Electronic Supplementary Material (ESI) for Organic & Biomolecular Chemistry

Kv1.2 Potassium Channel Inhibitors from *Chukrasia tabularis*

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Figure S1. ^{1}H NMR spectrum of **1** in $CDCl_3$

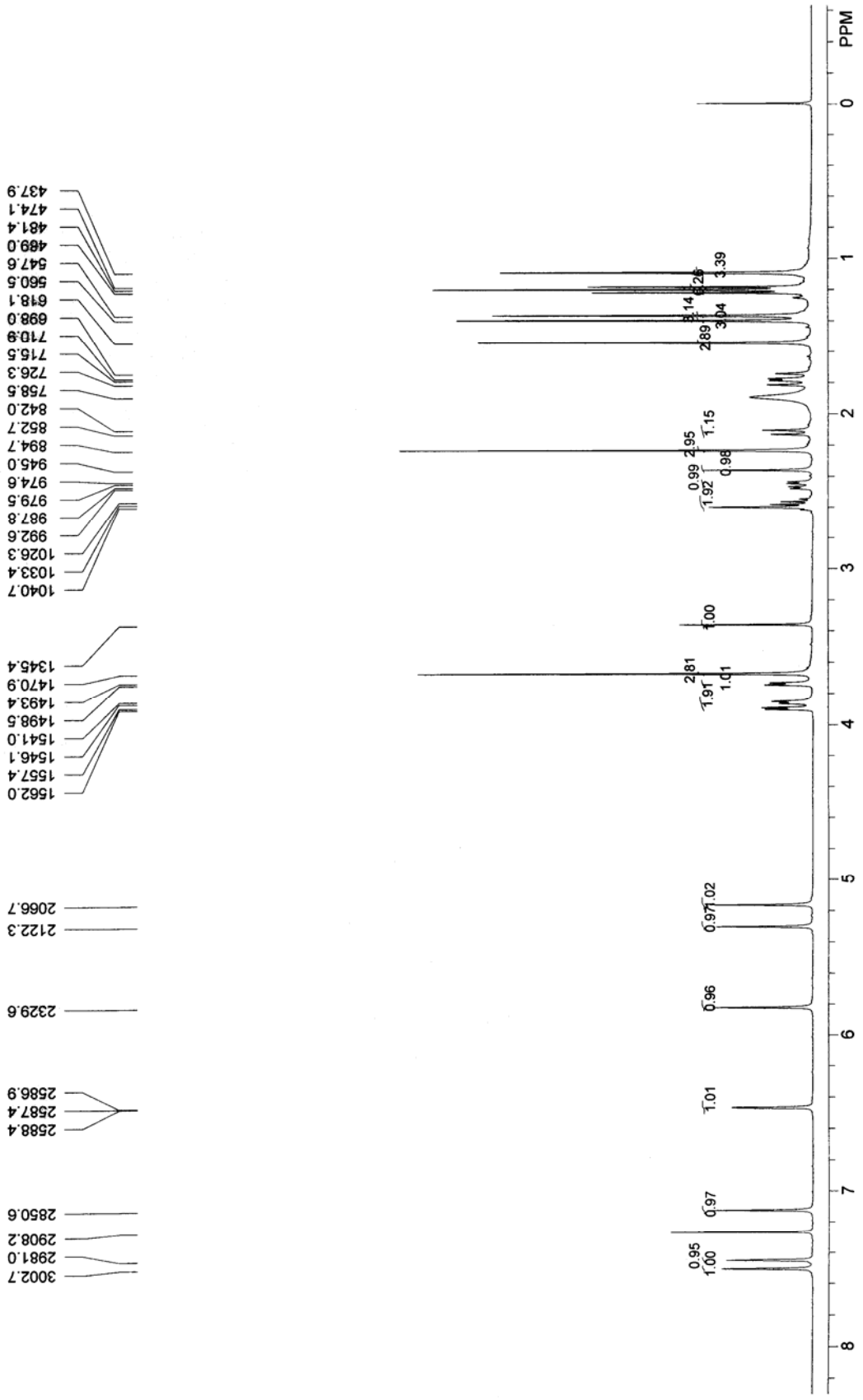


Figure S2. ^{13}C NMR spectrum of **1** in $CDCl_3$

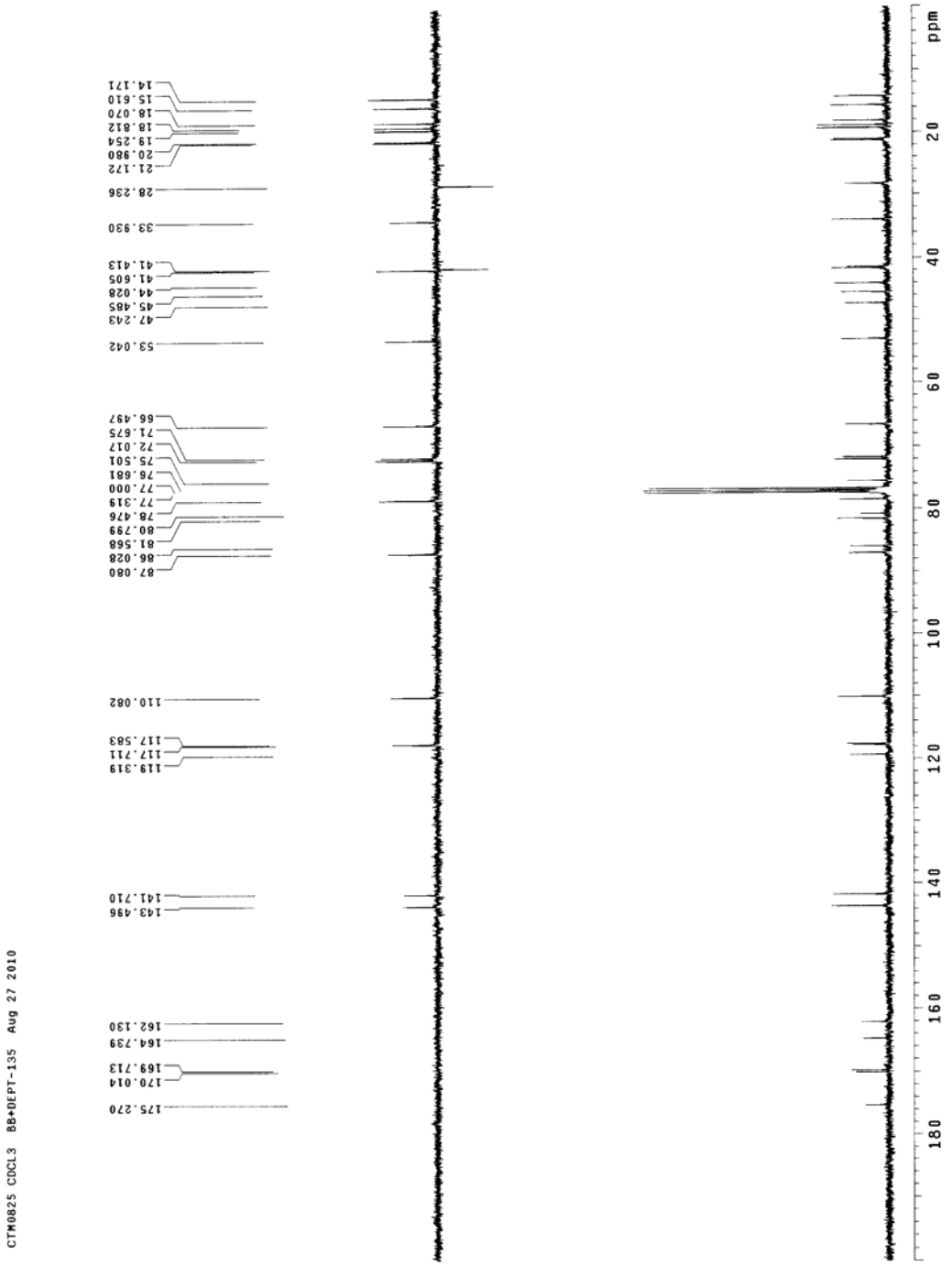


Figure S3. HSQC spectrum of **1** in $CDCl_3$

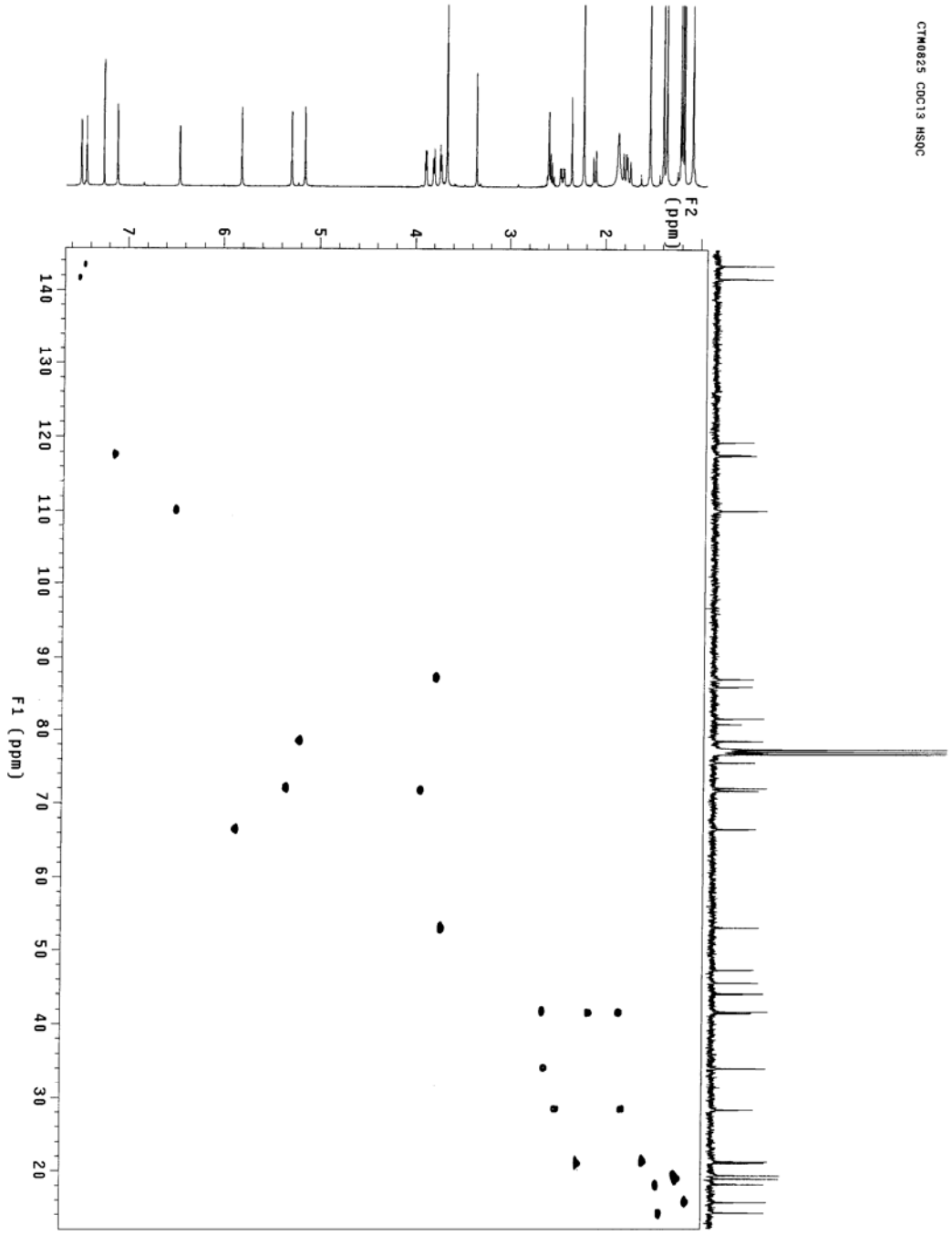


Figure S4. HMBC spectrum of **1** in $CDCl_3$

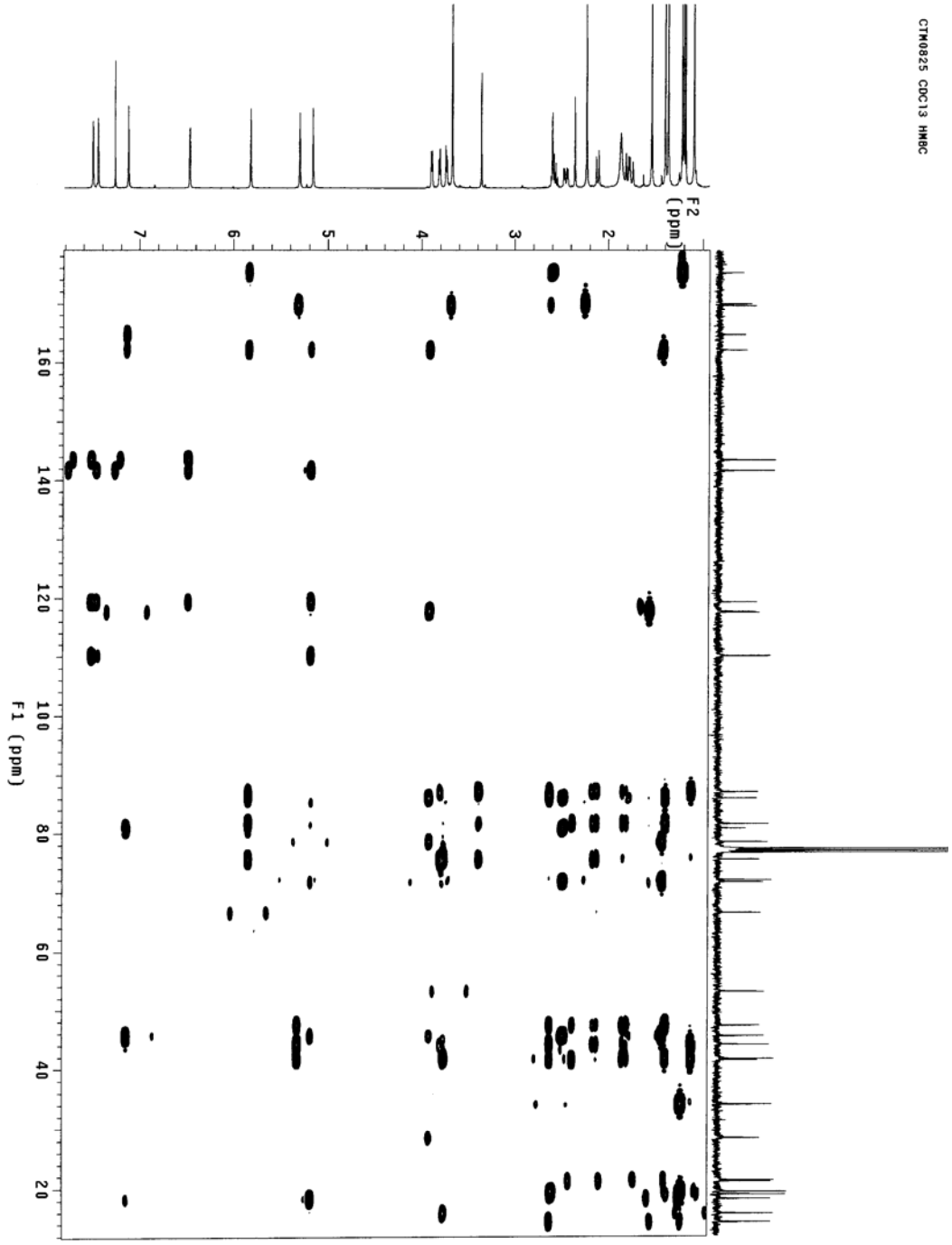


Figure S5. ROESY spectrum of **1** in $CDCl_3$

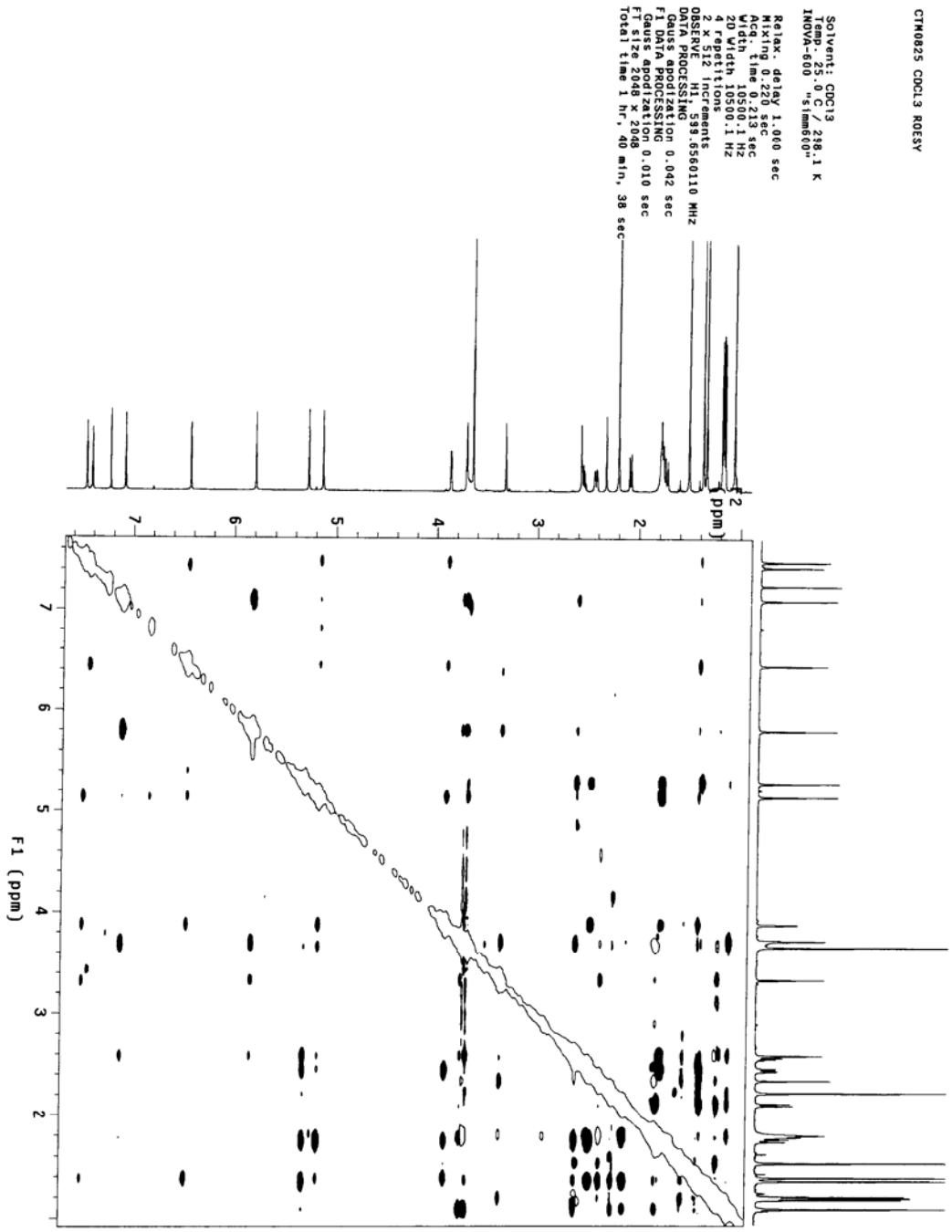


Figure S6. IR spectrum of **1**

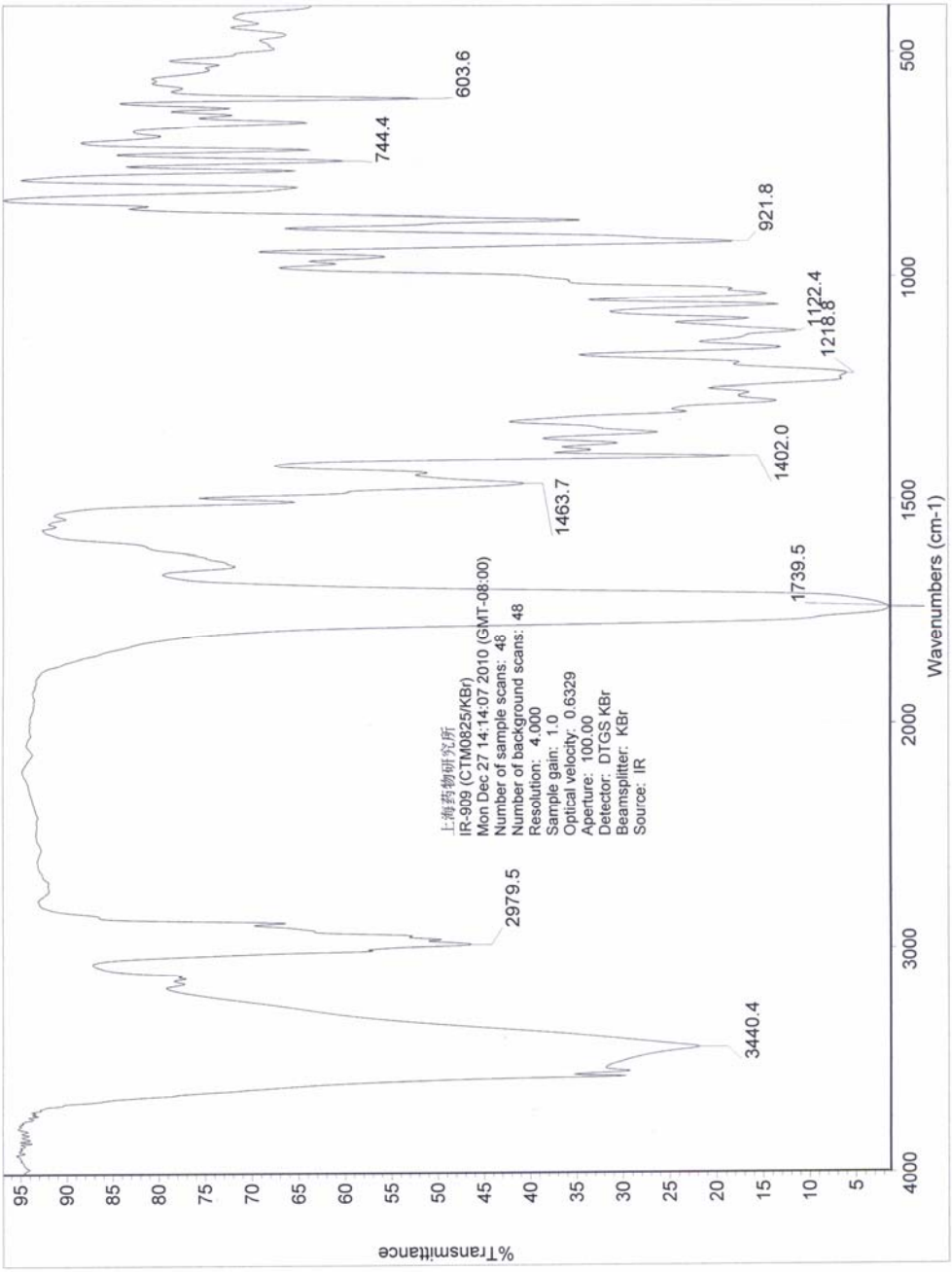
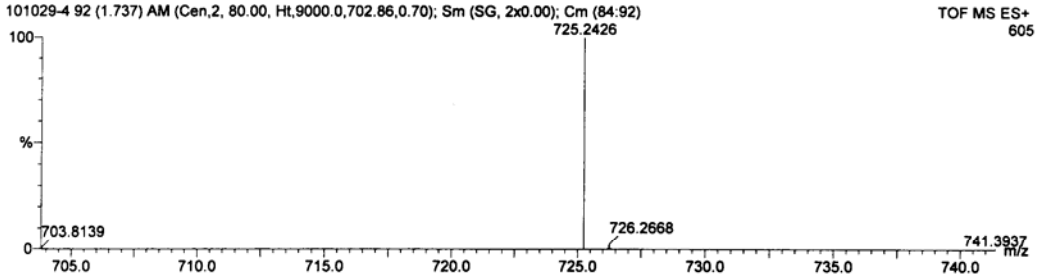


Figure S7. HR-ESI(+)MS spectrum of **1**

Elemental Composition Report **Page 1**

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

Monoisotopic Mass, Odd and Even Electron Ions
28 formula(e) evaluated with 1 results within limits (up to 20 closest results for each mass)



Minimum:	20.00				-1.5		
Maximum:	100.00		200.0	50.0	50.0		
Mass	RA	Calc. Mass	mDa	PPM	DBE	Score	Formula
725.2426	100.00	725.2421	0.5	0.6	14.5	1	C35 H42 O15 Na

Figure S8. ^{1}H NMR spectrum of **2** in $CDCl_3$

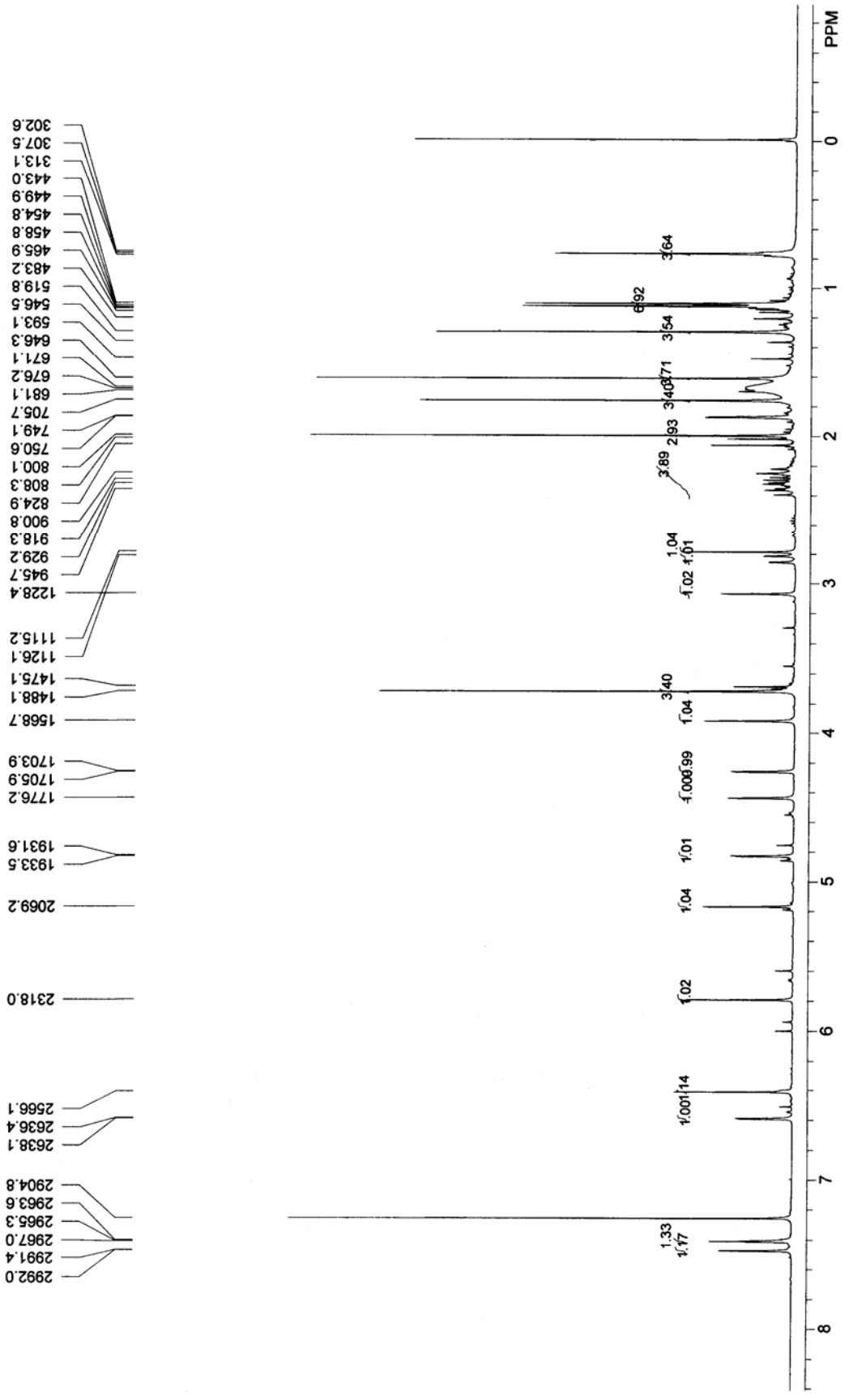


Figure S9. ^{13}C NMR spectrum of **2** in $CDCl_3$

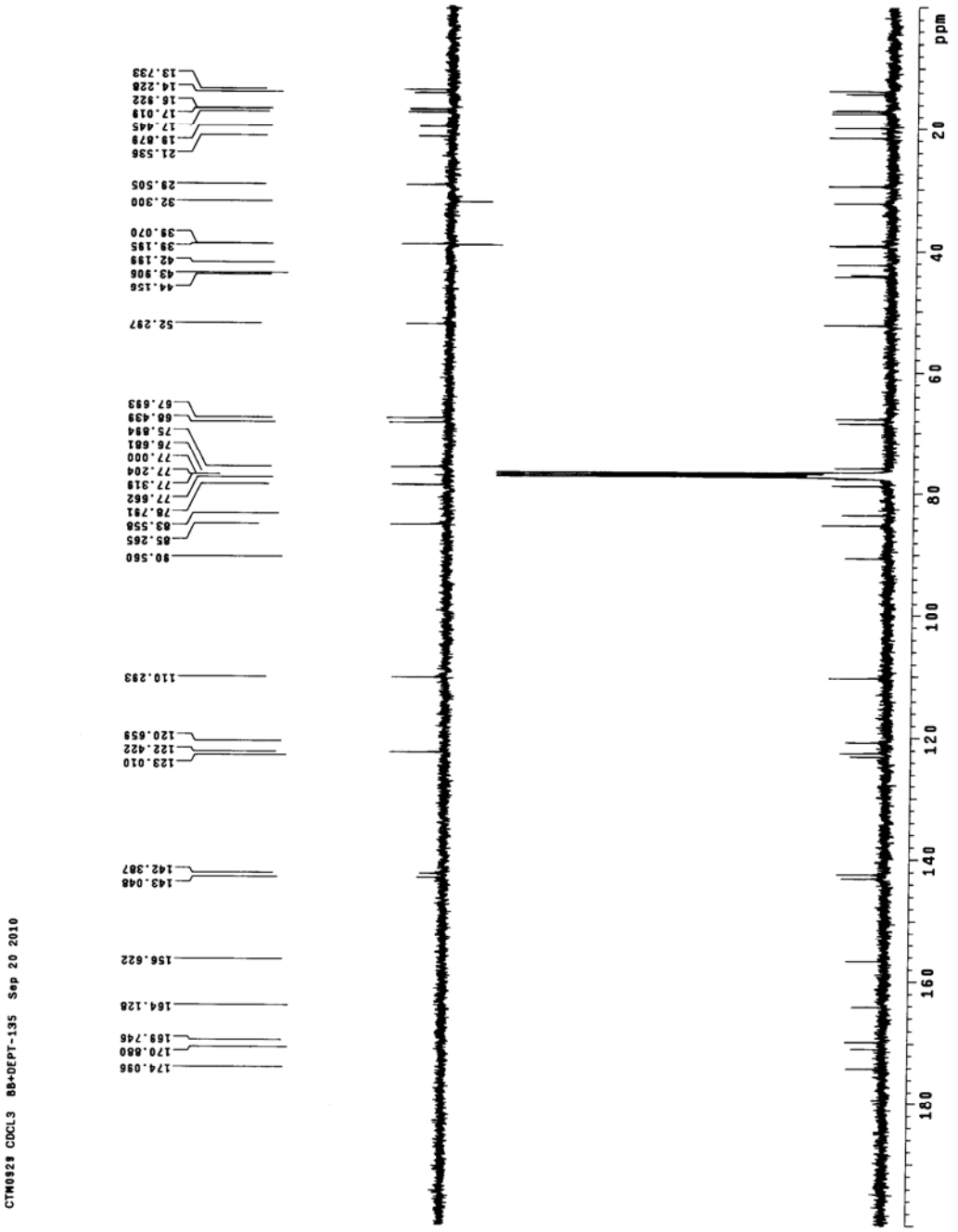


Figure S10. HSQC spectrum of **2** in $CDCl_3$

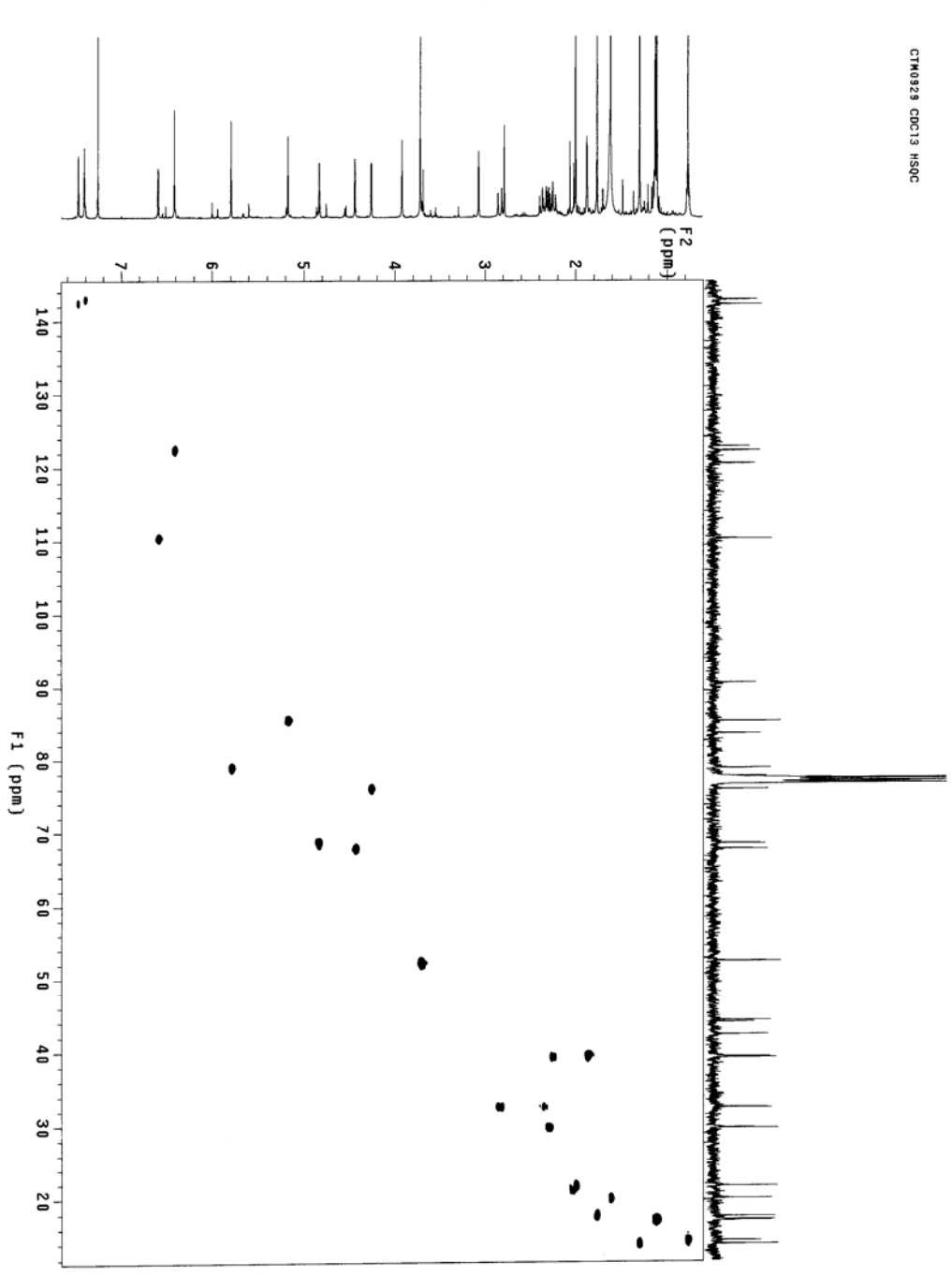


Figure S11. HMBC spectrum of **2** in $CDCl_3$

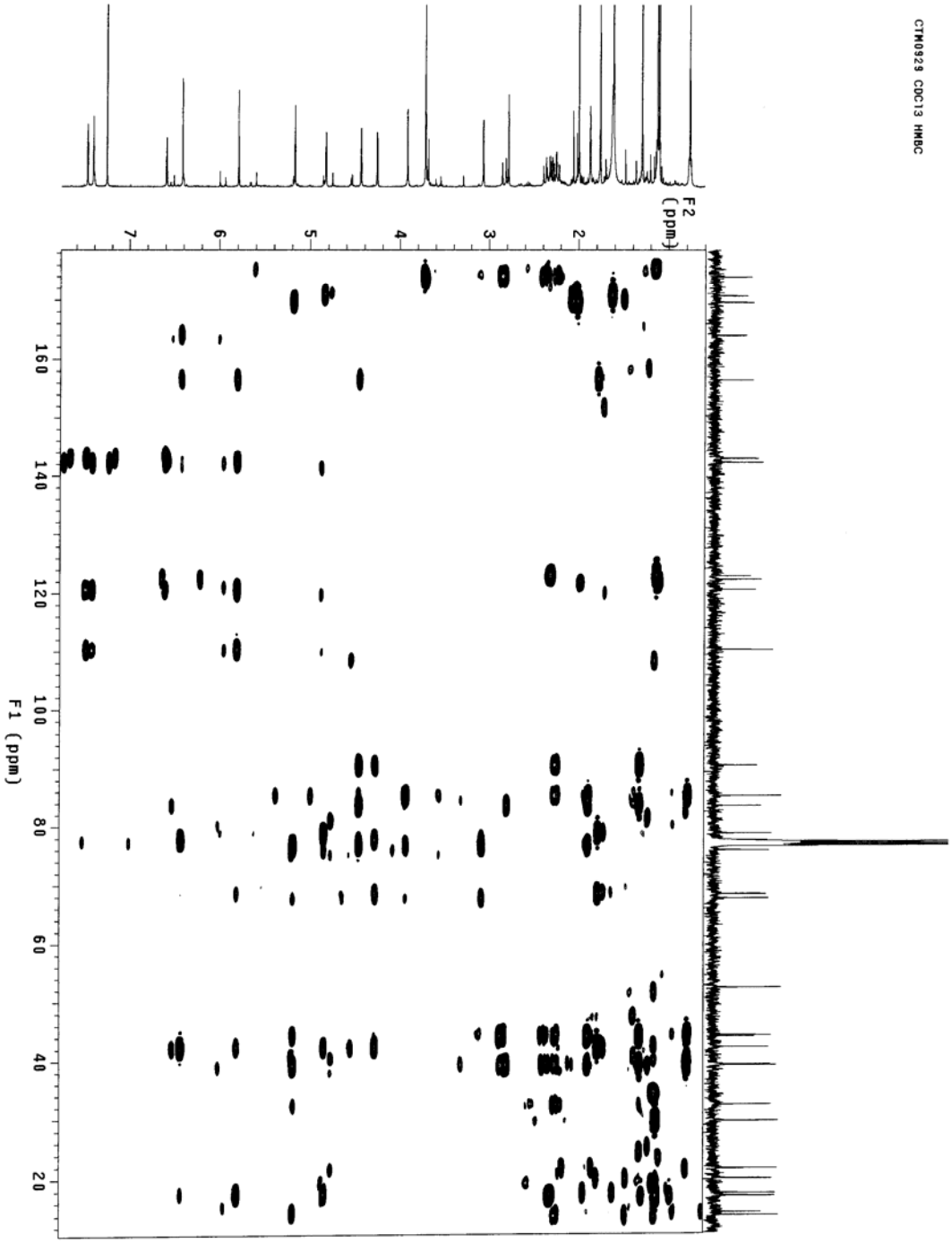


Figure S12. ROESY spectrum of **2** in $CDCl_3$

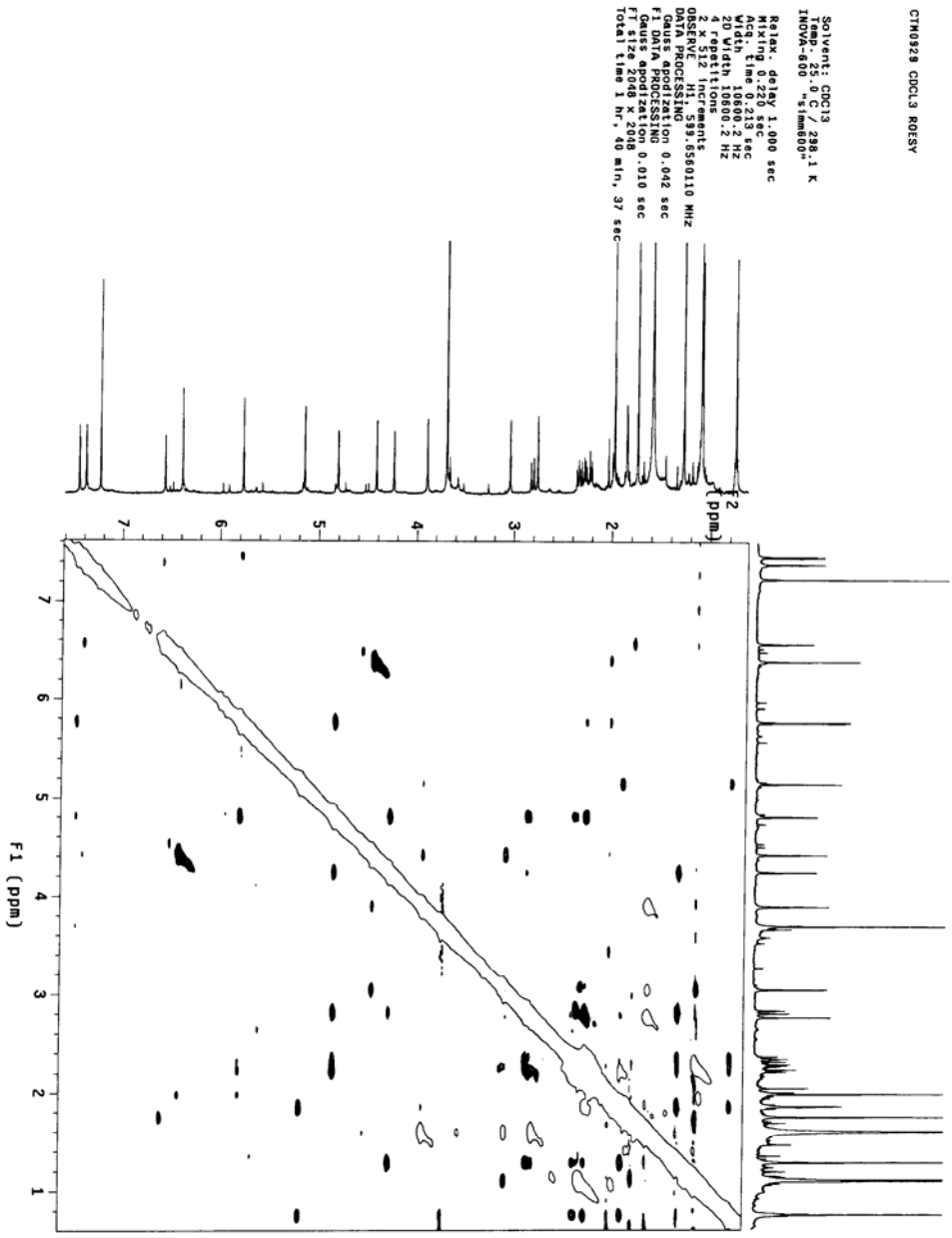


Figure S13. IR spectrum of **2**

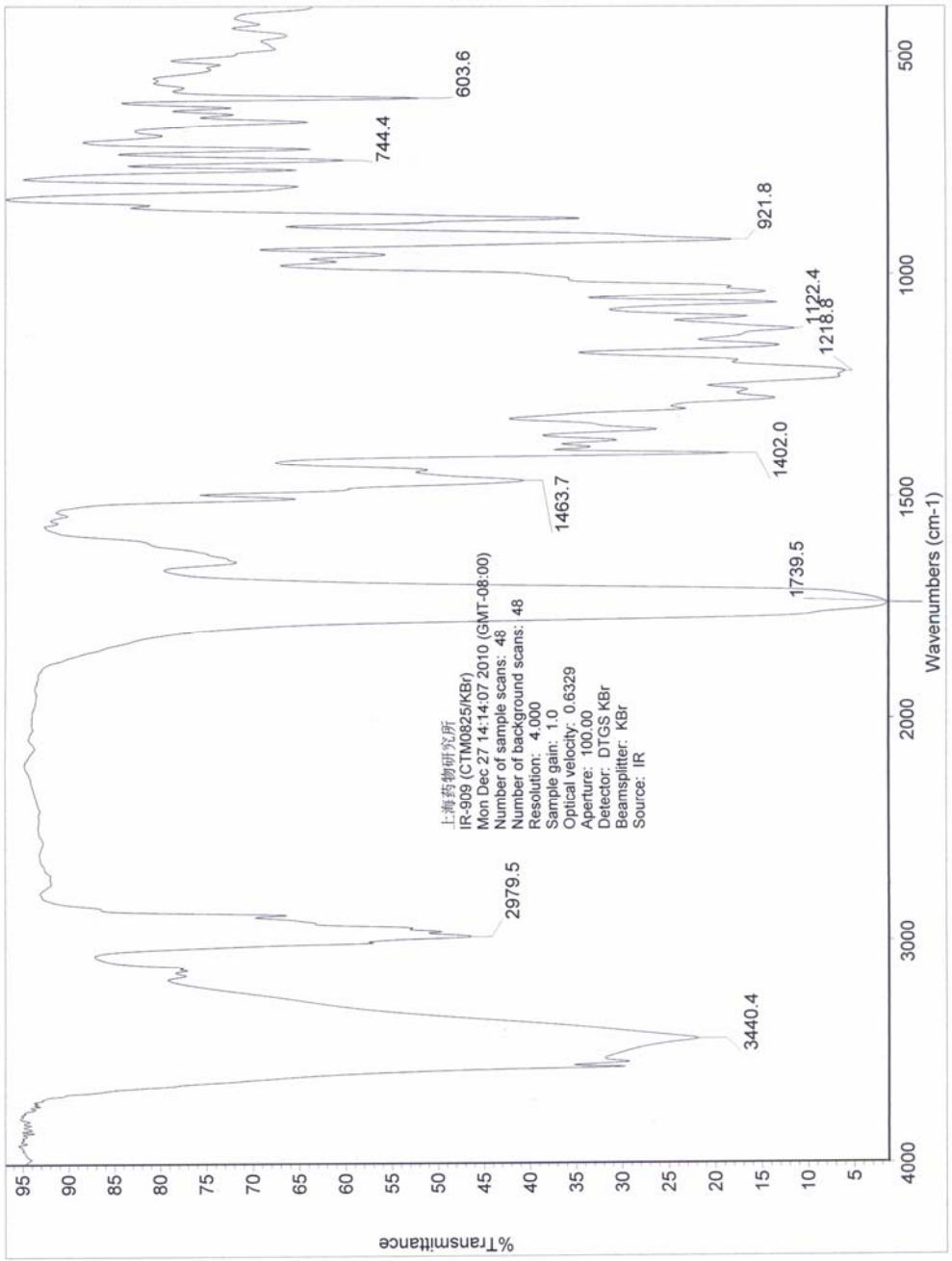


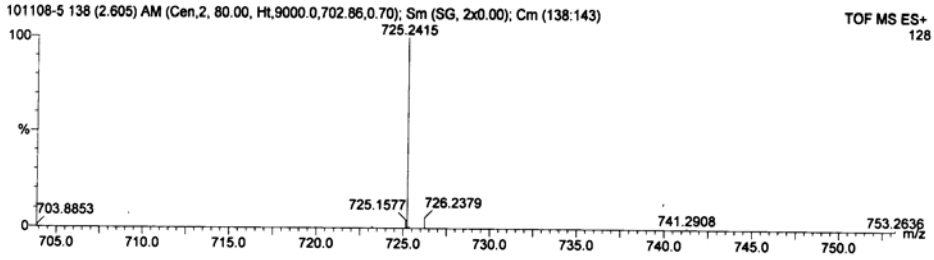
Figure S14. HR-ESI(+)MS spectrum of **2**

Elemental Composition Report **Page 1**

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

Monoisotopic Mass, Odd and Even Electron Ions
30 formula(e) evaluated with 1 results within limits (up to 20 closest results for each mass)

101108-5 138 (2.605) AM (Cen,2, 80.00, Ht,9000.0,702.86,0.70); Sm (SG, 2x0.00); Cm (138:143) TOF MS ES+ 128



Minimum:	20.00				-1.5		
Maximum:	100.00		200.0	50.0	50.0		
Mass	RA	Calc. Mass	mDa	PPM	DBE	Score	Formula
725.2415	100.00	725.2421	-0.6	-0.9	14.5	1	C35 H42 O15 Na

