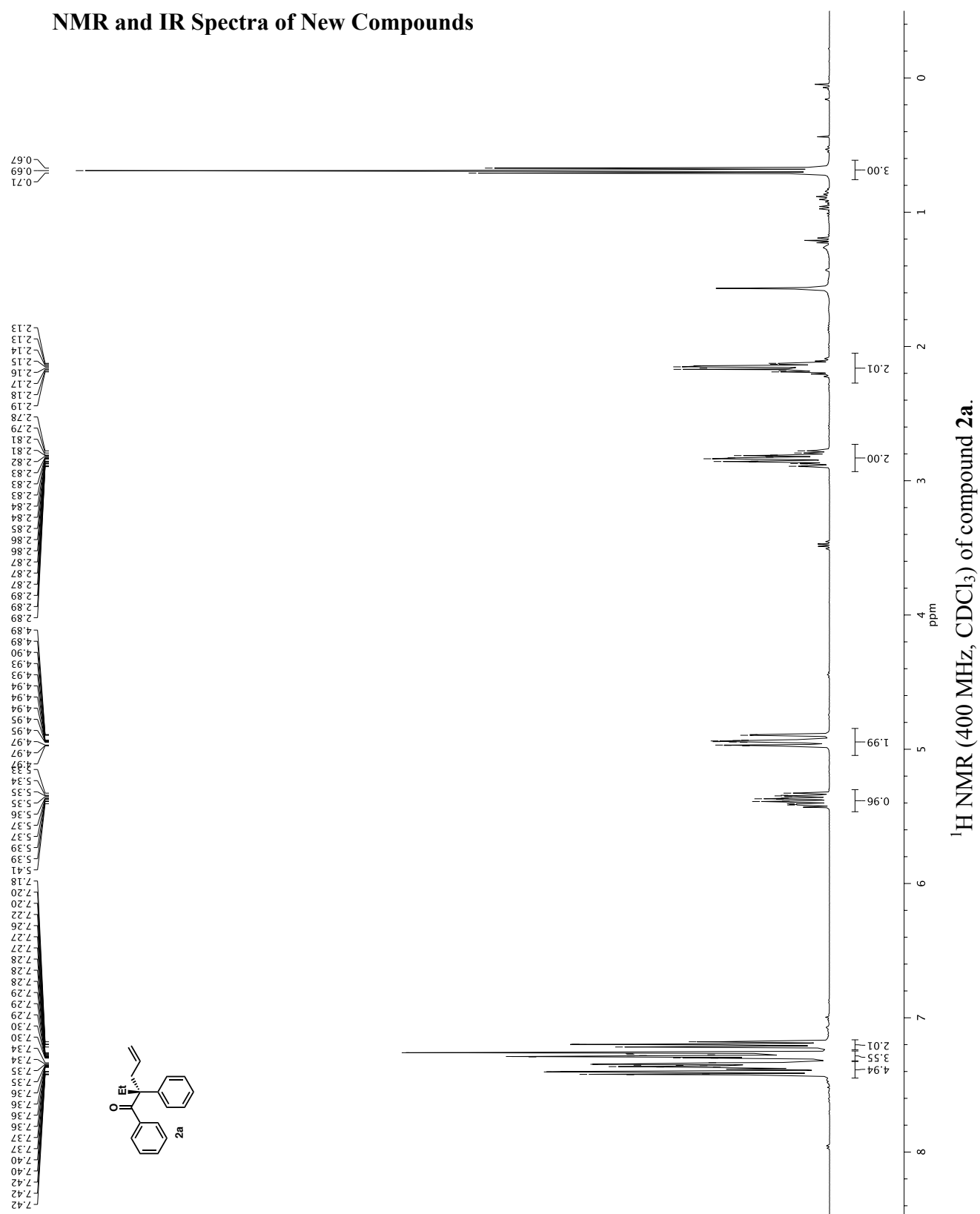
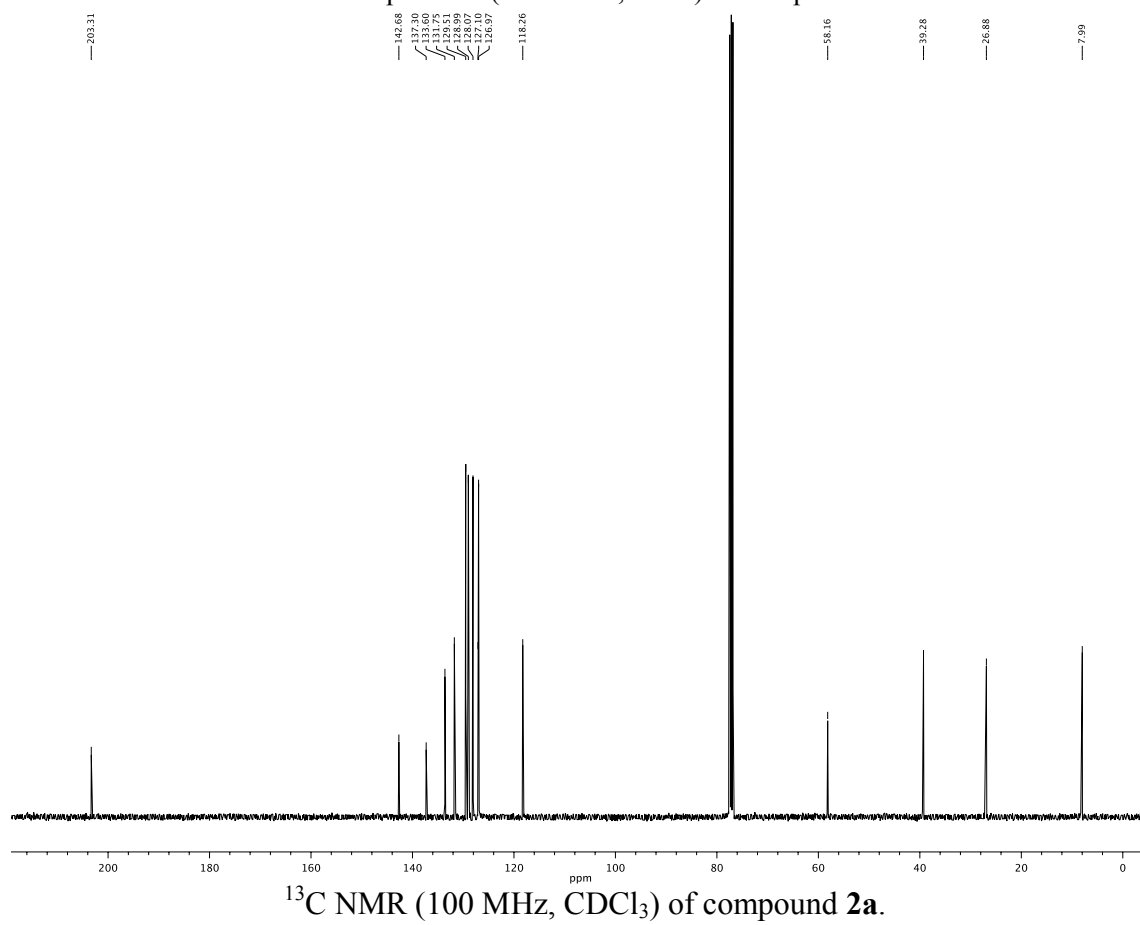
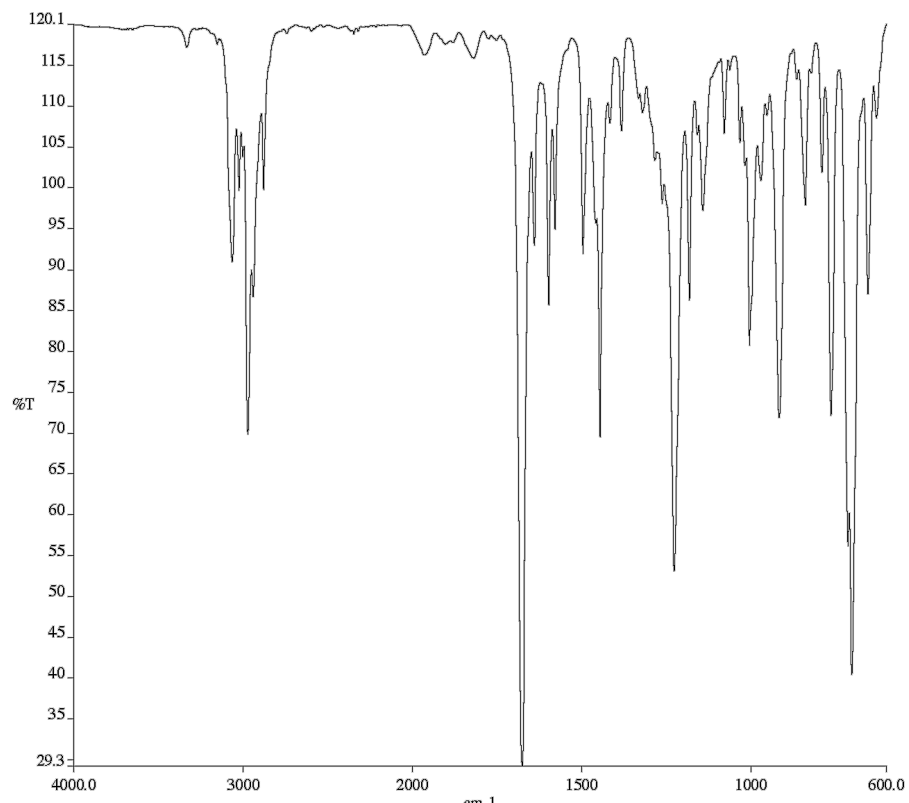
