Supporting Information

Cytotoxic Scalarane Sesterterpenoids from the South China Sea Sponge *Carteriospongia foliascens*

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‖ These authors contributed equally to this work.

List of Supporting Information

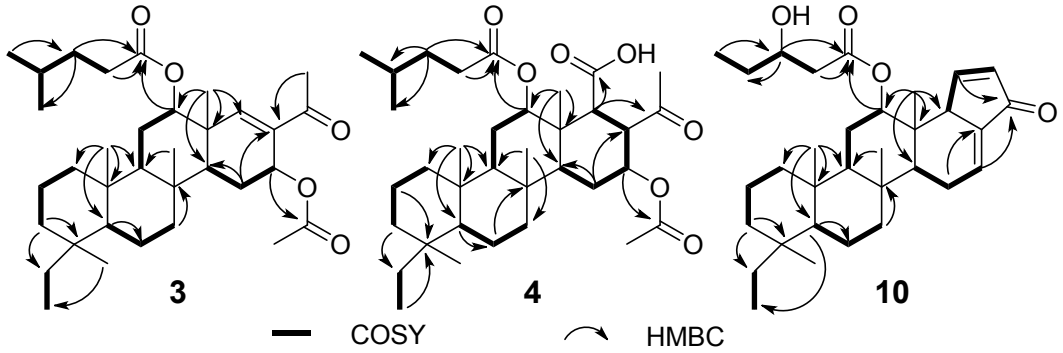


Figure S1. COSY and key HMBC correlations of **3**, **4** and **10**

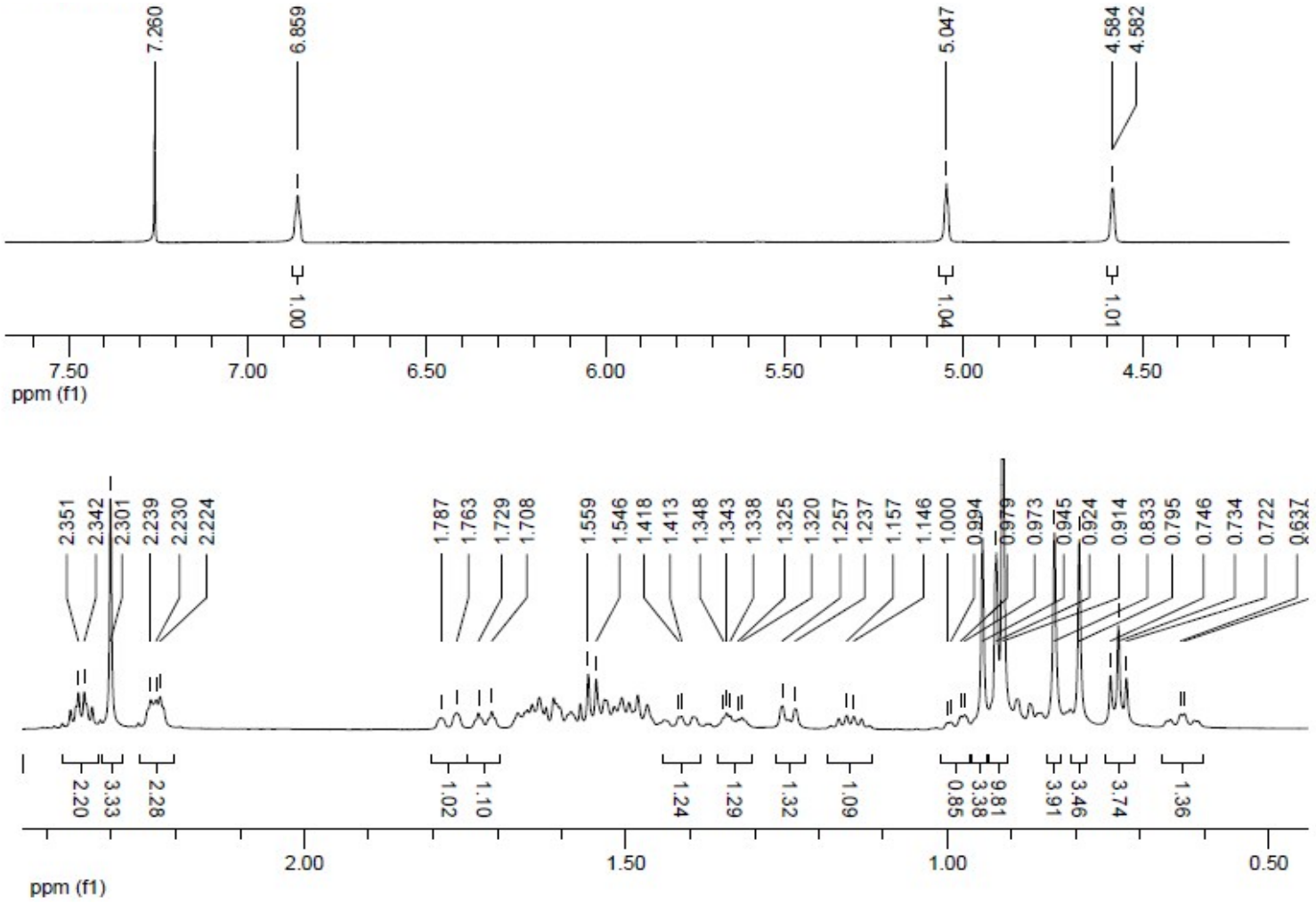


Figure S2. ^{1}H NMR (600 MHz, $CDCl_3$) spectrum of compound **1**

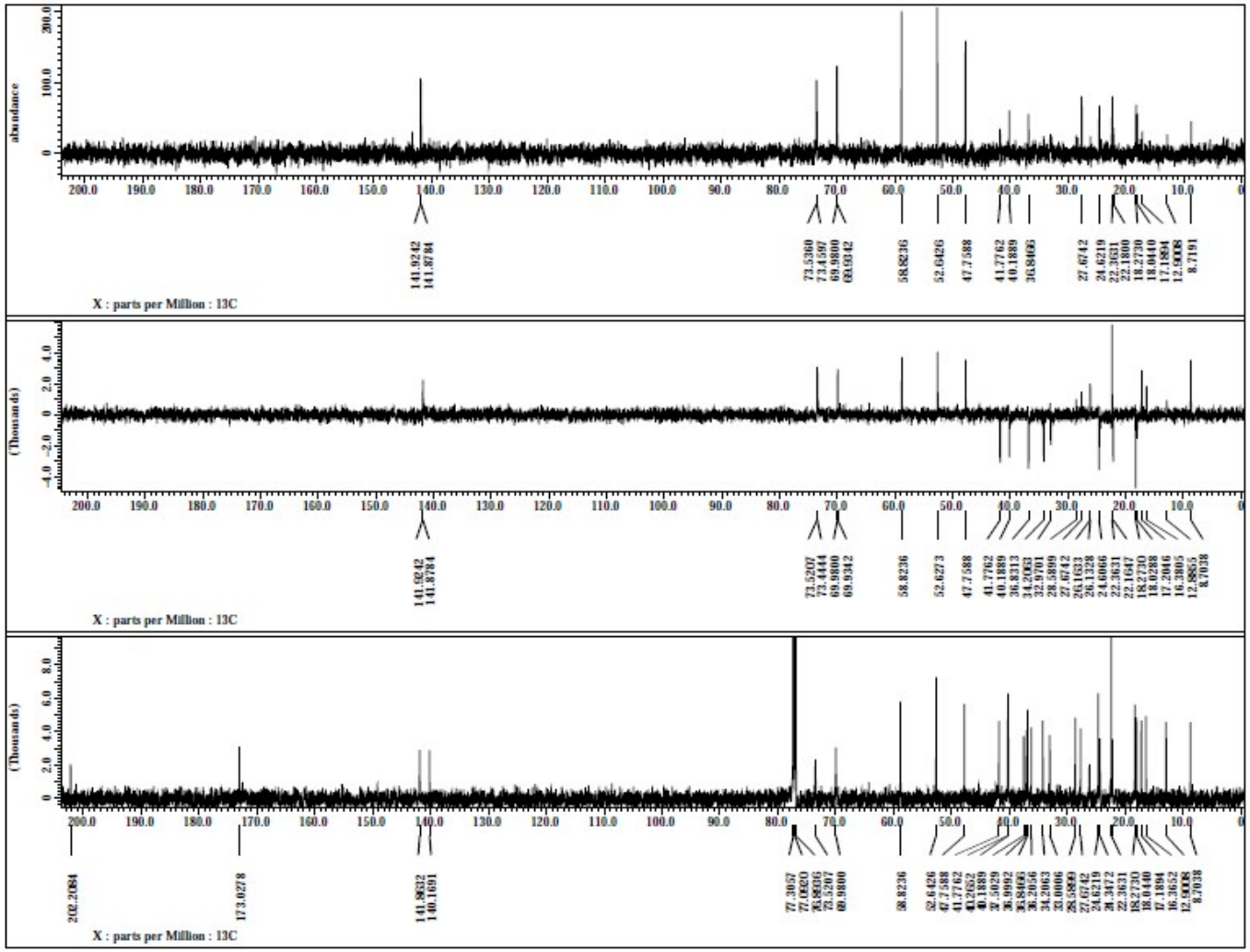


Figure S3. ^{13}C and DEPT NMR (150 MHz, $CDCl_3$) spectra of compound **1**

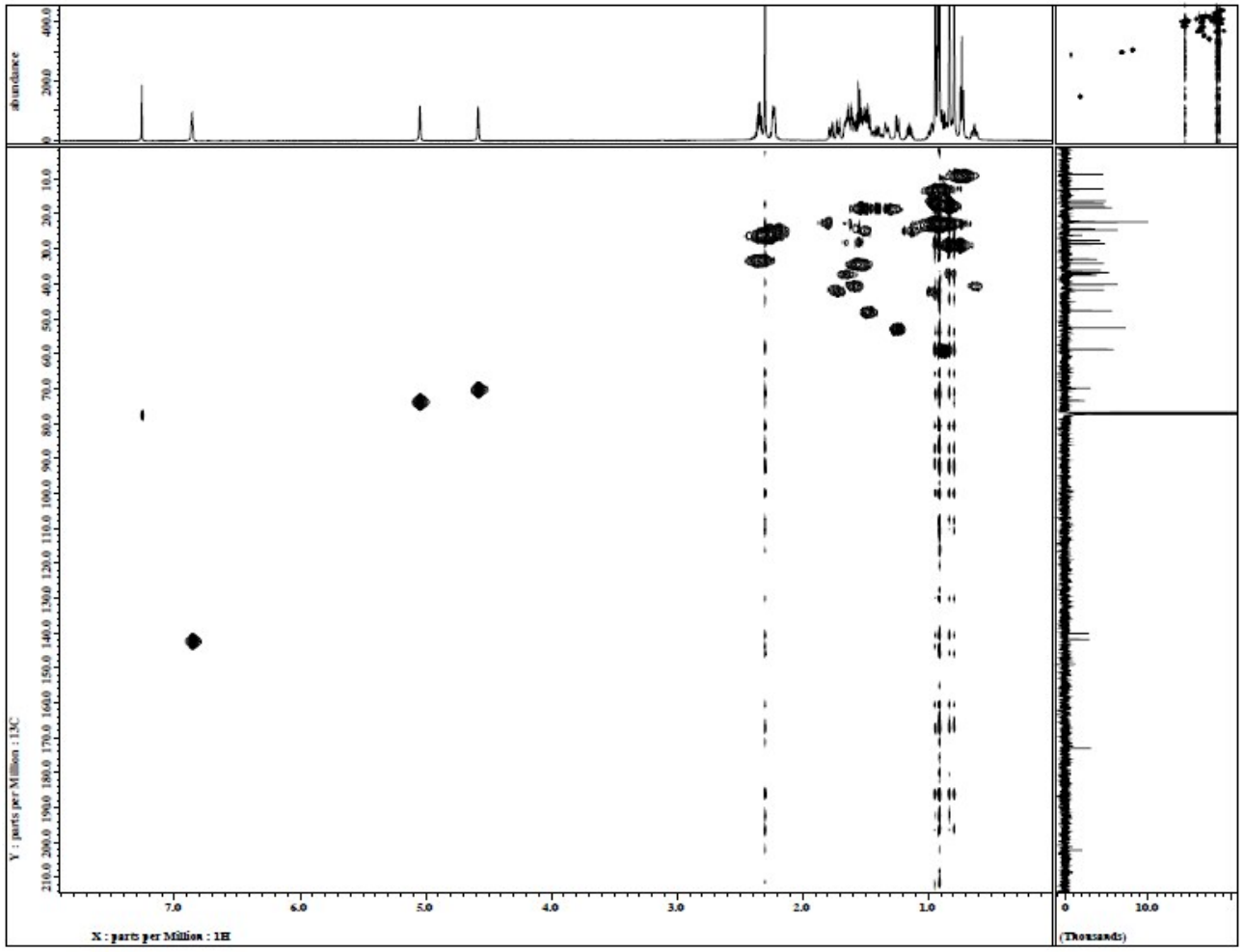


Figure S4. HMQC ($CDCl_3$) spectrum of compound **1**

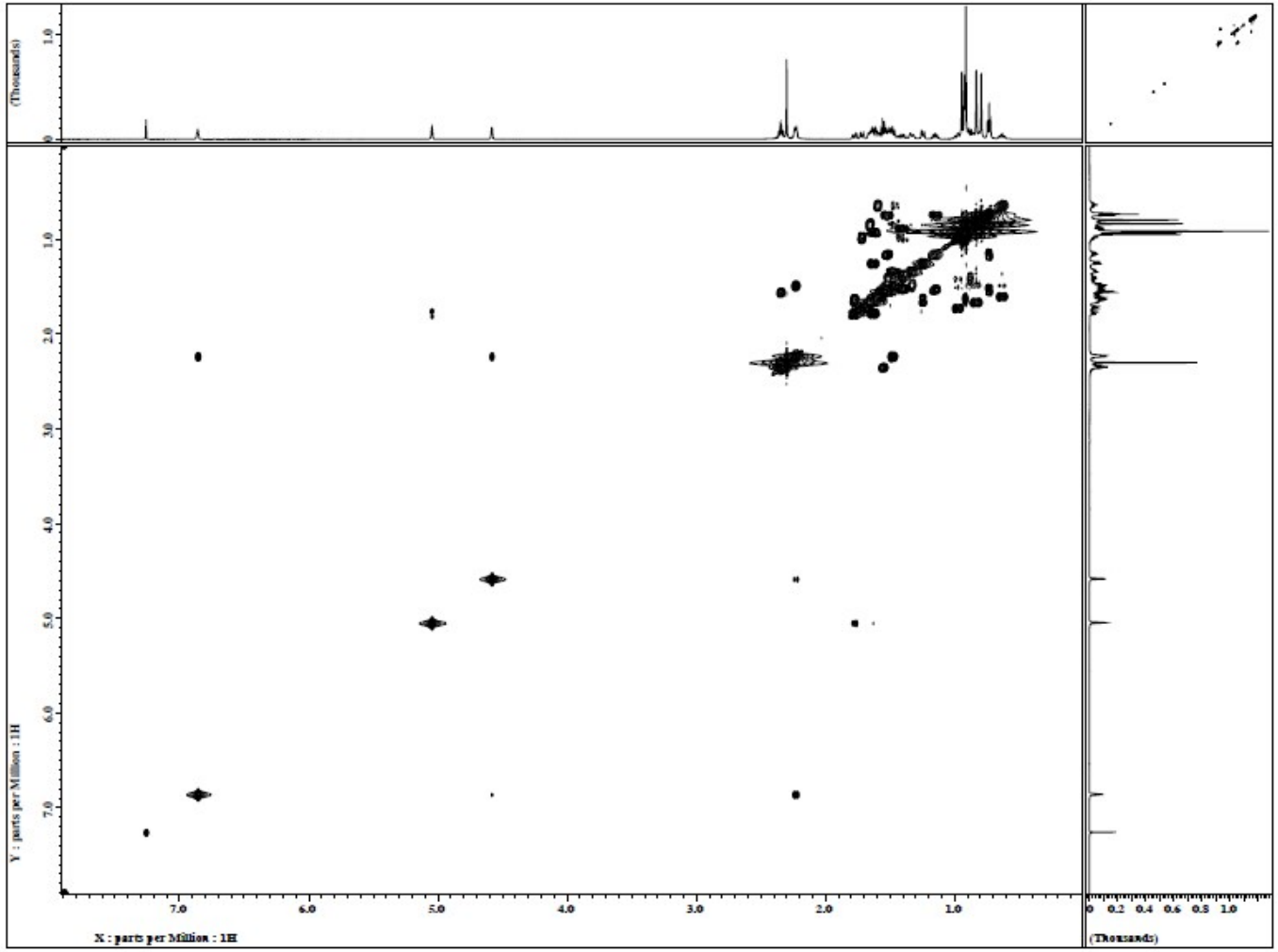


Figure S5. COSY ($CDCl_3$) spectrum of compound **1**

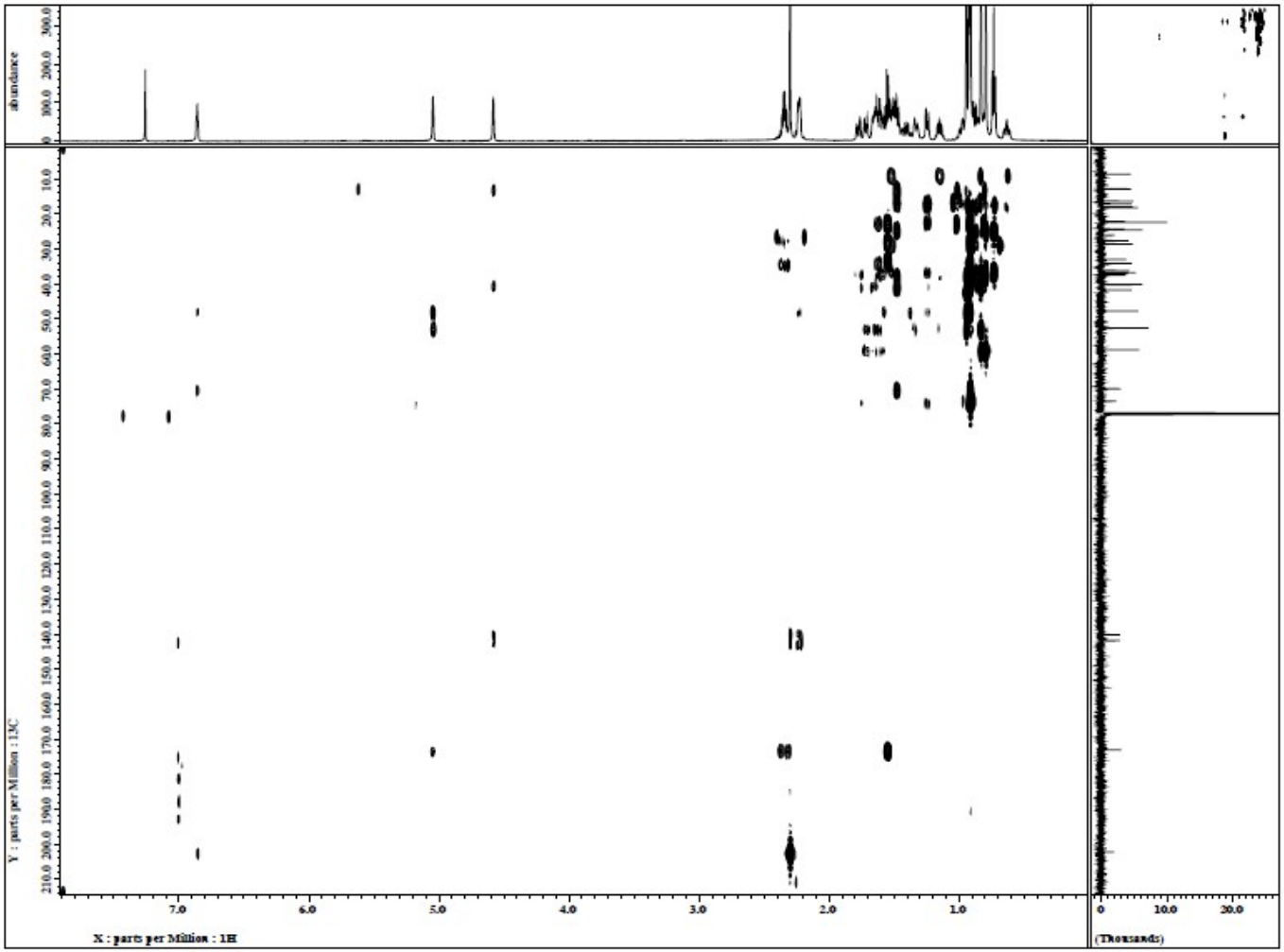


Figure S6. HMBC ($CDCl_3$) spectrum of compound **1**

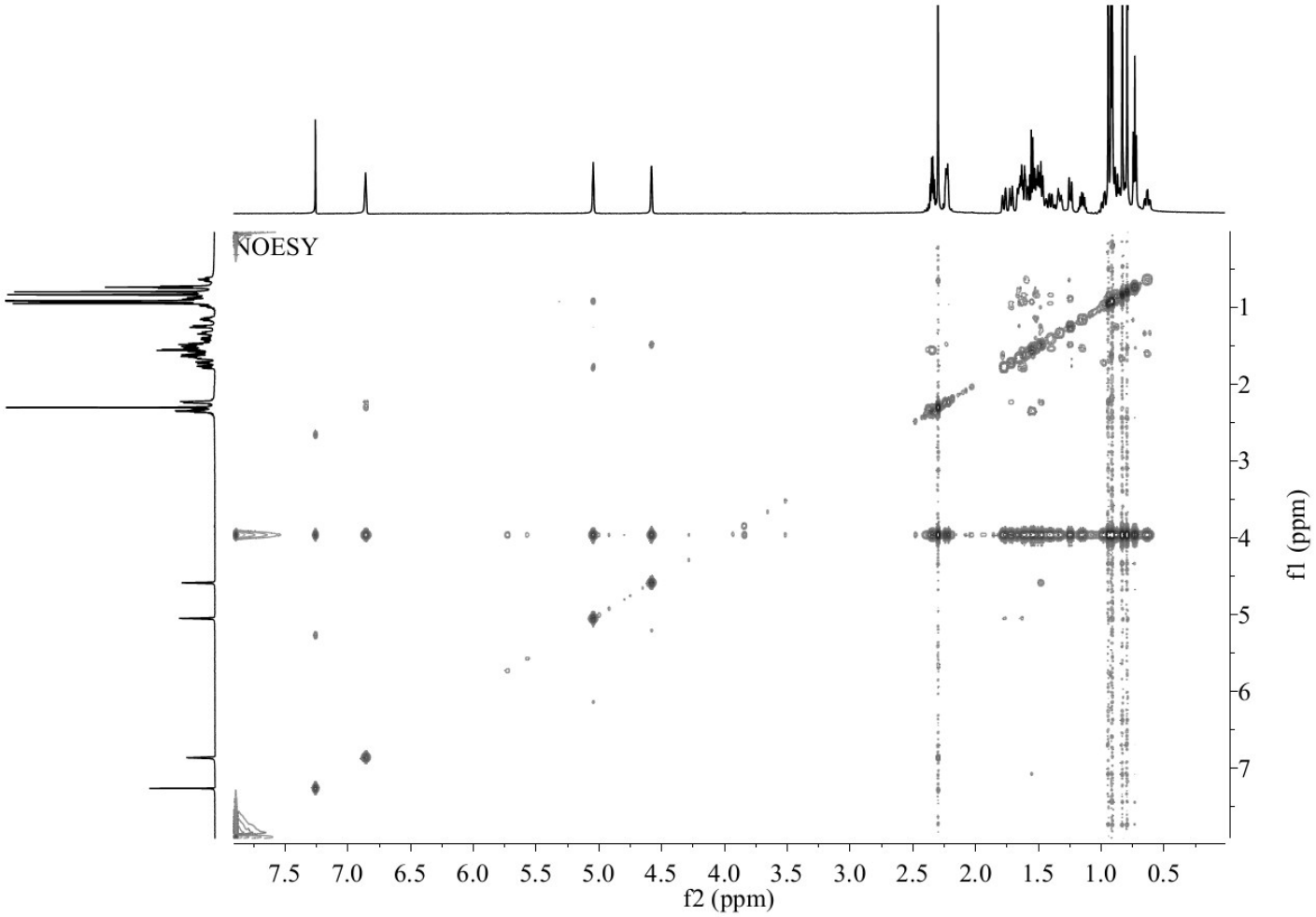


Figure S7. NOESY ($CDCl_3$) spectrum of compound **1**

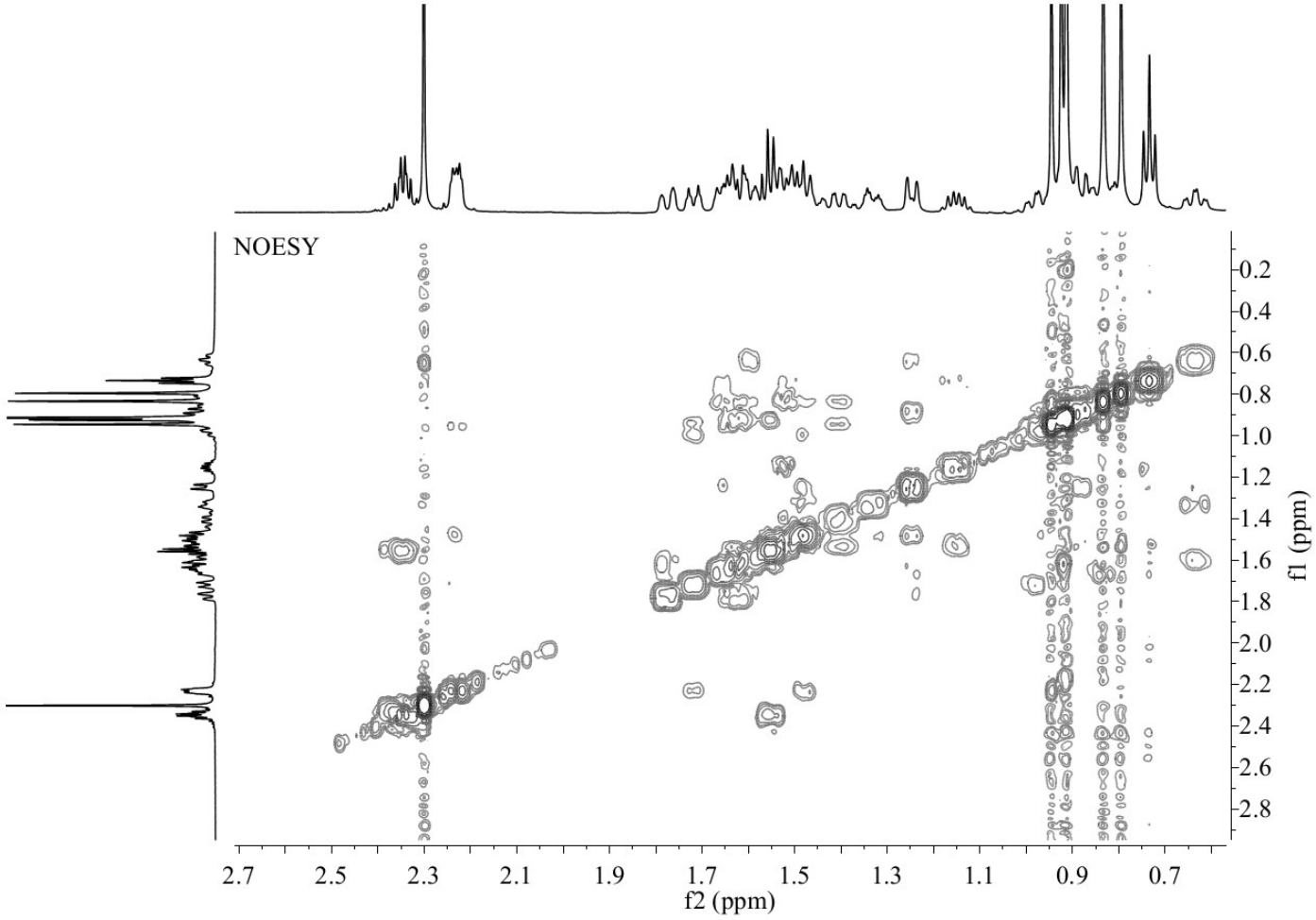


Figure S8. Partial NOESY ($CDCl_3$) spectrum of compound **1**

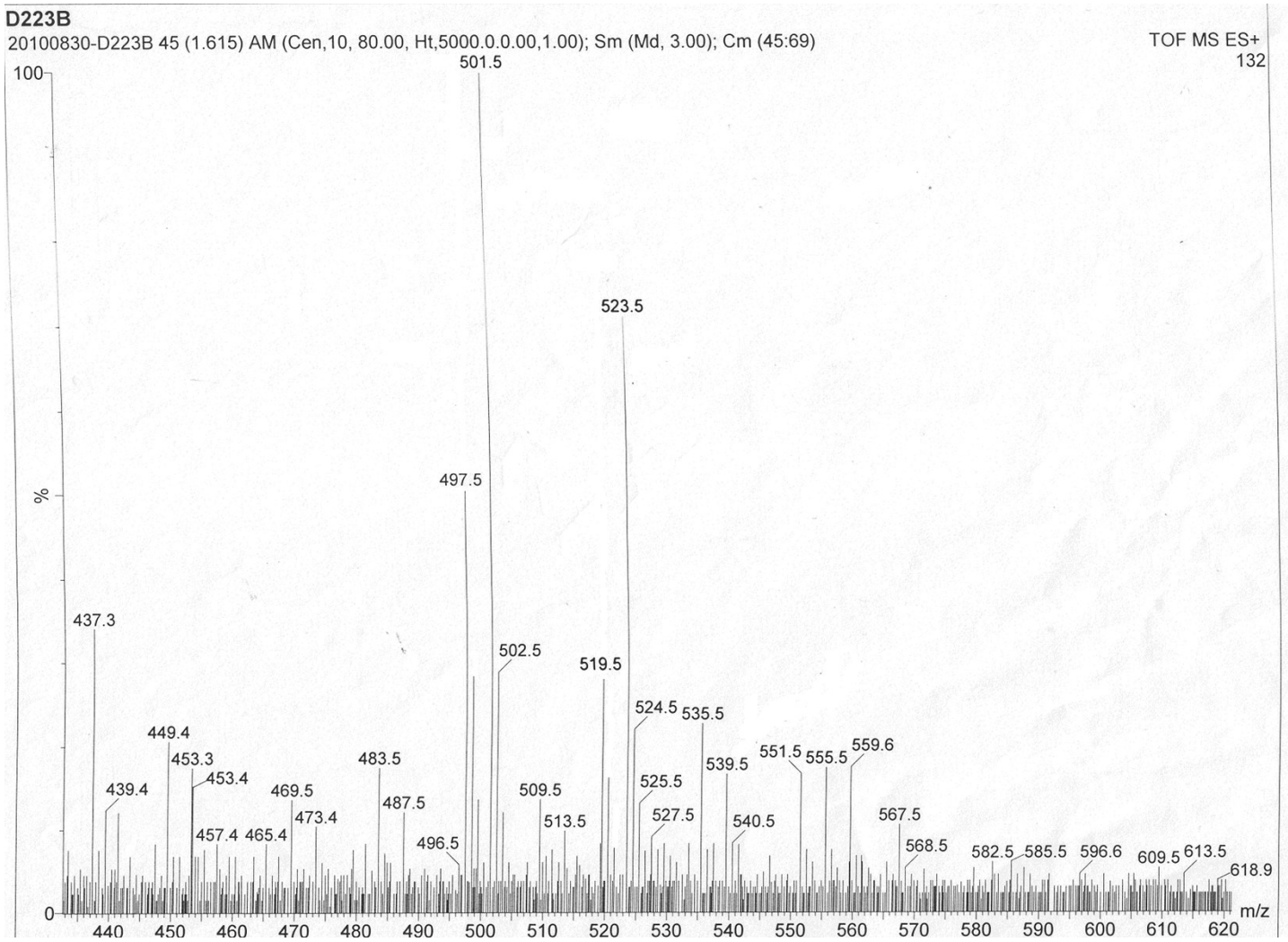


Figure S9. ESIMS spectrum of compound **1**

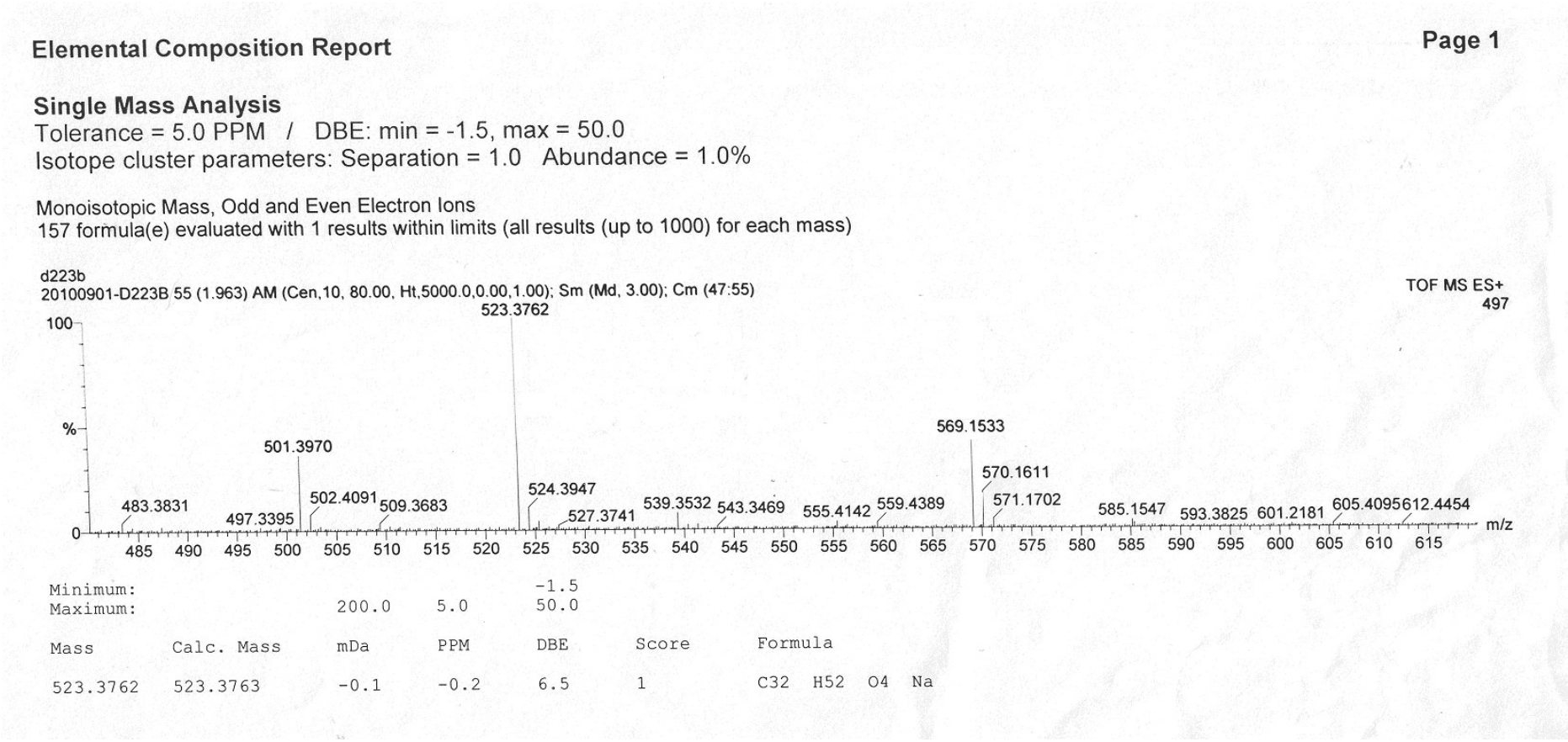


Figure S10. HRESIMS spectrum of compound **1**

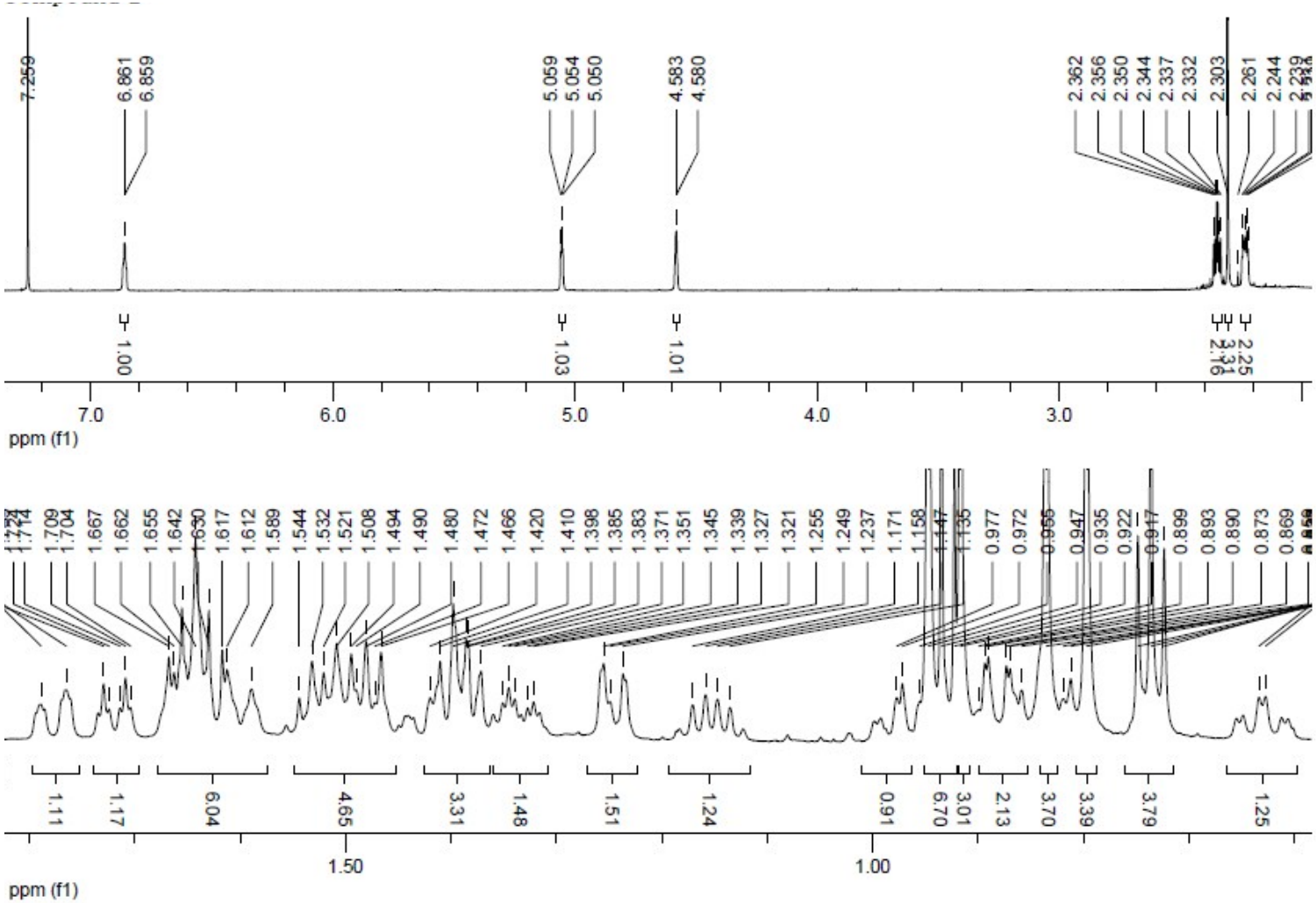


Figure S11. ^{1}H NMR (600 MHz, $CDCl_3$) spectrum of compound **2**

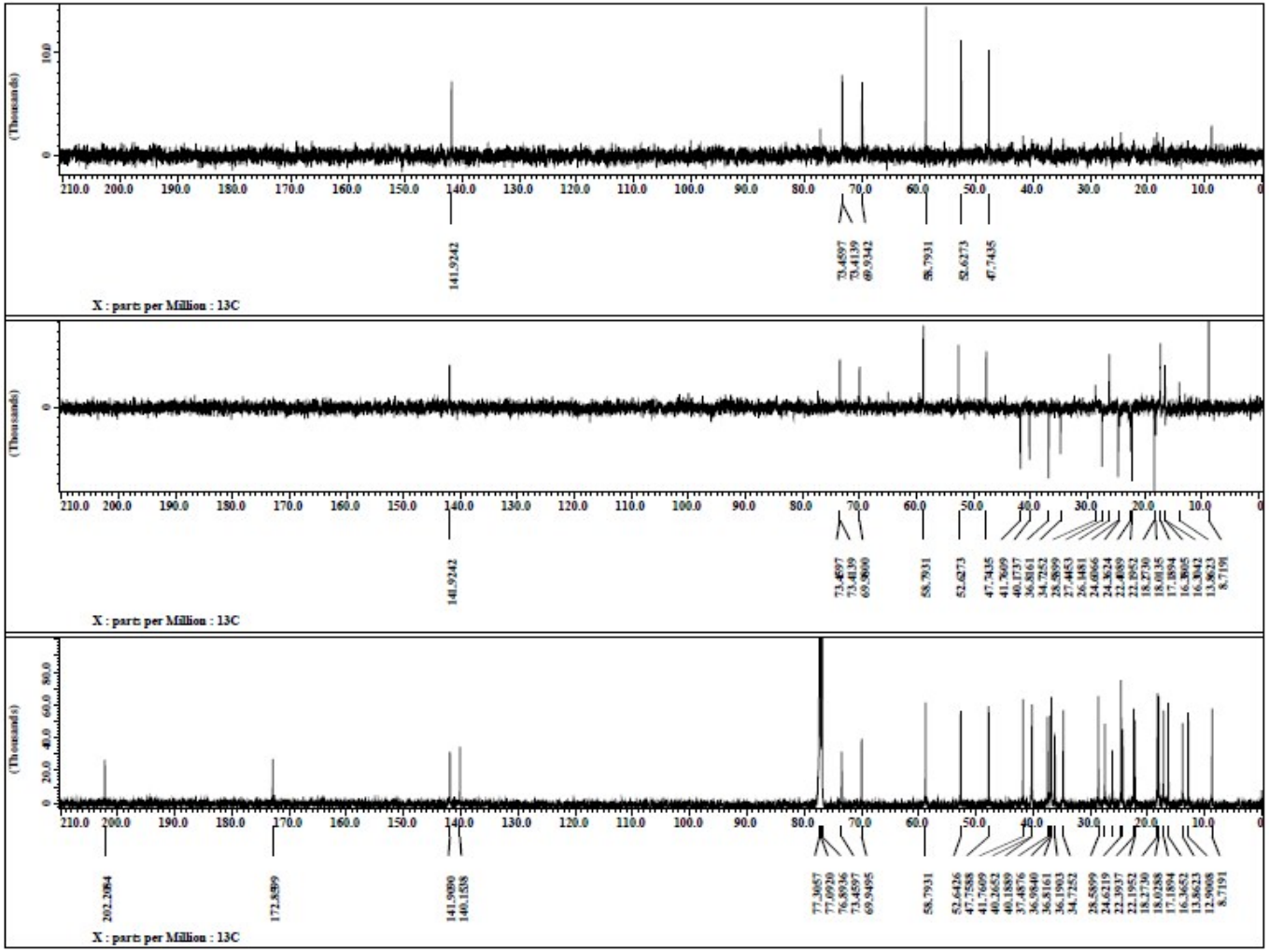


Figure S12. ^{13}C and DEPT NMR (150 MHz, $CDCl_3$) spectra of compound **2**

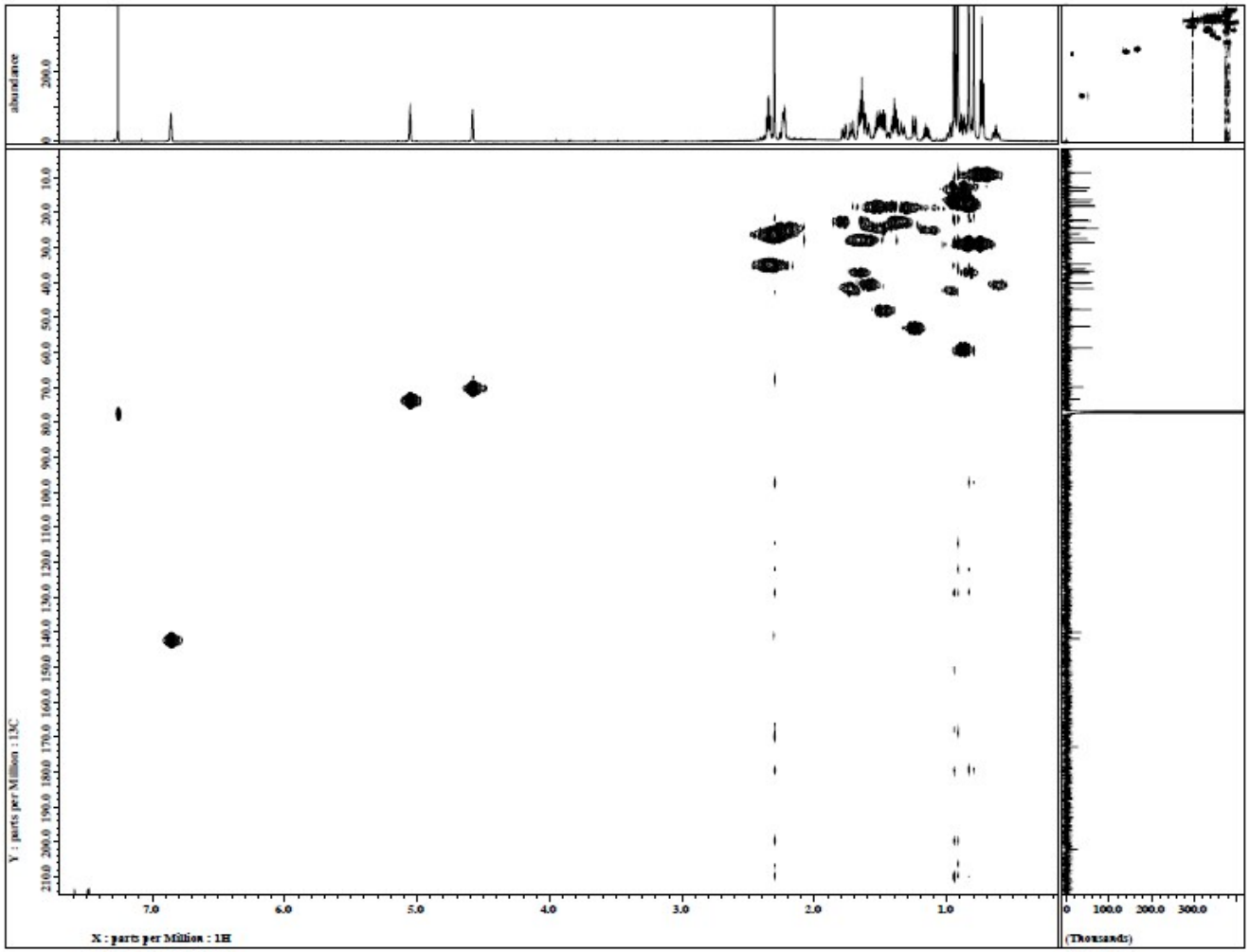


Figure S13. HMQC ($CDCl_3$) spectrum of compound **2**

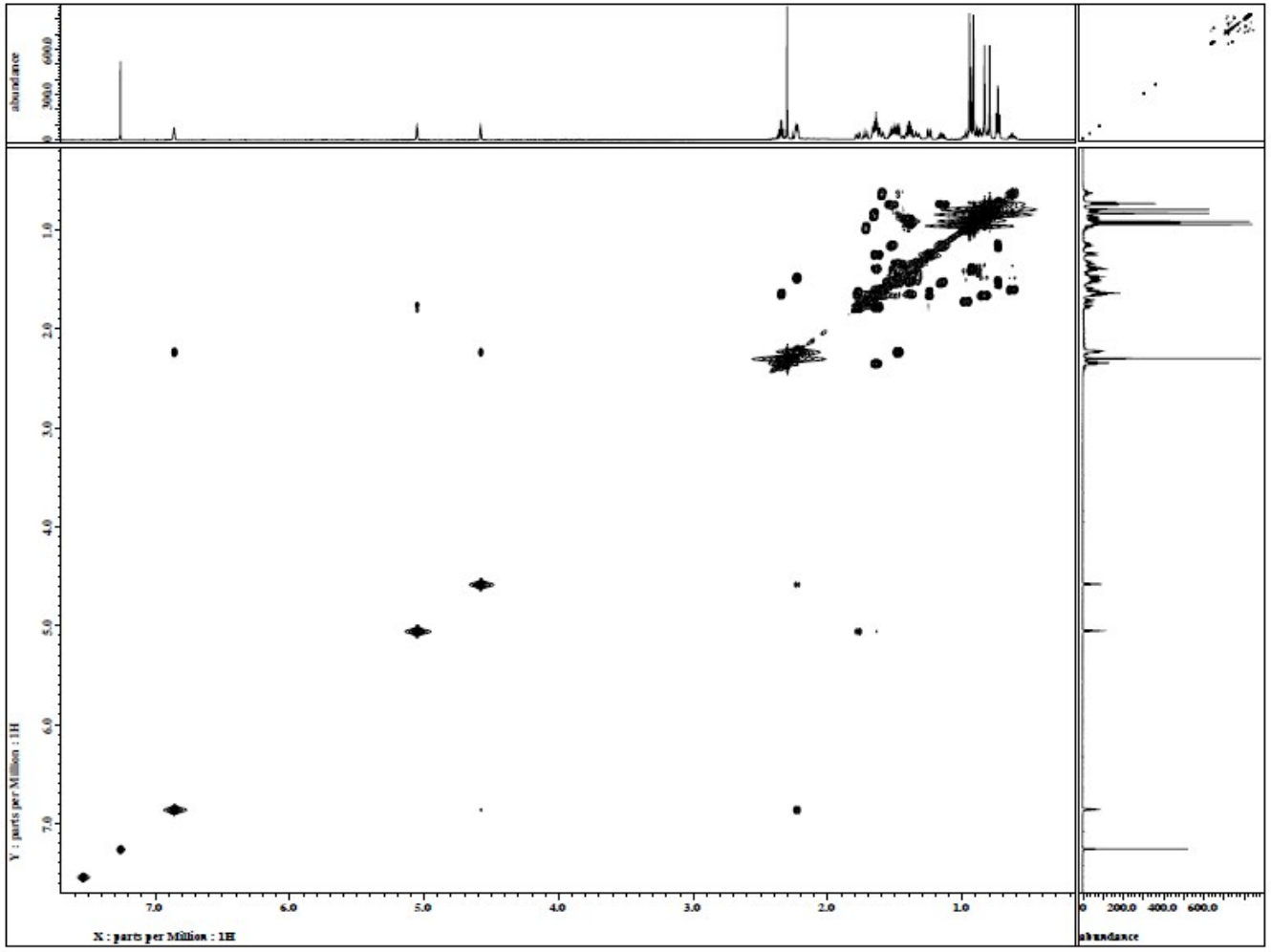


Figure S14. COSY ($CDCl_3$) spectrum of compound **2**

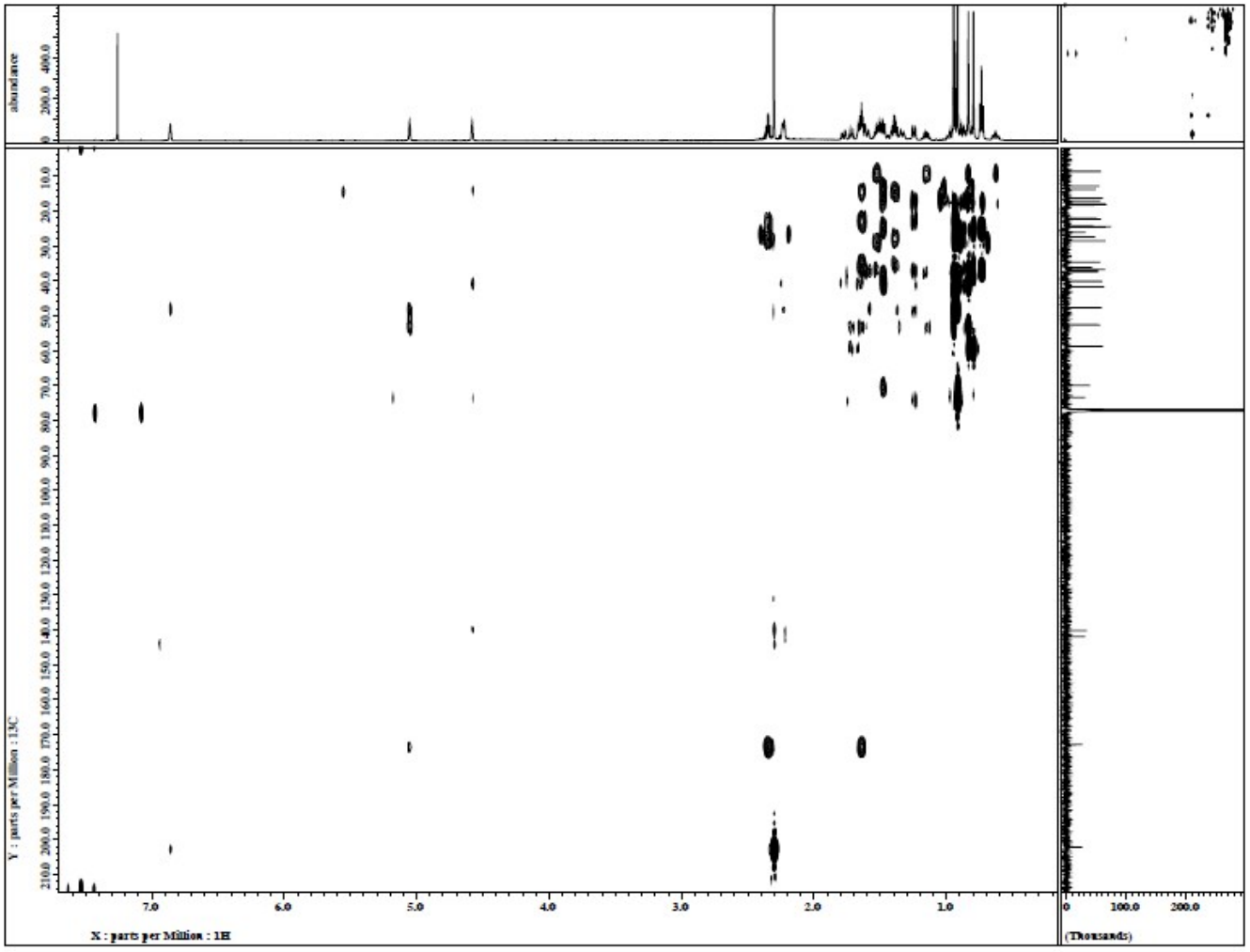


Figure S15. HMBC ($CDCl_3$) spectrum of compound **2**

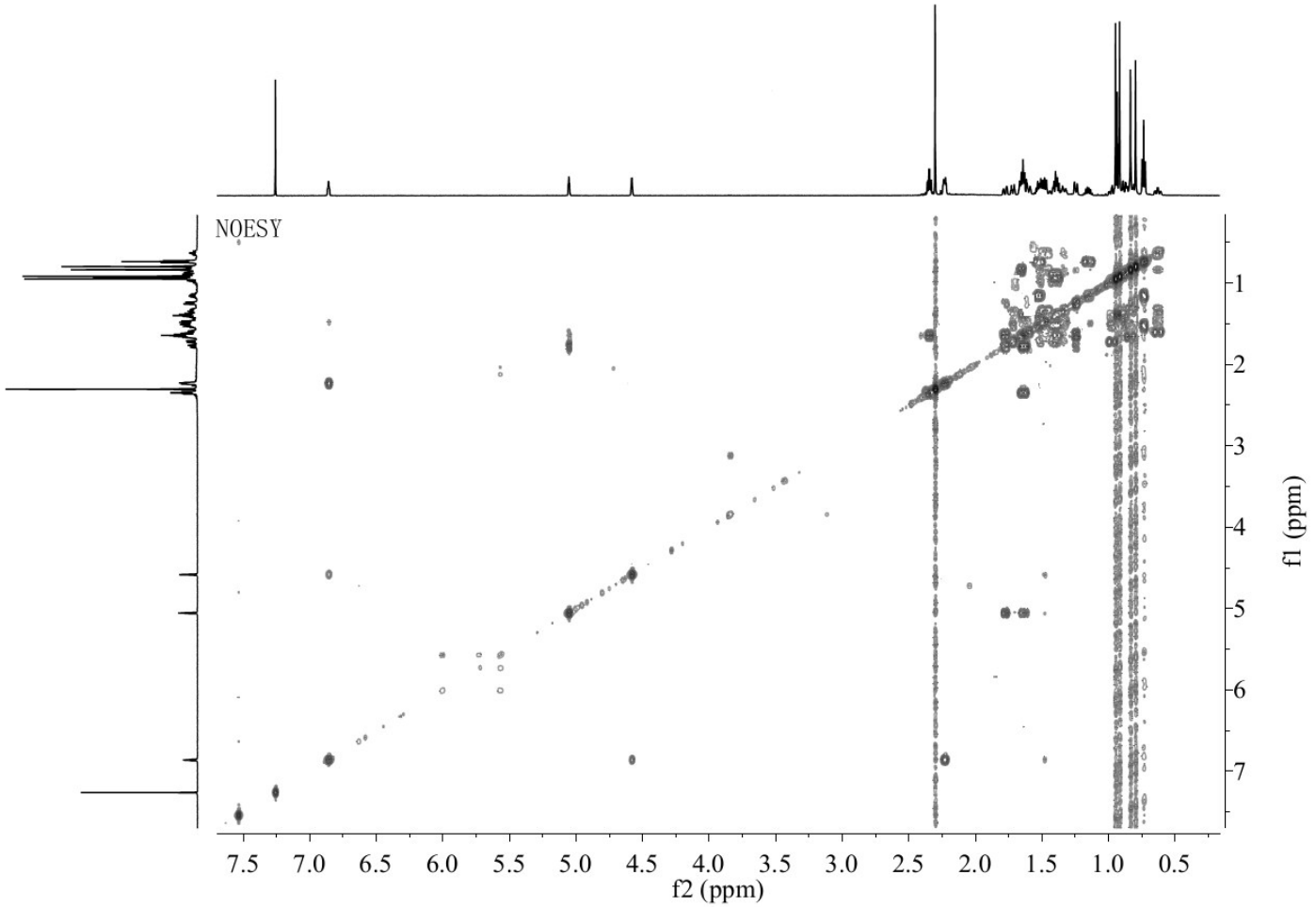


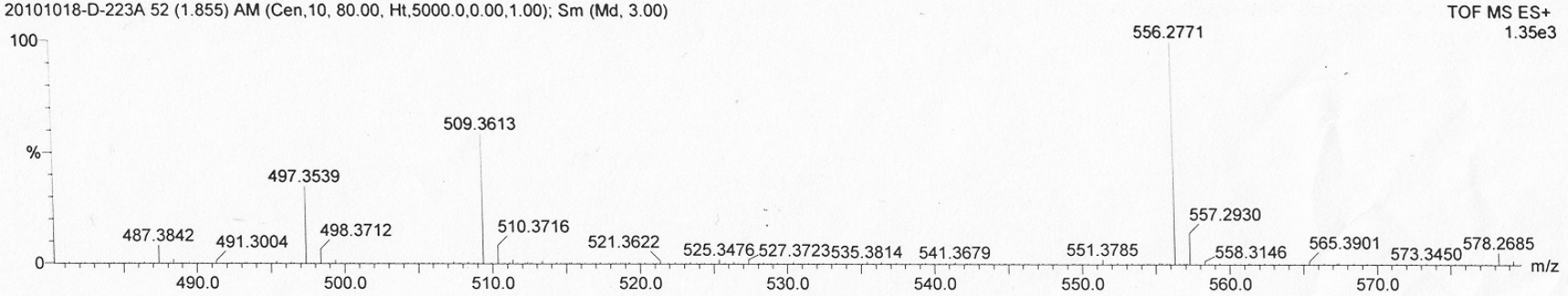
Figure S16. NOESY ($CDCl_3$) spectrum of compound **2**

Elemental Composition Report **Page 1**

Single Mass Analysis
Tolerance = 5.0 PPM / DBE: min = -1.5, max = 50.0
Isotope cluster parameters: Separation = 1.0 Abundance = 1.0%

Monoisotopic Mass, Odd and Even Electron Ions
64 formula(e) evaluated with 1 results within limits (all results (up to 1000) for each mass)

D-223A
20101018-D-223A 52 (1.855) AM (Cen,10, 80.00, Ht,5000.0,0.00,1.00); Sm (Md, 3.00)



Minimum:				-1.5		
Maximum:		200.0	5.0	50.0		
Mass	Calc. Mass	mDa	PPM	DBE	Score	Formula
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Figure S17. HRESIMS spectrum of compound **2**