Figure S15. ^{1}H NMR spectrum of **3** in $CDCl_3$

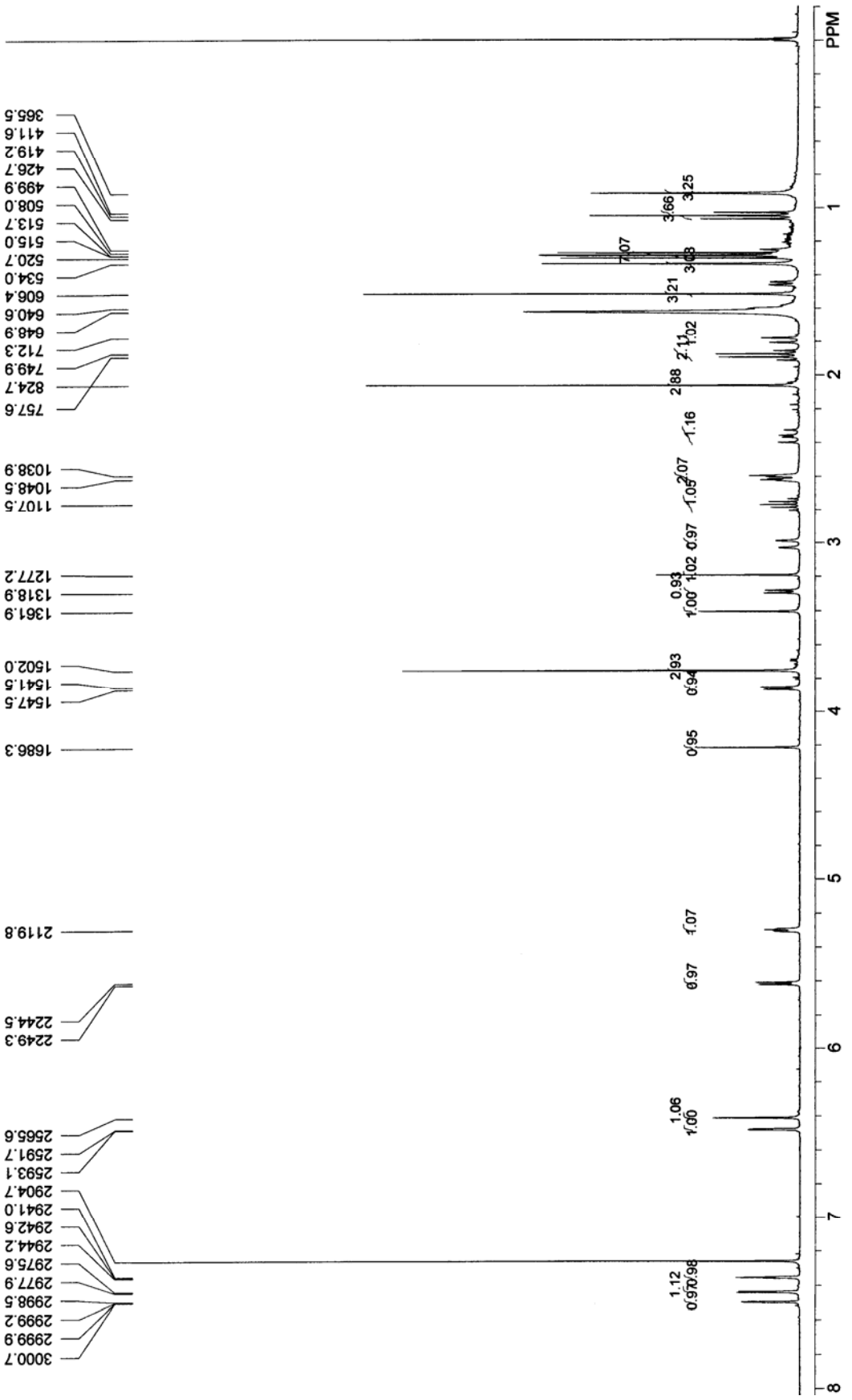


Figure S16. ^{13}C NMR spectrum of **3** in $CDCl_3$

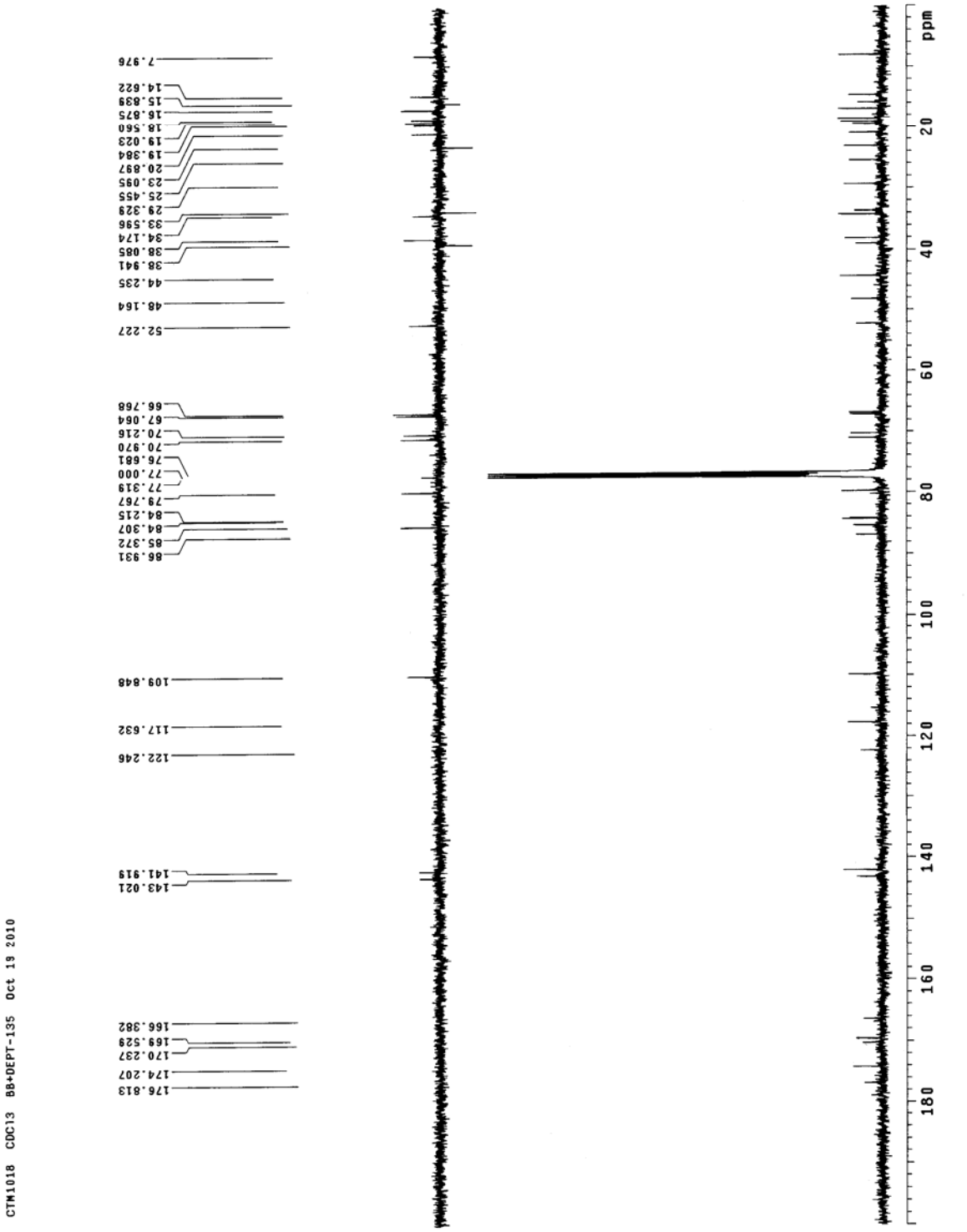


Figure S17. HSQC spectrum of **3** in $CDCl_3$

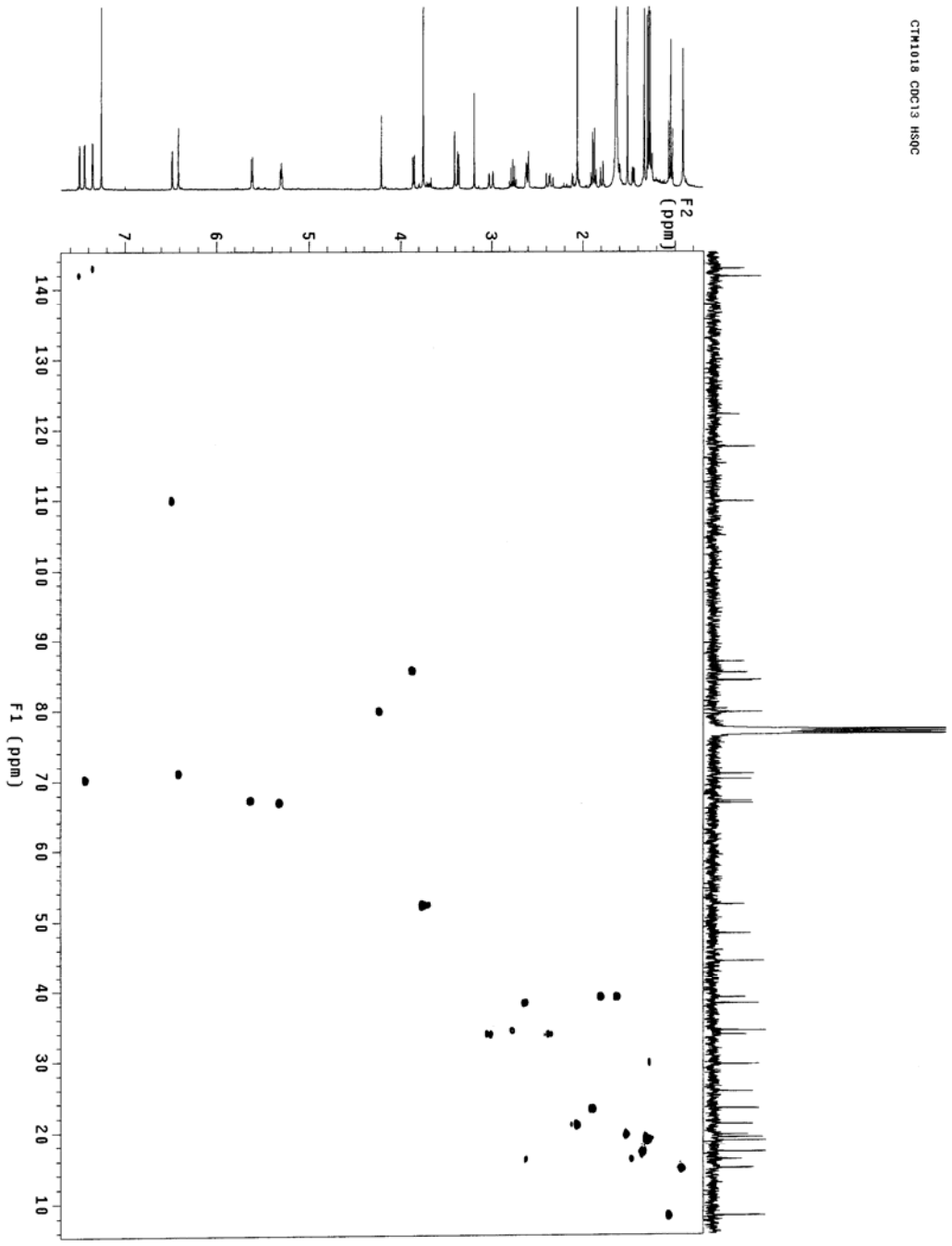


Figure S18. HMBC spectrum of **3** in $CDCl_3$

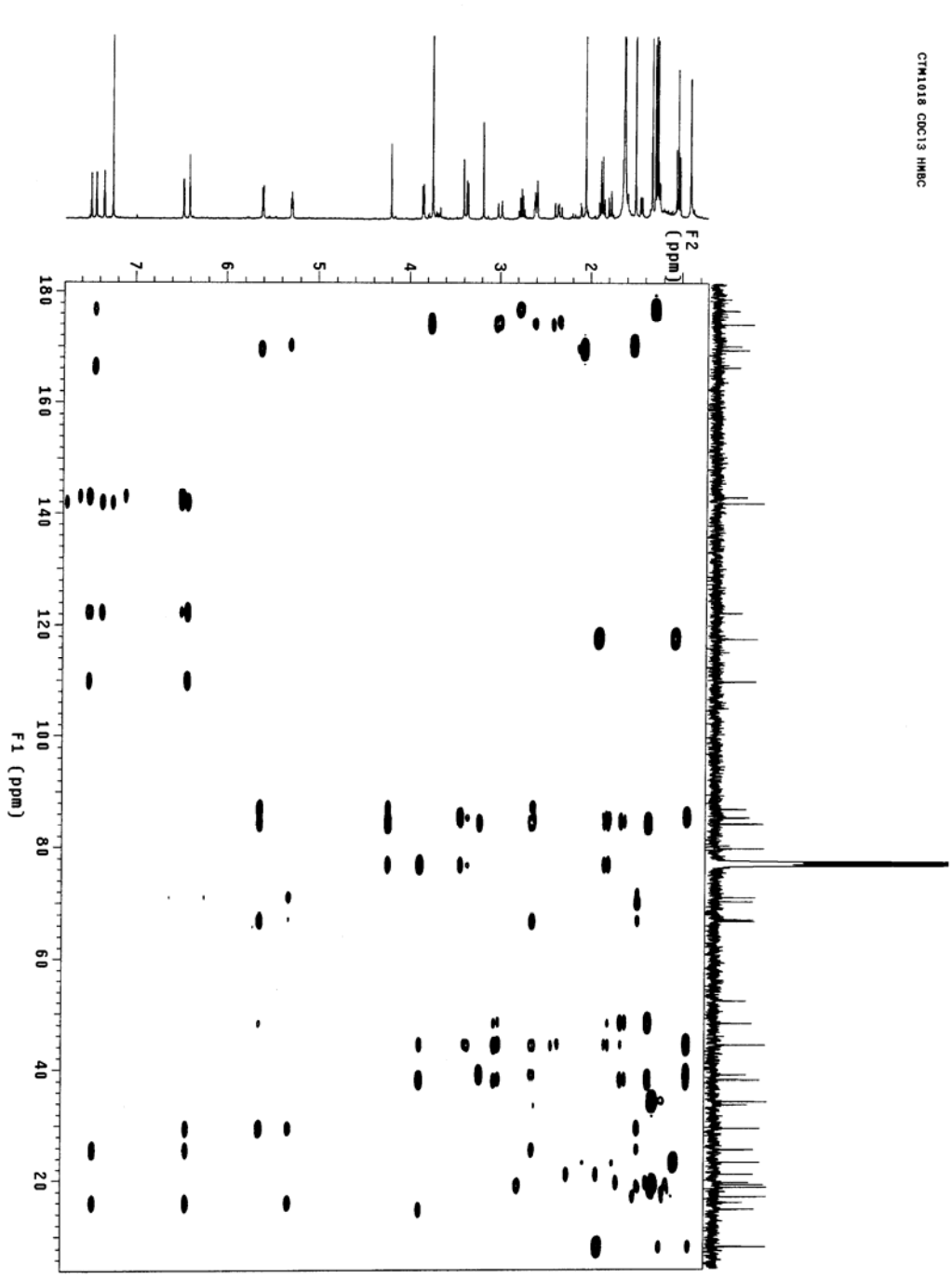


Figure S19. ROESY spectrum of **3** in $CDCl_3$

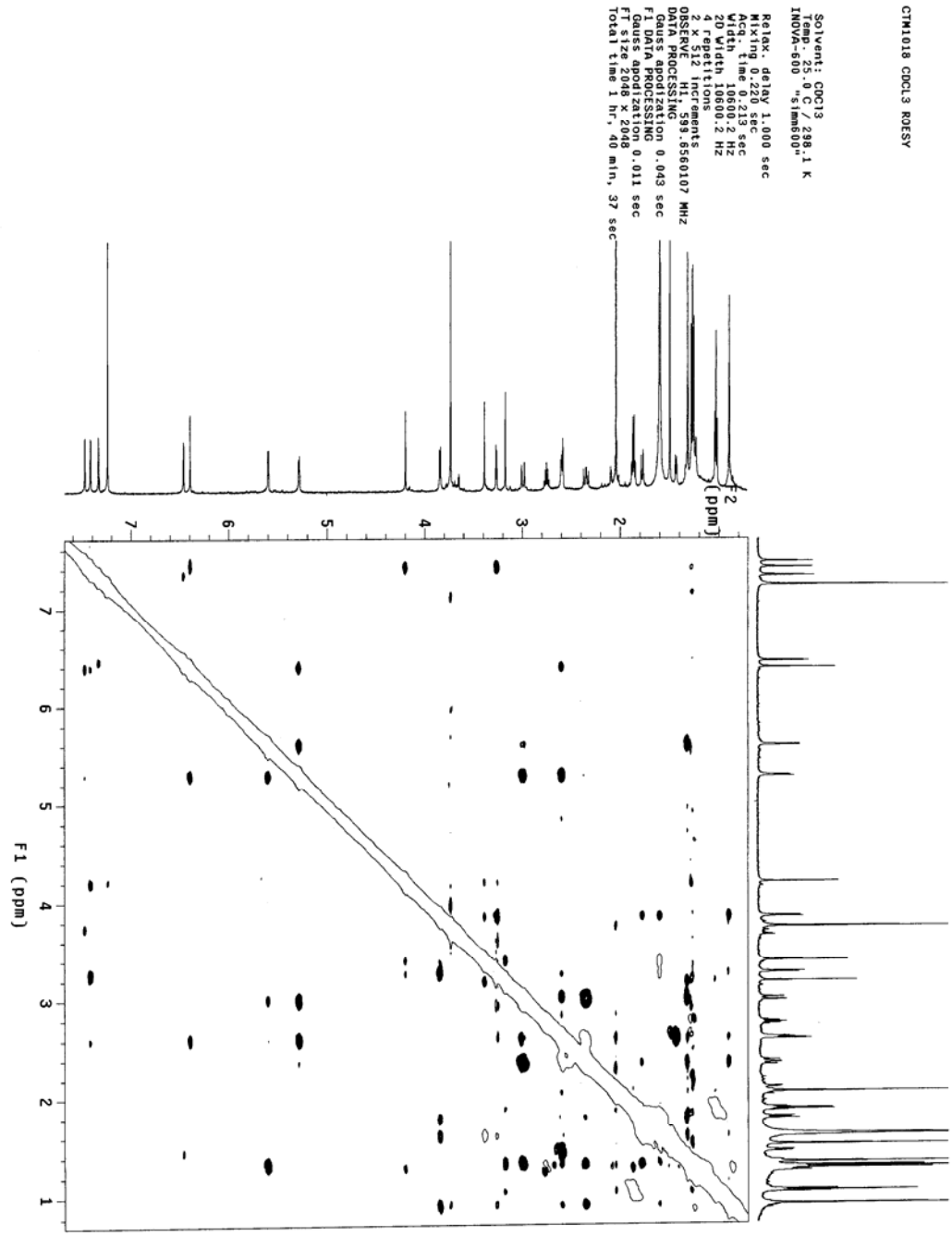


Figure S20. IR spectrum of **3**

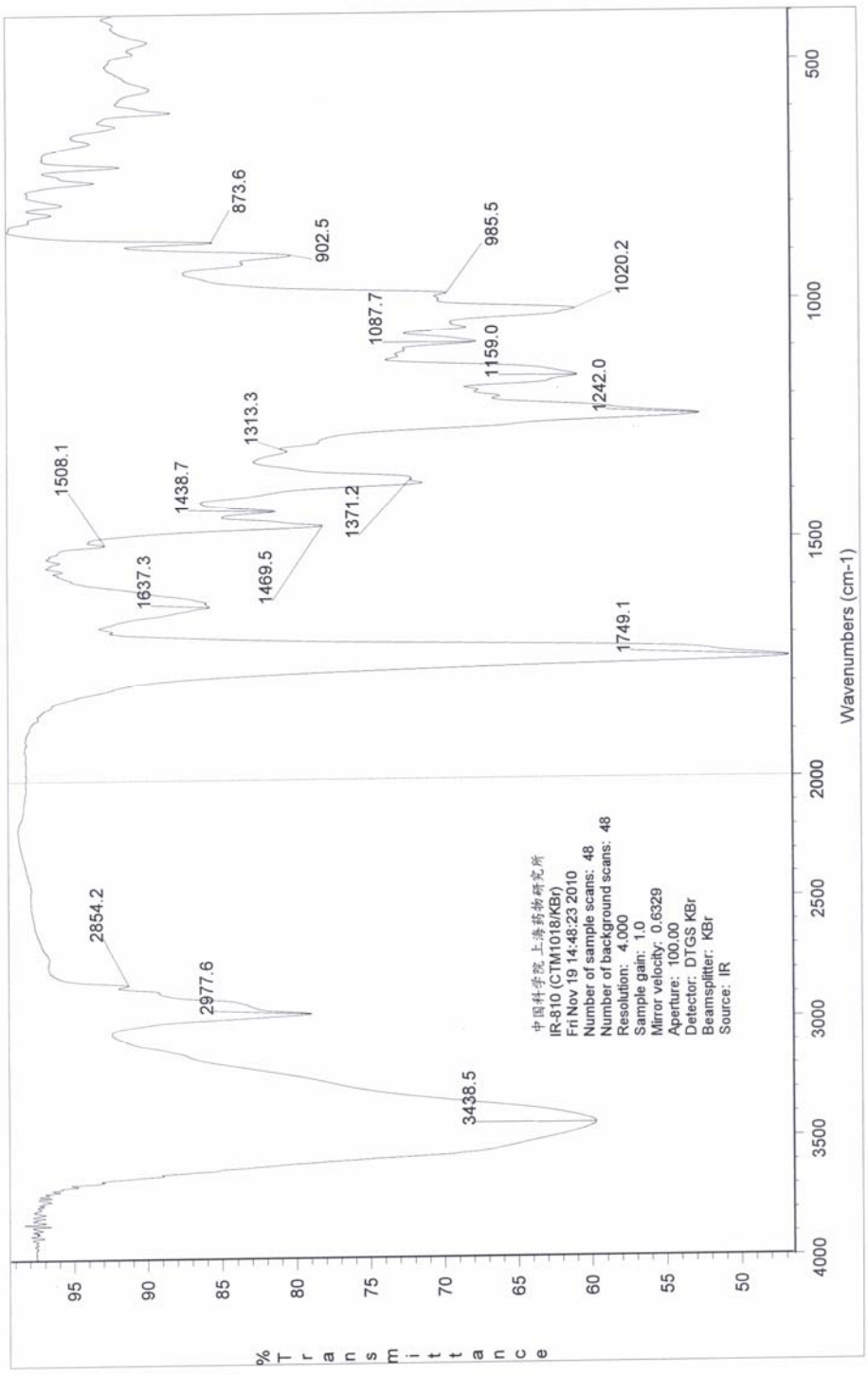
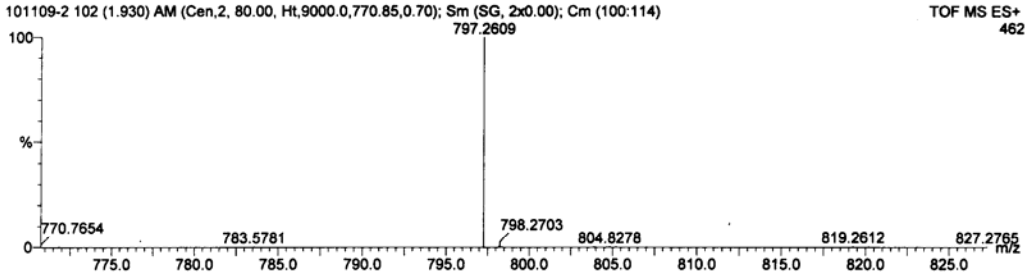


Figure S21. HR-ESI(+)MS spectrum of **3**

Elemental Composition Report **Page 1**

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

Monoisotopic Mass, Odd and Even Electron Ions
33 formula(e) evaluated with 1 results within limits (up to 20 closest results for each mass)



Minimum:	20.00				-1.5		
Maximum:	100.00		200.0	50.0	50.0		
Mass	RA	Calc. Mass	mDa	PPM	DBE	Score	Formula
797.2609	100.00	797.2633	-2.4	-3.0	15.5	1	C38 H46 O17 Na

Figure S22. ^{1}H NMR spectrum of **4** in $CDCl_3$.

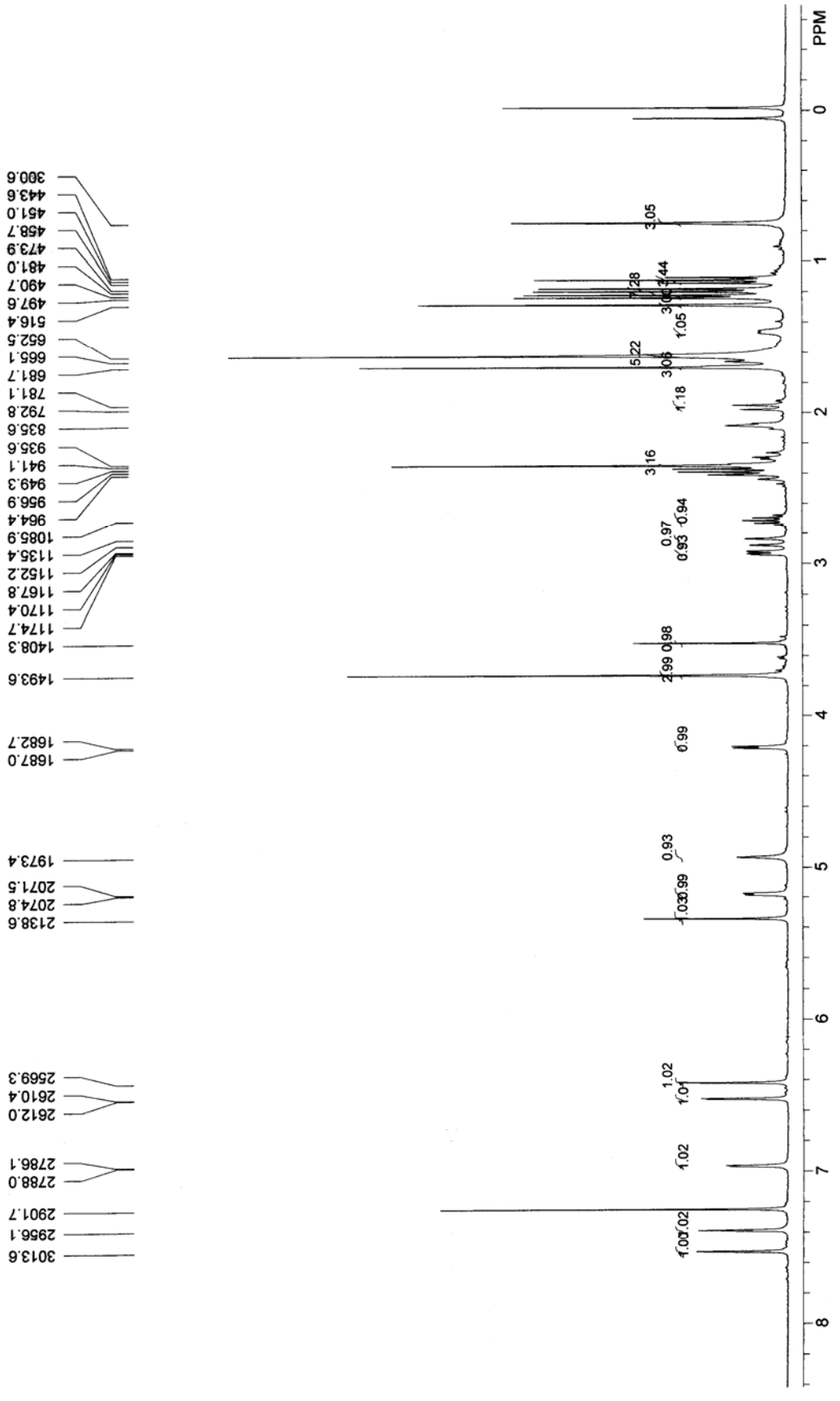


Figure S23. ^{13}C NMR spectrum of **4** in $CDCl_3$.