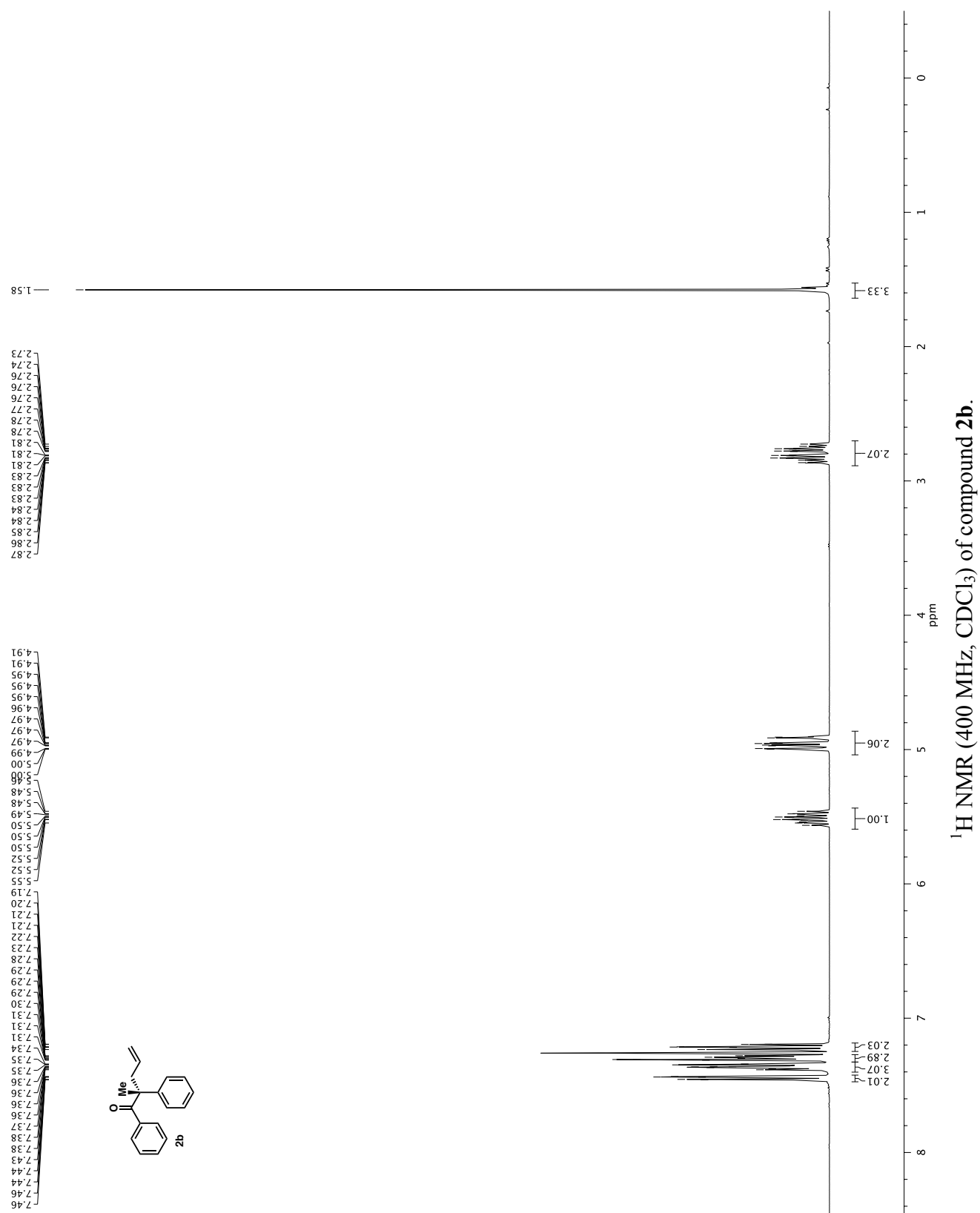
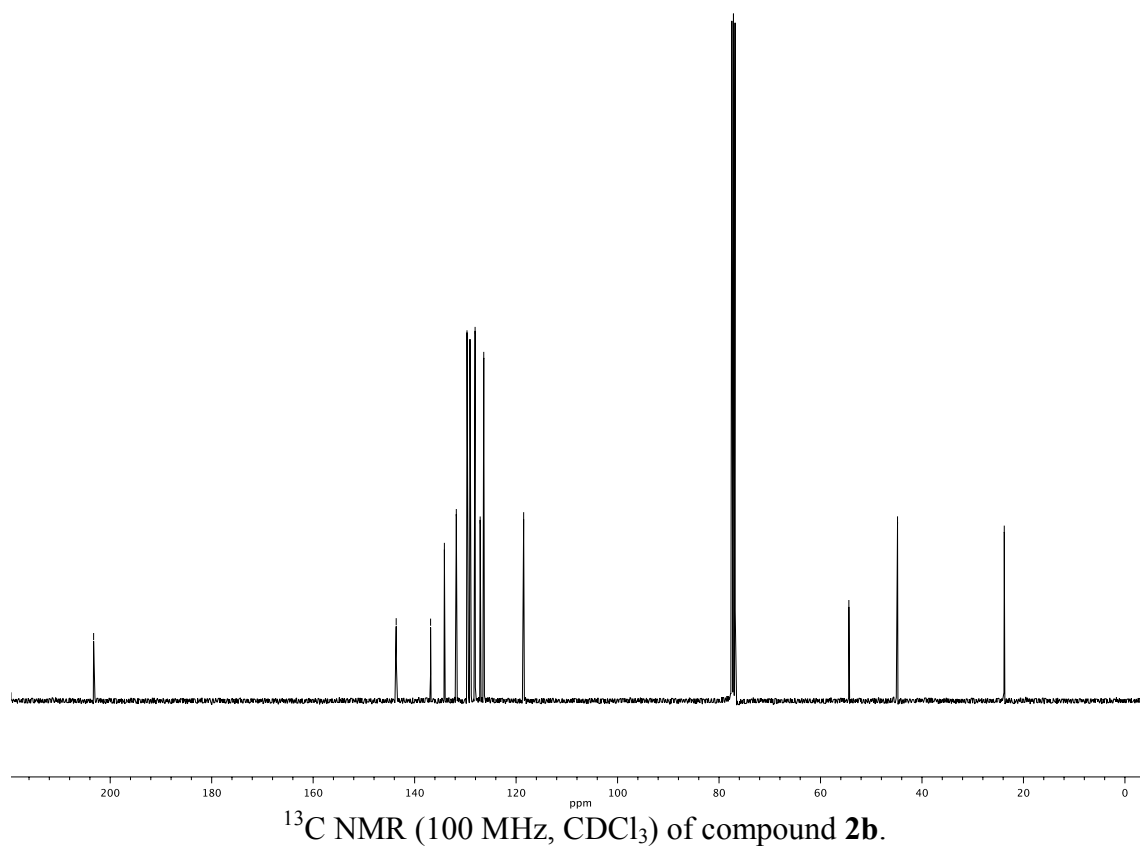
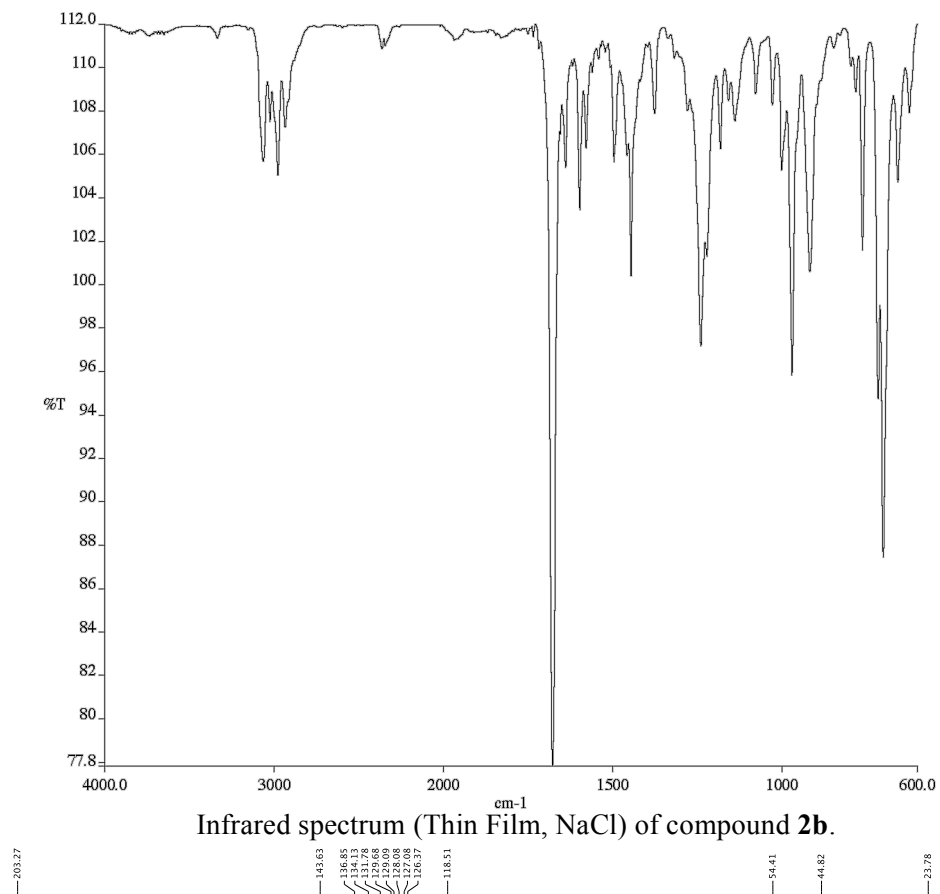