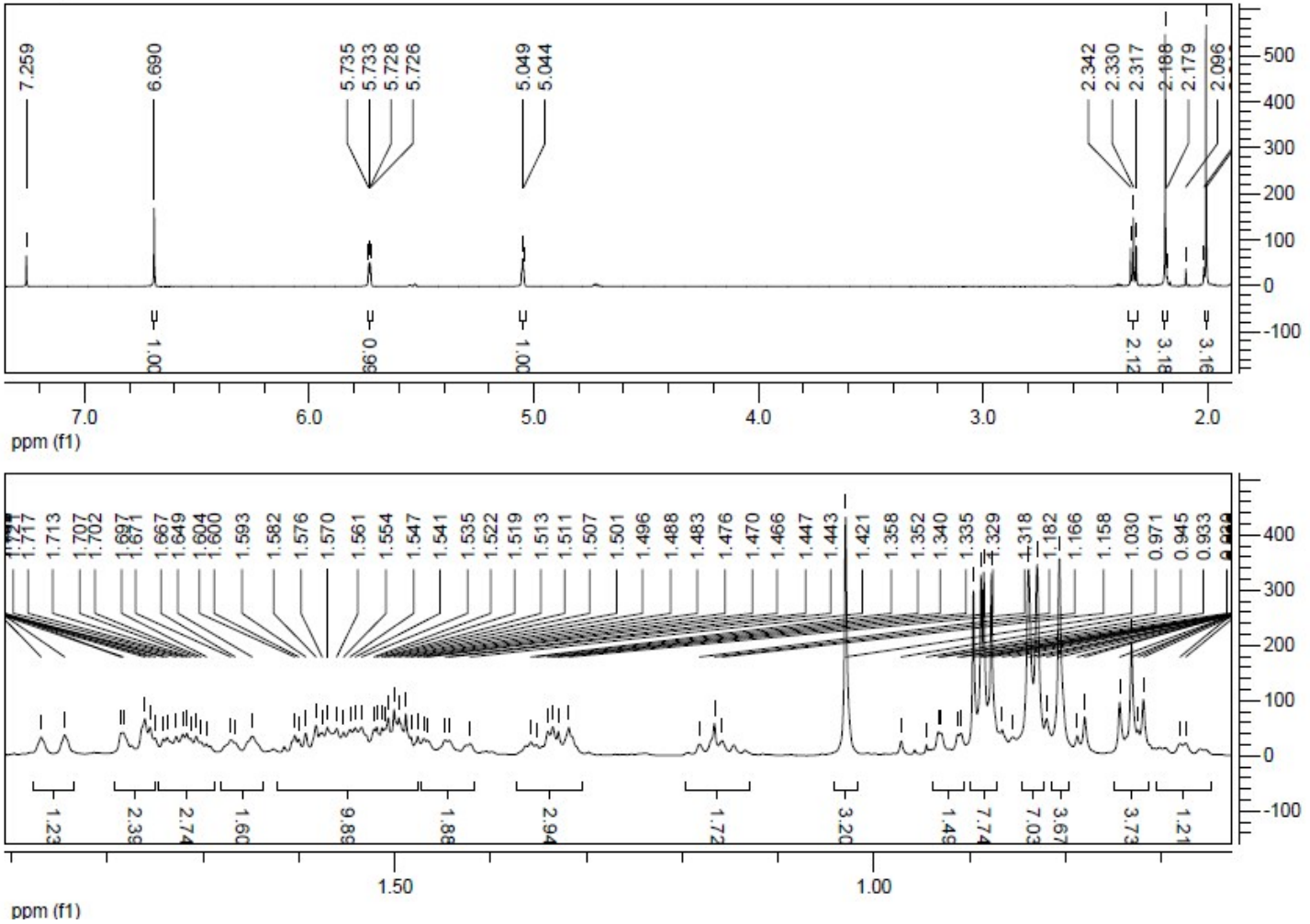


Figure S18. ^{1}H NMR (600 MHz, $CDCl_3$) spectrum of compound **3**

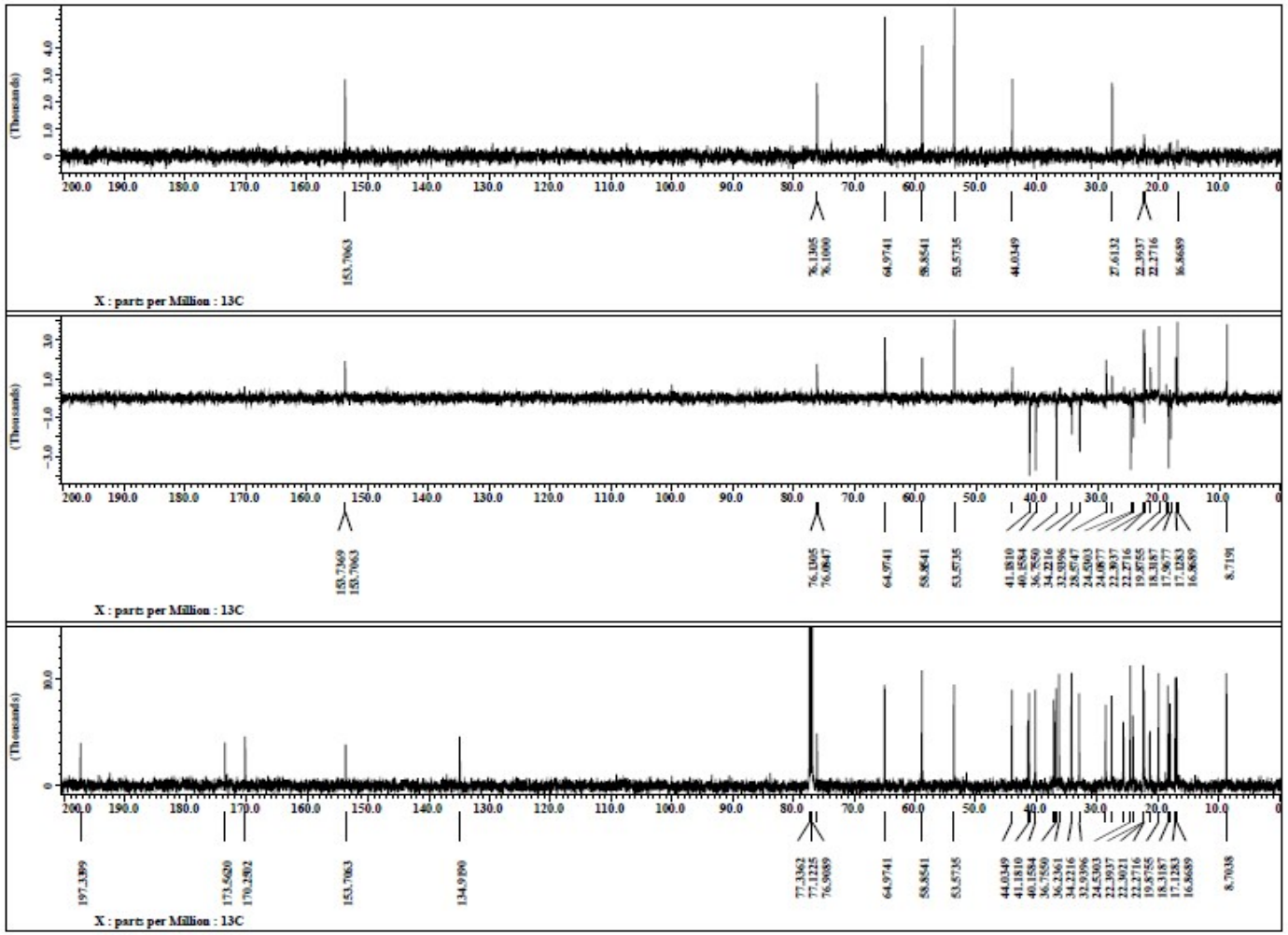


Figure S19. ^{13}C and DEPT NMR (150 MHz, $CDCl_3$) spectra of compound **3**

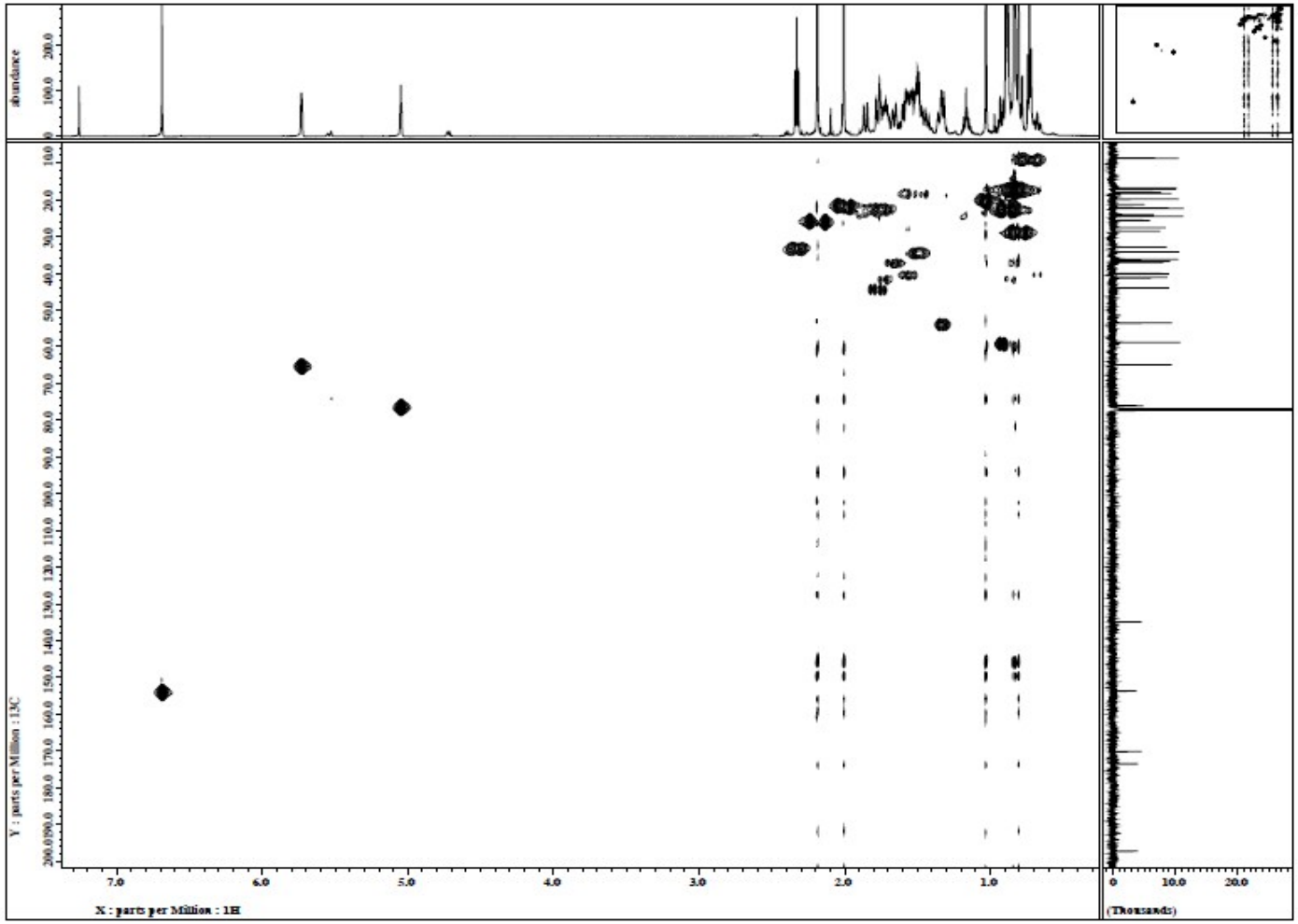


Figure S20. HMQC ($CDCl_3$) spectrum of compound **3**

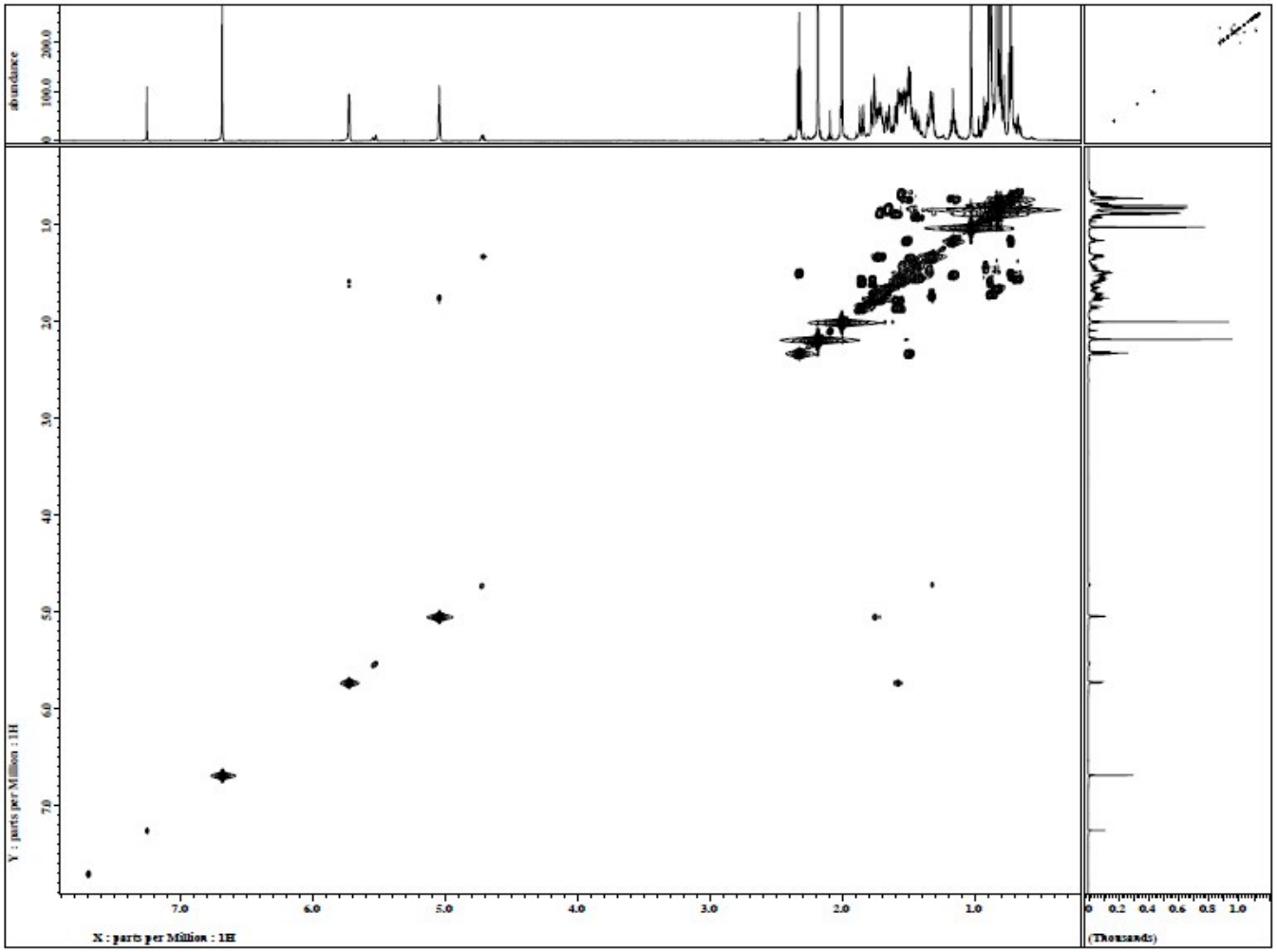


Figure S21. COSY ($CDCl_3$) spectrum of compound **3**

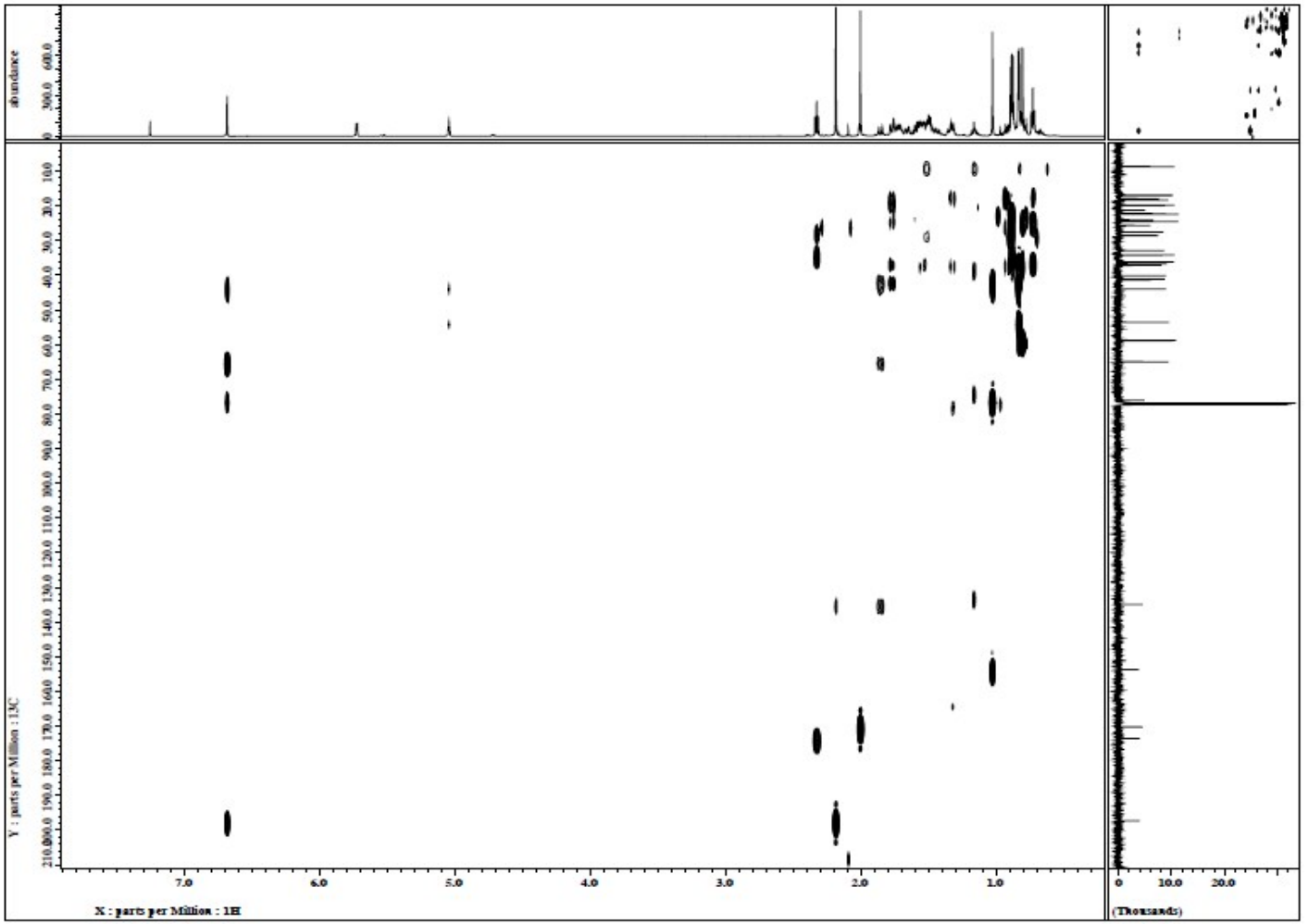


Figure S22. HMBC ($CDCl_3$) spectrum of compound **3**

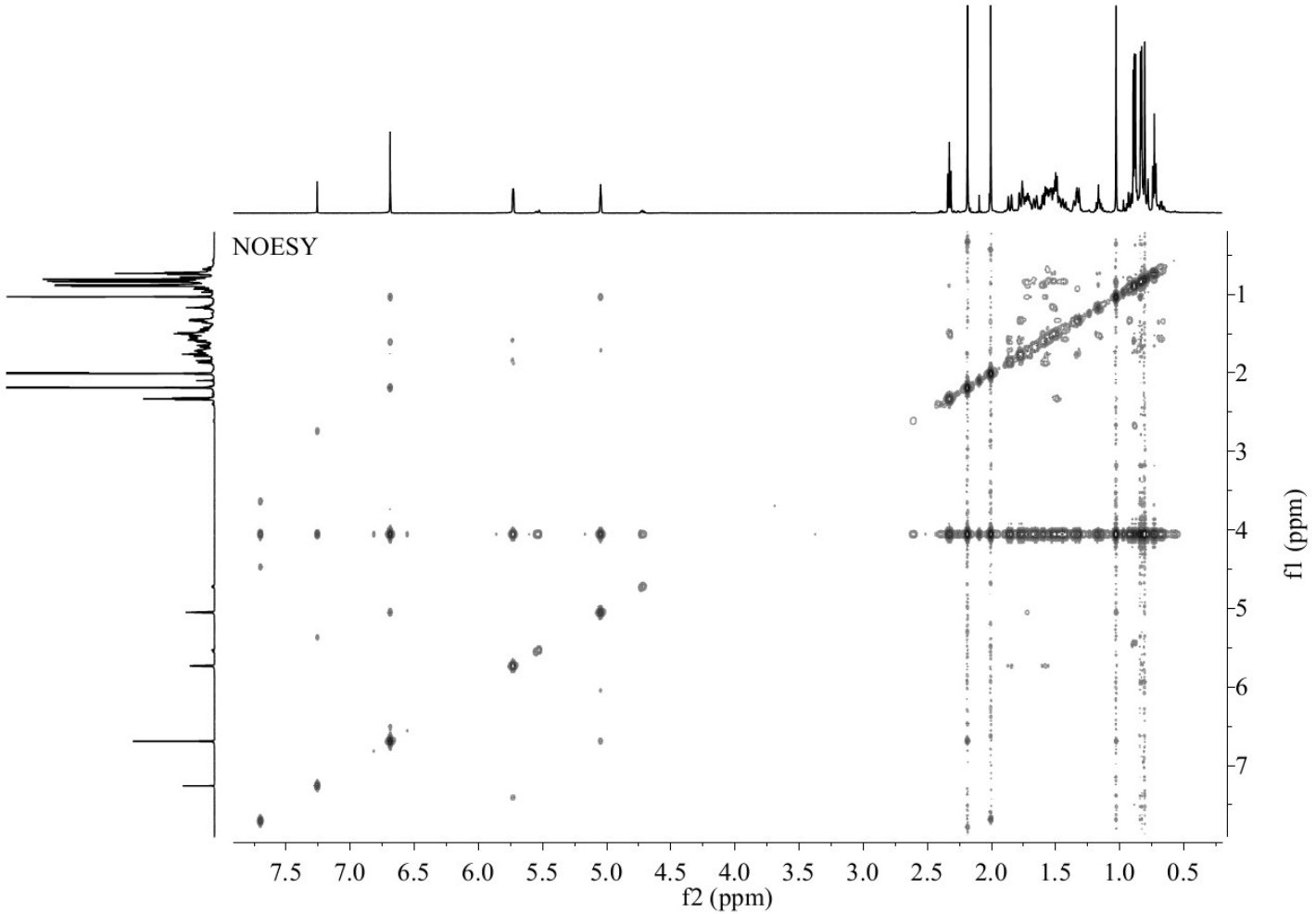


Figure S23. NOESY ($CDCl_3$) spectrum of compound **3**

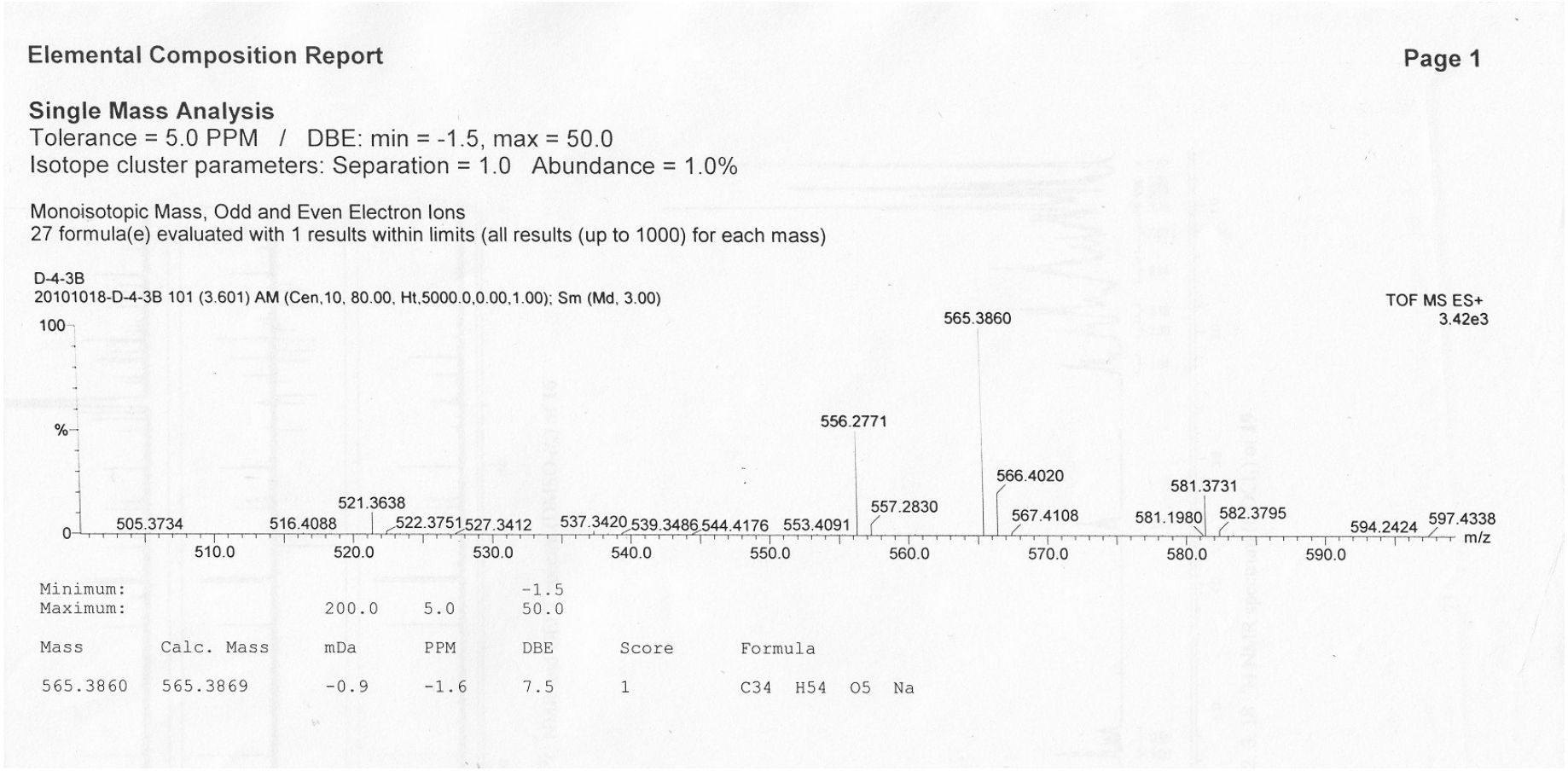


Figure S24. HRESIMS spectrum of compound **3**

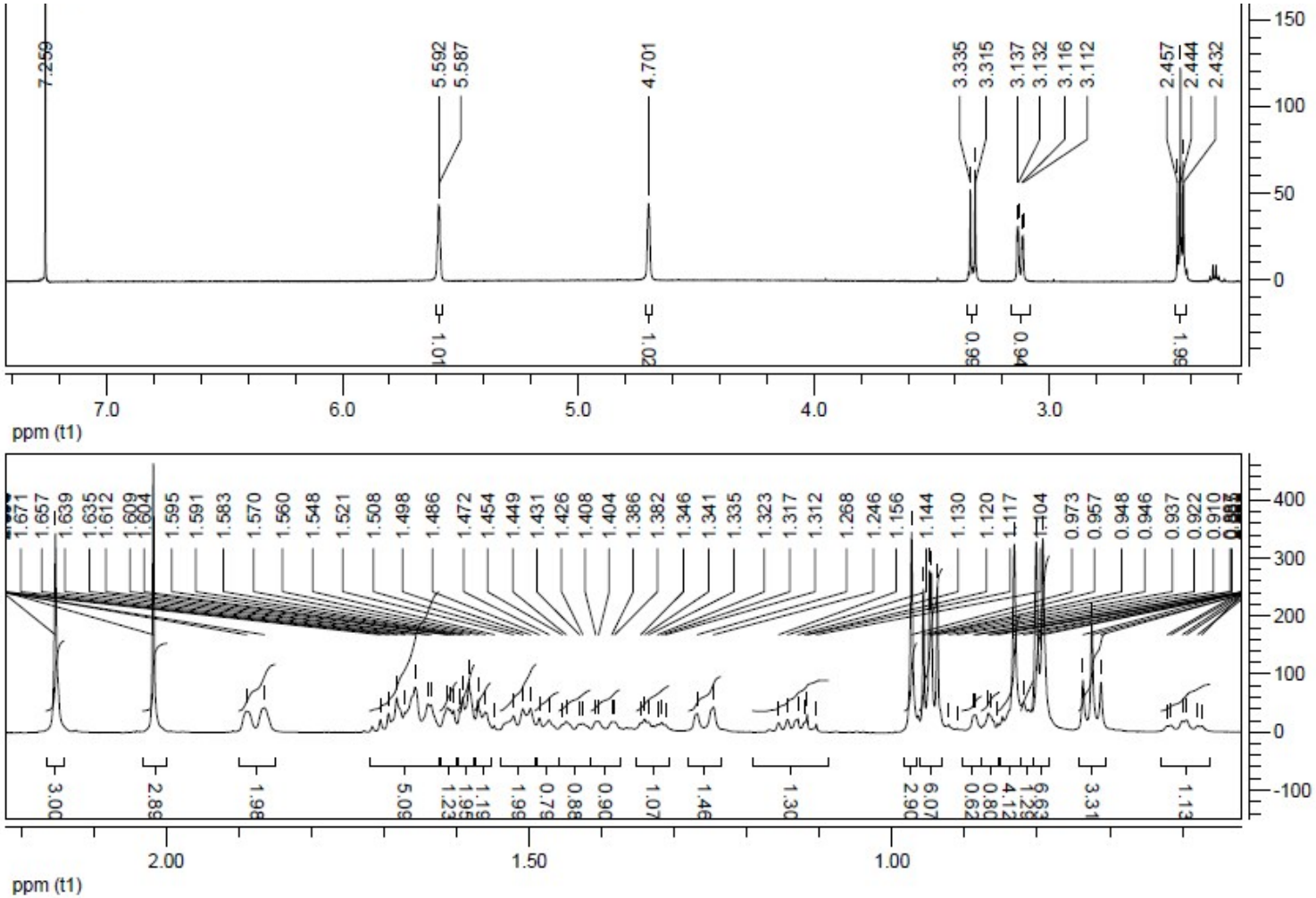


Figure S25. ^{1}H NMR (600 MHz, $CDCl_3$) spectrum of compound **4**

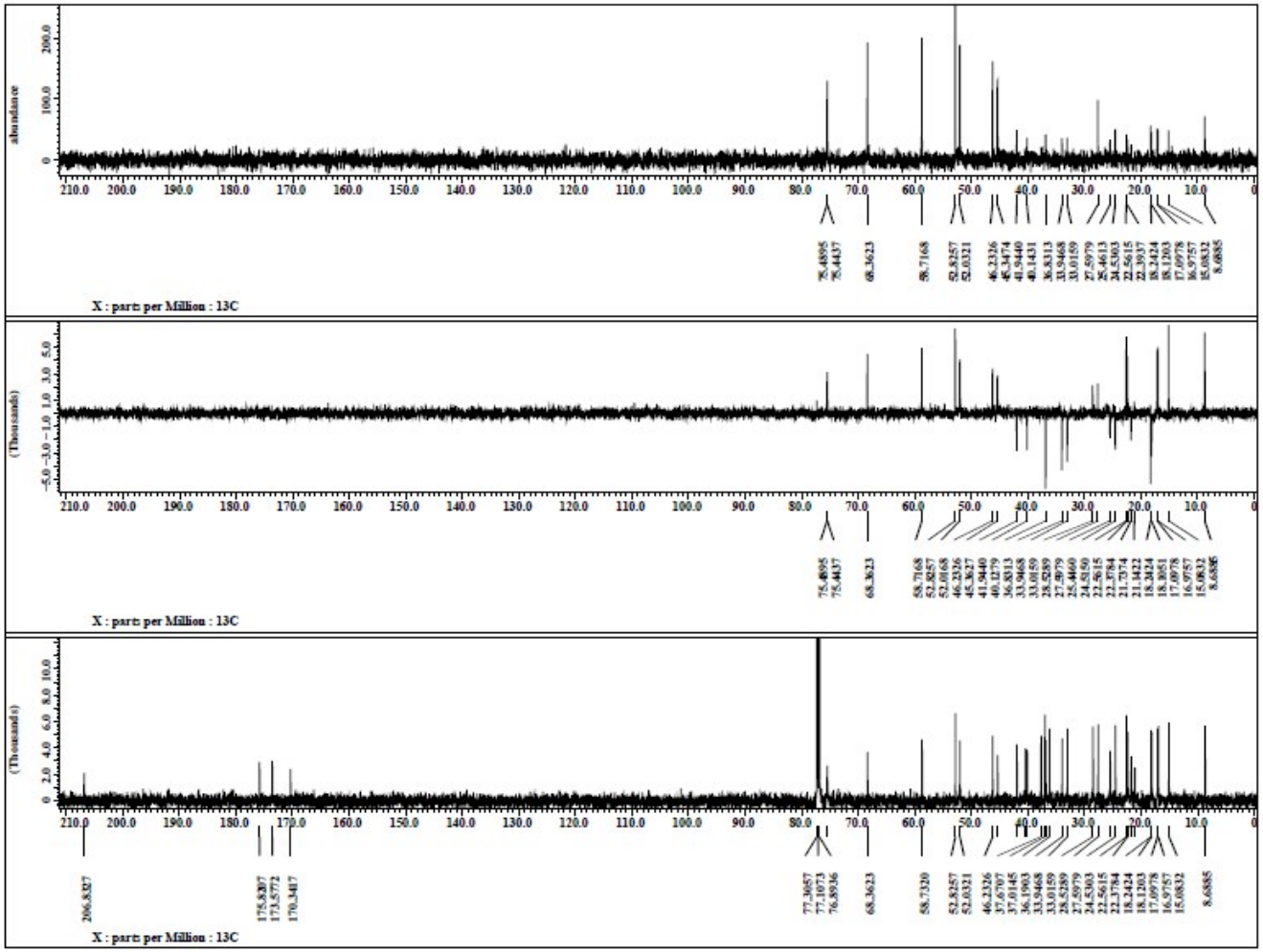


Figure S26. ^{13}C and DEPT NMR (150 MHz, $CDCl_3$) spectra of compound **4**

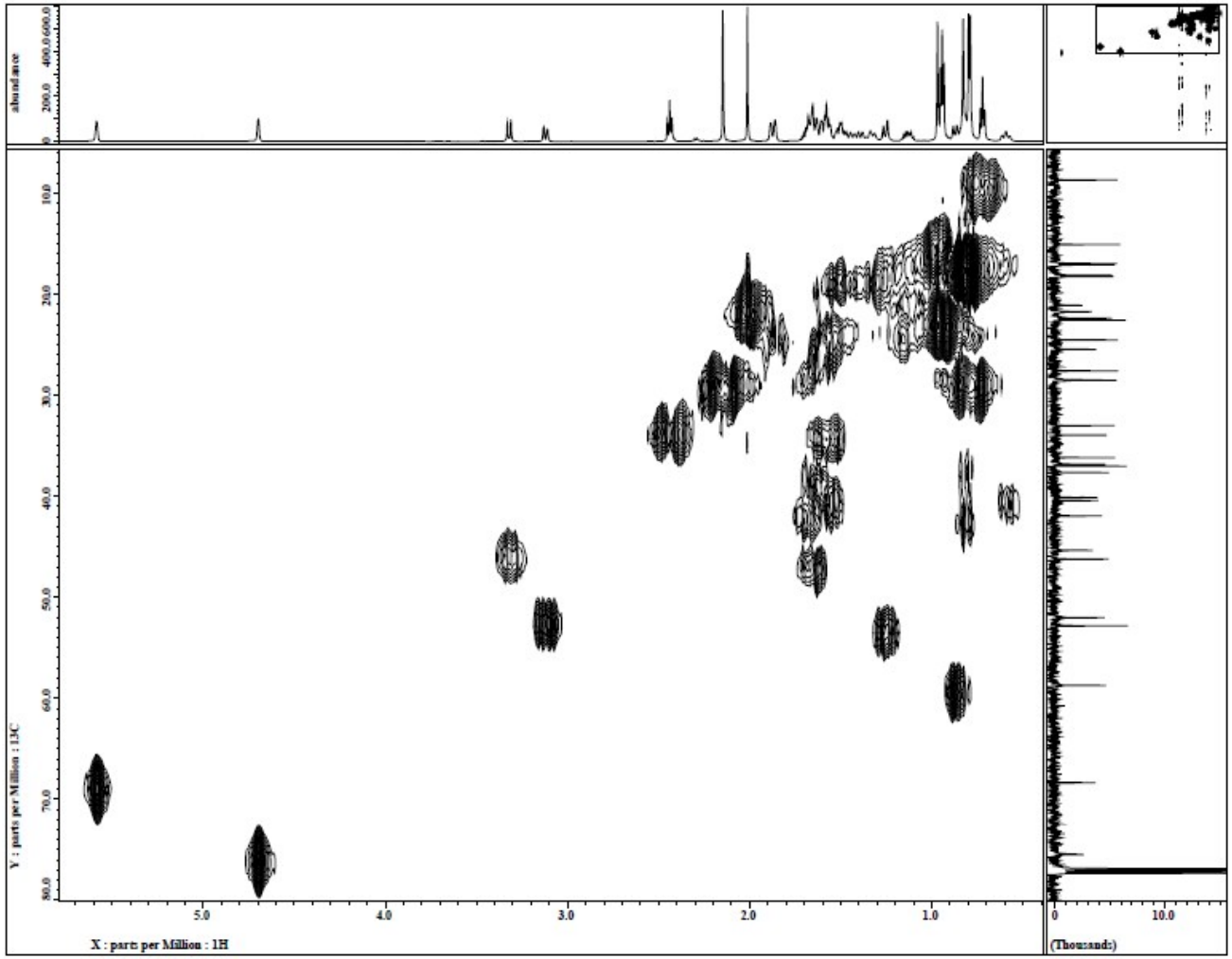


Figure S27. HMQC ($CDCl_3$) spectrum of compound **4**

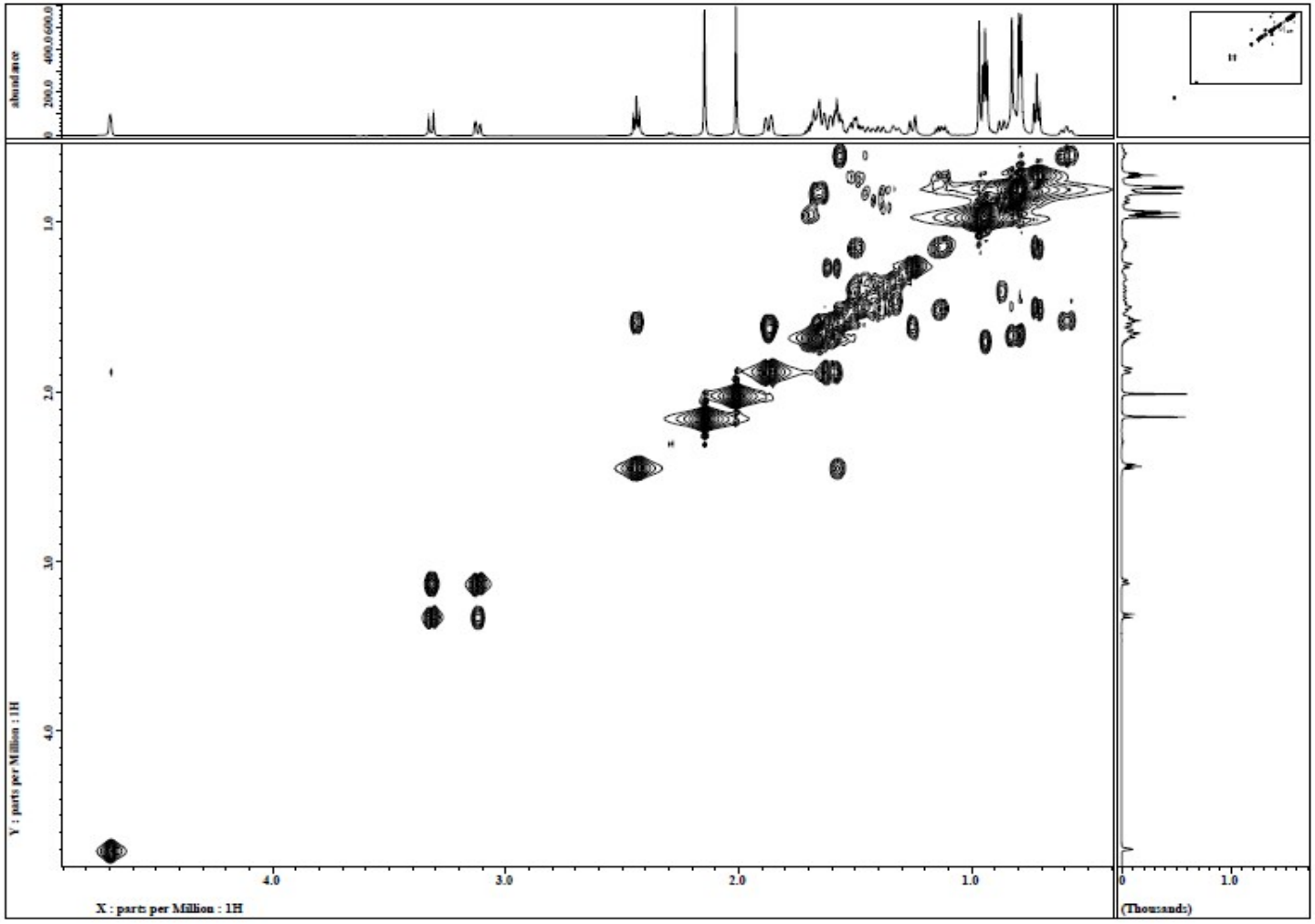


Figure S28. COSY ($CDCl_3$) spectrum of compound **4**

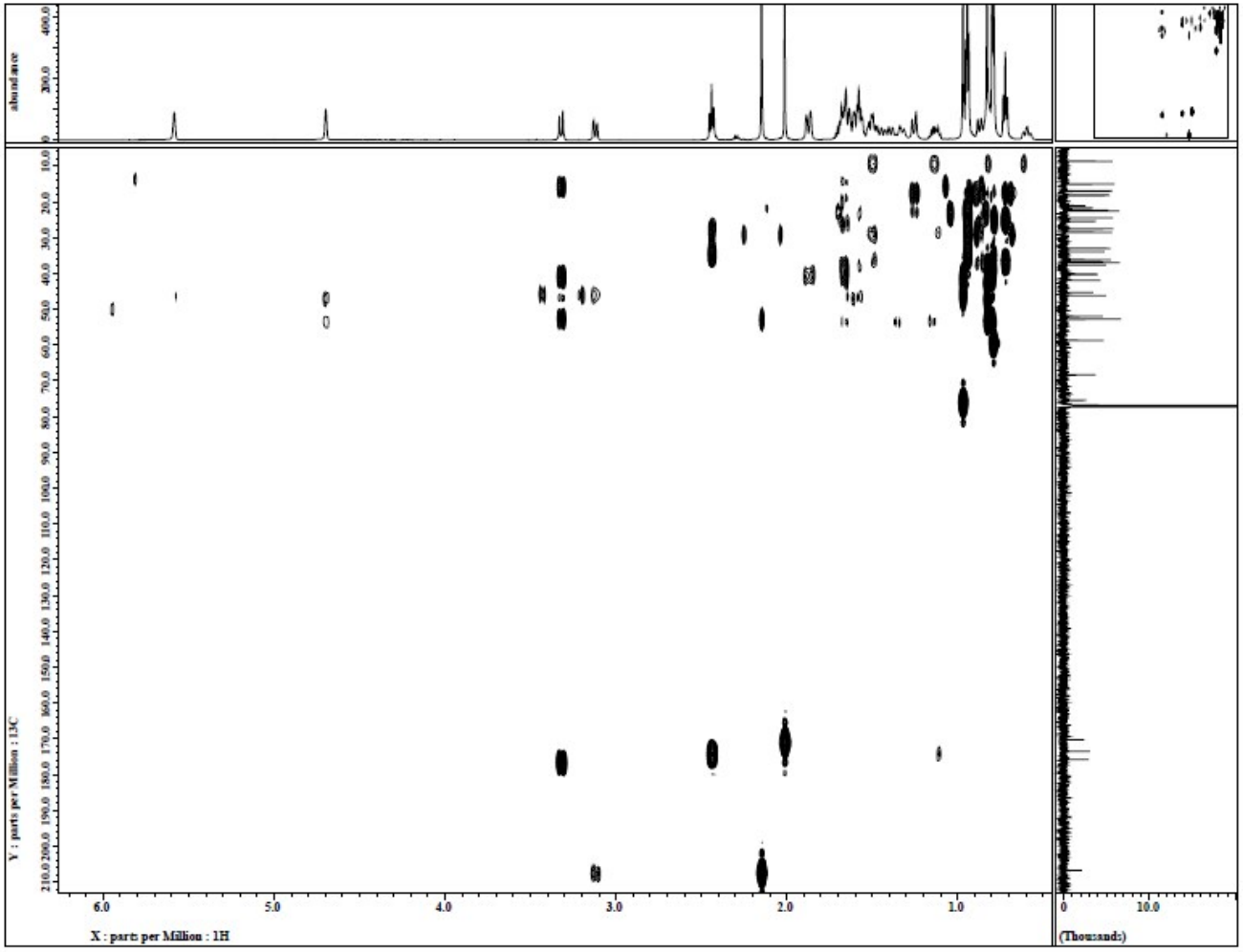


Figure S29. HMBC ($CDCl_3$) spectrum of compound **4**

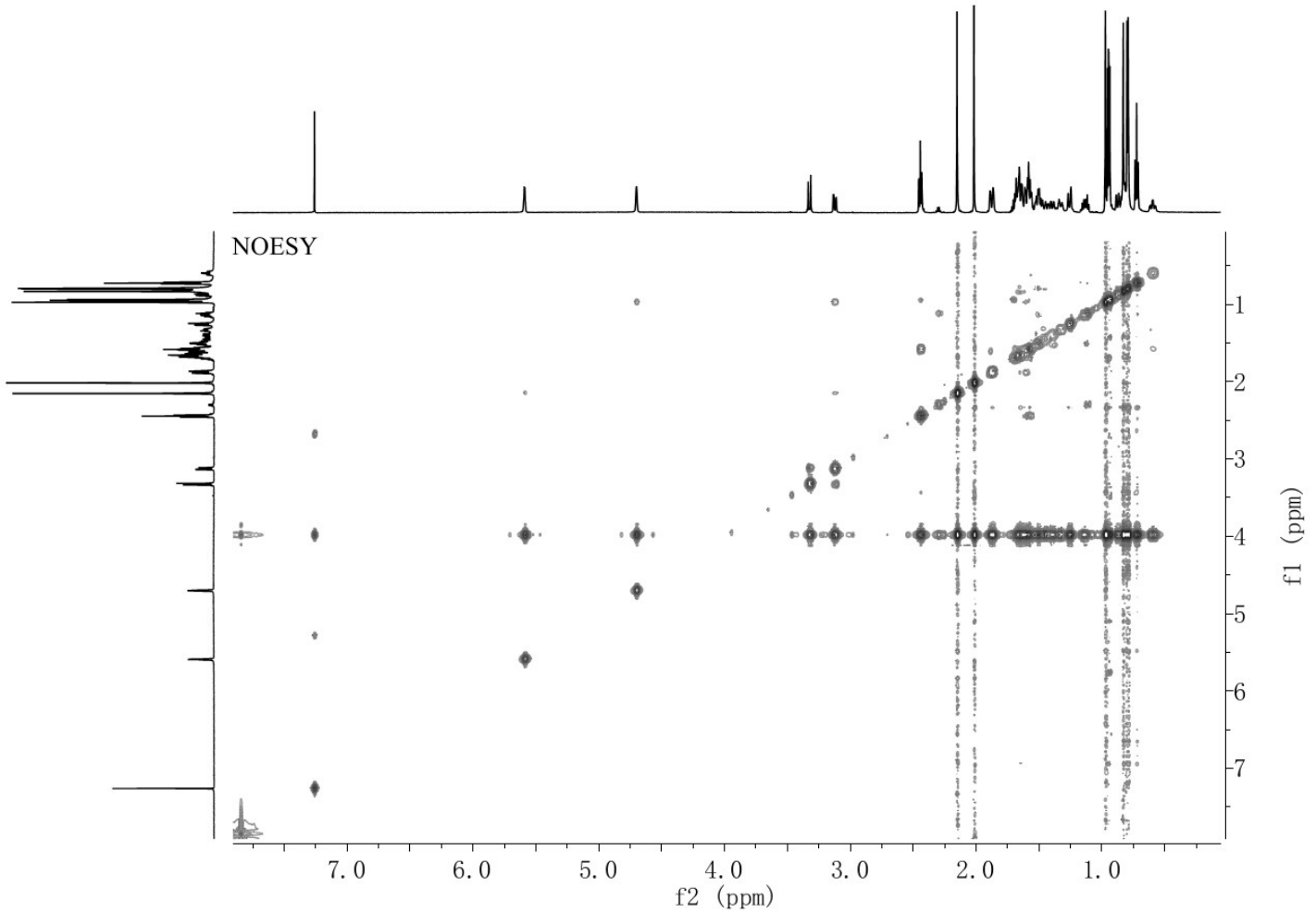


Figure S30. NOESY ($CDCl_3$) spectrum of compound **4**

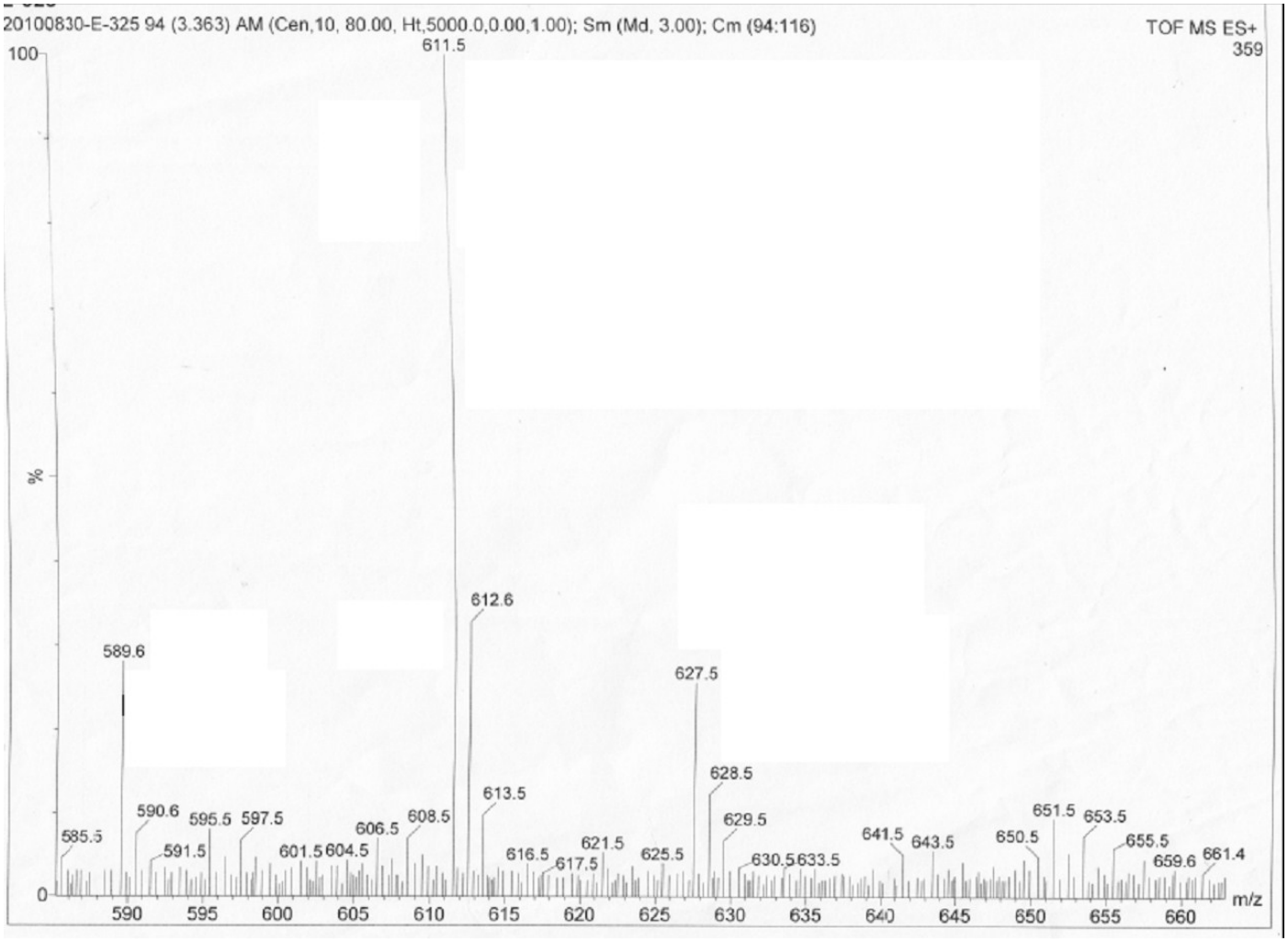
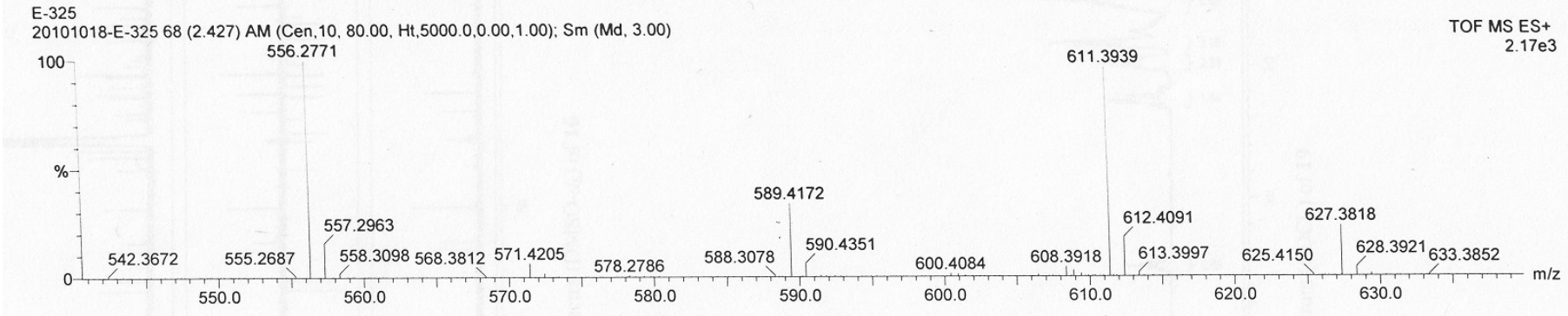


Figure S31. ESIMS spectrum of compound **4**

Elemental Composition Report Page 1

Single Mass Analysis
Tolerance = 5.0 PPM / DBE: min = -1.5, max = 50.0
Isotope cluster parameters: Separation = 1.0 Abundance = 1.0%

Monoisotopic Mass, Odd and Even Electron Ions
60 formula(e) evaluated with 1 results within limits (all results (up to 1000) for each mass)



Minimum:				-1.5		
Maximum:		200.0	5.0	50.0		
Mass	Calc. Mass	mDa	PPM	DBE	Score	Formula
611.3939	611.3924	1.5	2.5	7.5	1	C35 H56 O7 Na