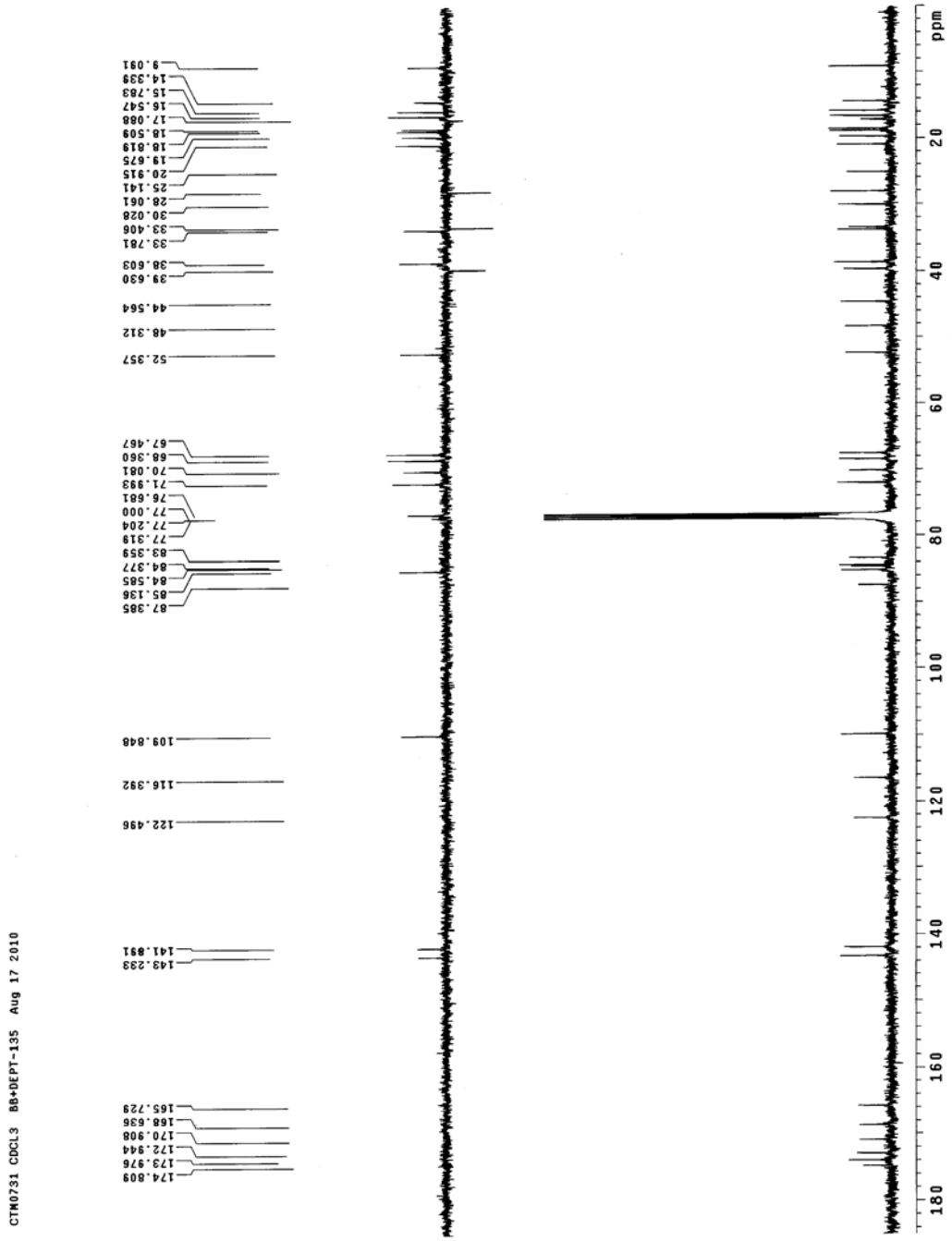


Figure S24. HSQC spectrum of 4 in $CDCl_3$

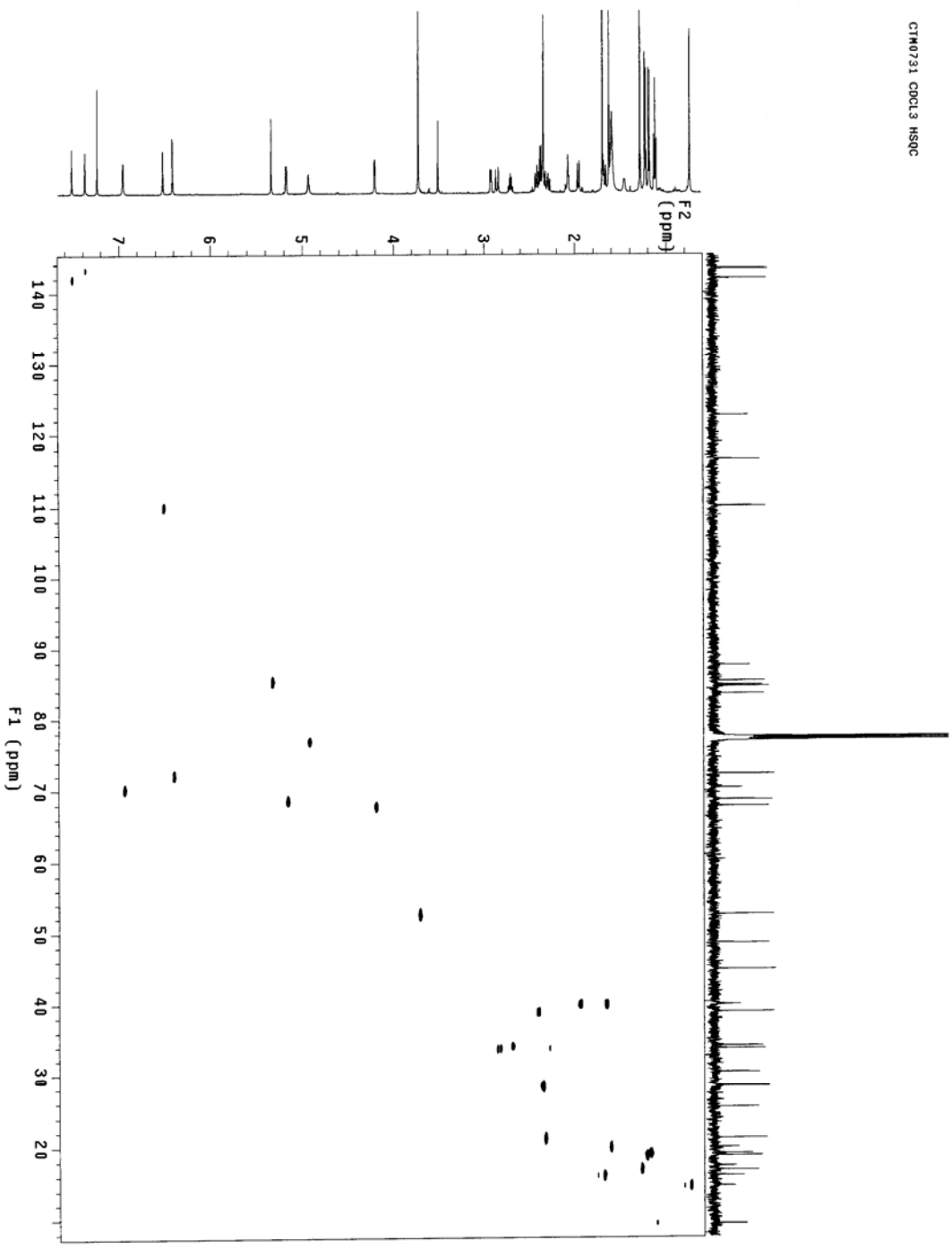


Figure S25. HMBC spectrum of **4** in $CDCl_3$

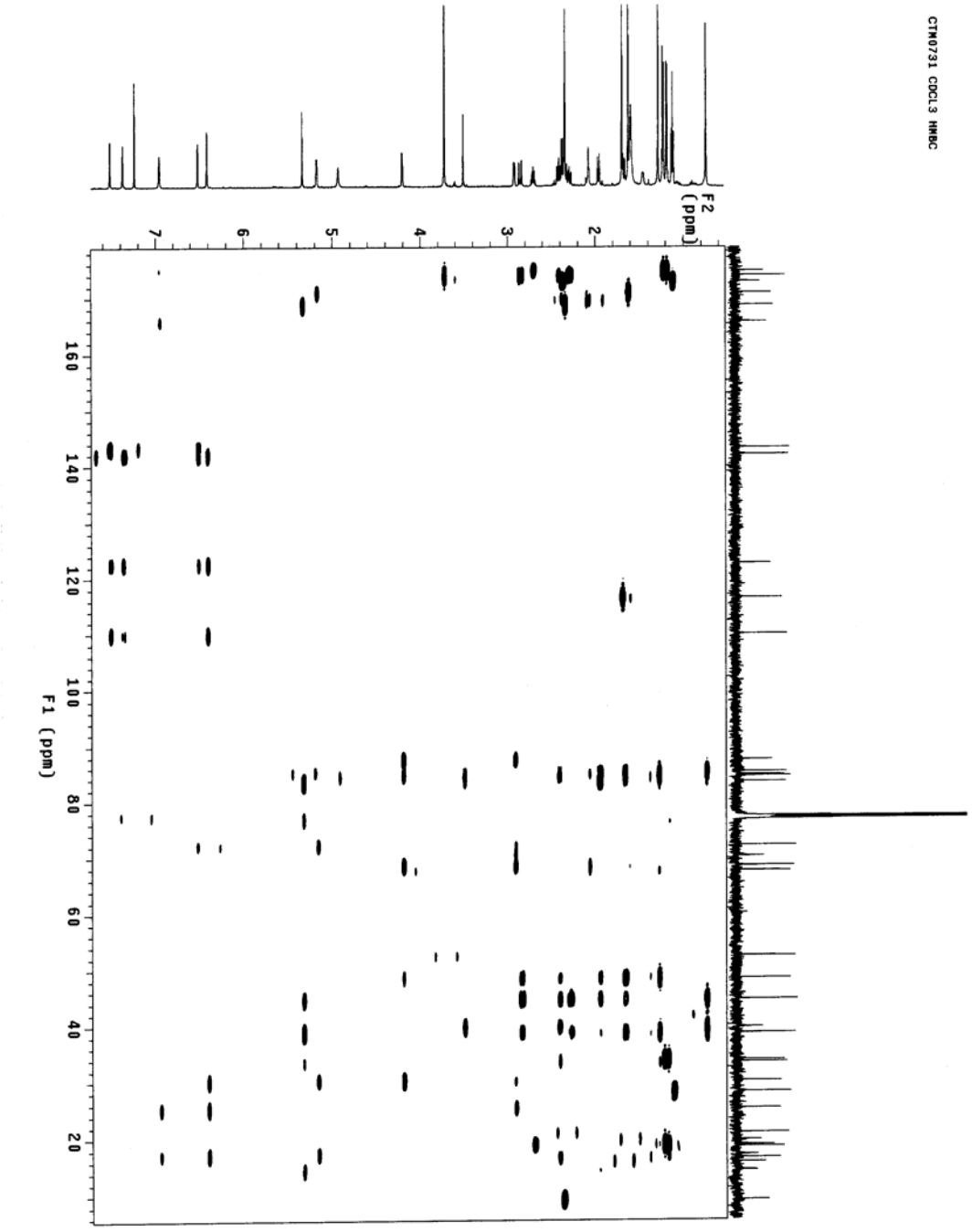


Figure S26. ROESY spectrum of **4** in $CDCl_3$

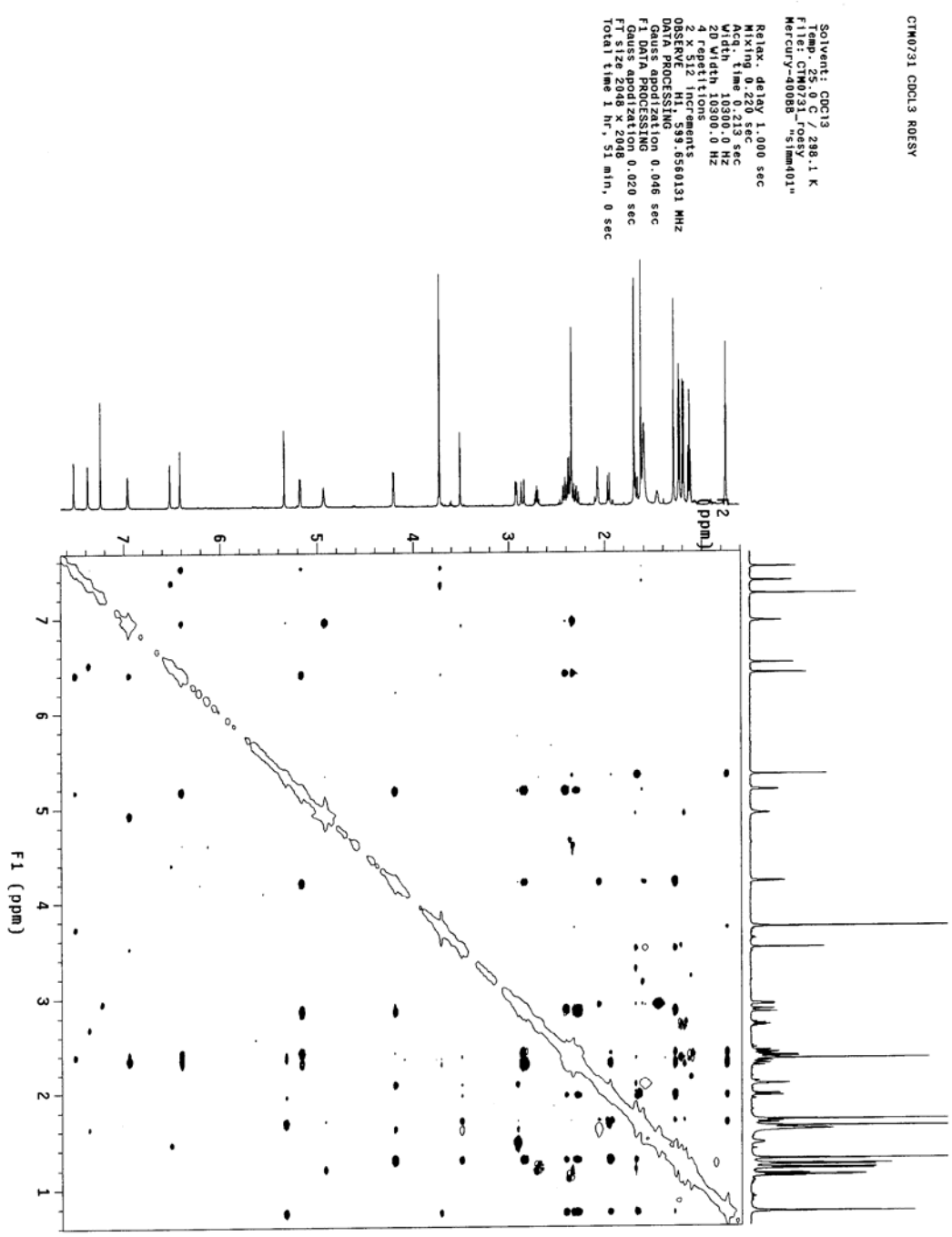


Figure S27. IR spectrum of **4**

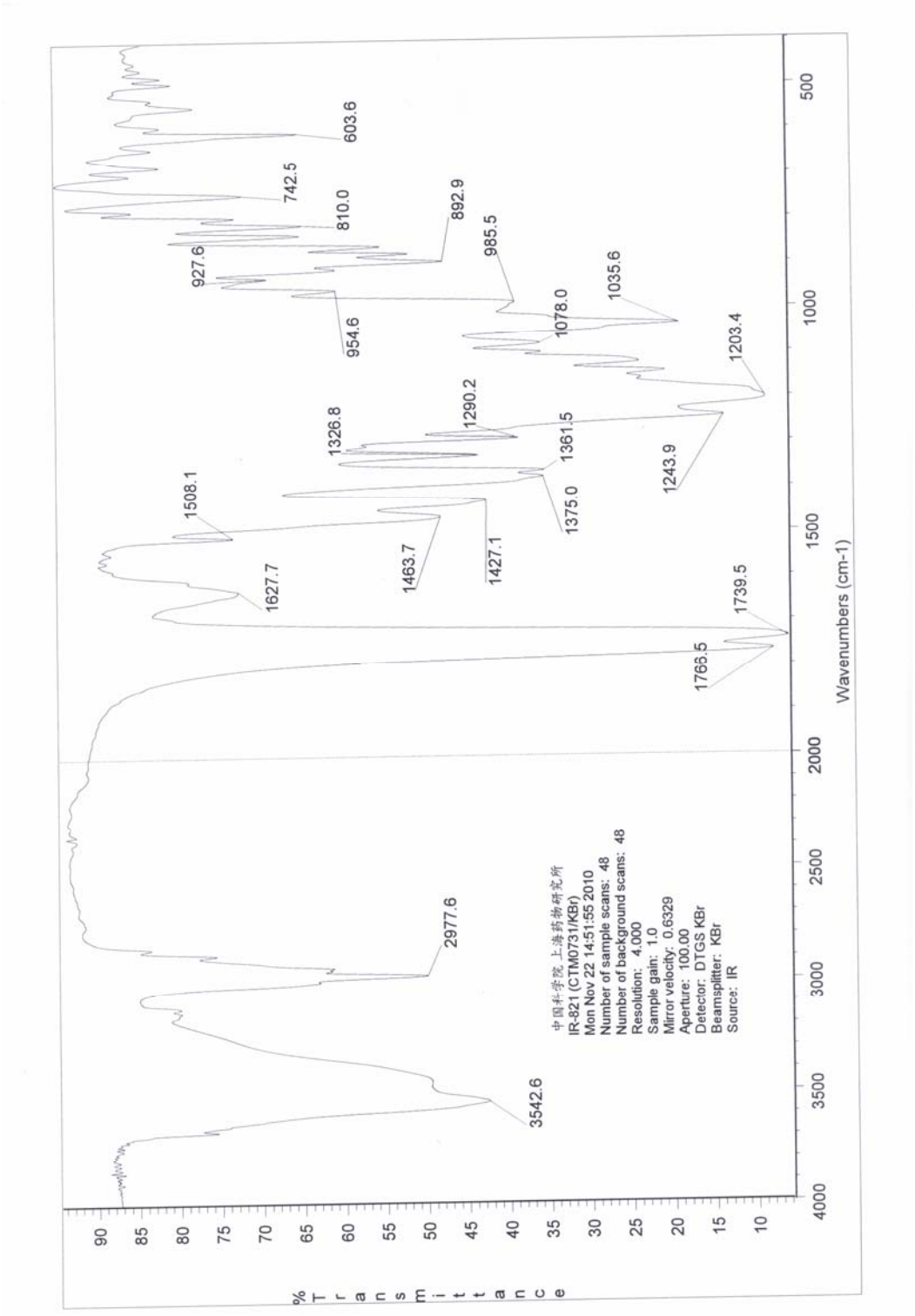


Figure S28. HR-ESI(+)MS spectrum of **4**

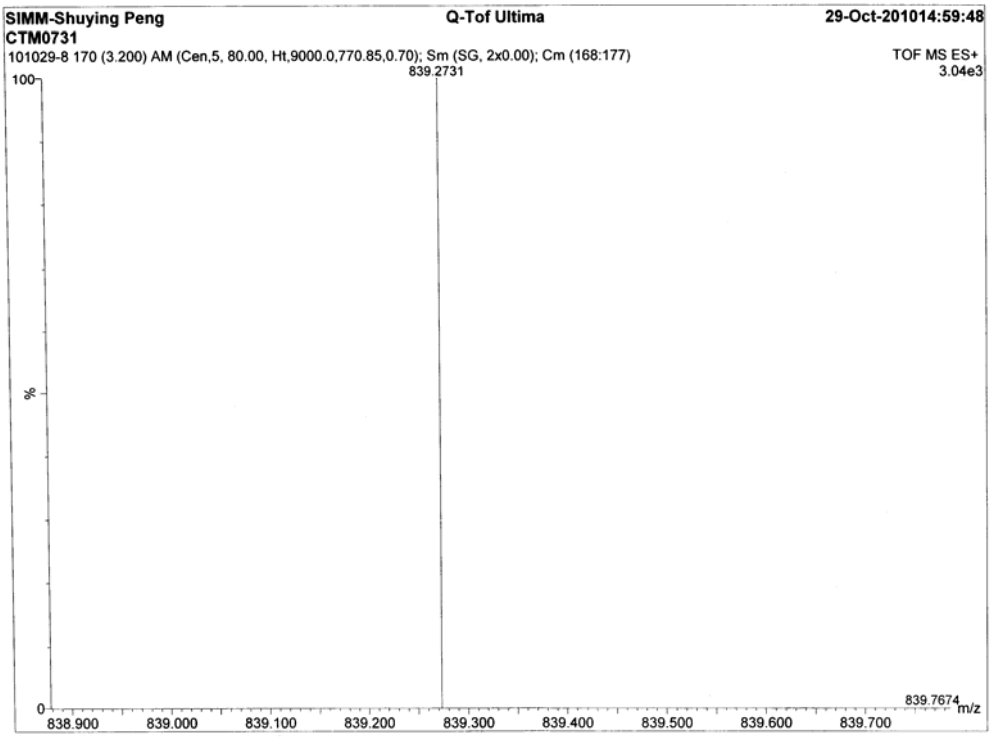


Figure S29. ^{1}H NMR spectrum of **5** in $CDCl_3$

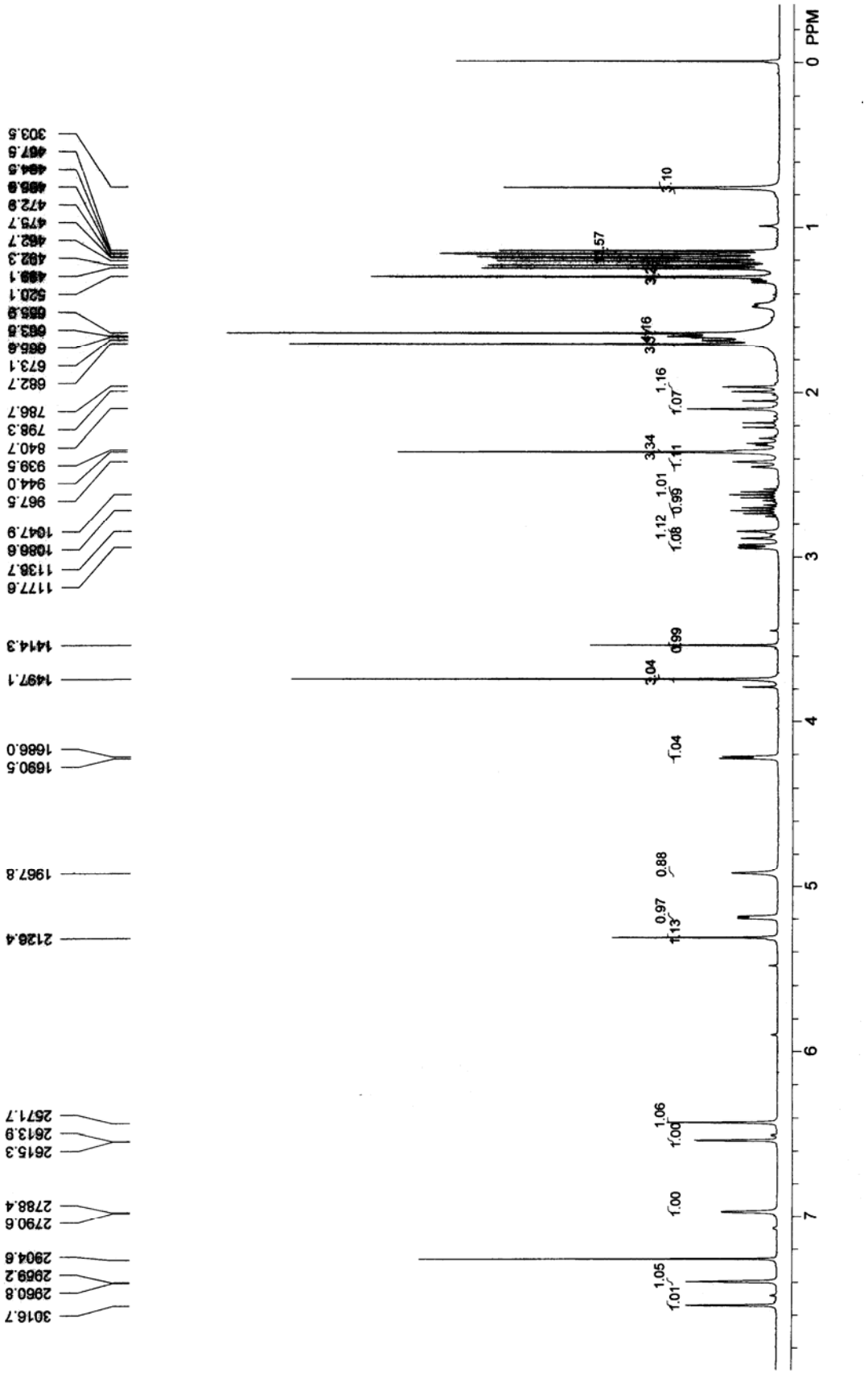


Figure S30. ^{13}C NMR spectrum of **5** in $CDCl_3$

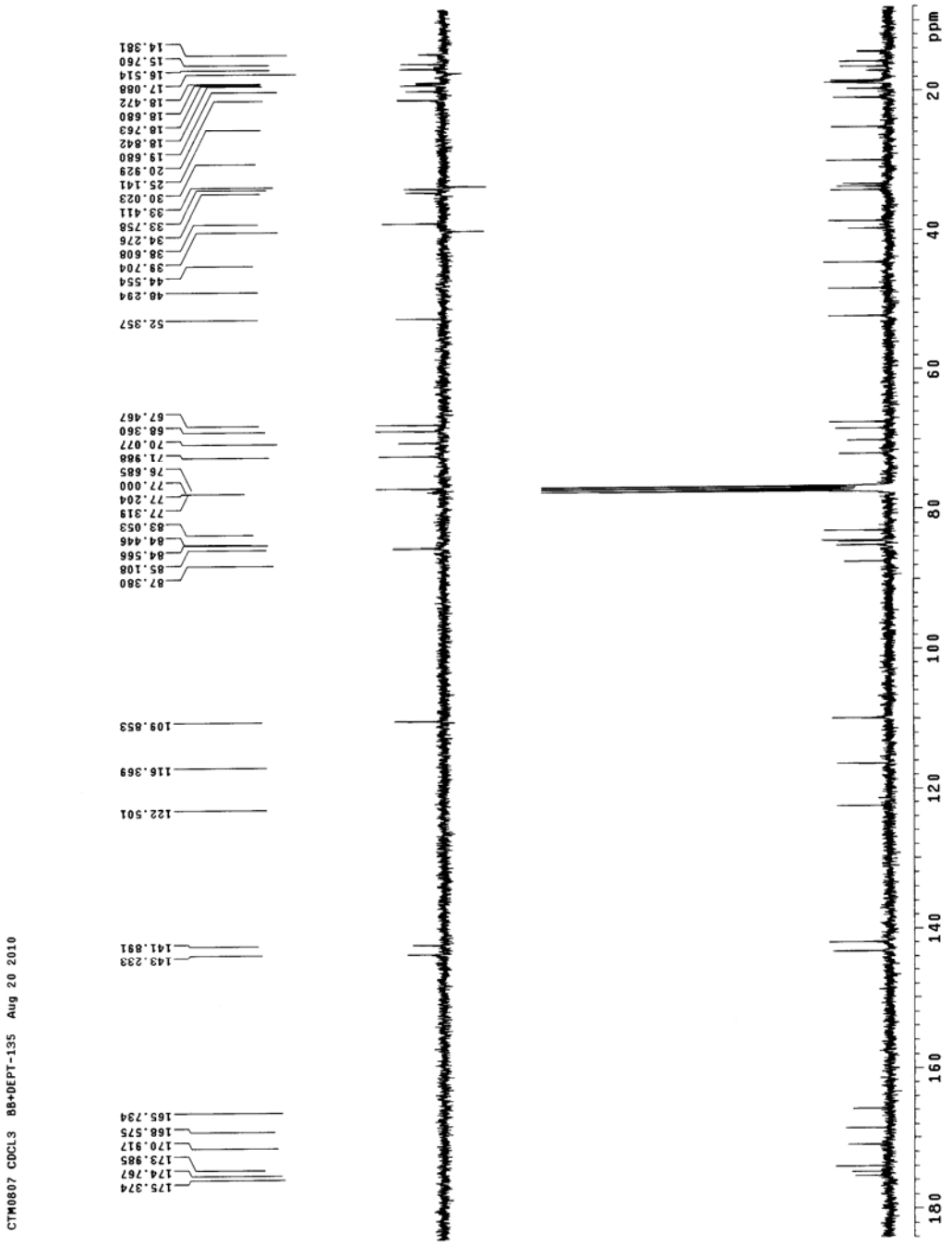


Figure S31. HSQC spectrum of 5 in $CDCl_3$

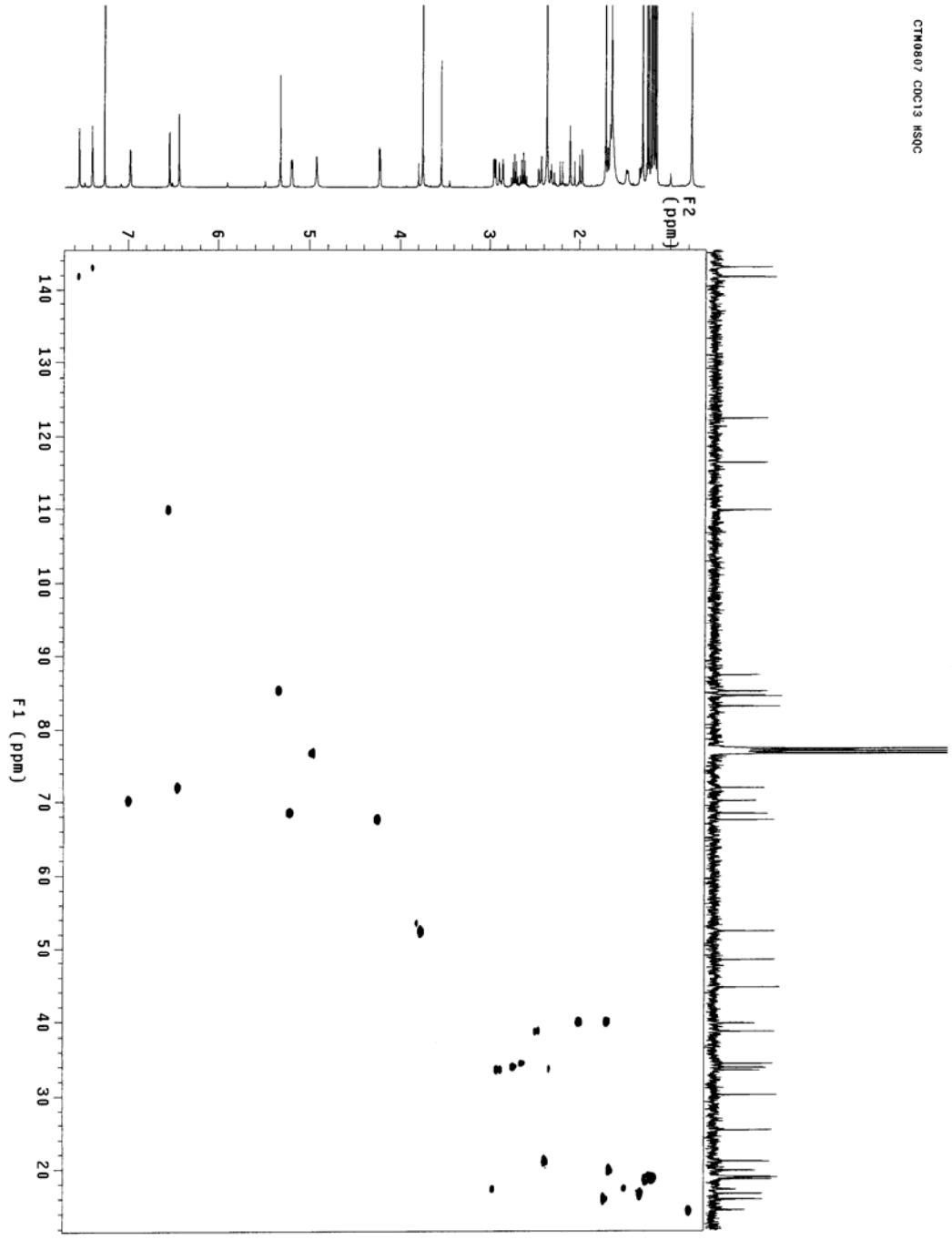


Figure S32. HMBC spectrum of **5** in $CDCl_3$

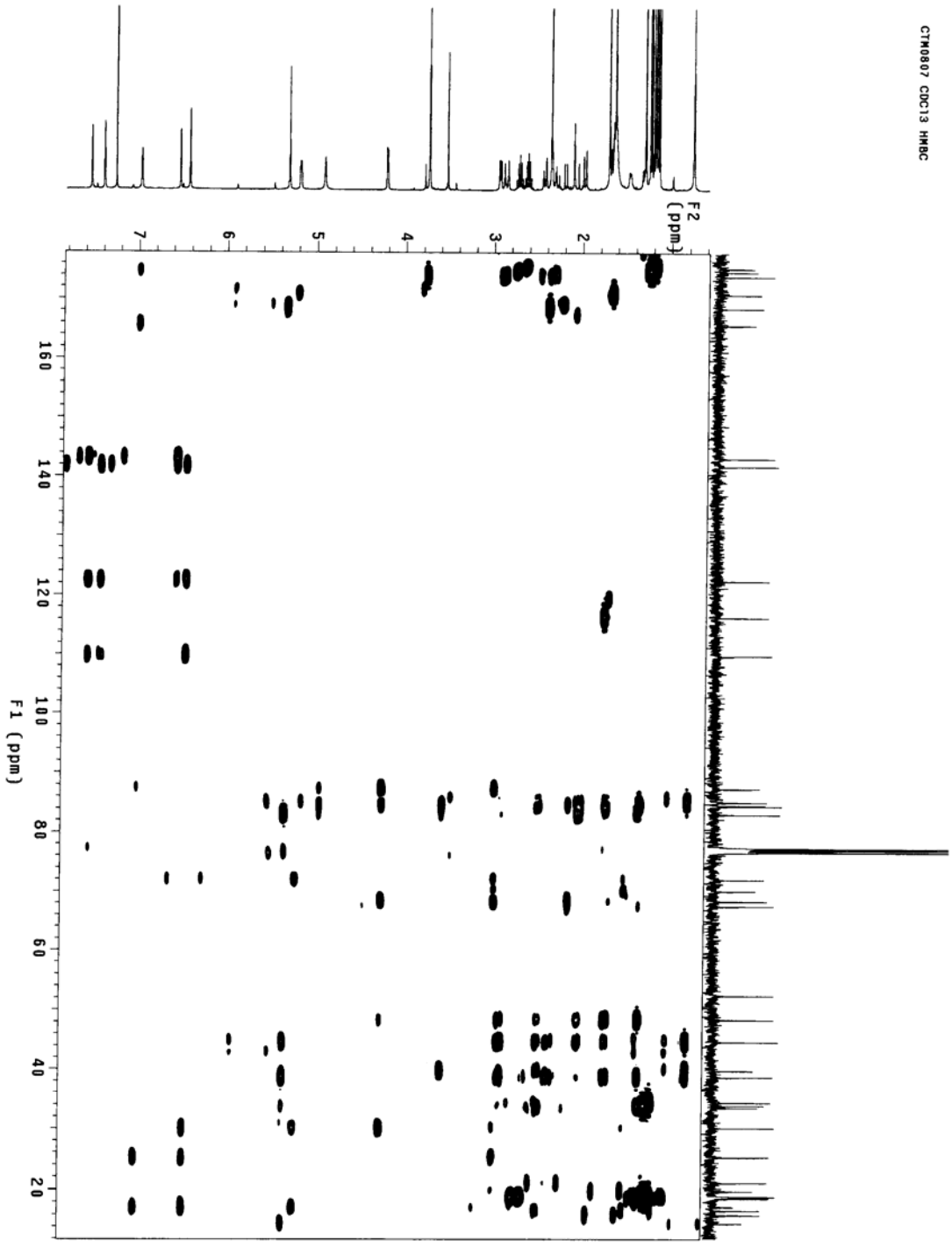


Figure S33. ROESY spectrum of **5** in $CDCl_3$

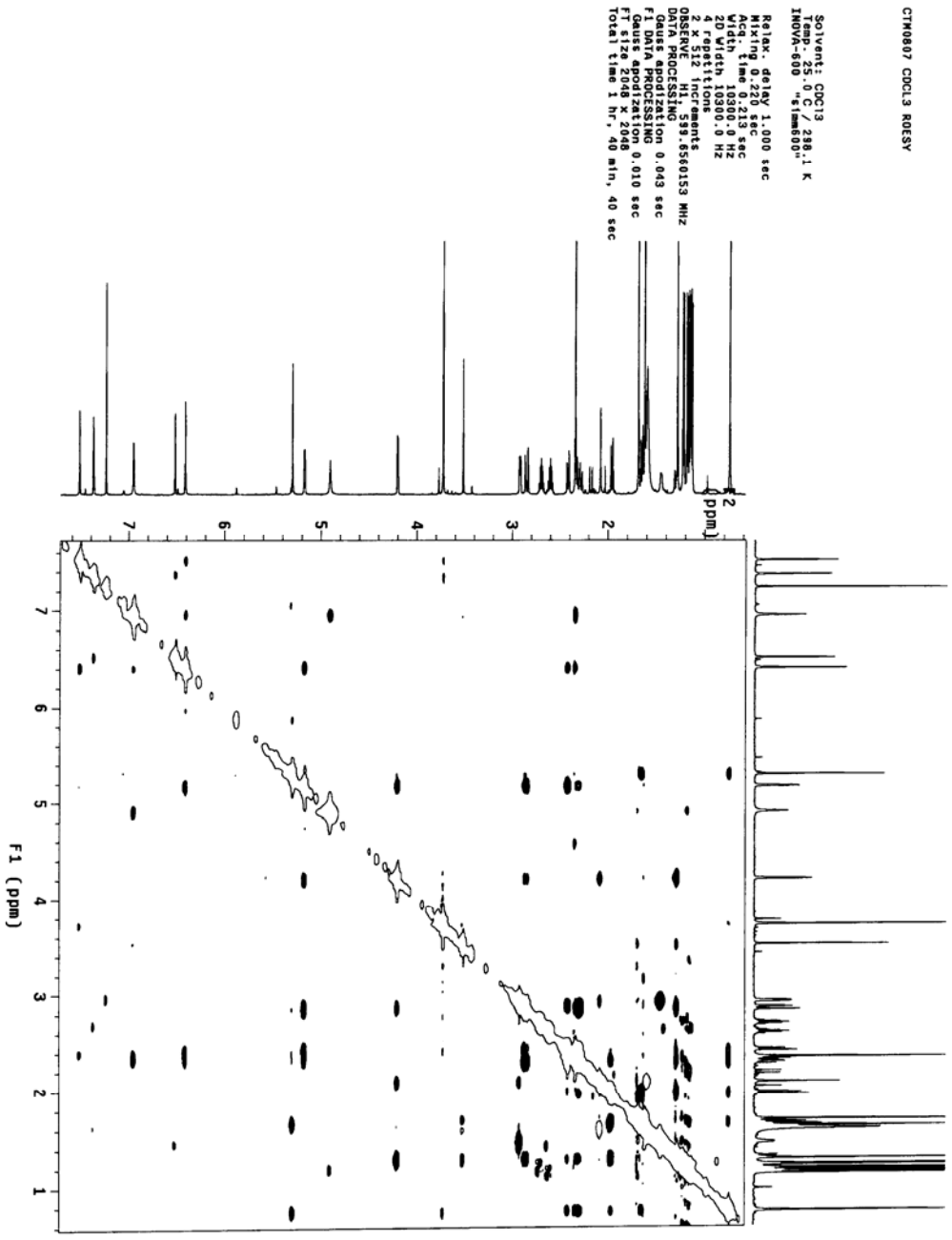


Figure S34. IR spectrum of **5**

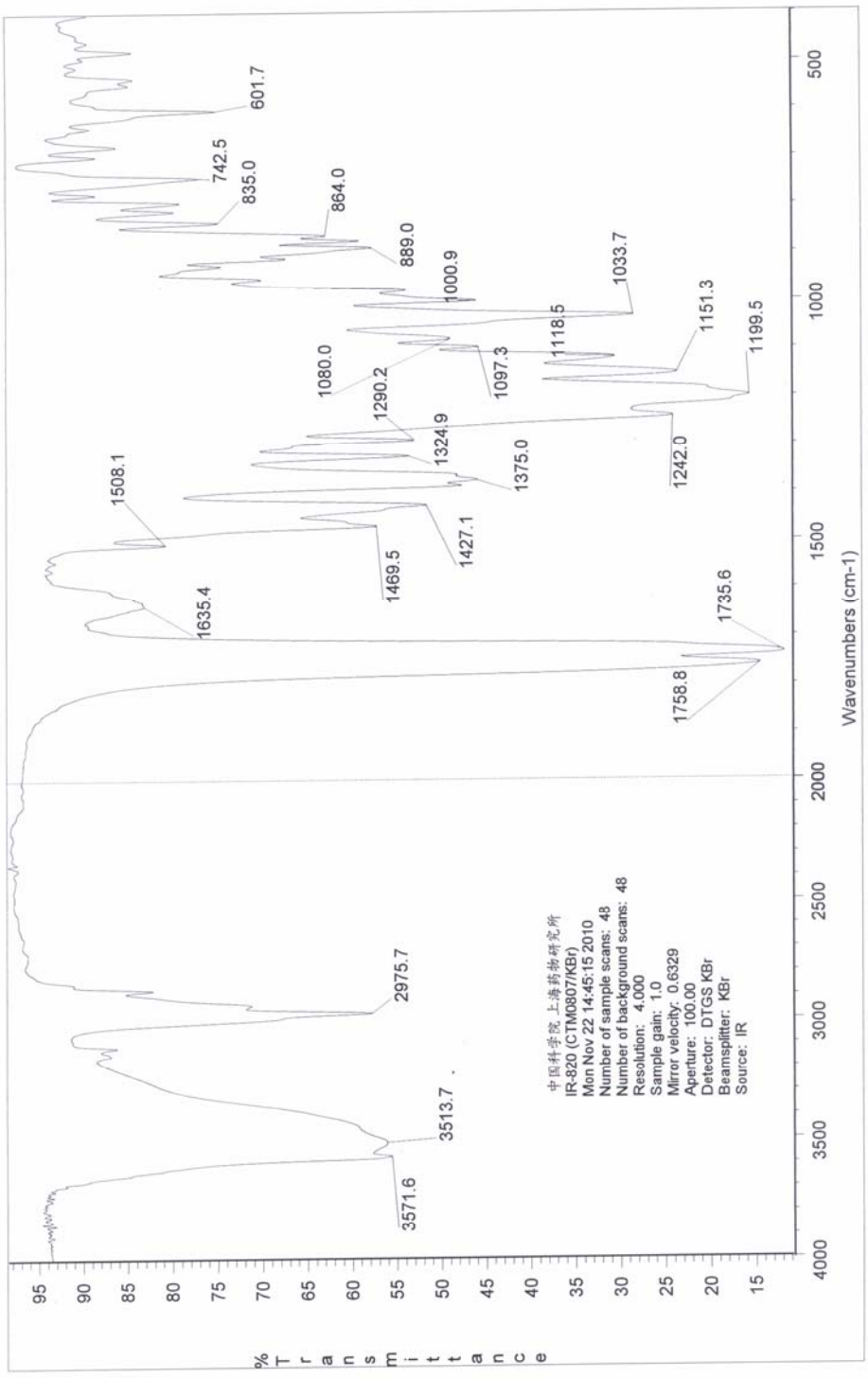
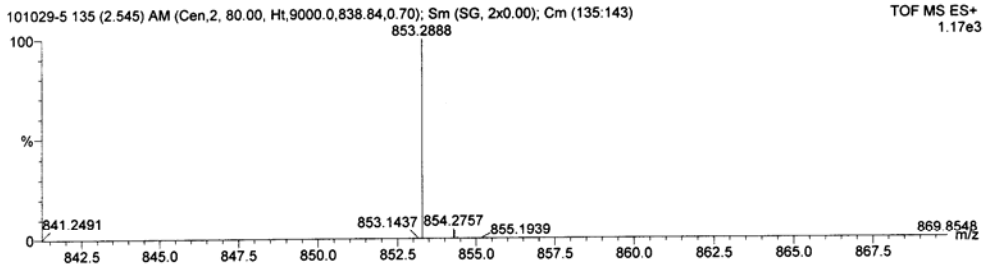


Figure S35. HR-ESI(+)MS spectrum of **5**

Elemental Composition Report **Page 1**

Tolerance = 50.0 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 (up to 20 closest results for each mass)



Minimum:	20.00				-1.5		
Maximum:	100.00		200.0	50.0	50.0		
Mass	RA	Calc. Mass	mDa	PPM	DBE	Score	Formula
853.2888	100.00	853.2895	-0.7	-0.8	16.5	1	C41 H50 O18 Na

Figure S36. ^{1}H NMR spectrum of **6** in $CDCl_3$

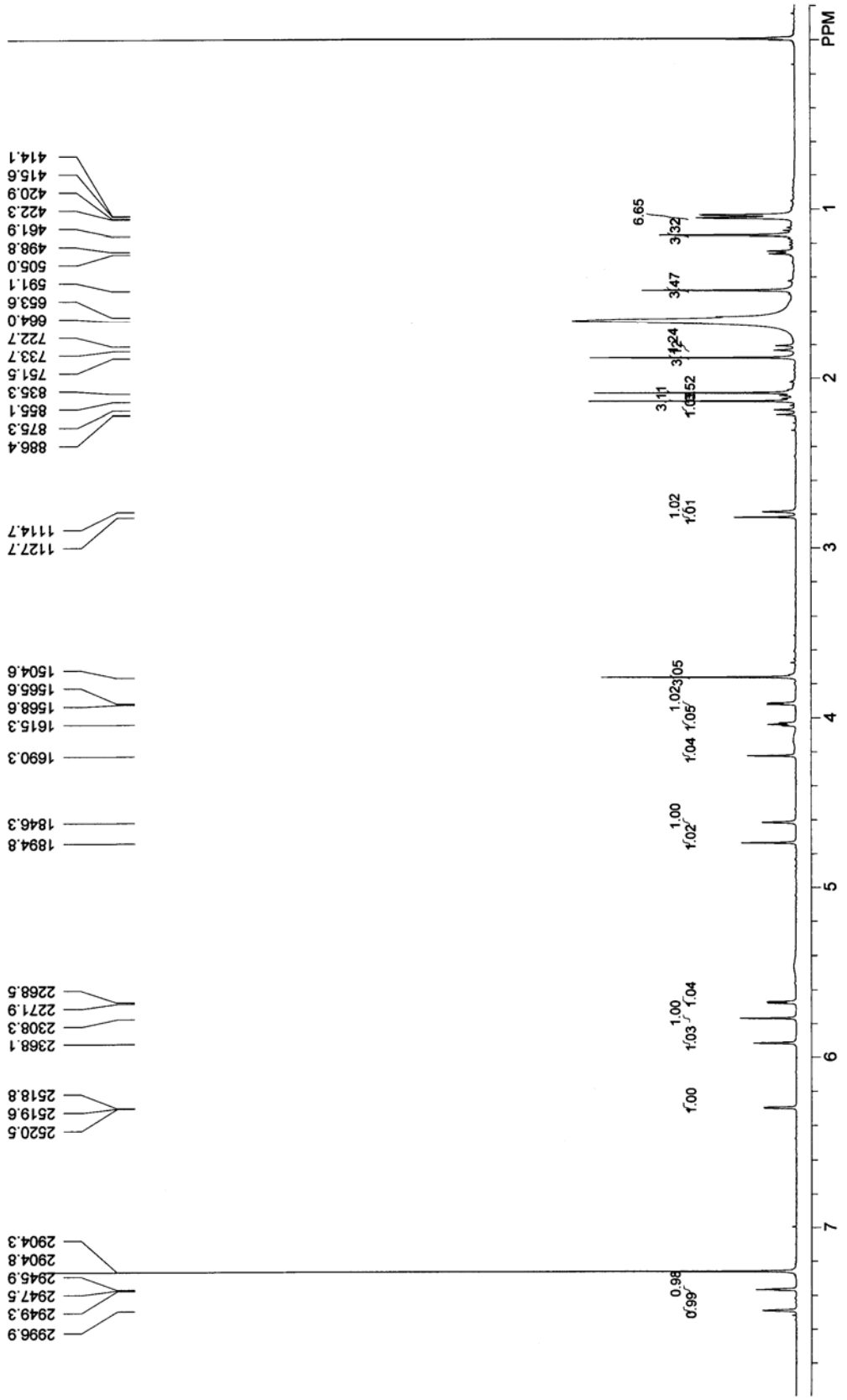


Figure S37. ^{13}C NMR spectrum of **6** in $CDCl_3$

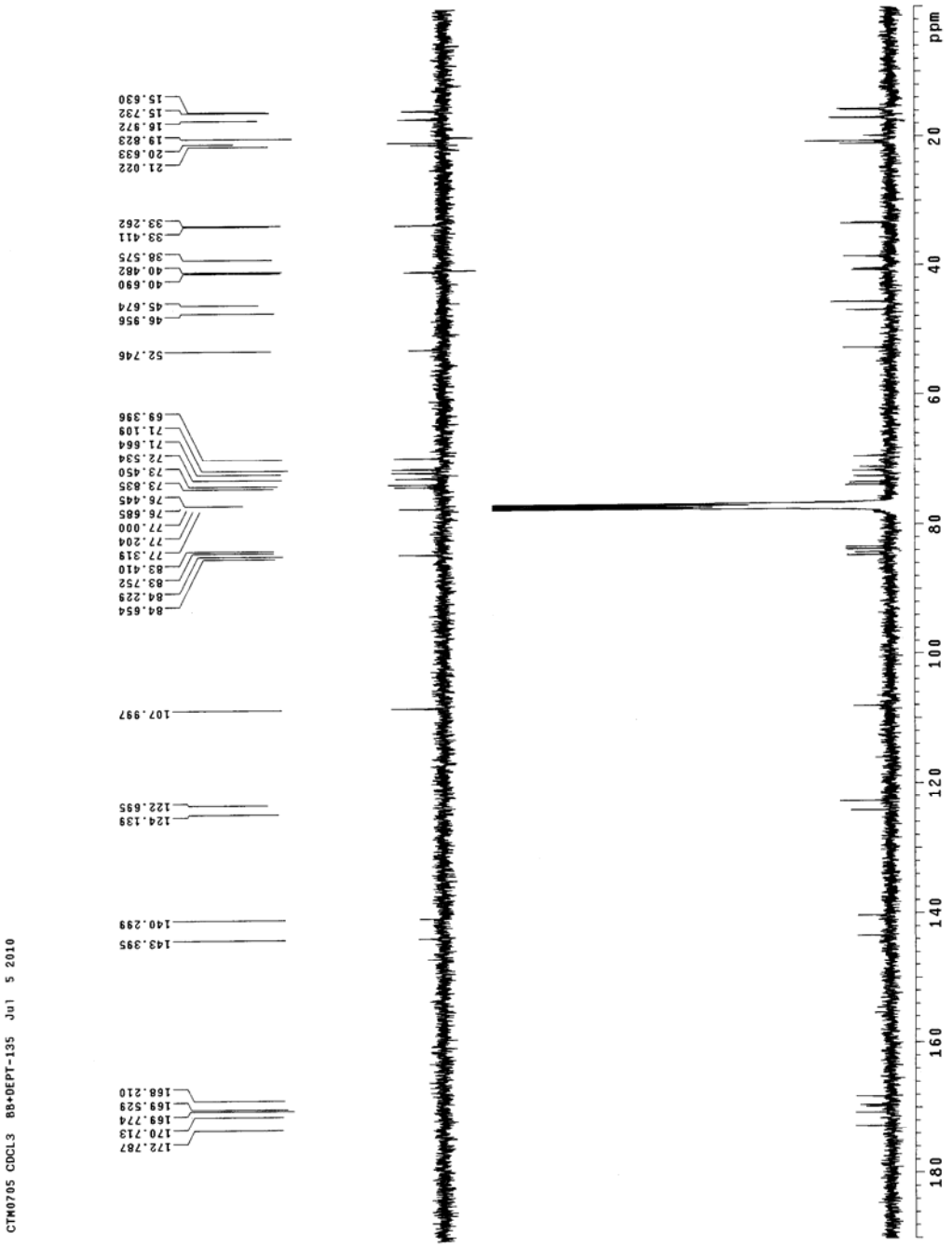


Figure S38. HSQC spectrum of **6** in $CDCl_3$

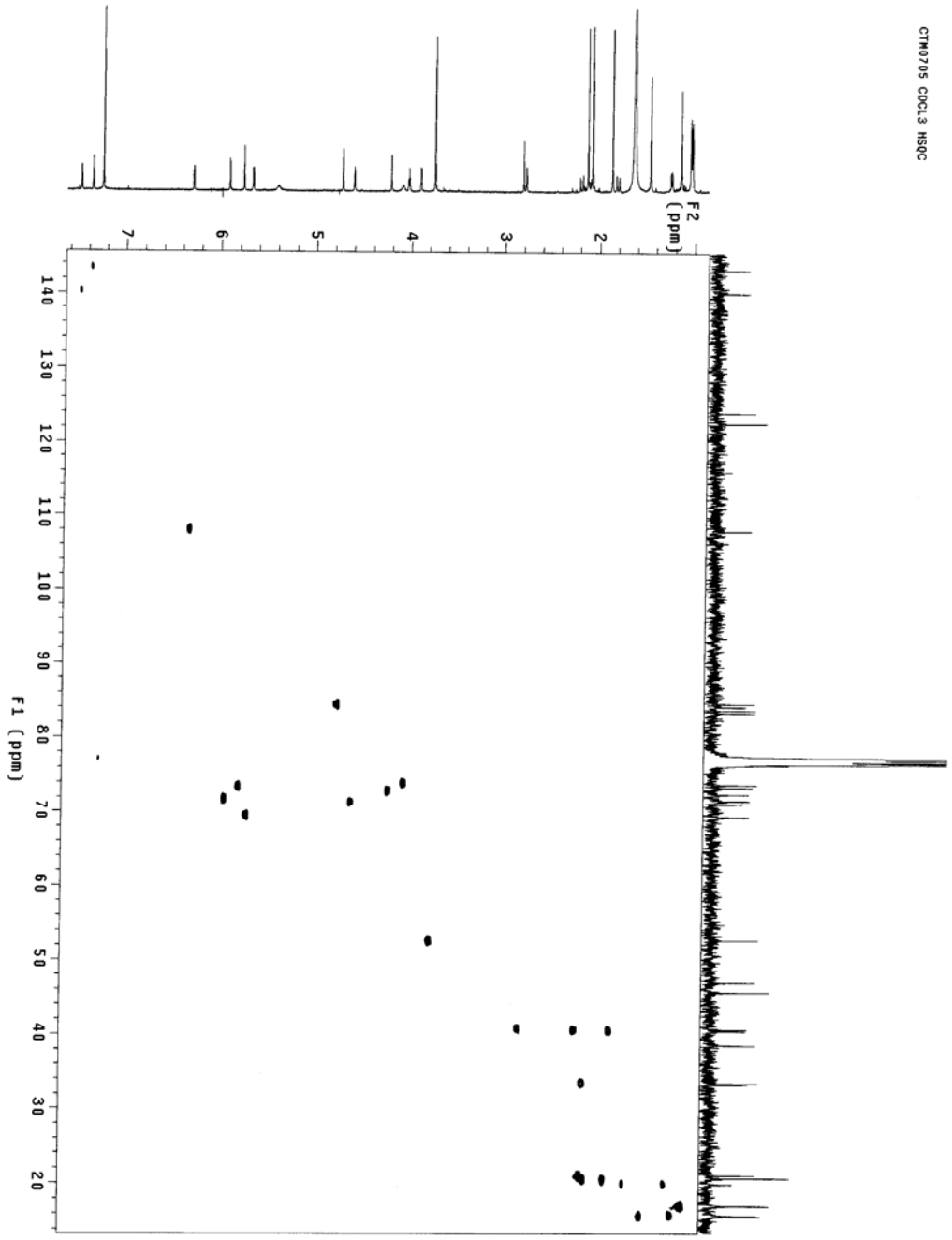


Figure S39. HMBC spectrum of **6** in $CDCl_3$

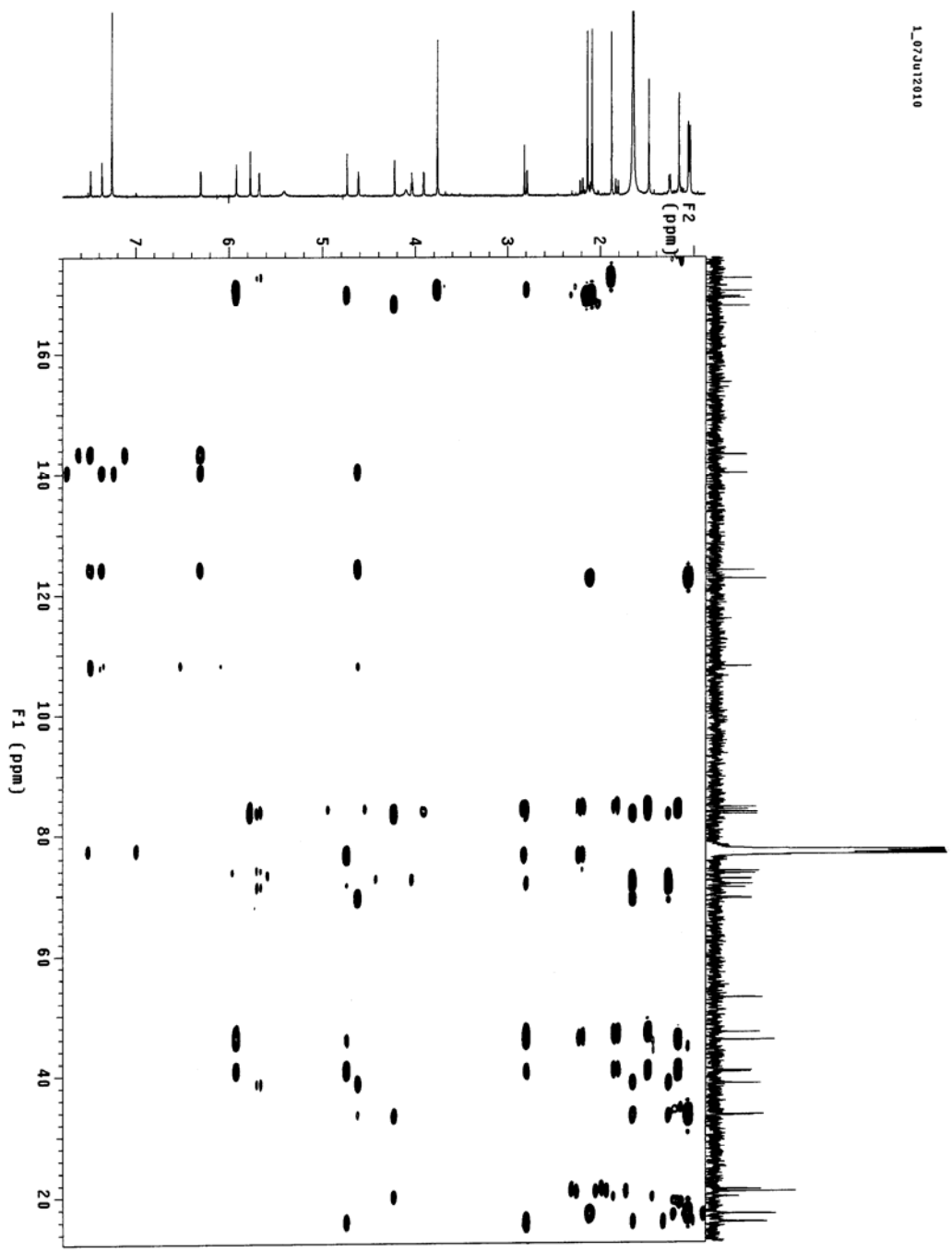


Figure S40. ROESY spectrum of **6** in $CDCl_3$

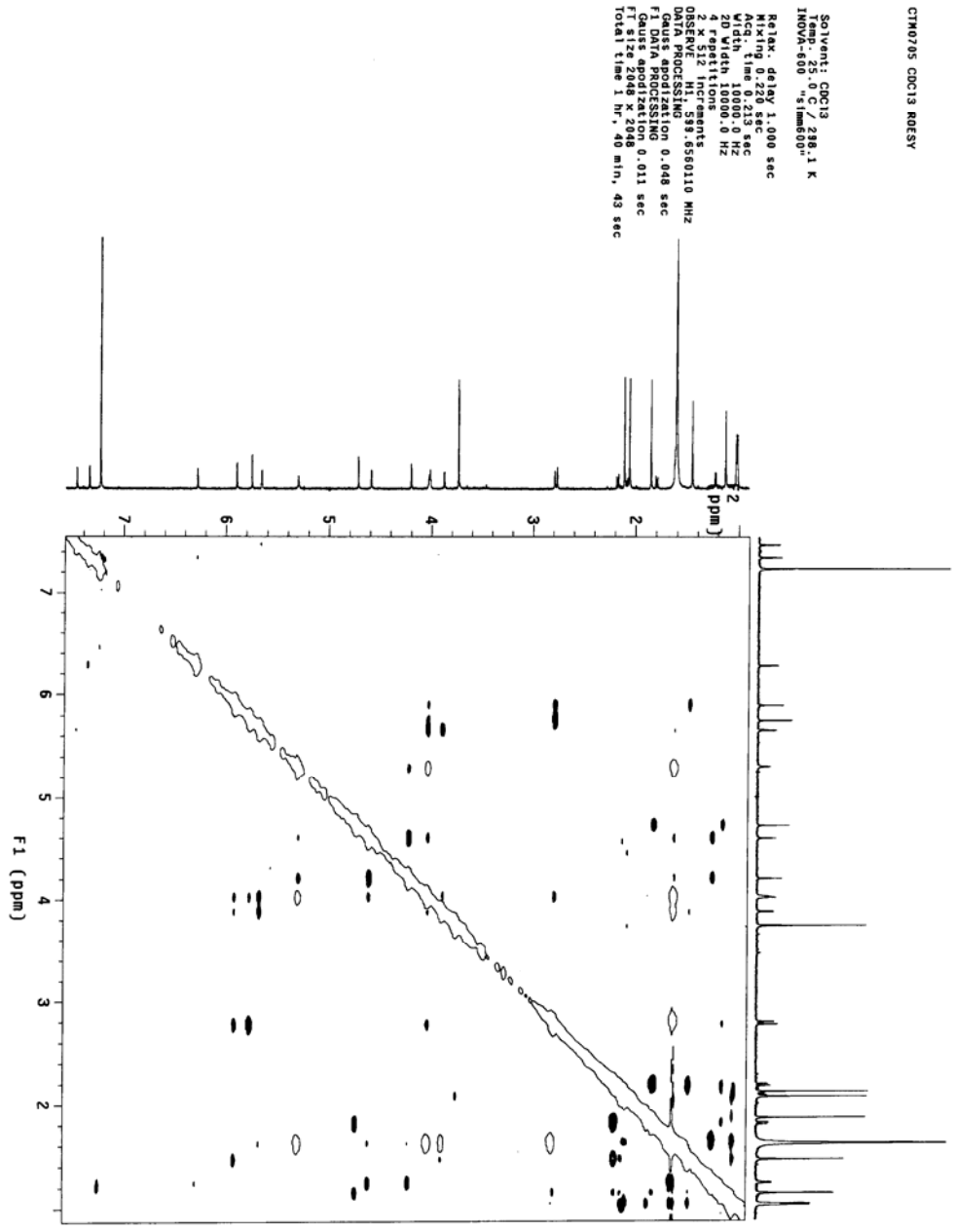


Figure S41. IR spectrum of **6**

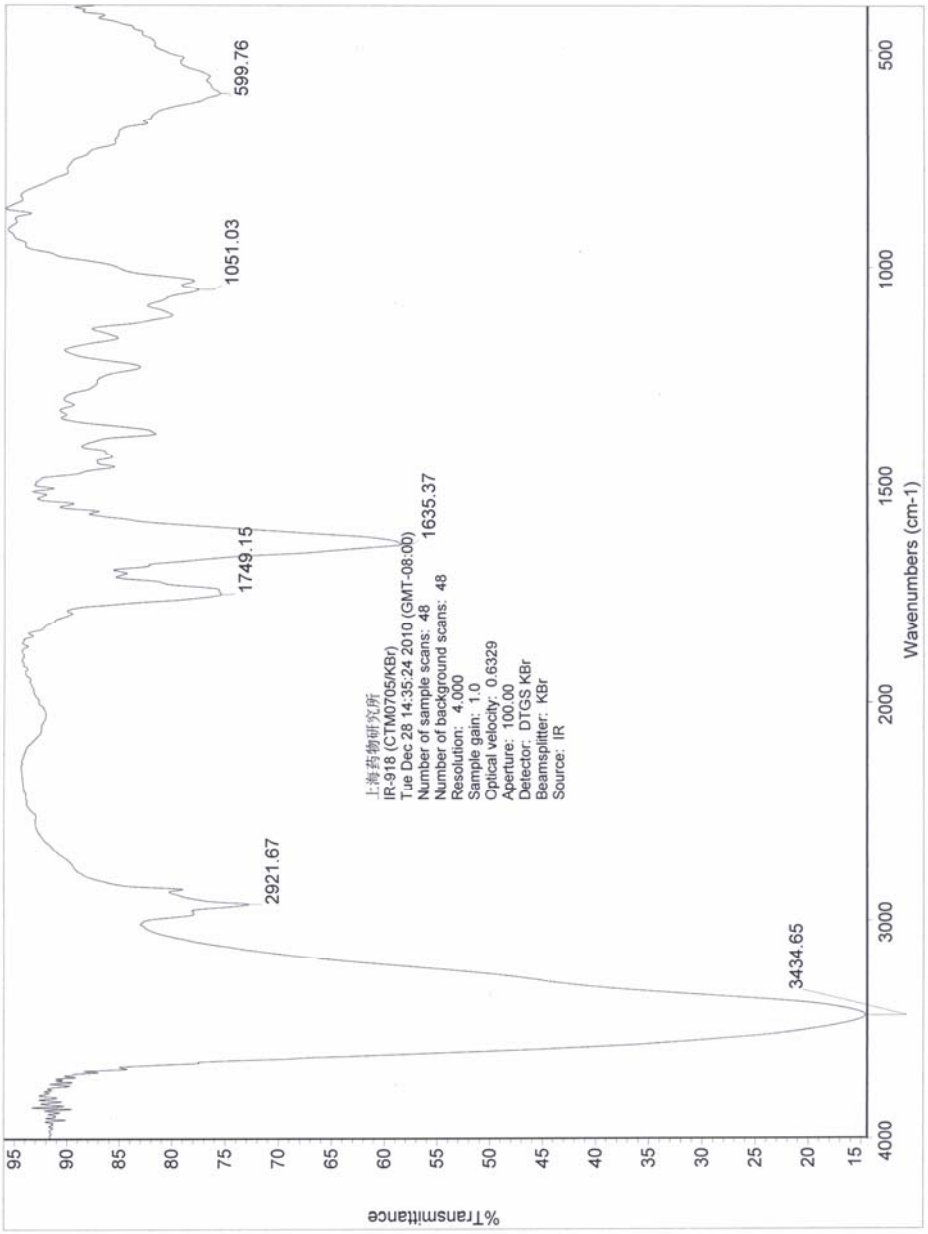


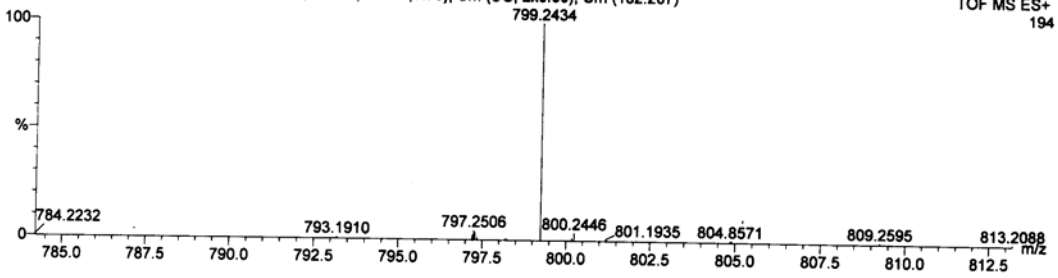
Figure S42. HR-ESI(+)MS spectrum of **6**

Elemental Composition Report **Page 1**

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

Monoisotopic Mass, Odd and Even Electron Ions
36 formula(e) evaluated with 1 results within limits (up to 20 closest results for each mass)

101108-2 207 (3.901) AM (Cen,2, 80.00, Ht,9000.0,702.86,0.70); Sm (SG, 2x0.00); Cm (182:207) TOF MS ES+ 194



Minimum:	20.00				-1.5		
Maximum:	100.00		200.0	50.0	50.0		
Mass	RA	Calc. Mass	mDa	PPM	DBE	Score	Formula
799.2434	100.00	799.2425	0.9	1.1	15.5	1	C37 H44 O18 Na

Figure S43. ^{1}H NMR spectrum of **7** in $CDCl_3$

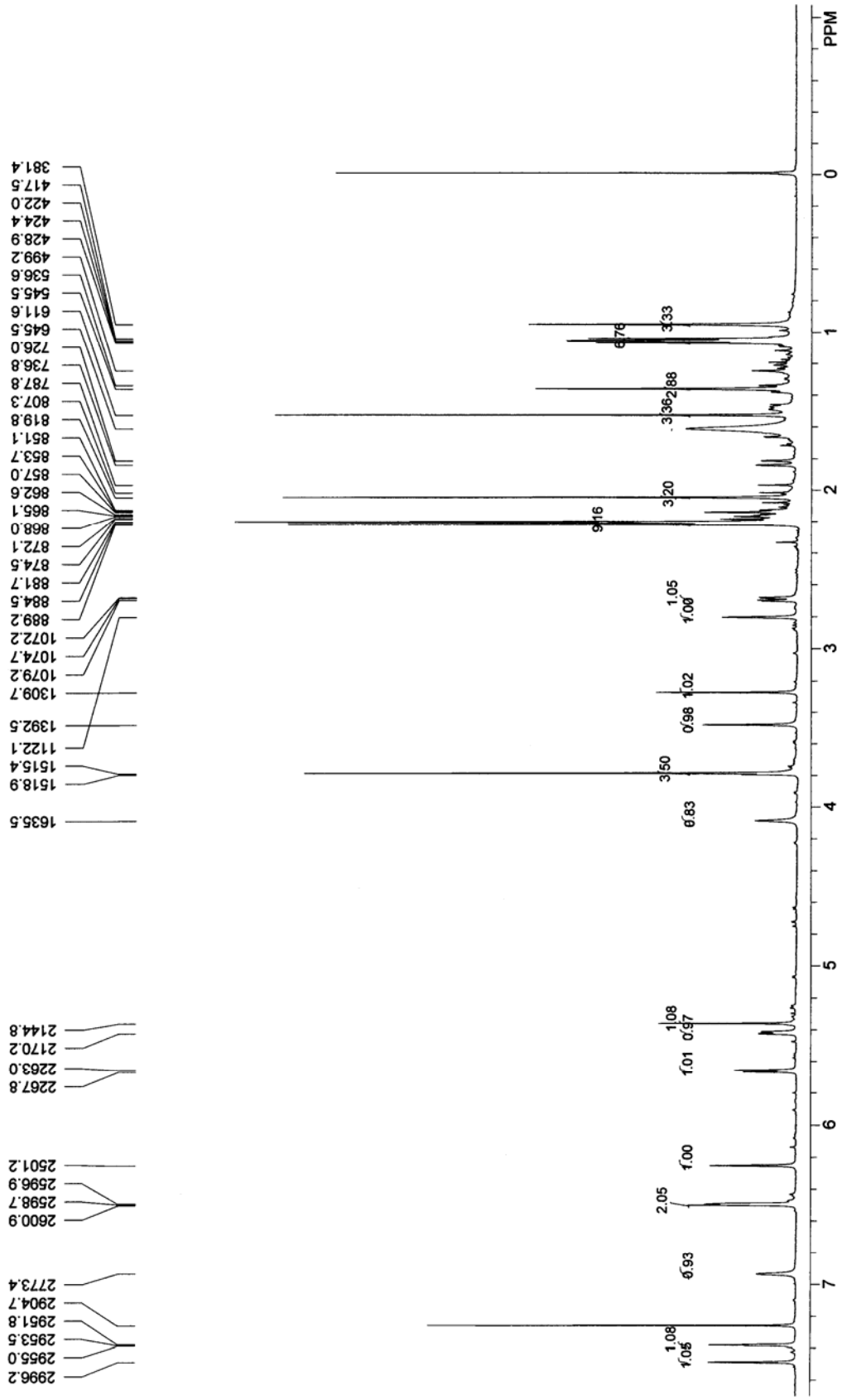


Figure S44. ^{13}C NMR spectrum of **7** in $CDCl_3$

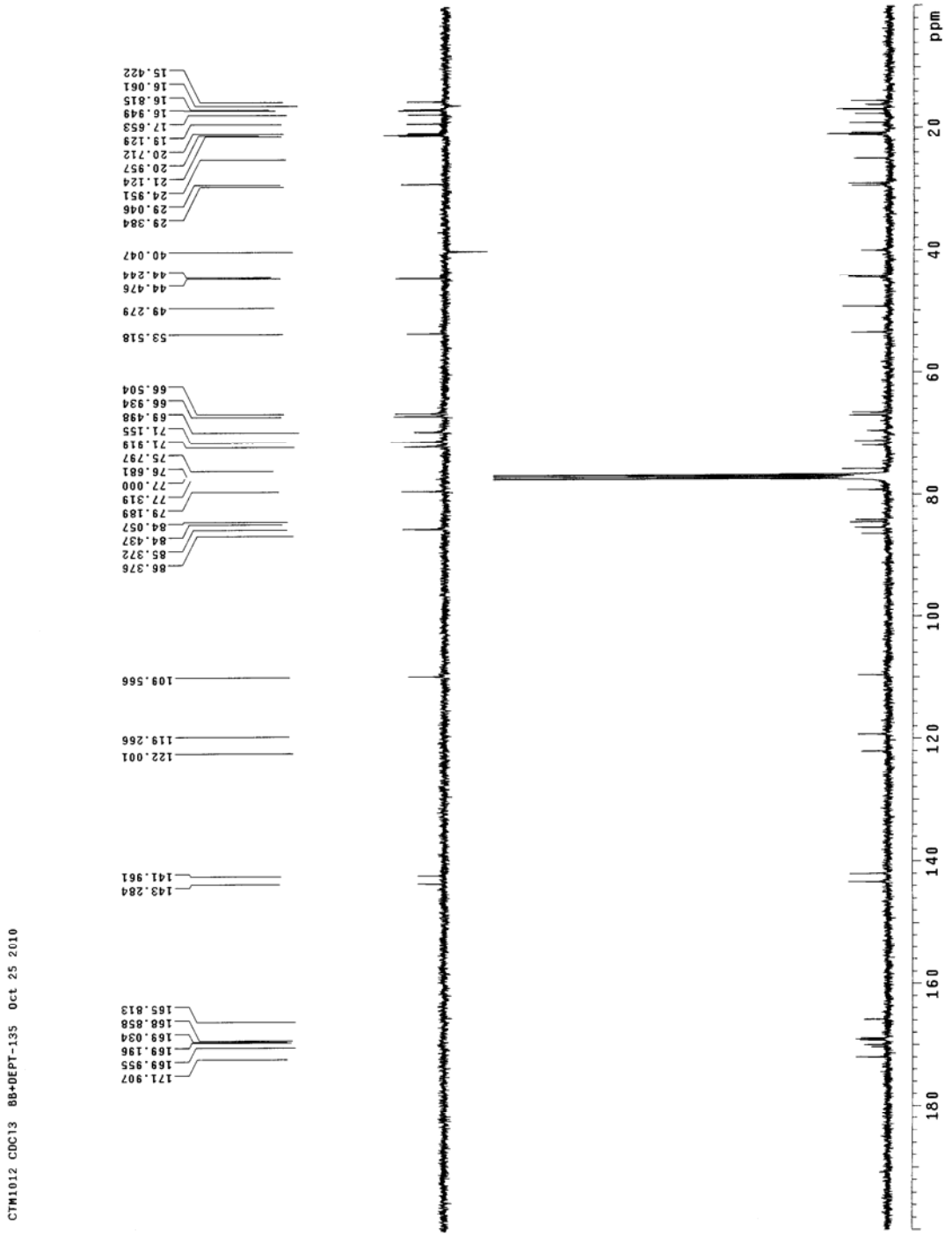


Figure S45. HSQC spectrum of **7** in $CDCl_3$

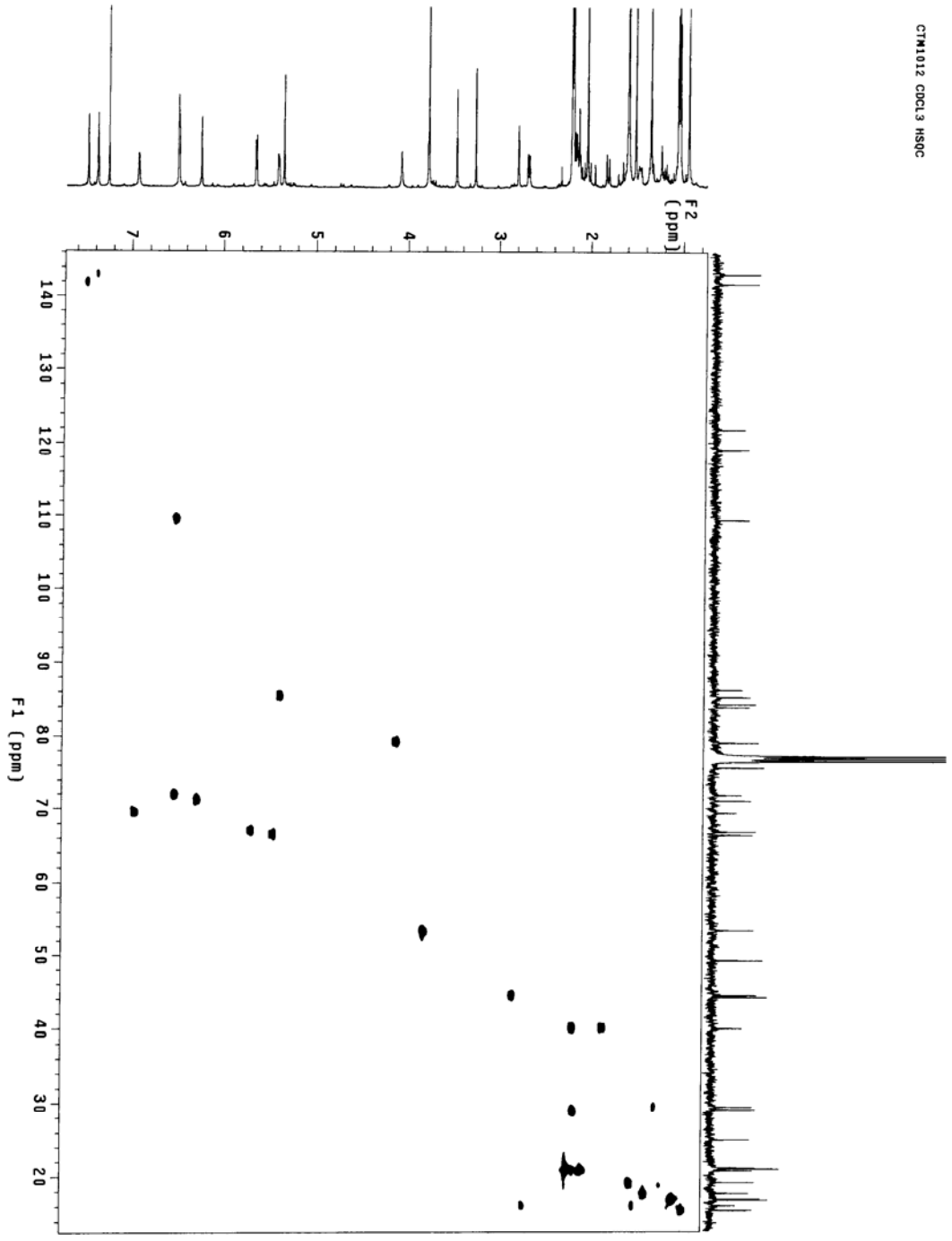


Figure S46. HMBC spectrum of **7** in $CDCl_3$

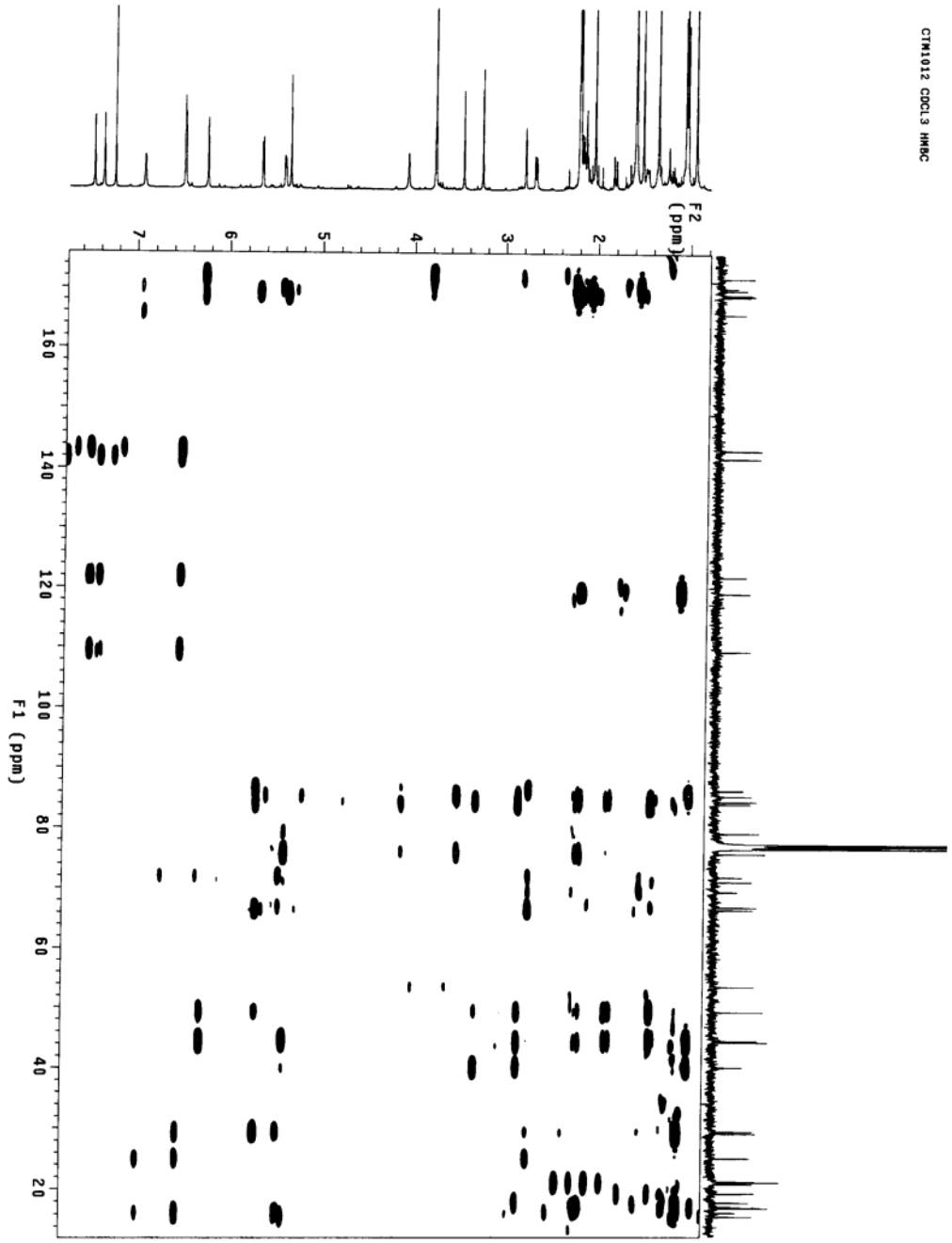


Figure S47. ROESY spectrum of **7** in $CDCl_3$

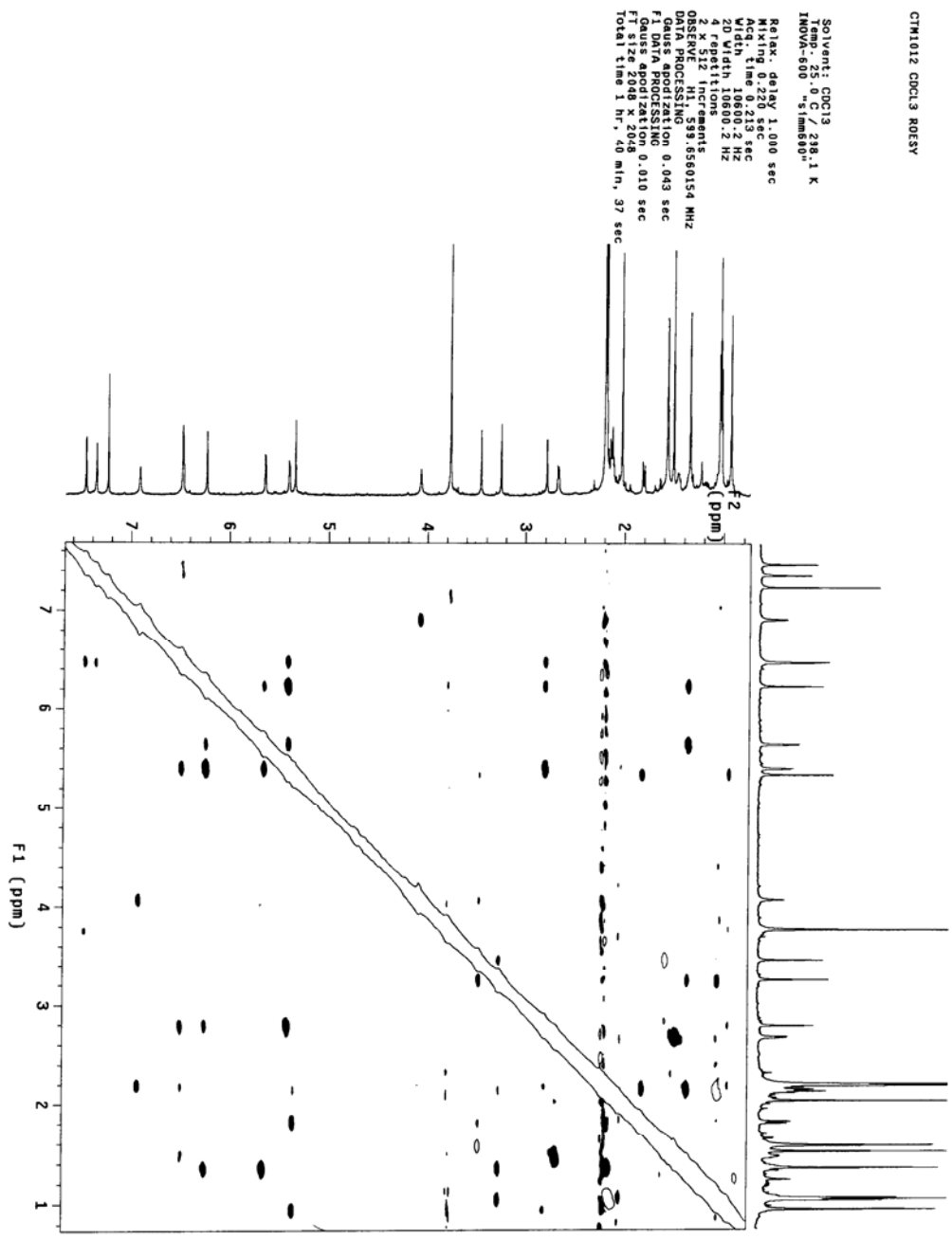


Figure S48. IR spectrum of **7**

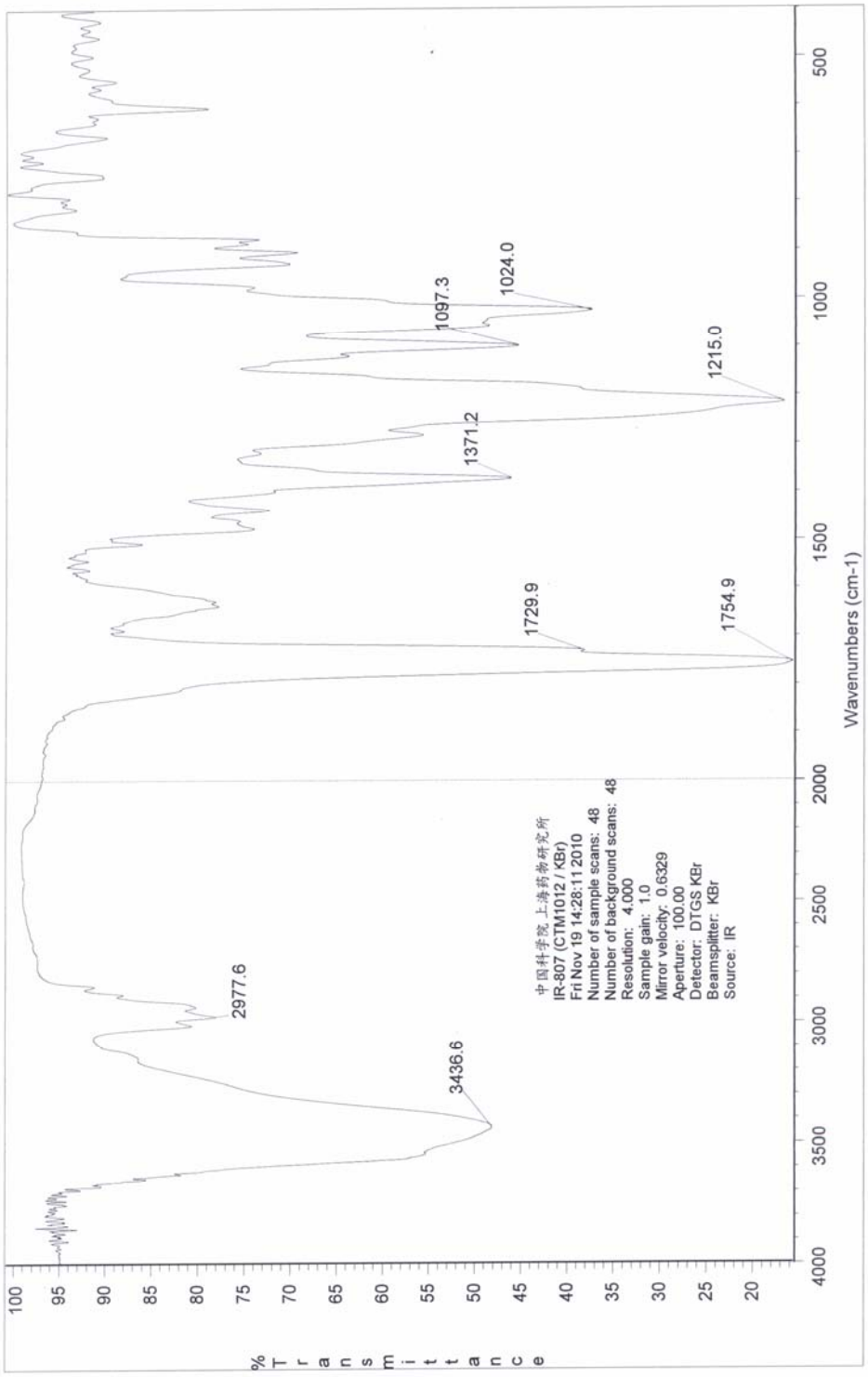


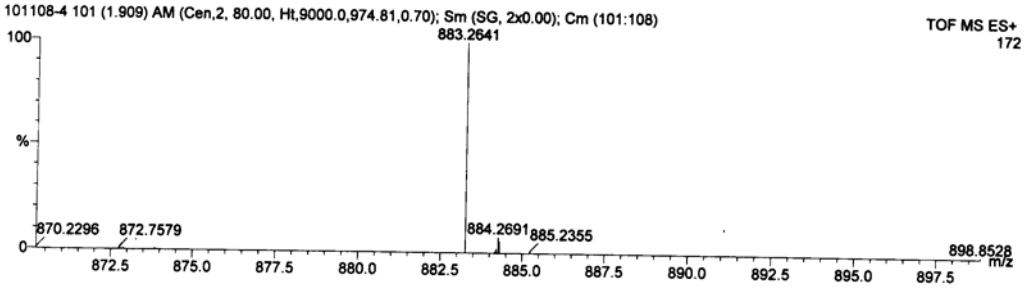
Figure S49. HR-ESI(+)MS spectrum of **7**