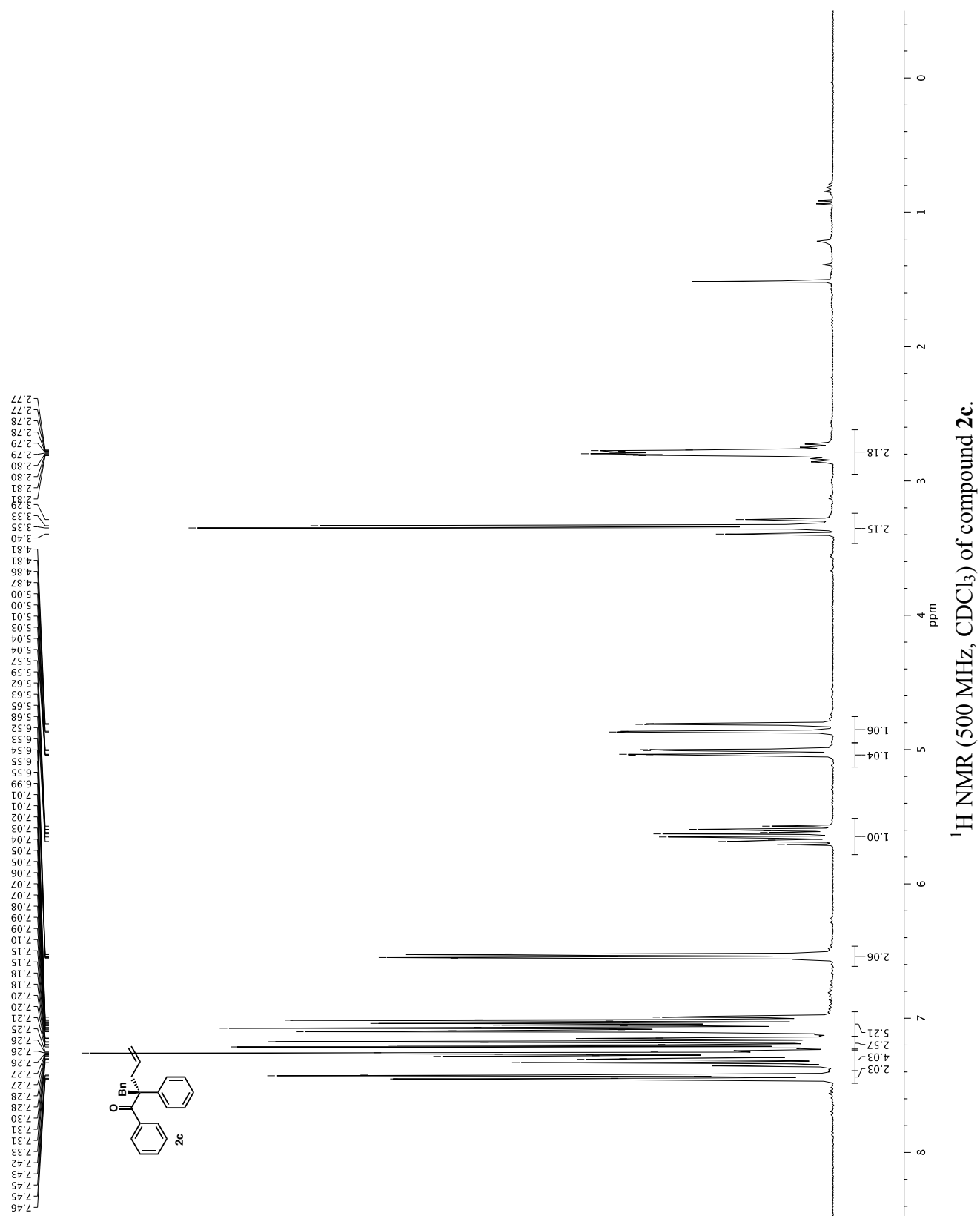
NMR and IR Spectra of New Compounds

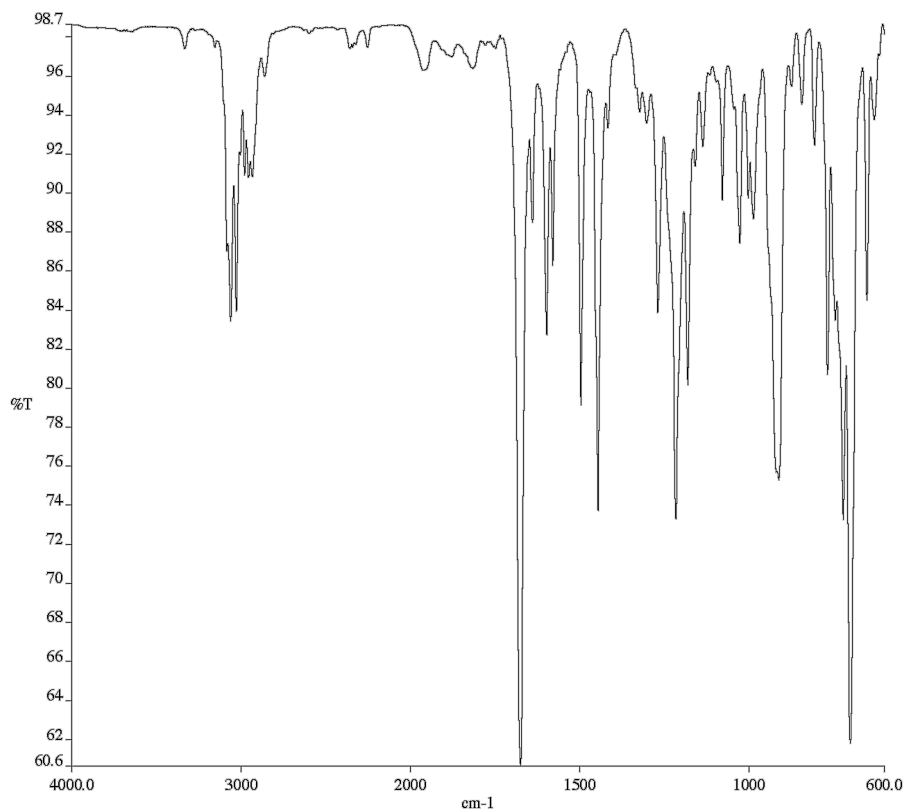
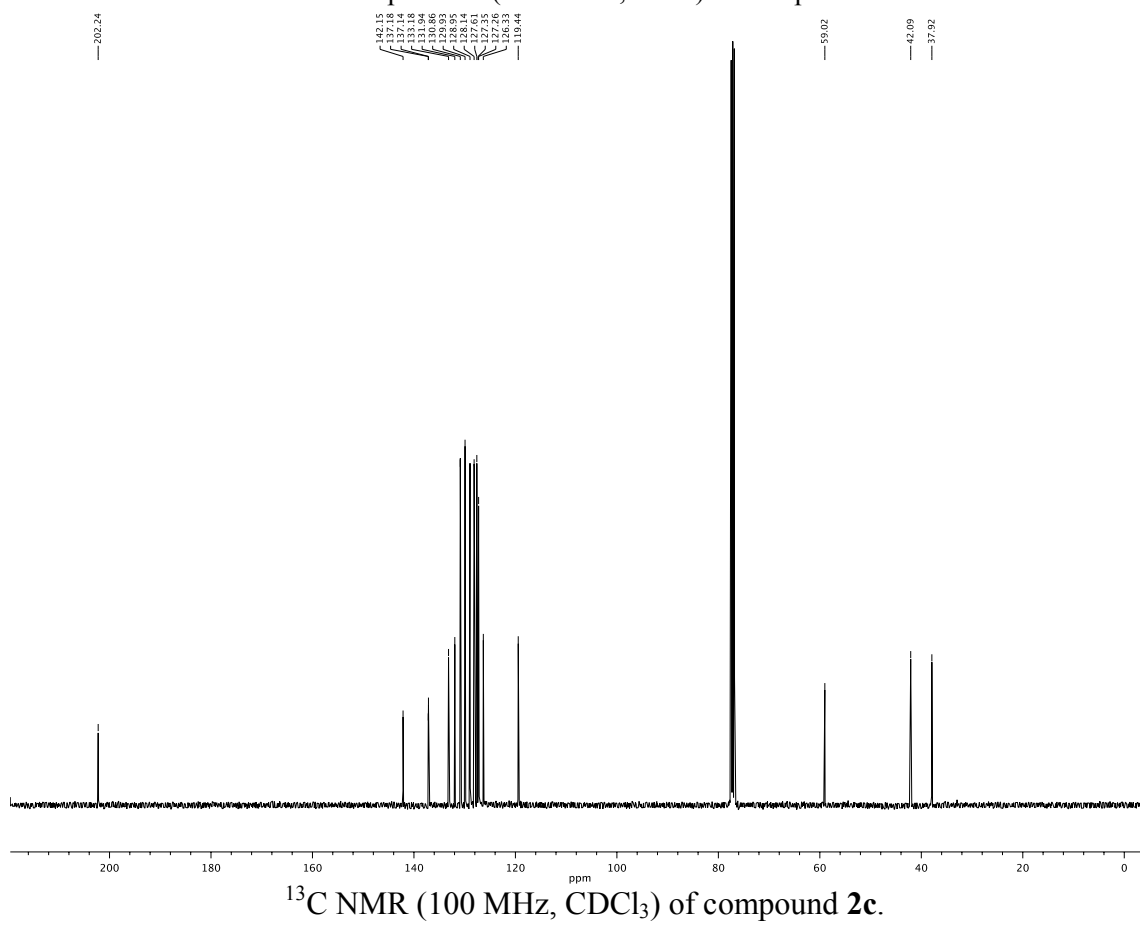


