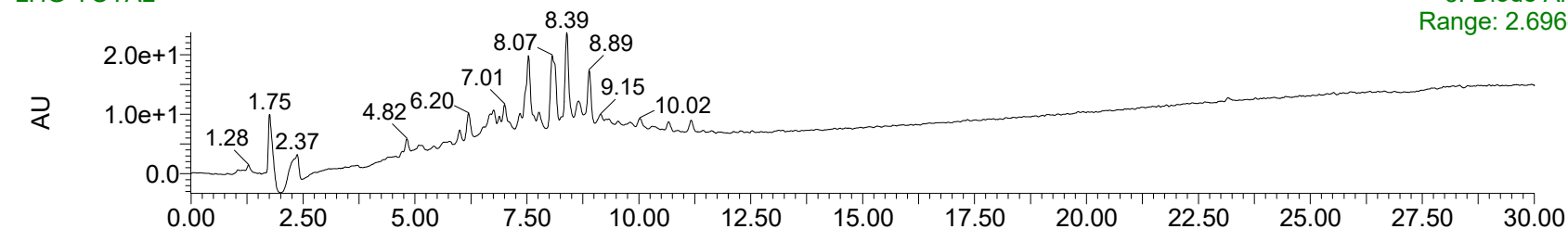
LHG-TOTAL

2: Scan ES-
TIC
9.38e6



LHG-TOTAL

3: Diode Array
Range: 2.696e+1



LHG-TOTAL

1: Scan ES+
TIC
2.69e8

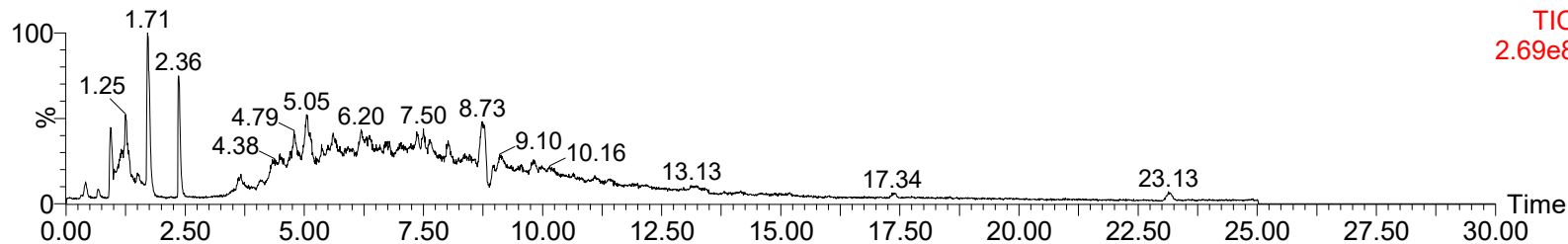
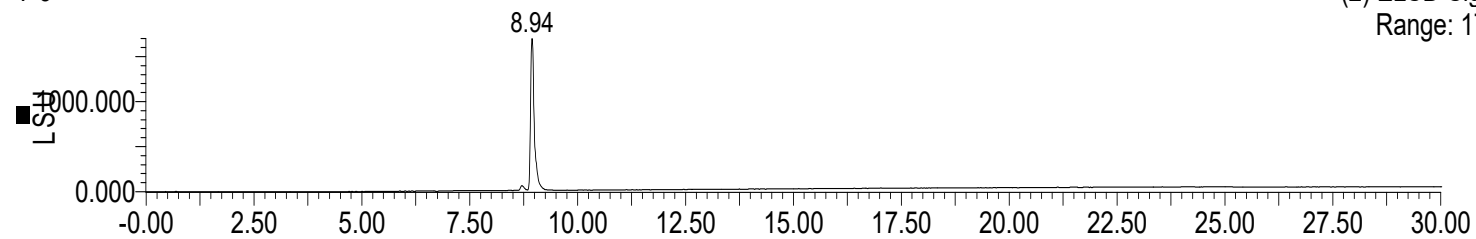


Figure S76. The HPLC analysis of mogroside V.

NB

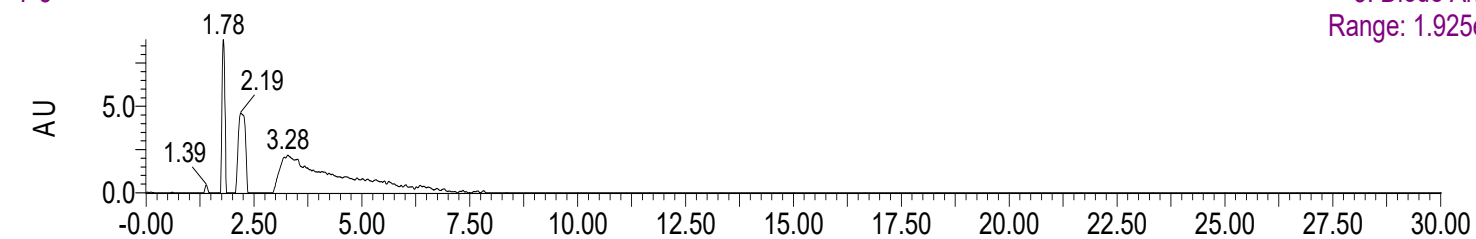
T-5-

(2) ELSD Signal
Range: 1705



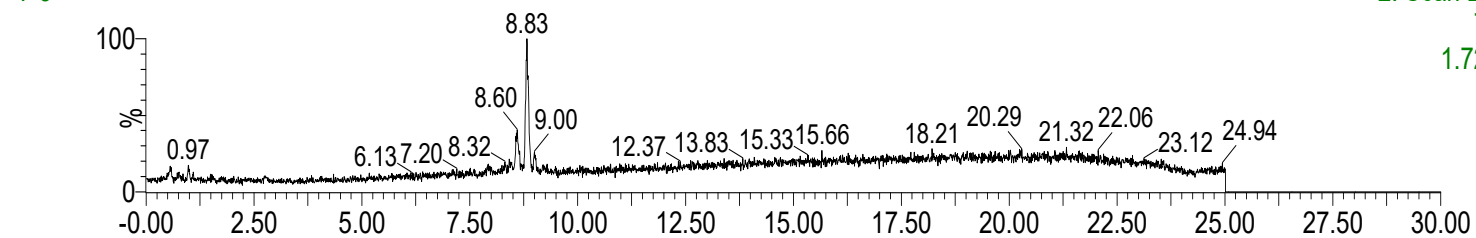
T-5-

3: Diode Array
Range: 1.925e+1



T-5-

2: Scan ES-
TIC
1.72e7



T-5-

1: Scan ES+
TIC
1.10e8