Elemental Composition Report **Page 1**

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

Monoisotopic Mass, Odd and Even Electron Ions
39 formula(e) evaluated with 1 results within limits (up to 20 closest results for each mass)

101108-4 101 (1.909) AM (Cen,2, 80.00, Ht,9000.0,974.81,0.70); Sm (SG, 2x0.00); Cm (101:108) TOF MS ES+ 172



Minimum:	20.00				-1.5		
Maximum:	100.00		200.0	50.0	50.0		
Mass	RA	Calc. Mass	mDa	PPM	DBE	Score	Formula
883.2641	100.00	883.2637	0.4	0.5	17.5	1	C41 H48 O20 Na

Figure S50. ^{1}H NMR spectrum of **8** in $CDCl_3$

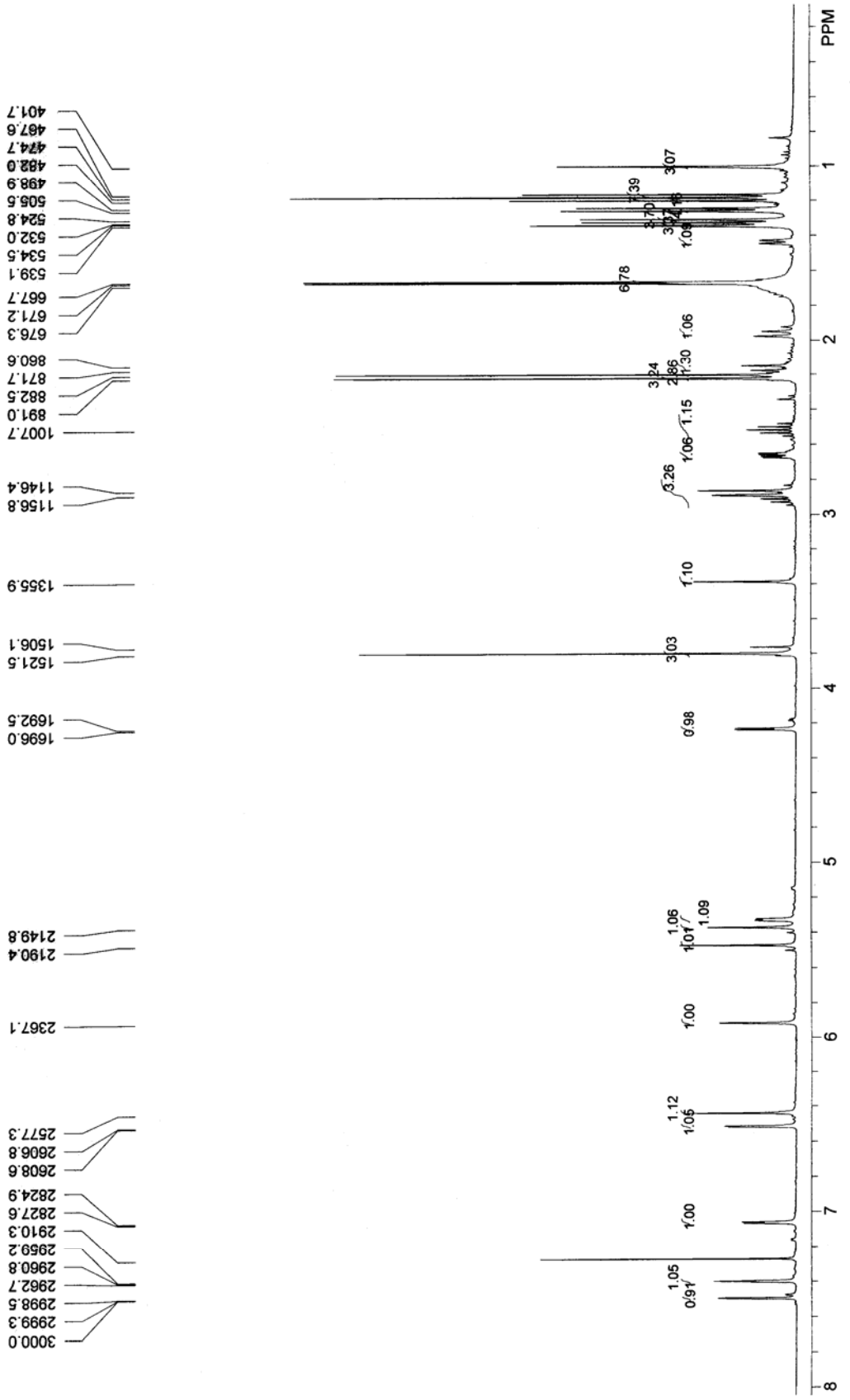


Figure S51. ^{13}C NMR spectrum of **8** in $CDCl_3$

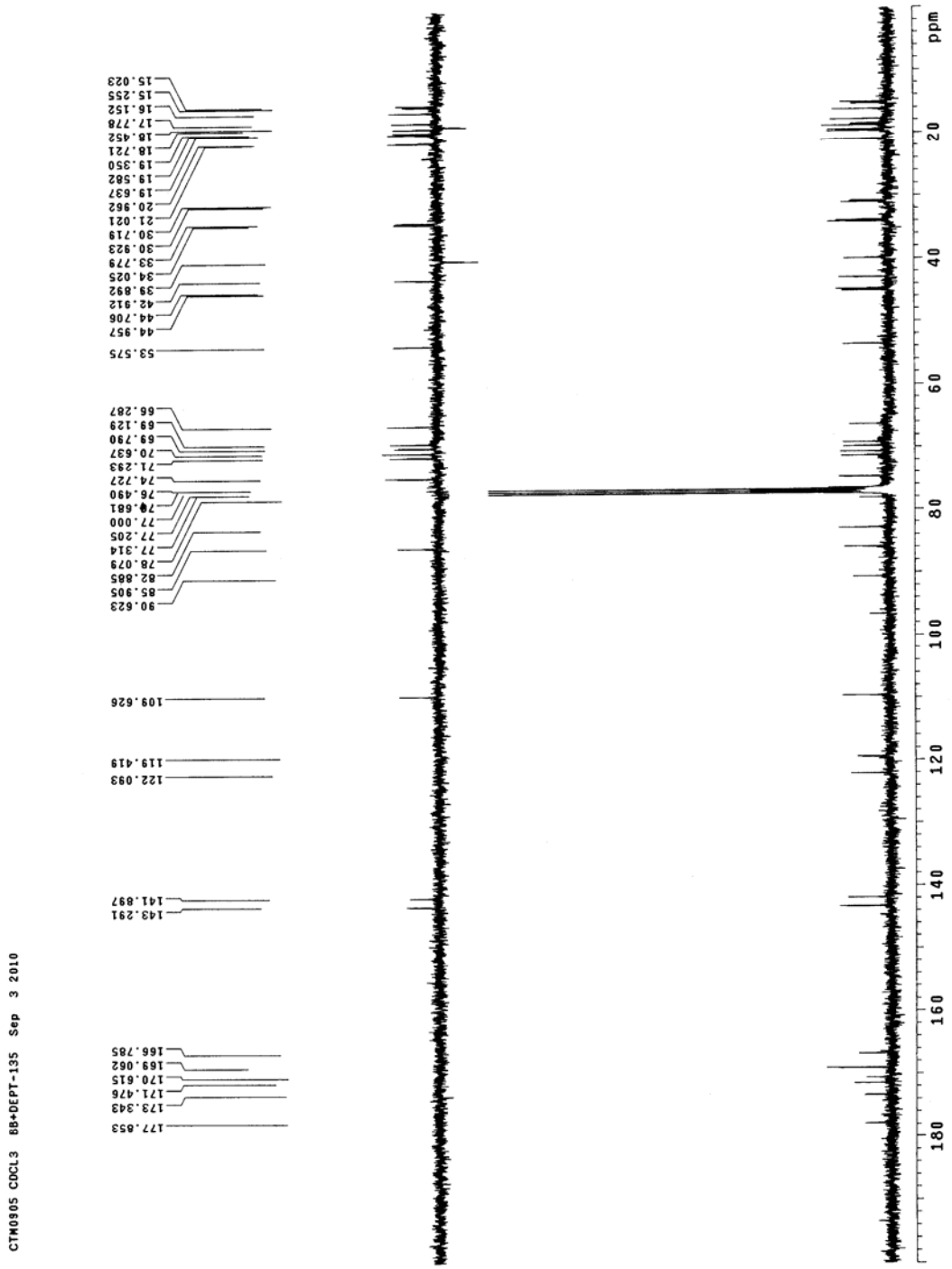


Figure S52. HSQC spectrum of **8** in $CDCl_3$

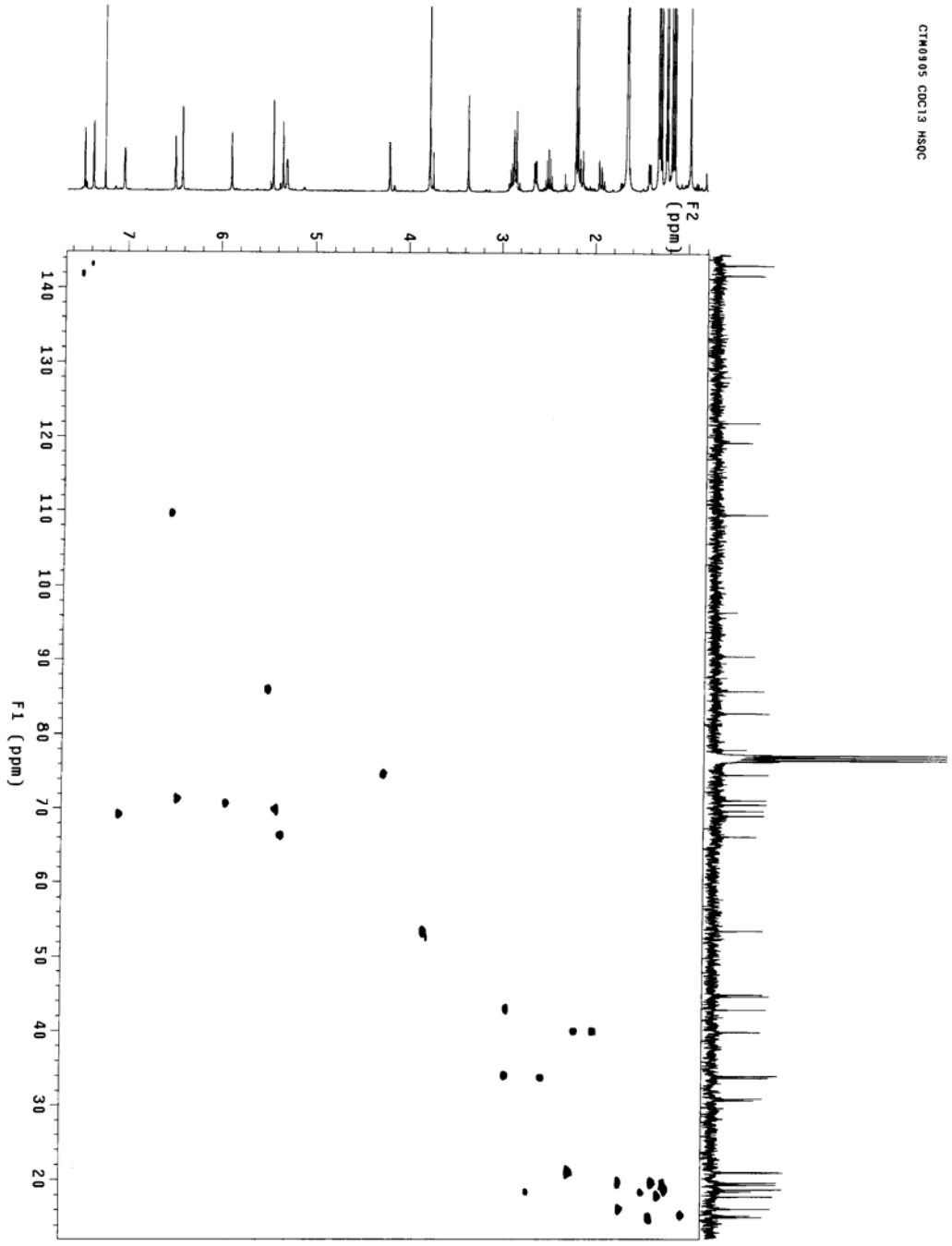


Figure S53. HMBC spectrum of **8** in $CDCl_3$

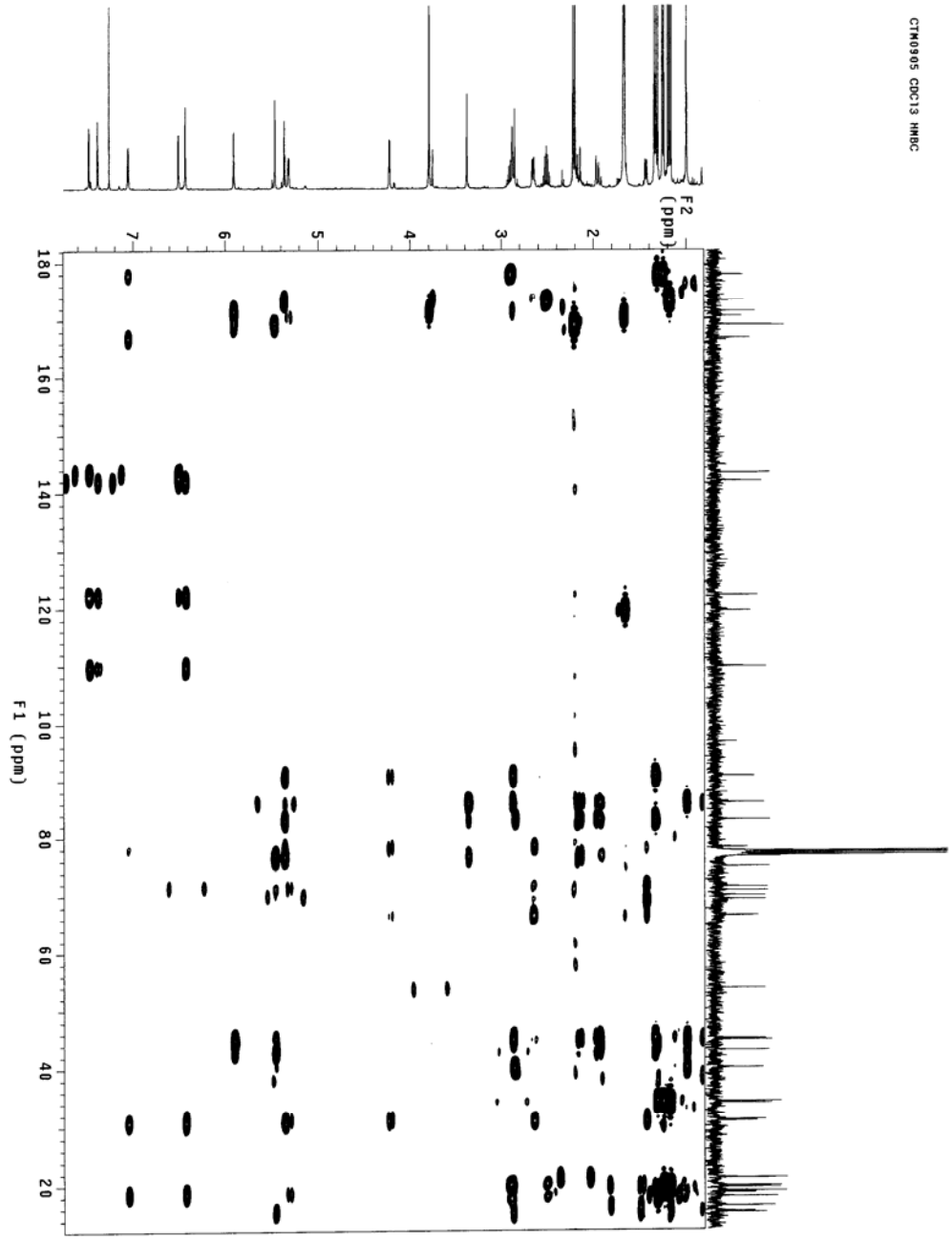


Figure S54. ROESY spectrum of **8** in $CDCl_3$

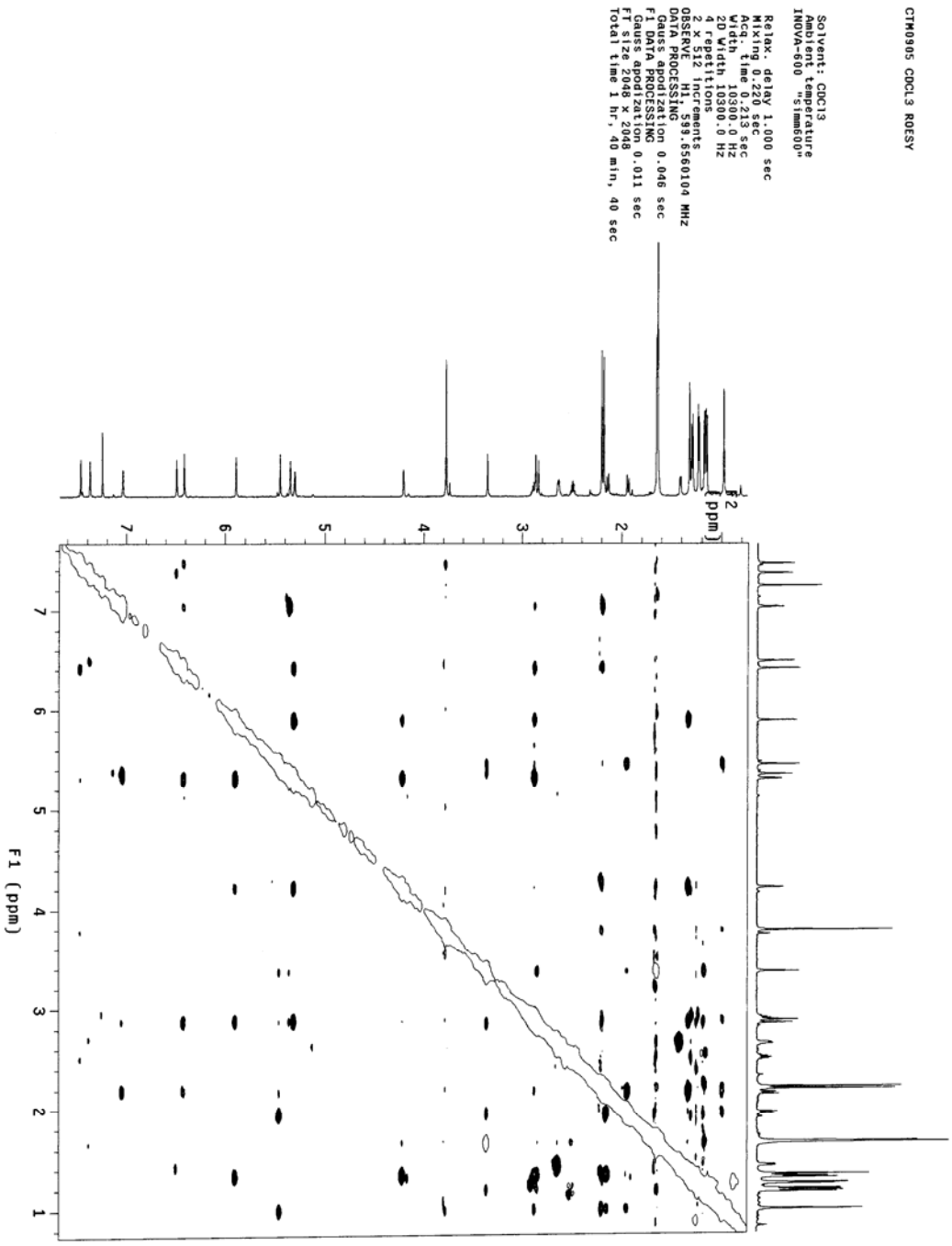


Figure S55. IR spectrum of **8**

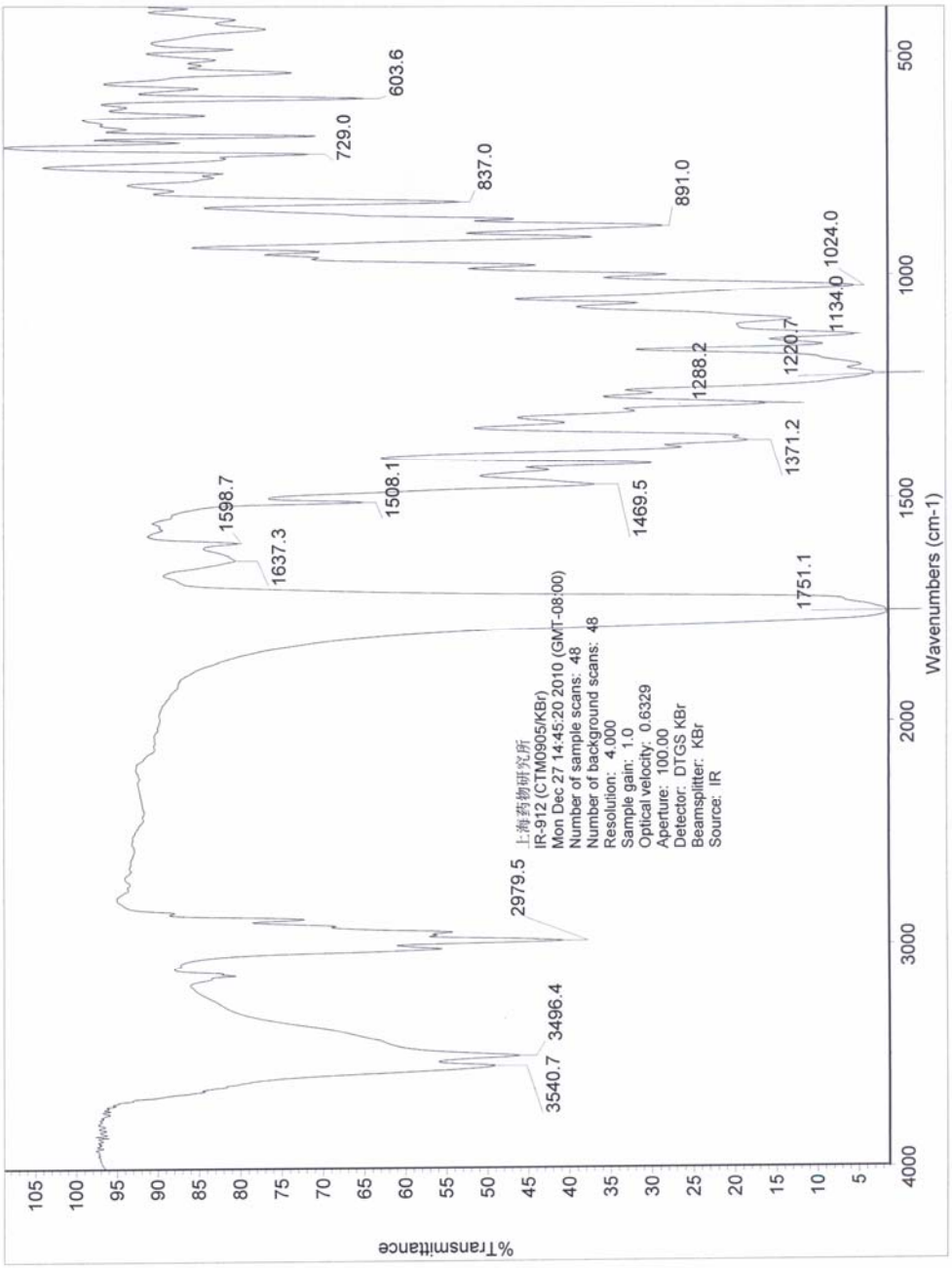
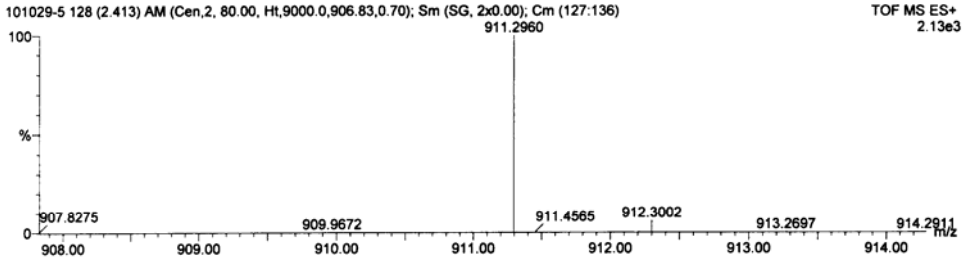


Figure S56. HR-ESI(+)MS spectrum of **8**

Elemental Composition Report **Page 1**

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

Monoisotopic Mass, Odd and Even Electron Ions
38 formula(e) evaluated with 1 results within limits (up to 20 closest results for each mass)



Minimum:	20.00				-1.5		
Maximum:	100.00		200.0	50.0	50.0		
Mass	RA	Calc. Mass	mDa	PPM	DBE	Score	Formula
911.2960	100.00	911.2950	1.0	1.1	17.5	1	C43 H52 O20 Na

Figure S57. ^{1}H NMR spectrum of **9** in $CDCl_3$

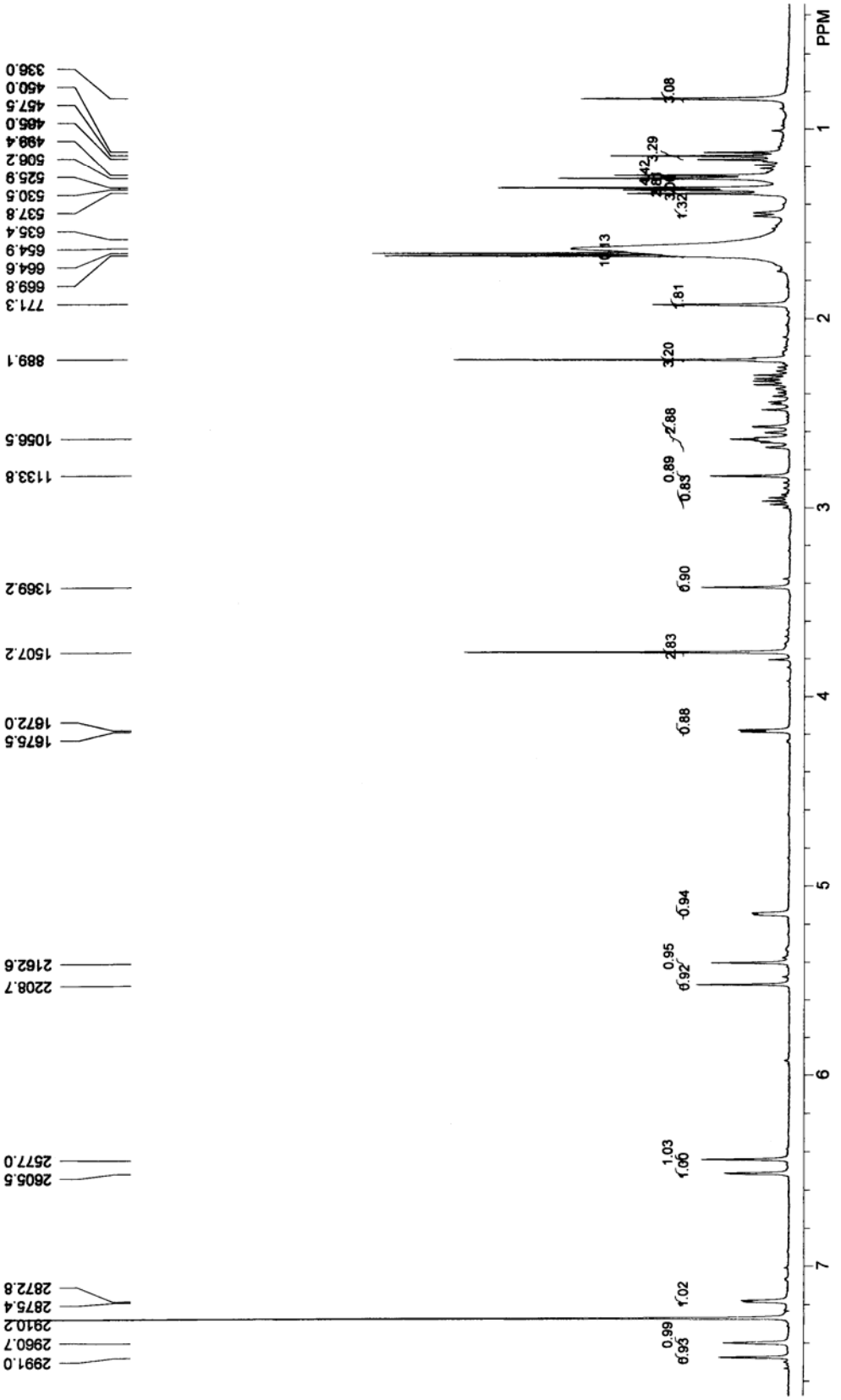


Figure S58. ^{13}C NMR spectrum of **9** in $CDCl_3$

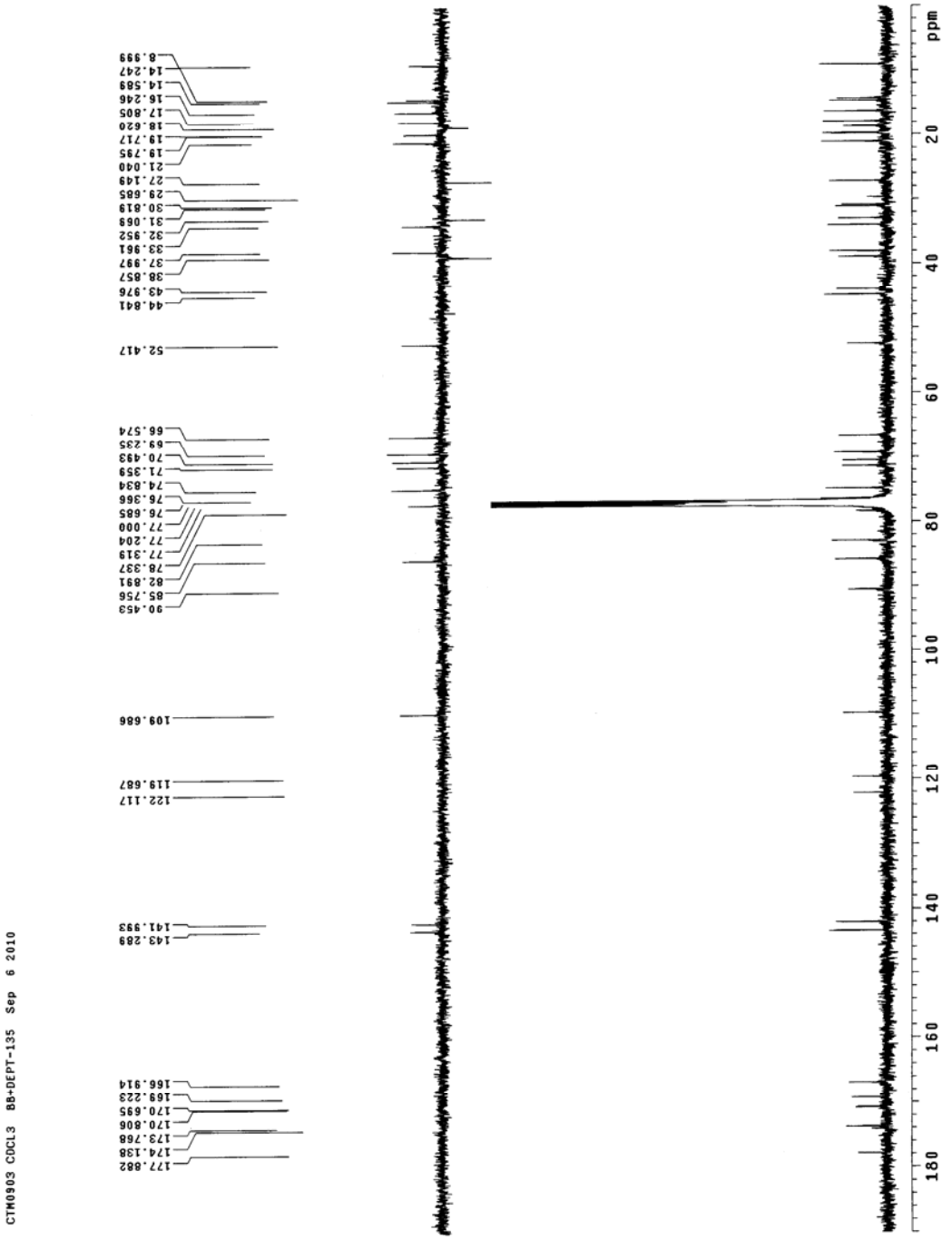


Figure S59. HSQC spectrum of **9** in $CDCl_3$

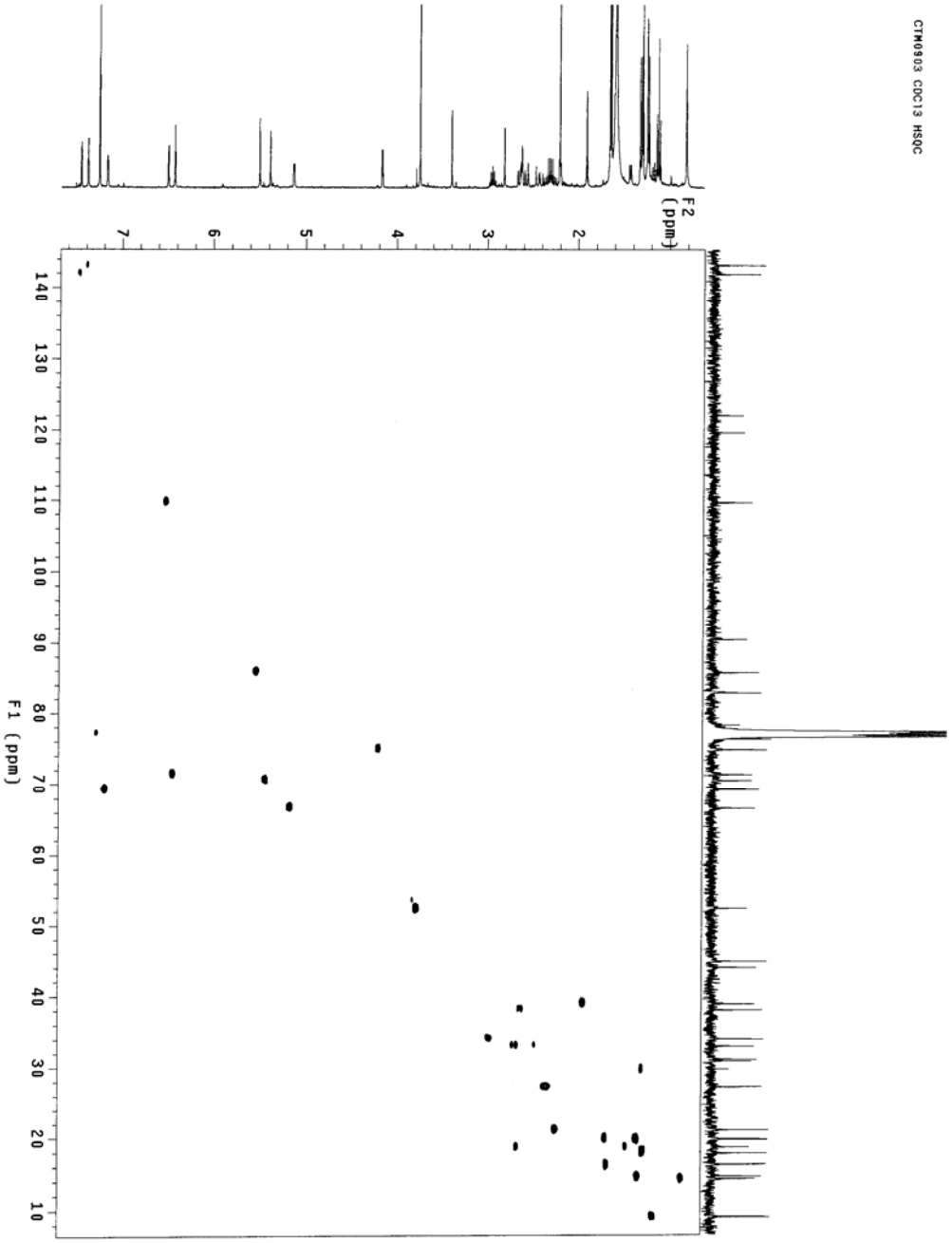


Figure S60. HMBC spectrum of **9** in $CDCl_3$

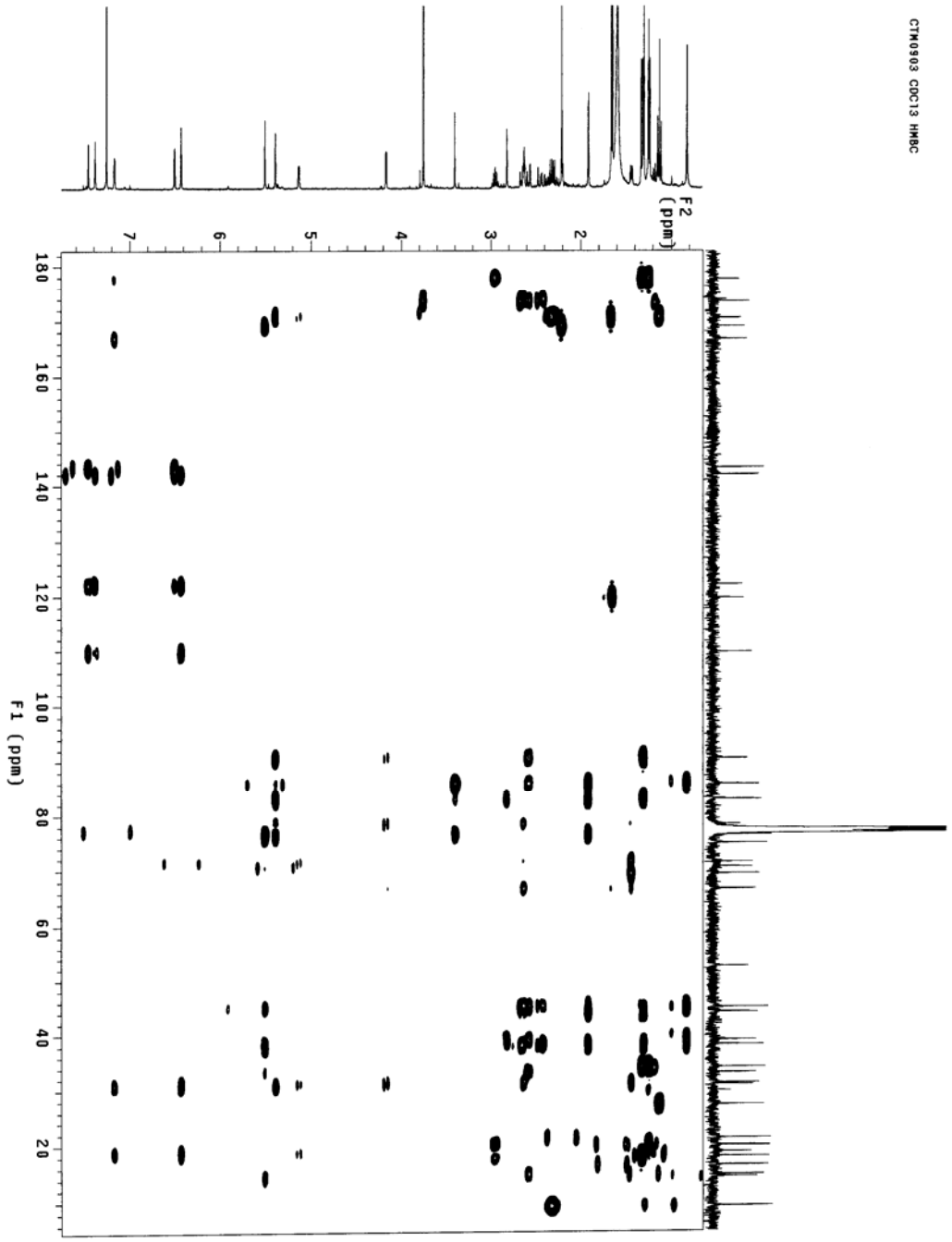


Figure S61. ROESY spectrum of **9** in $CDCl_3$

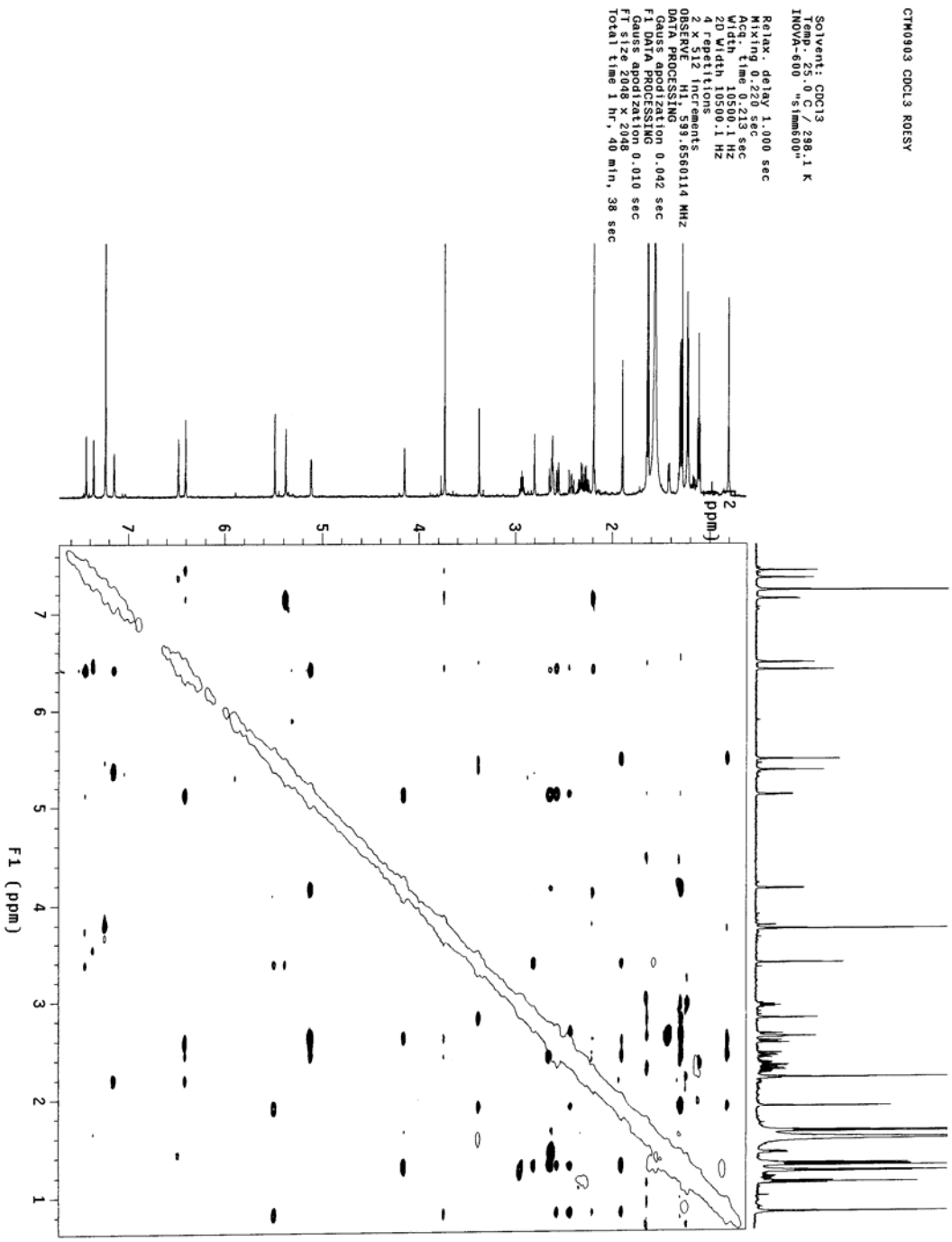


Figure S62. IR spectrum of **9**

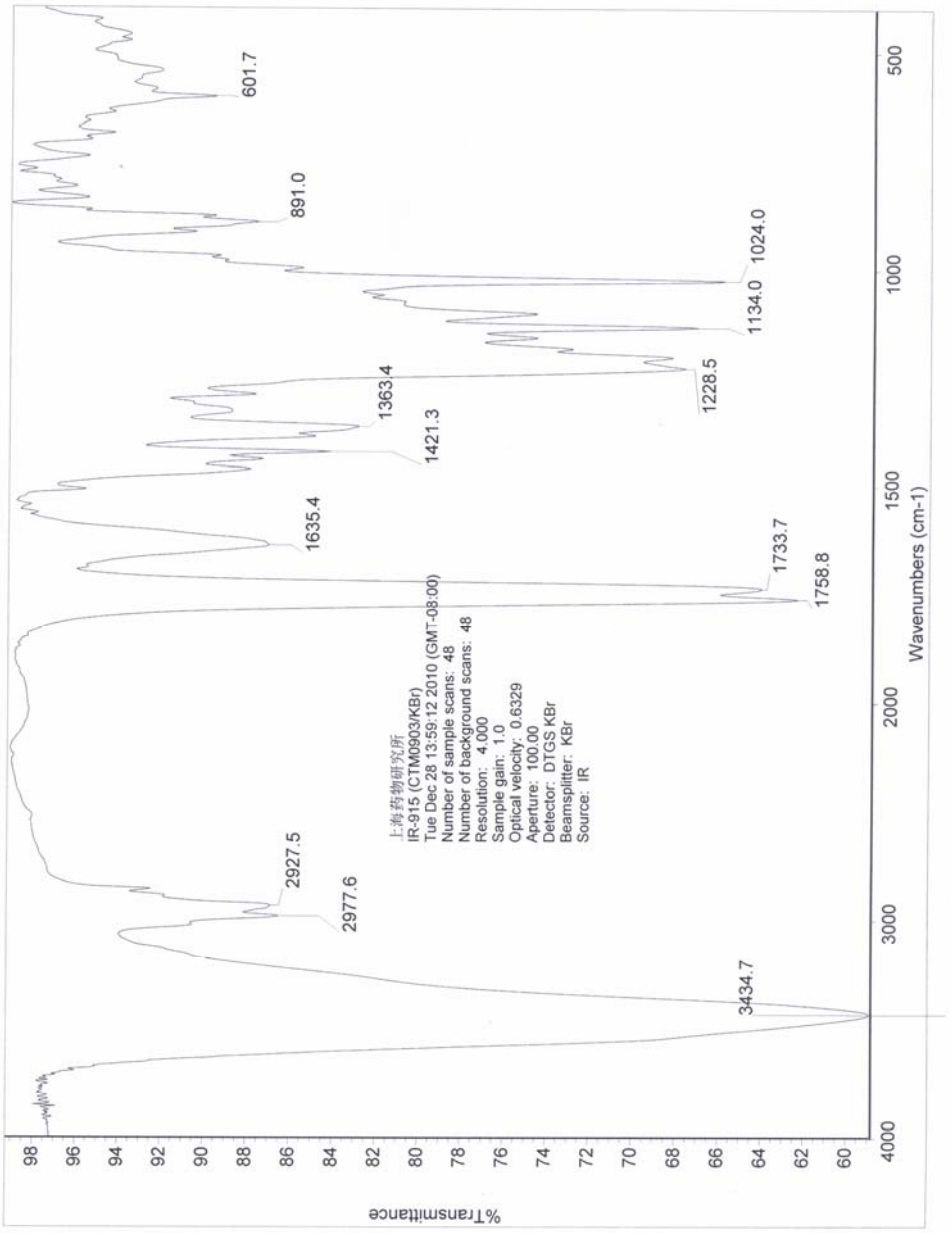


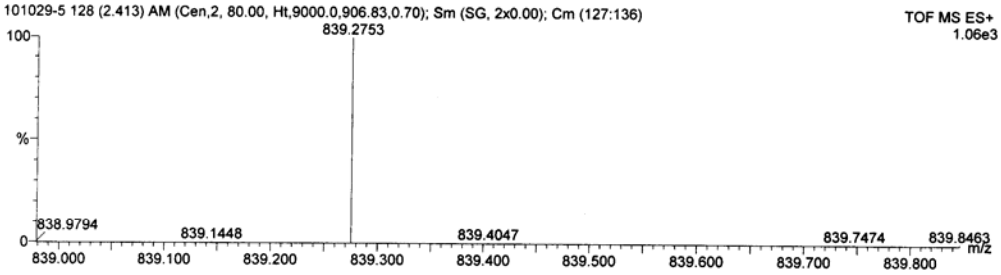
Figure S63. HR-ESI(+)MS spectrum of **9**