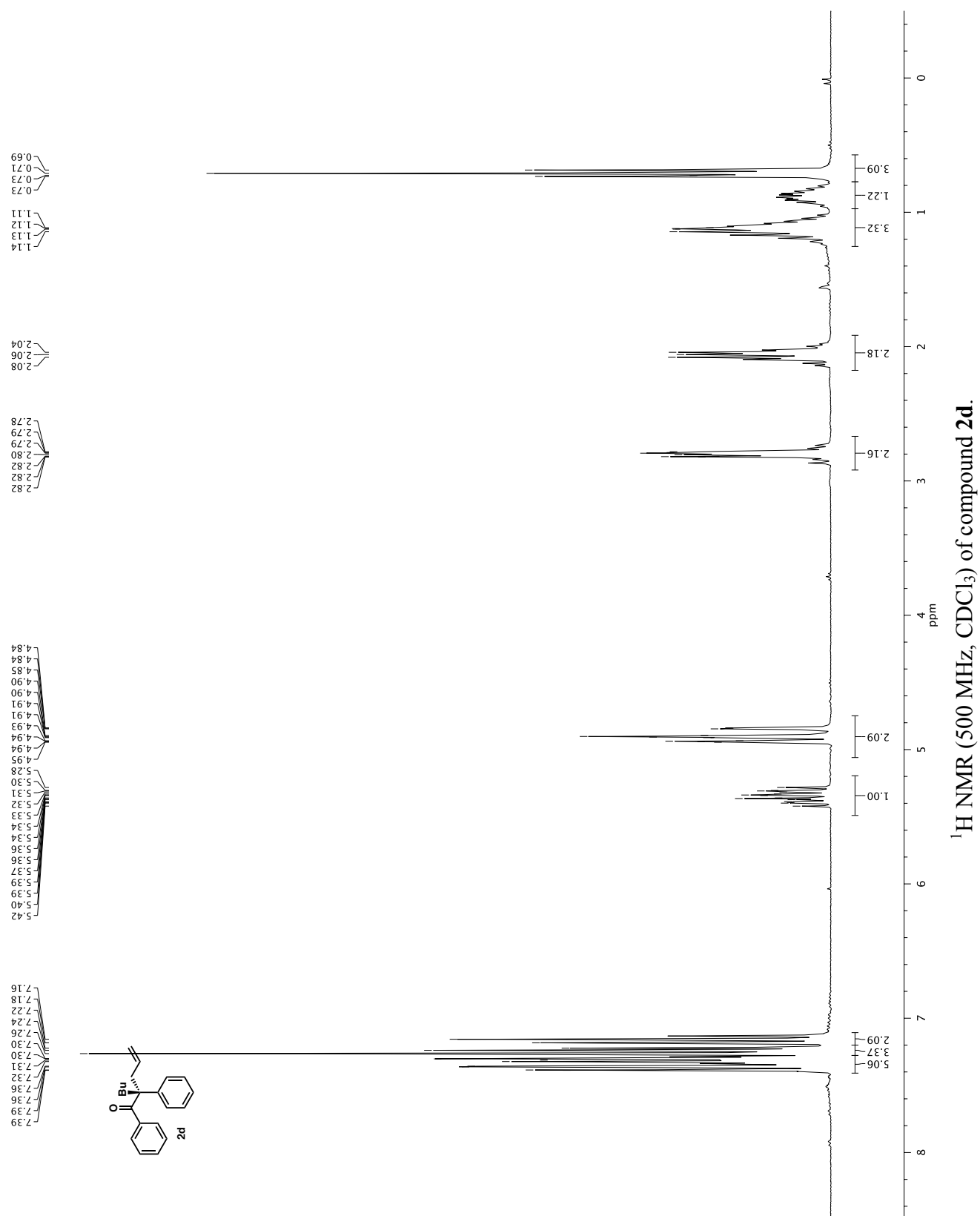


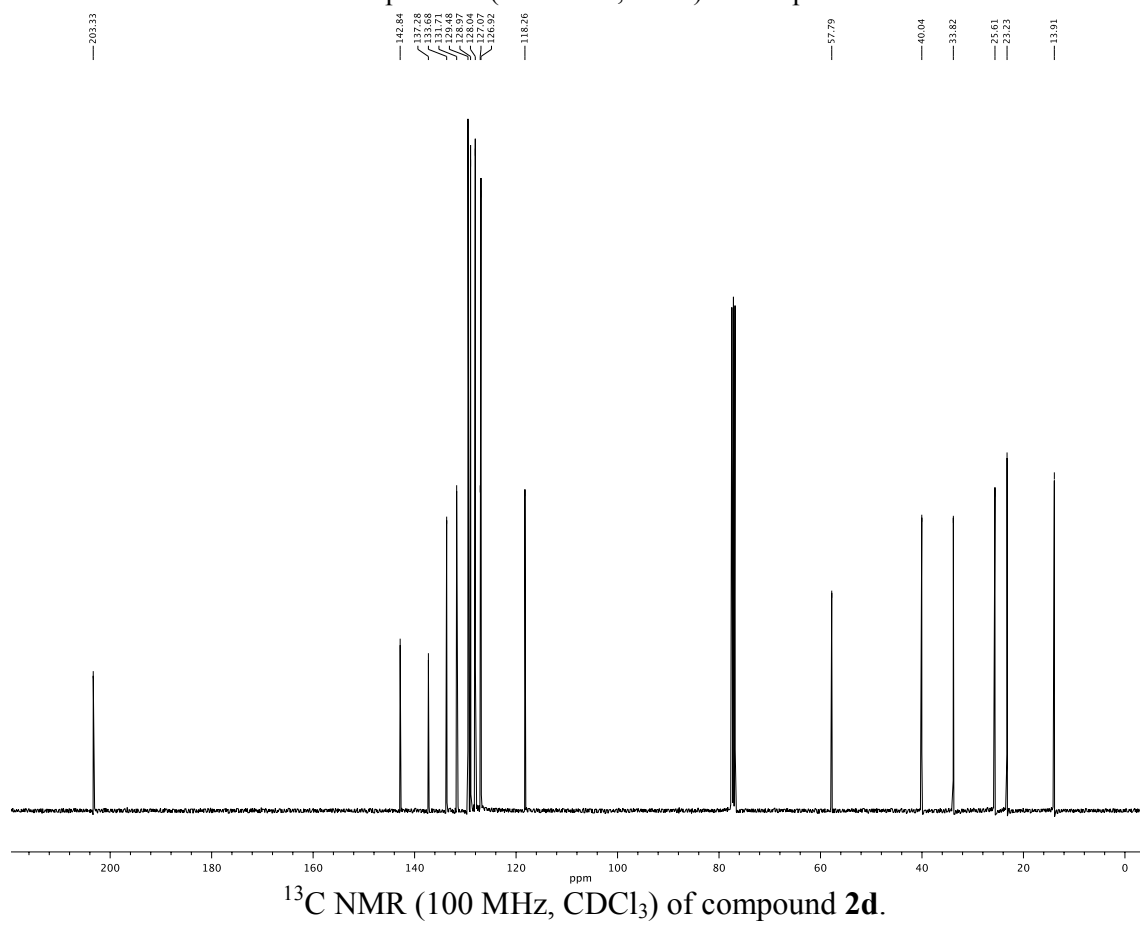
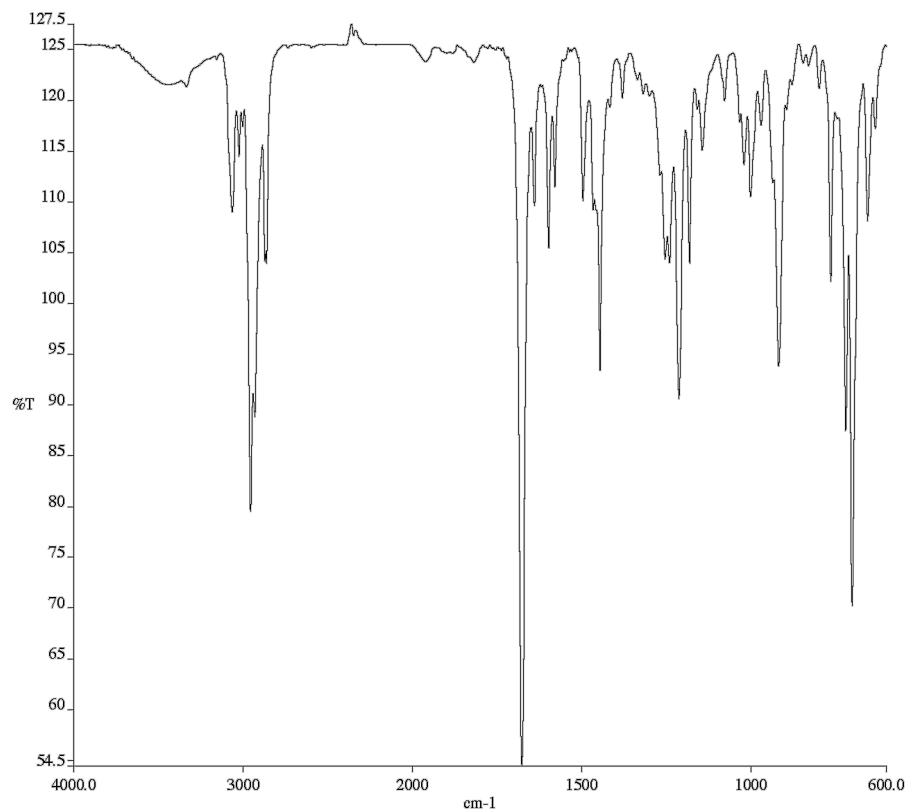