Figure S32. HRESIMS spectrum of compound **4**

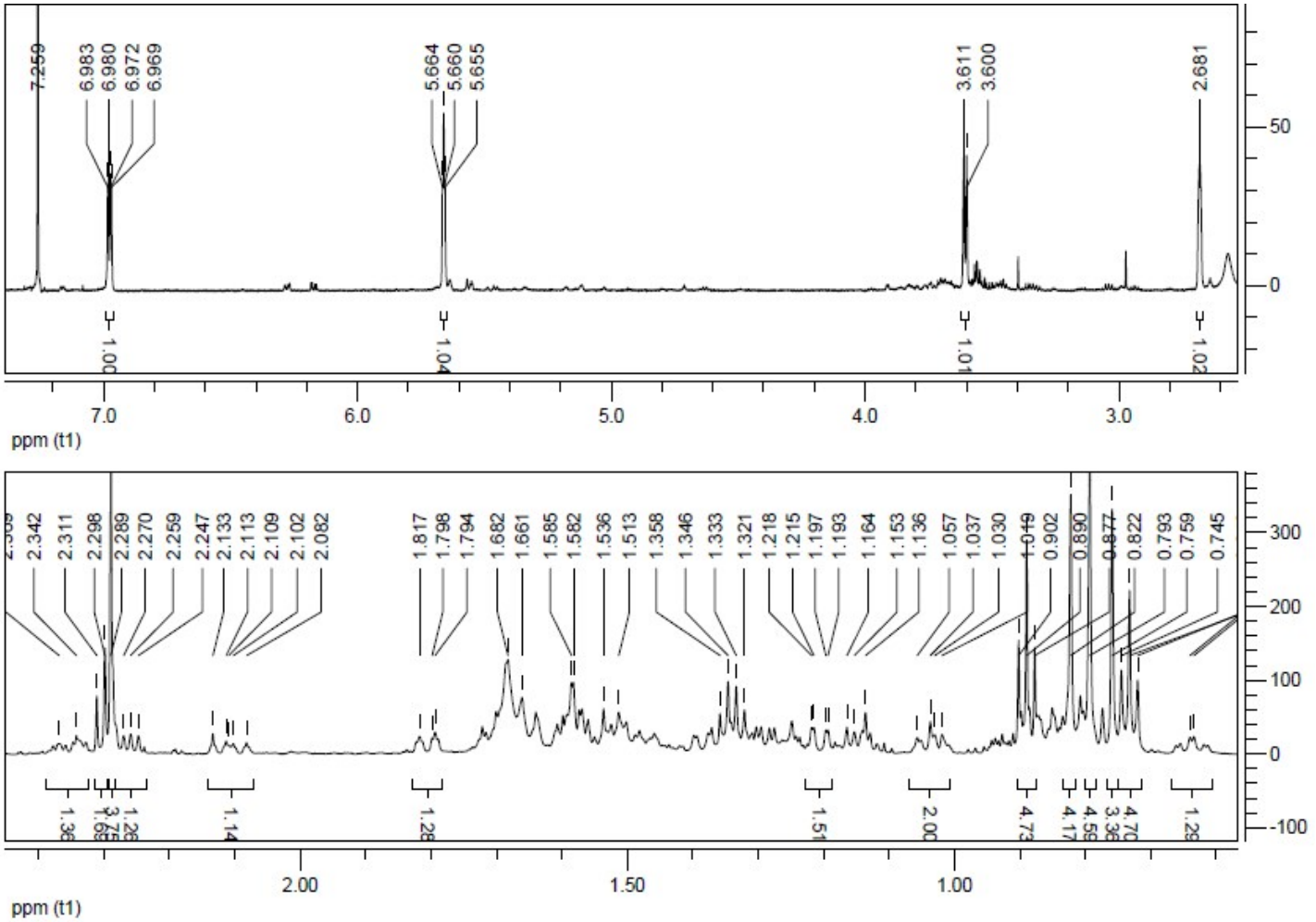


Figure S33. ^{1}H NMR (600 MHz, $CDCl_3$) spectrum of compound **5**

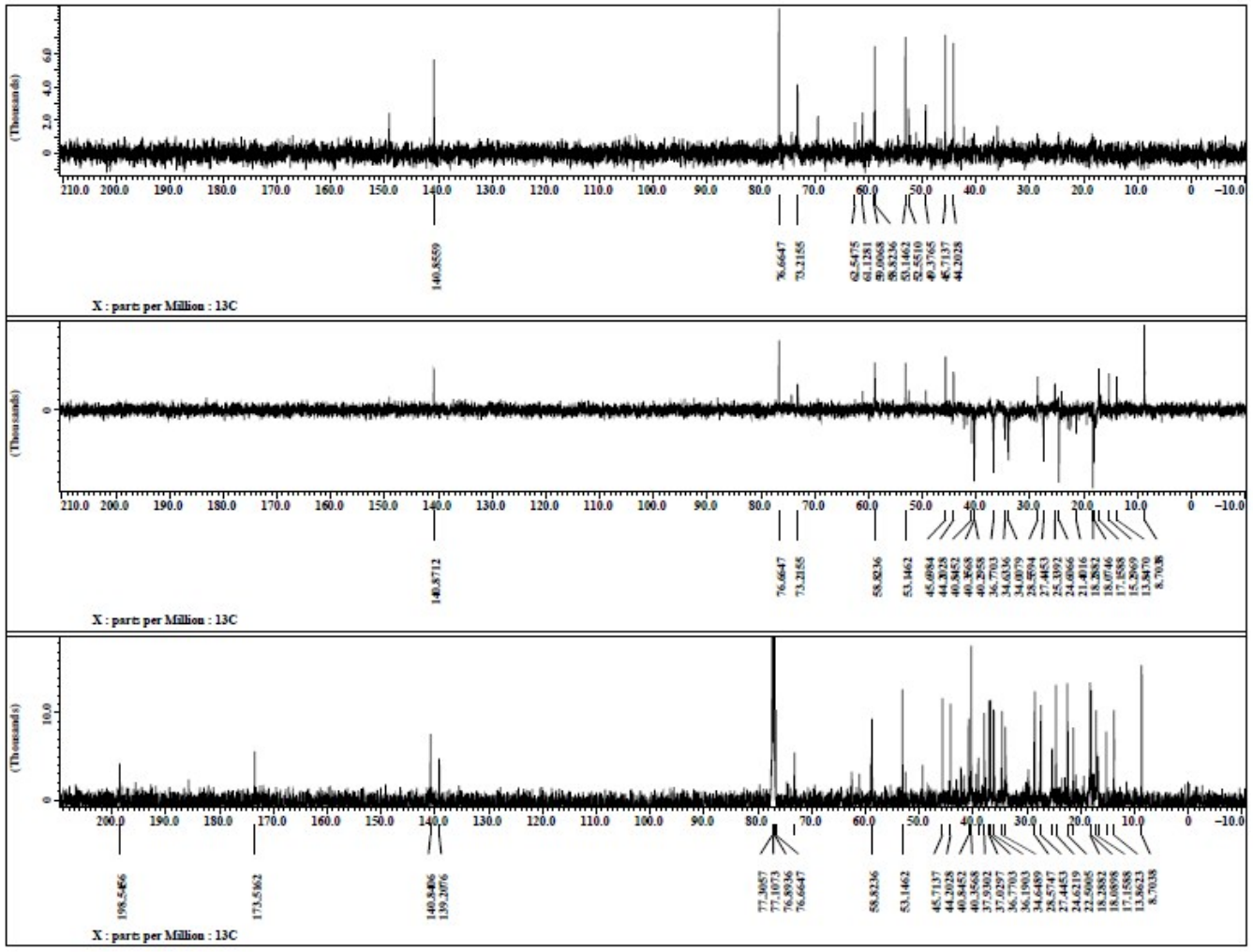


Figure S34. ^{13}C and DEPT NMR (150 MHz, $CDCl_3$) spectra of compound **5**

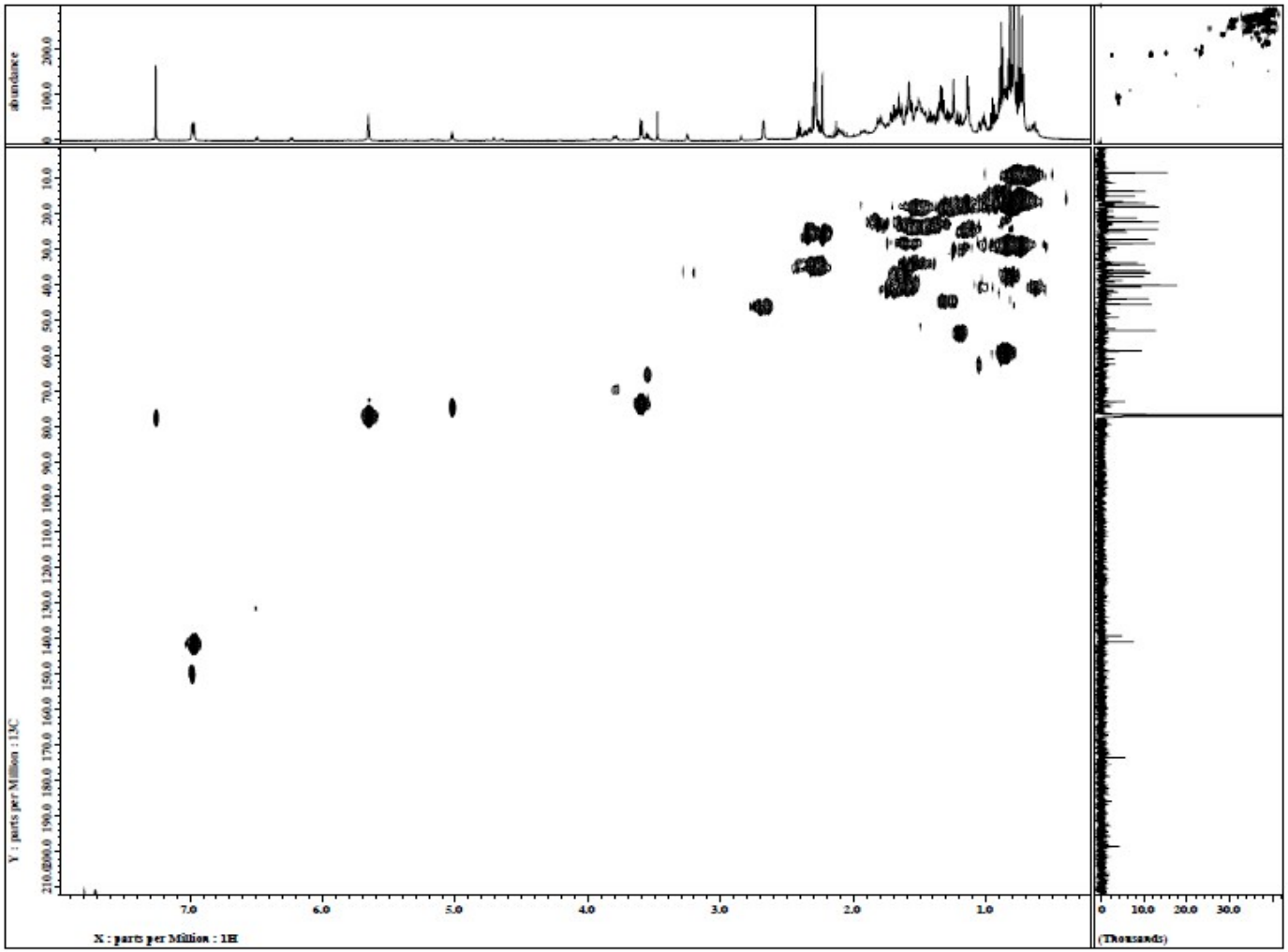


Figure S35. HMQC ($CDCl_3$) spectrum of compound **5**

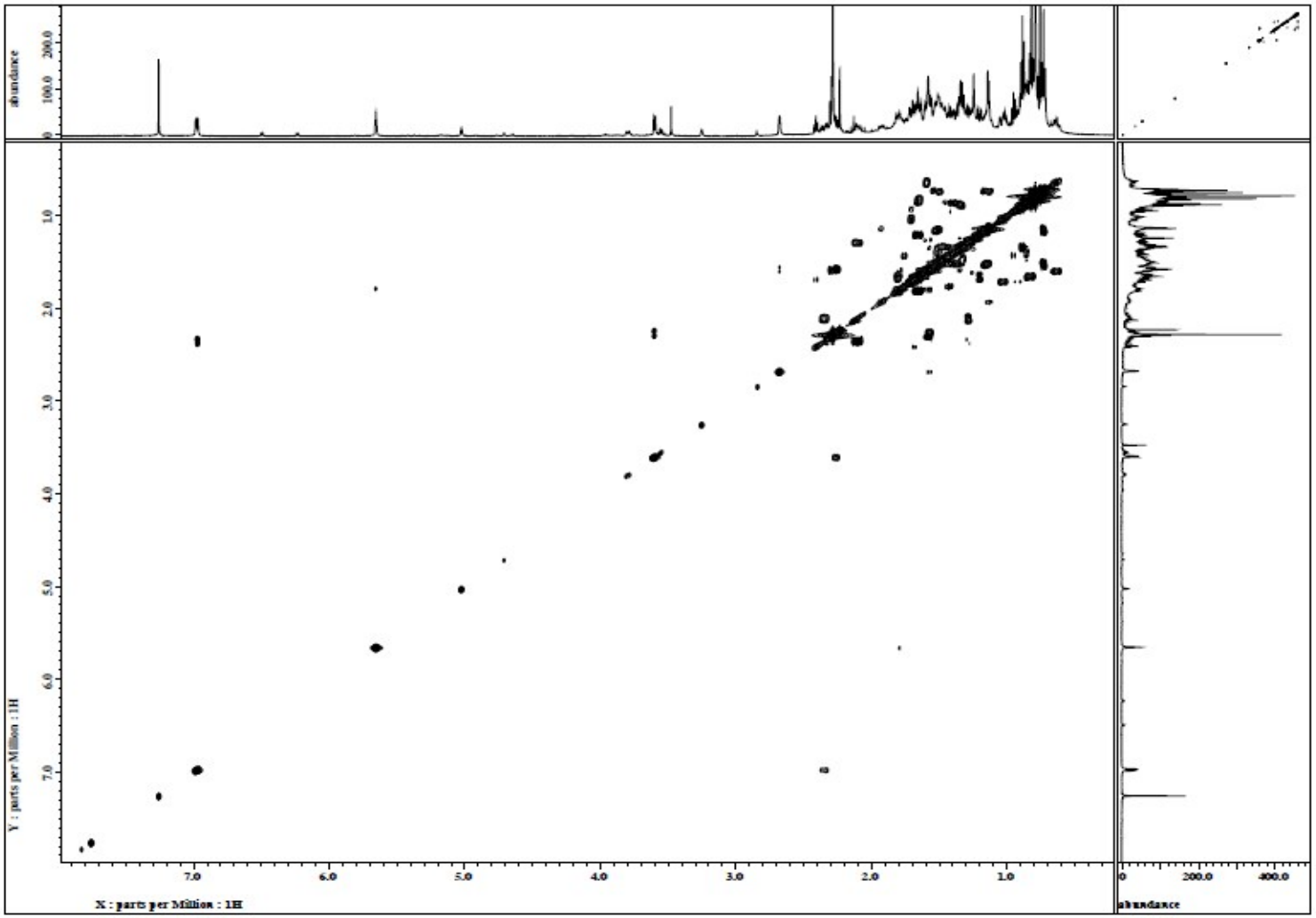


Figure S36. COSY ($CDCl_3$) spectrum of compound **5**

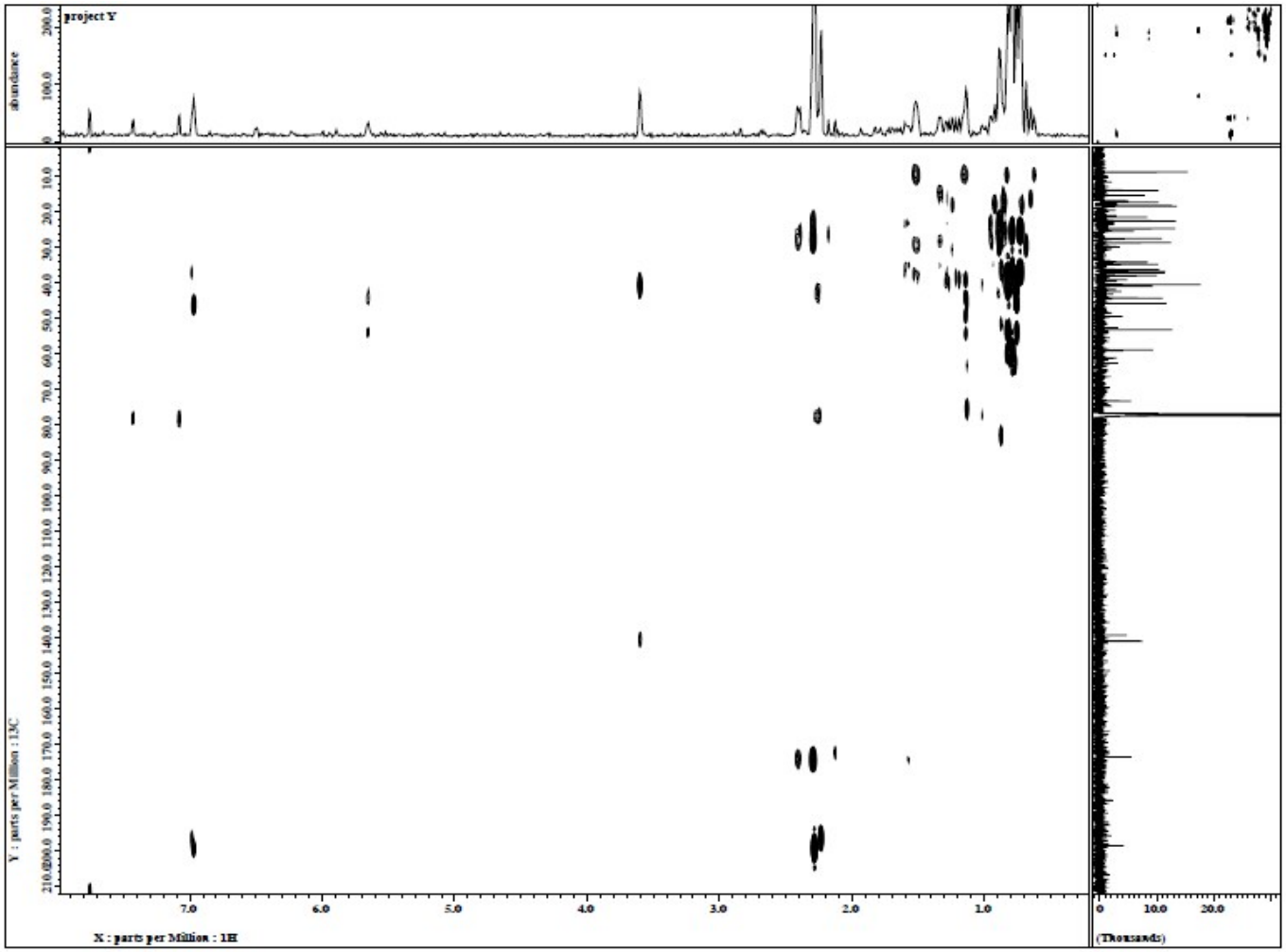


Figure S37. HMBC ($CDCl_3$) spectrum of compound **5**

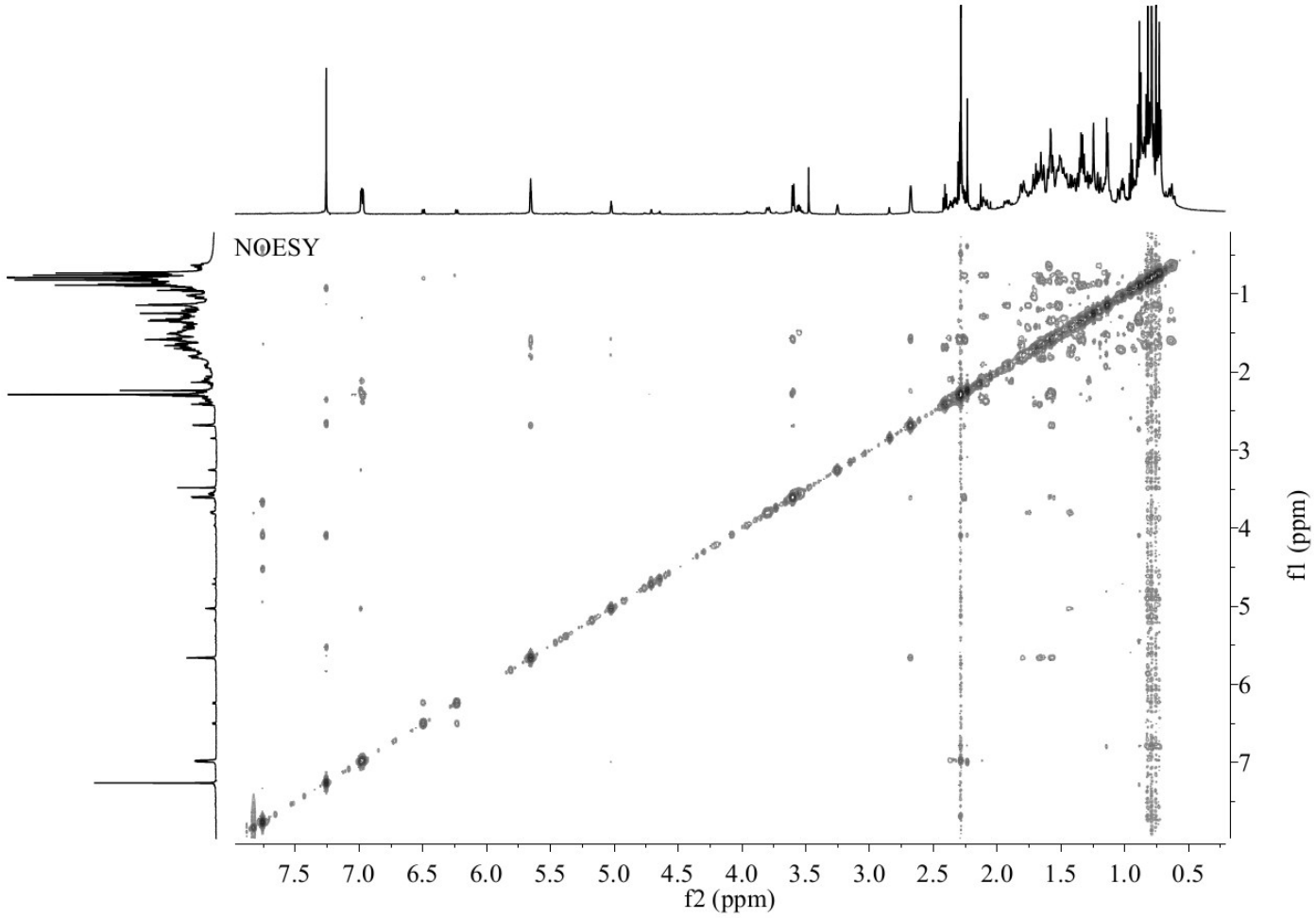


Figure S38. NOESY ($CDCl_3$) spectrum of compound **5**

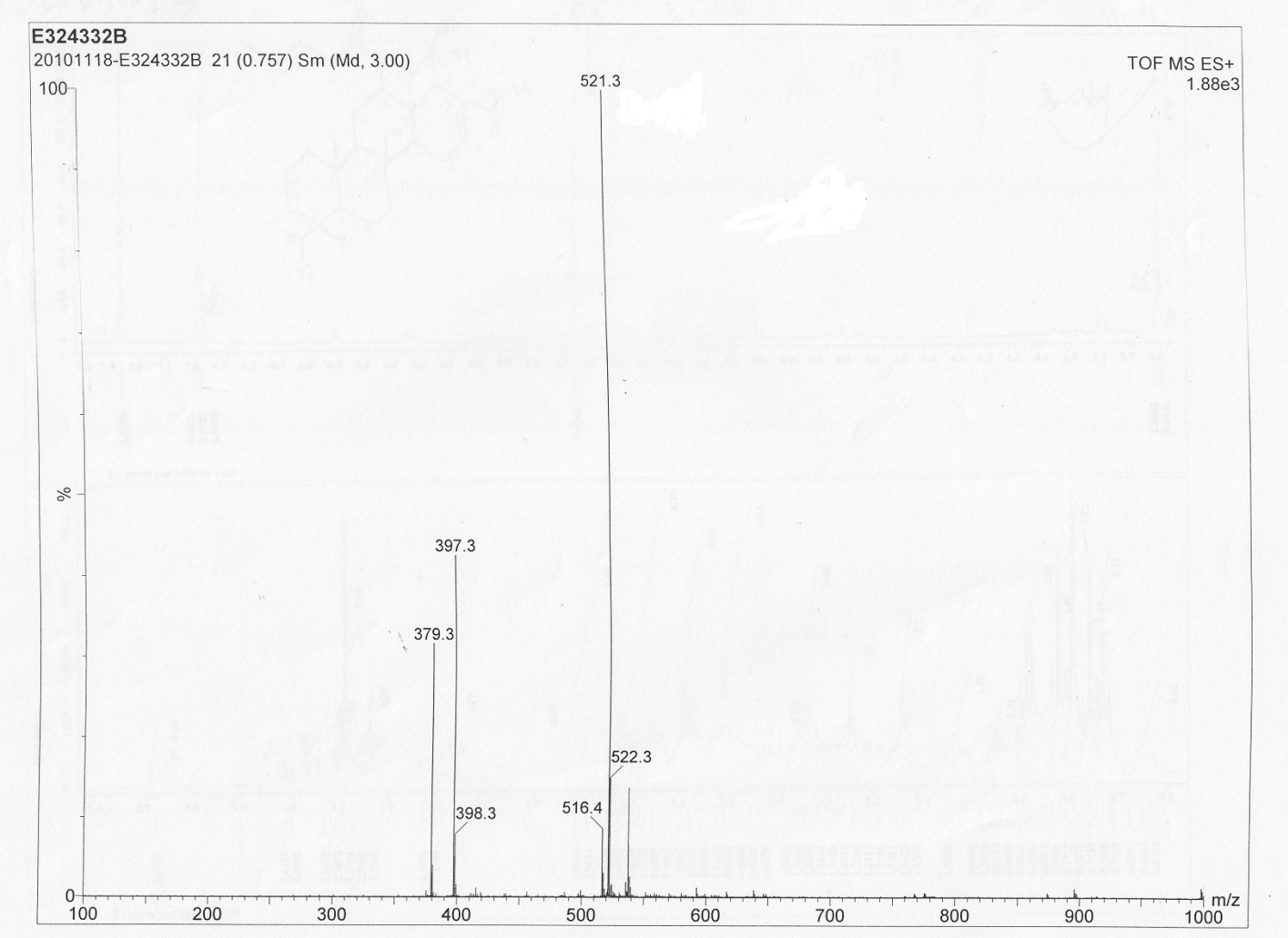


Figure S39. ESIMS spectrum of compound **5**

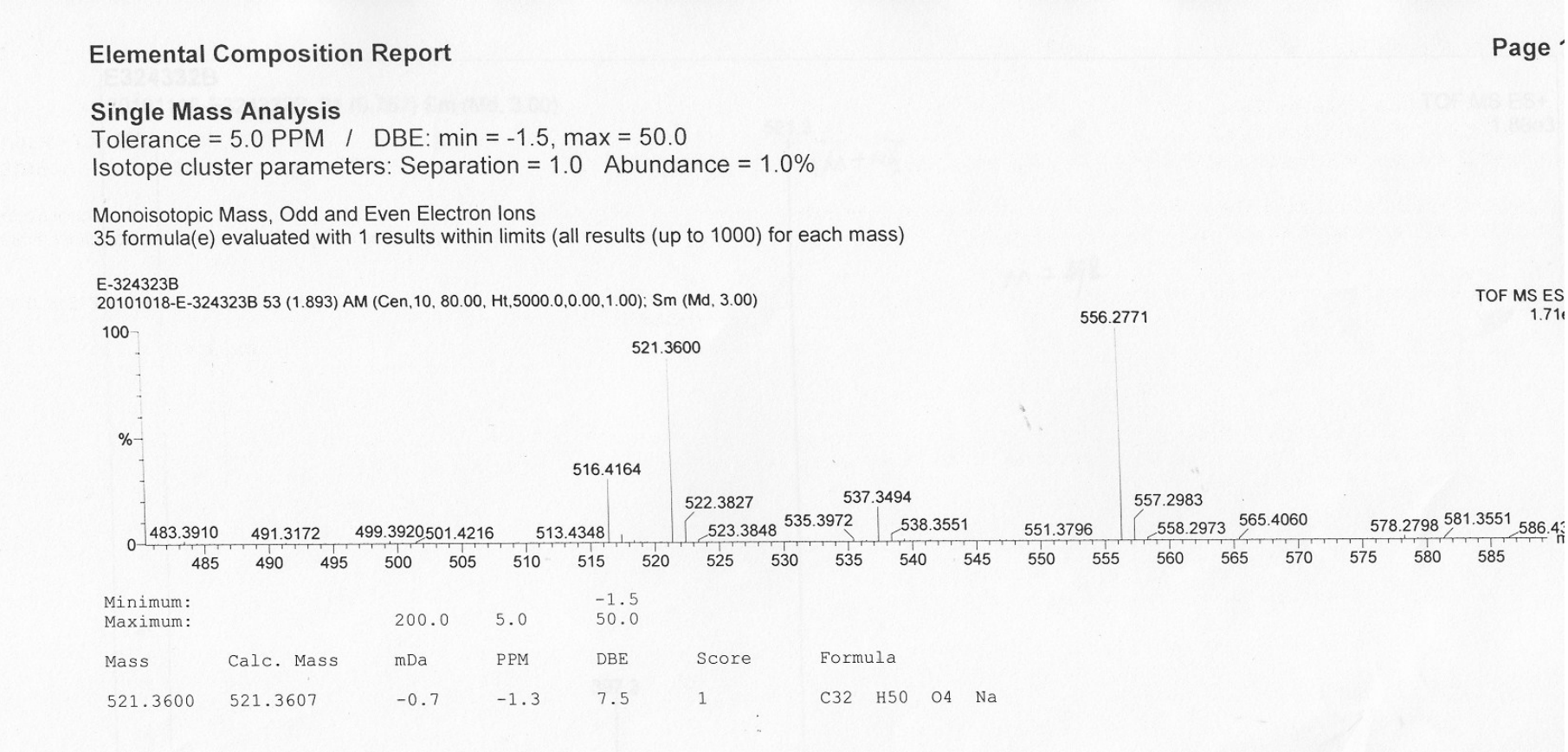


Figure S40. ESIMS spectrum of compound **5**

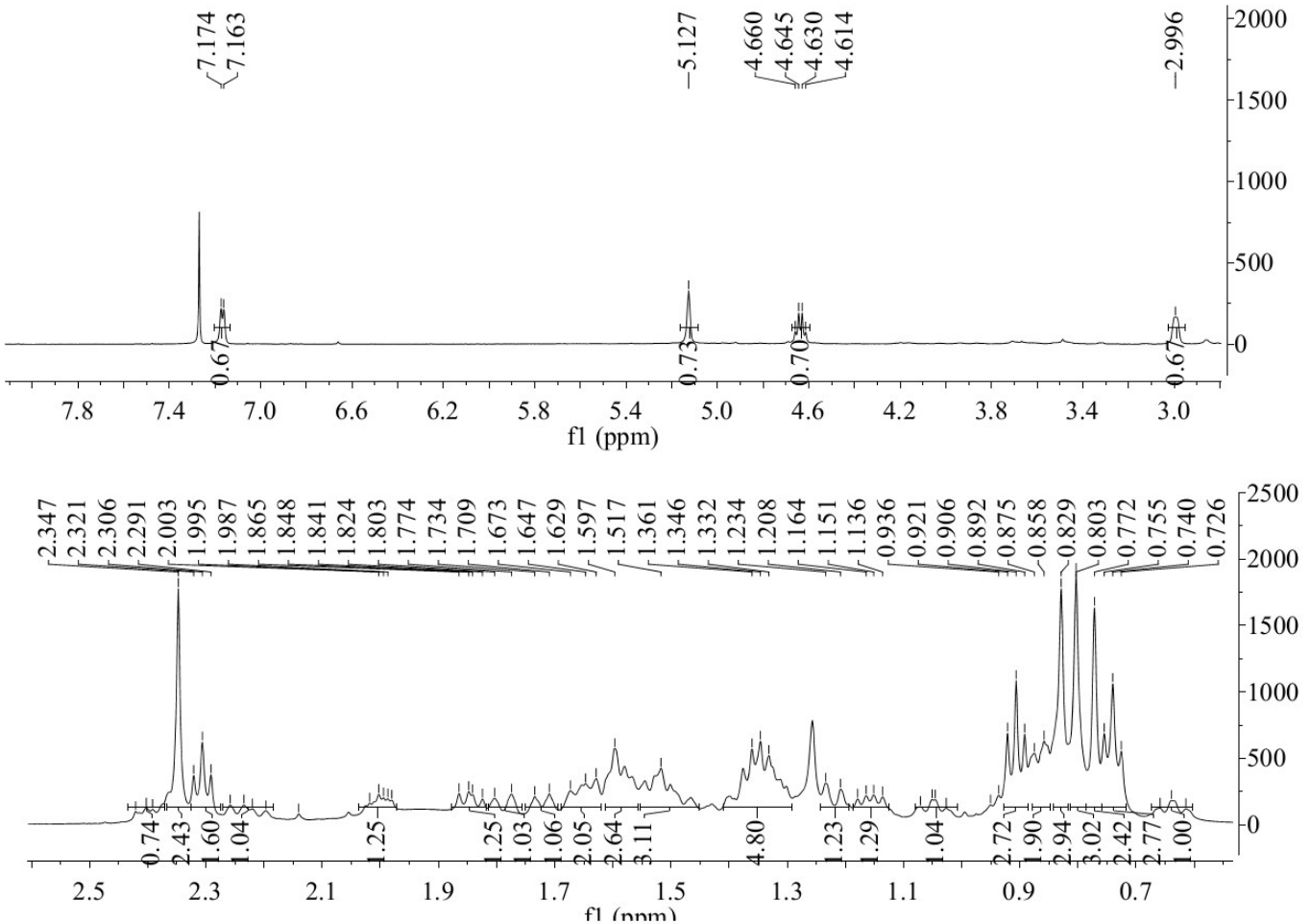


Figure S41. ^{1}H NMR (600 MHz, $CDCl_3$) spectrum of compound **6**

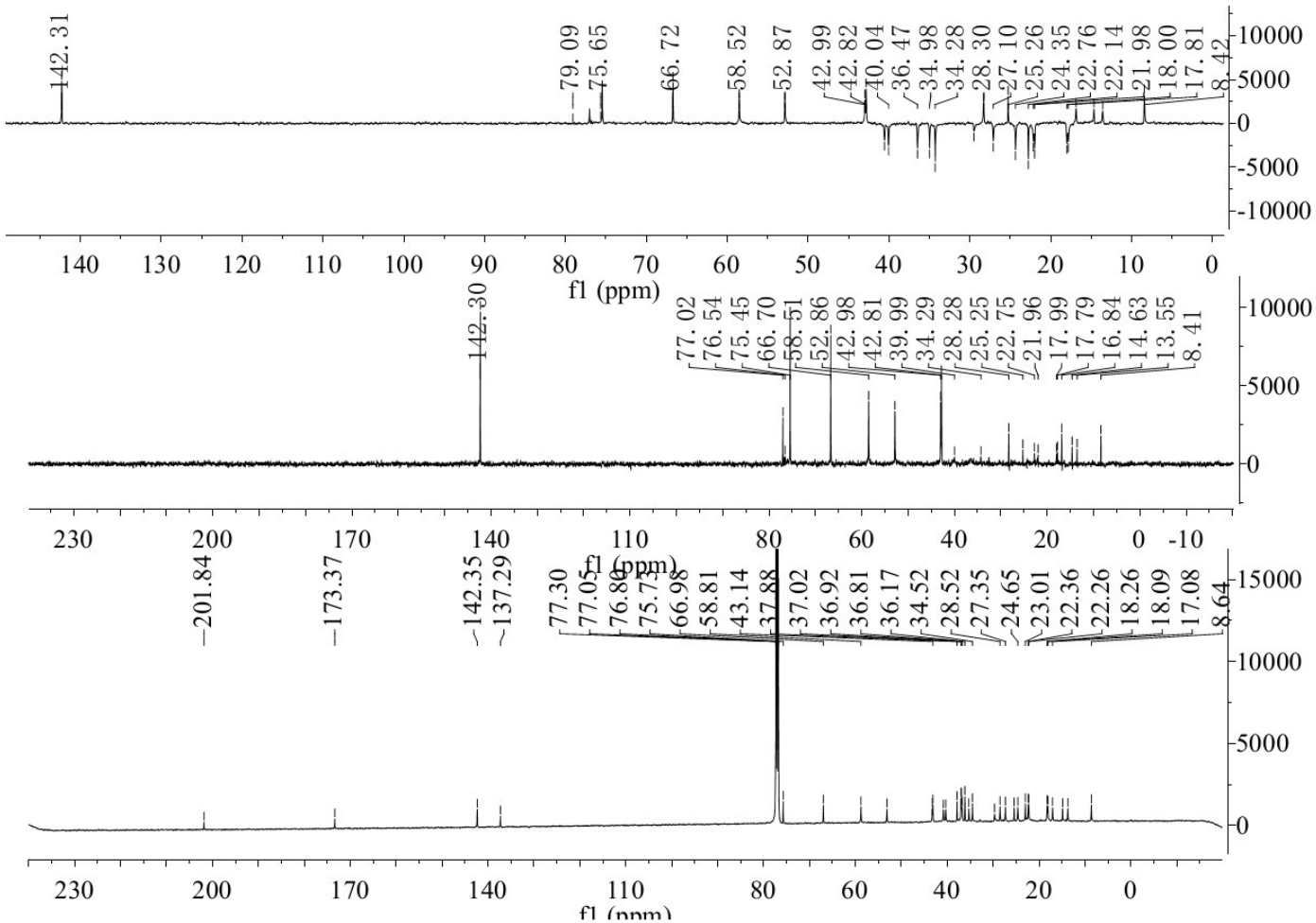


Figure S42. ^{13}C and DEPT NMR (150 MHz, $CDCl_3$) spectra of compound **6**

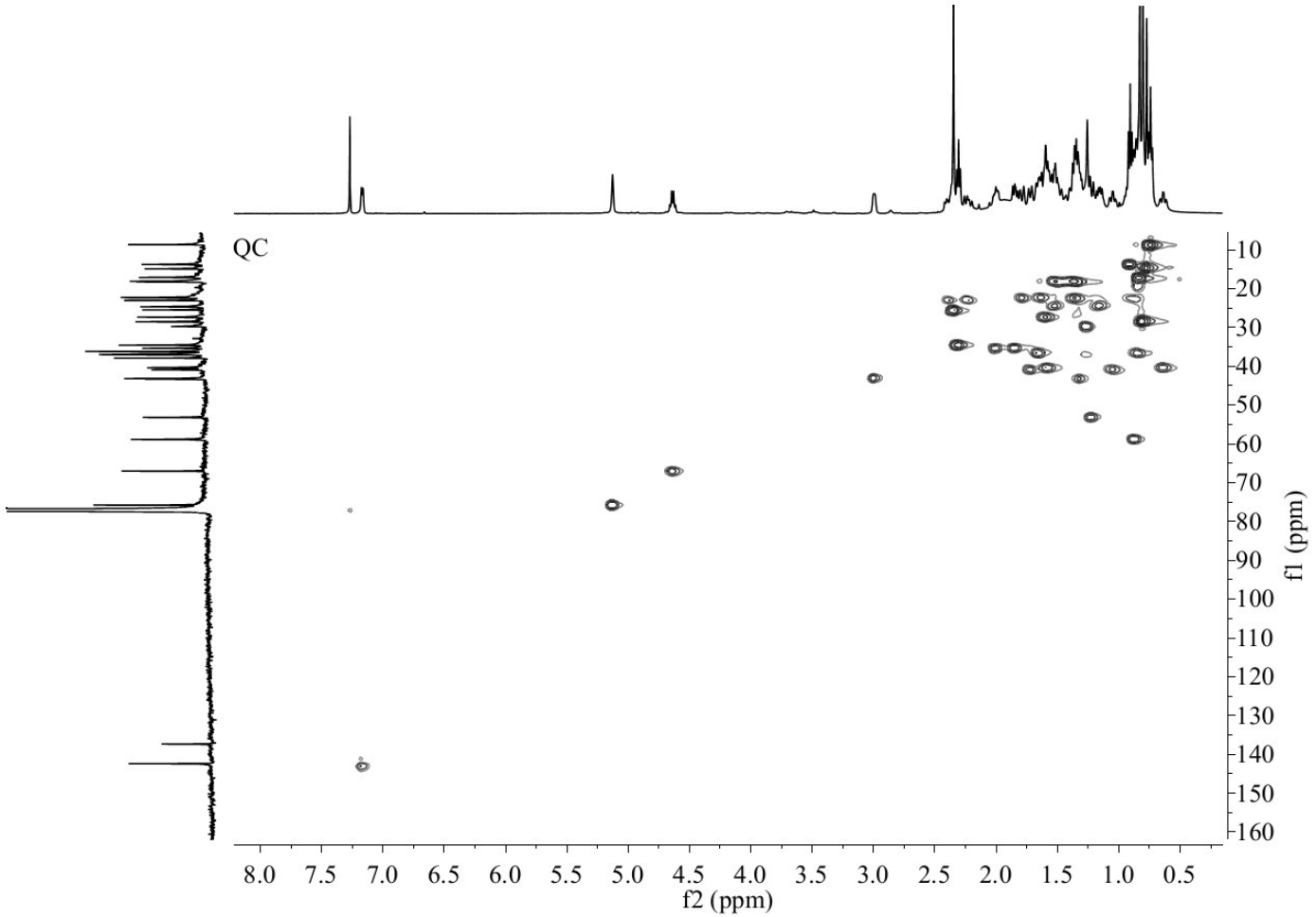


Figure S43. HMQC ($CDCl_3$) spectrum of compound **6**

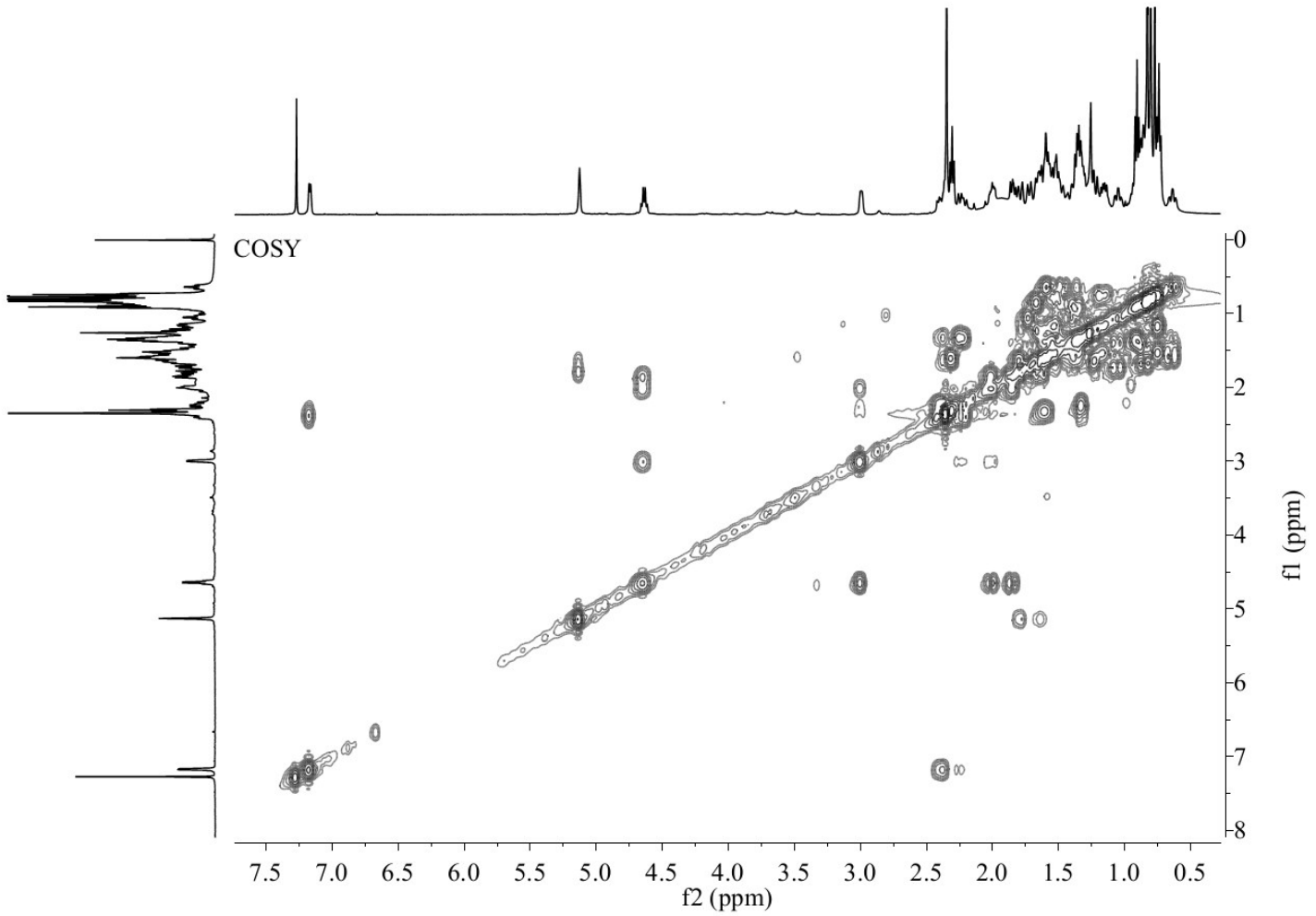


Figure S44. COSY ($CDCl_3$) spectrum of compound **6**