Elemental Composition Report **Page 1**

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

Monoisotopic Mass, Odd and Even Electron Ions
35 formula(e) evaluated with 1 results within limits (up to 20 closest results for each mass)

101029-5 128 (2.413) AM (Cen,2, 80.00, Ht,9000.0,906.83,0.70); Sm (SG, 2x0.00); Cm (127:136) TOF MS ES+ 1.06e3



Minimum:	20.00				-1.5		
Maximum:	100.00		200.0	50.0	50.0		
Mass	RA	Calc. Mass	mDa	PPM	DBE	Score	Formula
839.2753	100.00	839.2738	1.5	1.7	16.5	1	C40 H48 O18 Na

Figure S64. ^{1}H NMR spectrum of **10** in $CDCl_3$

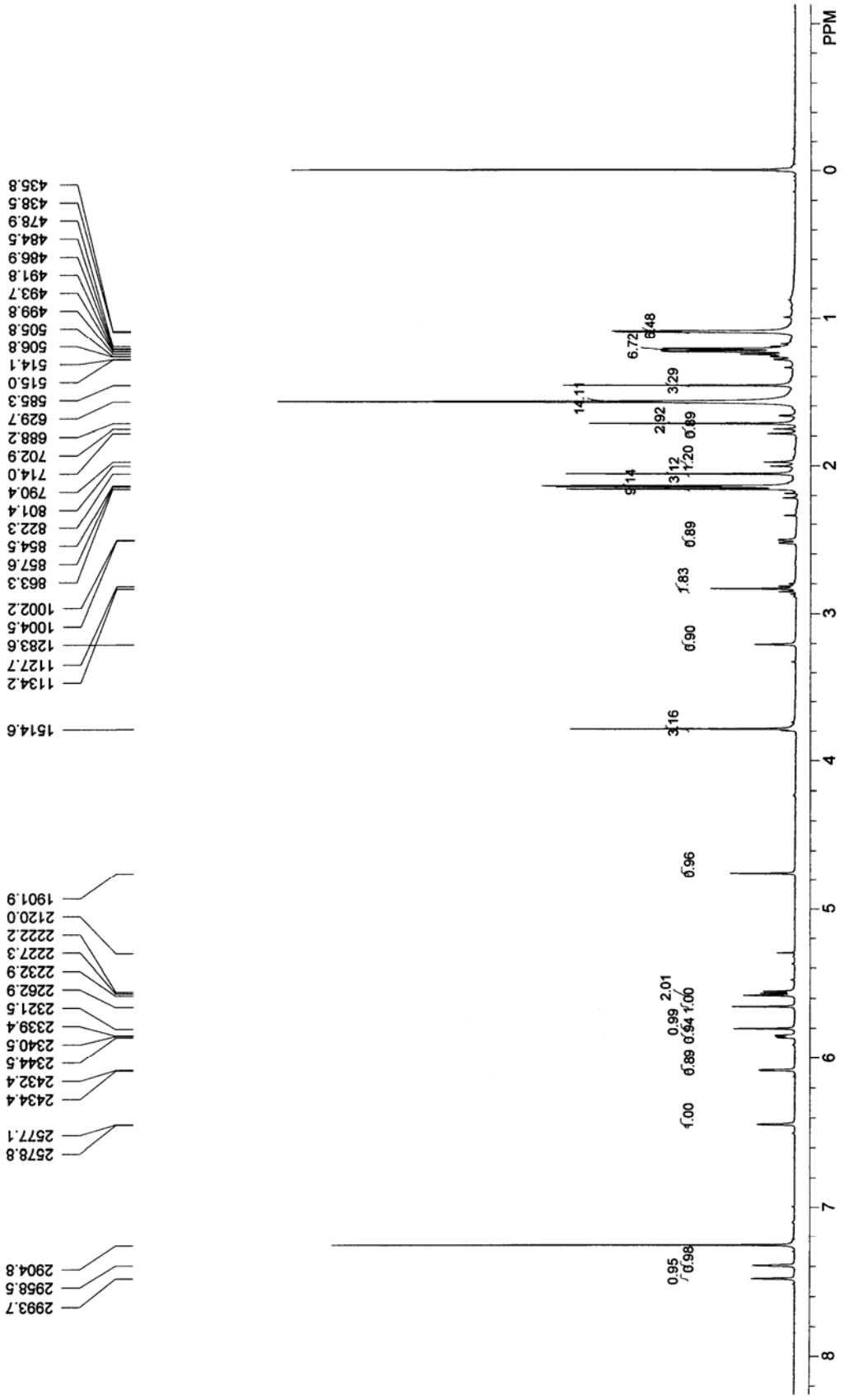


Figure S65. ^{13}C NMR spectrum of **10** in $CDCl_3$

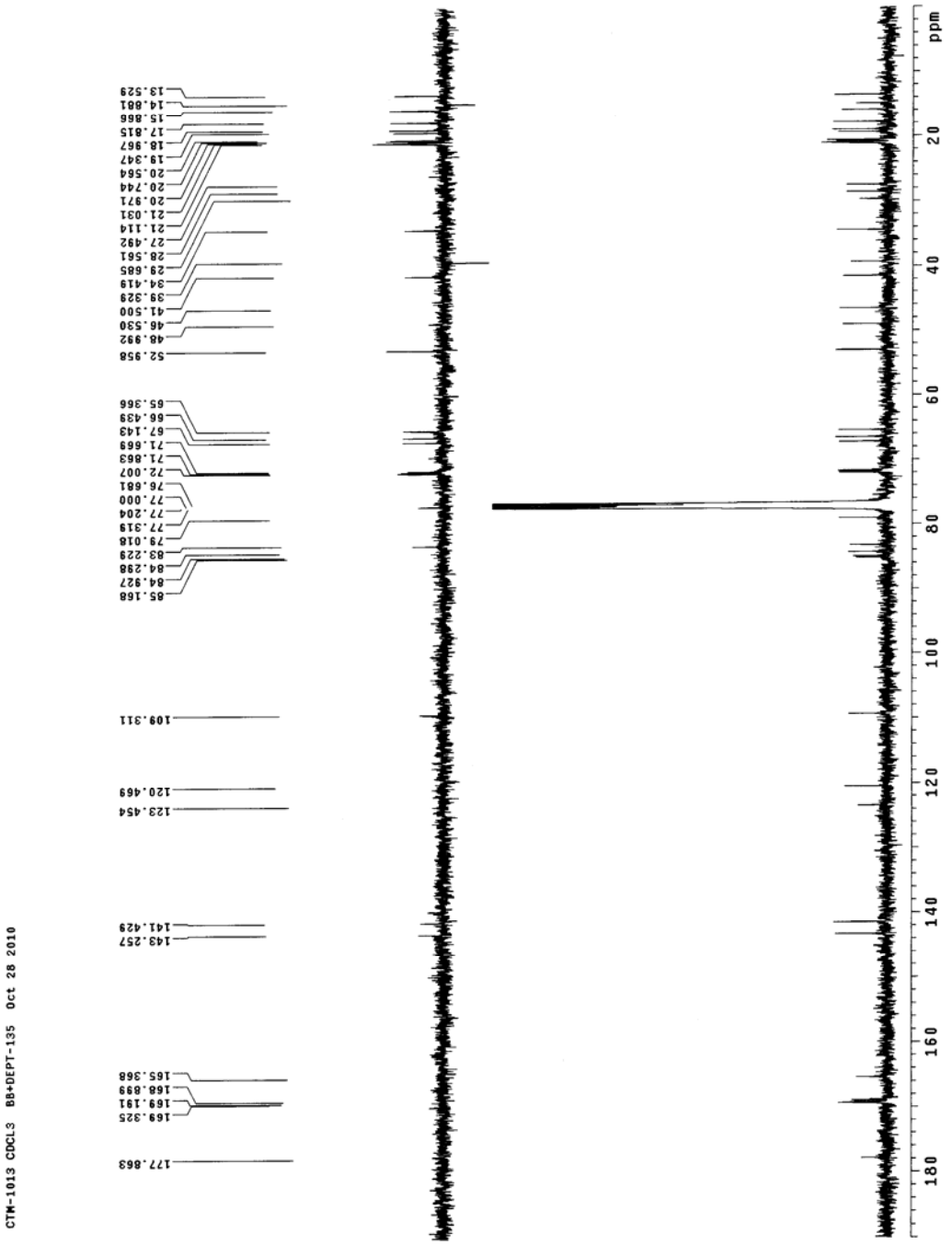


Figure S66. HSQC spectrum of **10** in $CDCl_3$

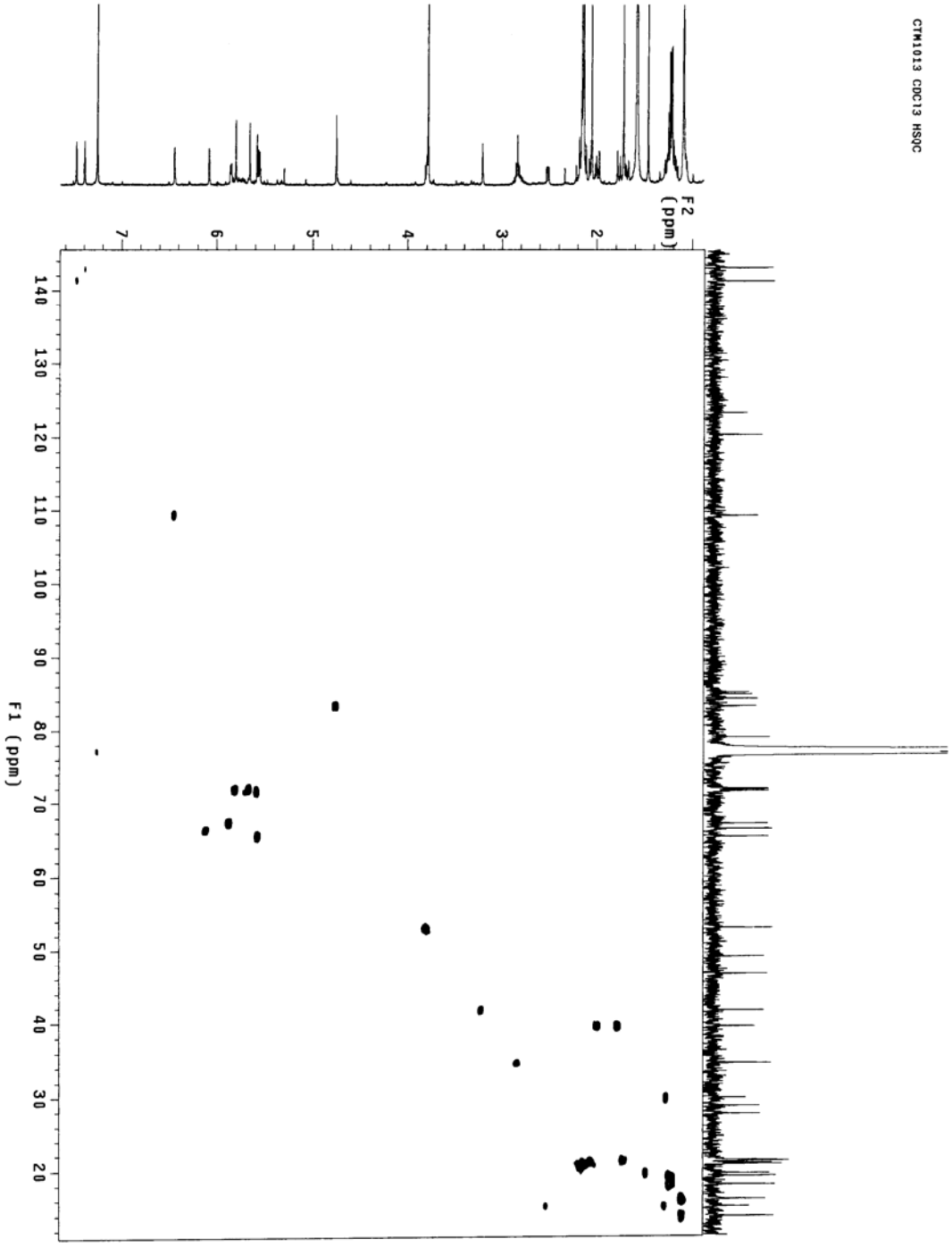


Figure S67. HMBC spectrum of **10** in $CDCl_3$

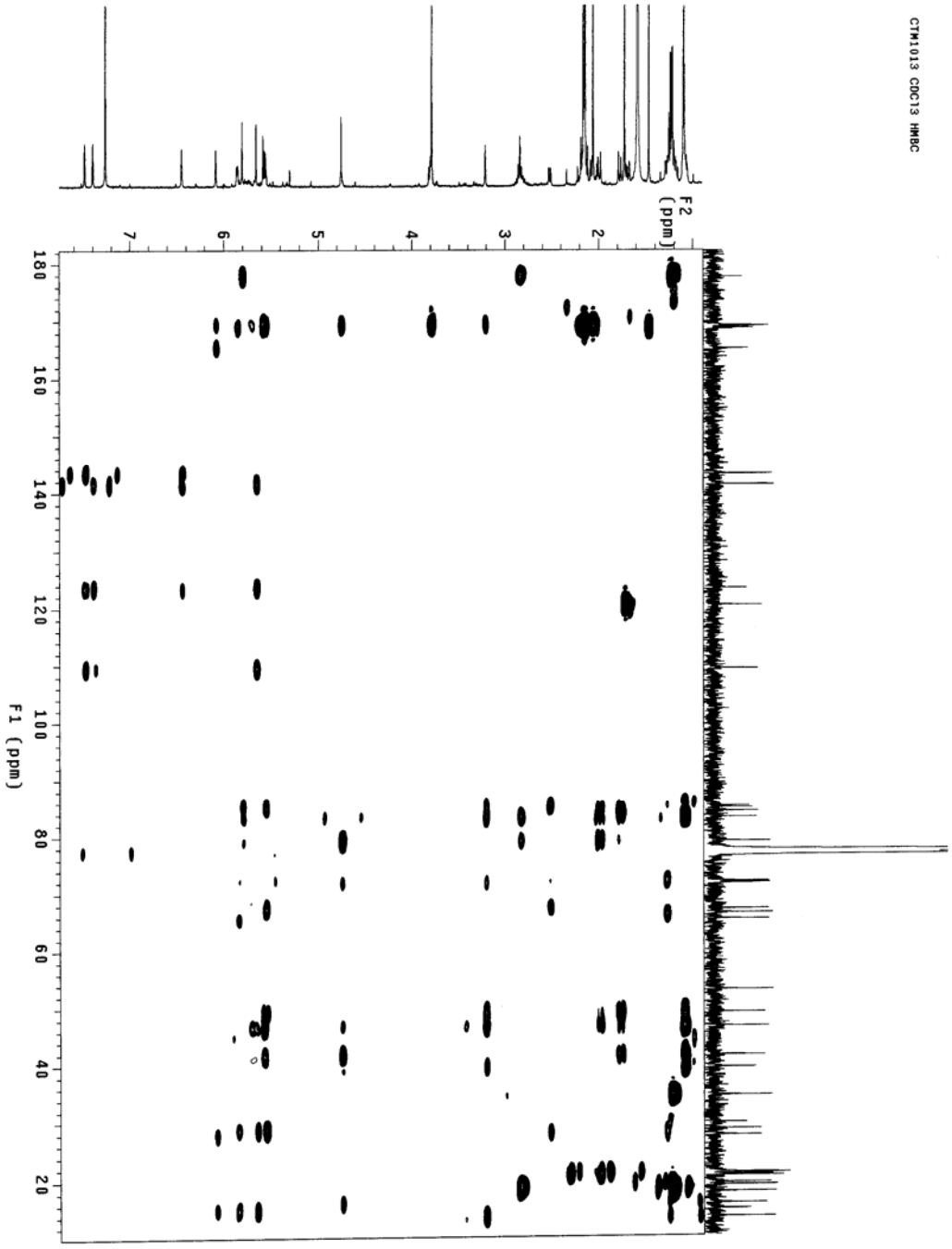


Figure S68. ROESY spectrum of **10** in $CDCl_3$

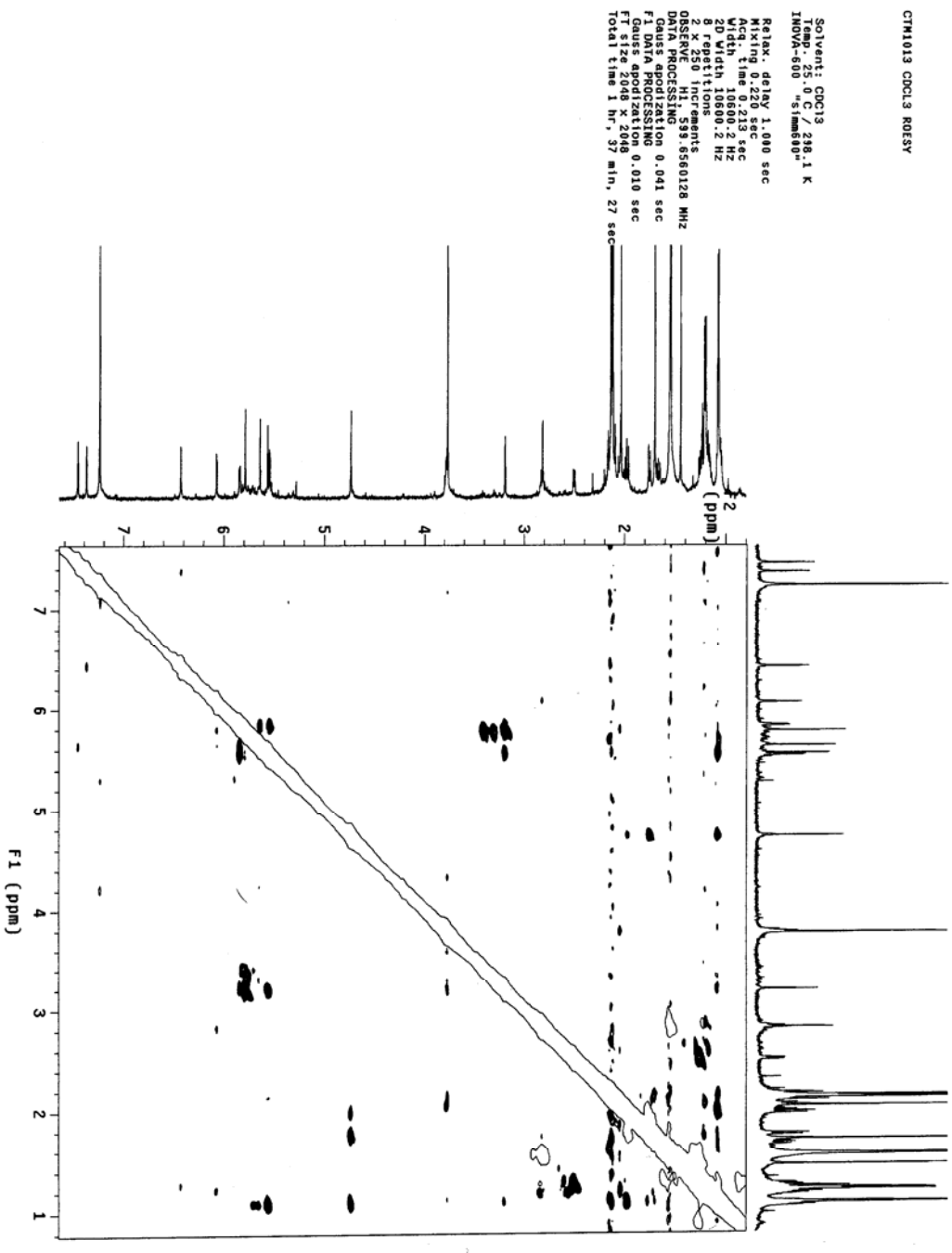


Figure S69. IR spectrum of **10**

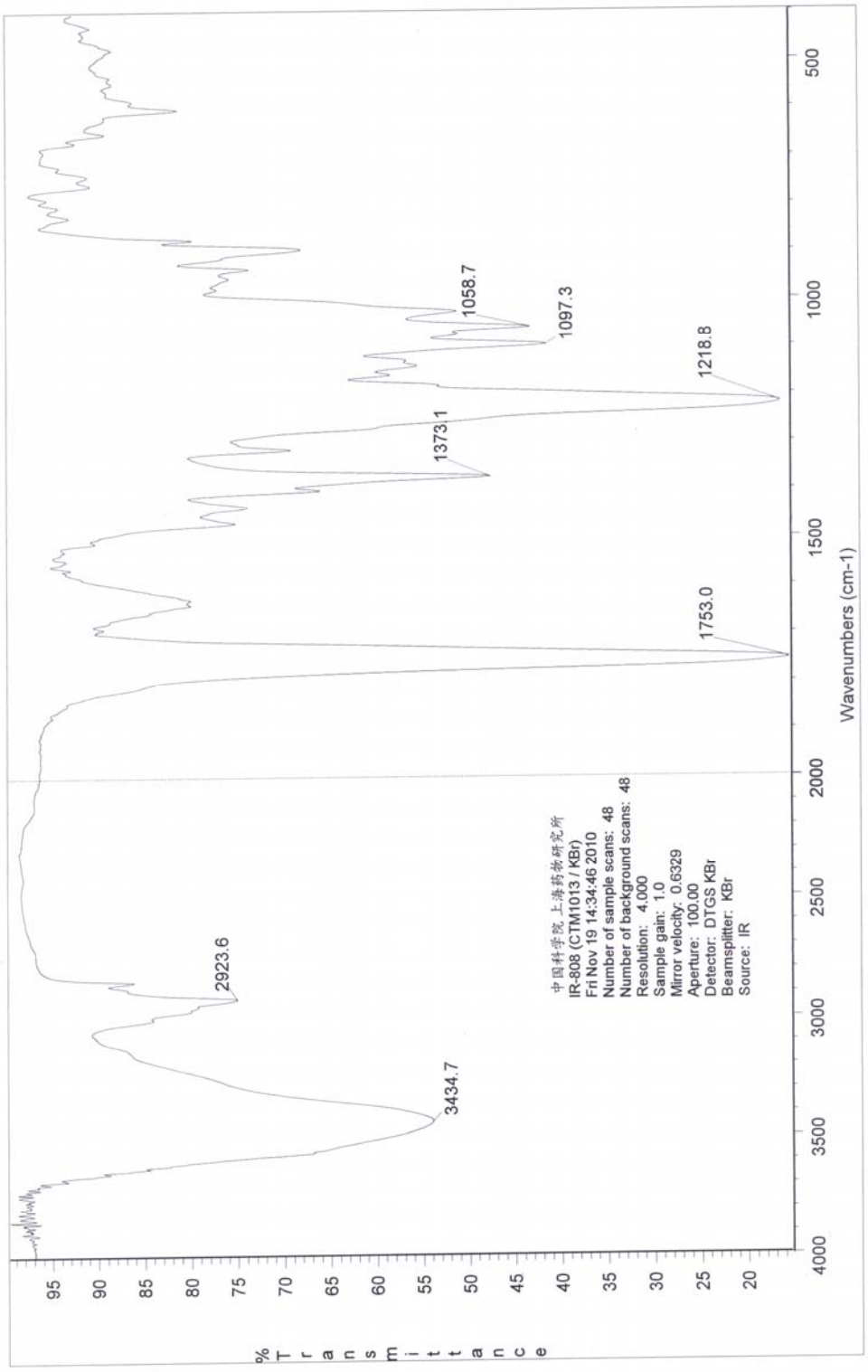


Figure S70. HR-ESI(+)MS spectrum of **10**

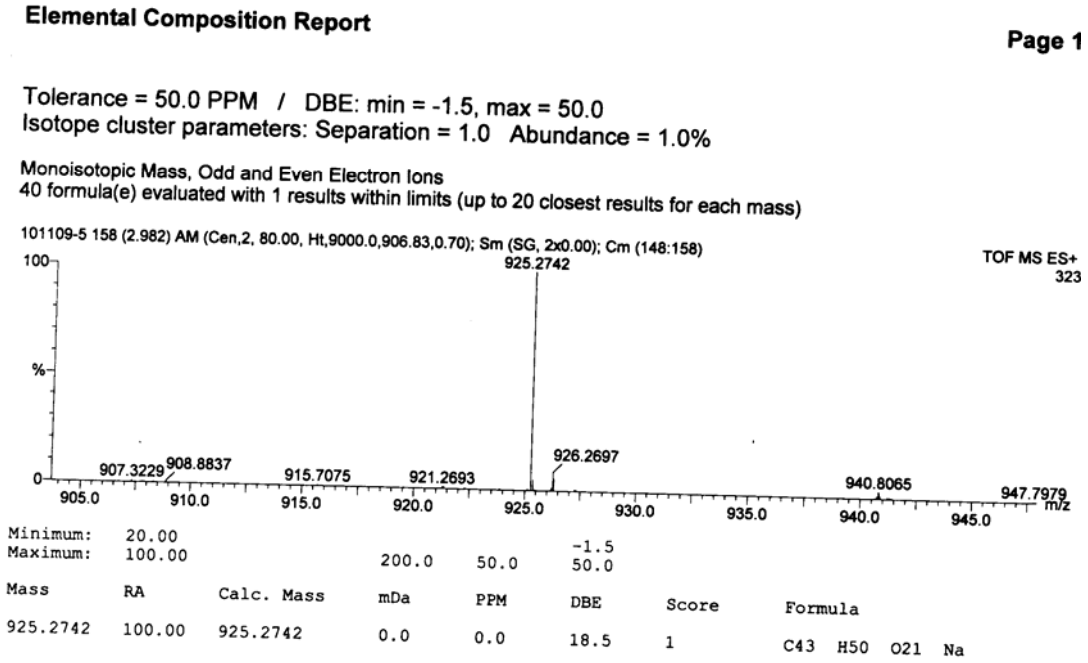


Figure S71. ^{1}H NMR spectrum of **11** in $CDCl_3$

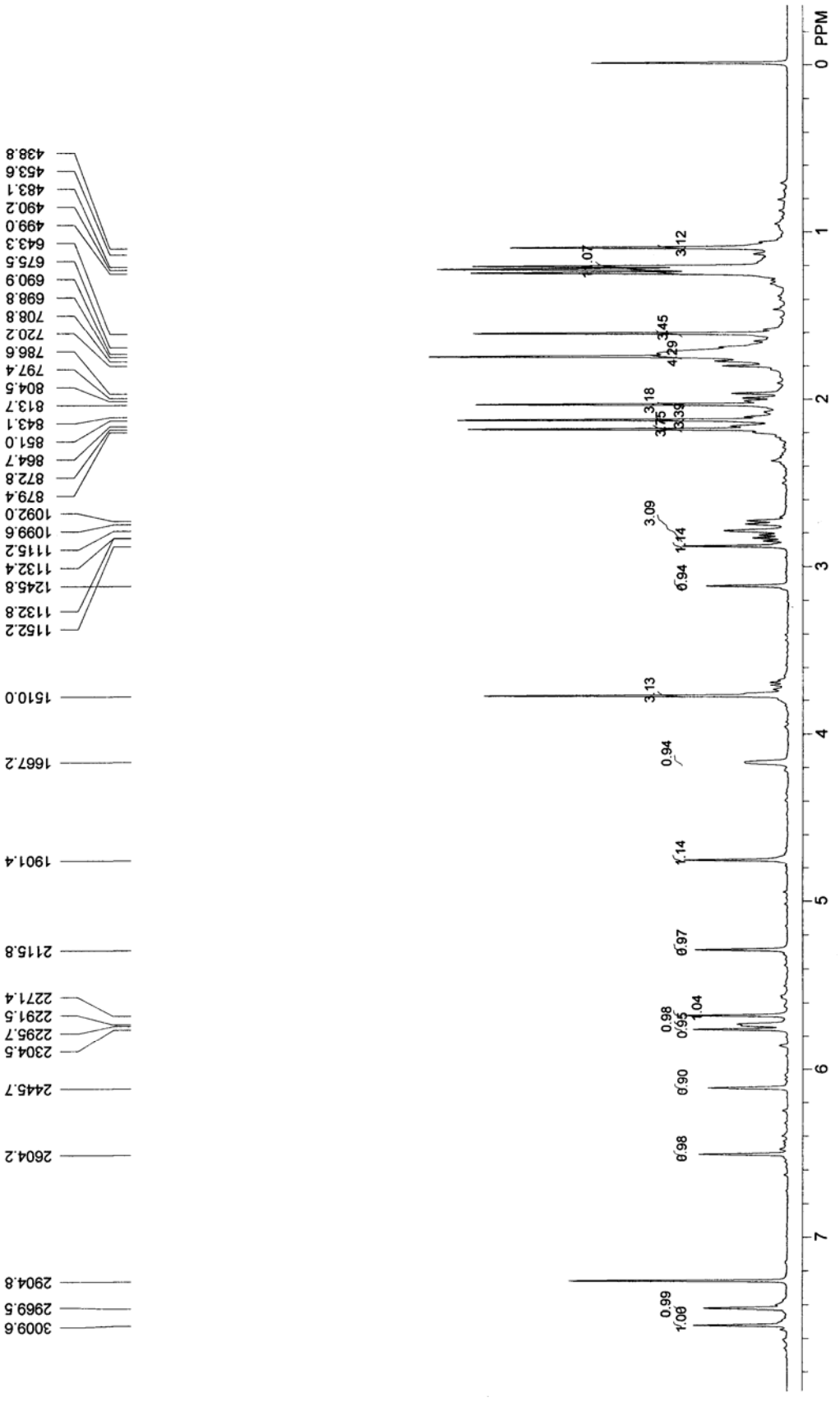


Figure S72. ^{13}C NMR spectrum of **11** in $CDCl_3$

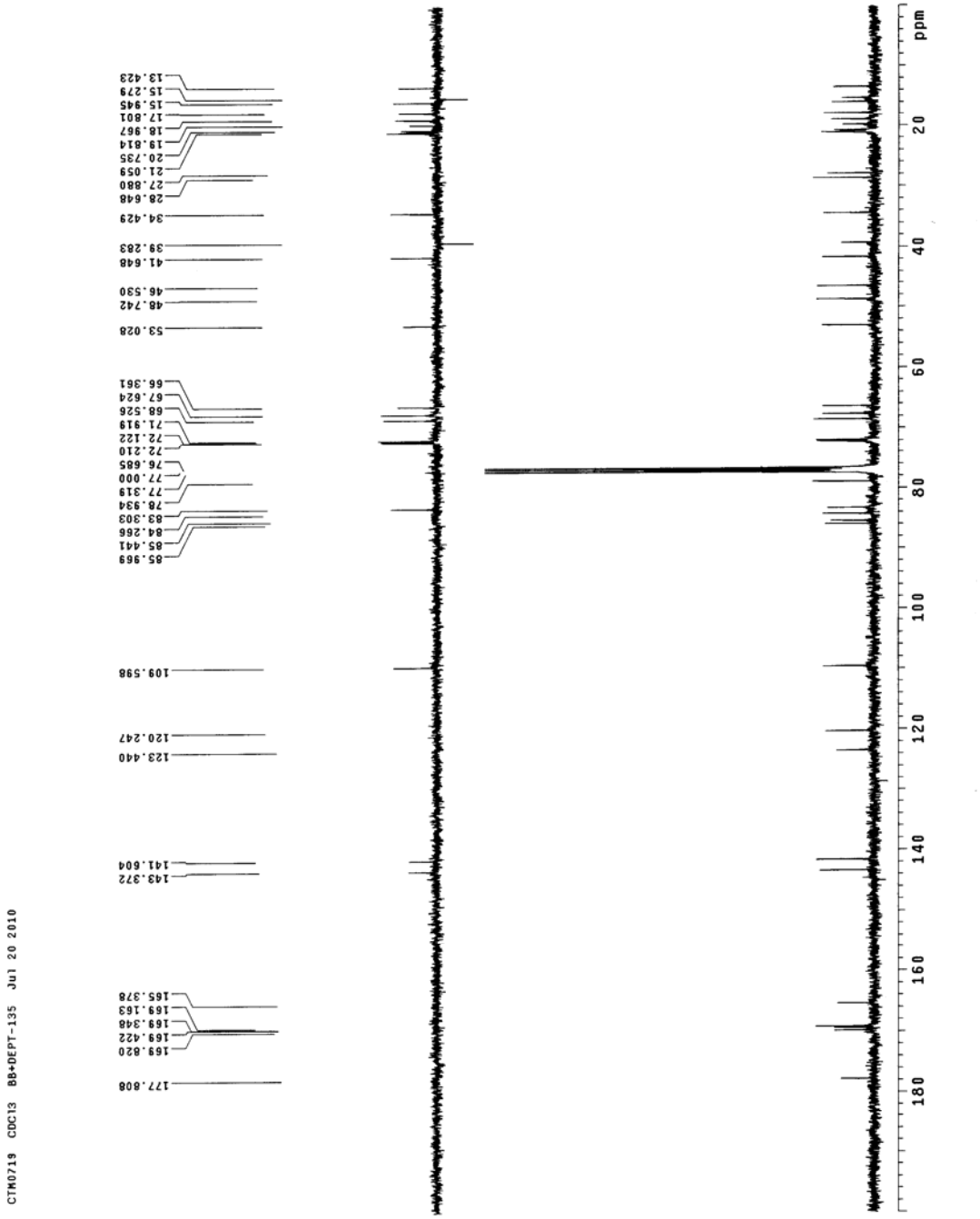


Figure S73. HSQC spectrum of **11** in $CDCl_3$

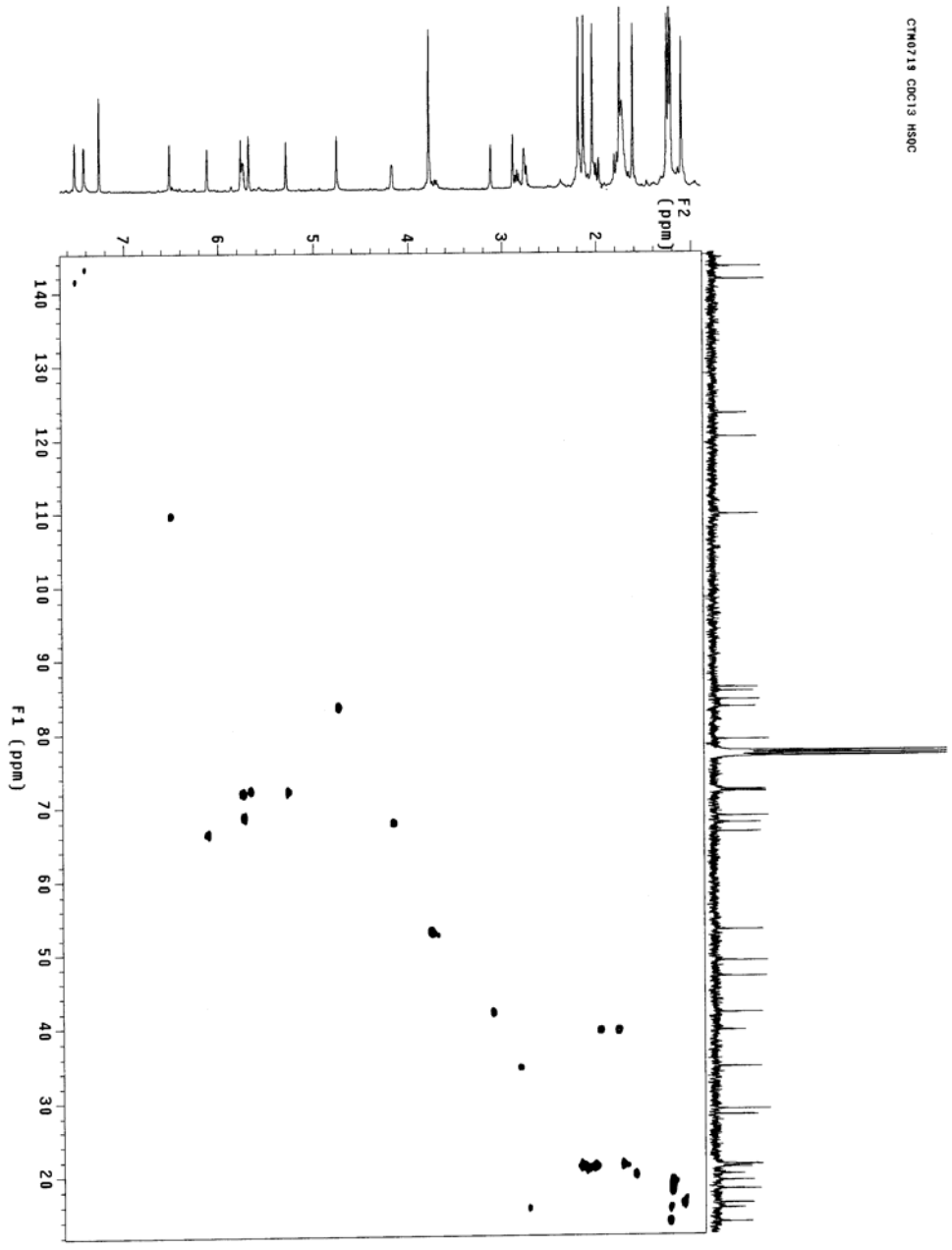


Figure S74. HMBC spectrum of **11** in $CDCl_3$

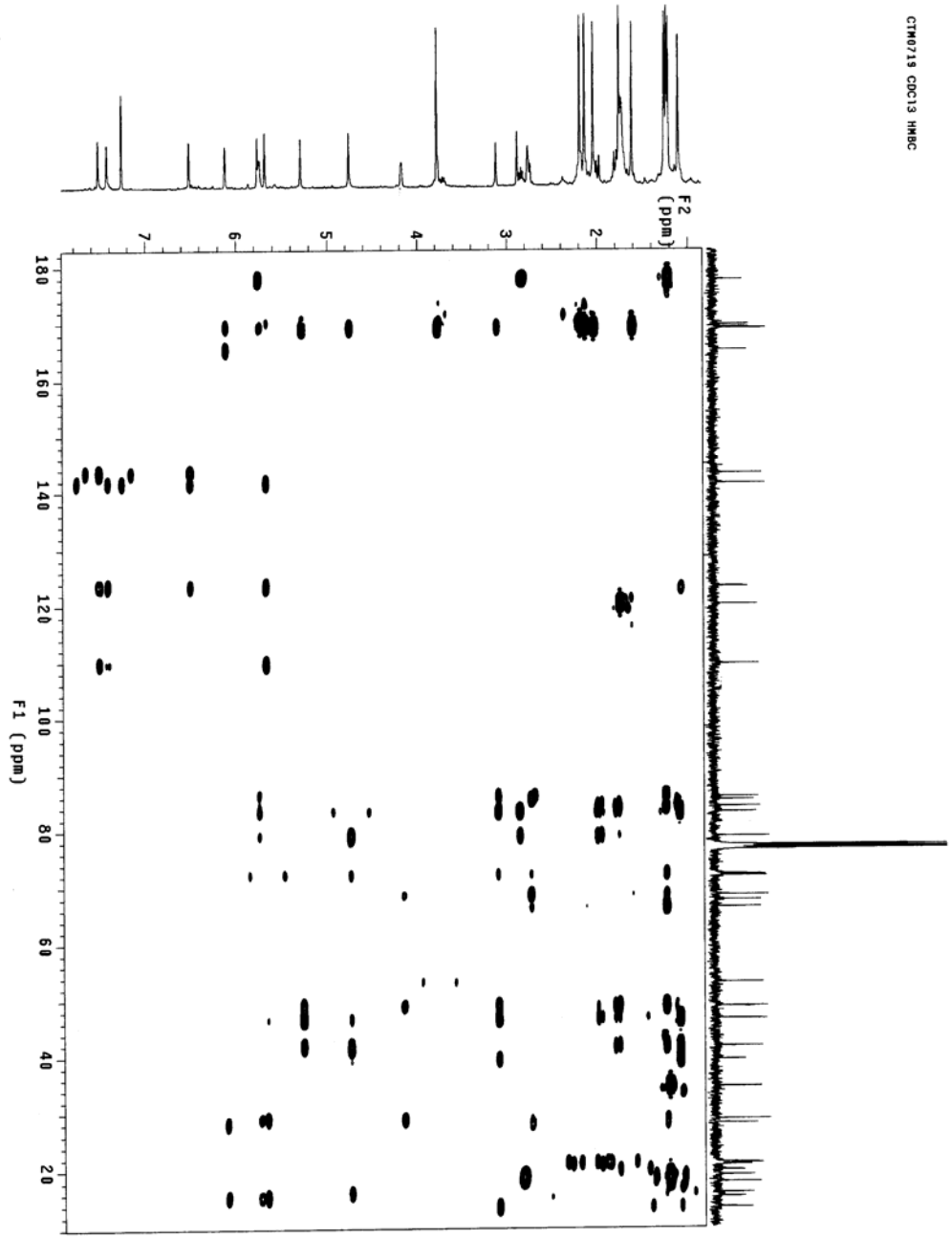


Figure S75. IR spectrum of **11**

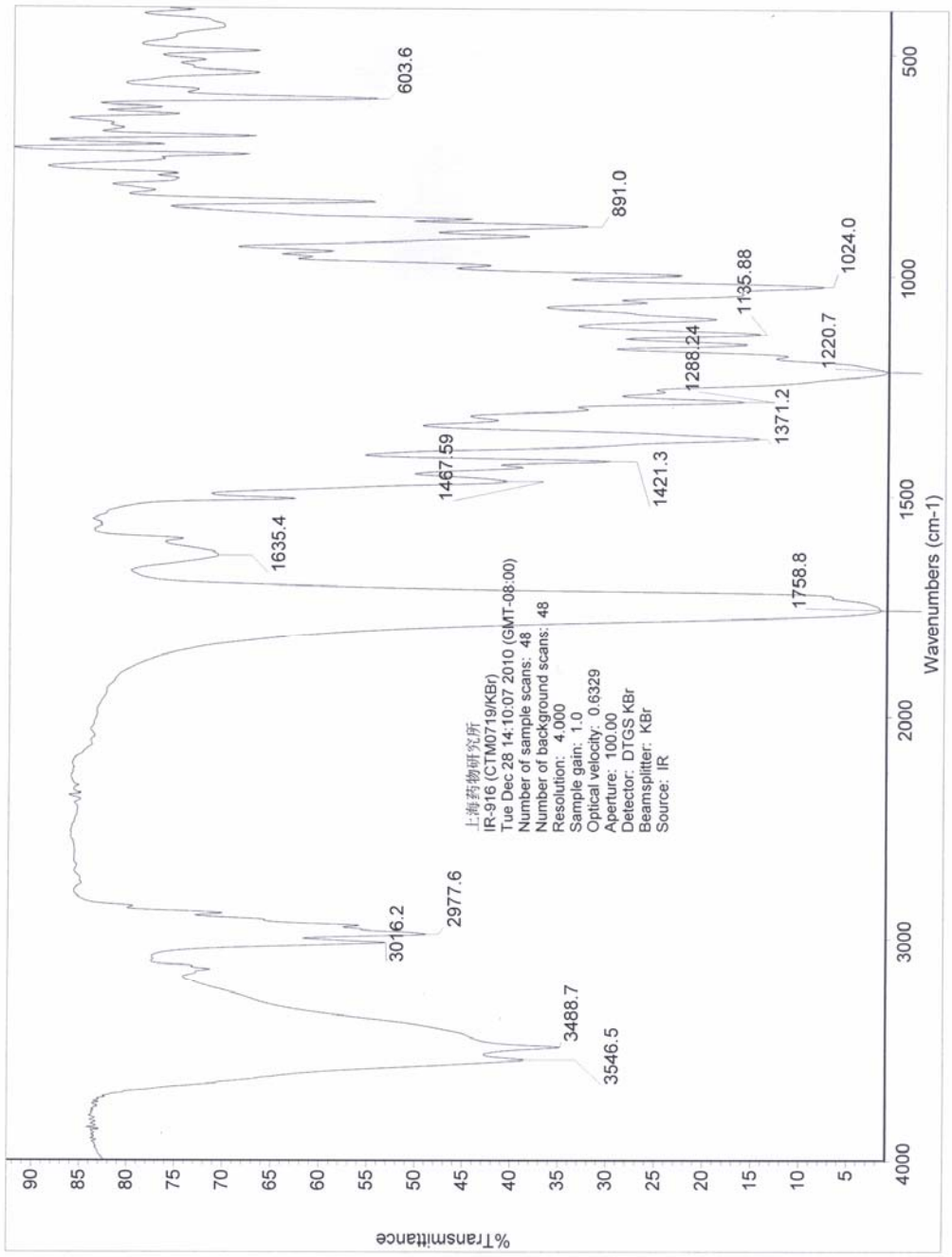


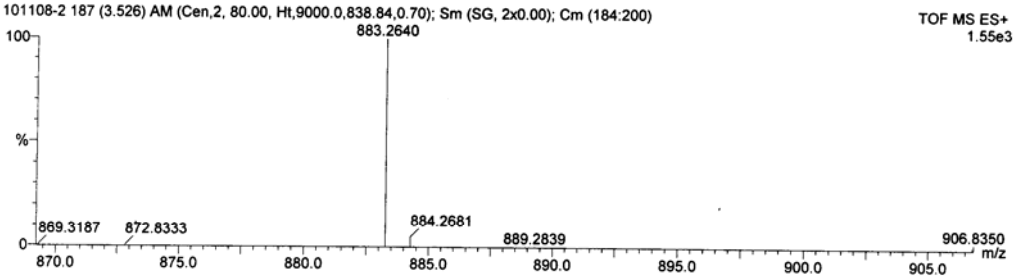
Figure S76. HR-ESI(+)MS spectrum of **11**

Elemental Composition Report **Page 1**

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

Monoisotopic Mass, Odd and Even Electron Ions
39 formula(e) evaluated with 1 results within limits (up to 20 closest results for each mass)

101108-2 187 (3.526) AM (Cen,2, 80.00, Ht,9000.0,838.84,0.70); Sm (SG, 2x0.00); Cm (184:200)



Minimum:	20.00				-1.5		
Maximum:	100.00		200.0	50.0	50.0		
Mass	RA	Calc. Mass	mDa	PPM	DBE	Score	Formula
883.2640	100.00	883.2637	0.3	0.4	17.5	1	C41 H48 O20 Na