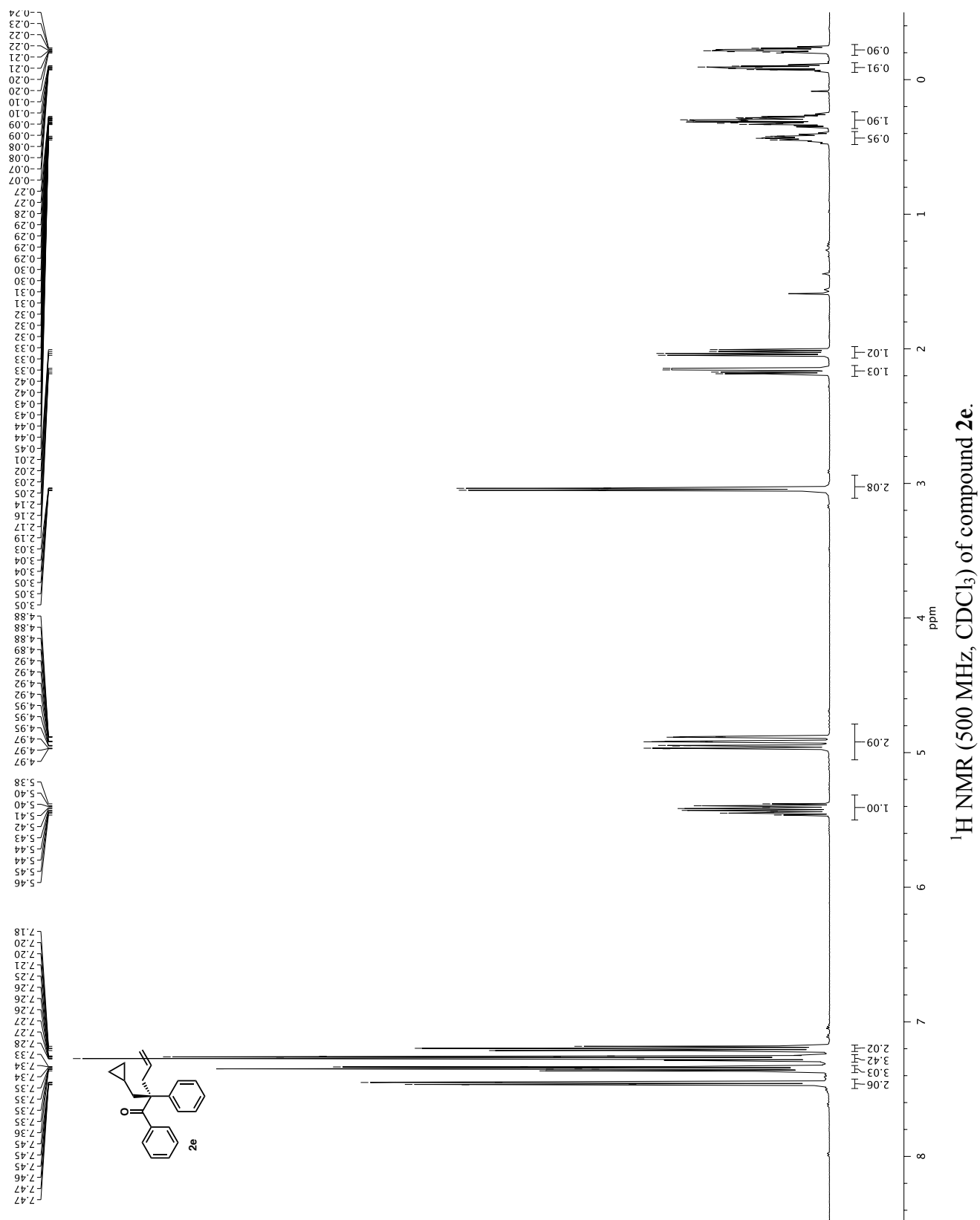


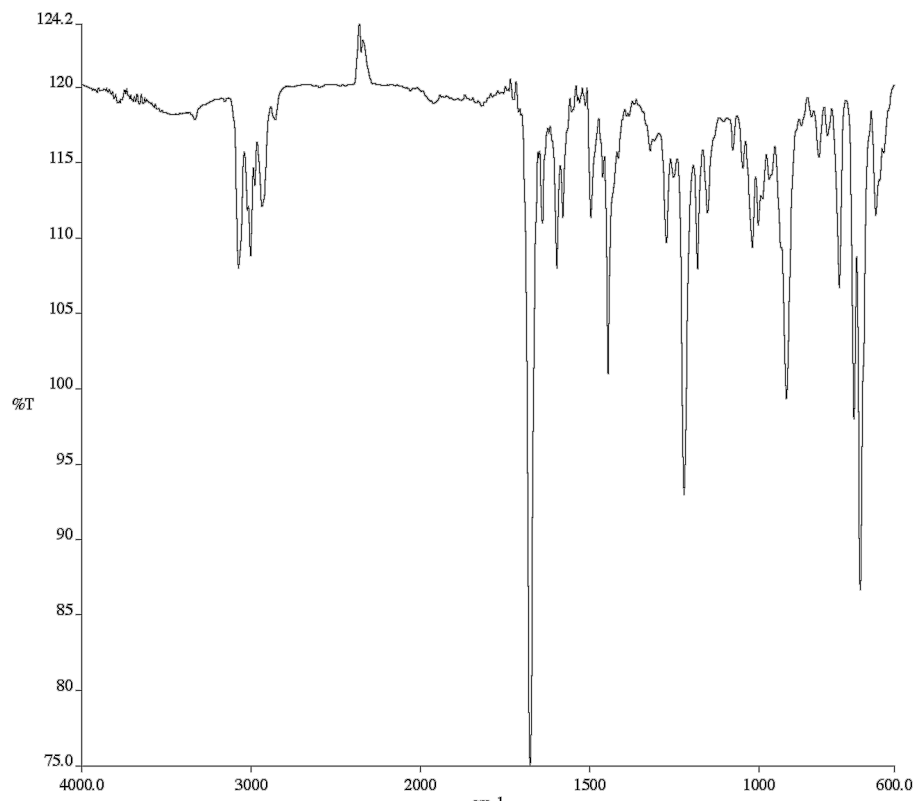


Infrared spectrum (Thin Film, NaCl) of compound **2c**.¹³C NMR (100 MHz, CDCl₃) of compound **2c**.