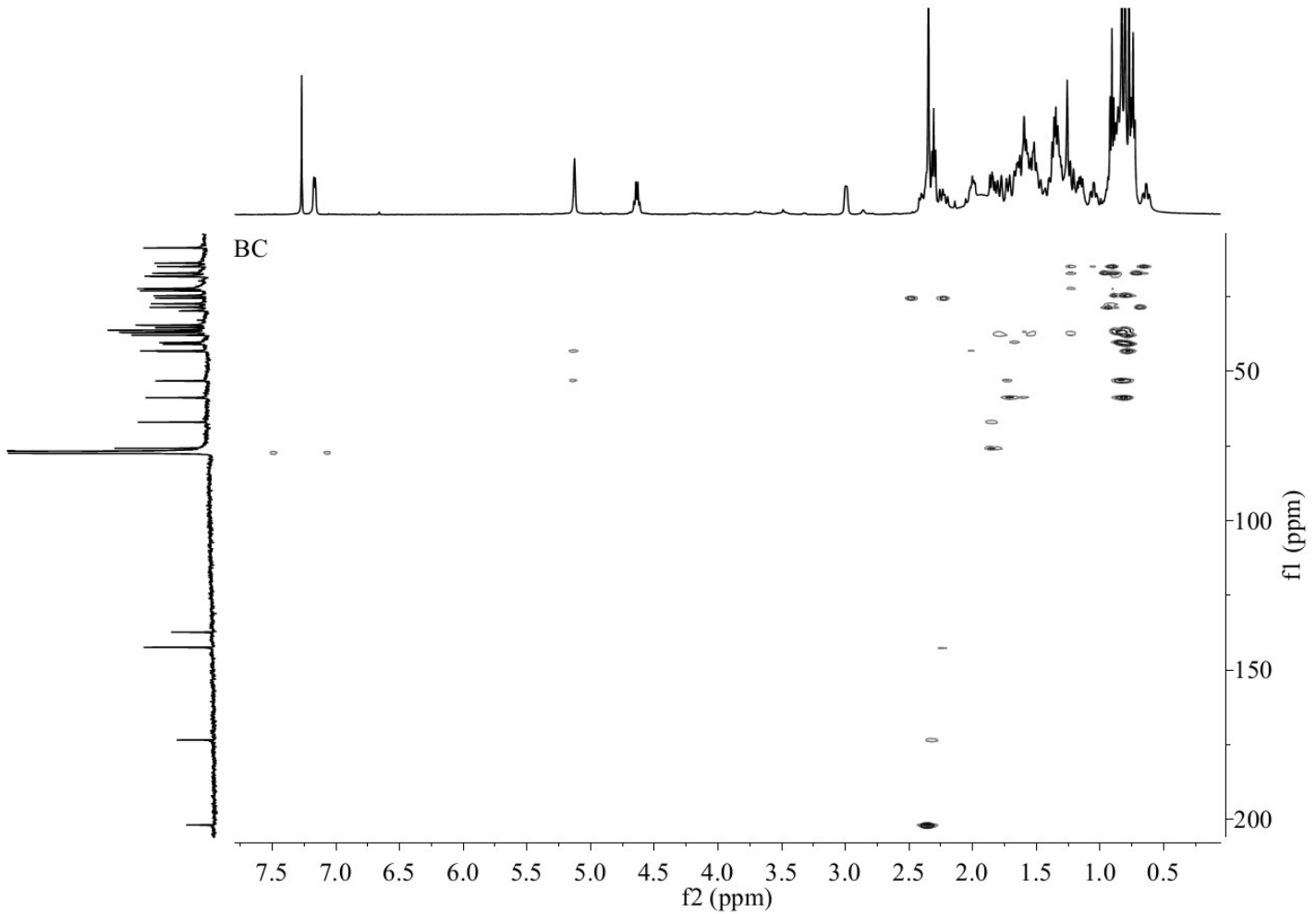


Figure S45. HMBC ($CDCl_3$) spectrum of compound **6**

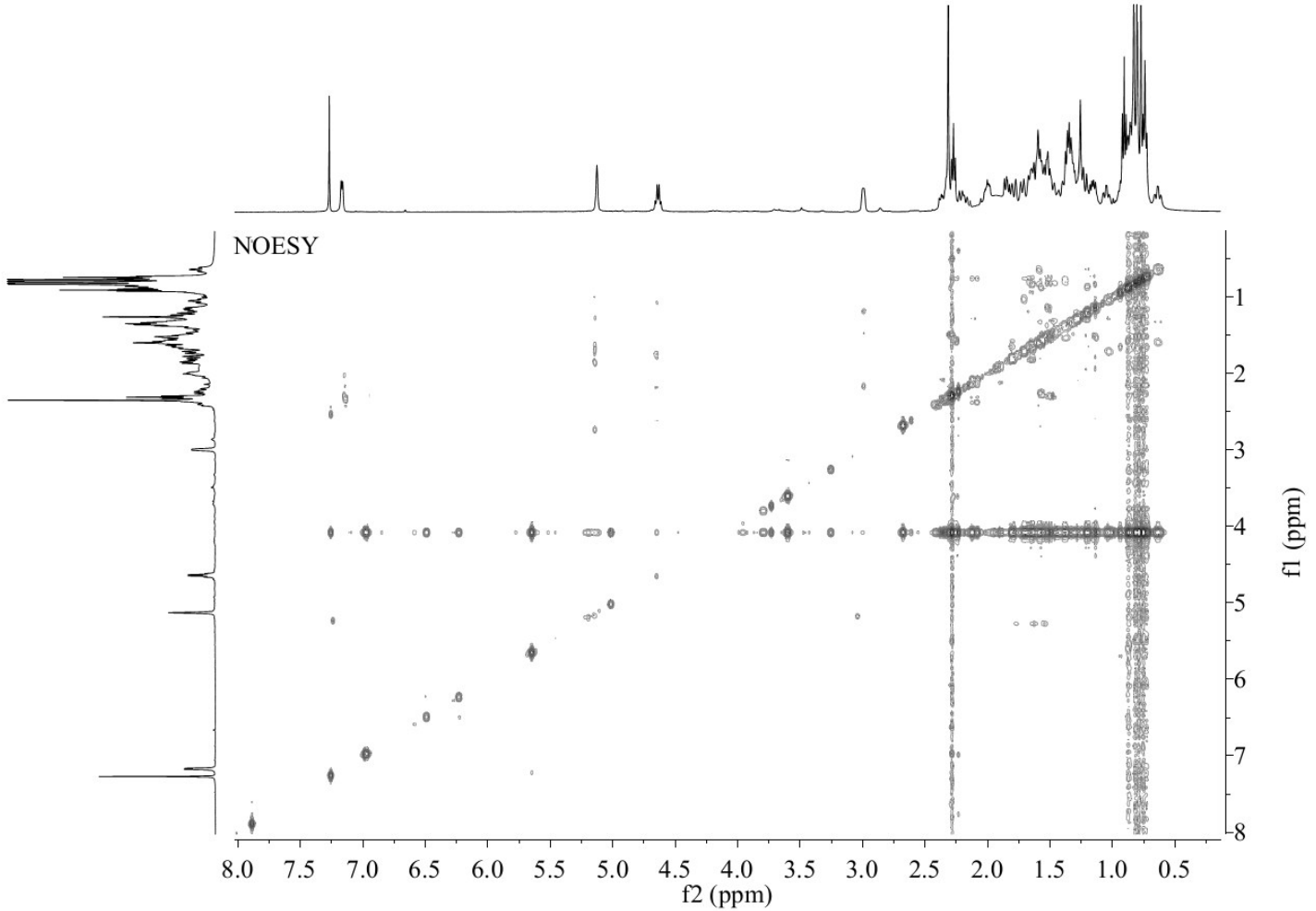


Figure S46. NOESY ($CDCl_3$) spectrum of compound **6**

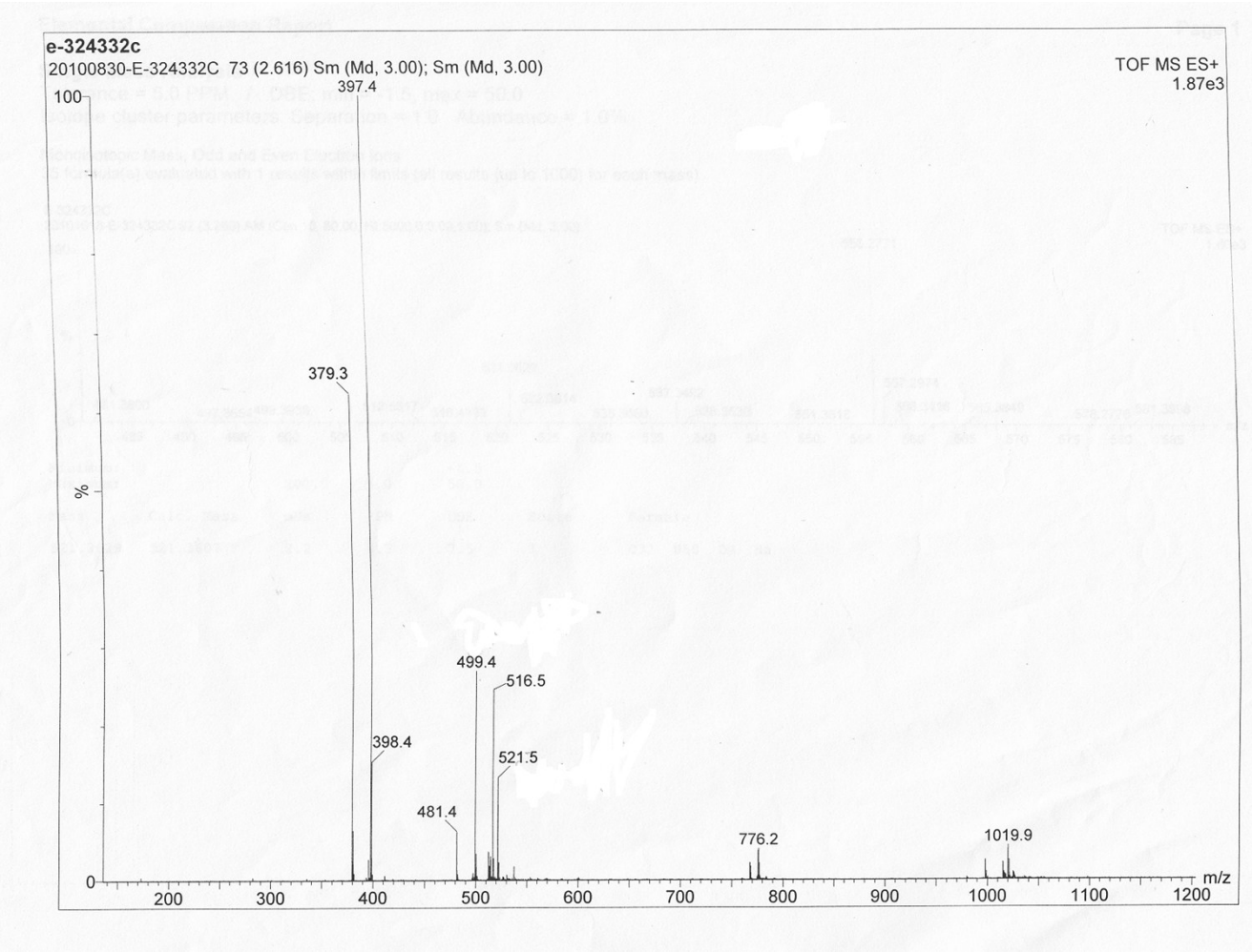


Figure S47. ESIMS spectrum of compound **6**

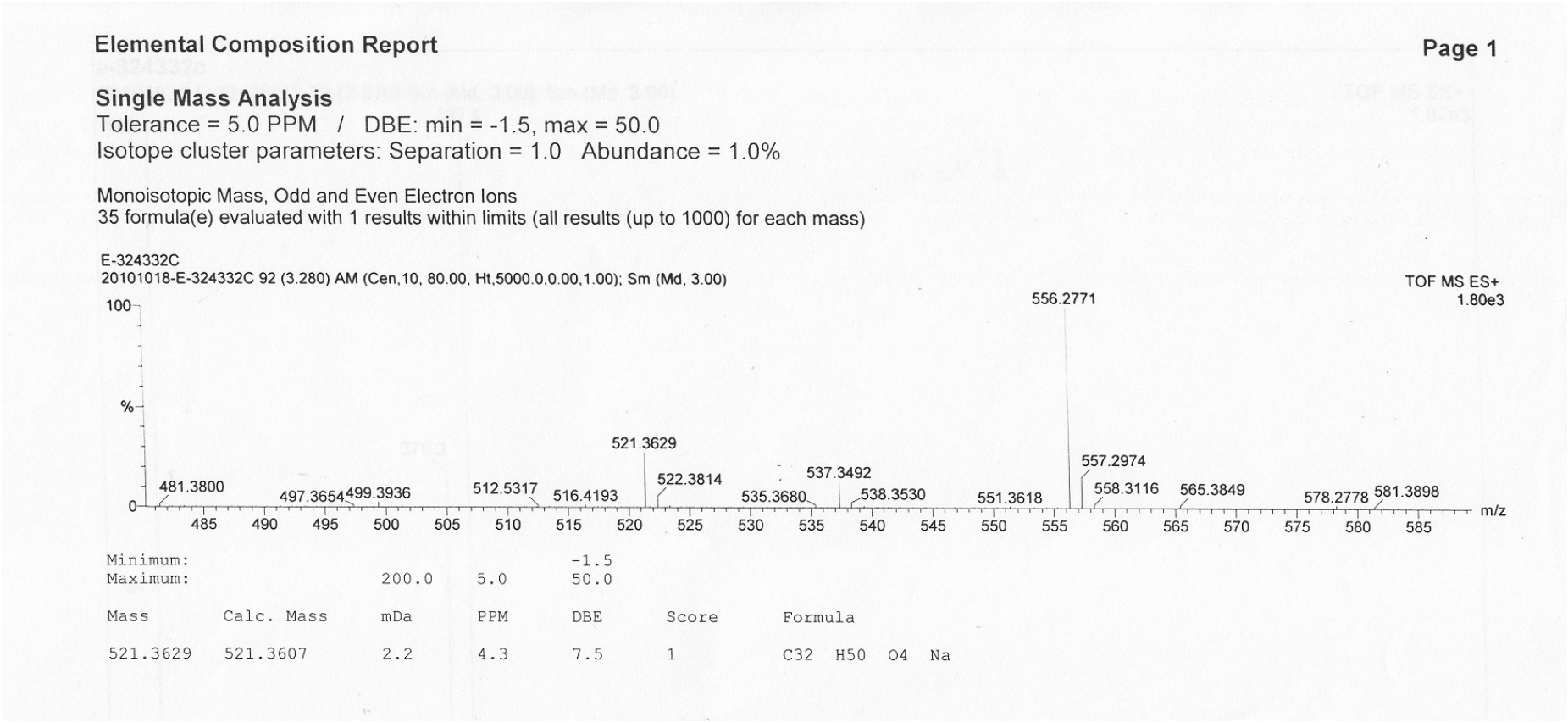


Figure S48. HRESIMS spectrum of compound **6**

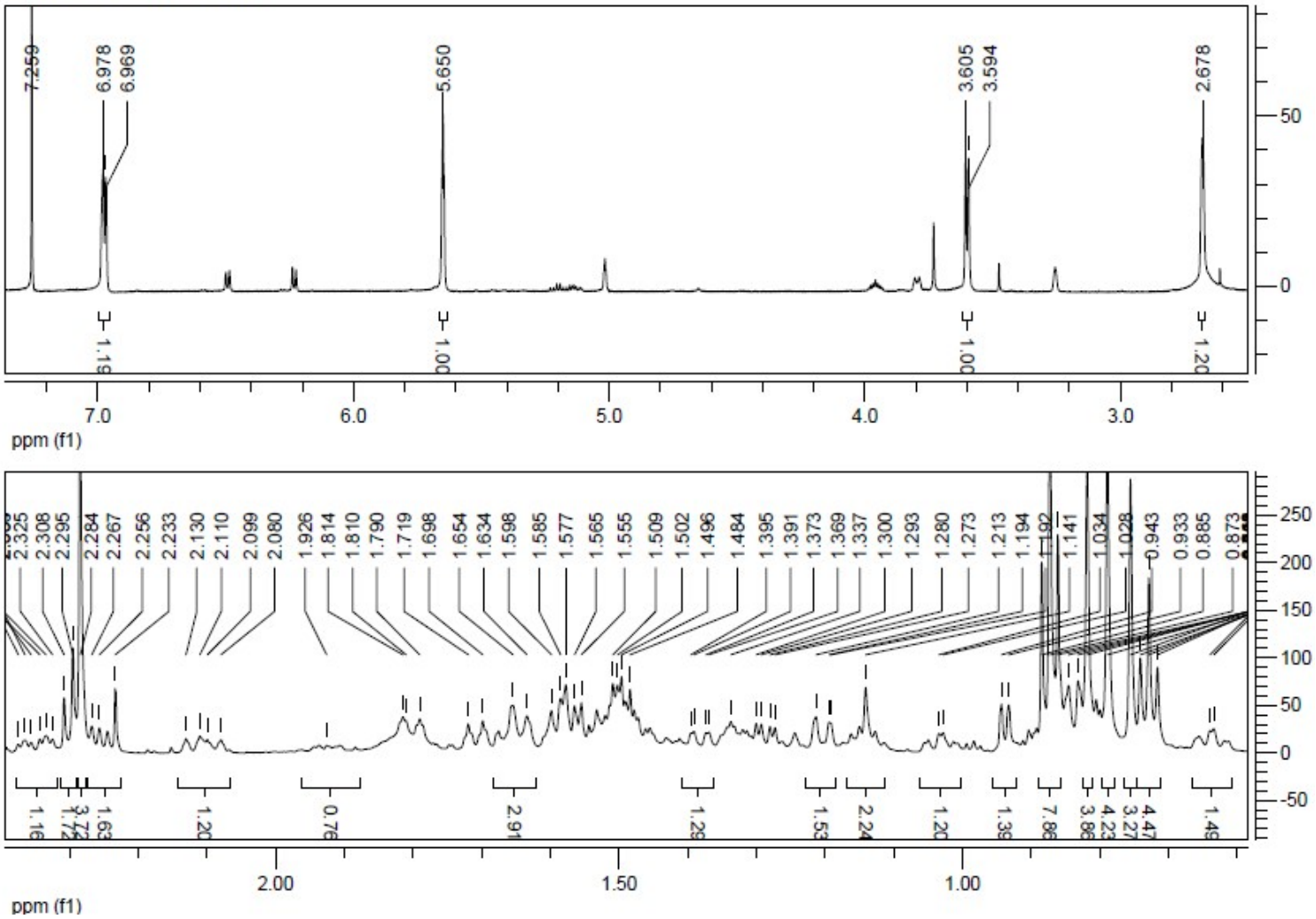


Figure S49. ^{1}H NMR (600 MHz, $CDCl_3$) spectrum of compound **7**

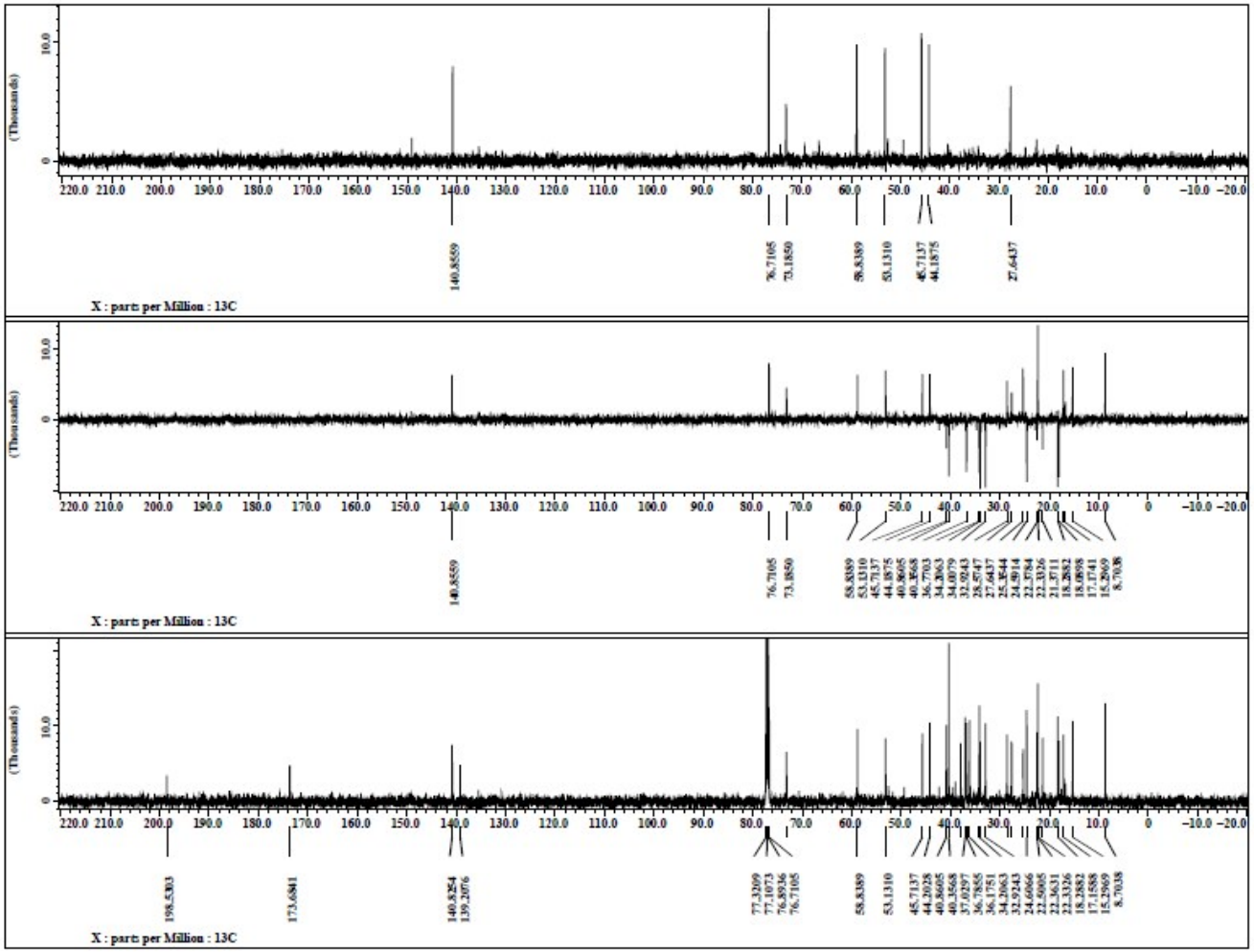


Figure S50. ^{13}C and DEPT NMR (150 MHz, $CDCl_3$) spectra of compound **7**

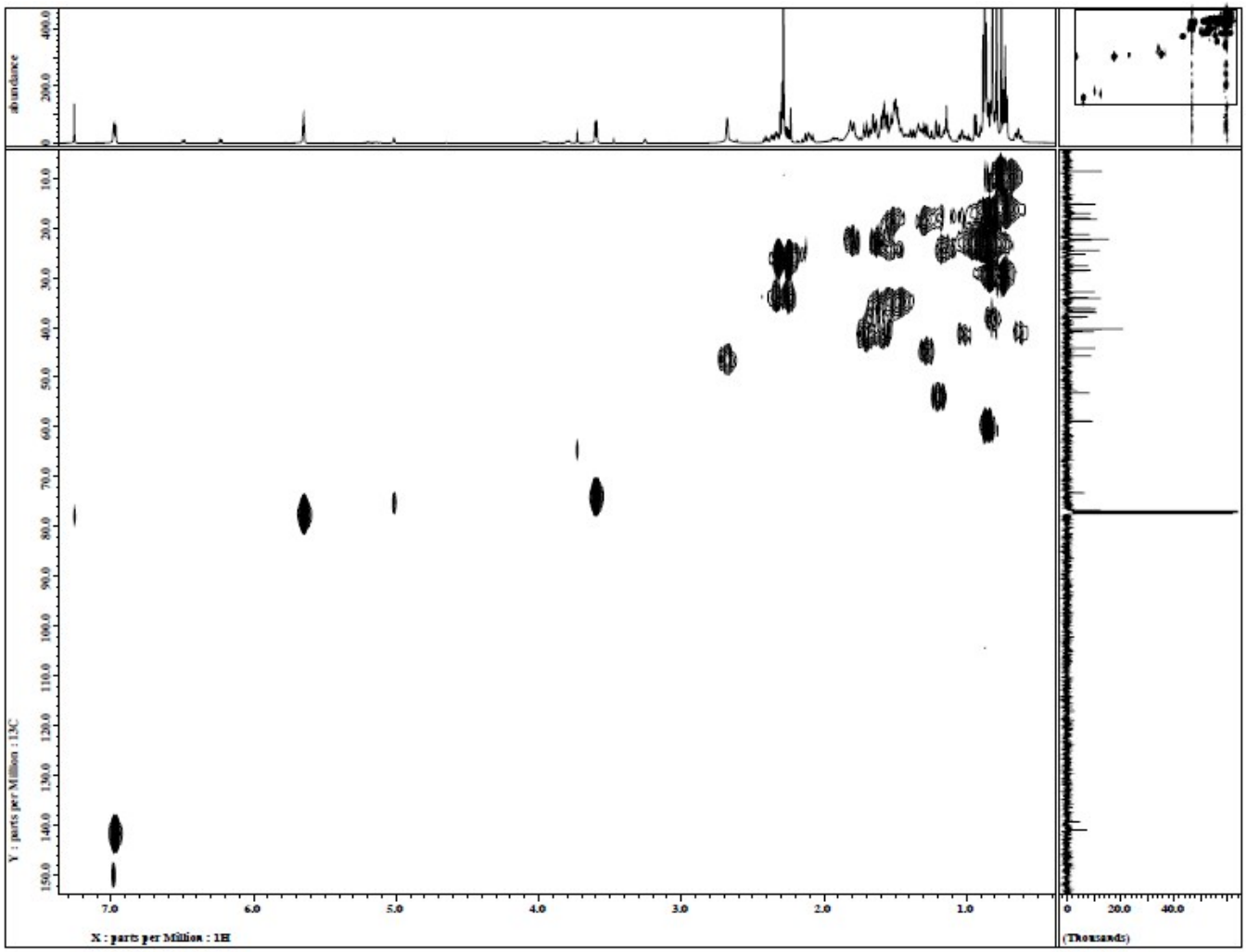


Figure S51. HMQC ($CDCl_3$) spectrum of compound **7**

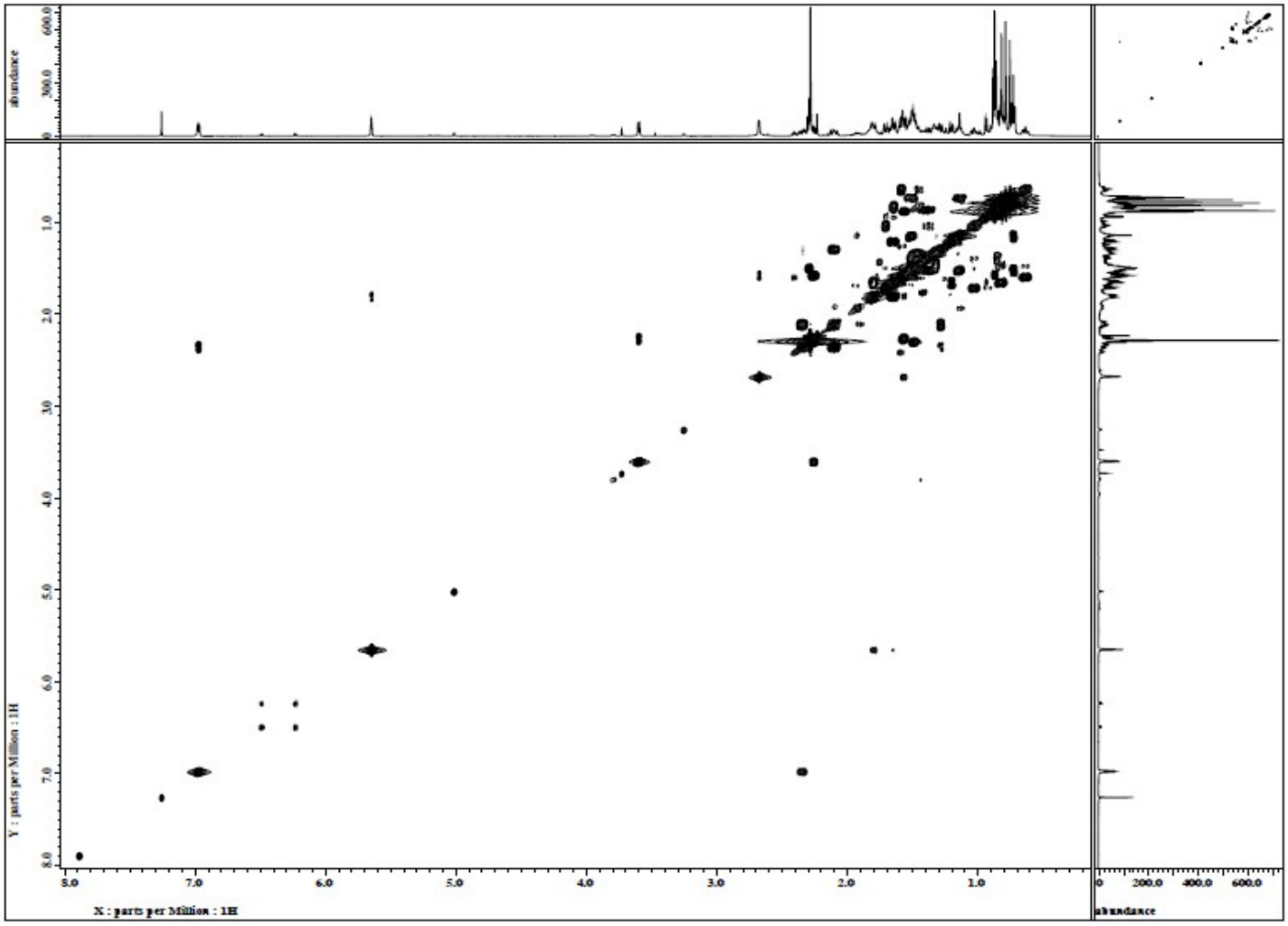


Figure S52. COSY ($CDCl_3$) spectrum of compound **7**

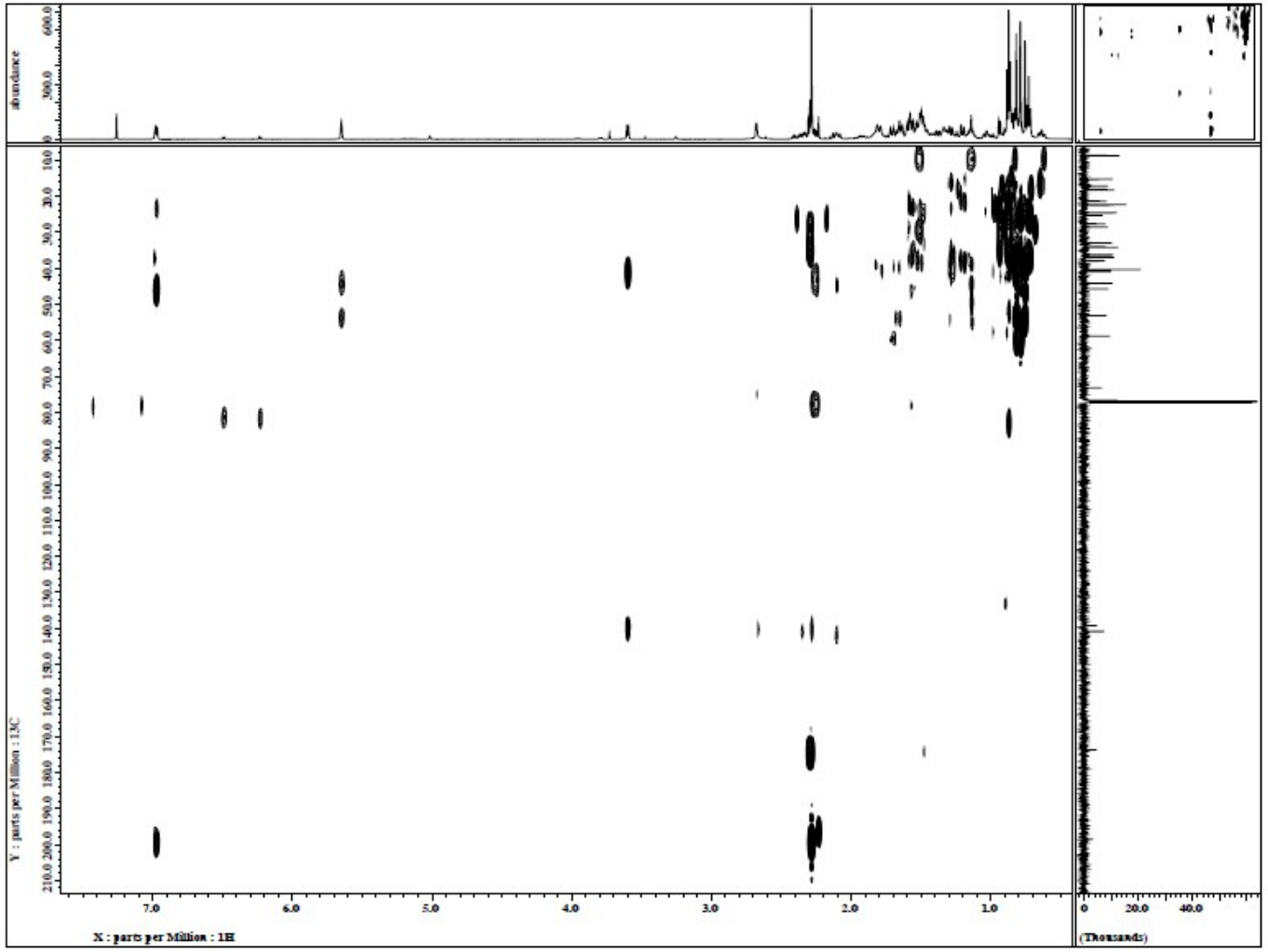


Figure S53. HMBC ($CDCl_3$) spectrum of compound **7**

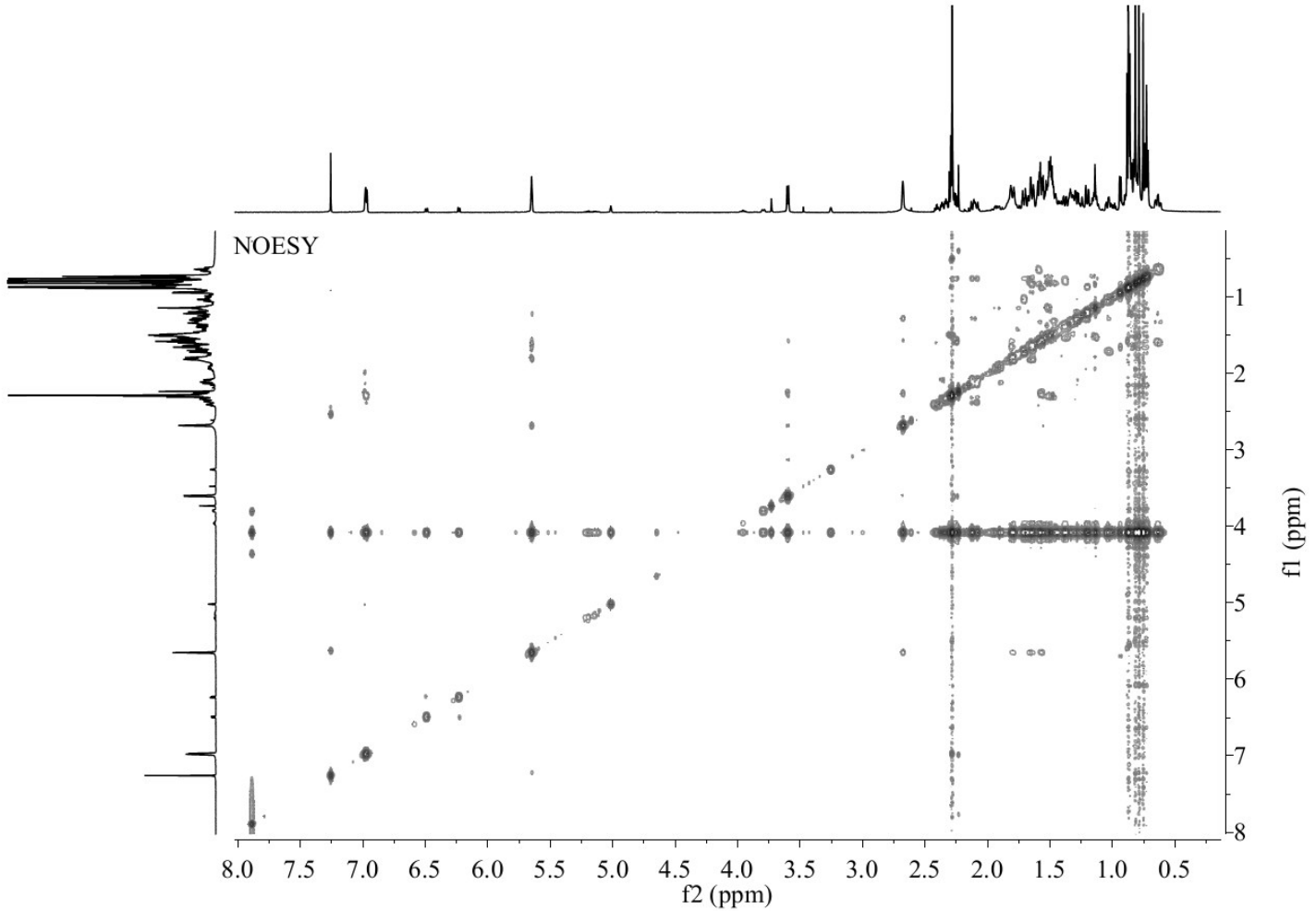


Figure S54. NOESY ($CDCl_3$) spectrum of compound **7**

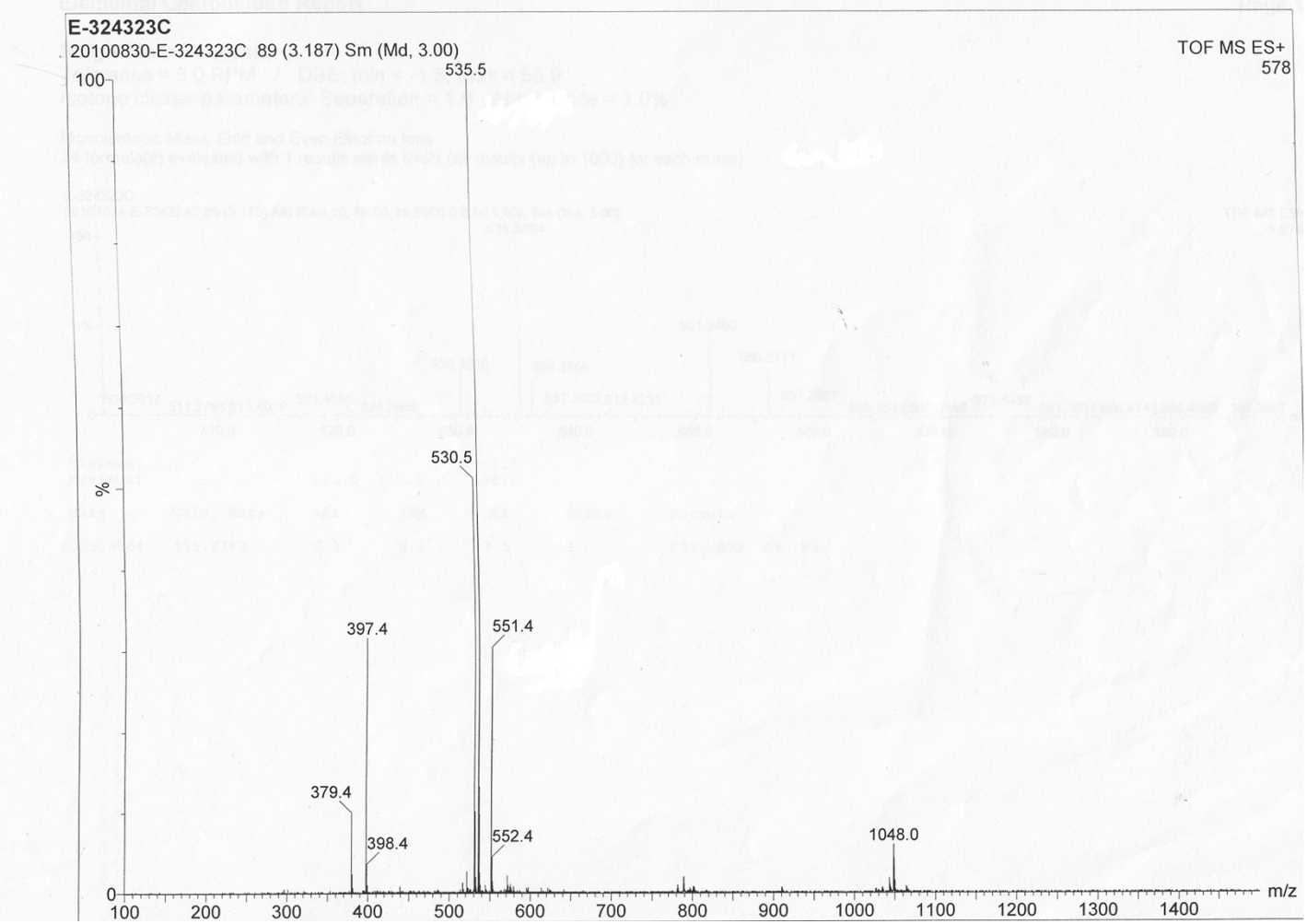


Figure S55. ESIMS spectrum of compound **7**

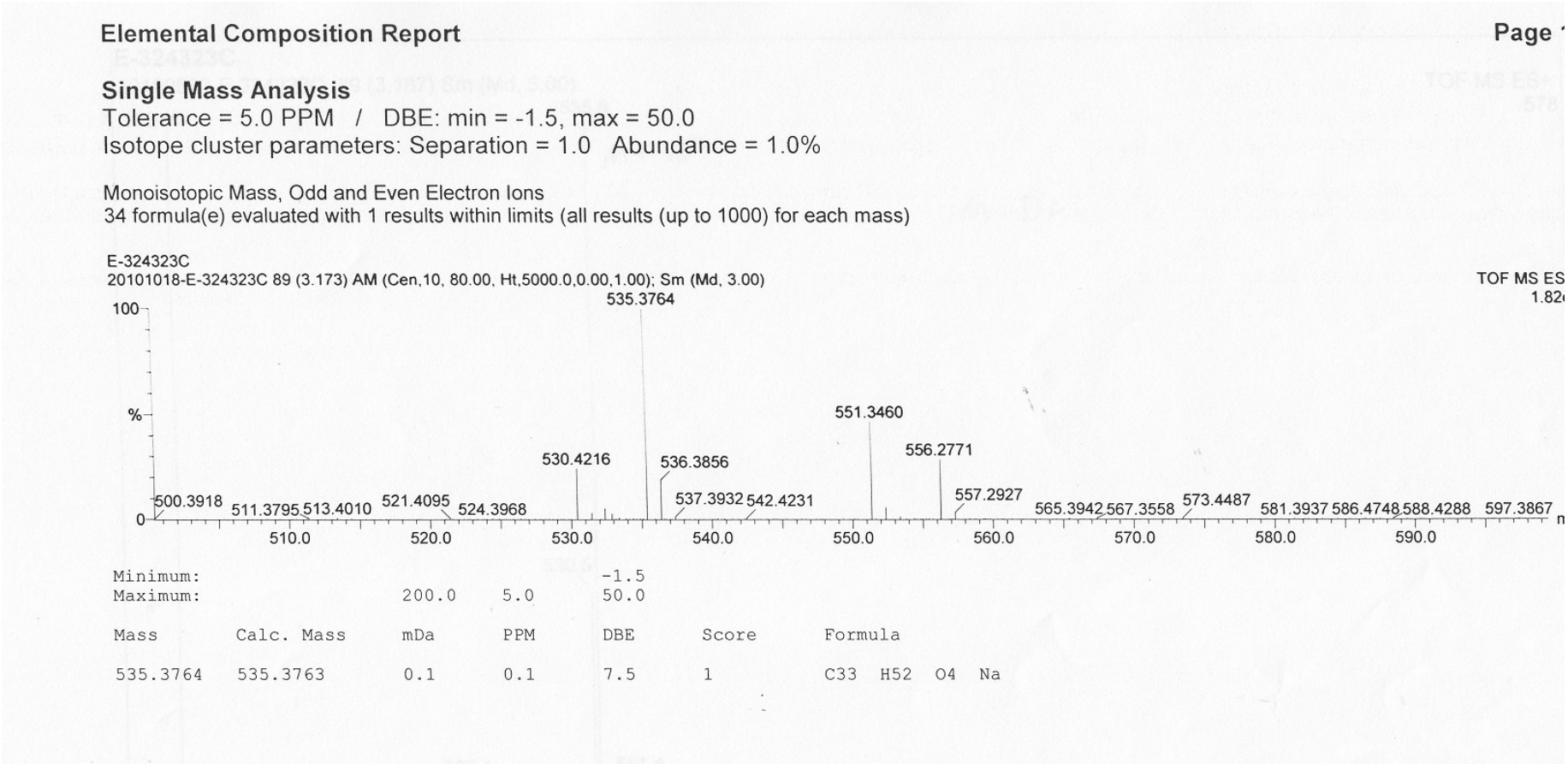


Figure S56. HRESIMS spectrum of compound **7**

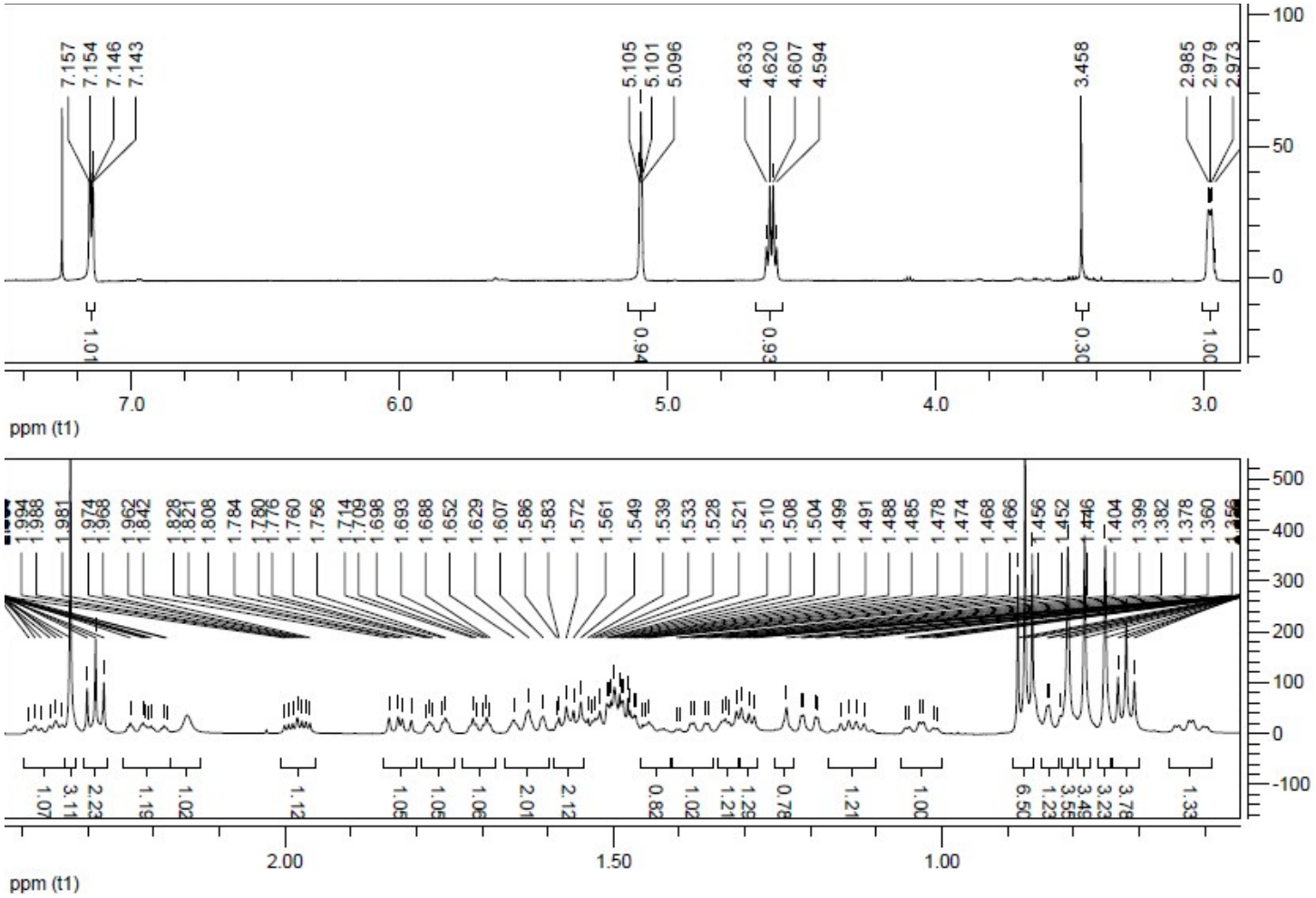