Figure S77. ^{1}H NMR spectrum of **12** in $CDCl_3$

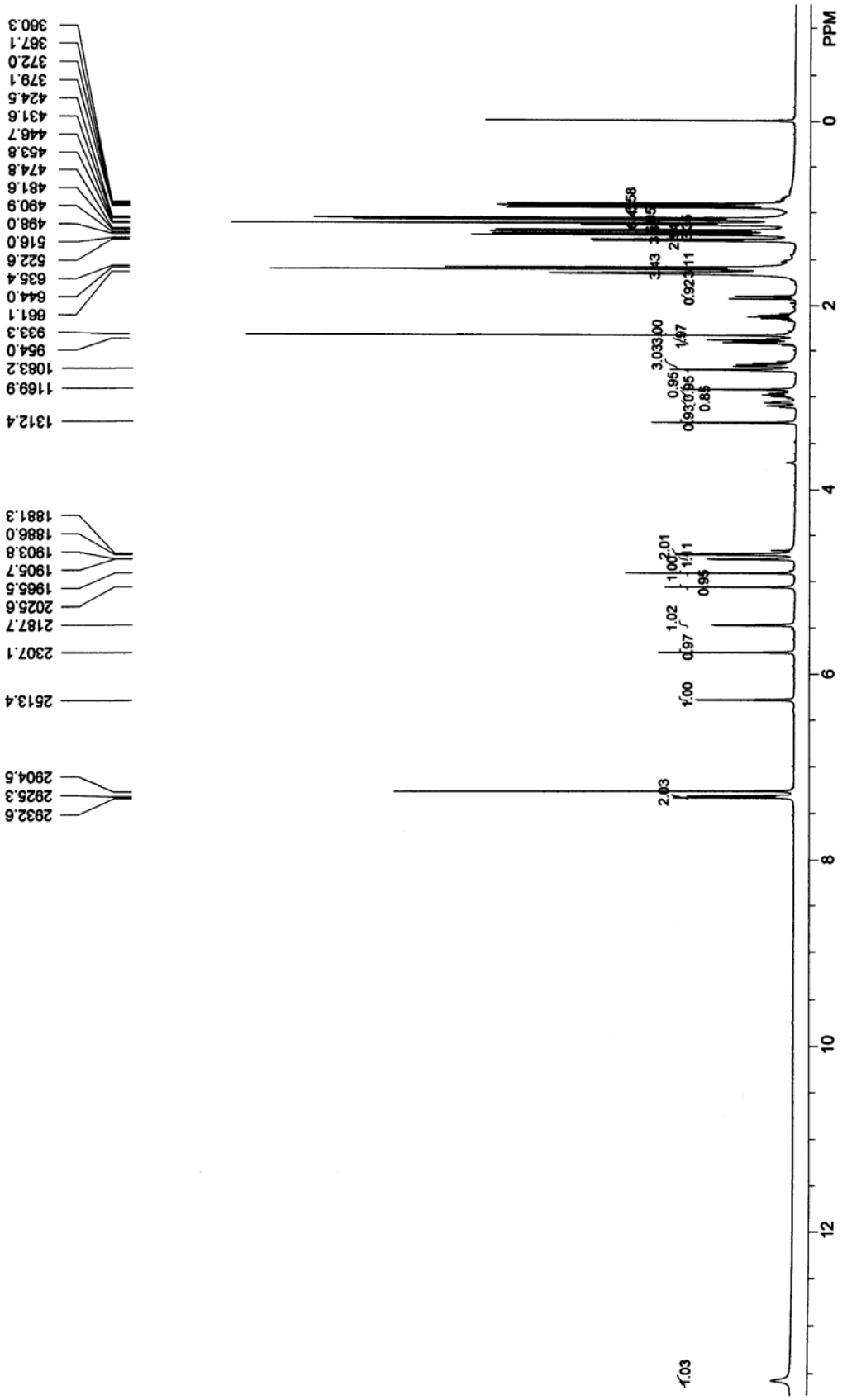


Figure S78. ^{13}C NMR spectrum of **12** in $CDCl_3$

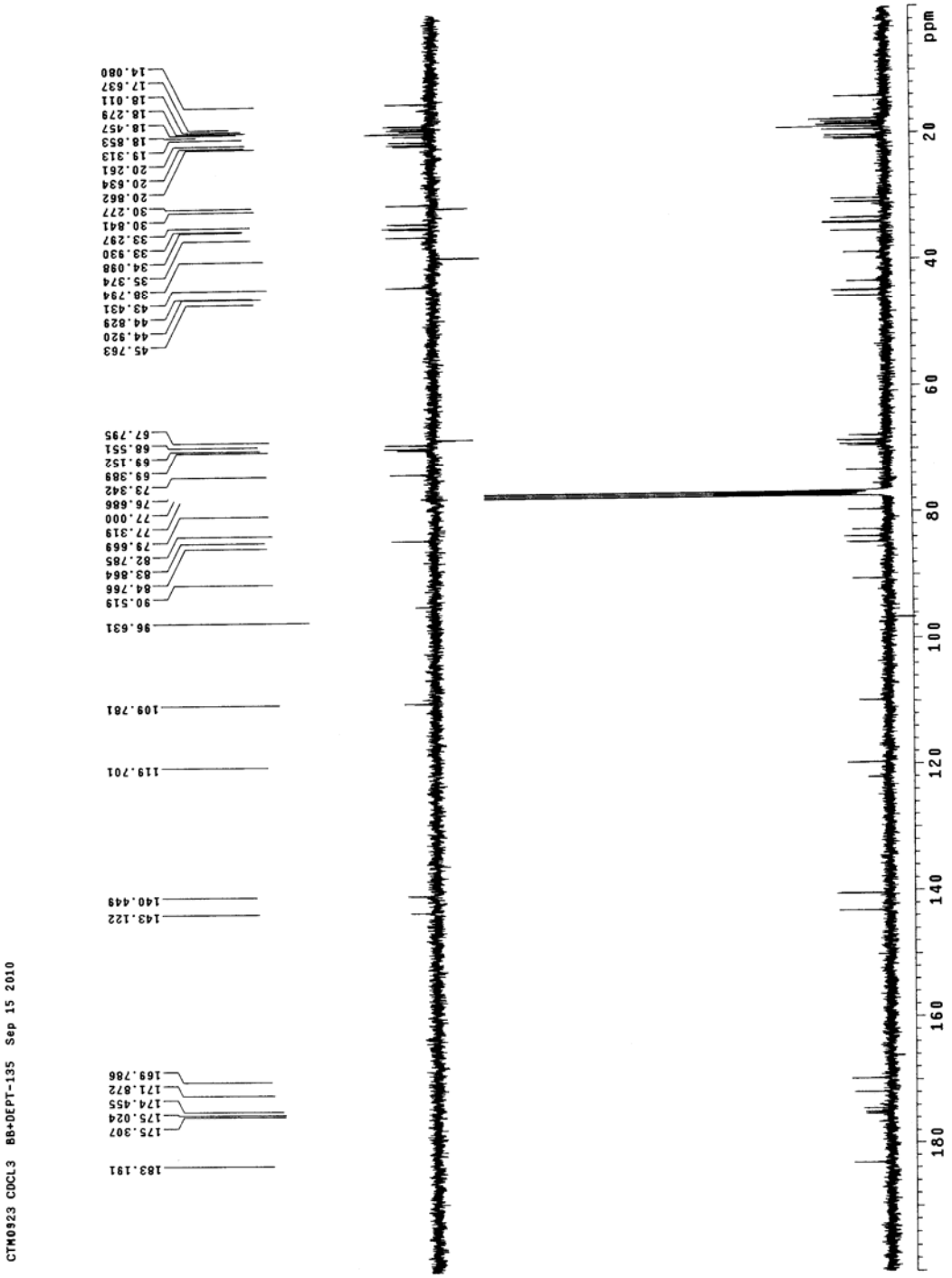


Figure S79. HSQC spectrum of **12** in $CDCl_3$

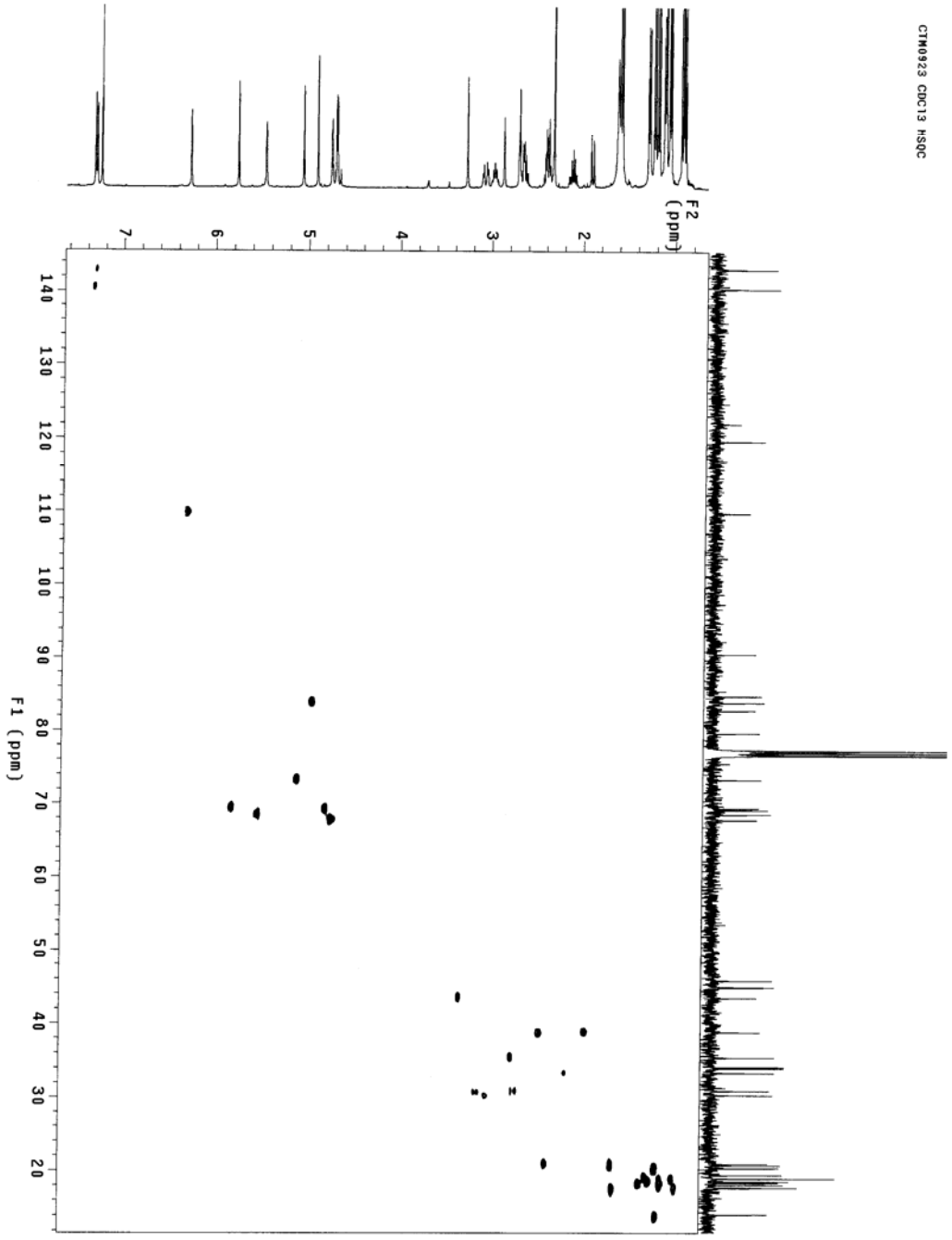


Figure S80. HMBC spectrum of **12** in $CDCl_3$

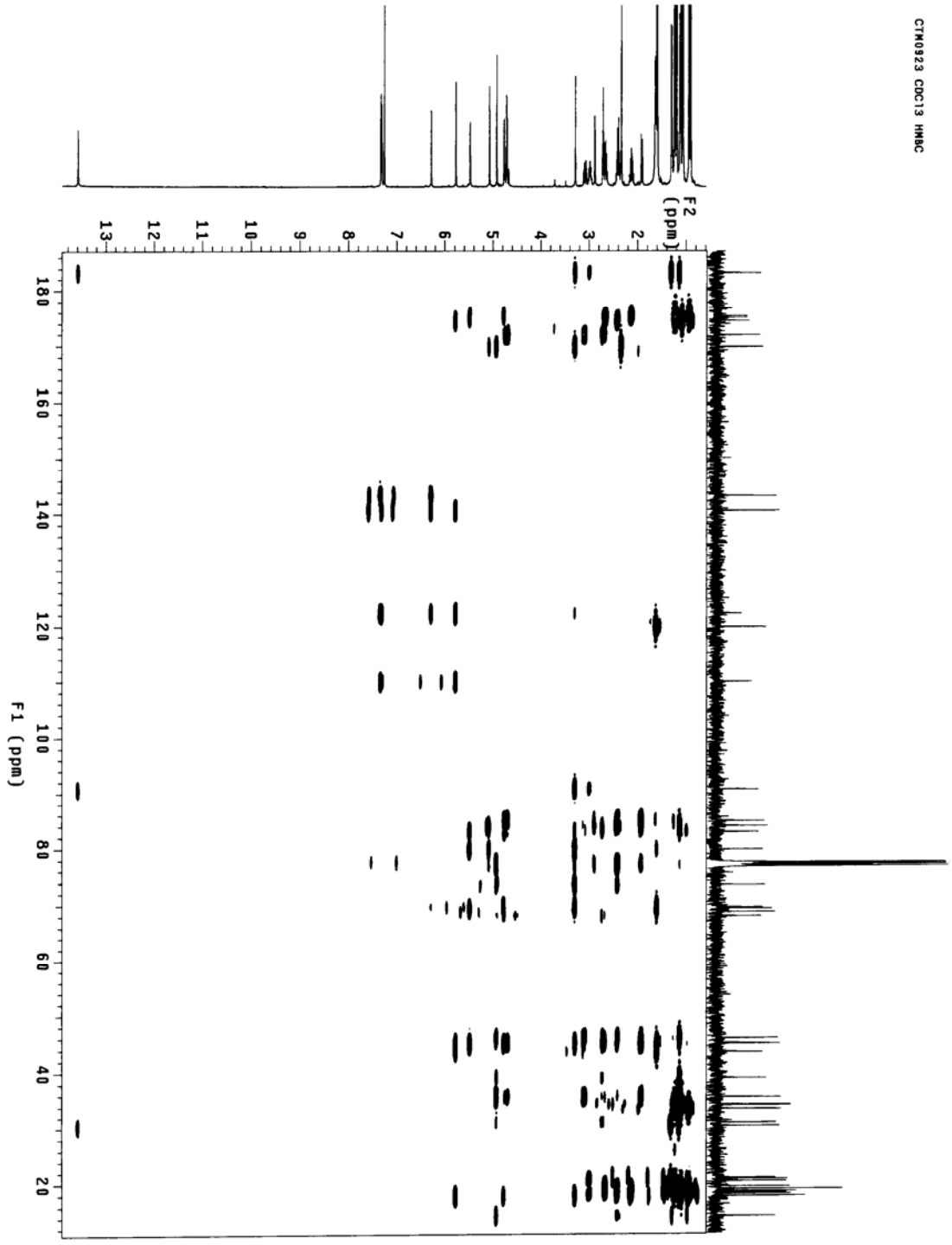


Figure S81. ROESY spectrum of **12** in $CDCl_3$

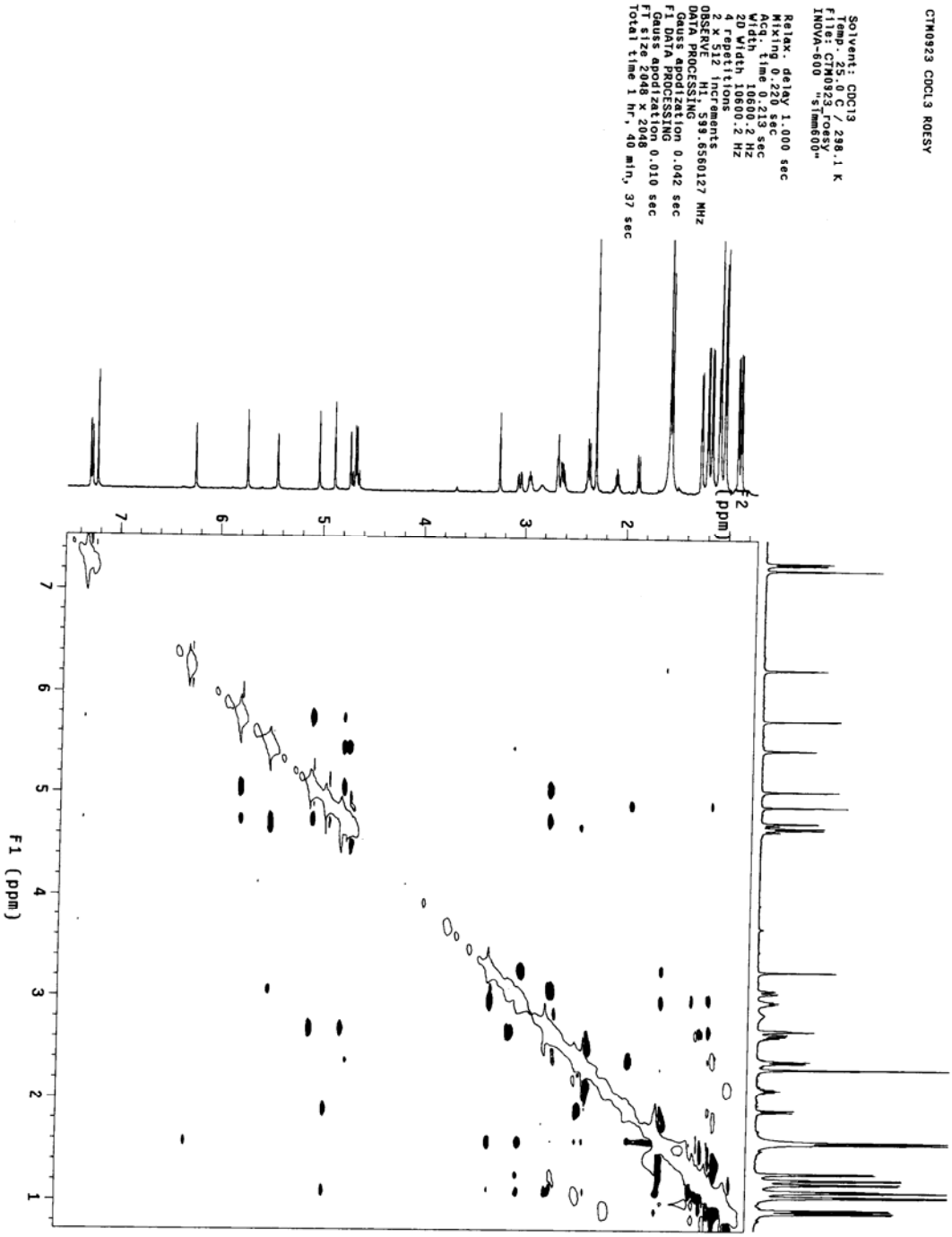


Figure S82. IR spectrum of **12**

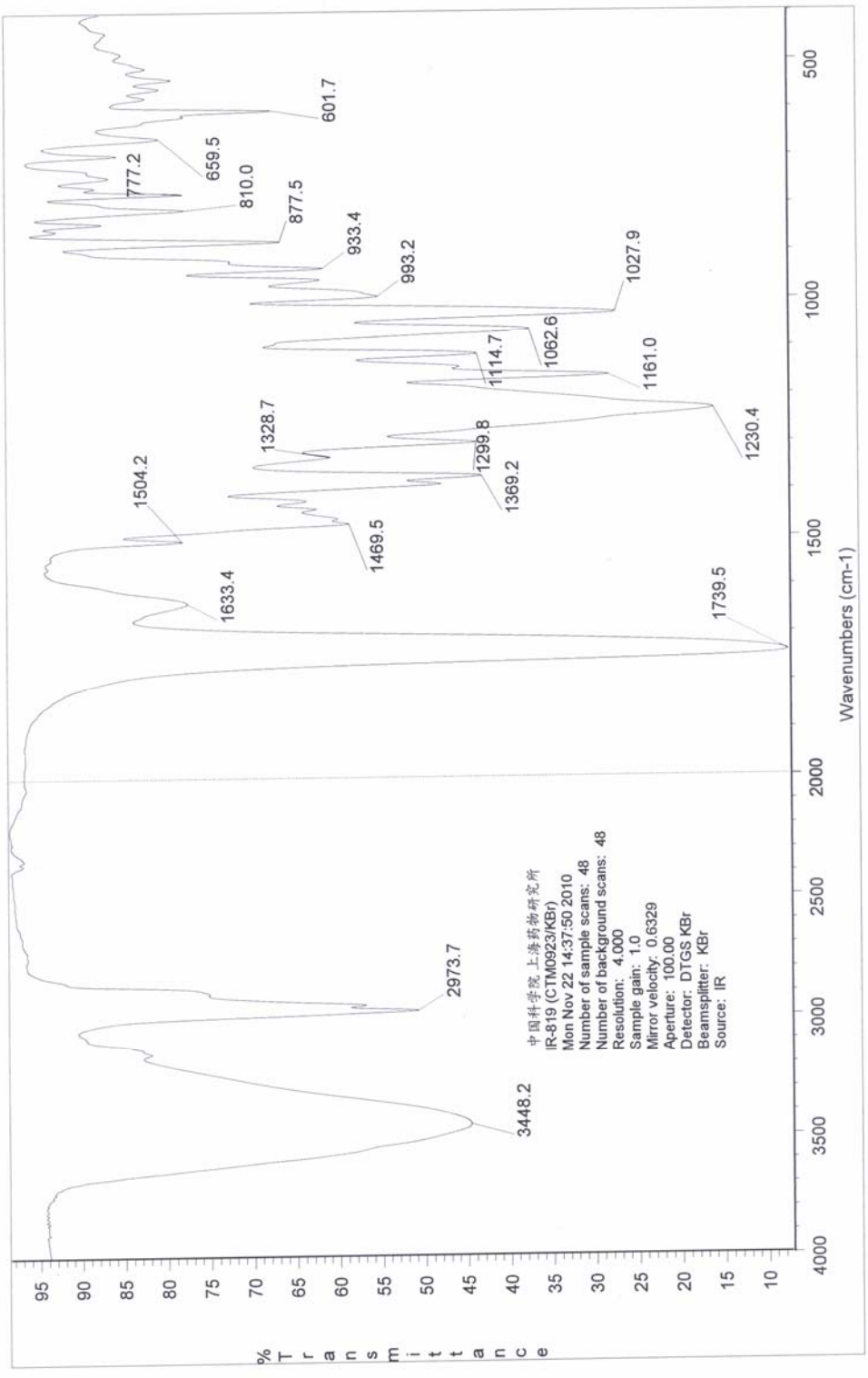


Figure S83. HR-ESI(+)MS spectrum of **12**

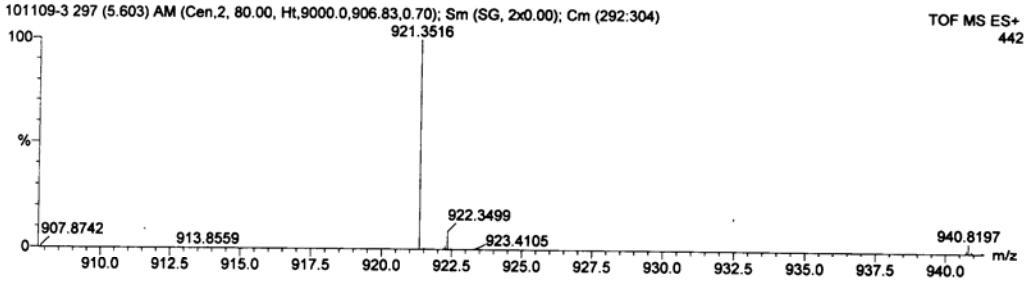
Elemental Composition Report **Page 1**

Tolerance = 50.0 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 (up to 20 closest results for each mass)

101109-3 297 (5.603) AM (Cen,2, 80.00, Ht,9000.0,906.83,0.70); Sm (SG, 2x0.00); Cm (292:304)

TOF MS ES+
442



Minimum:	20.00				-1.5		
Maximum:	100.00		200.0	50.0	50.0		
Mass	RA	Calc. Mass	mDa	PPM	DBE	Score	Formula
921.3516	100.00	921.3521	-0.5	-0.5	17.5	1	C46 H58 O18 Na

Figure S84. ^{1}H NMR spectrum of **13** in $CDCl_3$

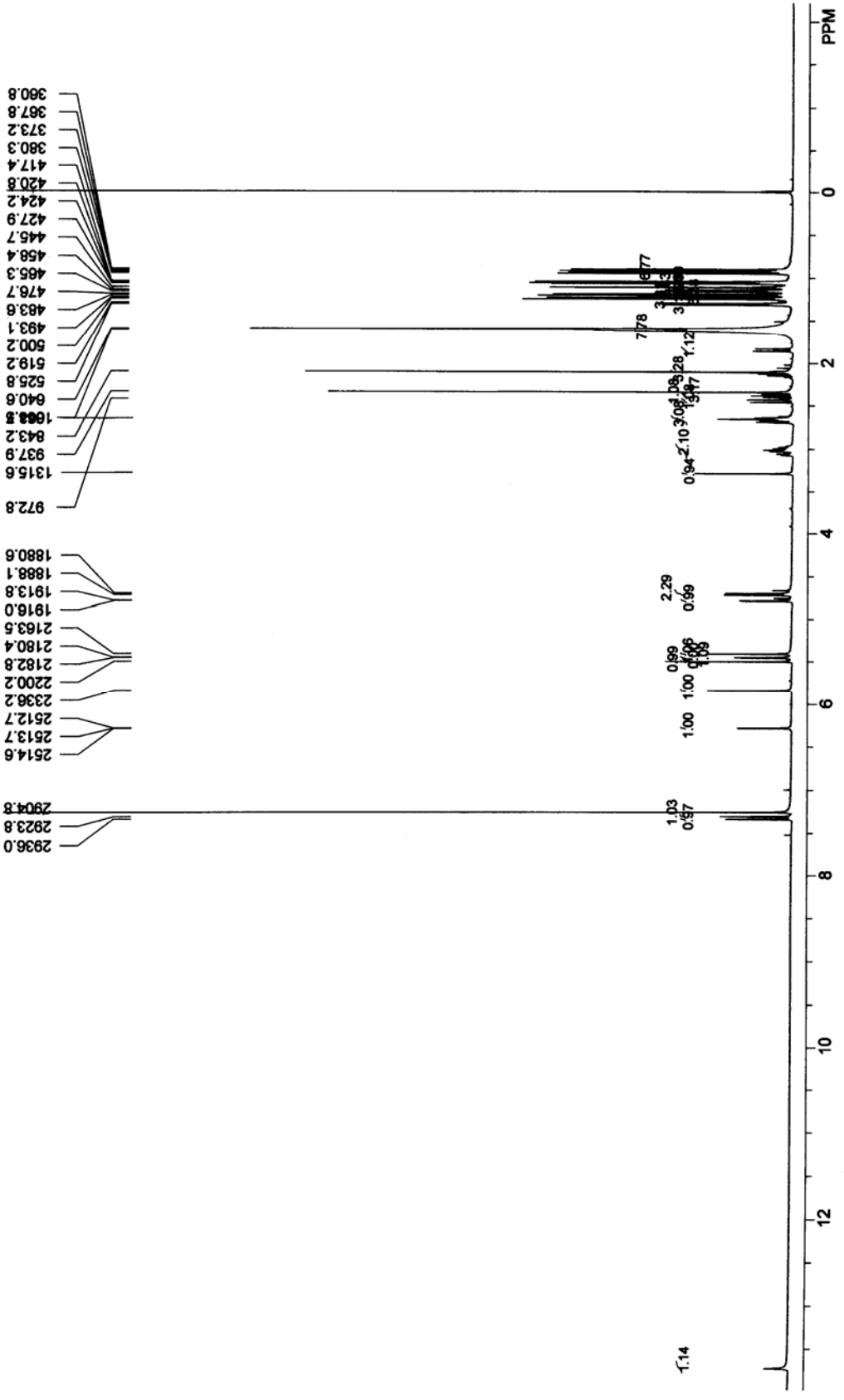


Figure S85. ^{13}C NMR spectrum of **13** in $CDCl_3$.

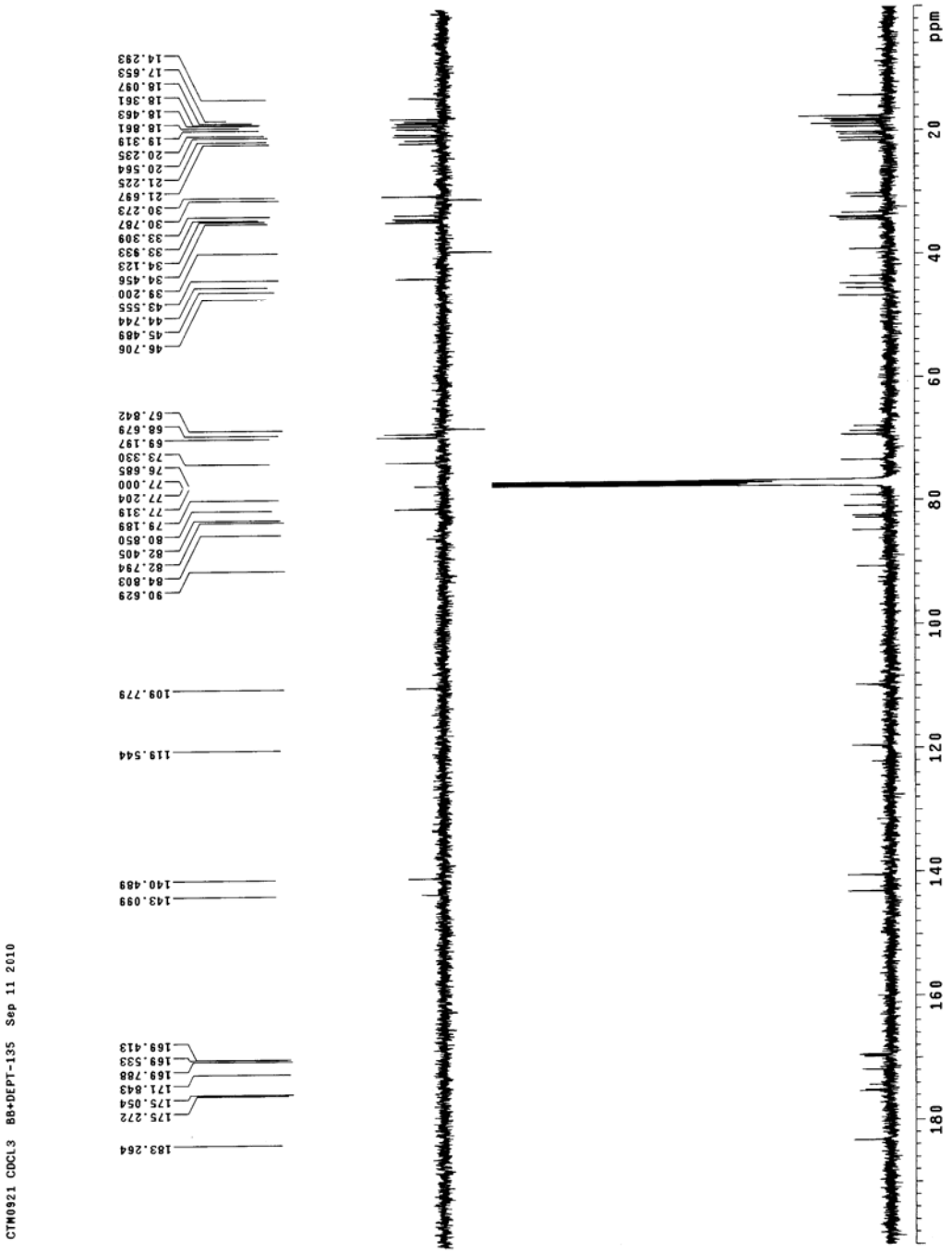


Figure S86. HSQC spectrum of **13** in $CDCl_3$

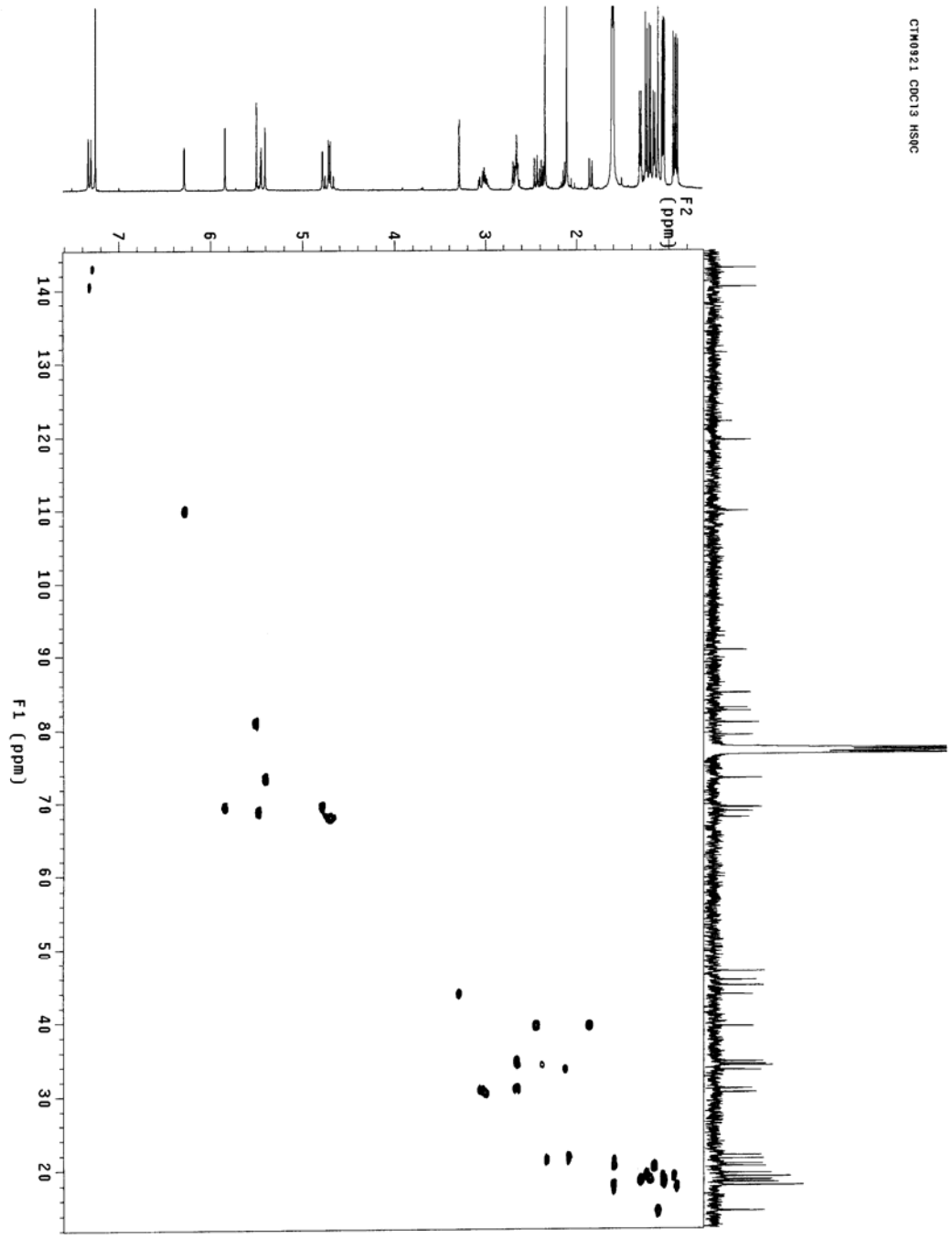


Figure S87. HMBC spectrum of **13** in $CDCl_3$

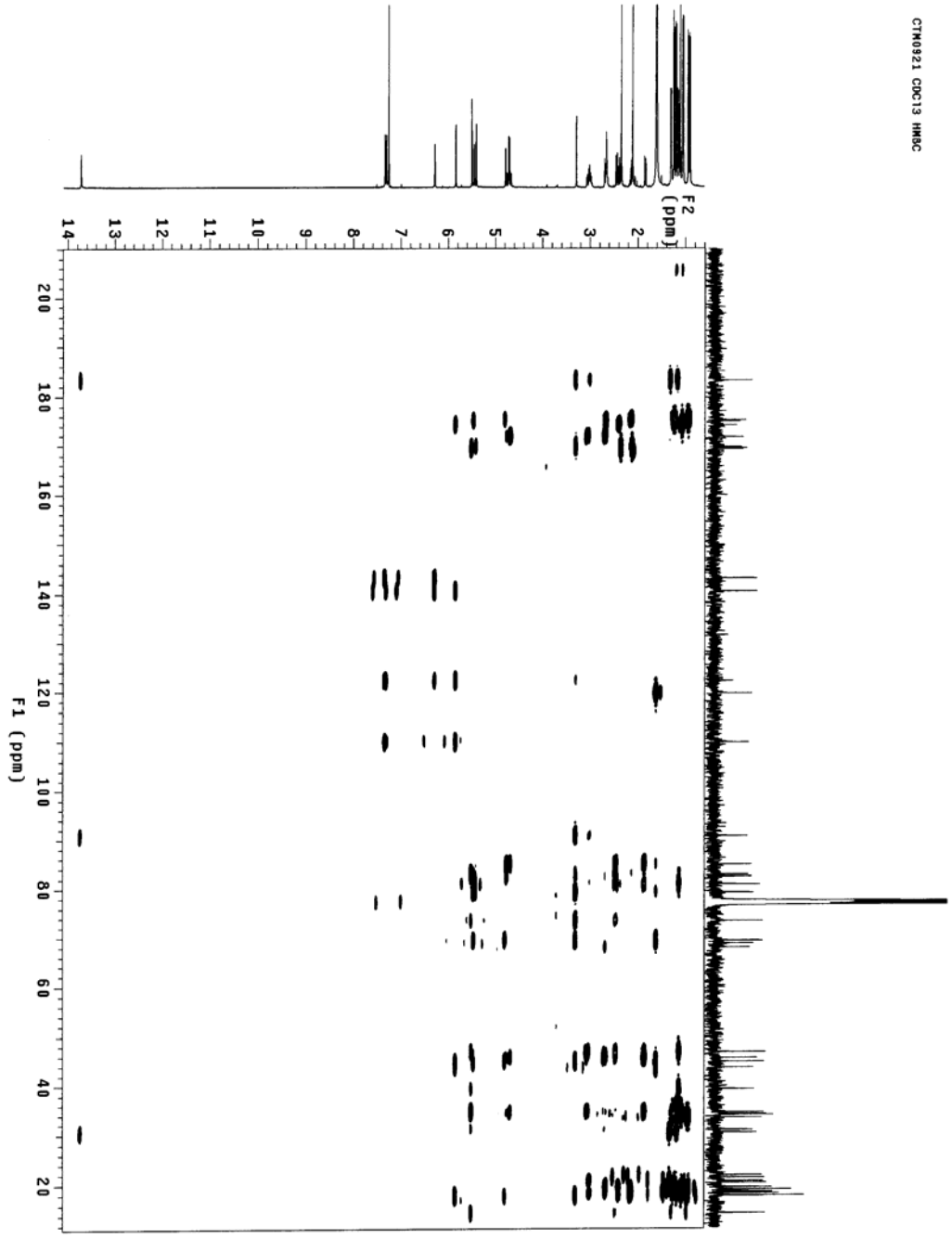


Figure S88. ROESY spectrum of **13** in $CDCl_3$

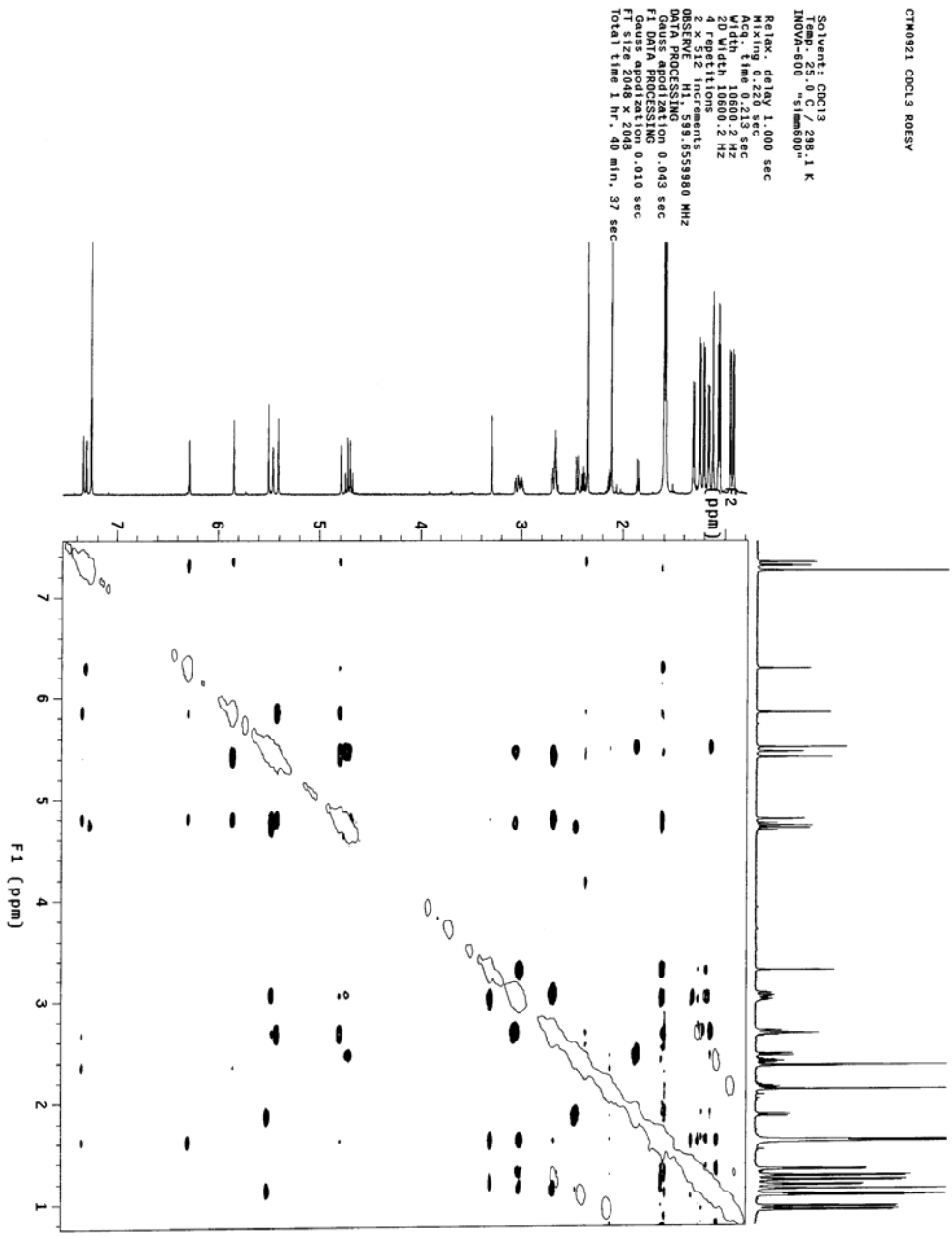


Figure S89. IR spectrum of **13**

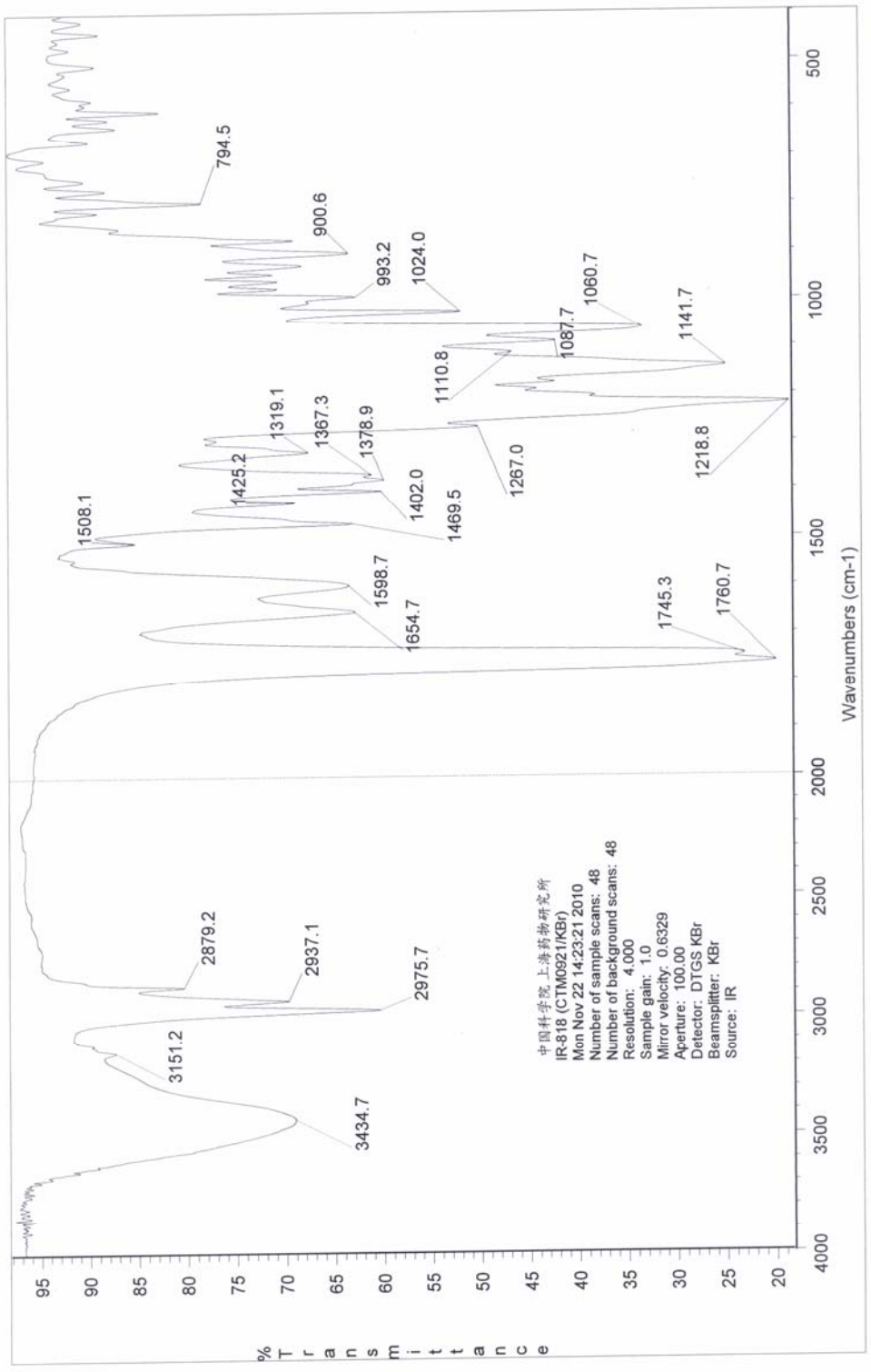
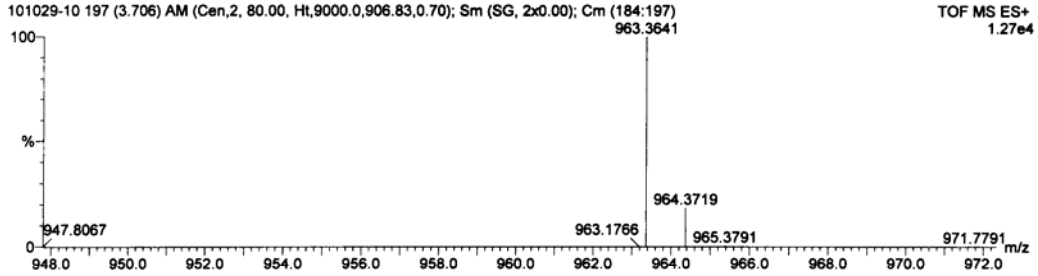


Figure S90. HR-ESI(+)MS spectrum of **13**

Elemental Composition Report **Page 1**

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

Monoisotopic Mass, Odd and Even Electron Ions
36 formula(e) evaluated with 1 results within limits (up to 20 closest results for each mass)



Minimum:	20.00				-1.5		
Maximum:	100.00		200.0	50.0	50.0		
Mass	RA	Calc. Mass	mDa	PPM	DBE	Score	Formula
963.3641	100.00	963.3627	1.4	1.5	18.5	1	C48 H60 O19 Na