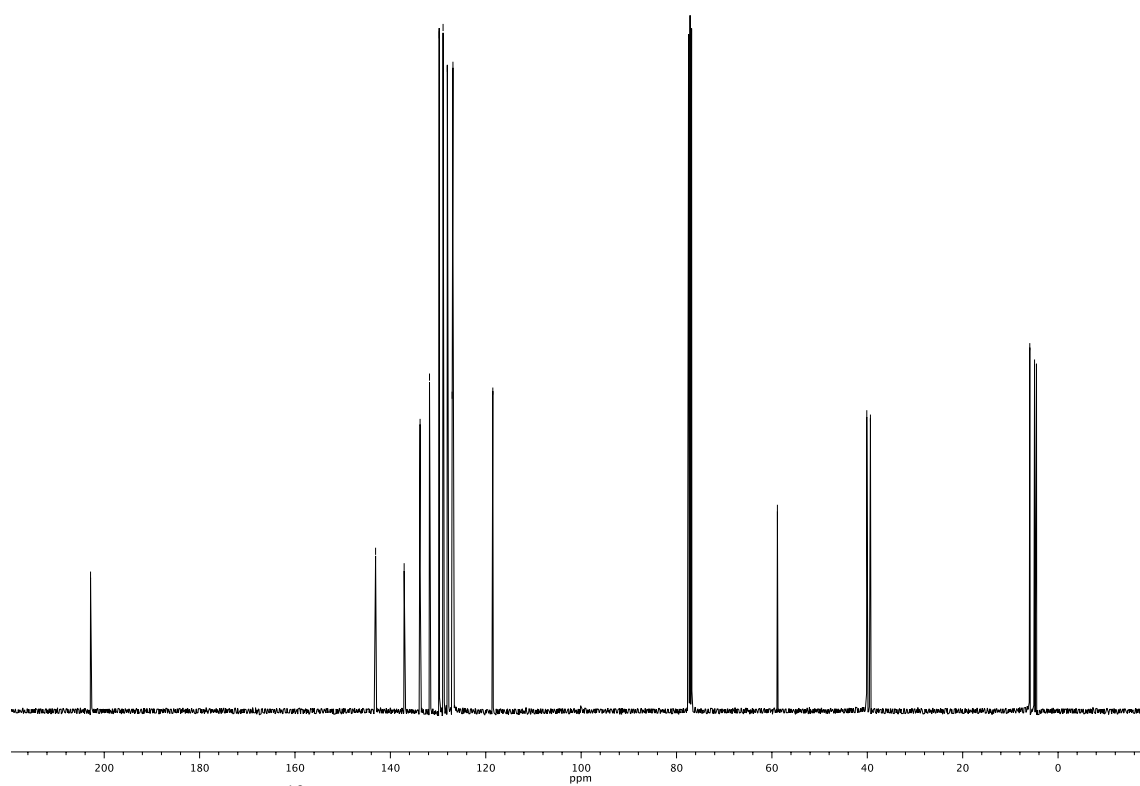


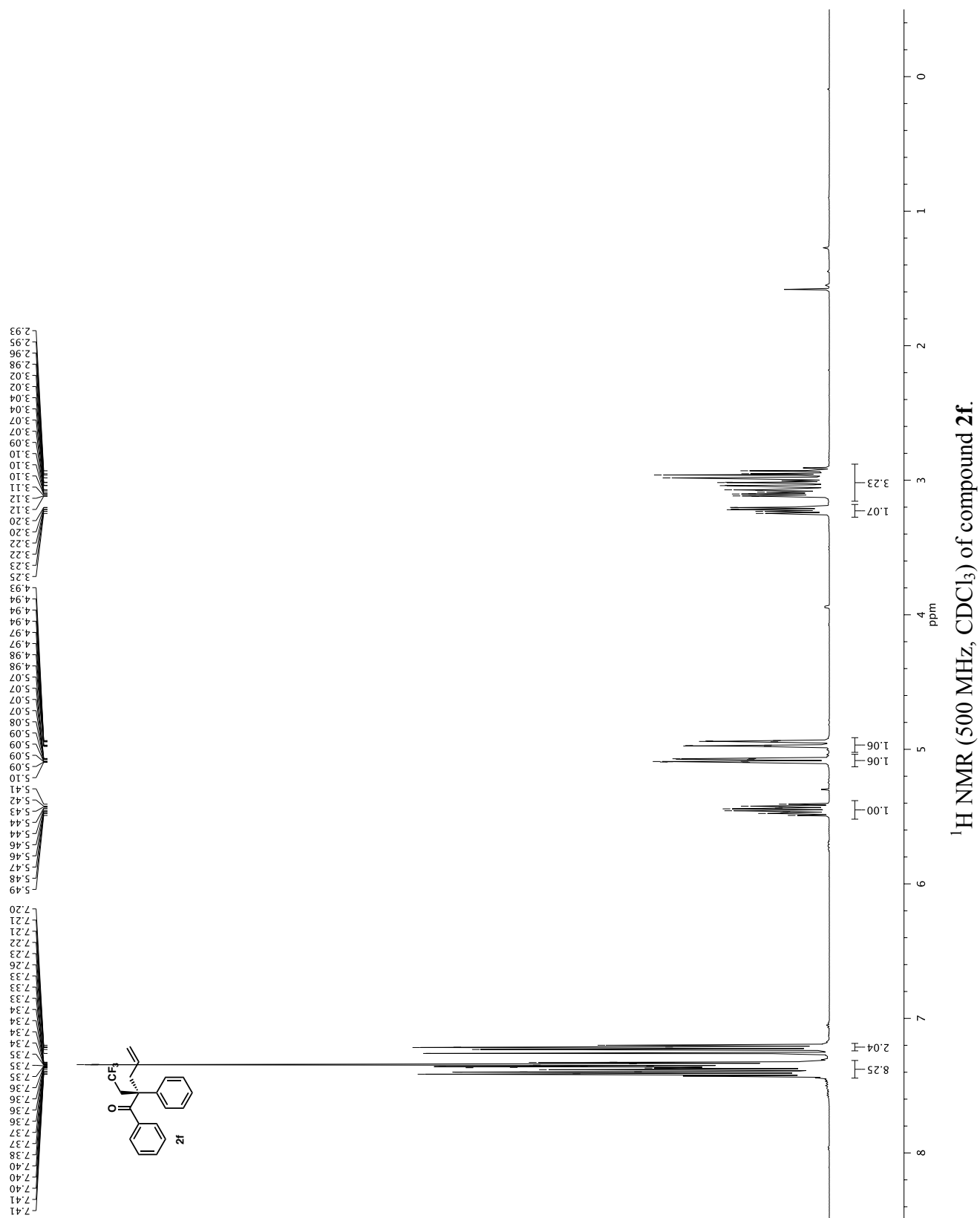
202.87

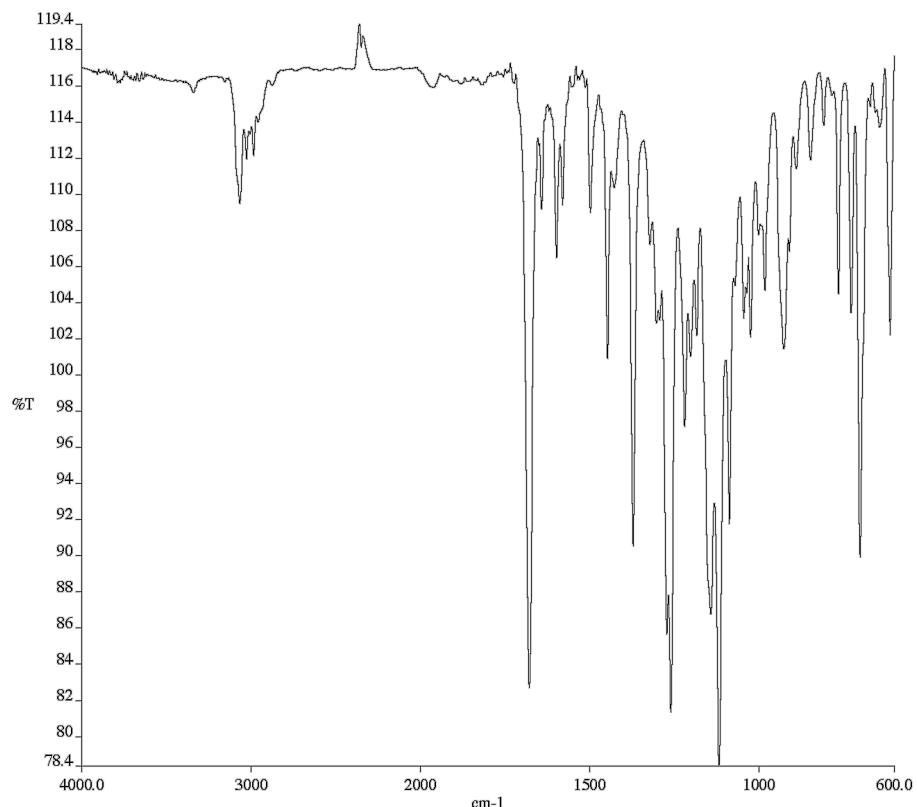
1421.0
1357.7
1317.9
1288.05
1288.06
1266.88

1185.2

58.85

40.11
39.345.93
4.33
4.21 ^{13}C NMR (100 MHz, CDCl_3) of compound **2e**.



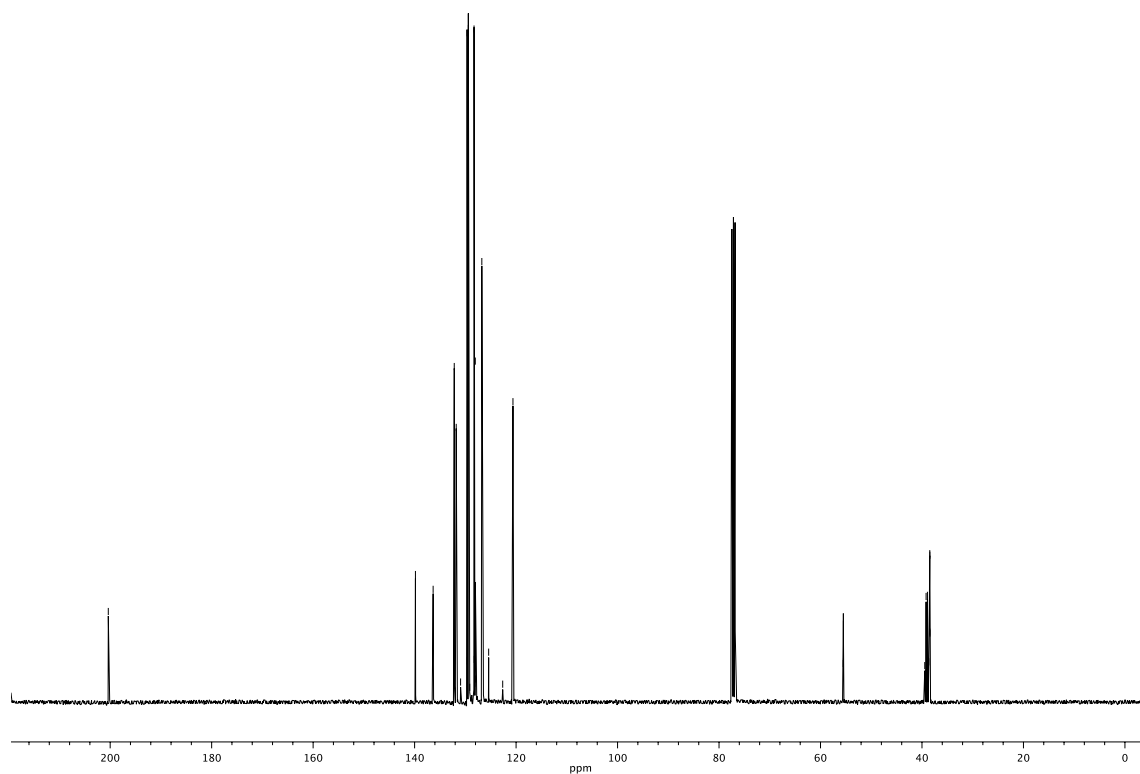
Infrared spectrum (Thin Film, NaCl) of compound **2f**.

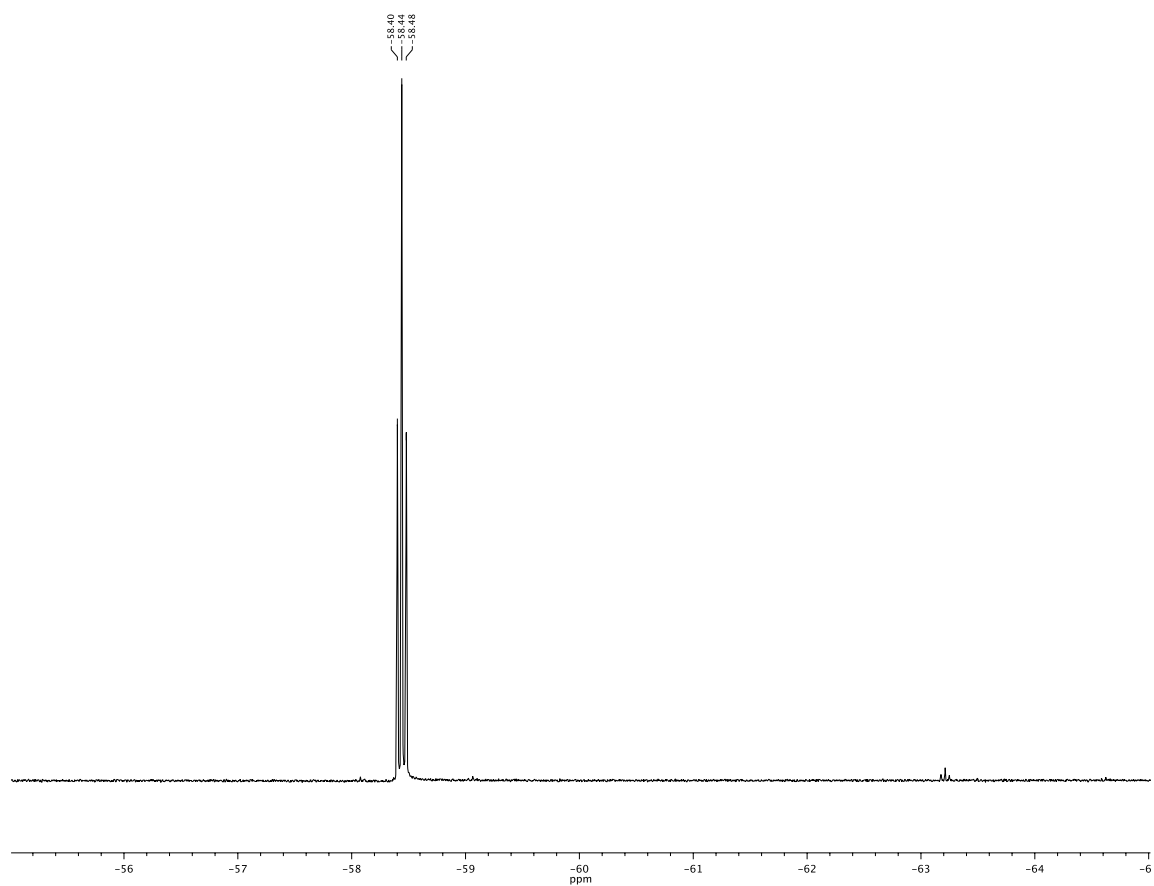
— 200.37

1399.83
1366.35
1337.88
1309.94
1299.61
1289.41
1289.29
1288.24
1288.10
1288.04
1267.75
1255.40
1206.62