Figure S57. ^{1}H NMR (600 MHz, $CDCl_3$) spectrum of compound **8**

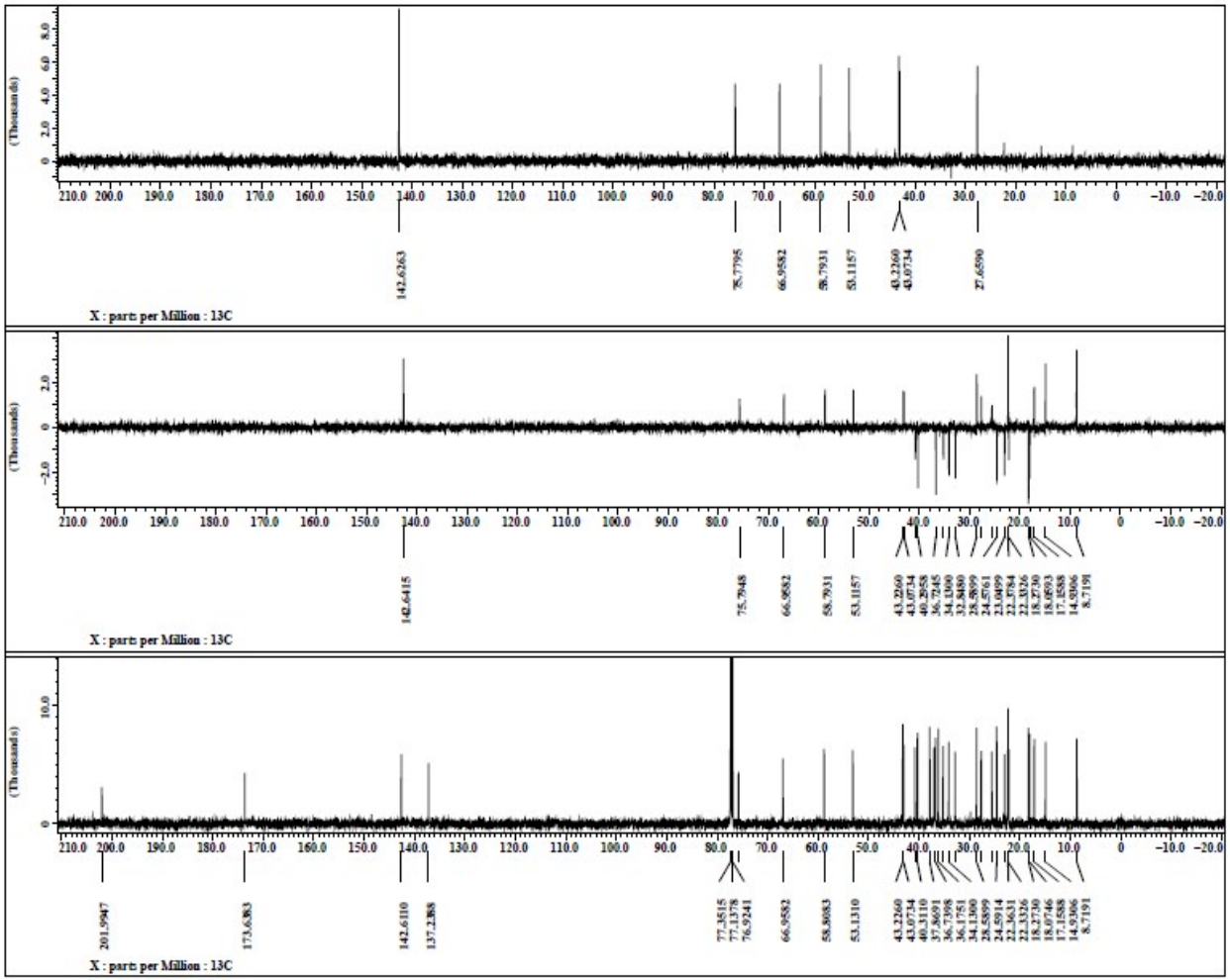


Figure S58. ^{13}C and DEPT NMR (150 MHz, $CDCl_3$) spectra of compound **8**

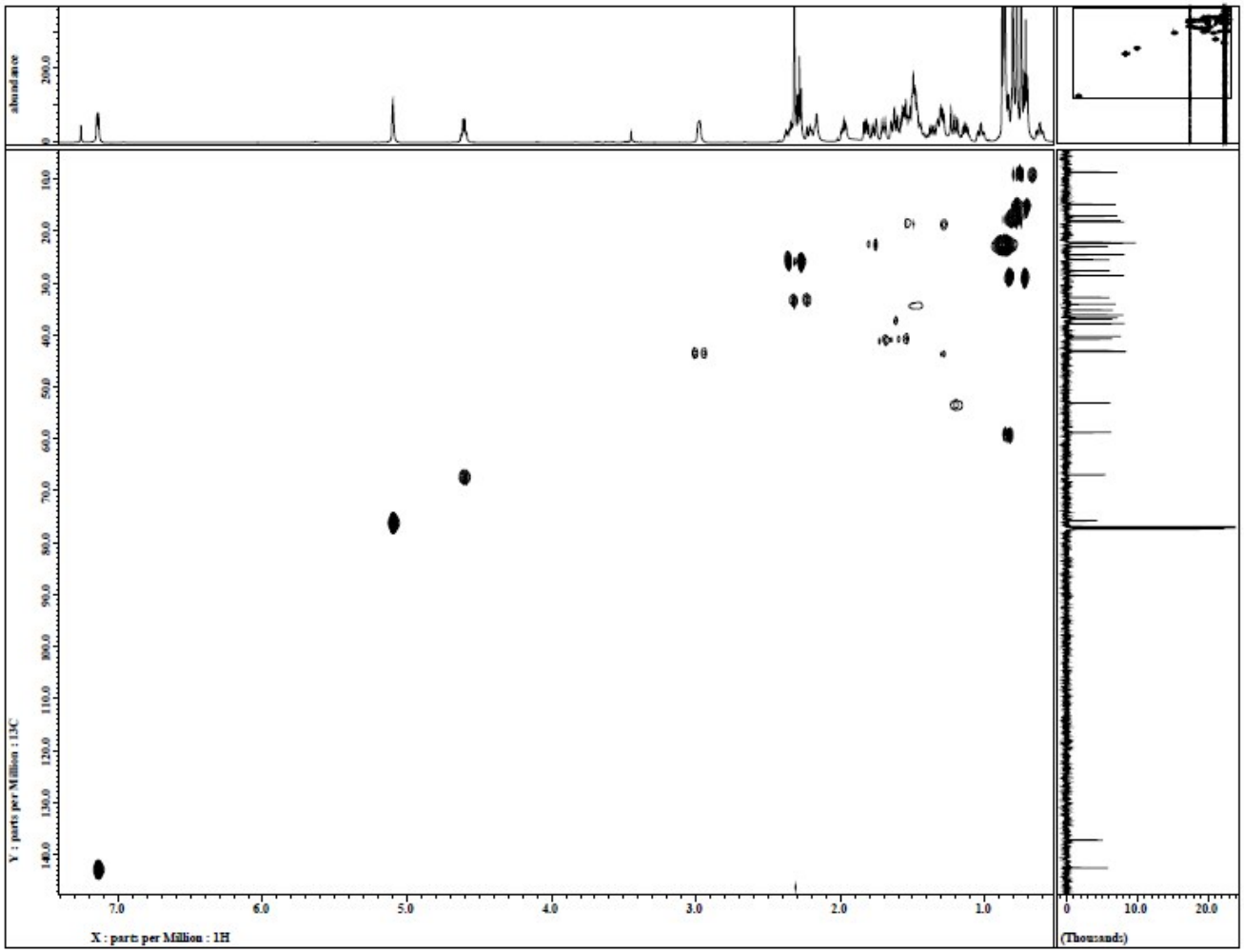


Figure S59. HMQC ($CDCl_3$) spectrum of compound **8**

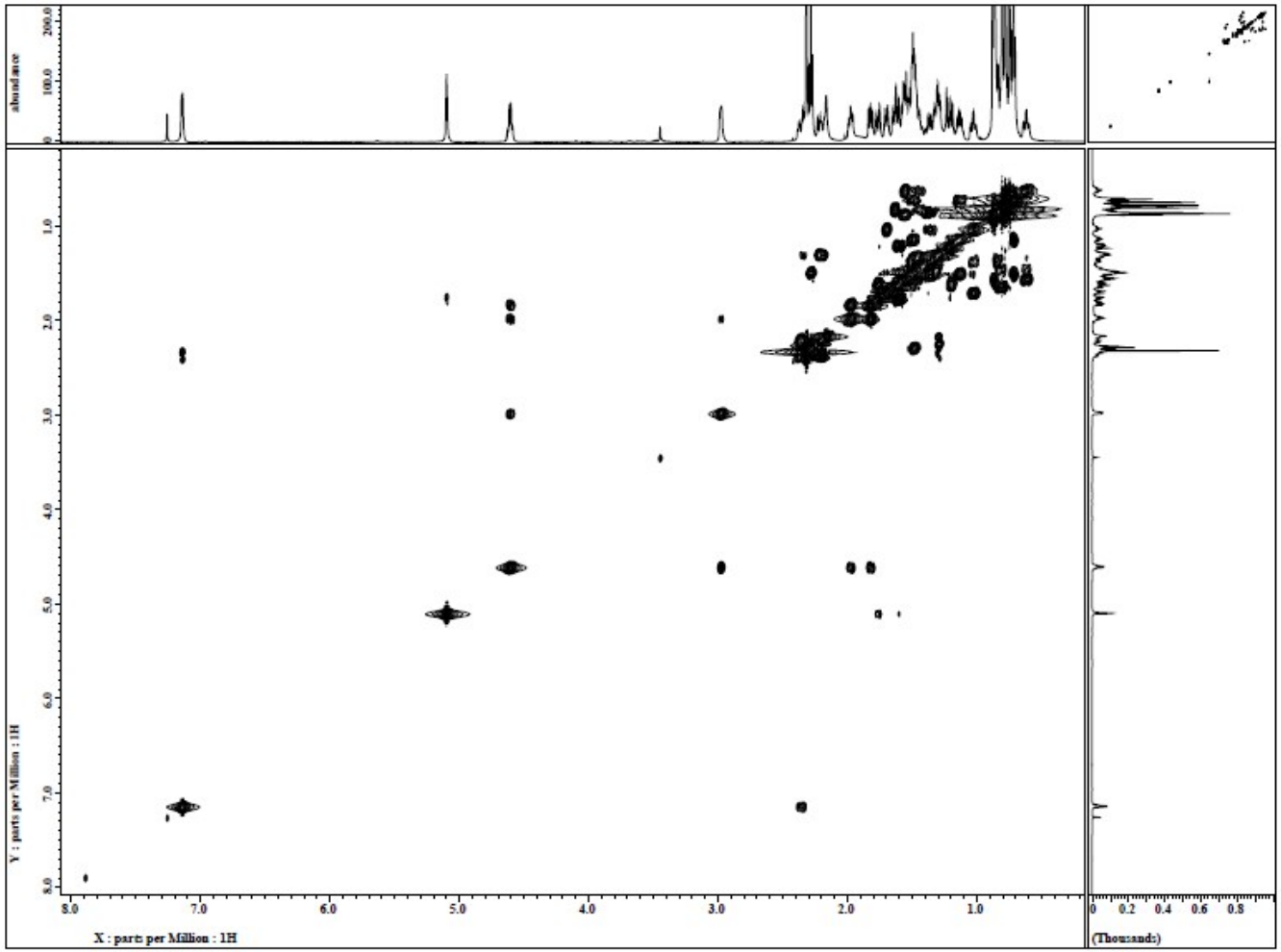


Figure S60. COSY ($CDCl_3$) spectrum of compound **8**

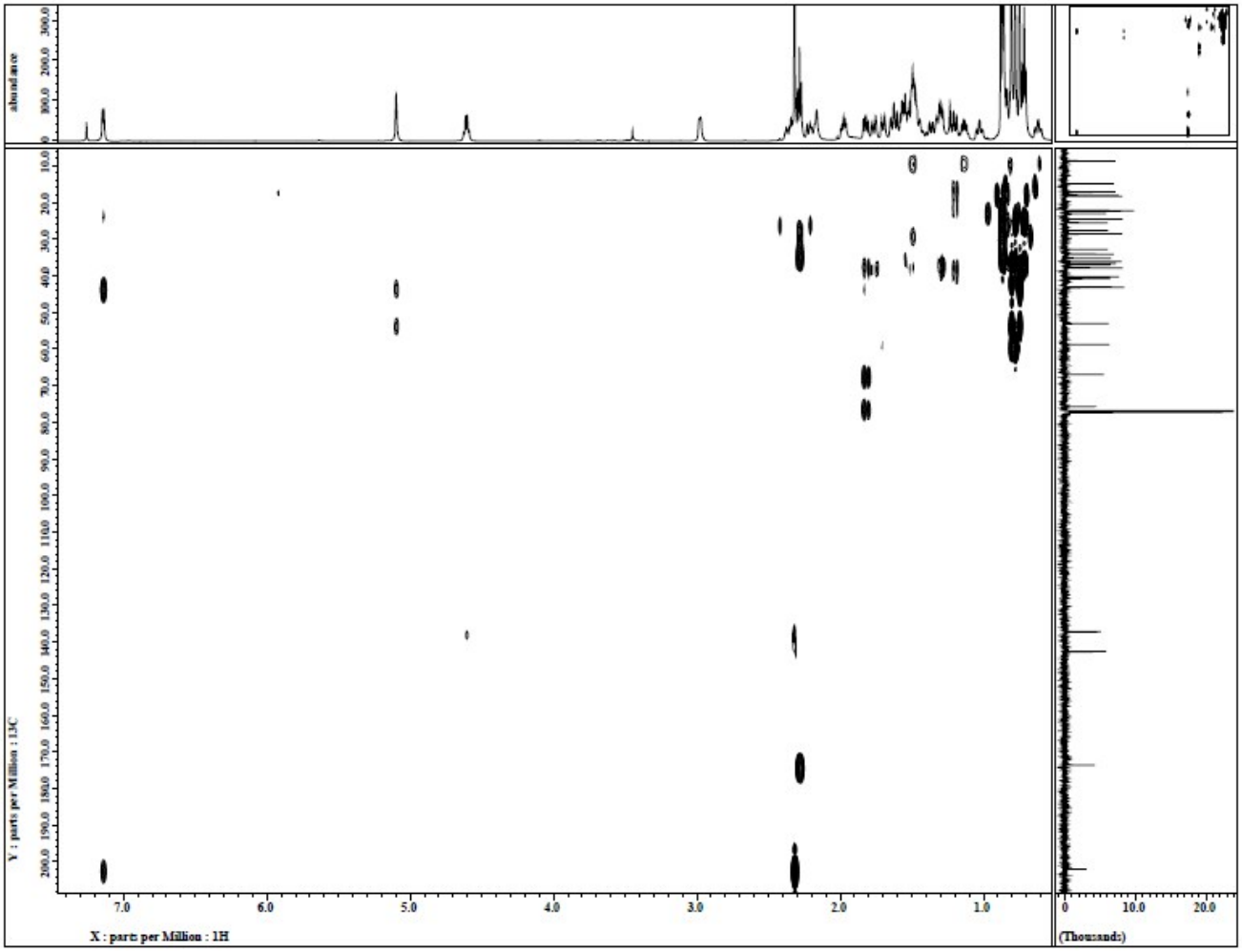


Figure S61. HMBC ($CDCl_3$) spectrum of compound **8**

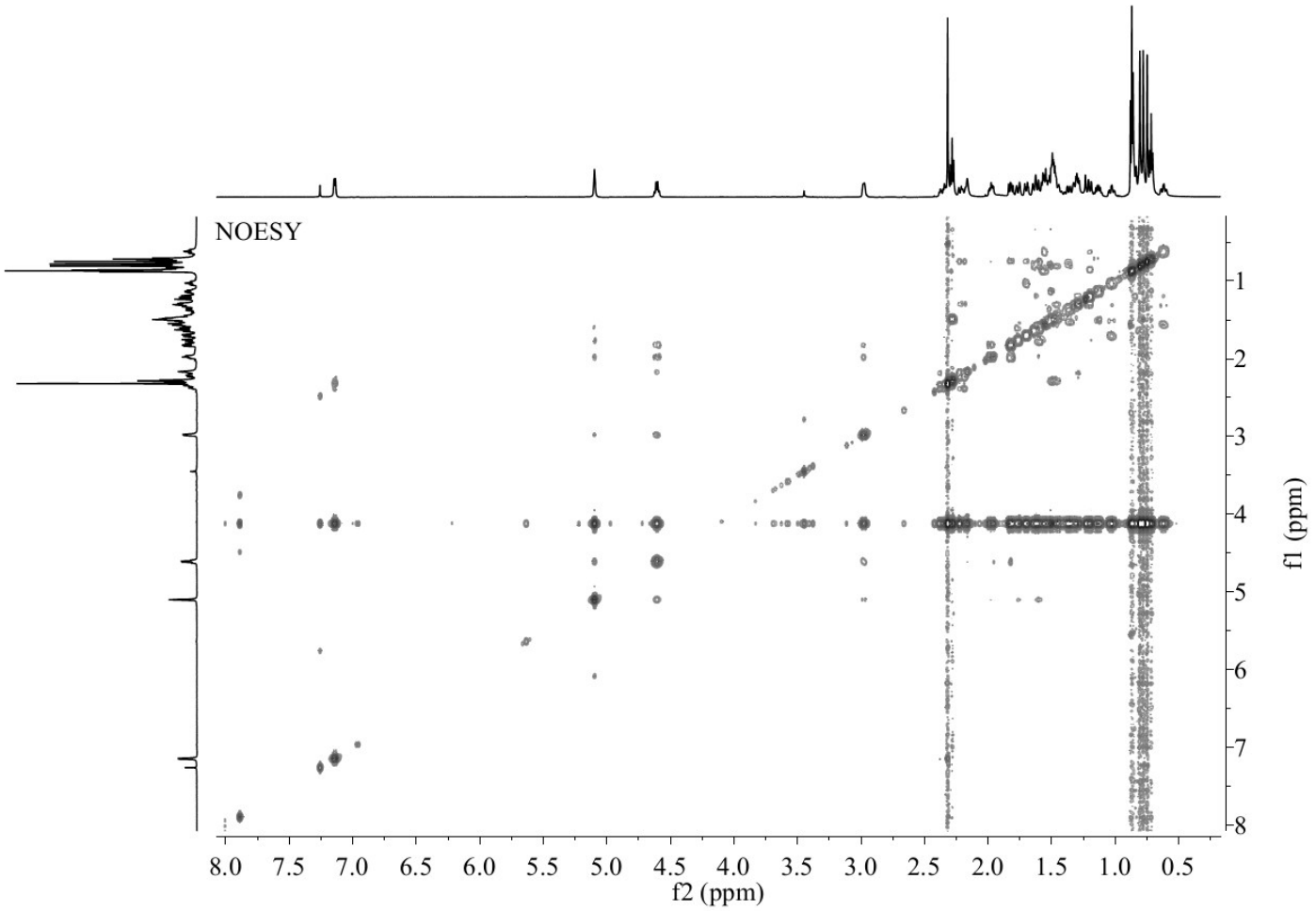


Figure S62. NOESY ($CDCl_3$) spectrum of compound **8**

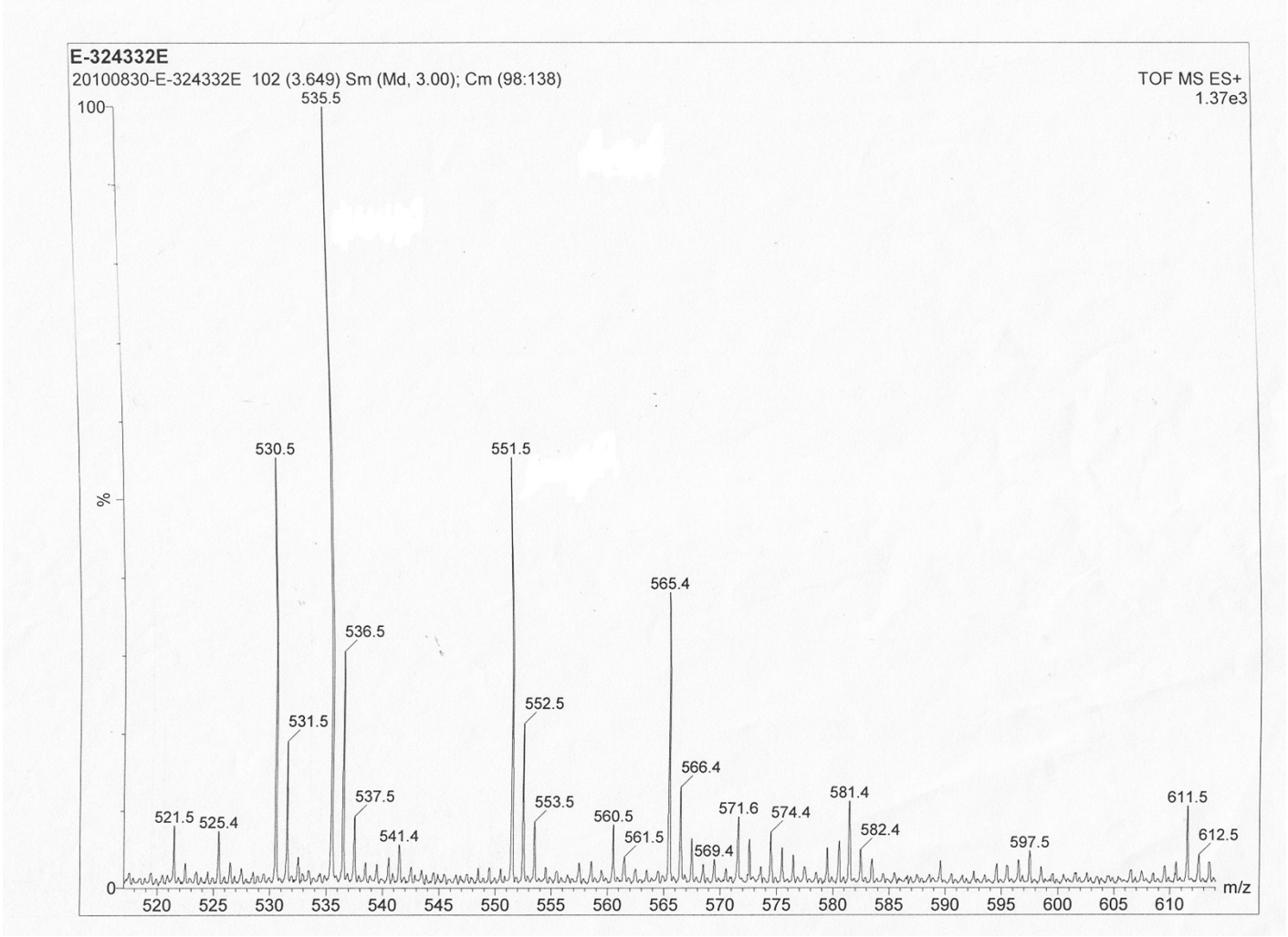


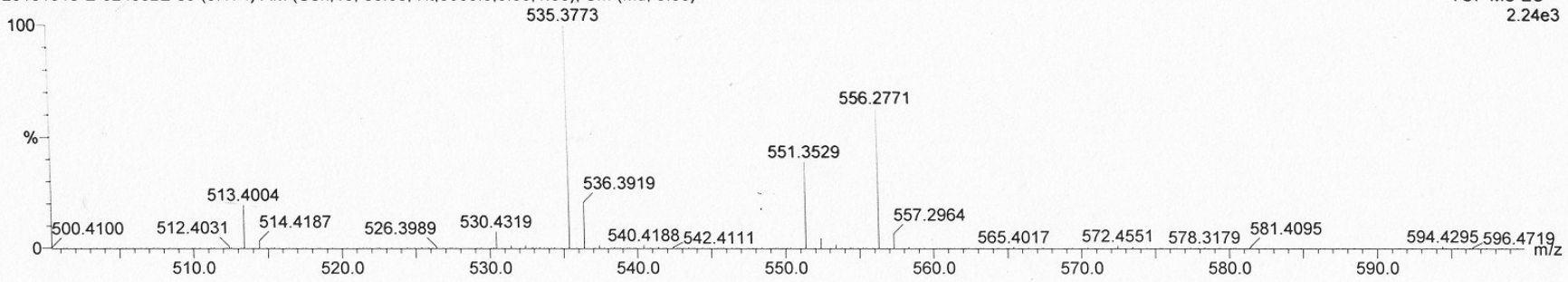
Figure S63. ESIMS spectrum of compound **8**

Elemental Composition Report **Page 1**

Single Mass Analysis
Tolerance = 5.0 PPM / DBE: min = -1.5, max = 50.0
Isotope cluster parameters: Separation = 1.0 Abundance = 1.0%

Monoisotopic Mass, Odd and Even Electron Ions
34 formula(e) evaluated with 1 results within limits (all results (up to 1000) for each mass)

E-324332E
20101018-E-324332E 89 (3.174) AM (Cen,10, 80.00, Ht,5000.0,0.00,1.00); Sm (Md, 3.00)



Minimum:				-1.5		
Maximum:		200.0	5.0	50.0		
Mass	Calc. Mass	mDa	PPM	DBE	Score	Formula
535.3773	535.3763	1.0	1.8	7.5	1	C33 H52 O4 Na