Figure S91. ^{1}H NMR spectrum of **14** in $CDCl_3$

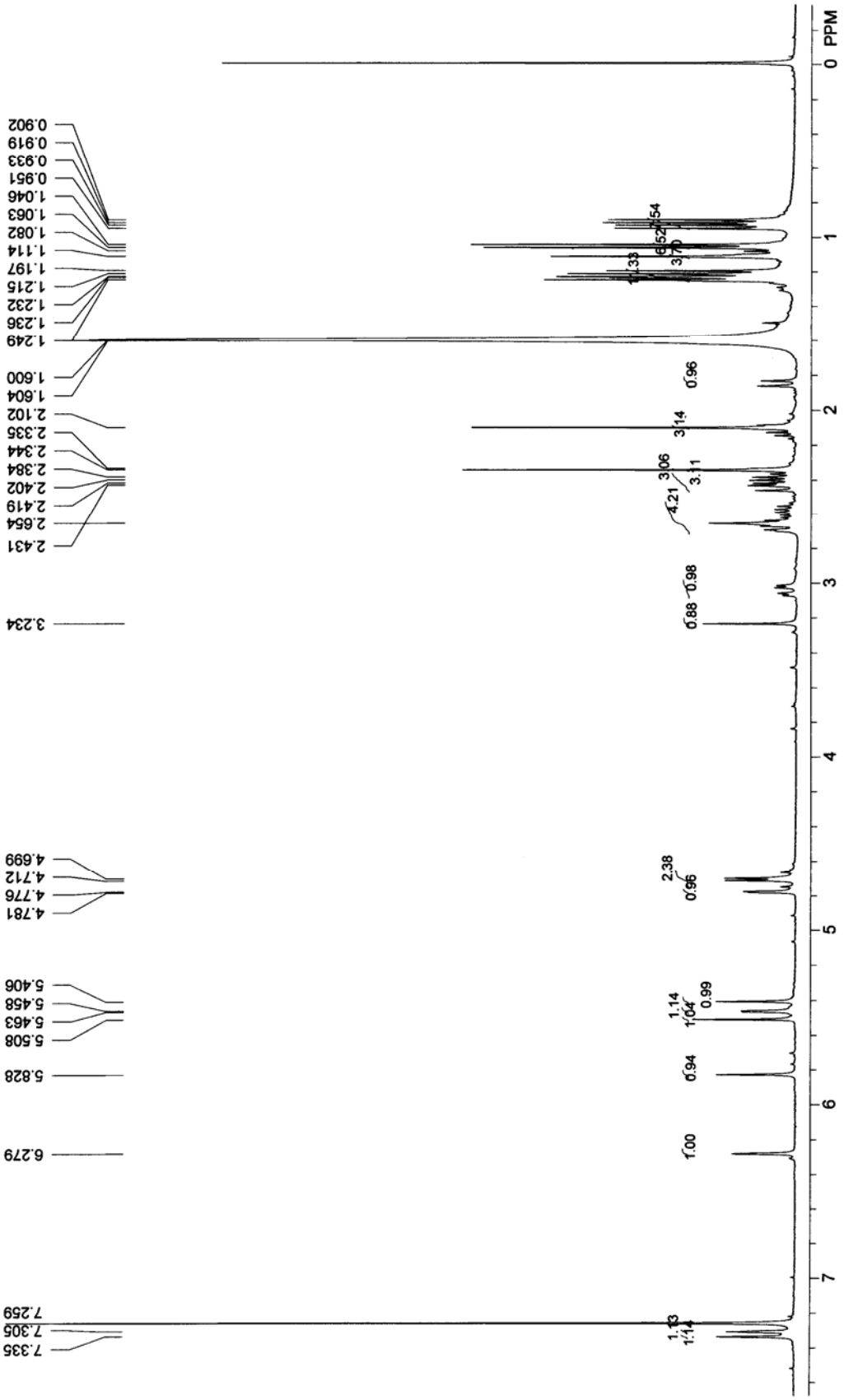


Figure S92. ^{13}C NMR spectrum of **14** in $CDCl_3$

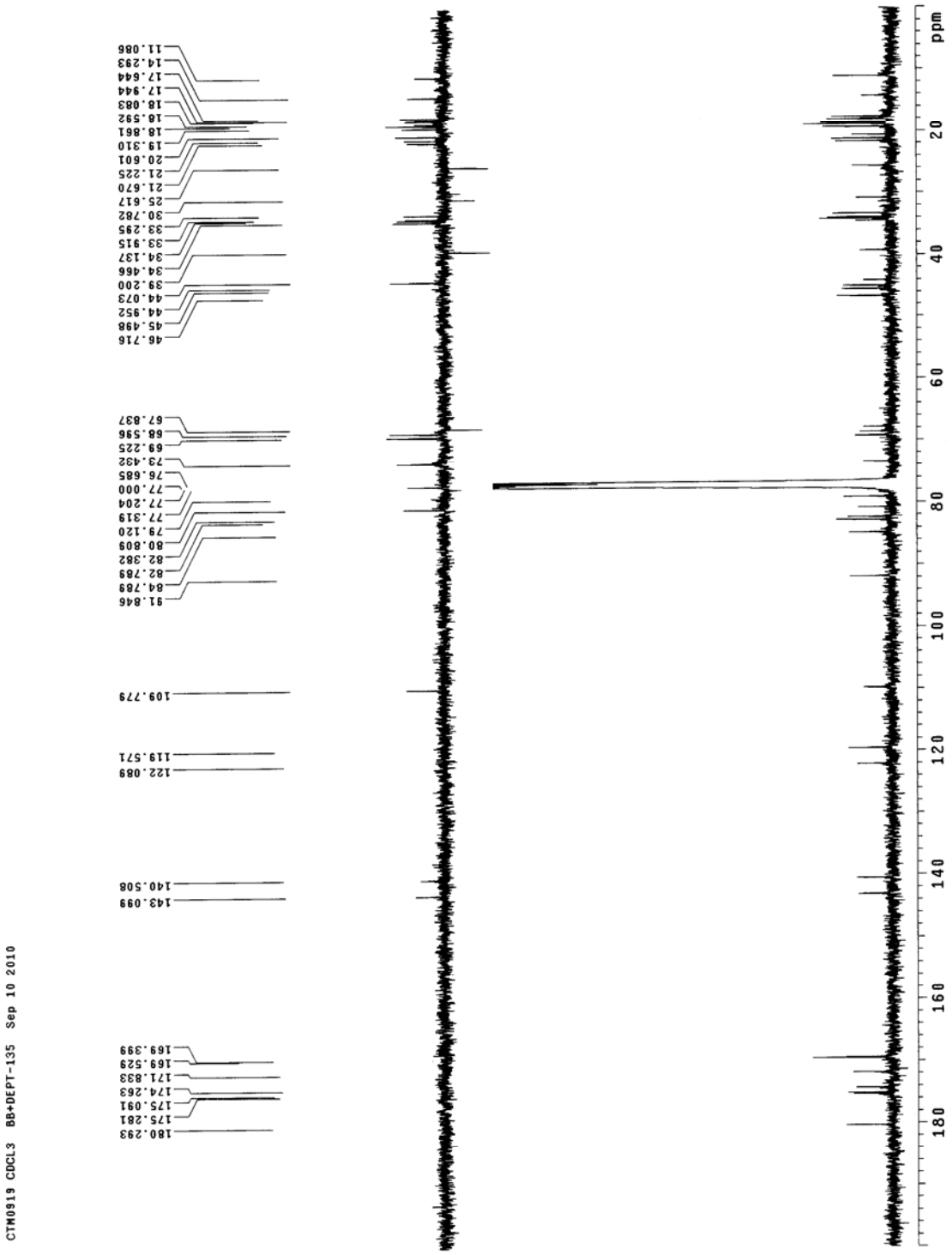


Figure S93. HSQC spectrum of **14** in $CDCl_3$

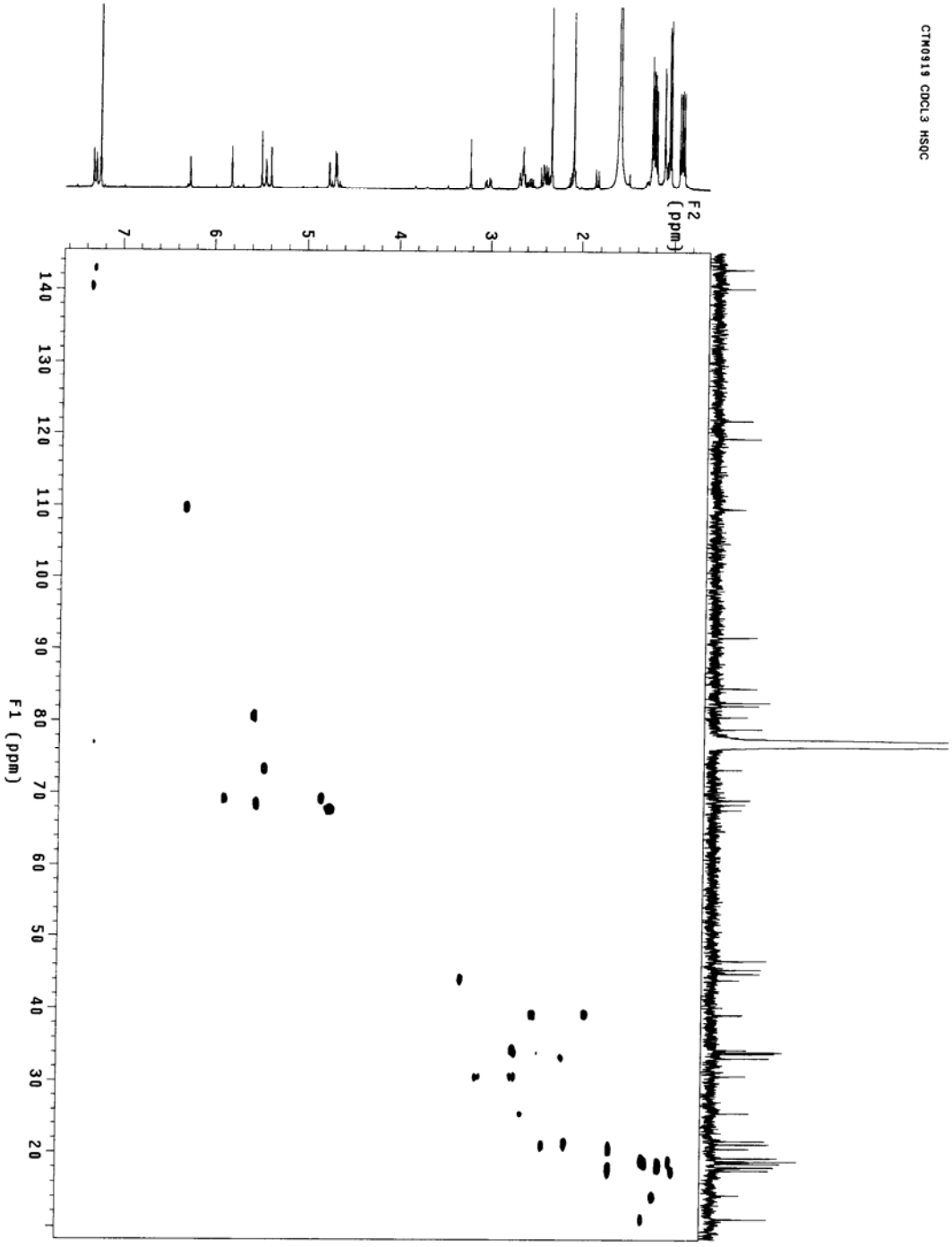


Figure S94. HMBC spectrum of **14** in $CDCl_3$

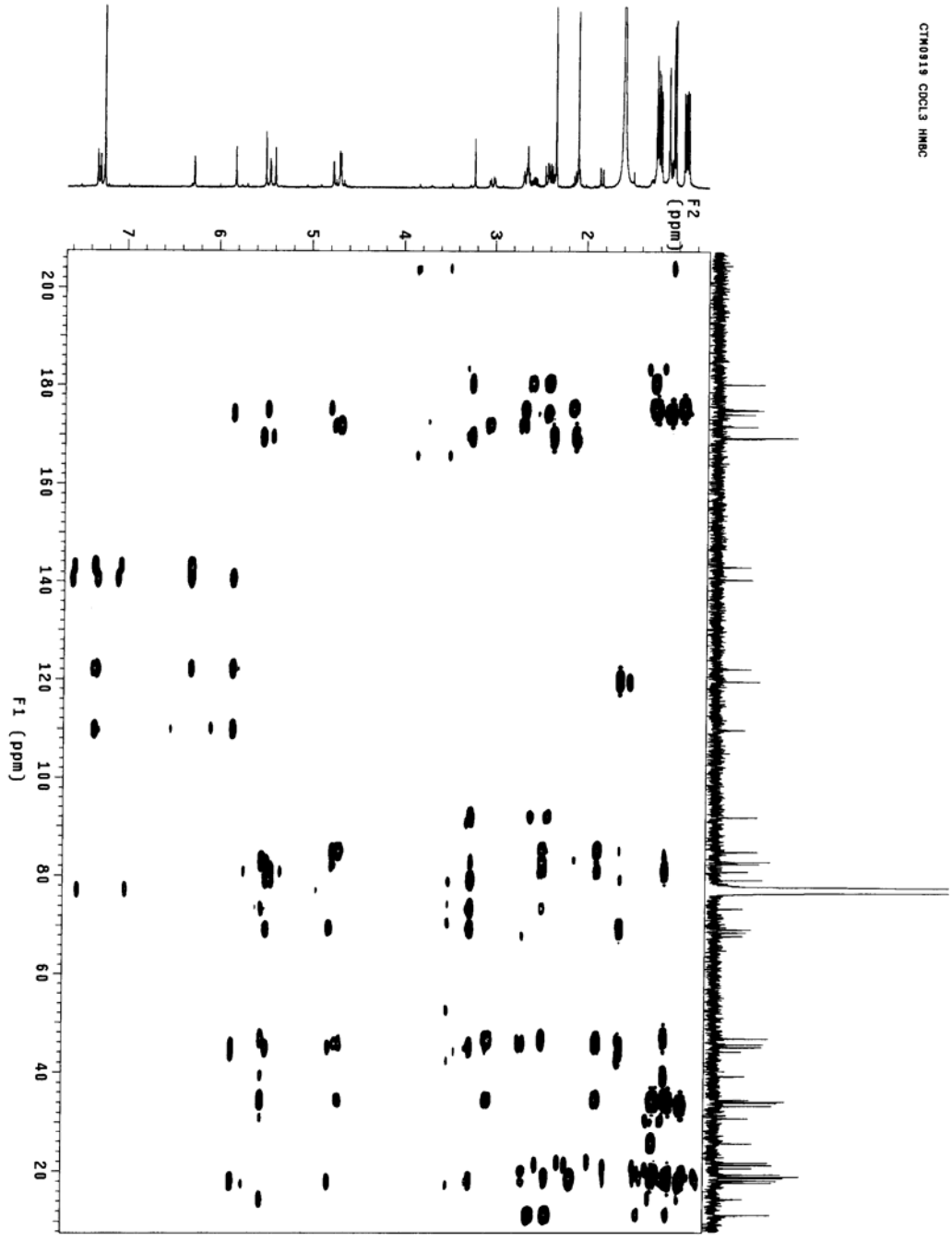


Figure S95. ROESY spectrum of **14** in $CDCl_3$

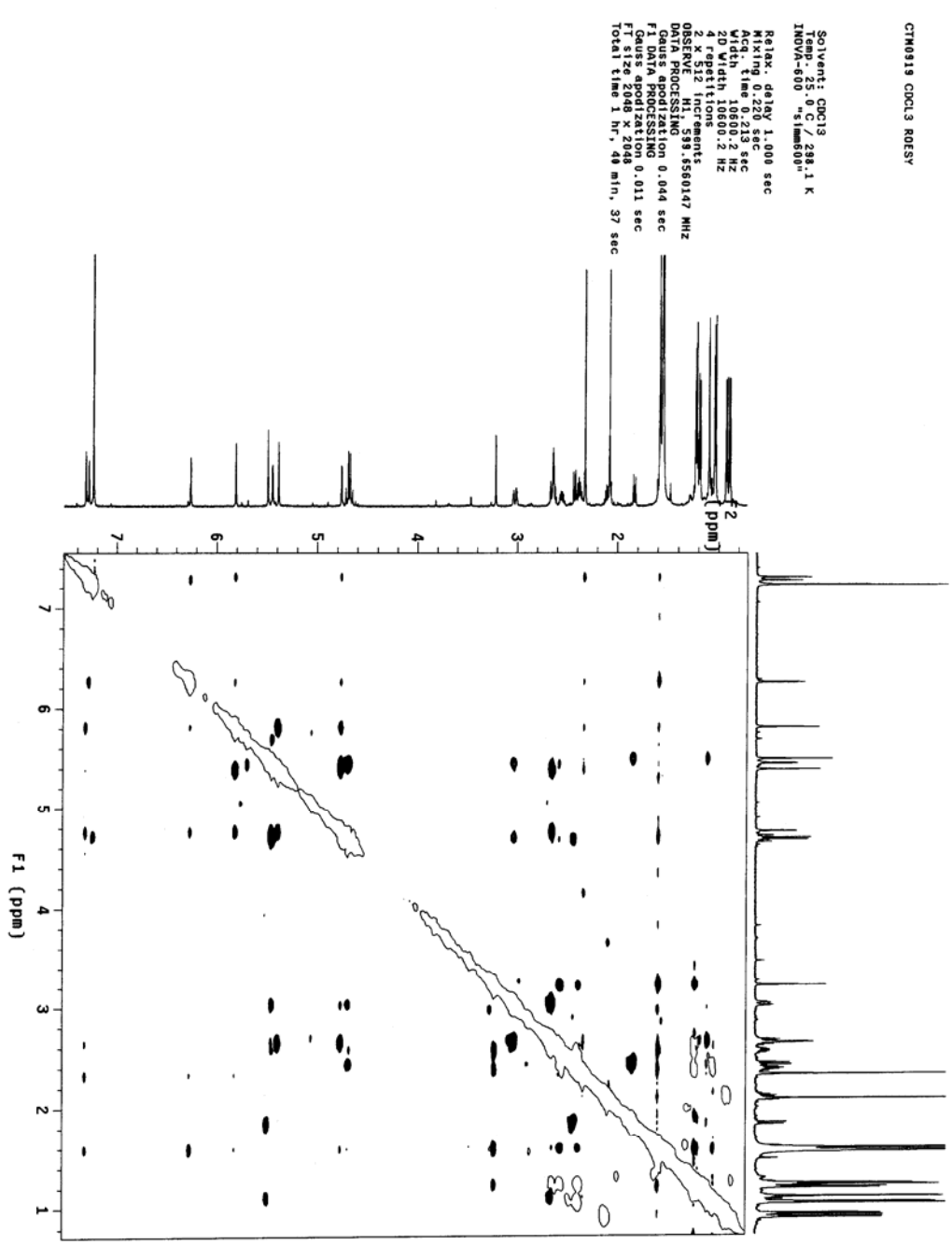


Figure S96. IR spectrum of **14**

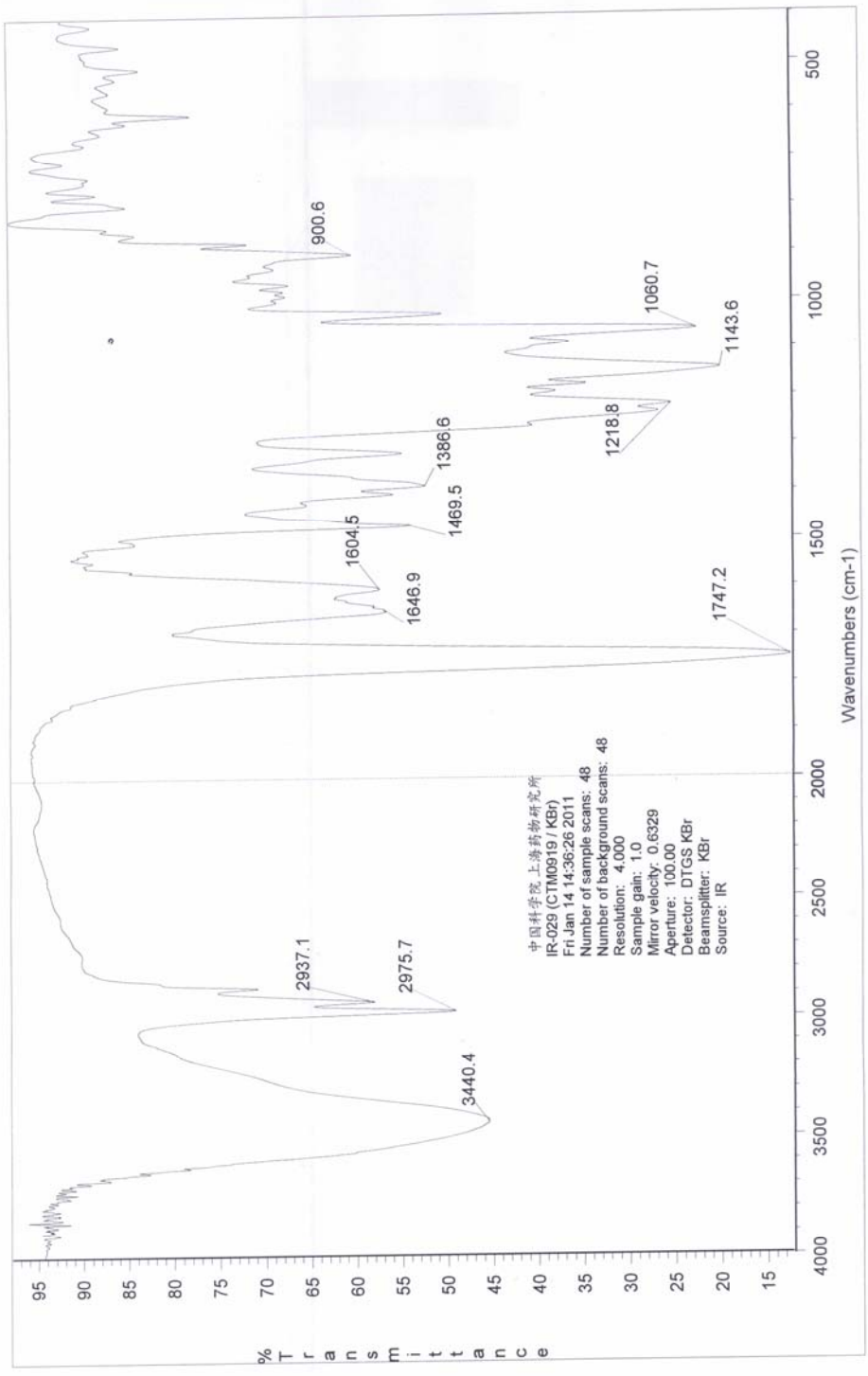
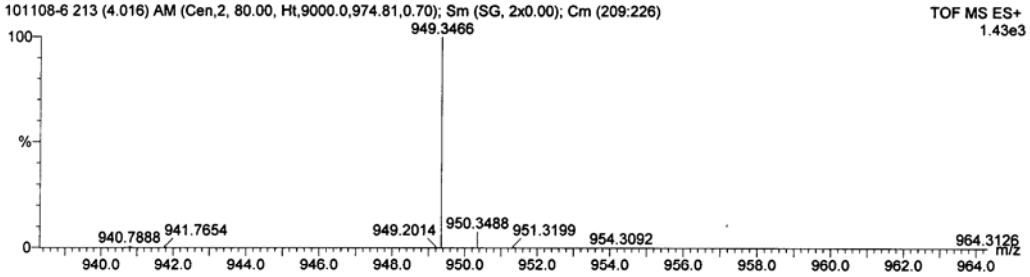


Figure S97. HR-ESI(+)MS spectrum of **14**

Elemental Composition Report **Page 1**

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

Monoisotopic Mass, Odd and Even Electron Ions
36 formula(e) evaluated with 1 results within limits (up to 20 closest results for each mass)



Minimum:	20.00				-1.5		
Maximum:	100.00		200.0	50.0	50.0		
Mass	RA	Calc. Mass	mDa	PPM	DBE	Score	Formula
949.3466	100.00	949.3470	-0.4	-0.4	18.5	1	C47 H58 O19 Na

Figure S98. ^{1}H NMR spectrum of **15** in $CDCl_3$

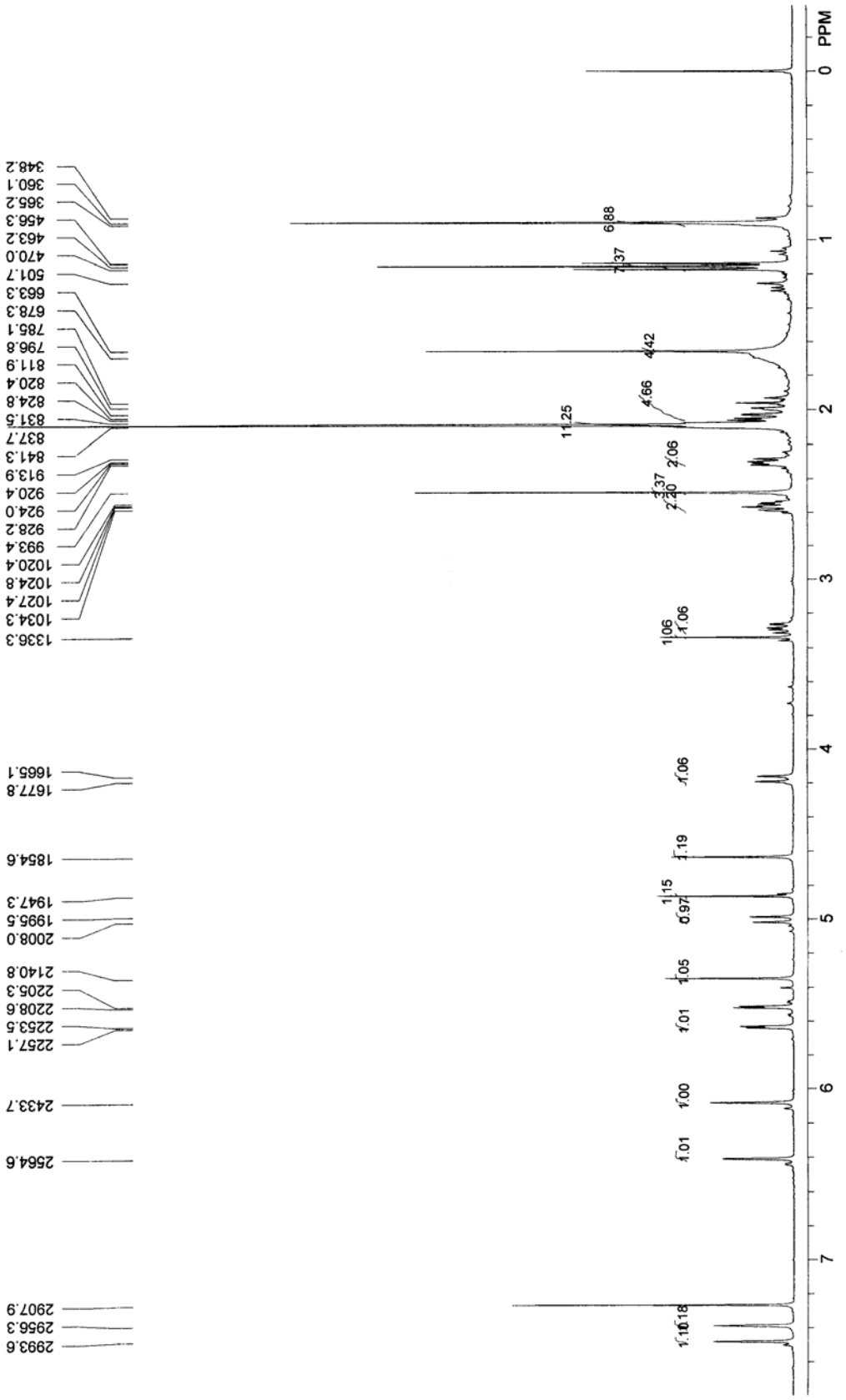


Figure S99. ^{13}C NMR spectrum of **15** in $CDCl_3$

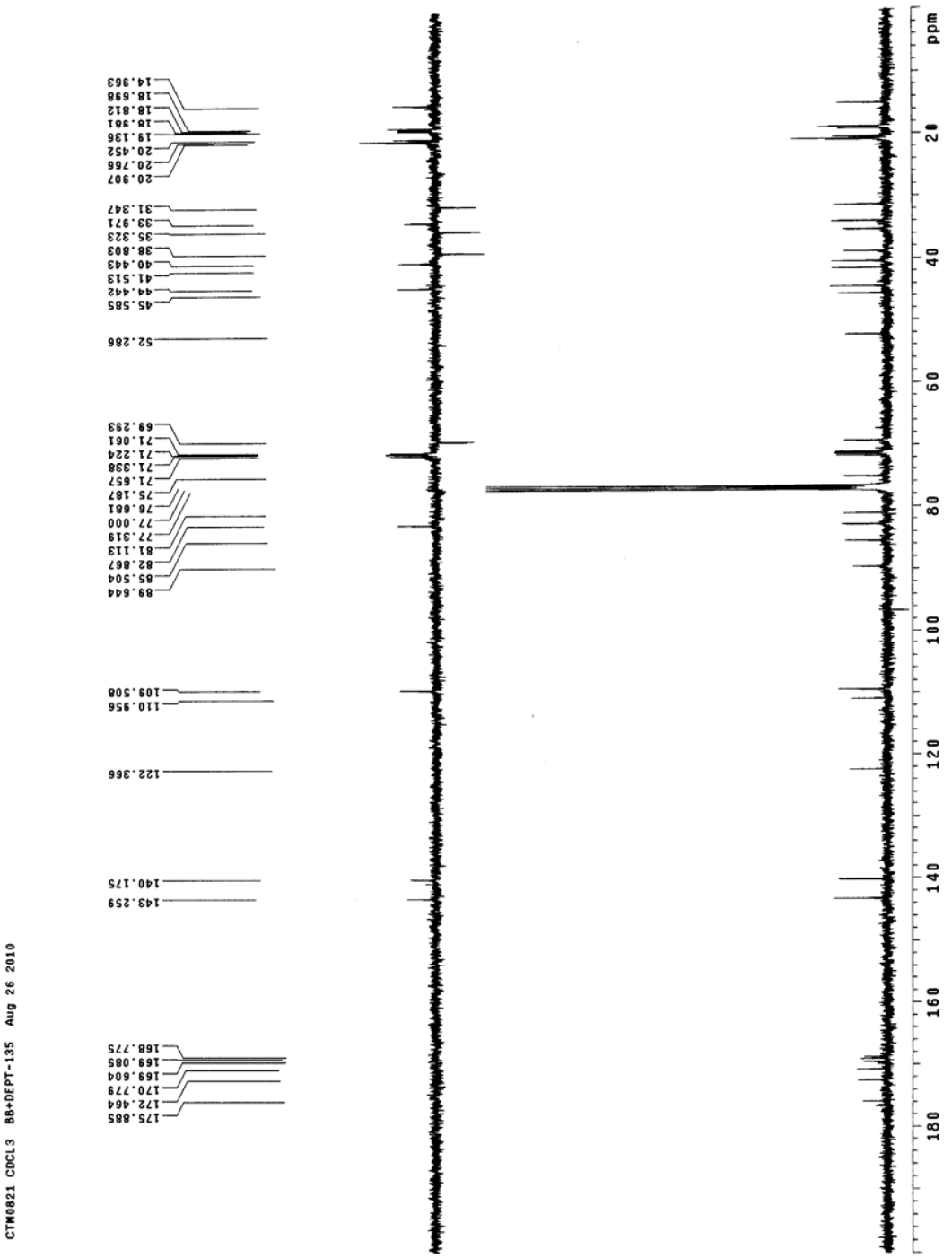


Figure S100. HSQC spectrum of **15** in $CDCl_3$

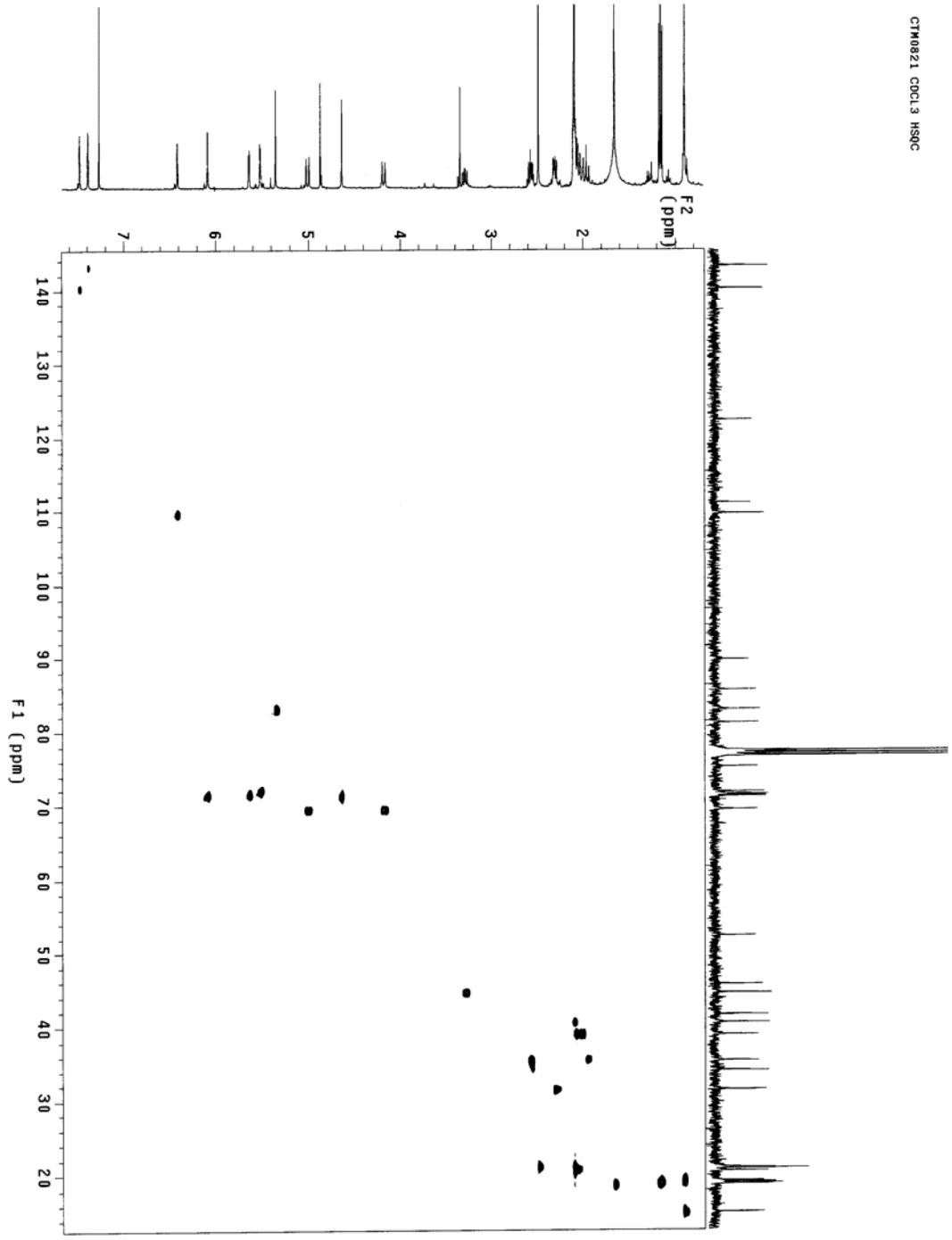


Figure S101. HMBC spectrum of **15** in $CDCl_3$

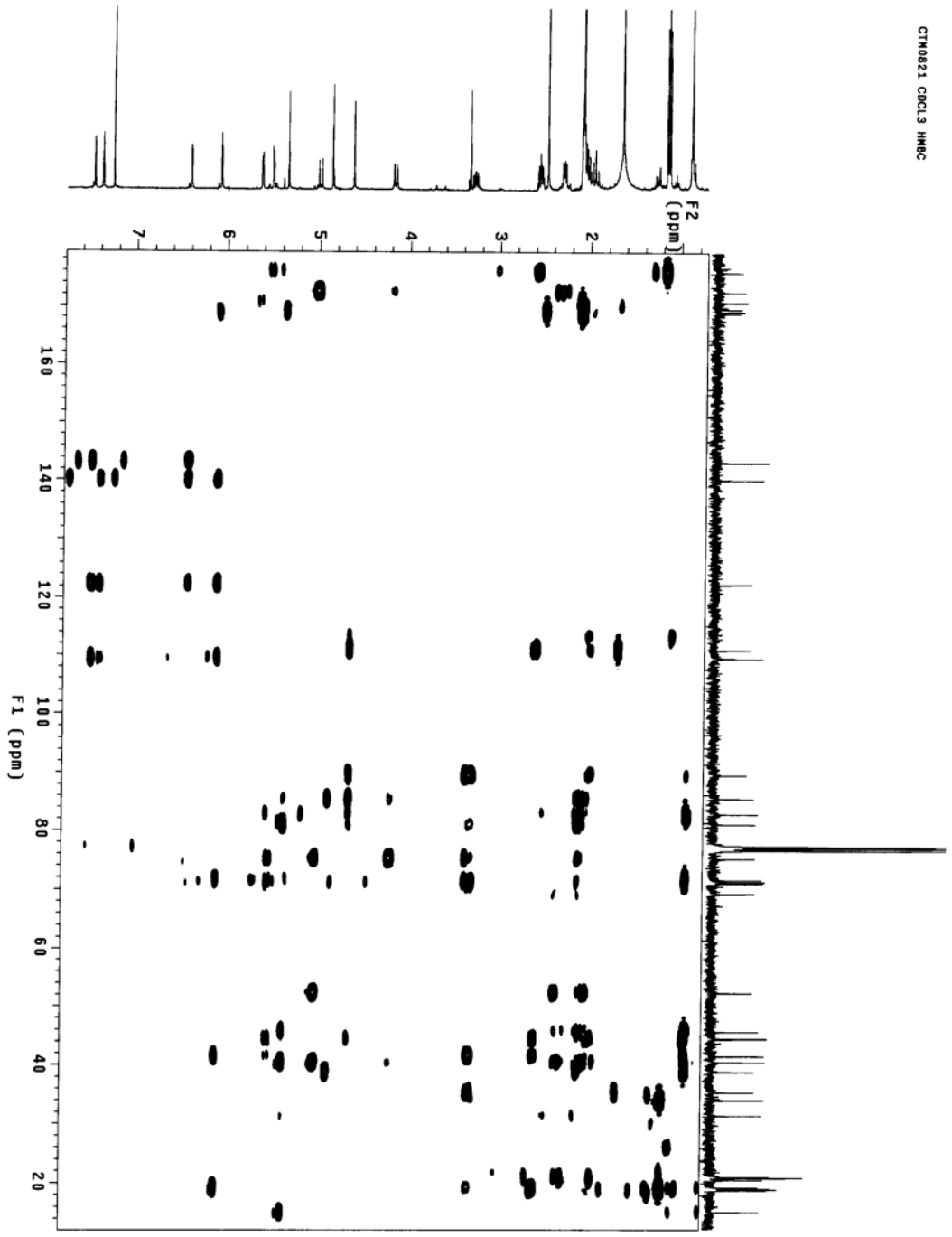


Figure S102. ROESY spectrum of **15** in $CDCl_3$

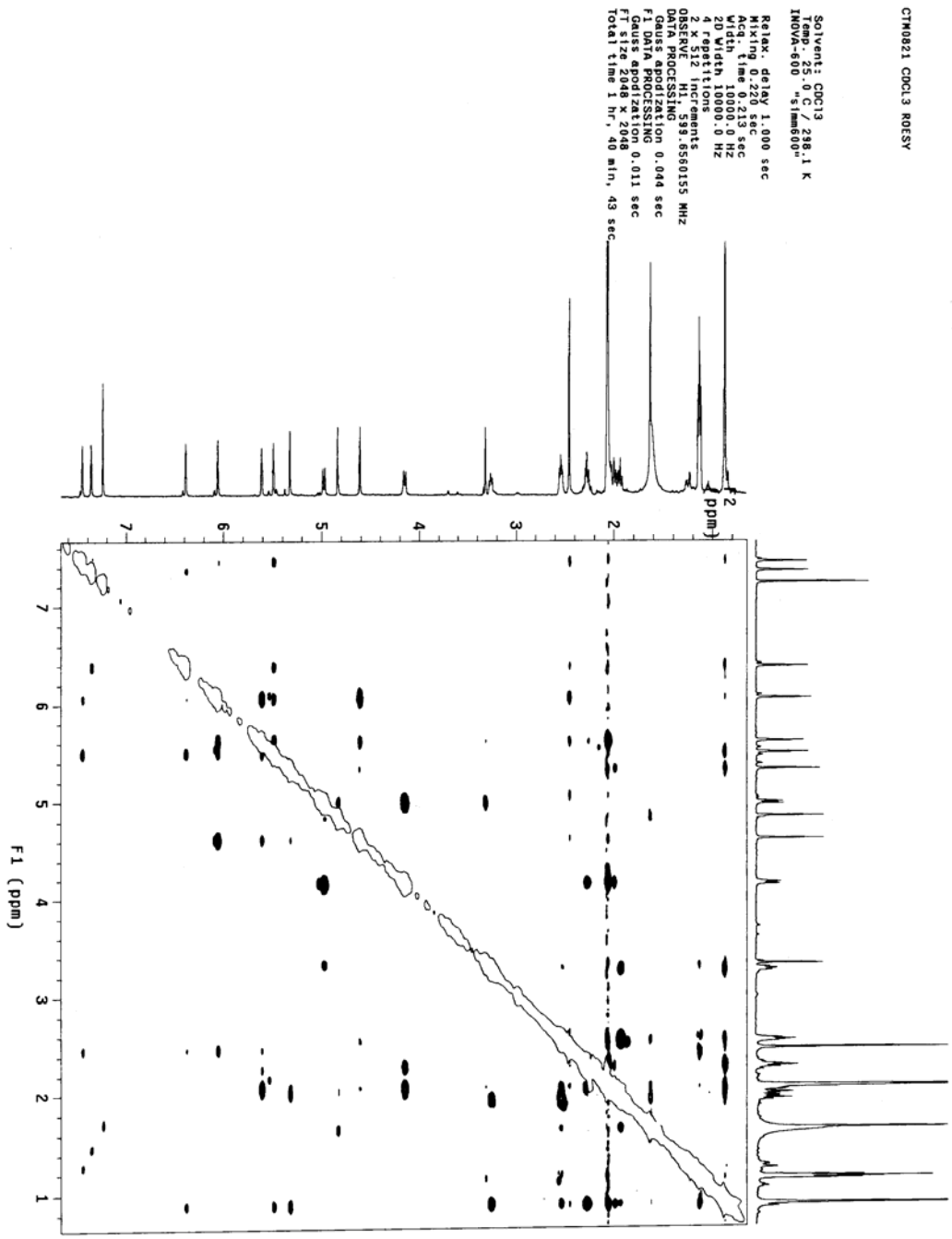


Figure S103. IR spectrum of **15**

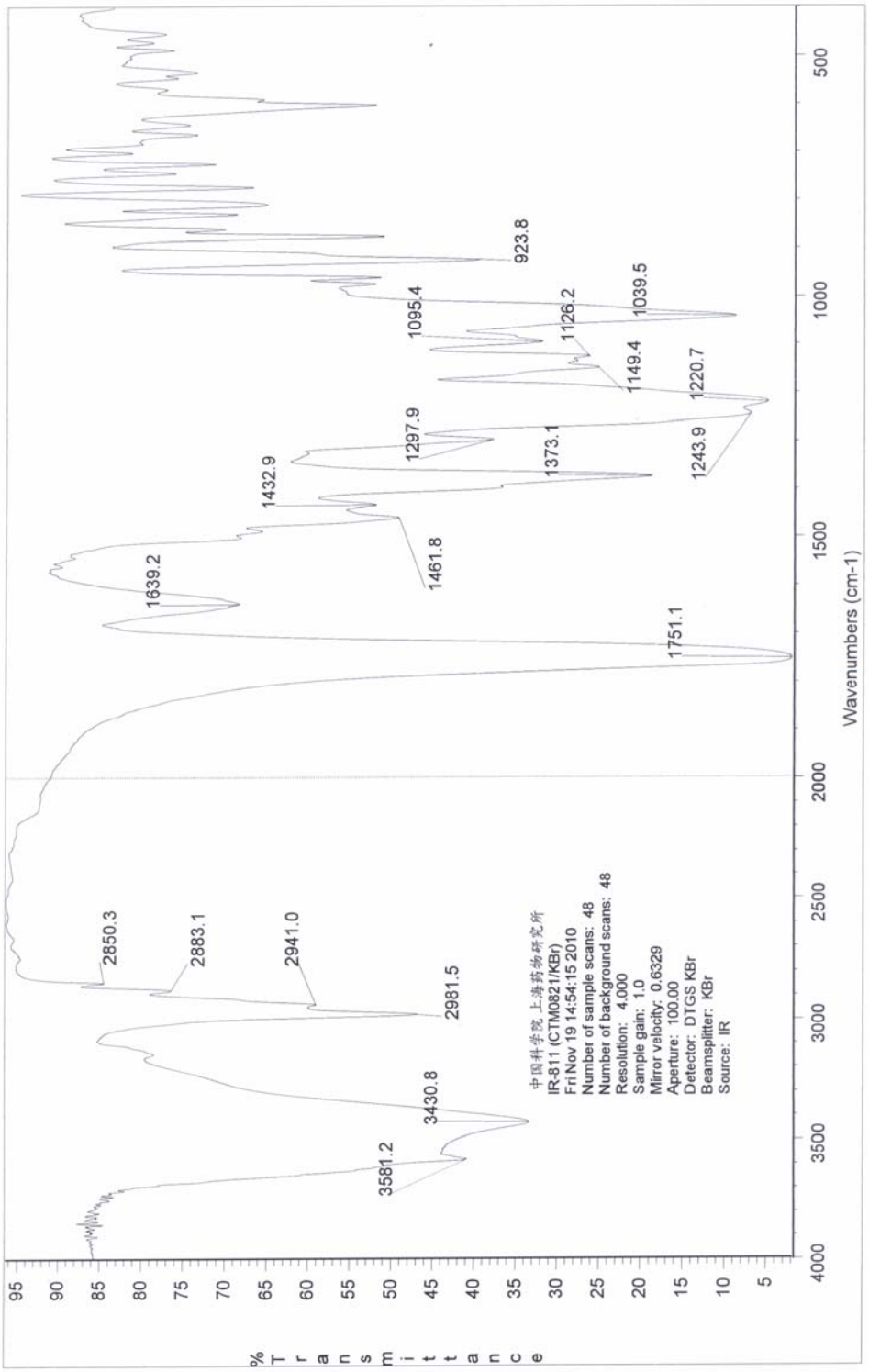


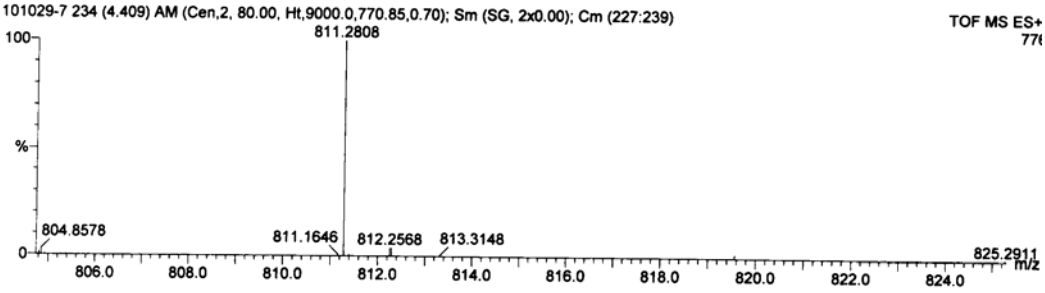
Figure S104. HR-ESI(+)MS spectrum of **15**

Elemental Composition Report **Page 1**

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

Monoisotopic Mass, Odd and Even Electron Ions
33 formula(e) evaluated with 1 results within limits (up to 20 closest results for each mass)

101029-7 234 (4.409) AM (Cen,2, 80.00, Ht,9000.0,770.85,0.70); Sm (SG, 2x0.00); Cm (227:239) TOF MS ES+ 77



Minimum:	20.00				-1.5		
Maximum:	100.00		200.0	50.0	50.0		
Mass	RA	Calc. Mass	mDa	PPM	DBE	Score	Formula
811.2808	100.00	811.2789	1.9	2.3	15.5	1	C39 H48 O17 Na

Figure S105. ^{1}H NMR spectrum of **16** in $CDCl_3$

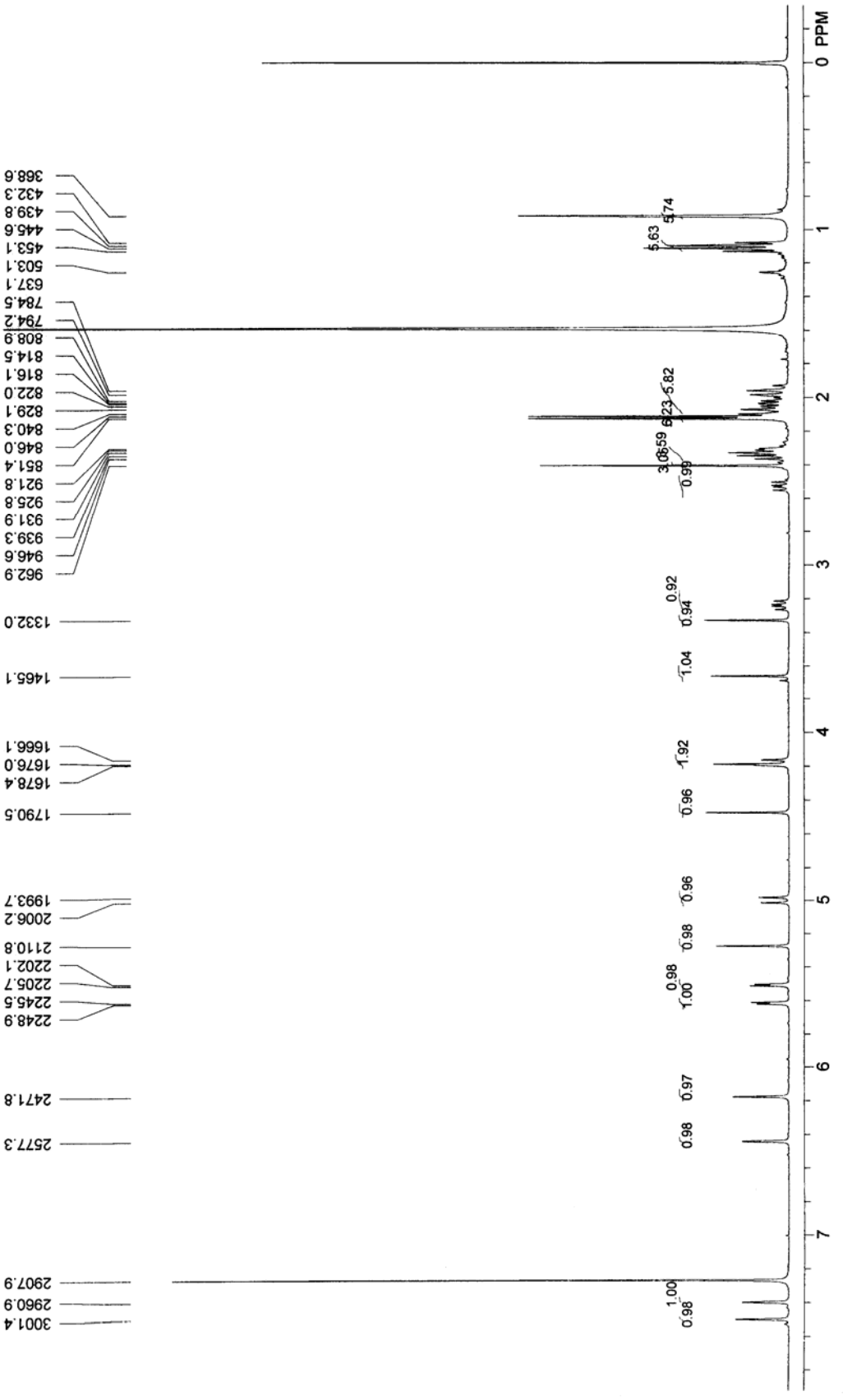


Figure S106. ^{13}C NMR spectrum of **16** in $CDCl_3$

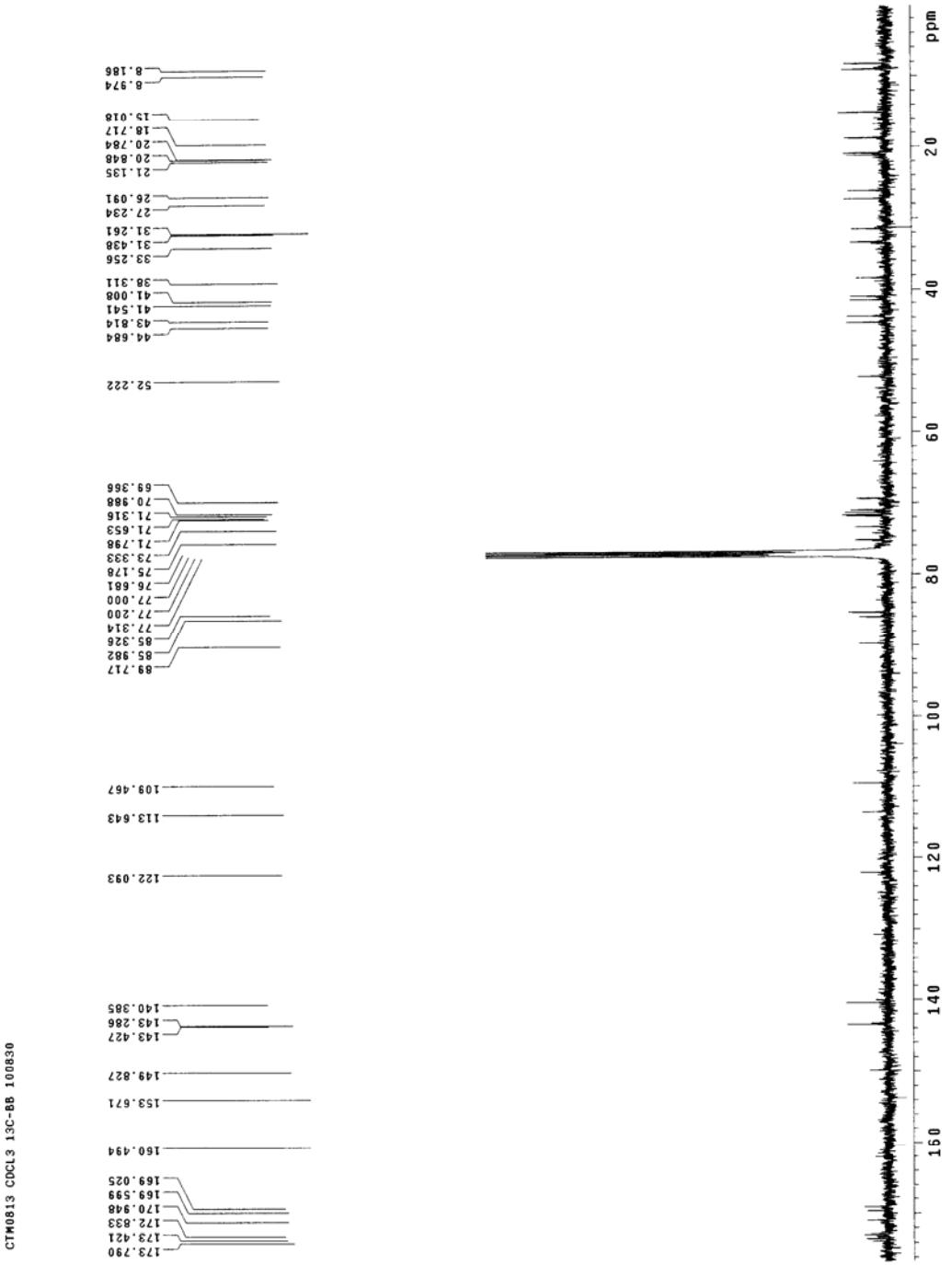


Figure S107. HSQC spectrum of **16** in $CDCl_3$

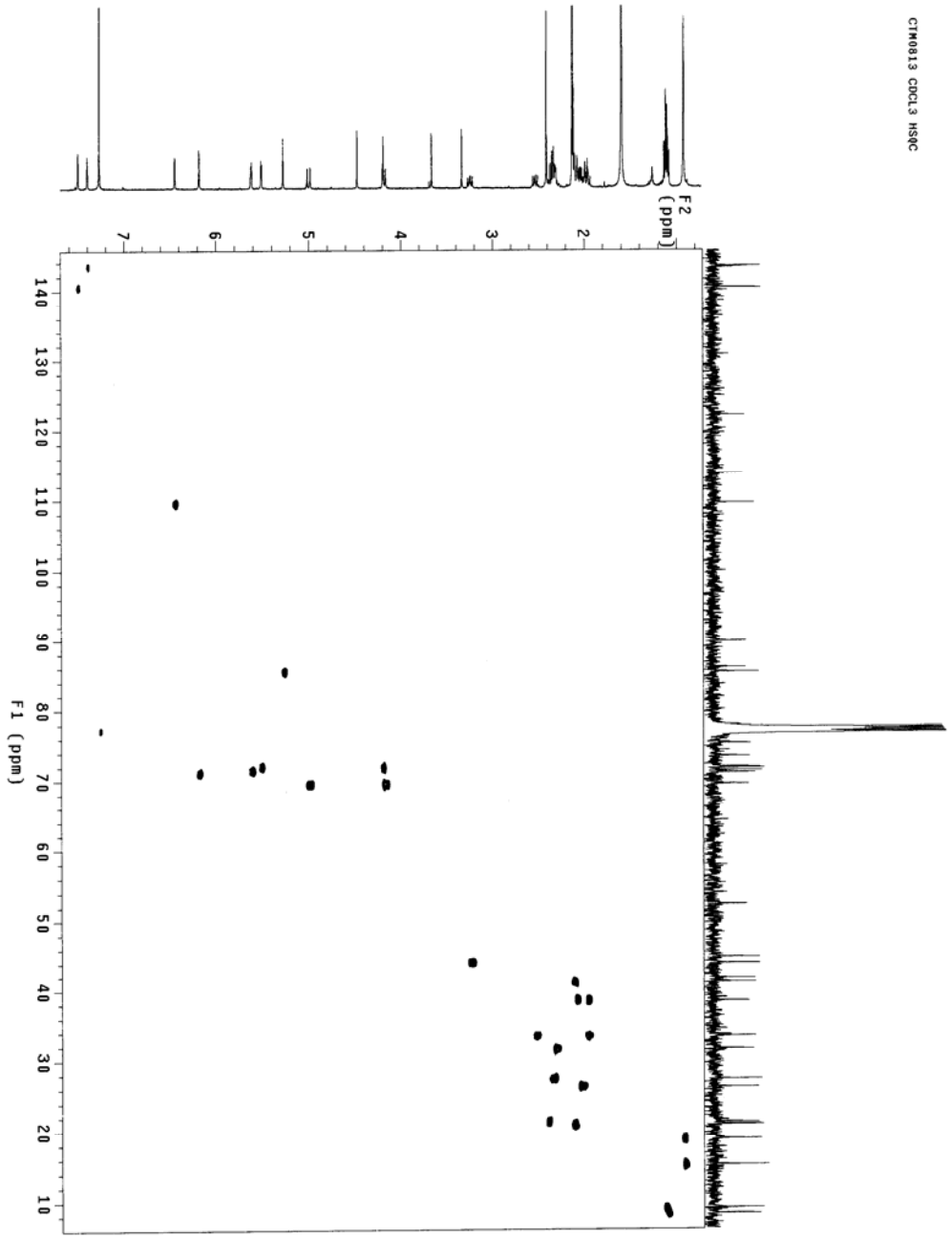


Figure S108. HMBC spectrum of **16** in $CDCl_3$

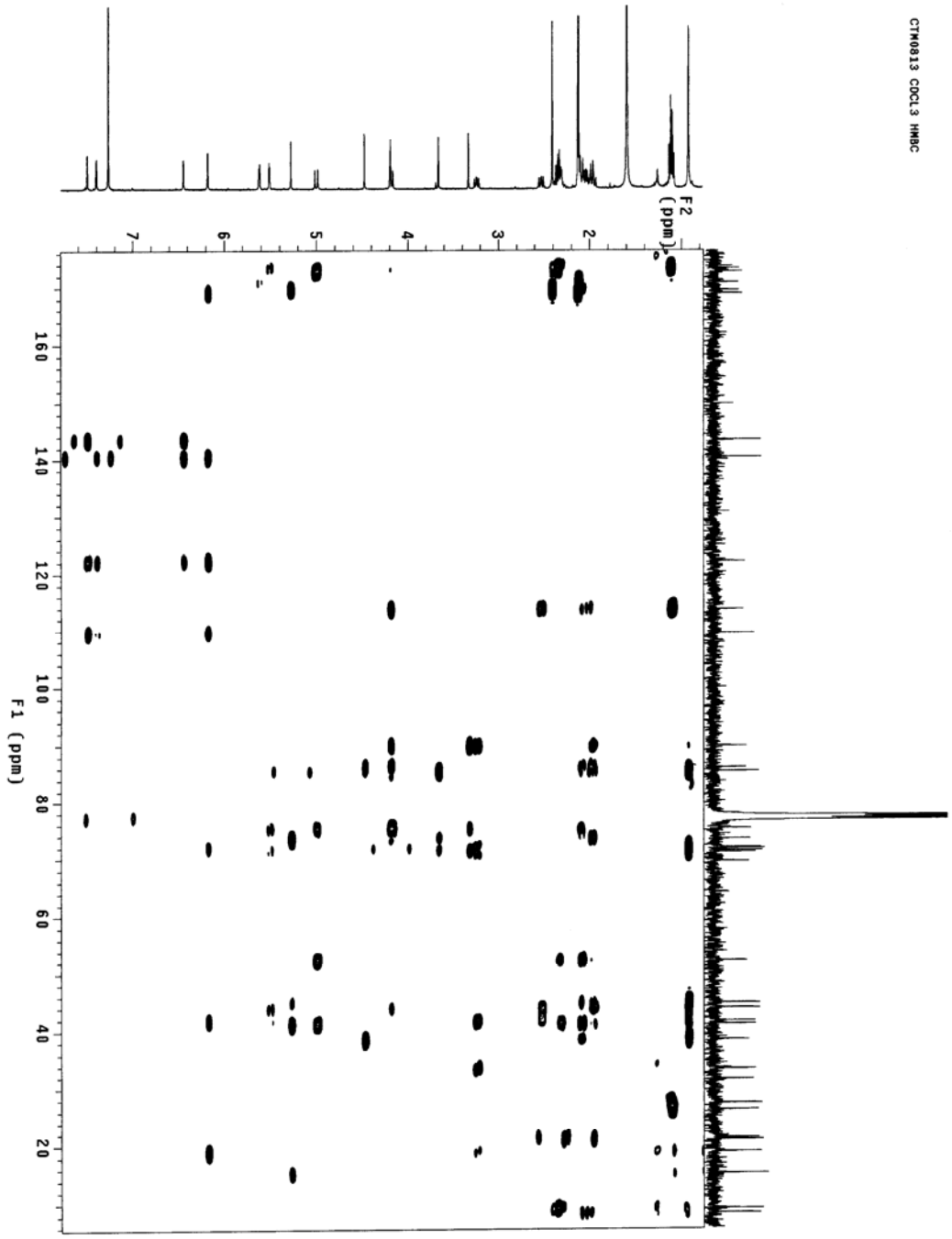


Figure S109. ROESY spectrum of **16** in $CDCl_3$

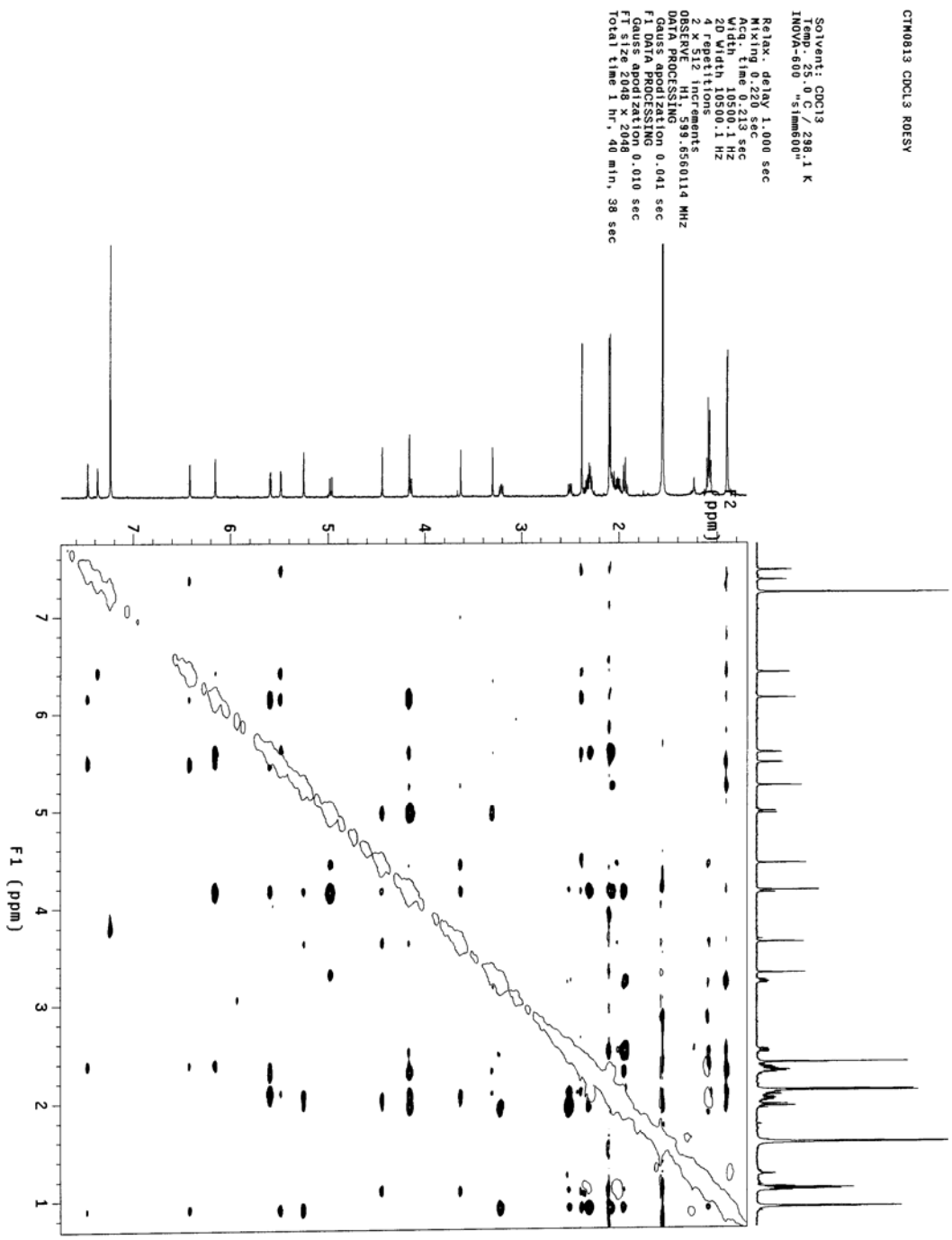


Figure S110. IR spectrum of **16**

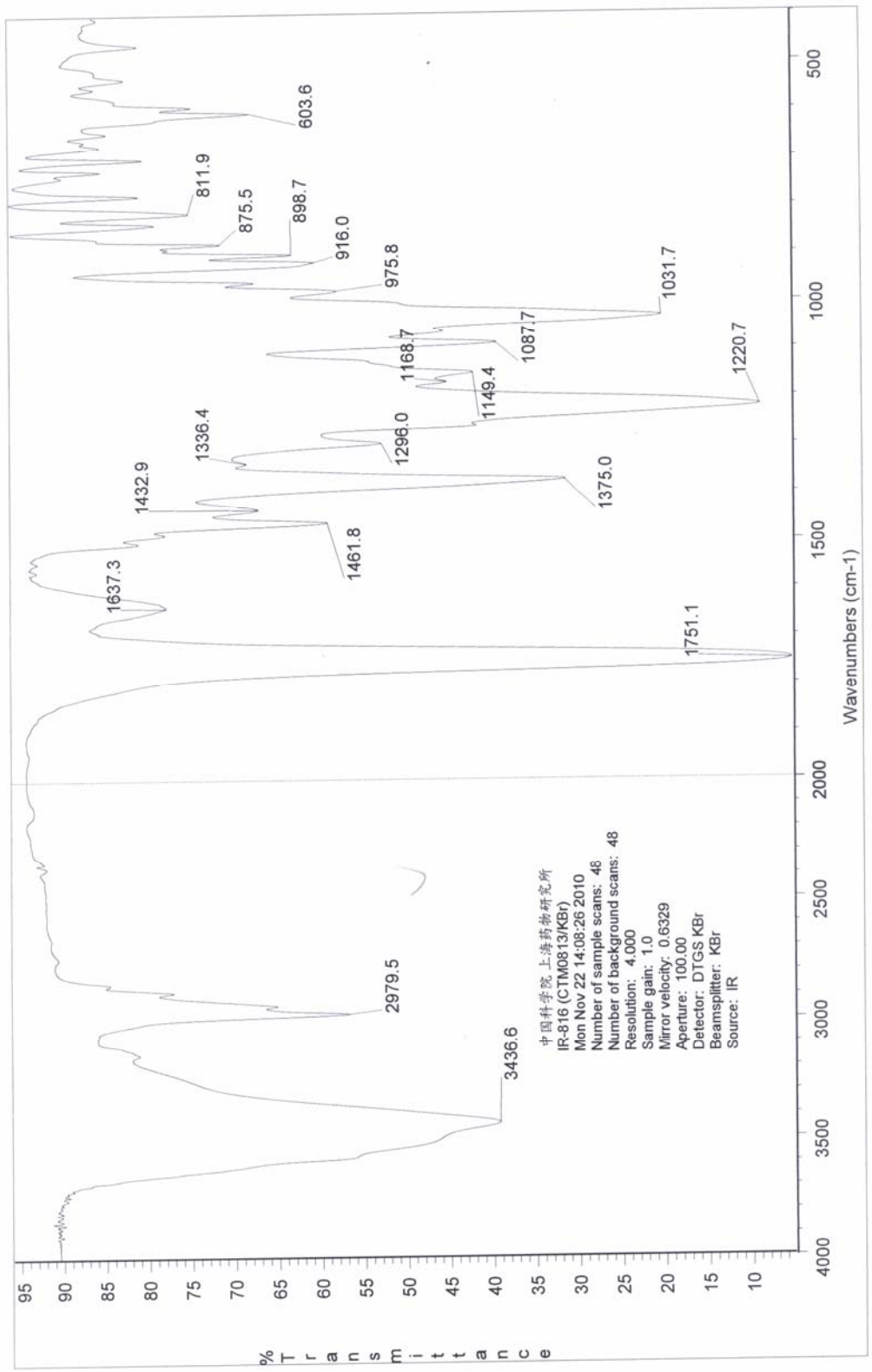


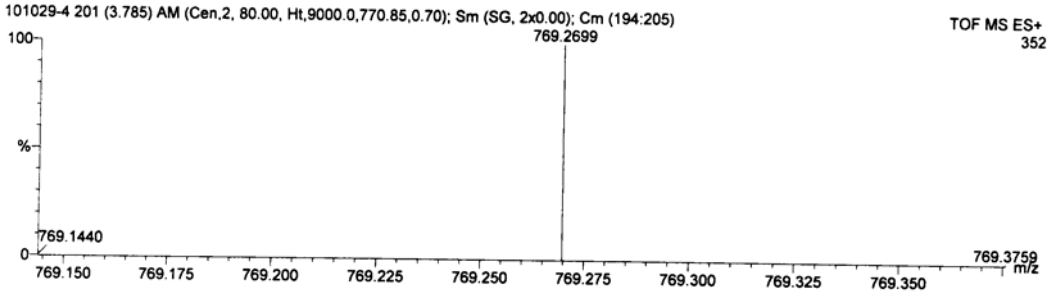
Figure S111. HR-ESI(+)MS spectrum of **16**

Elemental Composition Report **Page 1**

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

Monoisotopic Mass, Odd and Even Electron Ions
30 formula(e) evaluated with 1 results within limits (up to 20 closest results for each mass)

101029-4 201 (3.785) AM (Cen,2, 80.00, Ht,9000.0,770.85,0.70); Sm (SG, 2x0.00); Cm (194:205)



Minimum:	20.00				-1.5		
Maximum:	100.00		200.0	50.0	50.0		
Mass	RA	Calc. Mass	mDa	PPM	DBE	Score	Formula
769.2699	100.00	769.2684	1.5	2.0	14.5	1	C37 H46 O16 Na

Figure S112. ^{1}H NMR spectrum of **17** in $CDCl_3$.