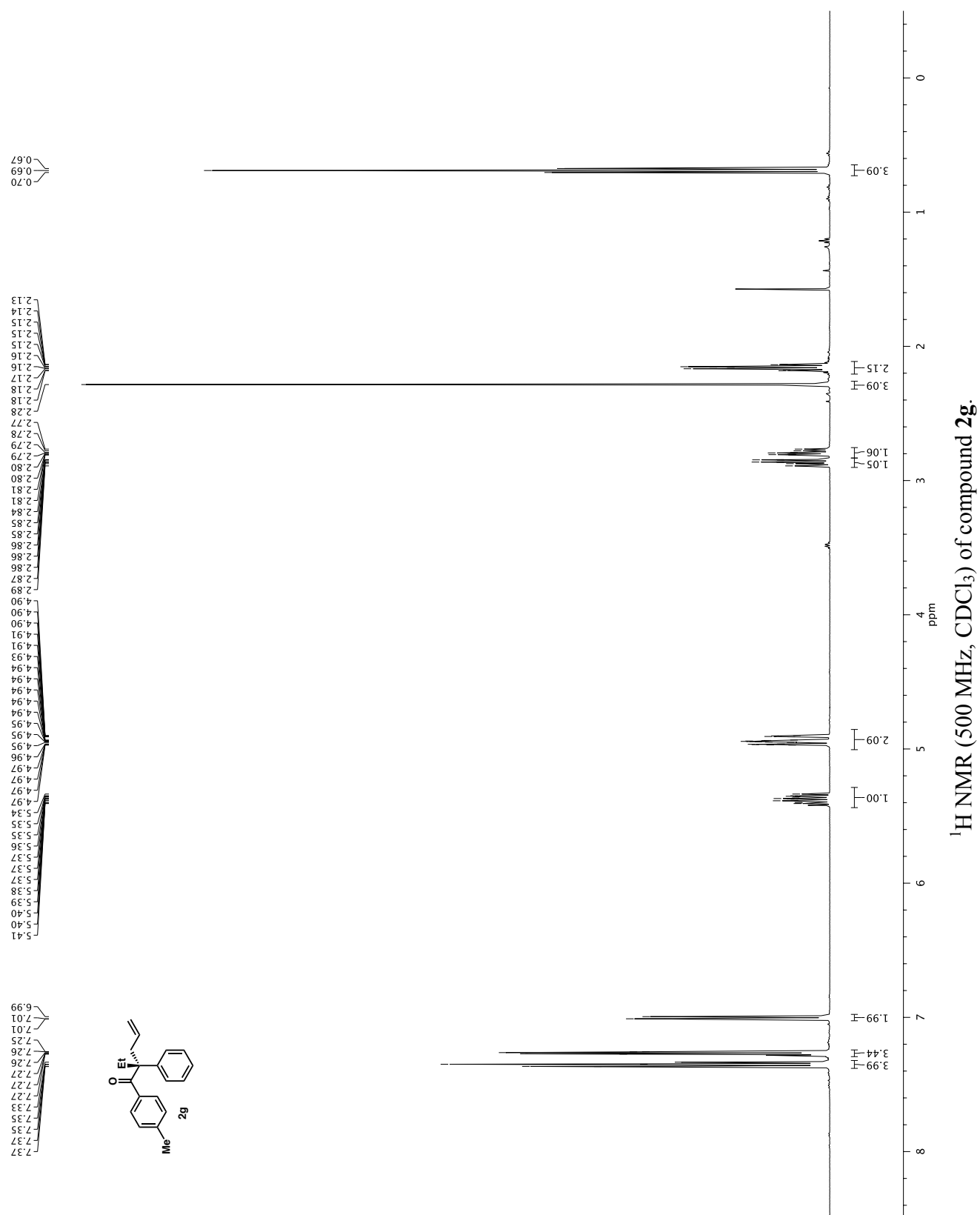
55.52
55.49
55.47

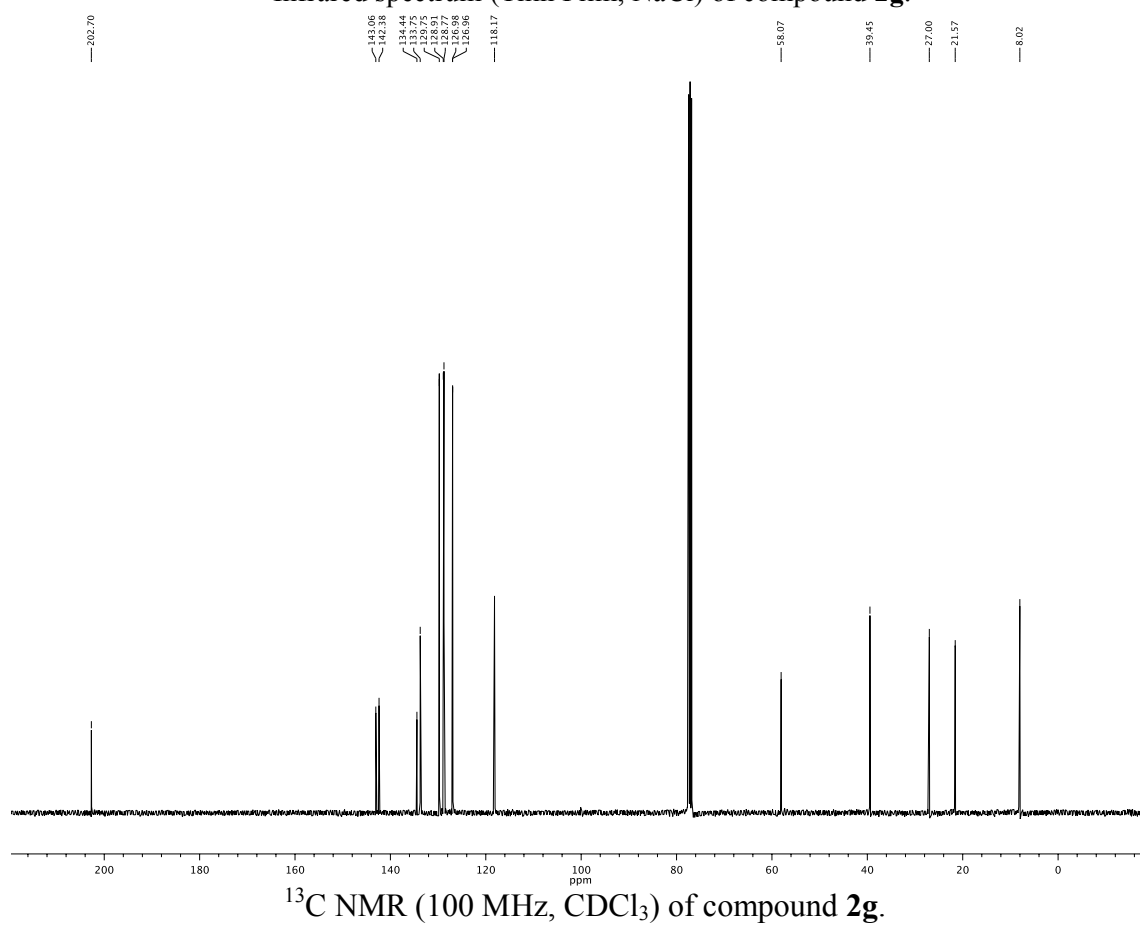
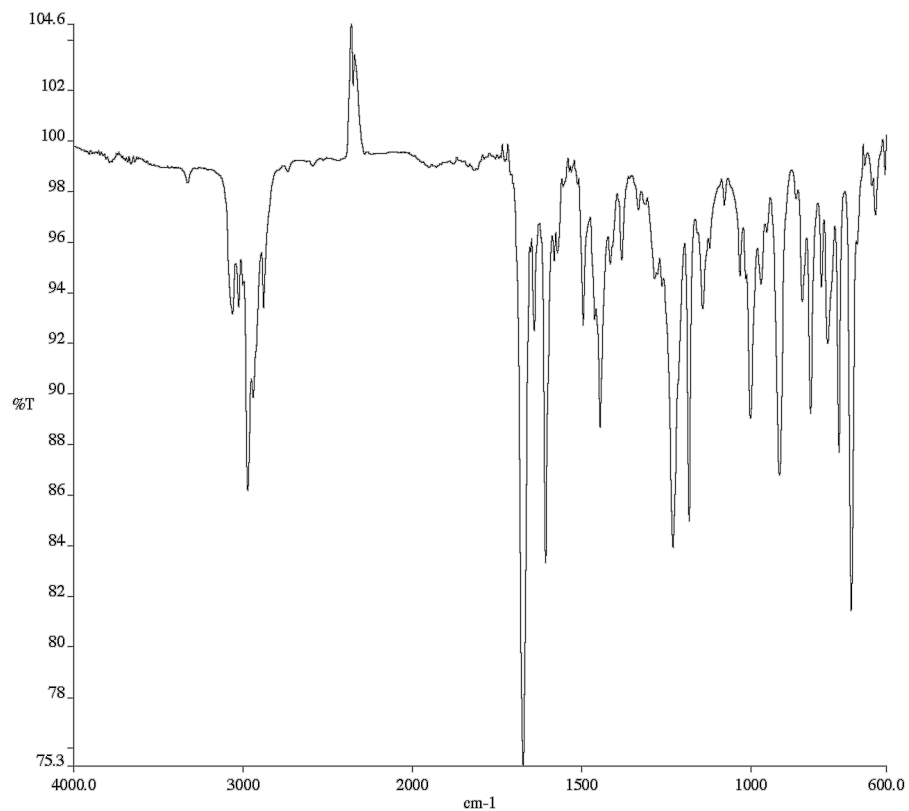
39.46
38.92
38.66
38.46
38.46
38.45

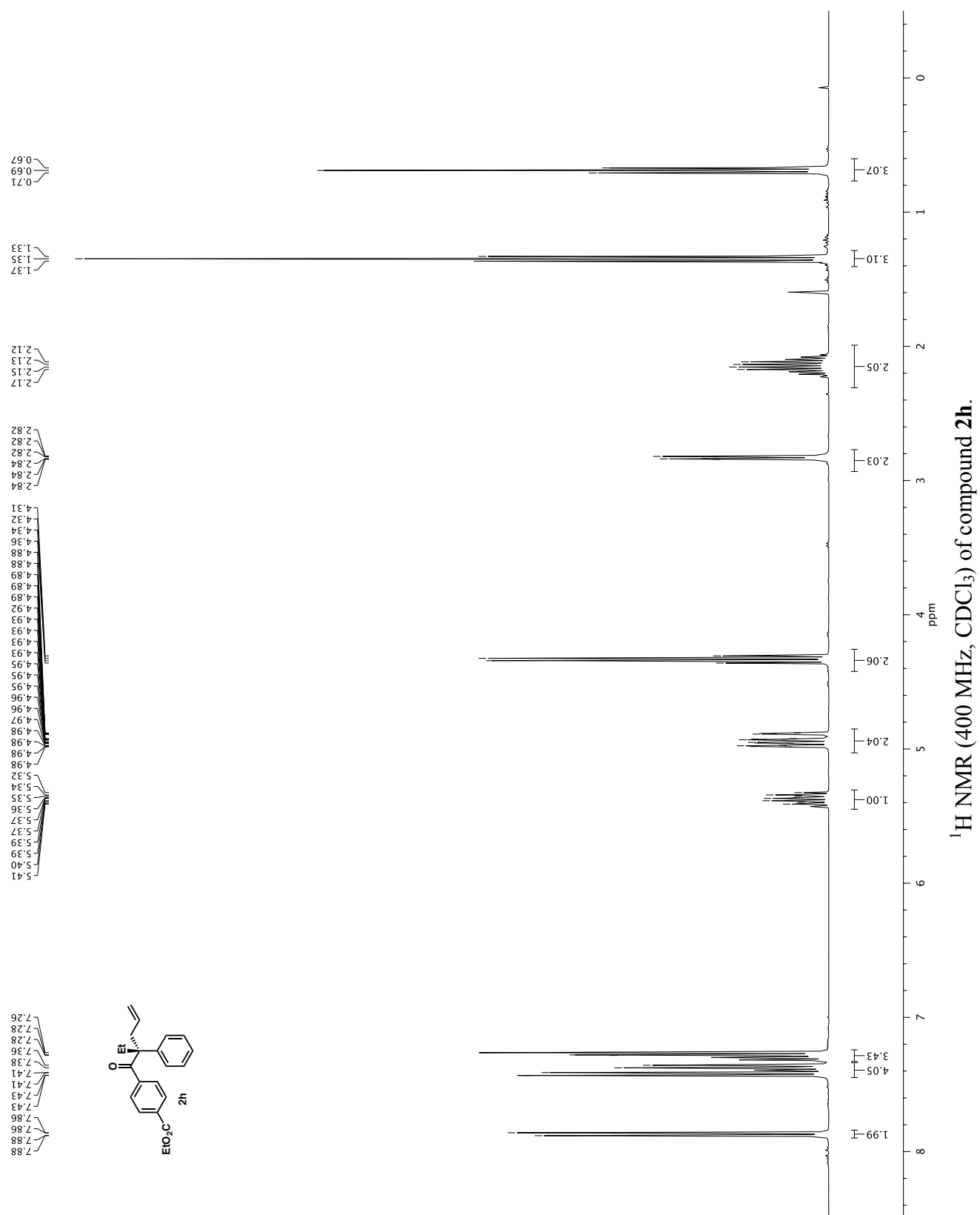
¹³C NMR (100 MHz, CDCl₃) of compound **2f**.