Figure S64. HRESIMS spectrum of compound **8**

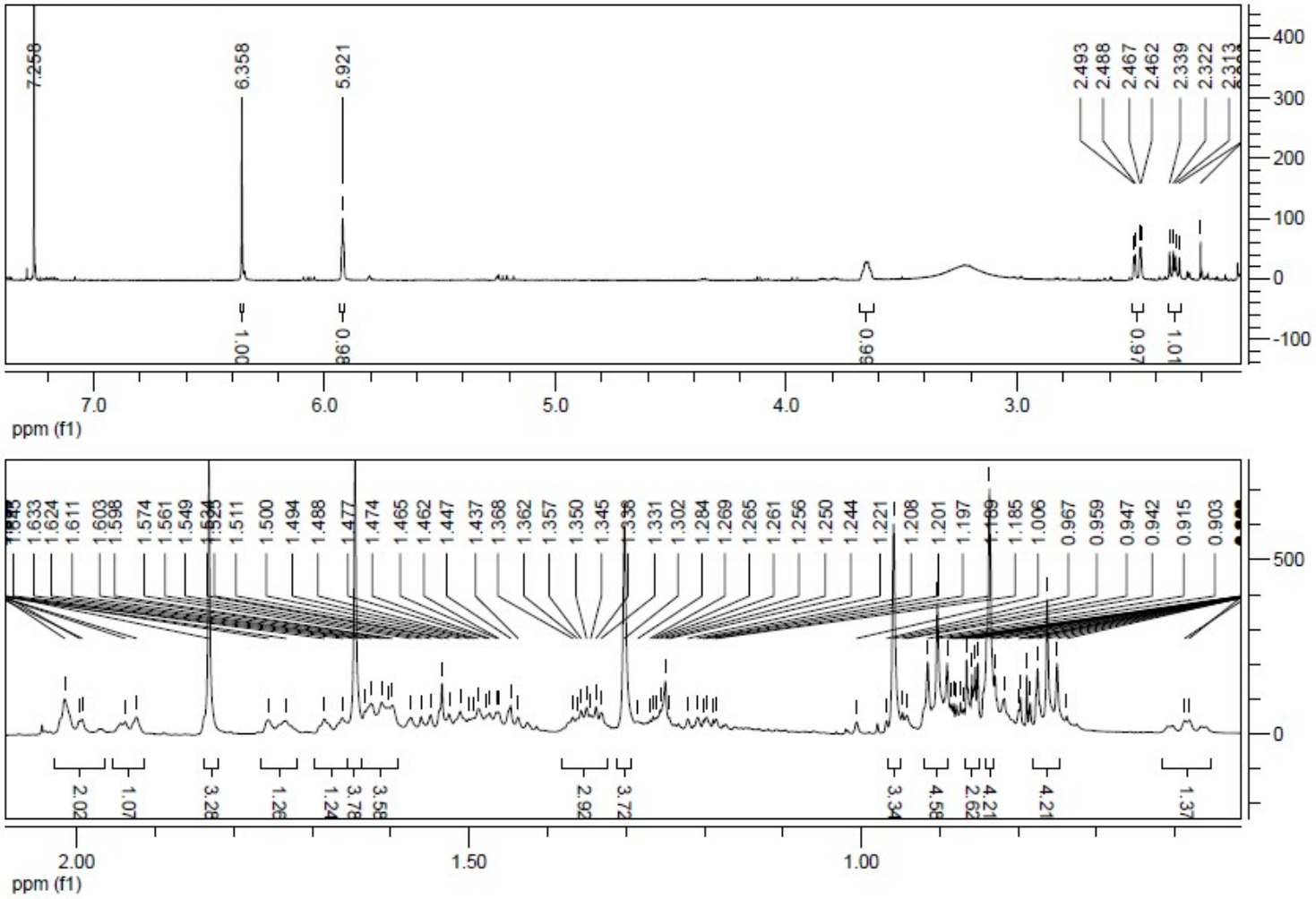


Figure S65. ^{1}H NMR (600 MHz, $CDCl_3$) spectrum of compound **9**

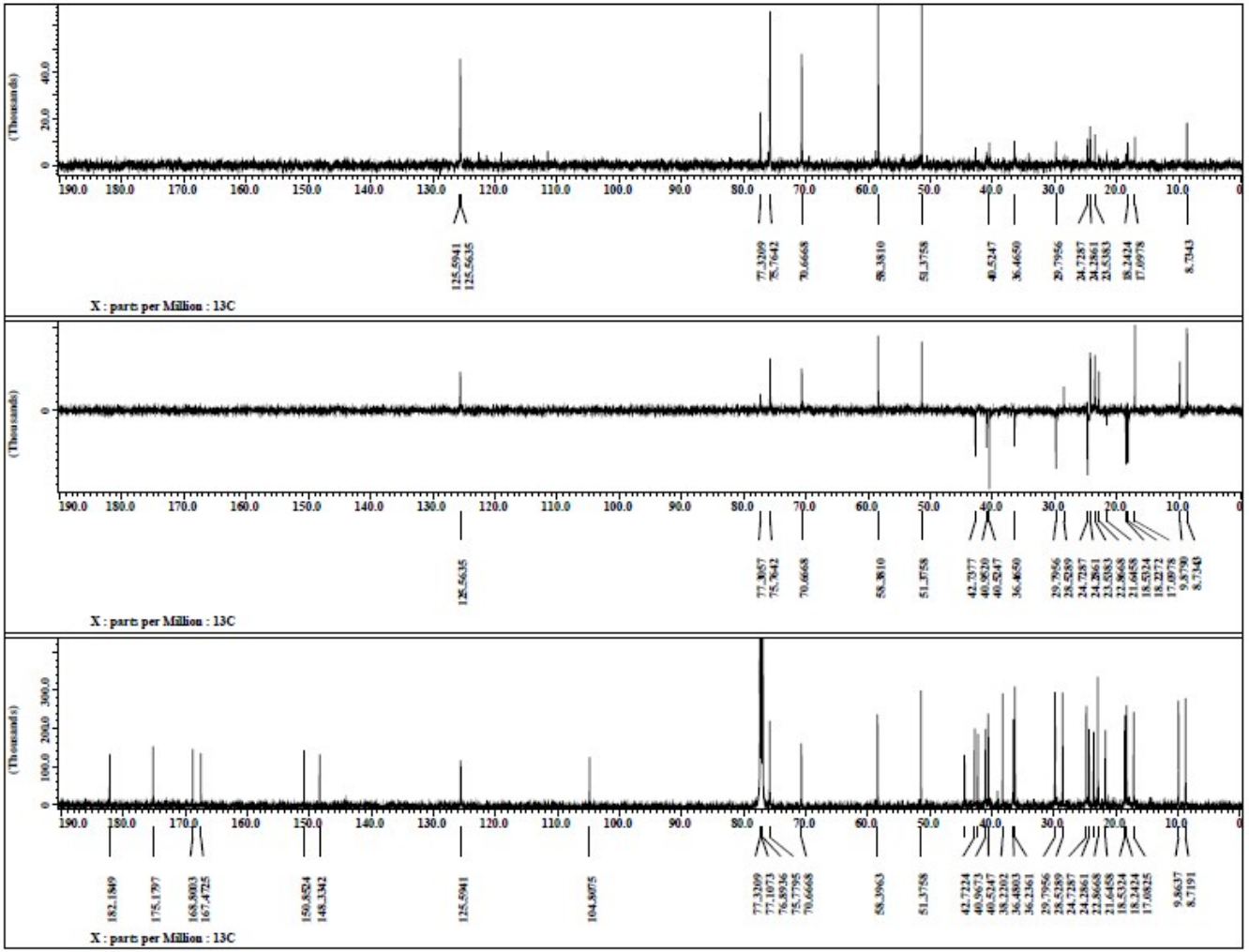


Figure S66. ^{13}C and DEPT NMR (150 MHz, $CDCl_3$) spectra of compound **9**

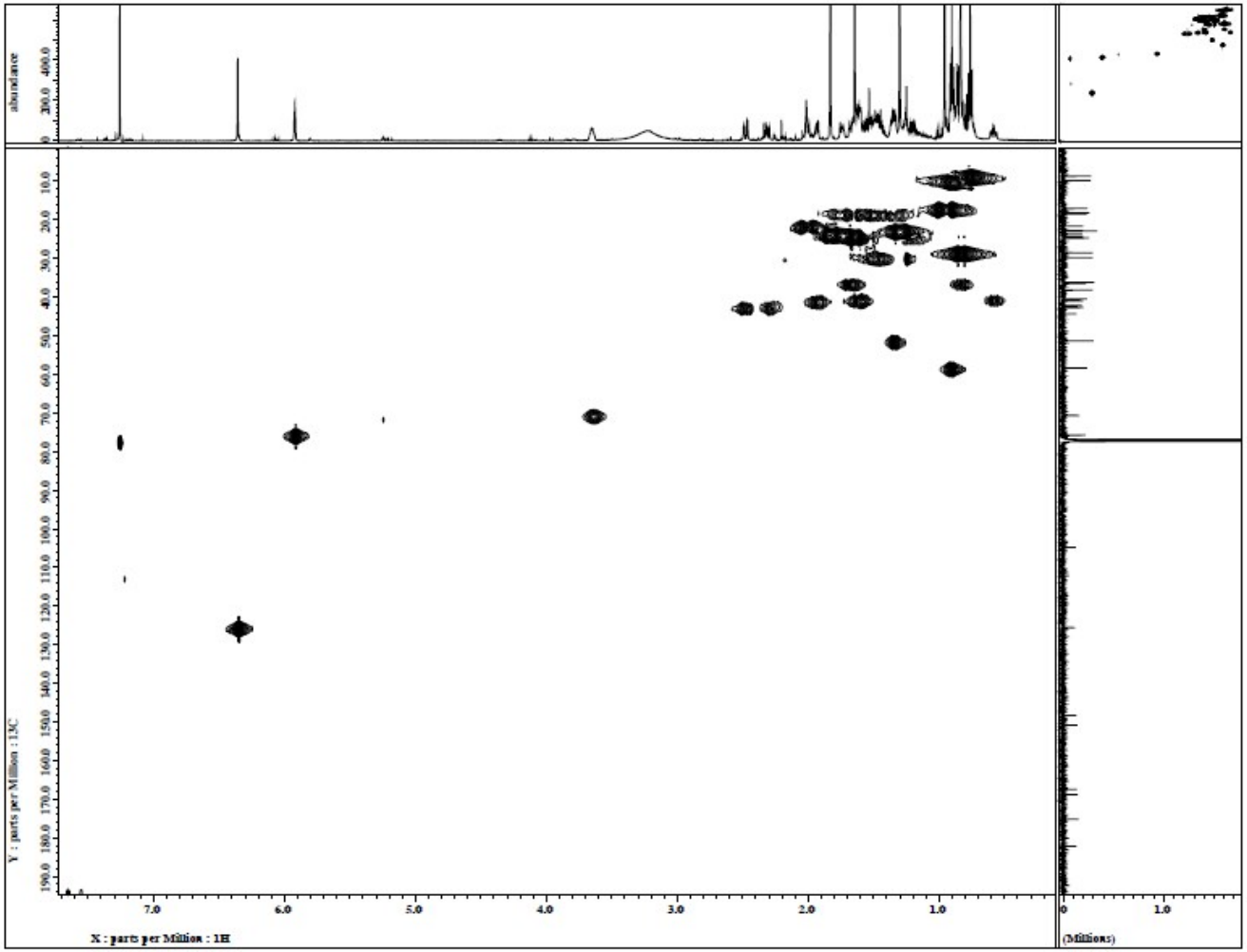


Figure S67. HMQC ($CDCl_3$) spectrum of compound **9**

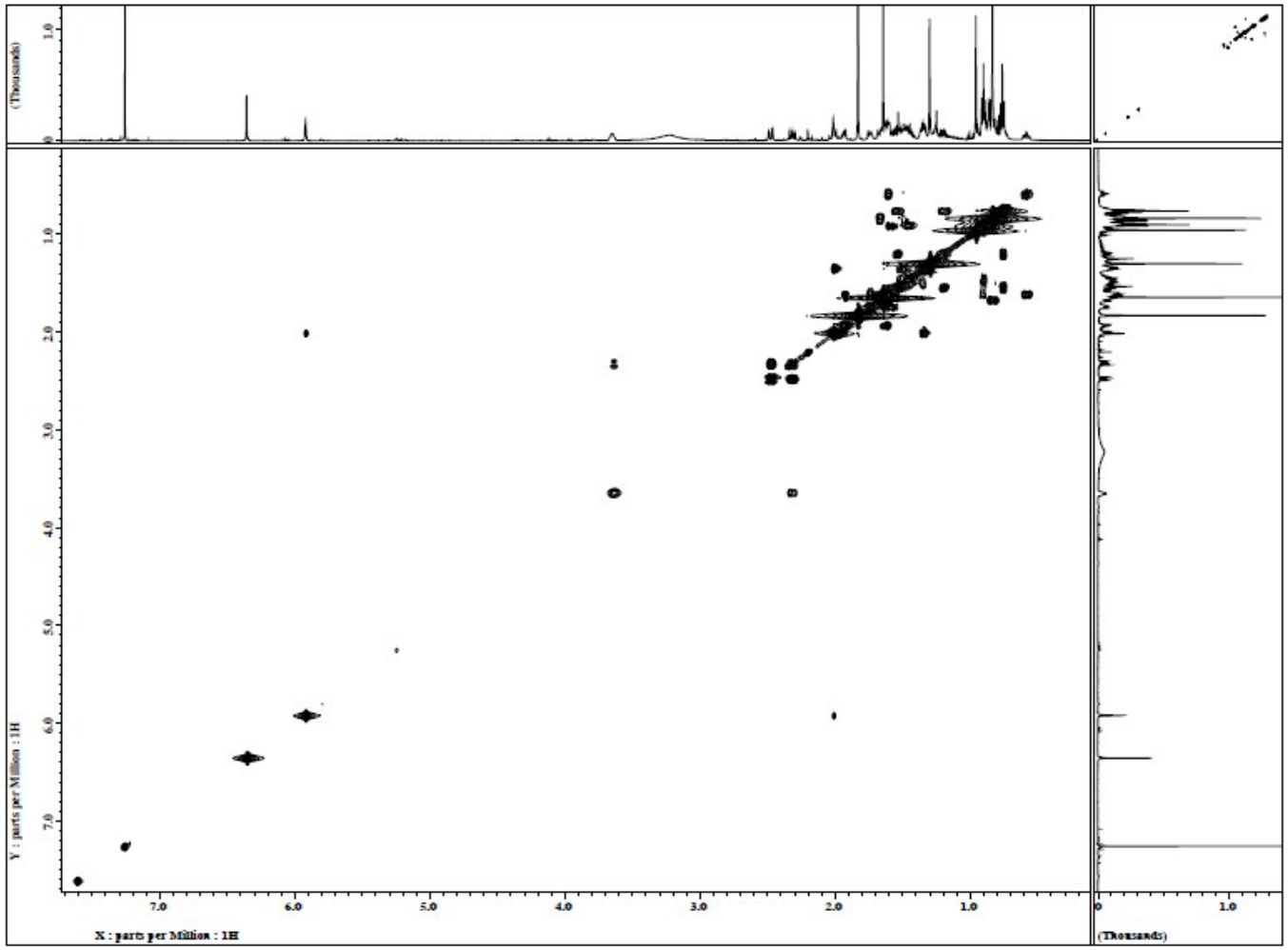


Figure S68. COSY ($CDCl_3$) spectrum of compound **9**

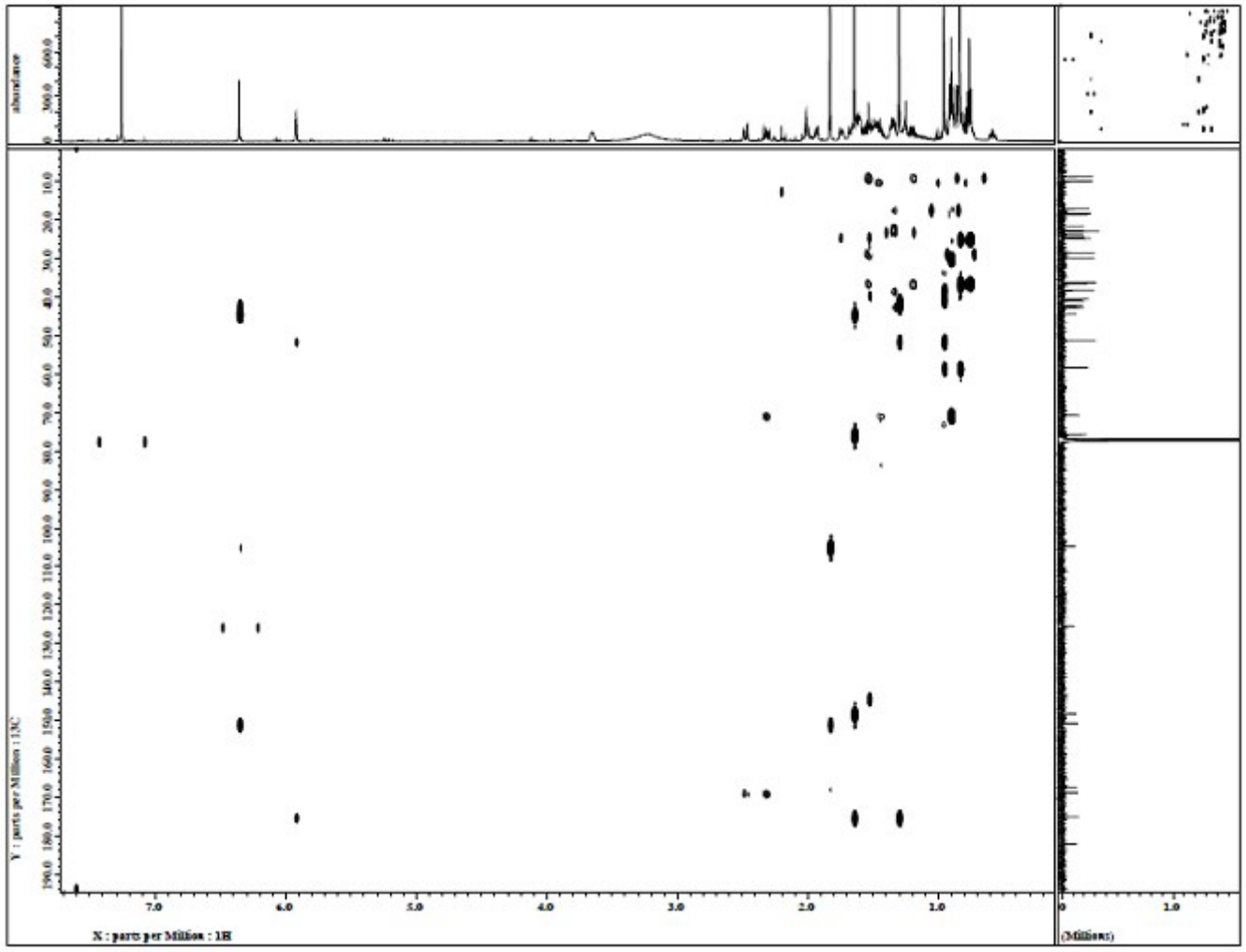


Figure S69. HMBC ($CDCl_3$) spectrum of compound **9**

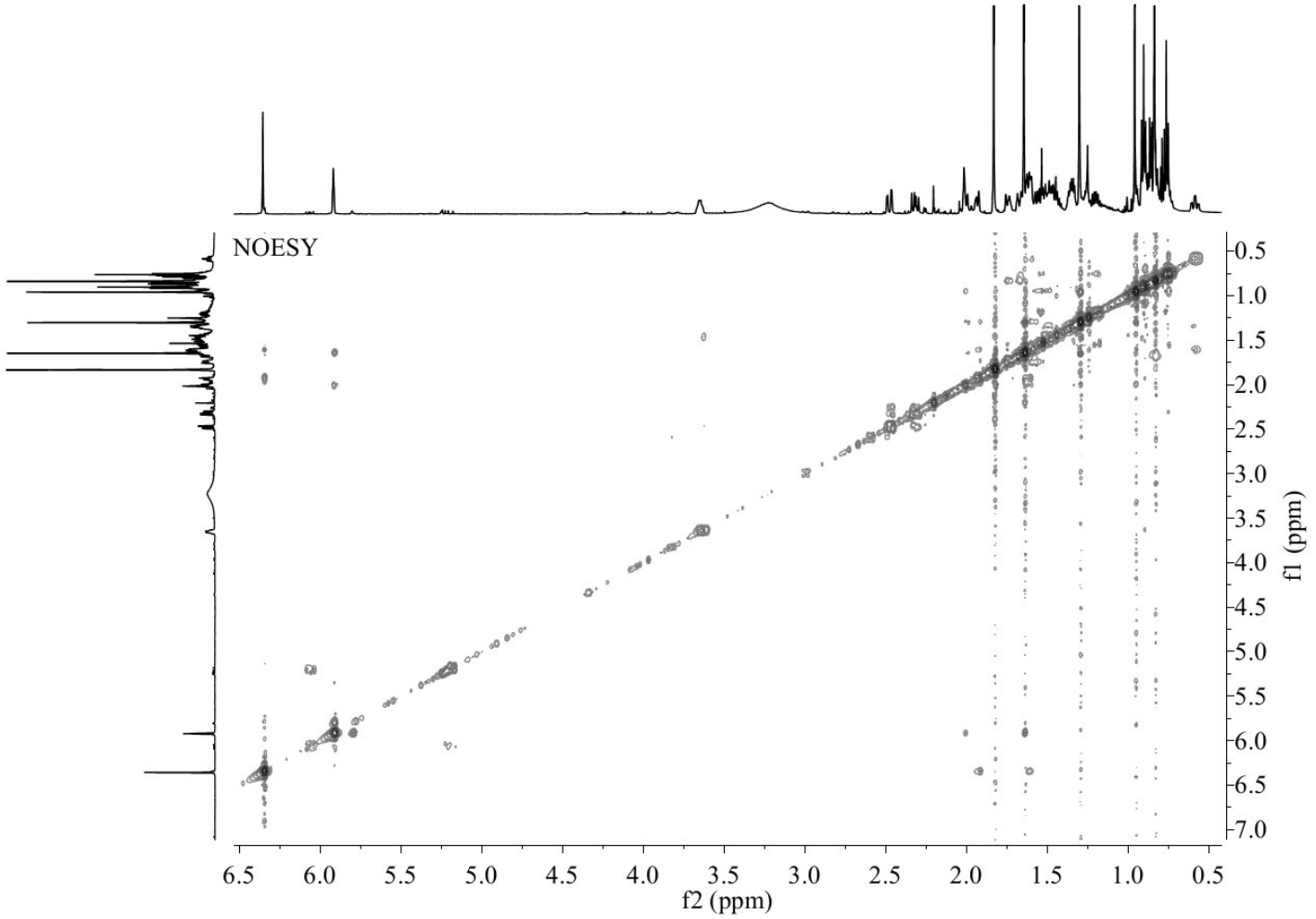


Figure S70. NOESY ($CDCl_3$) spectrum of compound **9**

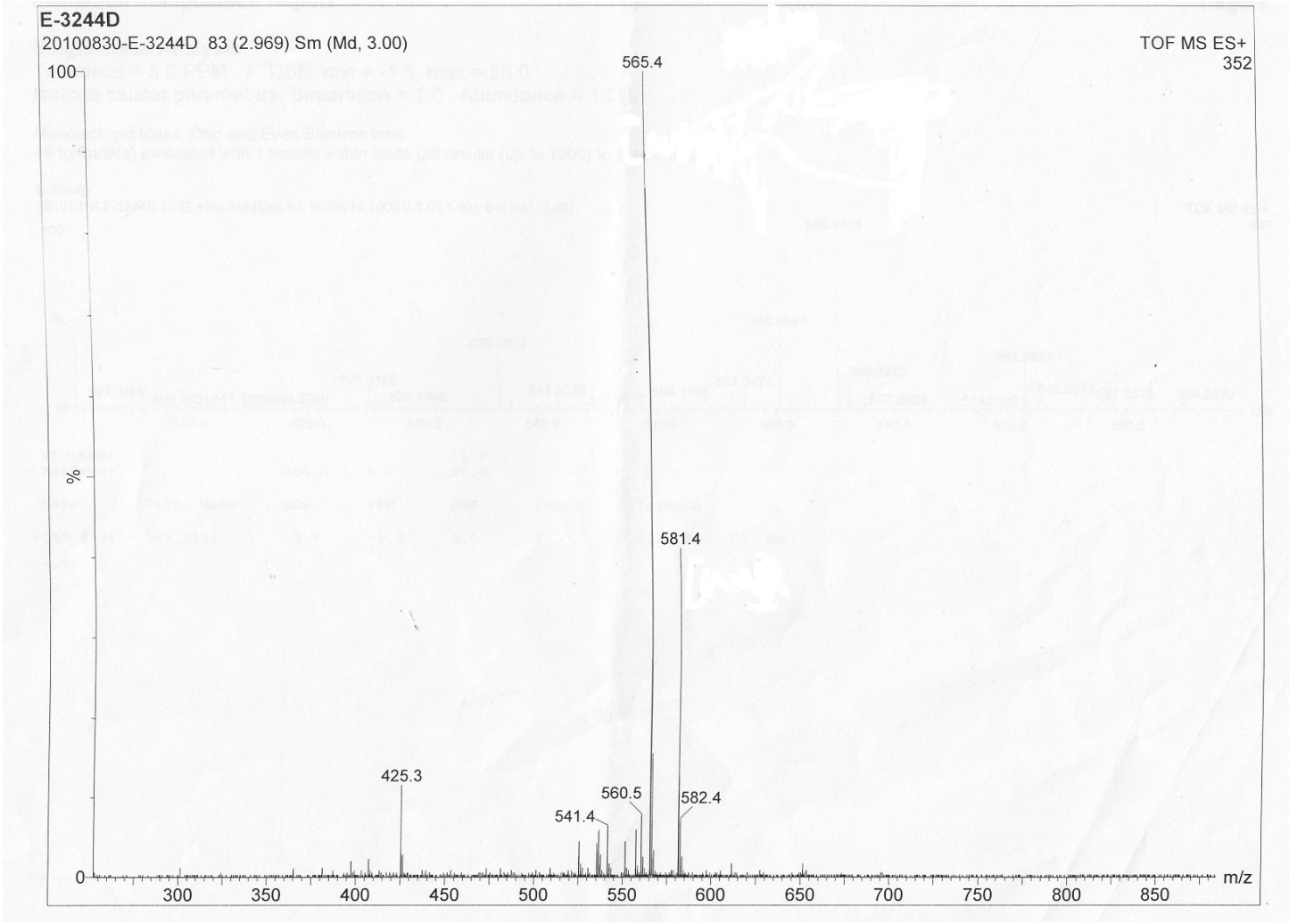


Figure S71. ESIMS spectrum of compound **9**

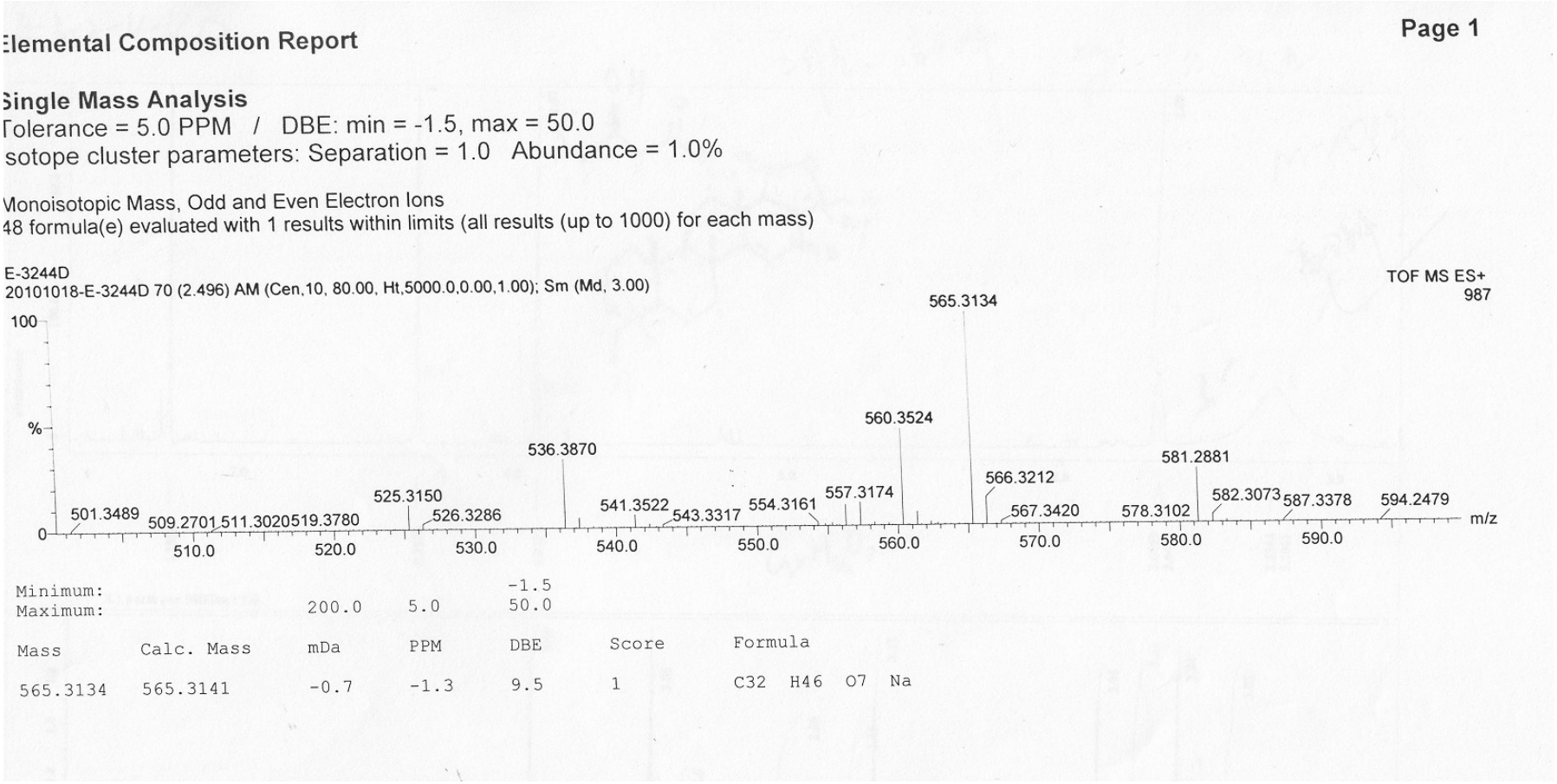


Figure S72. HRESIMS spectrum of compound **9**

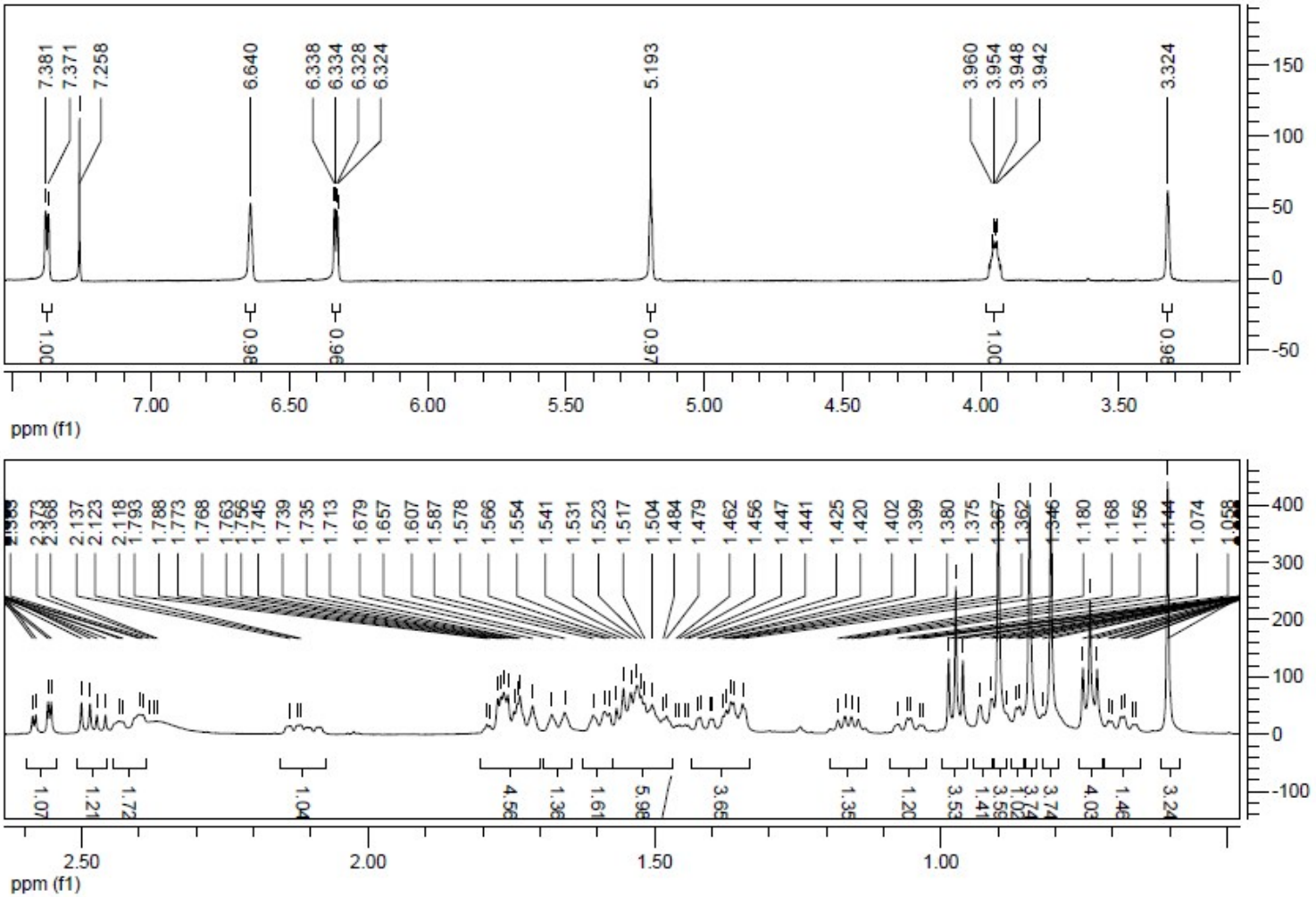


Figure S73. ^{1}H NMR (600 MHz, $CDCl_3$) spectrum of compound **10**

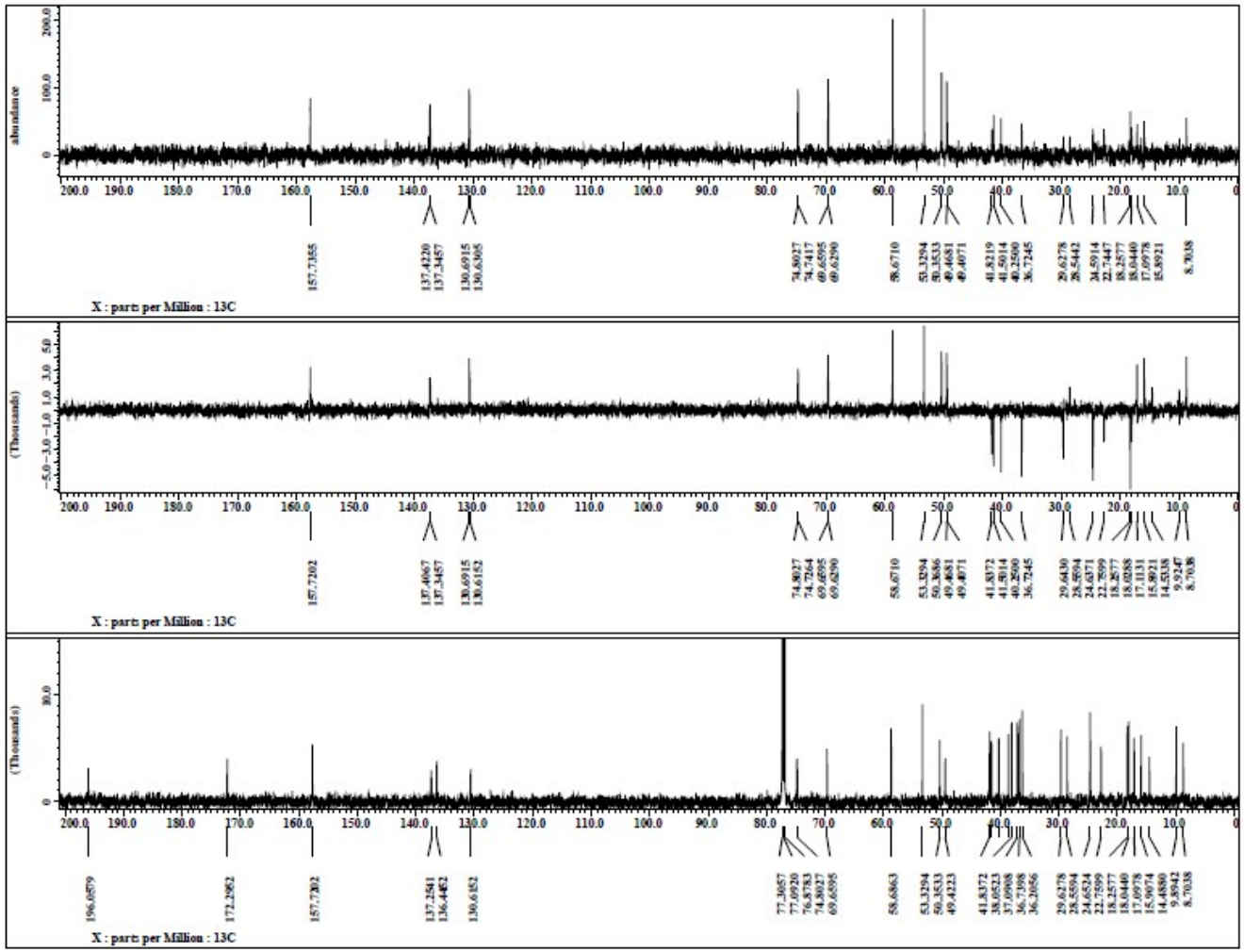


Figure S74. ^{13}C and DEPT NMR (150 MHz, $CDCl_3$) spectra of compound **10**

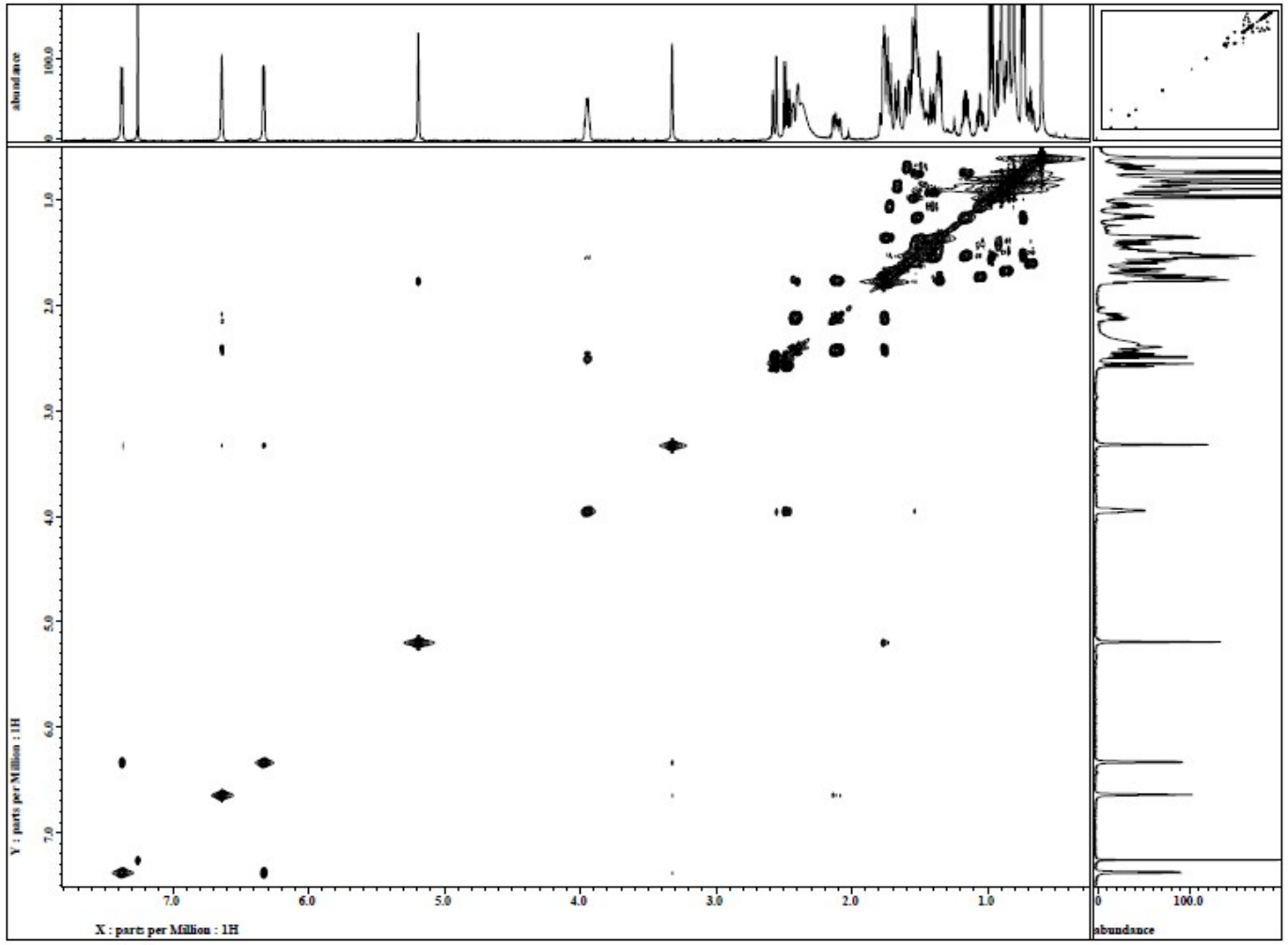


Figure S75. COSY ($CDCl_3$) spectrum of compound **10**

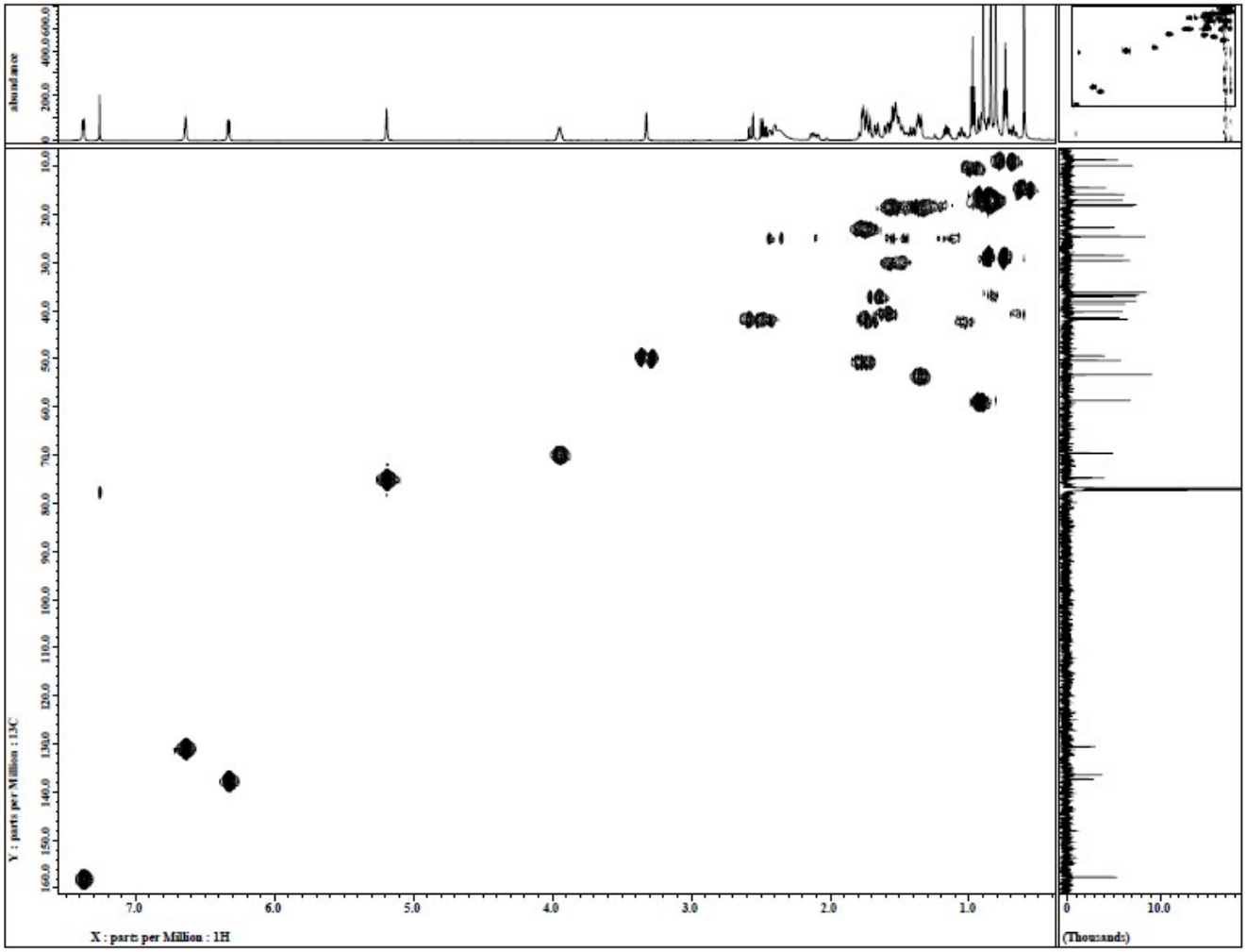


Figure S76. HMQC ($CDCl_3$) spectrum of compound **10**

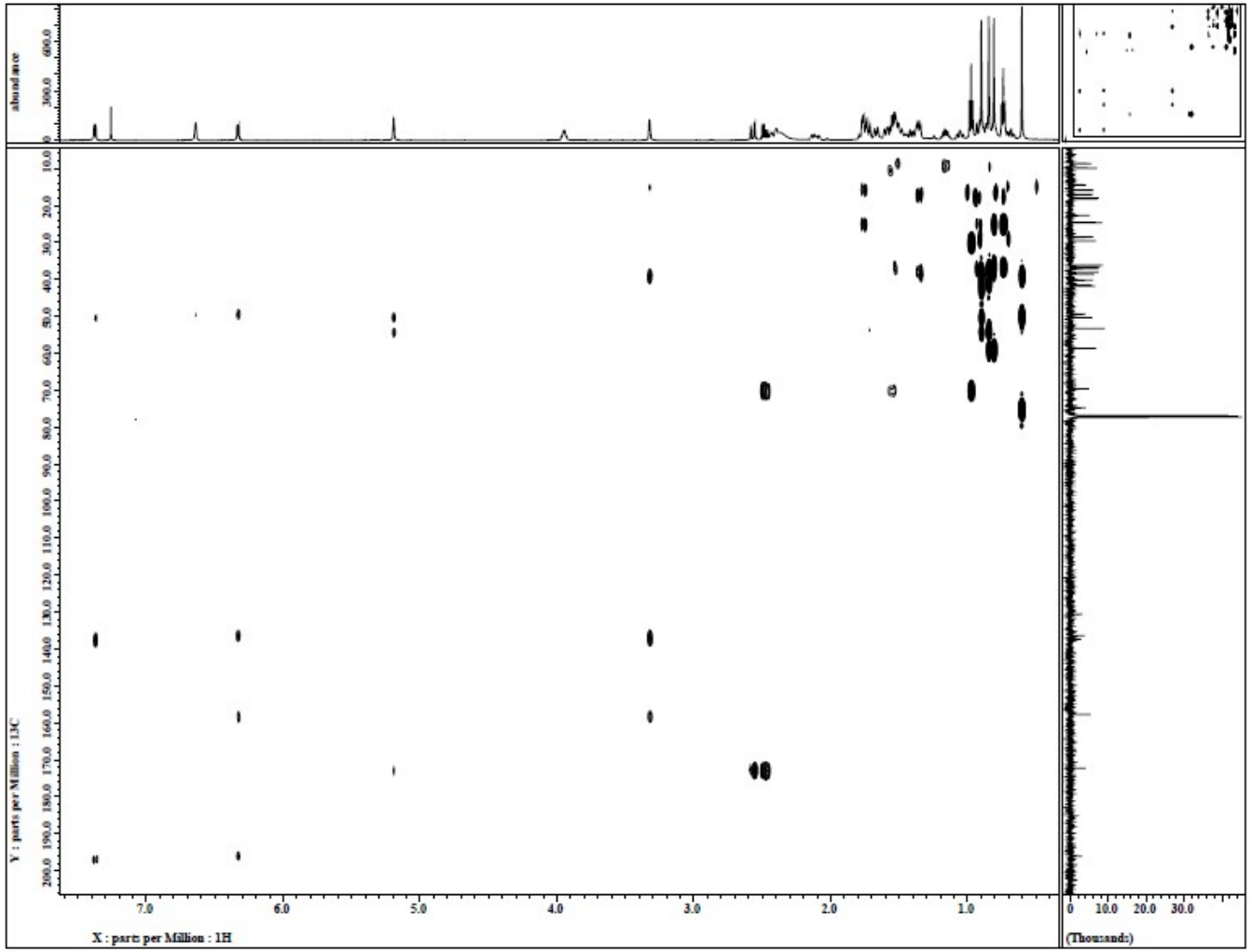


Figure S77. HMBC ($CDCl_3$) spectrum of compound **10**

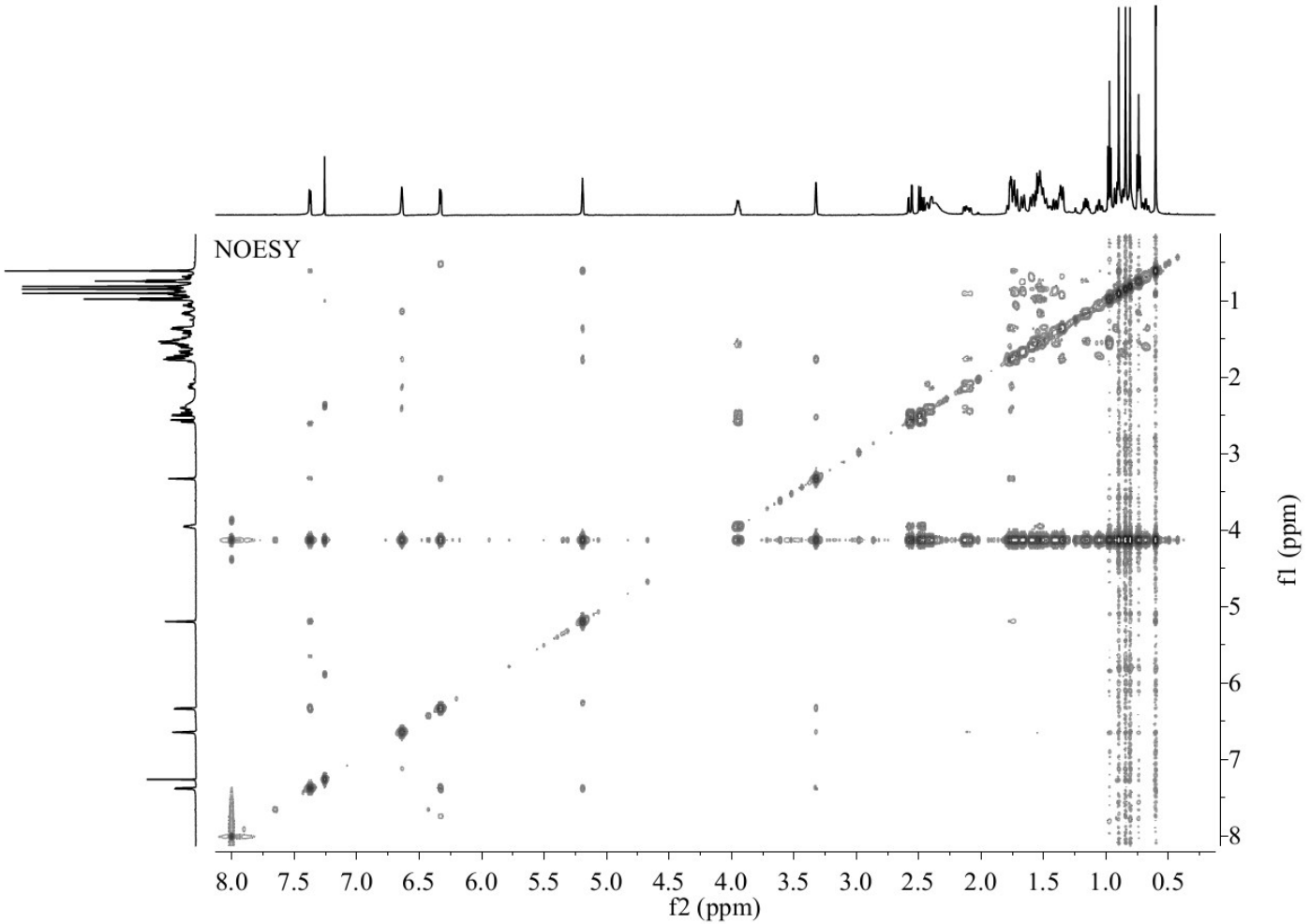


Figure S78. NOESY ($CDCl_3$) spectrum of compound **10**

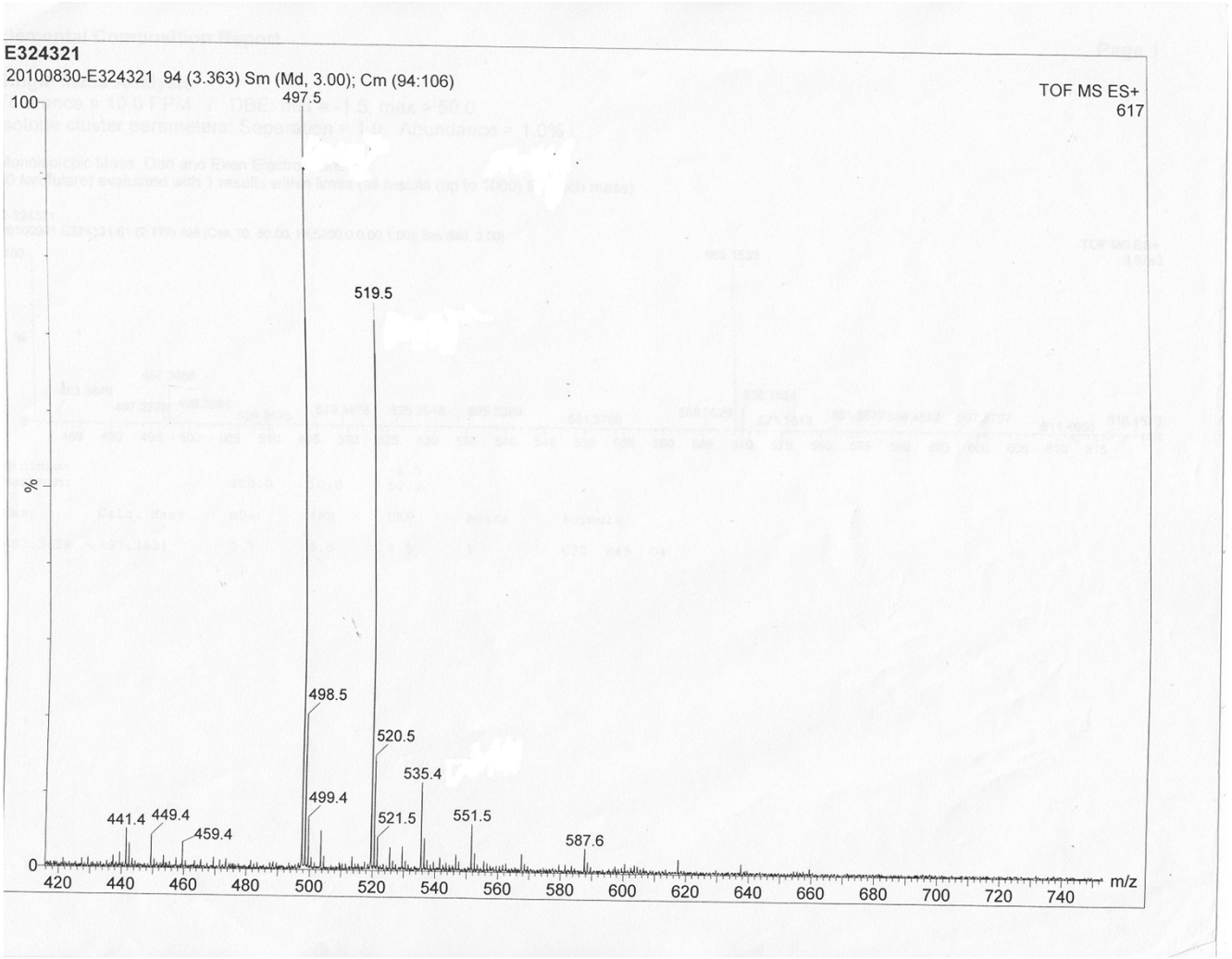


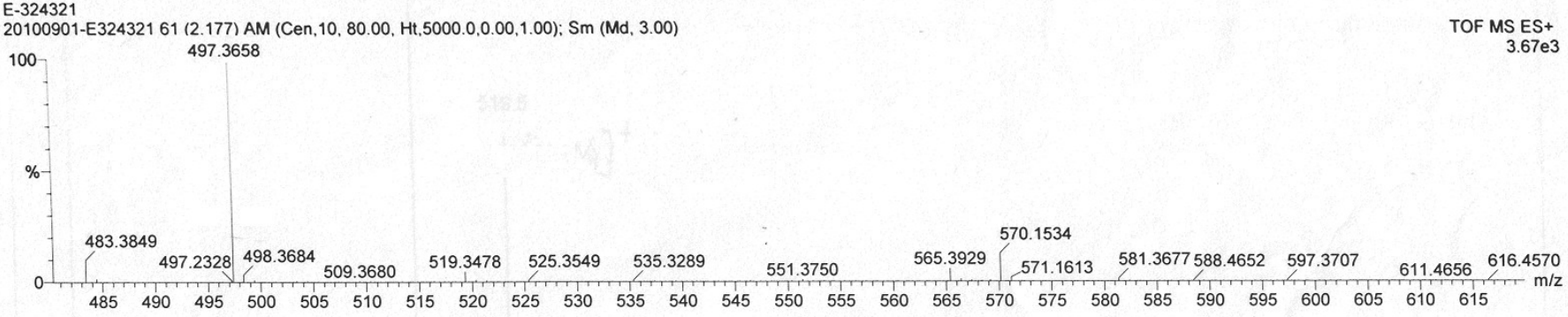
Figure S79. ESIMS spectrum of compound **10**

Elemental Composition Report Page 1

Single Mass Analysis
Tolerance = 10.0 PPM / DBE: min = -1.5, max = 50.0
Isotope cluster parameters: Separation = 1.0 Abundance = 1.0%

Monoisotopic Mass, Odd and Even Electron Ions
50 formula(e) evaluated with 1 results within limits (all results (up to 1000) for each mass)

E-324321
20100901-E324321 61 (2.177) AM (Cen,10, 80.00, Ht,5000.0,0.00,1.00); Sm (Md, 3.00)



Minimum:				-1.5		
Maximum:		200.0	10.0	50.0		
Mass	Calc. Mass	mDa	PPM	DBE	Score	Formula
497.3658	497.3631	2.7	5.5	8.5	1	C32 H49 O4