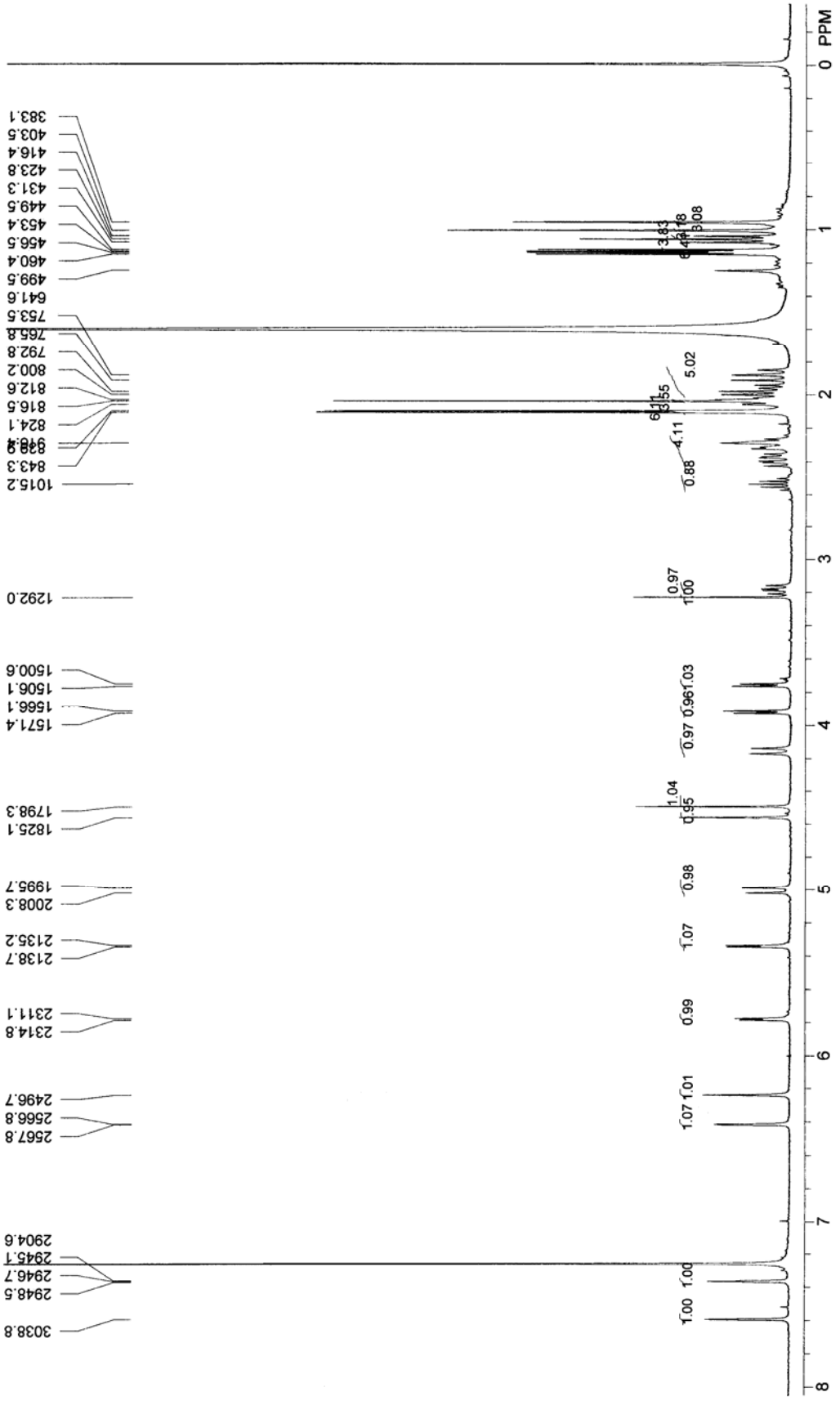


Figure S113. ^{13}C NMR spectrum of **17** in $CDCl_3$.

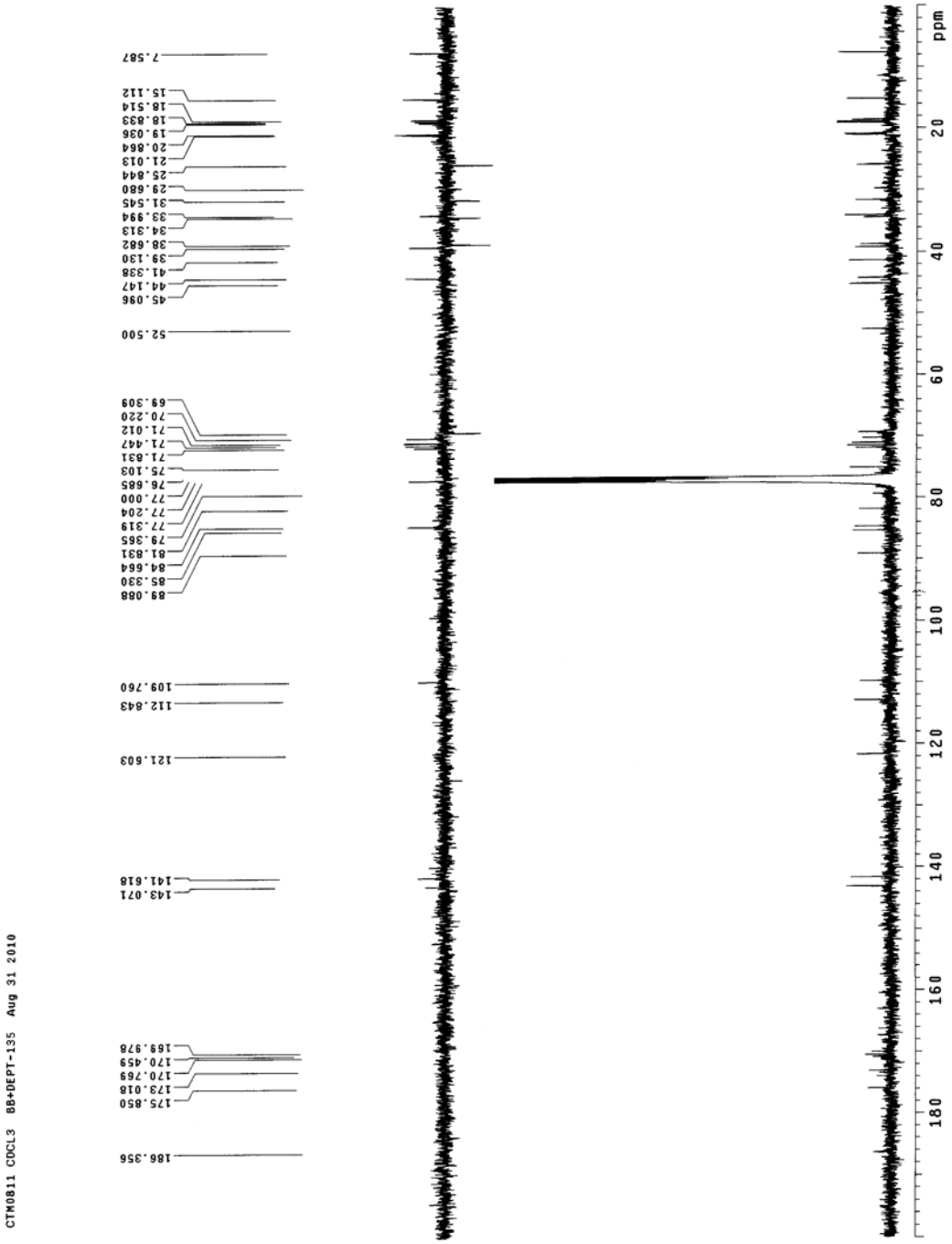


Figure S114. HSQC spectrum of **17** in $CDCl_3$

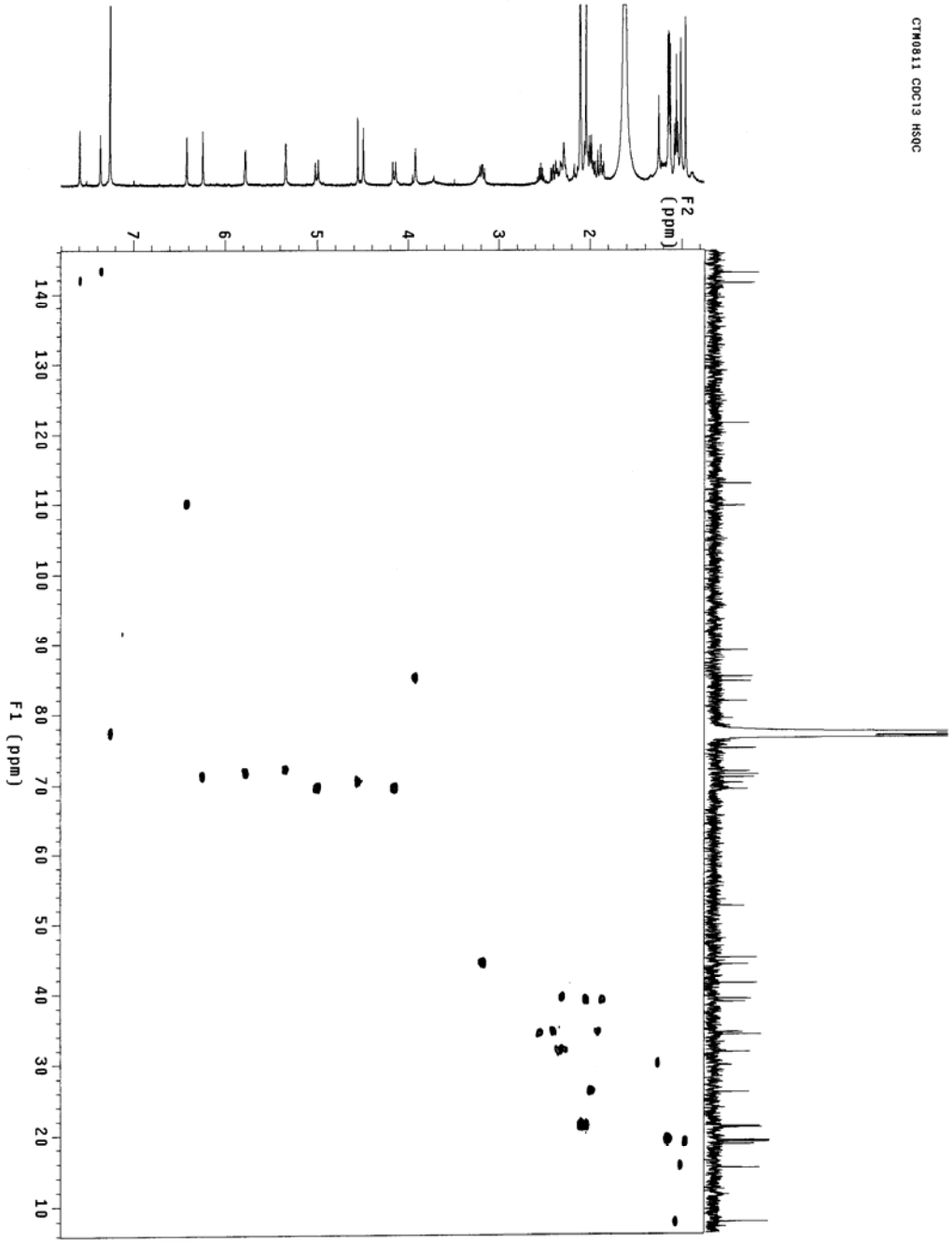


Figure S115. HMBC spectrum of **17** in $CDCl_3$

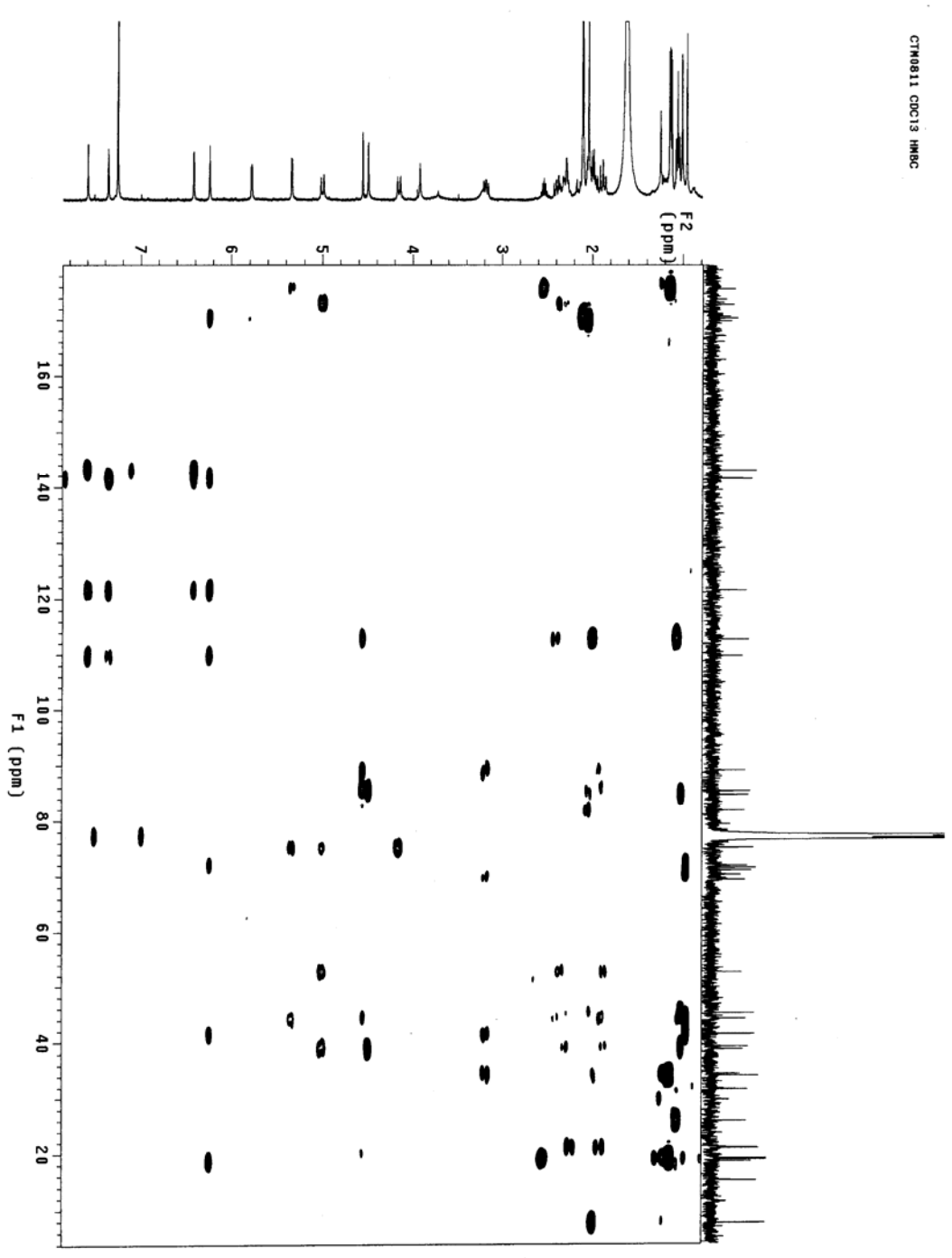


Figure S116. ROESY spectrum of **17** in $CDCl_3$

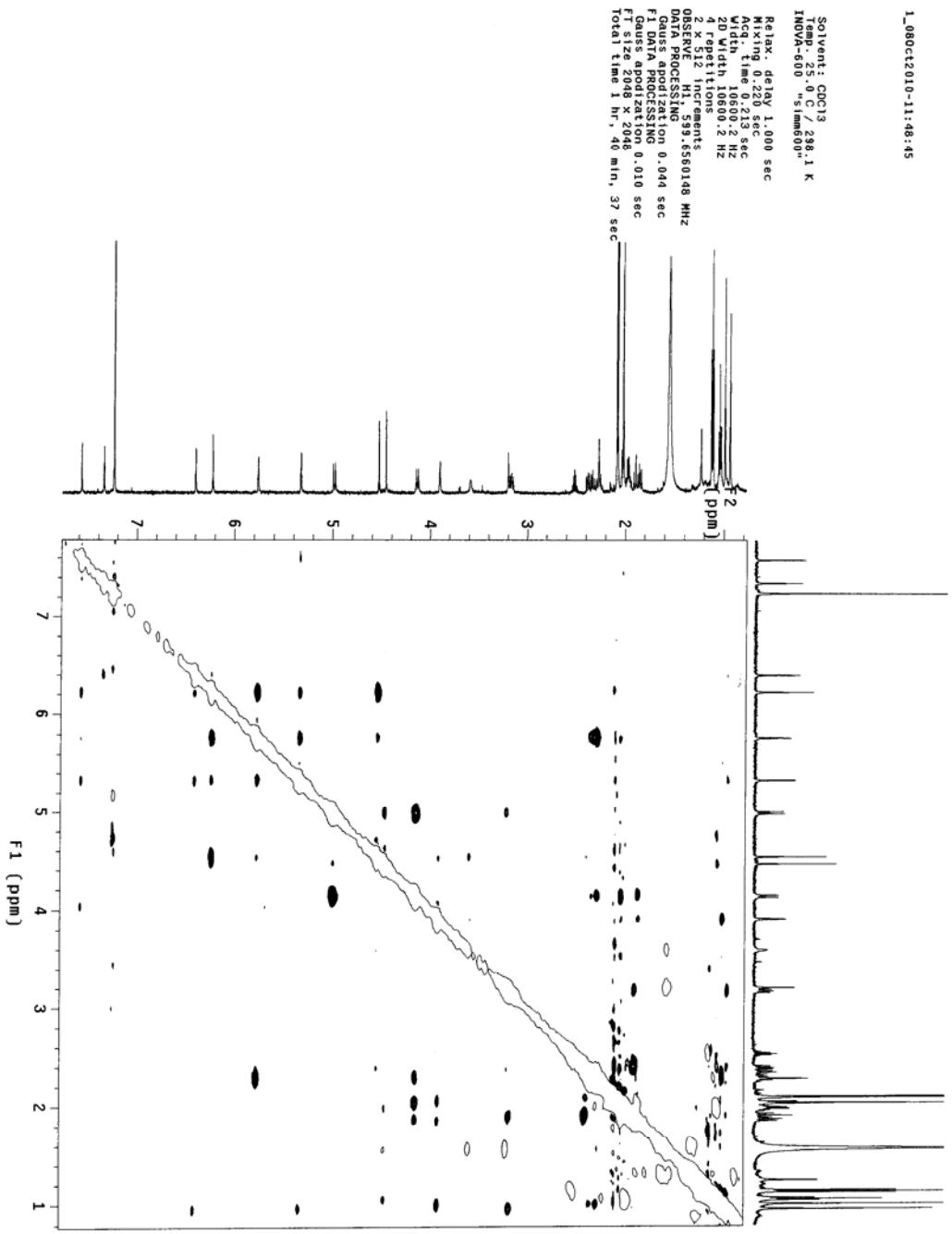


Figure S117. IR spectrum of **17**

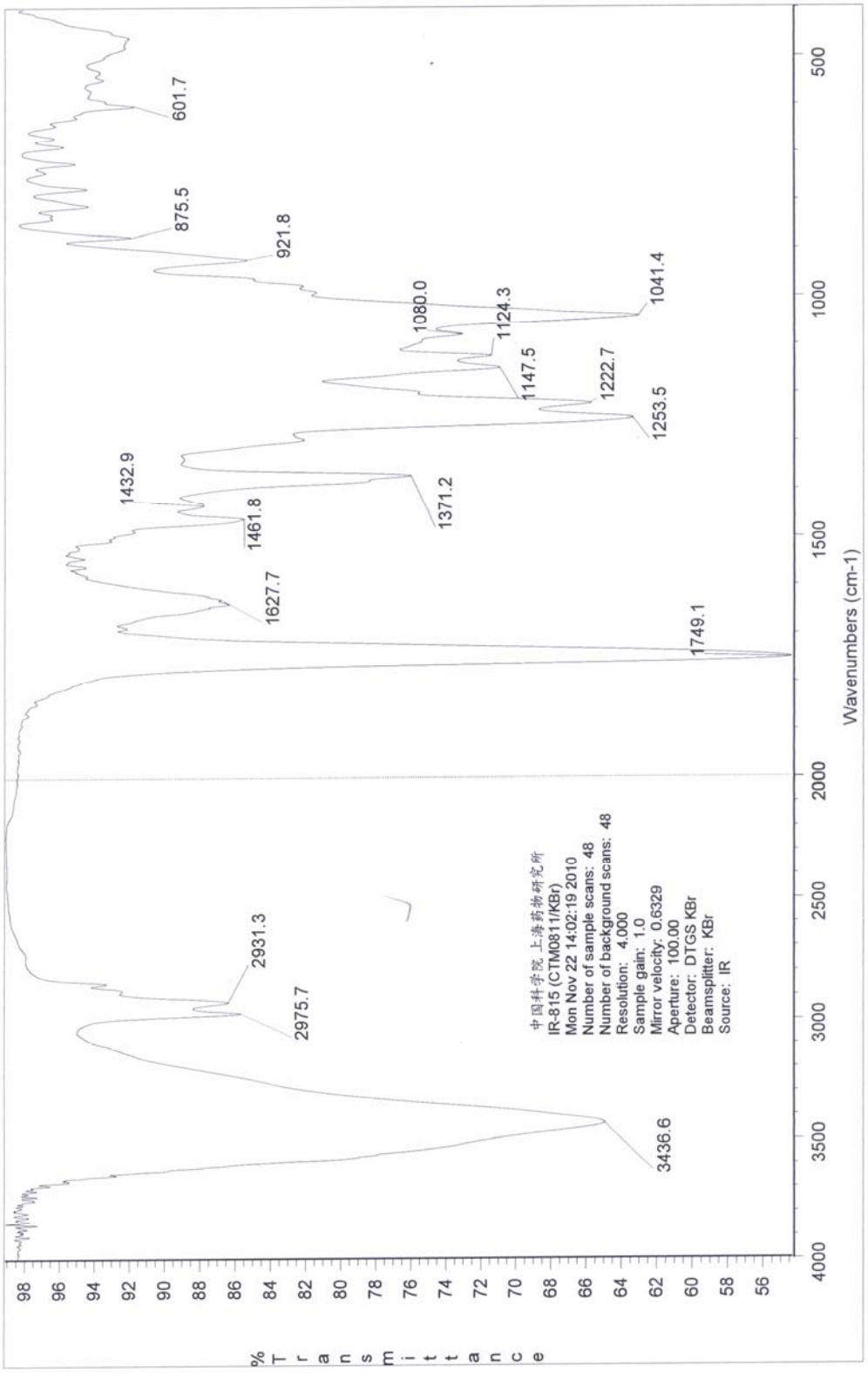
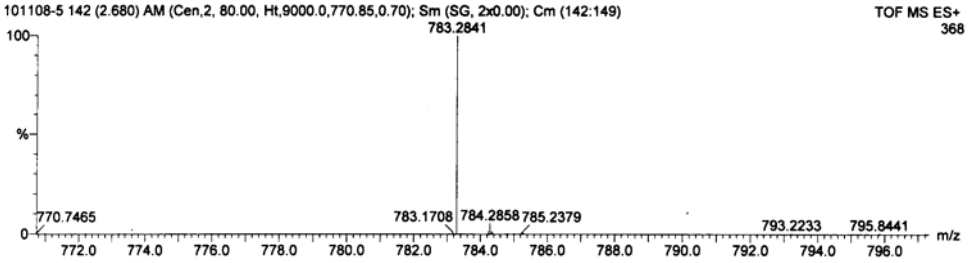


Figure S118. HR-ESI(+)MS spectrum of **17**

Elemental Composition Report **Page 1**

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

Monoisotopic Mass, Odd and Even Electron Ions
31 formula(e) evaluated with 1 results within limits (up to 20 closest results for each mass)



Minimum:	20.00				-1.5		
Maximum:	100.00		200.0	50.0	50.0		
Mass	RA	Calc. Mass	mDa	PPM	DBE	Score	Formula
783.2841	100.00	783.2840	0.1	0.1	14.5	1	C38 H48 O16 Na

Figure S119. ^{1}H NMR spectrum of **18** in $CDCl_3$

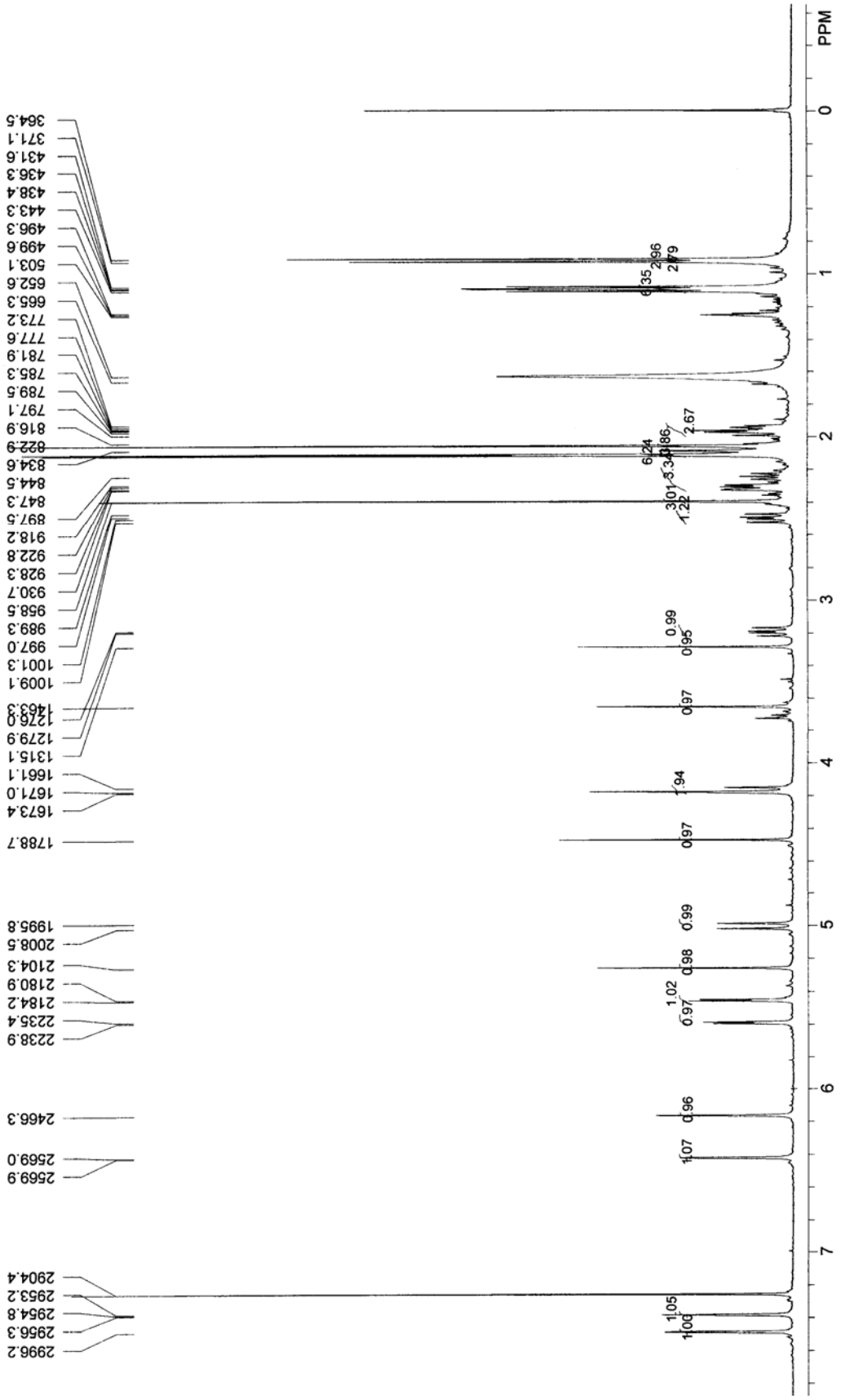


Figure S120. ^{13}C NMR spectrum of **18** in $CDCl_3$

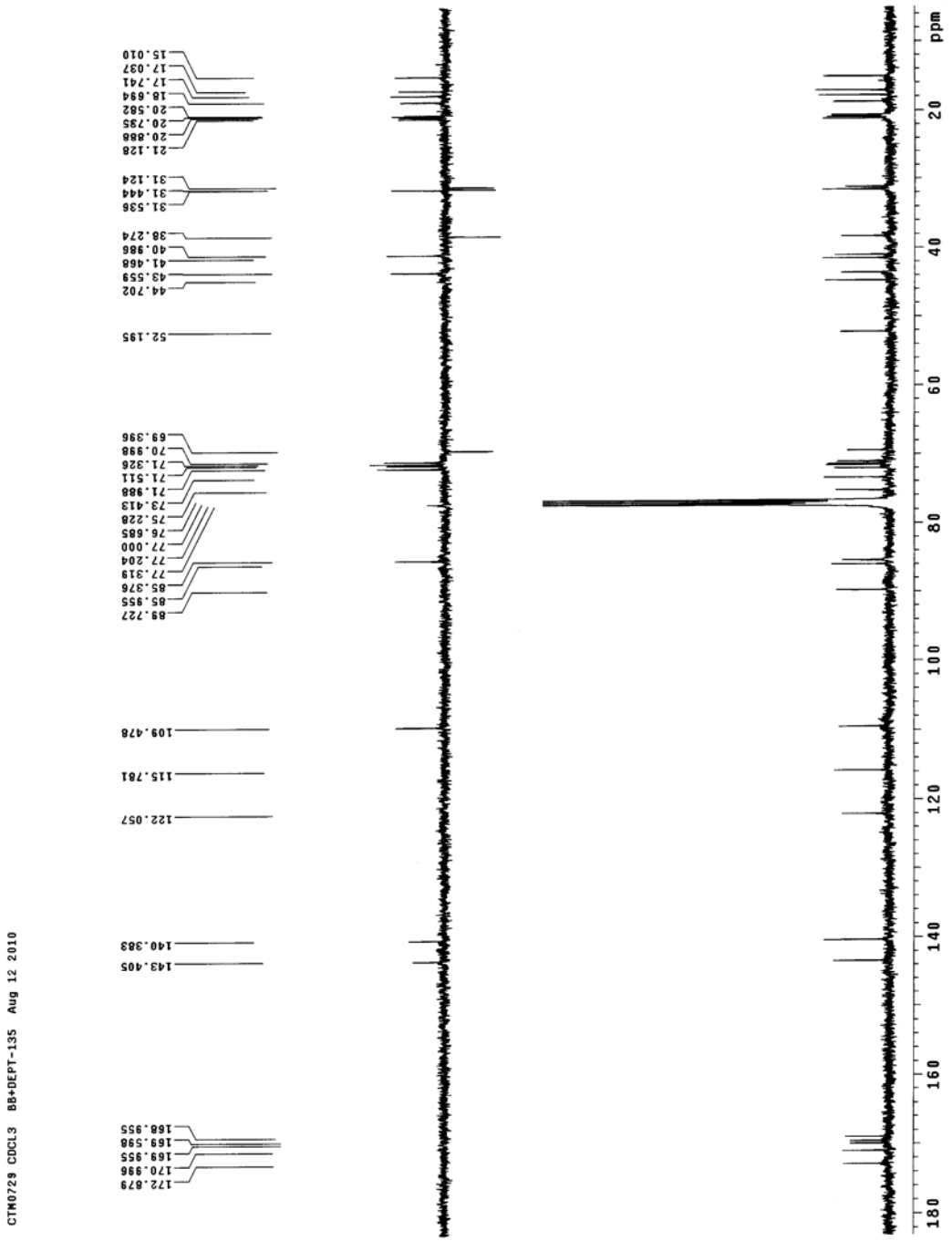


Figure S121. HSQC spectrum of **18** in $CDCl_3$

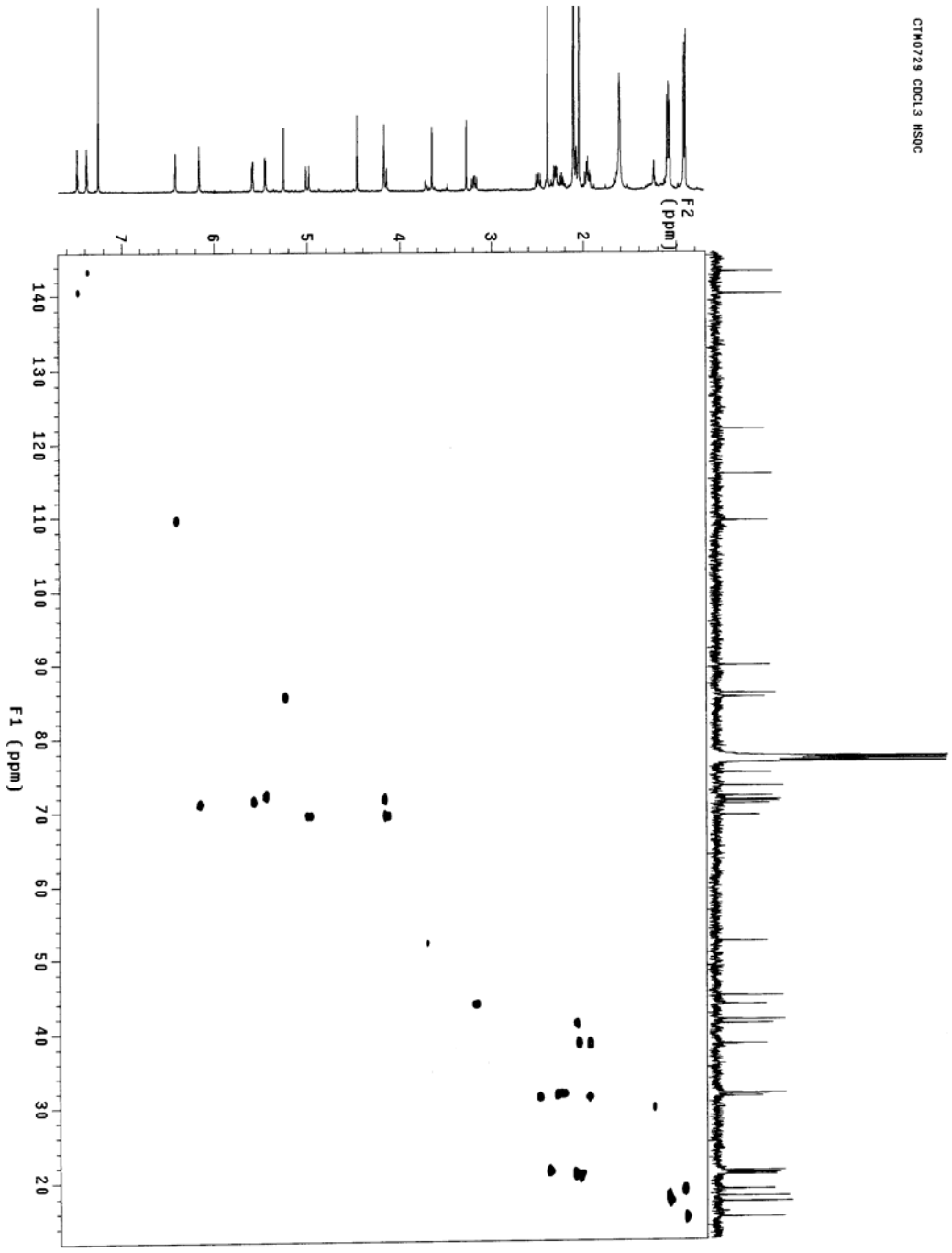


Figure S122. HMBC spectrum of **18** in $CDCl_3$

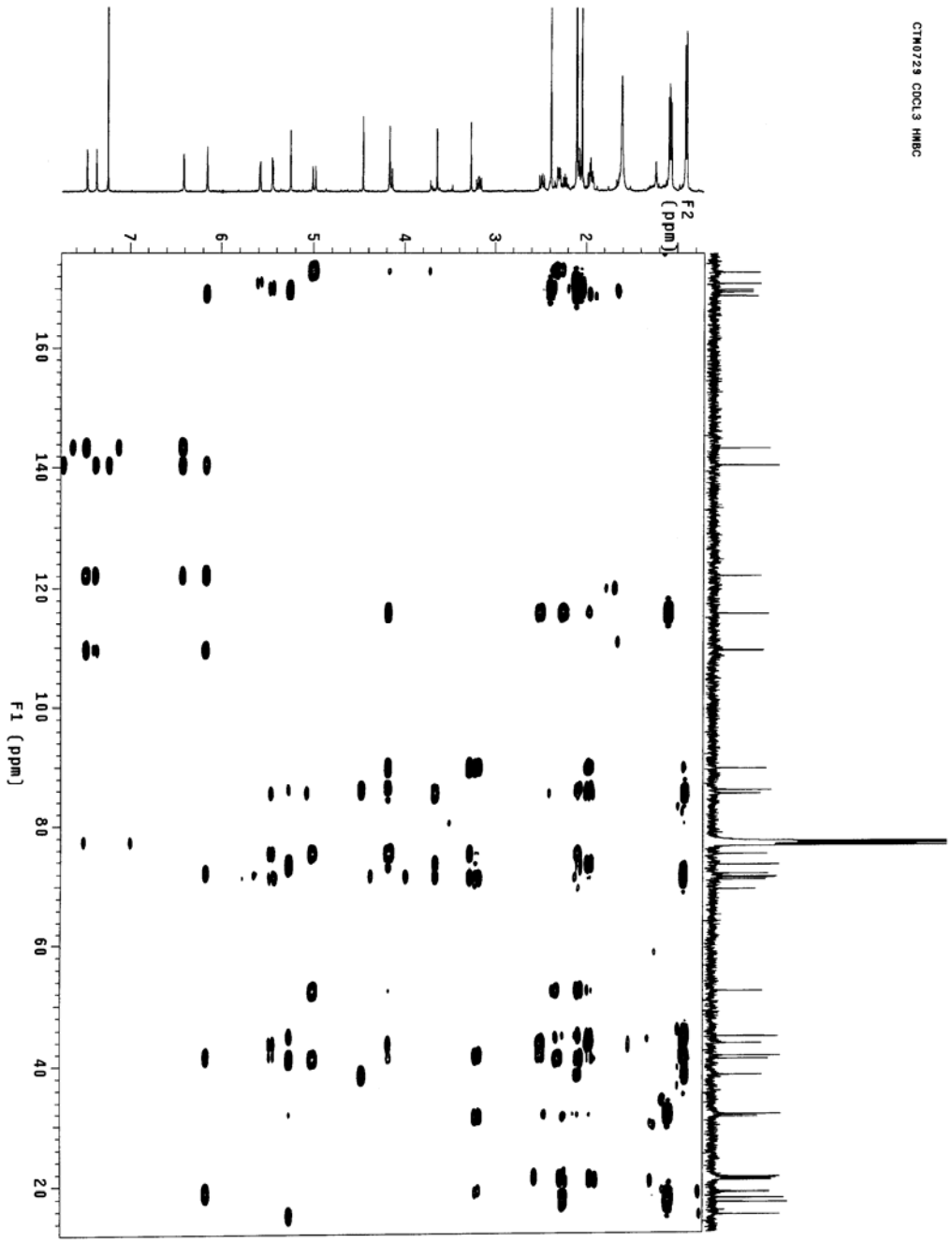


Figure S123. ROESY spectrum of **18** in $CDCl_3$

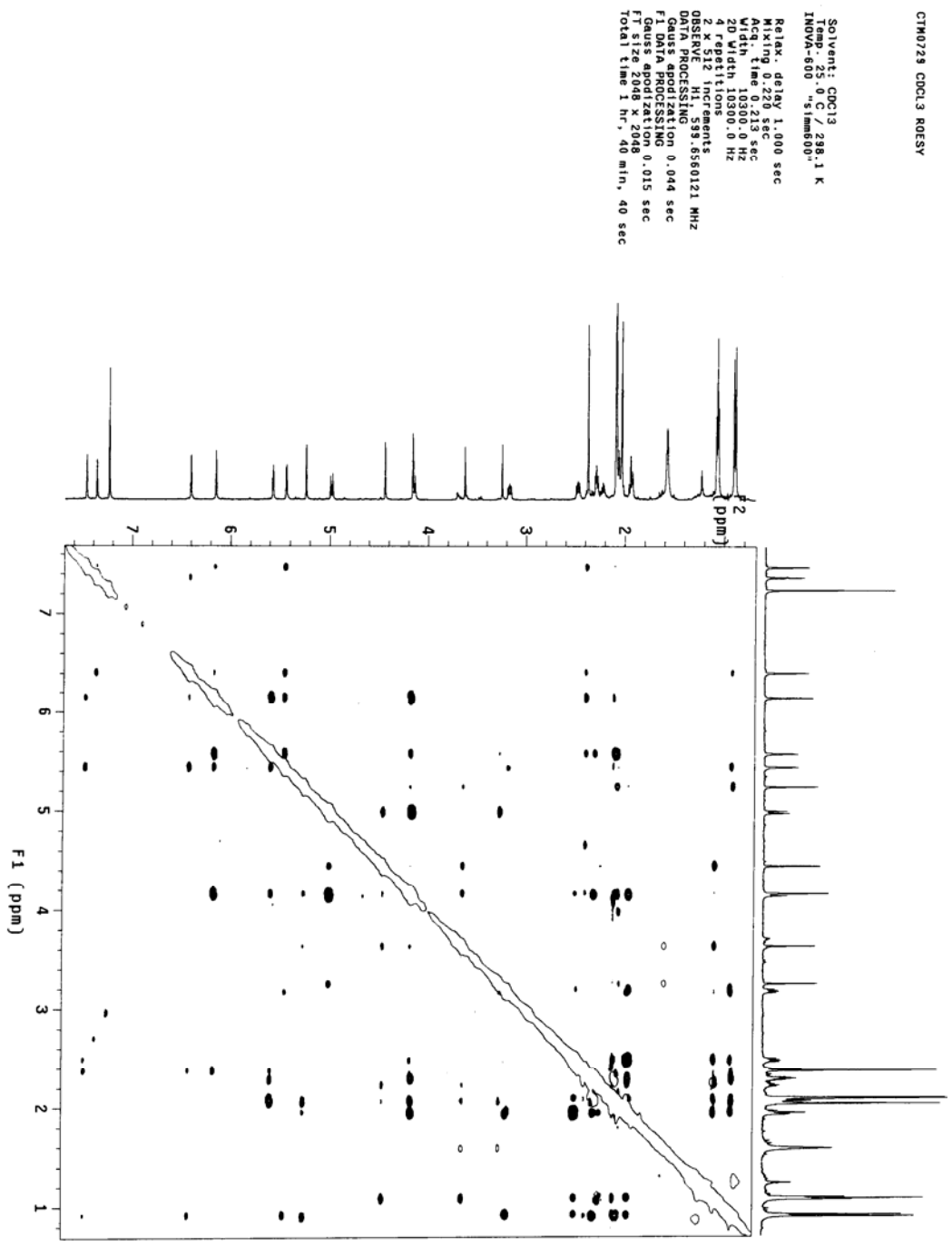


Figure S124. IR spectrum of **18**

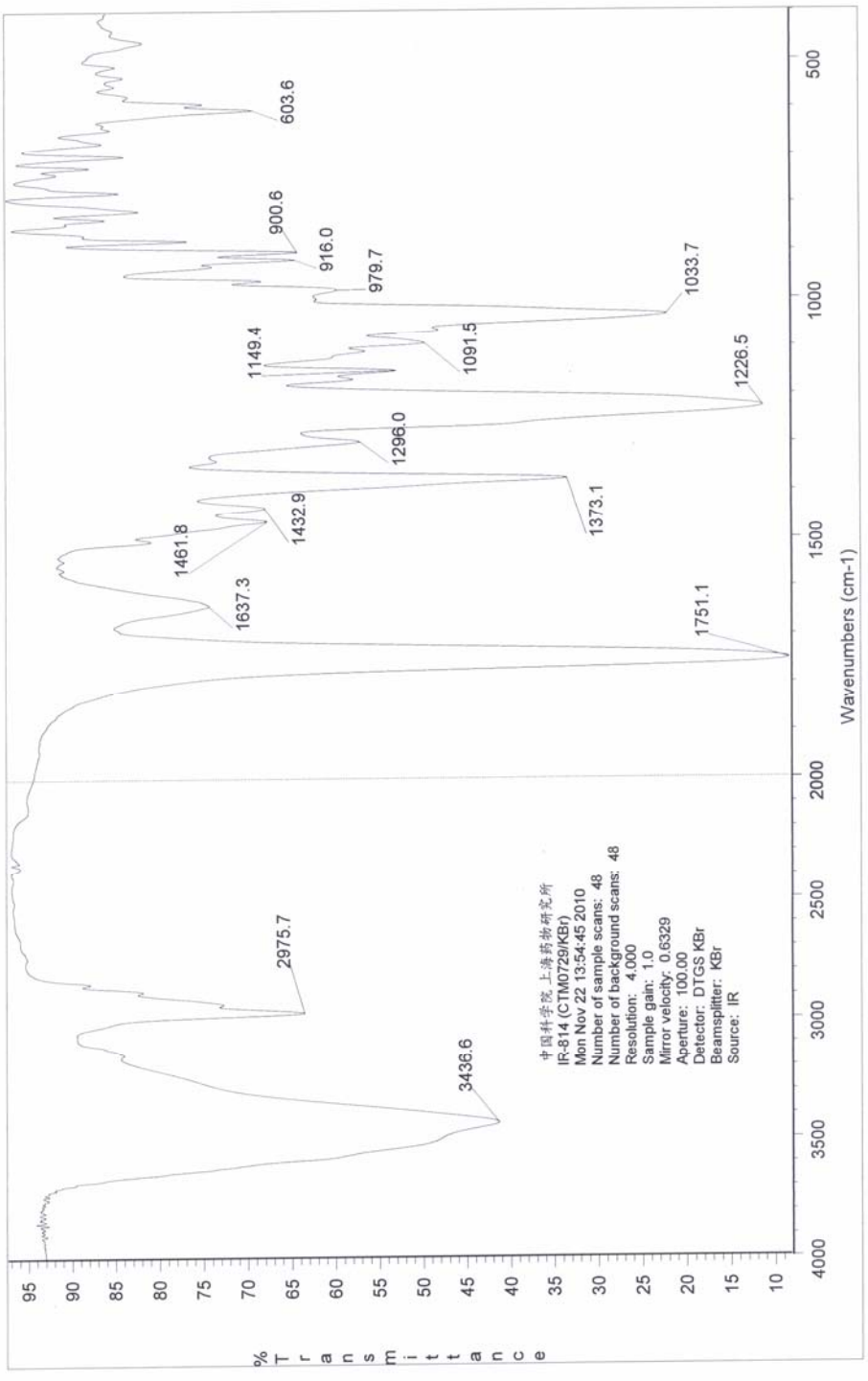


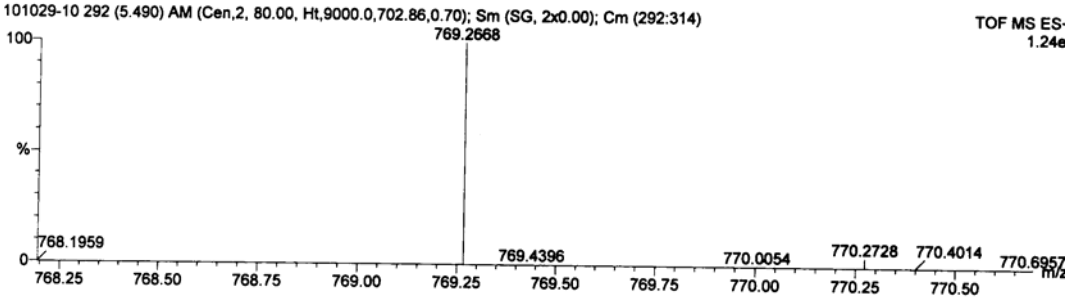
Figure S125. HR-ESI(+)MS spectrum of **18**

Elemental Composition Report **Page**

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

Monoisotopic Mass, Odd and Even Electron Ions
31 formula(e) evaluated with 1 results within limits (up to 20 closest results for each mass)

101029-10 292 (5.490) AM (Cen,2, 80.00, Ht,9000.0,702.86,0.70); Sm (SG, 2x0.00); Cm (292:314)



Minimum:	20.00				-1.5		
Maximum:	100.00		200.0	50.0	50.0		
Mass	RA	Calc. Mass	mDa	PPM	DBE	Score	Formula
769.2668	100.00	769.2684	-1.6	-2.0	14.5	1	C37 H46 O16 Na