Figure S80. HRESIMS spectrum of compound **10**

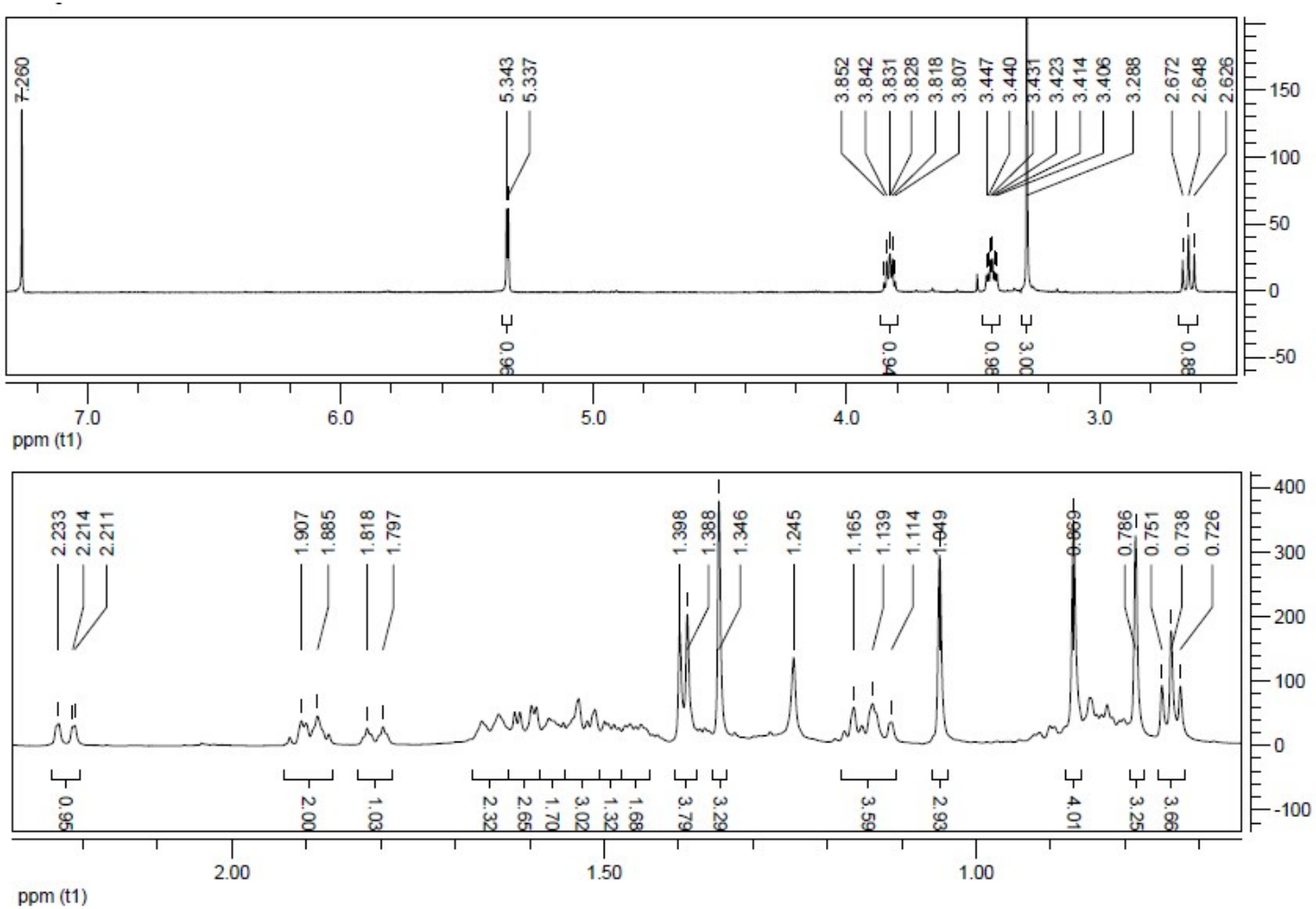


Figure S81. ^{1}H NMR (600 MHz, $CDCl_3$) spectrum of compound **11**

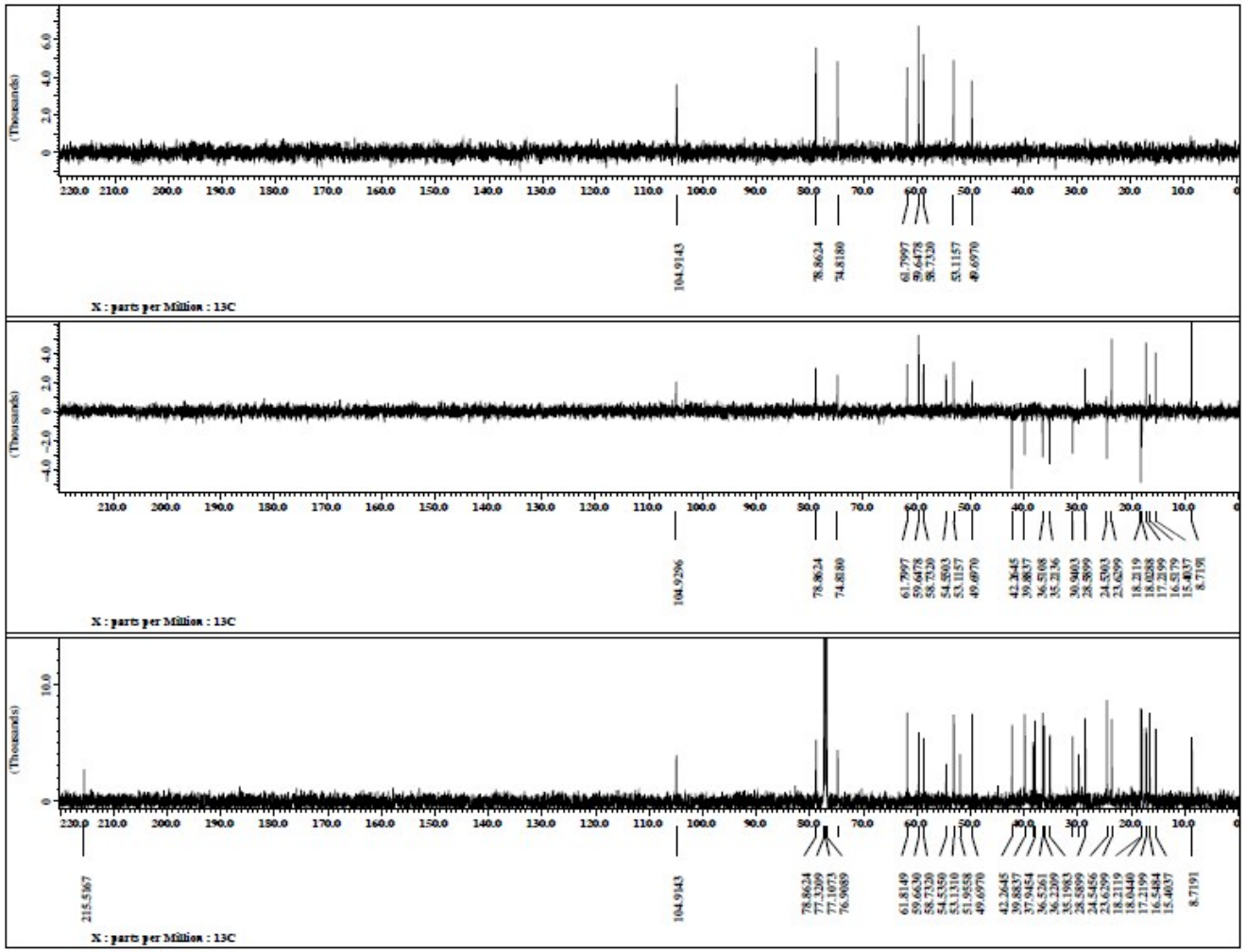


Figure S82. ^{13}C and DEPT NMR (150 MHz, $CDCl_3$) spectra of compound **11**

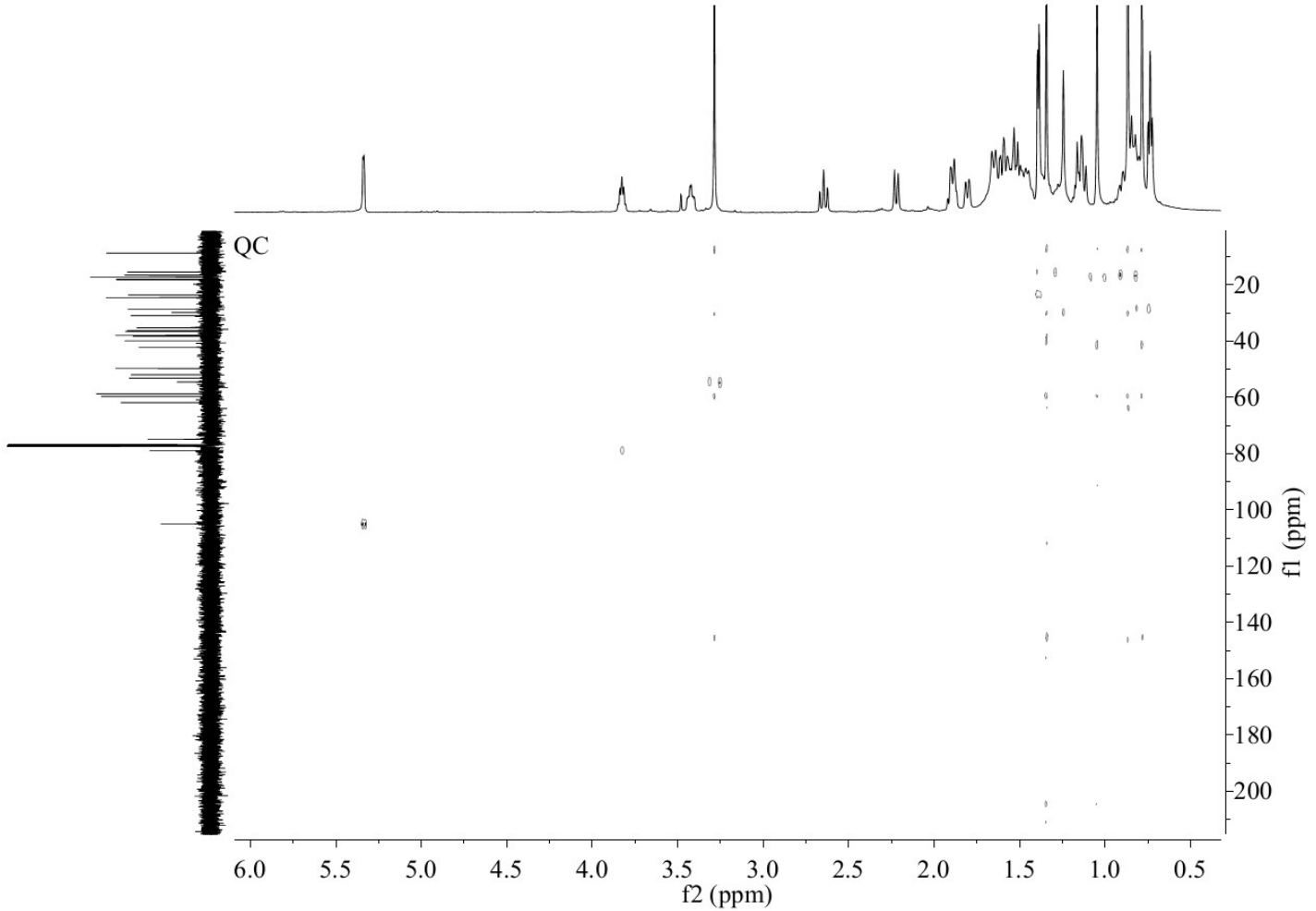


Figure S83. HMQC ($CDCl_3$) spectrum of compound **11**

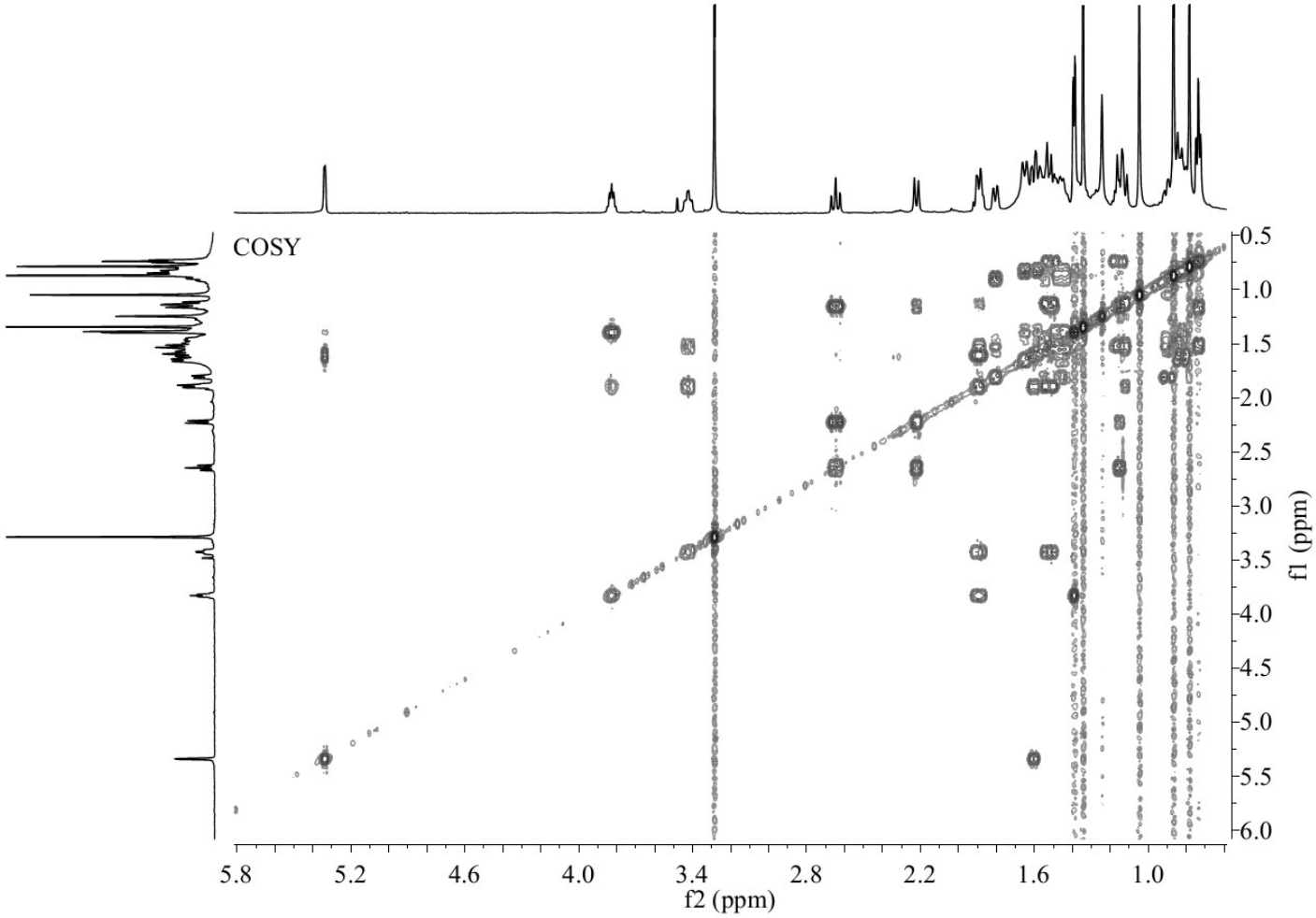


Figure S84. COSY ($CDCl_3$) spectrum of compound **11**

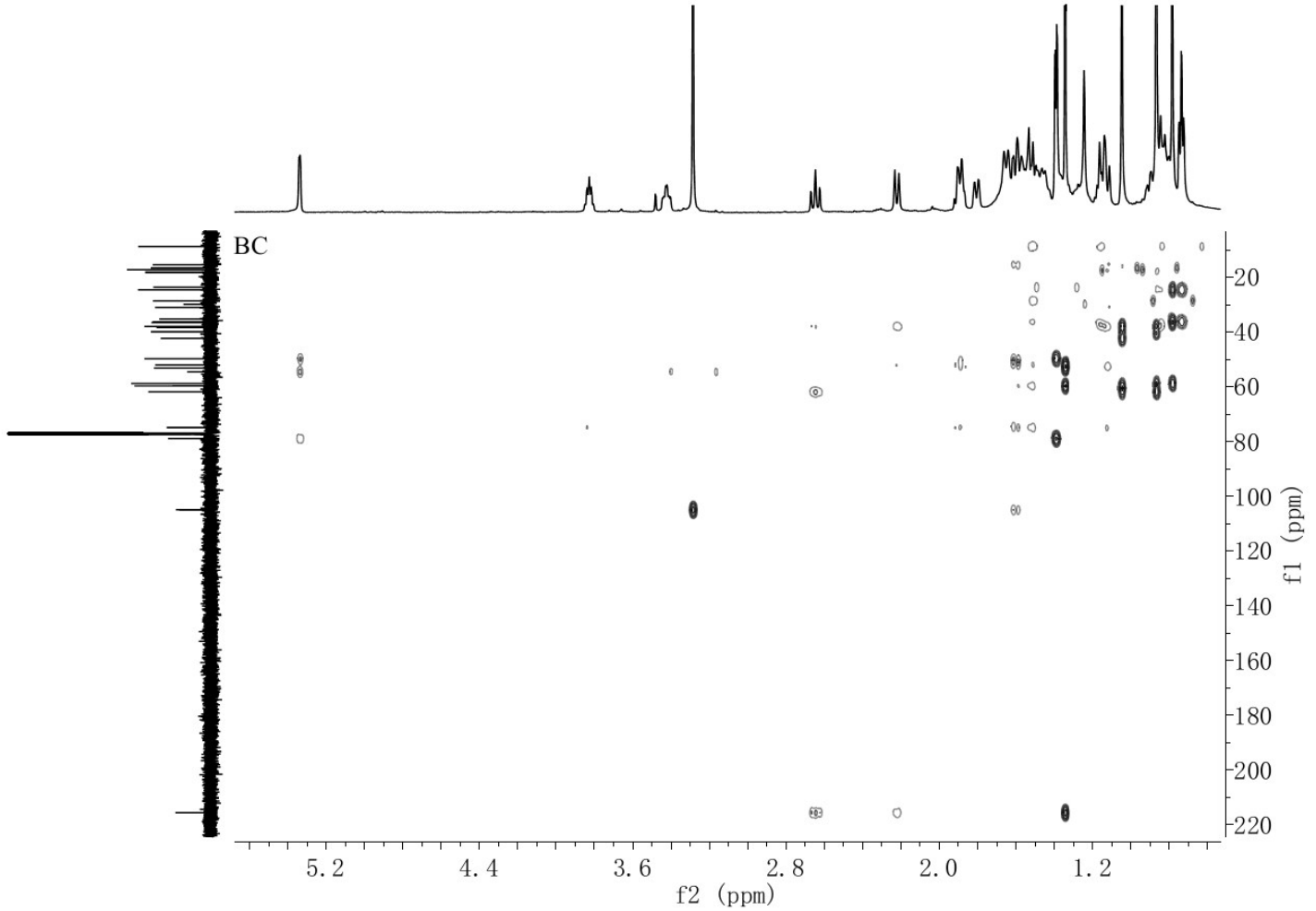


Figure S85. HMBC ($CDCl_3$) spectrum of compound **11**

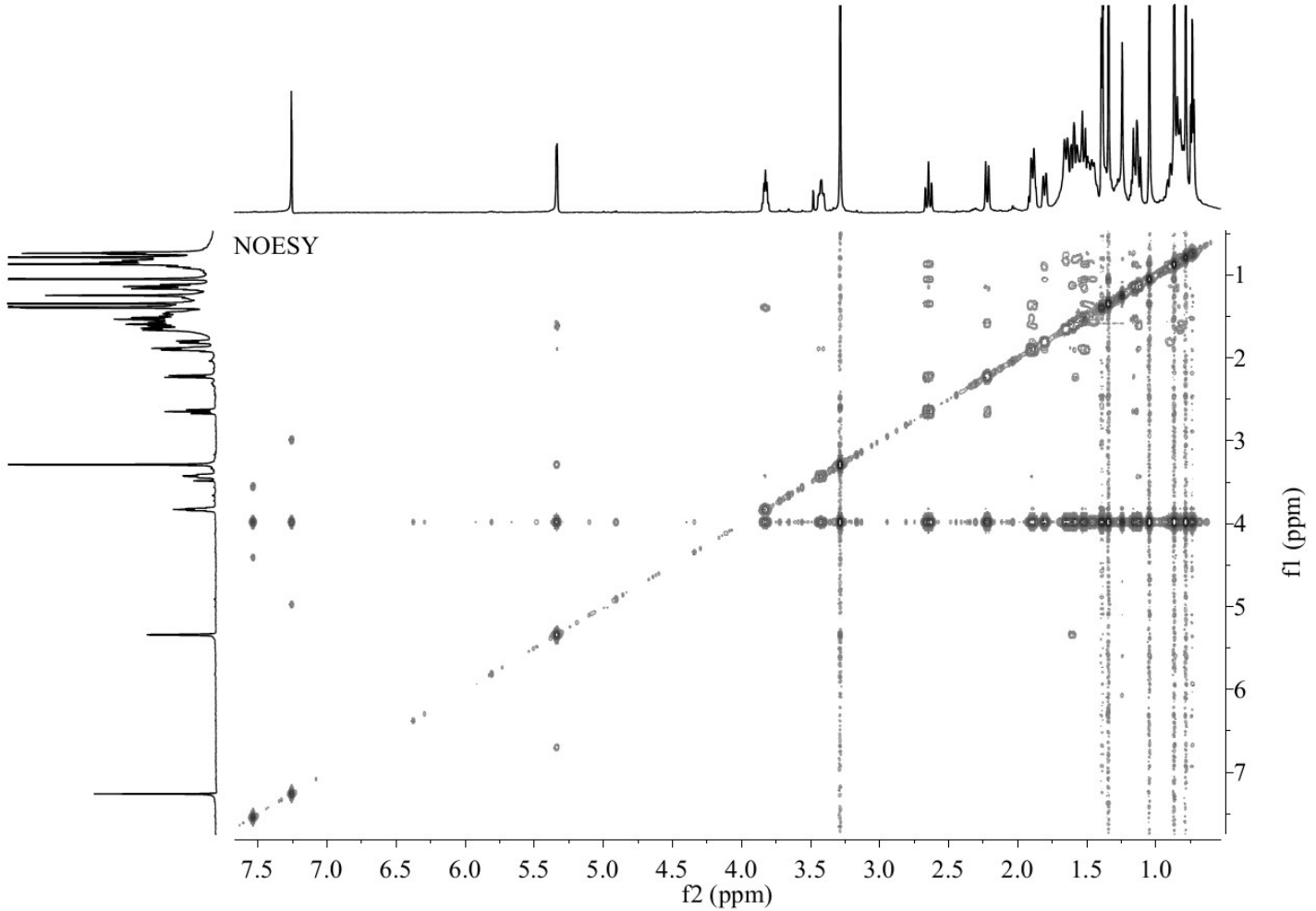


Figure S86. NOESY ($CDCl_3$) spectrum of compound **11**

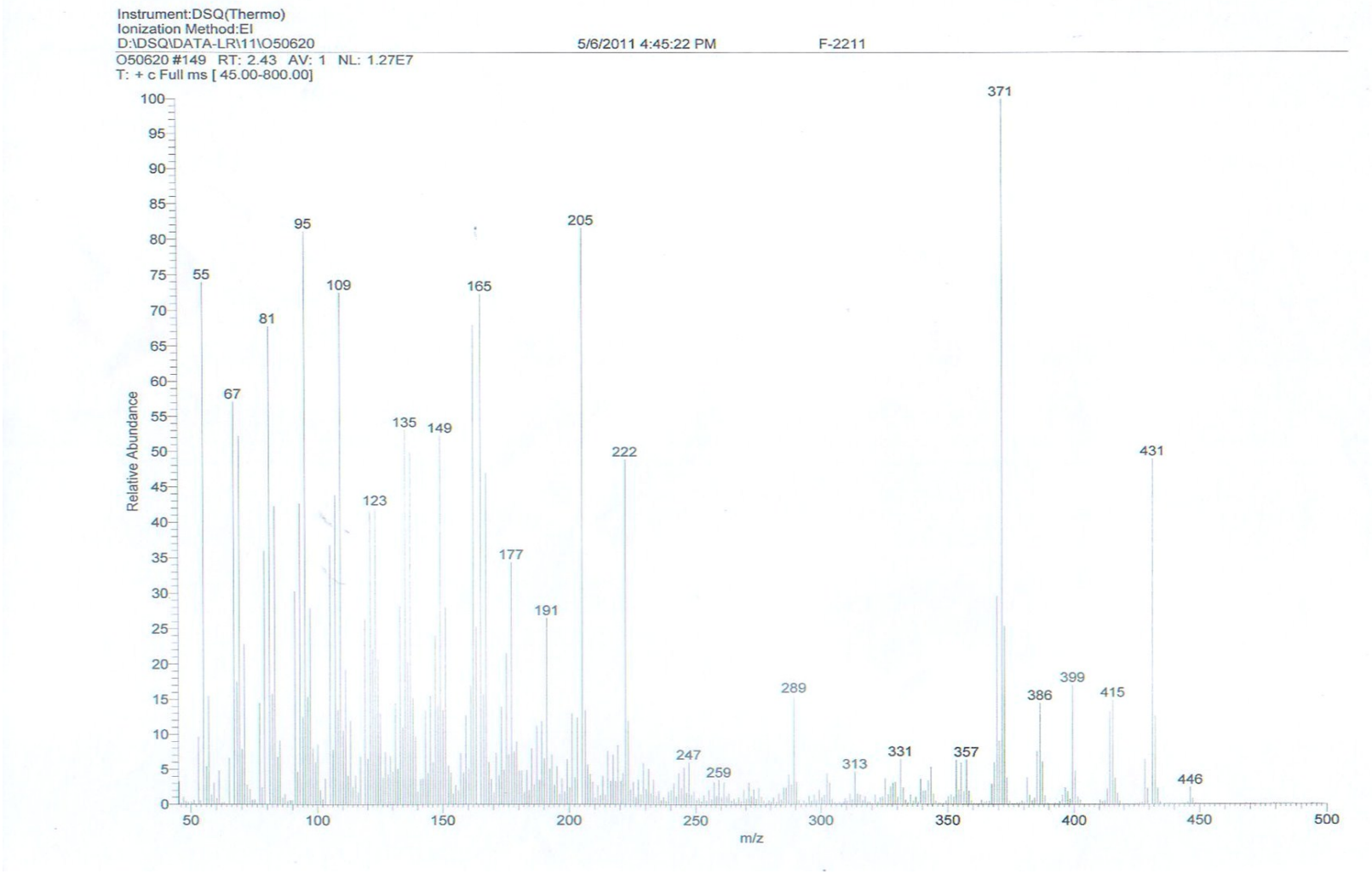


Figure S87. EIMS spectrum of compound **11**

SPECTRUM - MS
File : D:\DATA-HR\11\051705-f-2211-c1.RAW
Full ms [442.100 - 450.500] - Range: 442.100 - 450.500
Scan No. 13 of 22
Scan #: 13
RT: 0.53
Data points: 1

Mass	Relative Intensity	Theoretical Mass	Delta [ppm]	Delta [mmu]	RDB	Composition
446.3395	92.8	446.3391	1.0	0.4	6.0	C_{28} H_{46} O_4

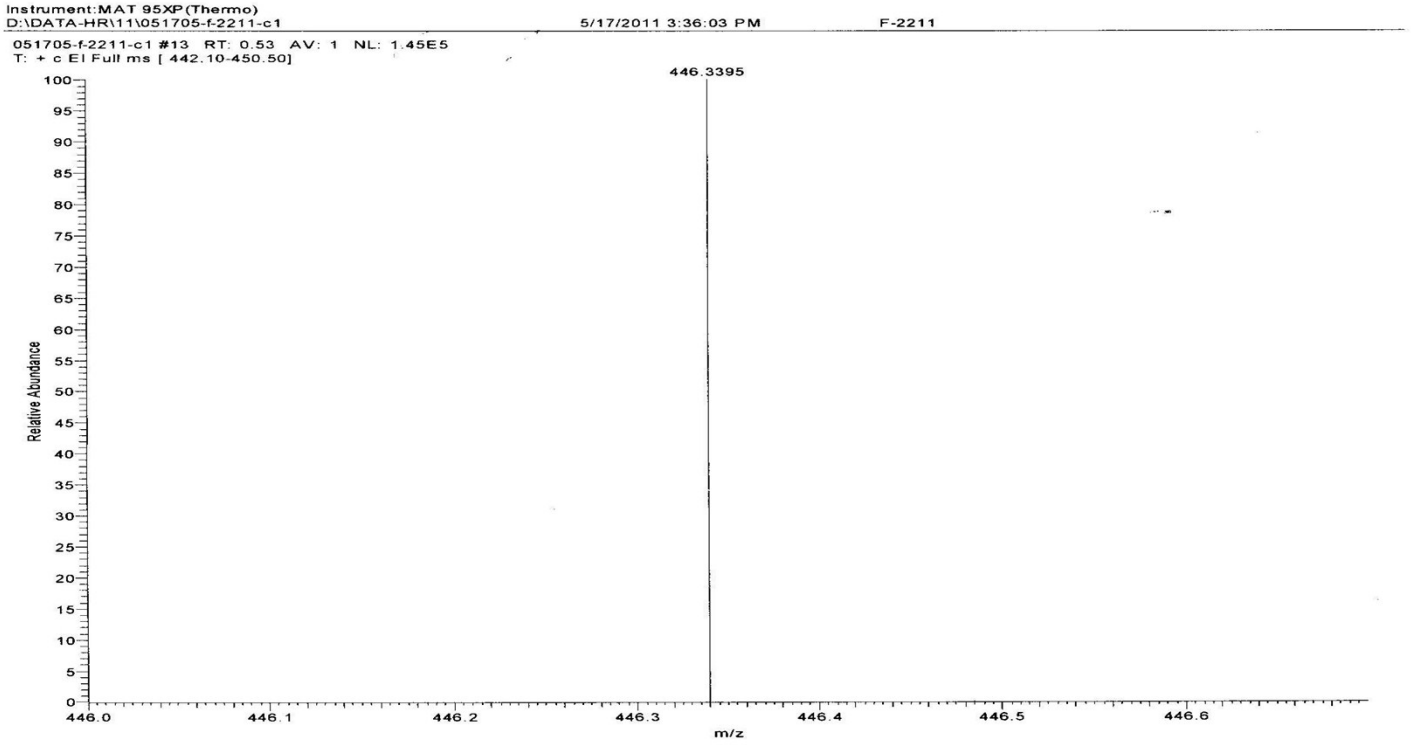


Figure S88. HREIMS spectrum of compound **11**

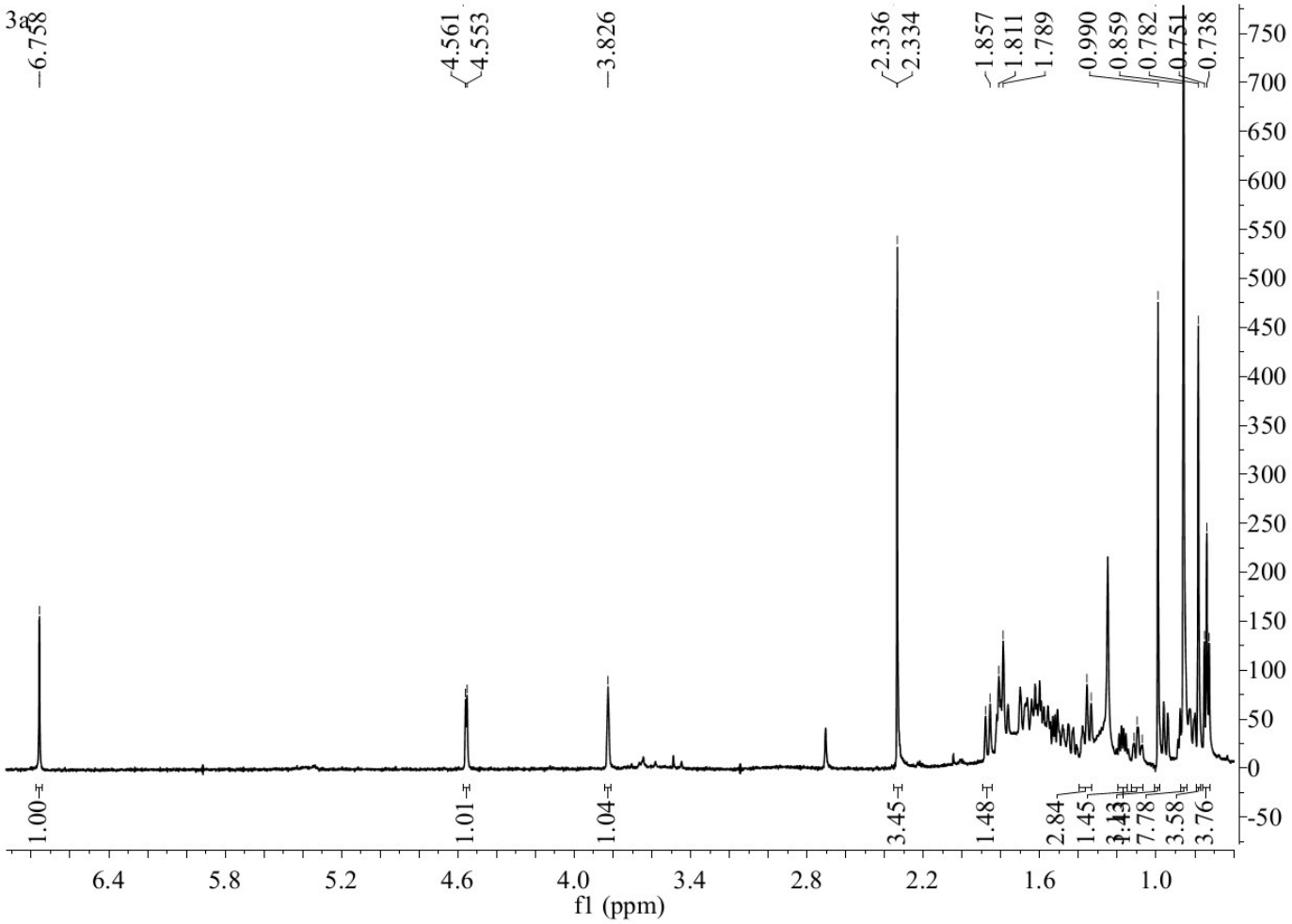


Figure S89. ^{1}H NMR (600 MHz, $CDCl_3$) spectrum of compound **3a**

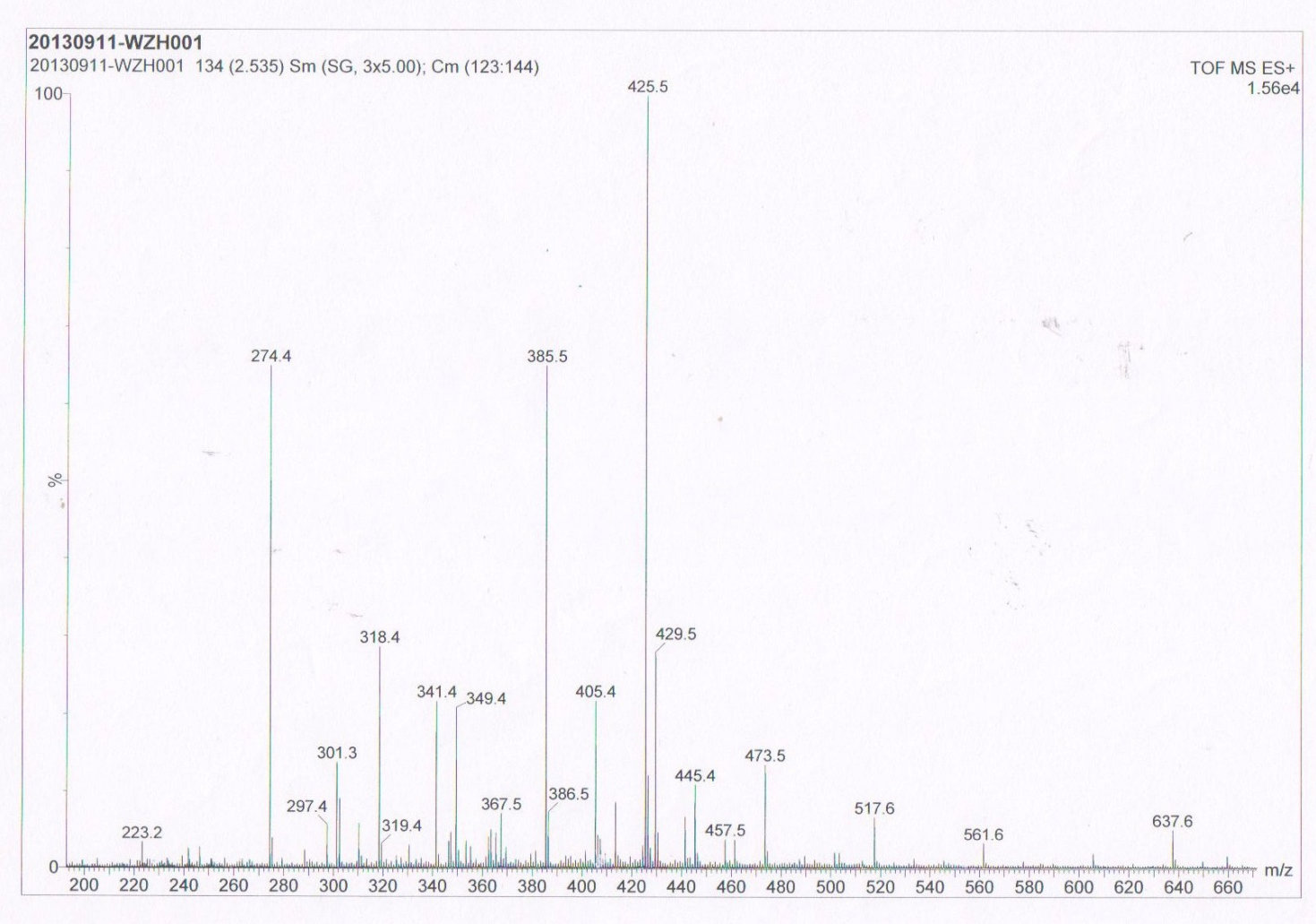


Figure S90. ESIMS spectrum of compound **3a**

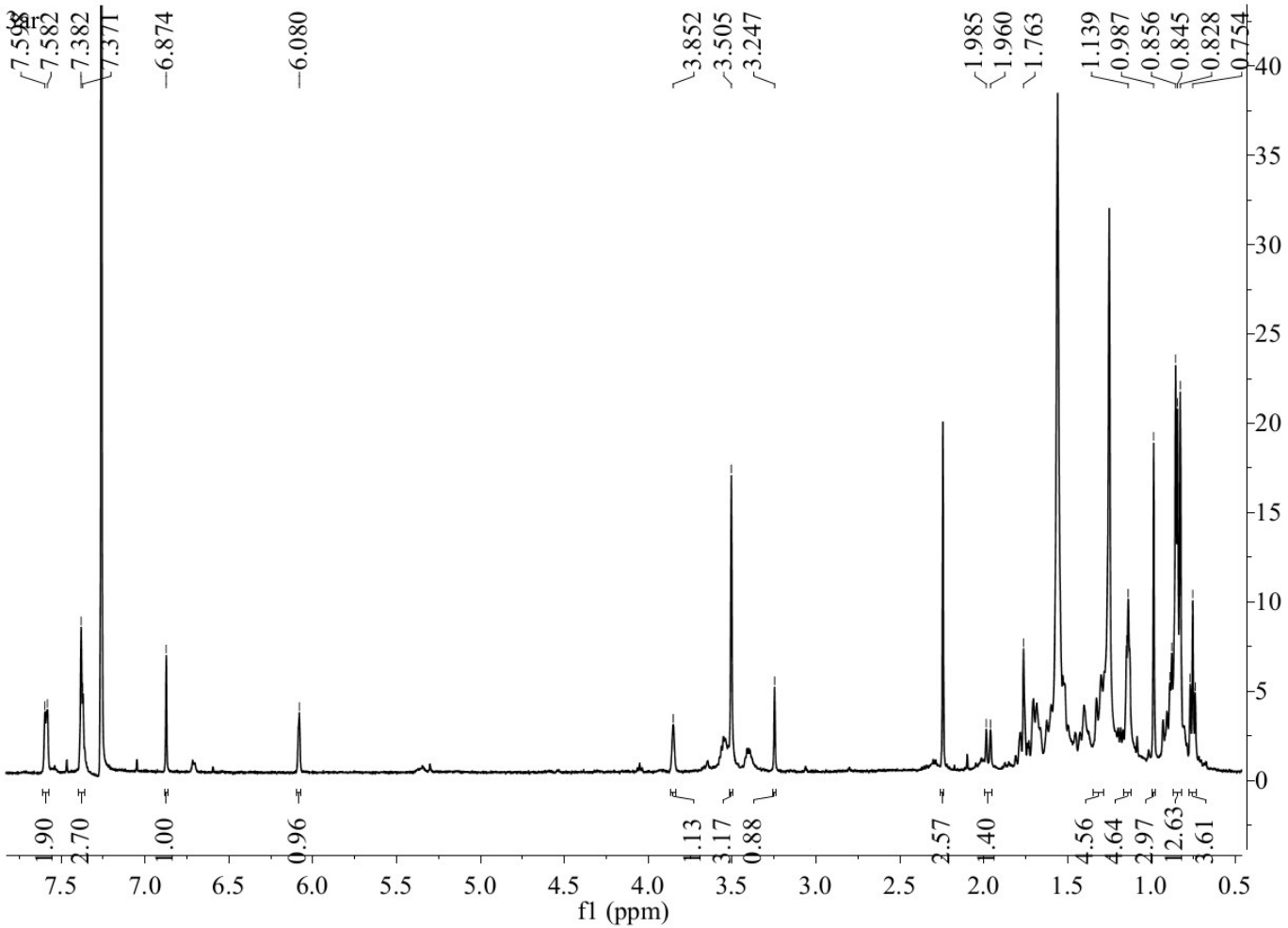


Figure S91. ^{1}H NMR (600 MHz, $CDCl_3$) spectrum of compound **3ar**

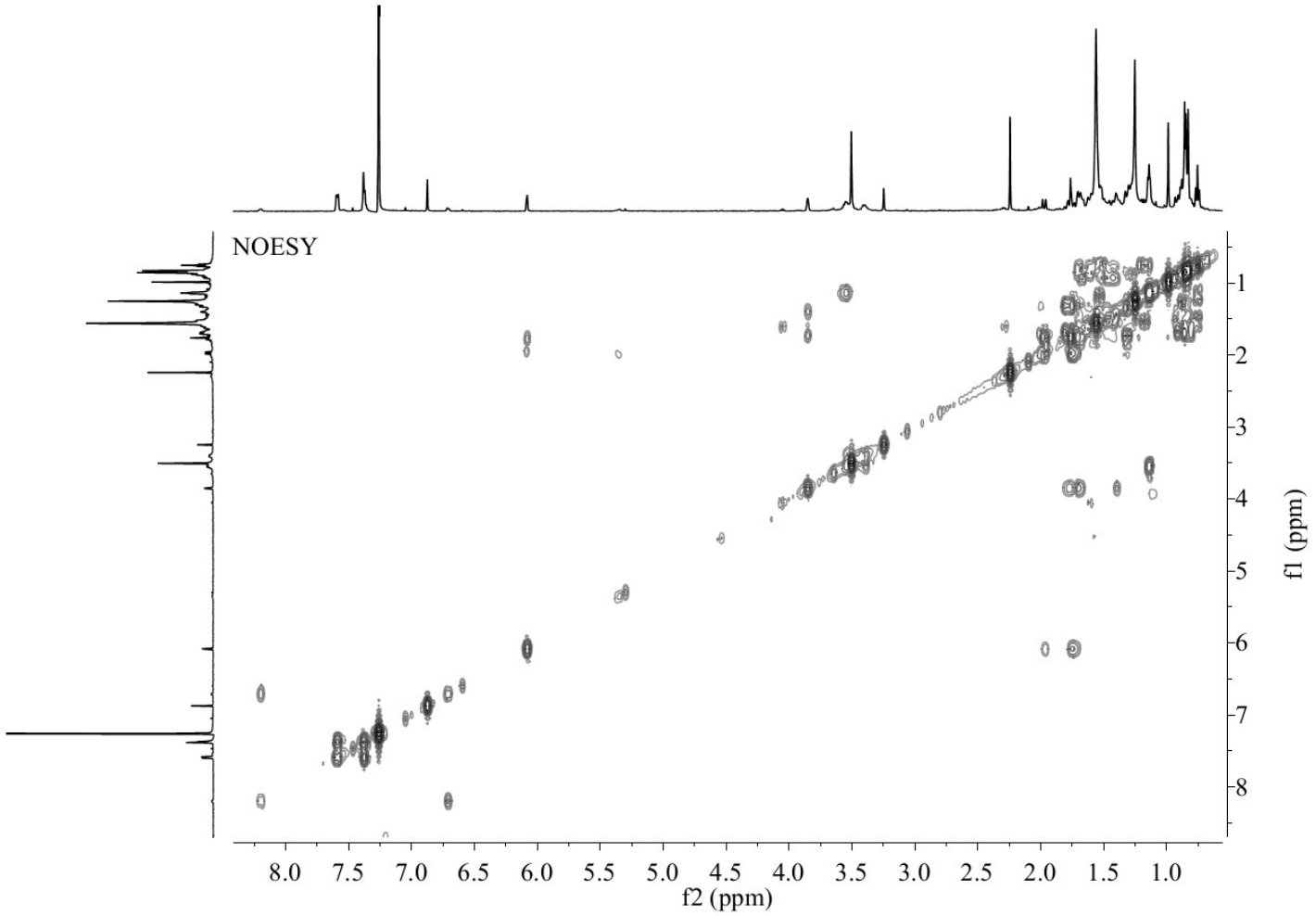


Figure S92. COSY ($CDCl_3$) spectrum of compound **3ar**

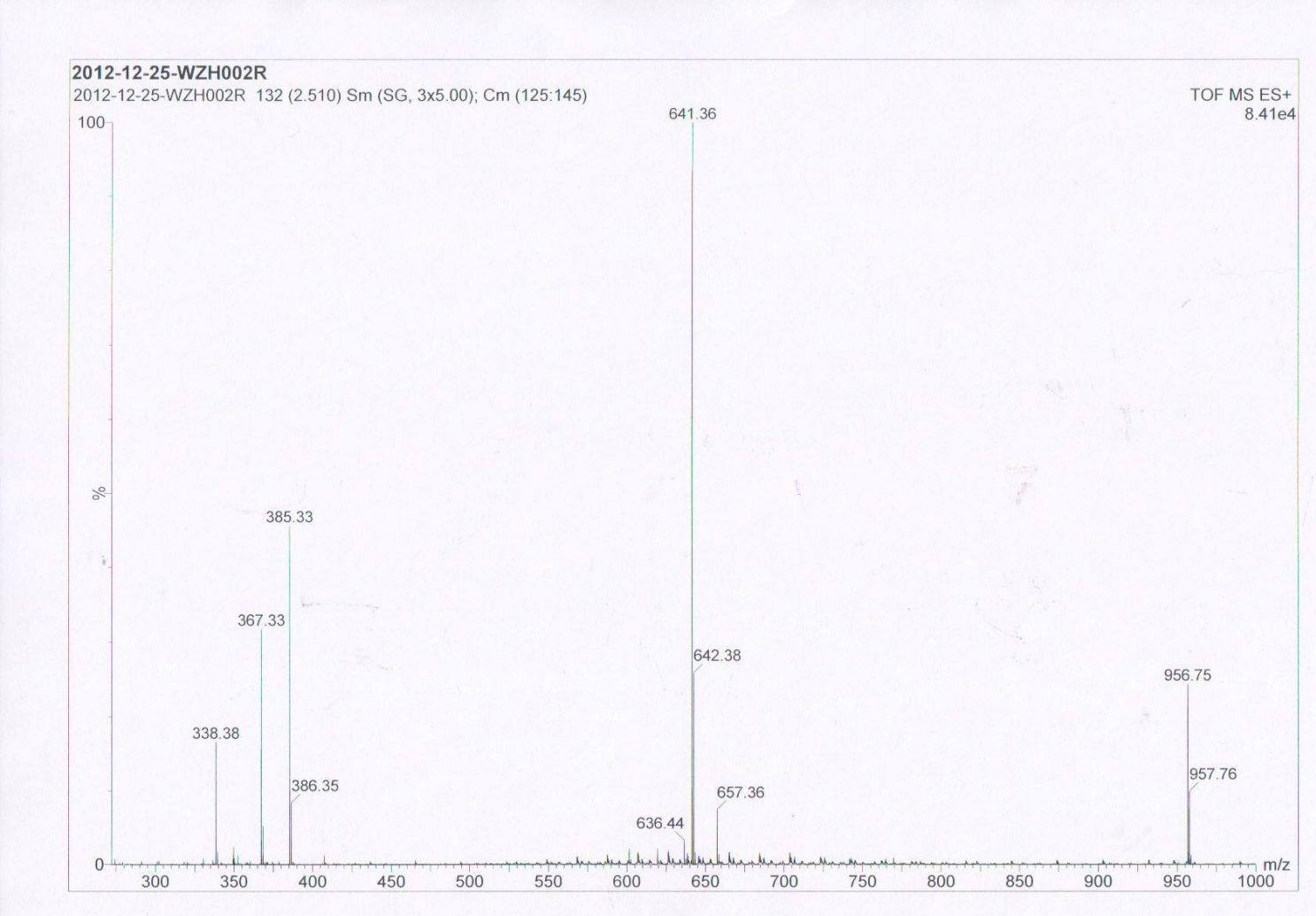


Figure S93. ESIMS spectrum of compound **3ar**

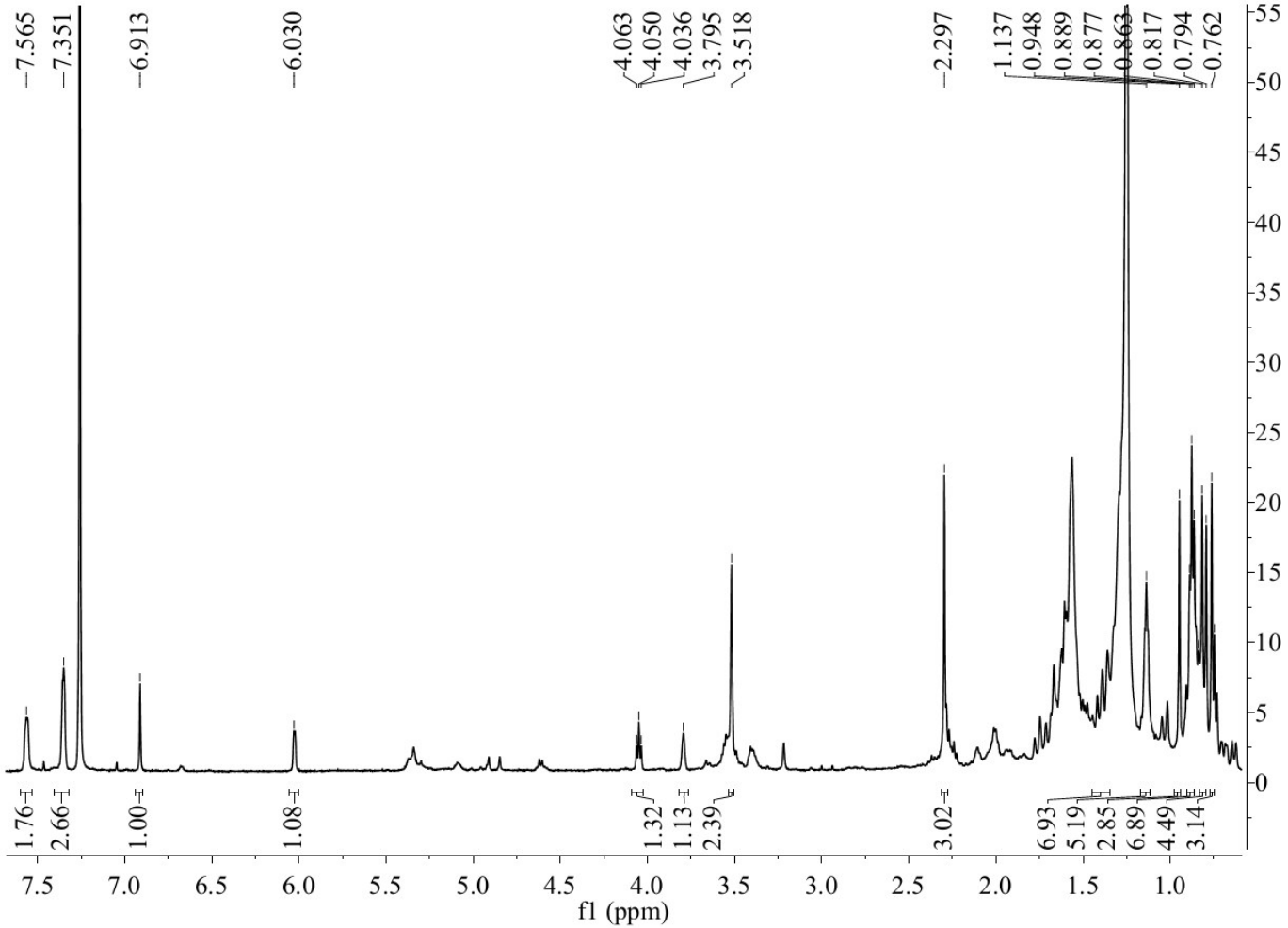


Figure S94. ^{1}H NMR (600 MHz, $CDCl_3$) spectrum of compound **3as**

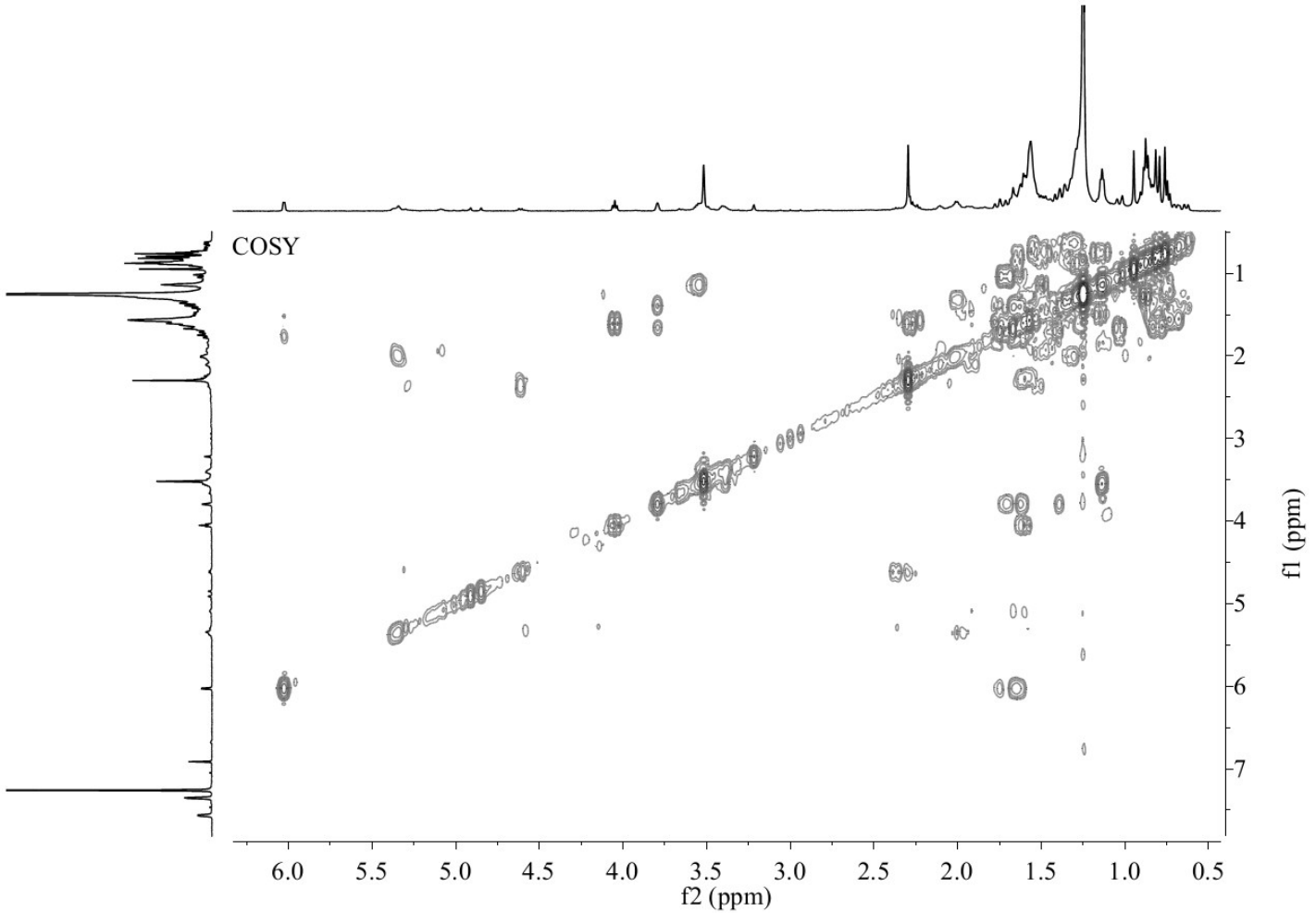


Figure S95. COSY ($CDCl_3$) spectrum of compound **3as**

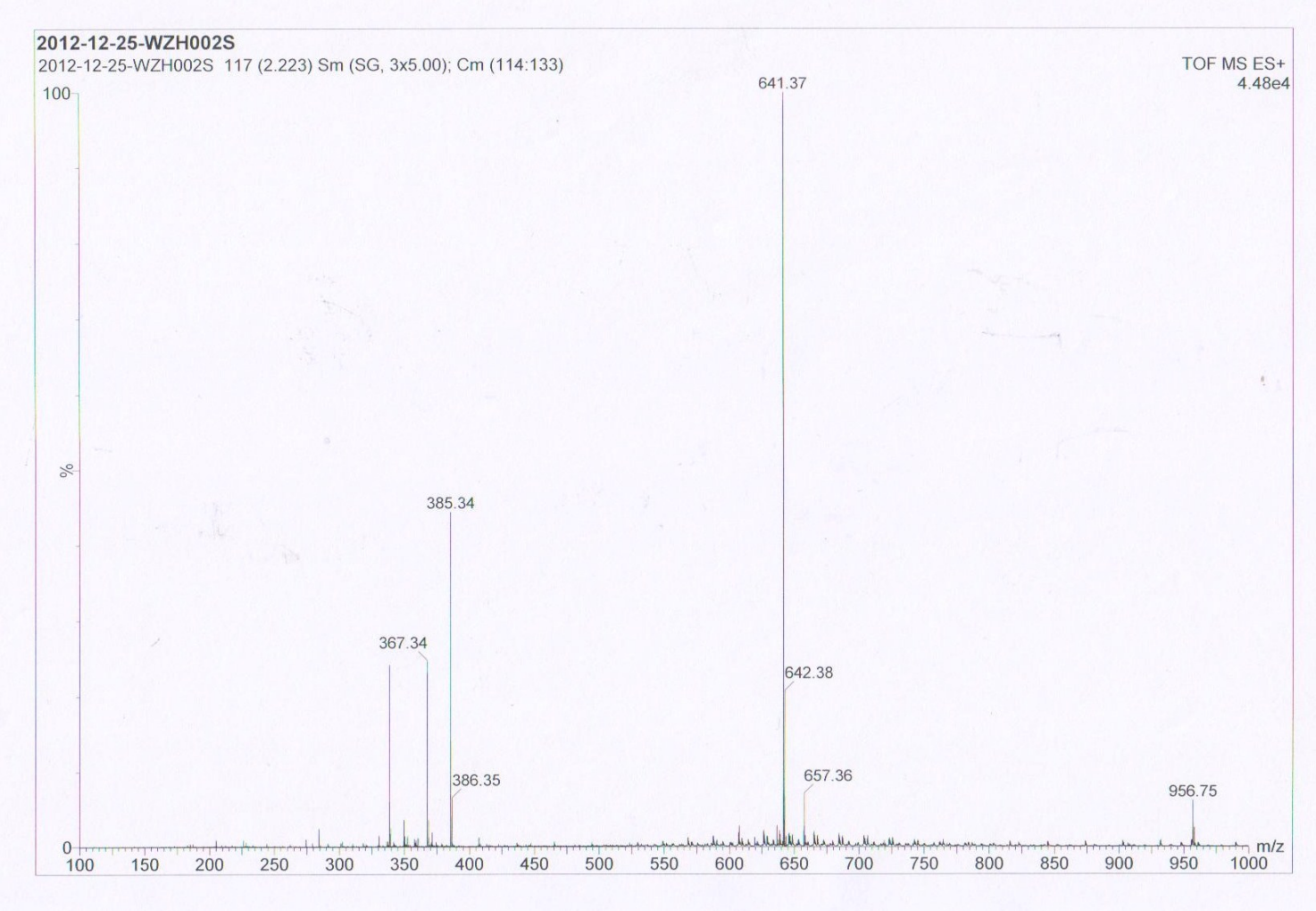


Figure S96. ESIMS spectrum of compound **3**