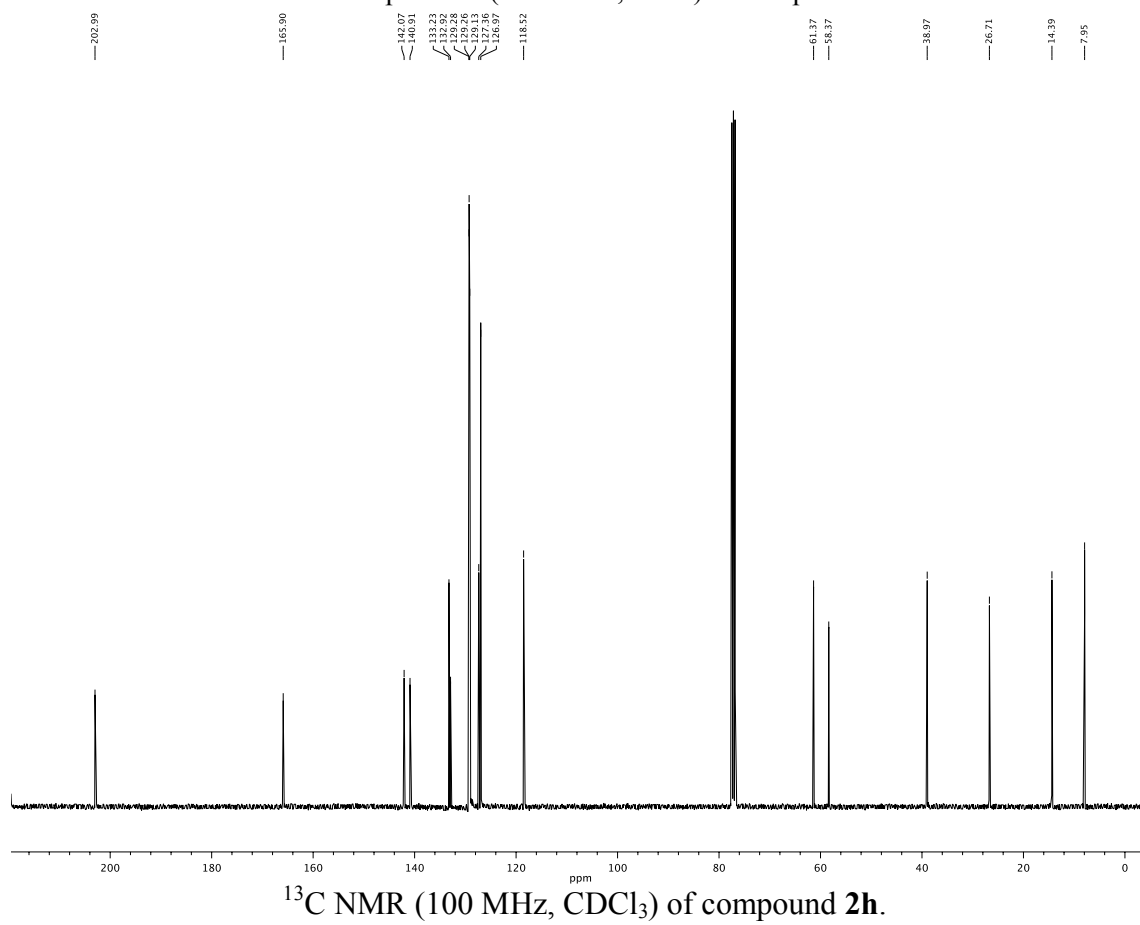
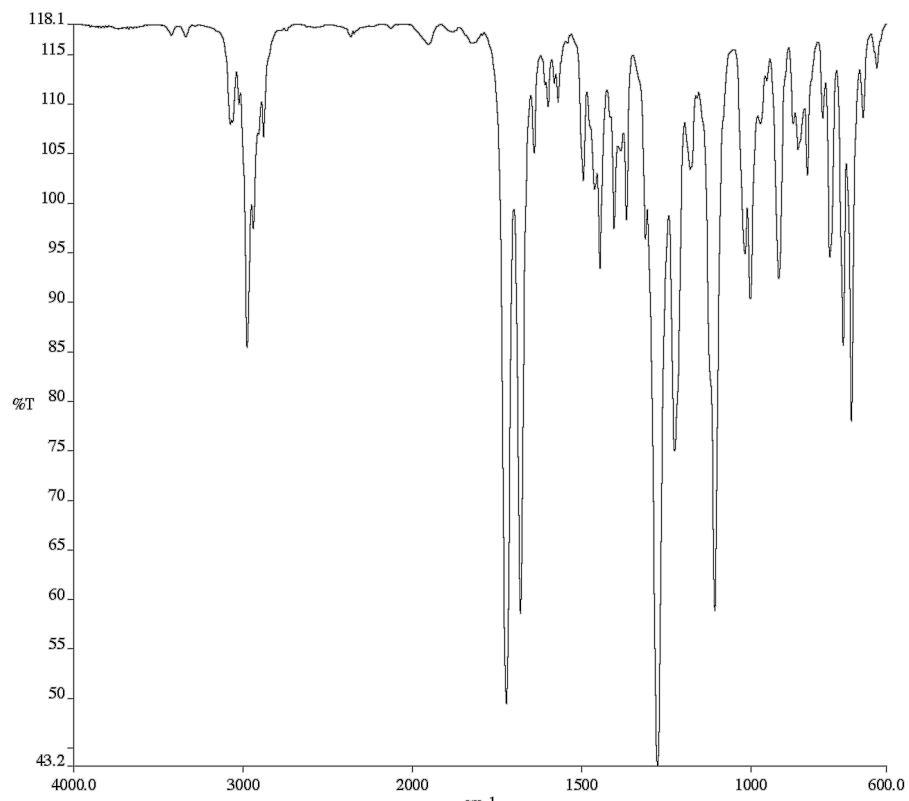


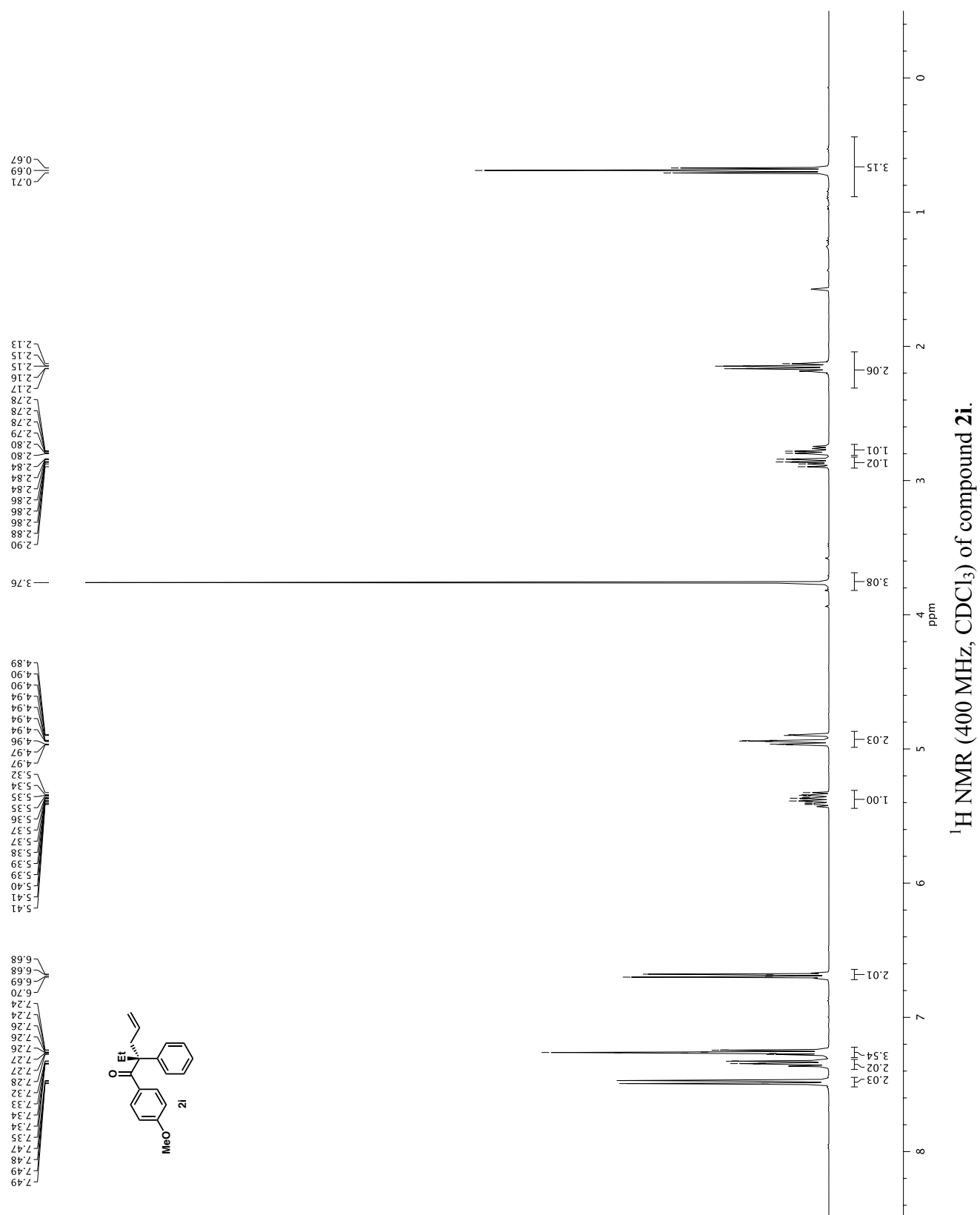
^{19}F NMR (282 MHz, CDCl_3) of compound **2f**.

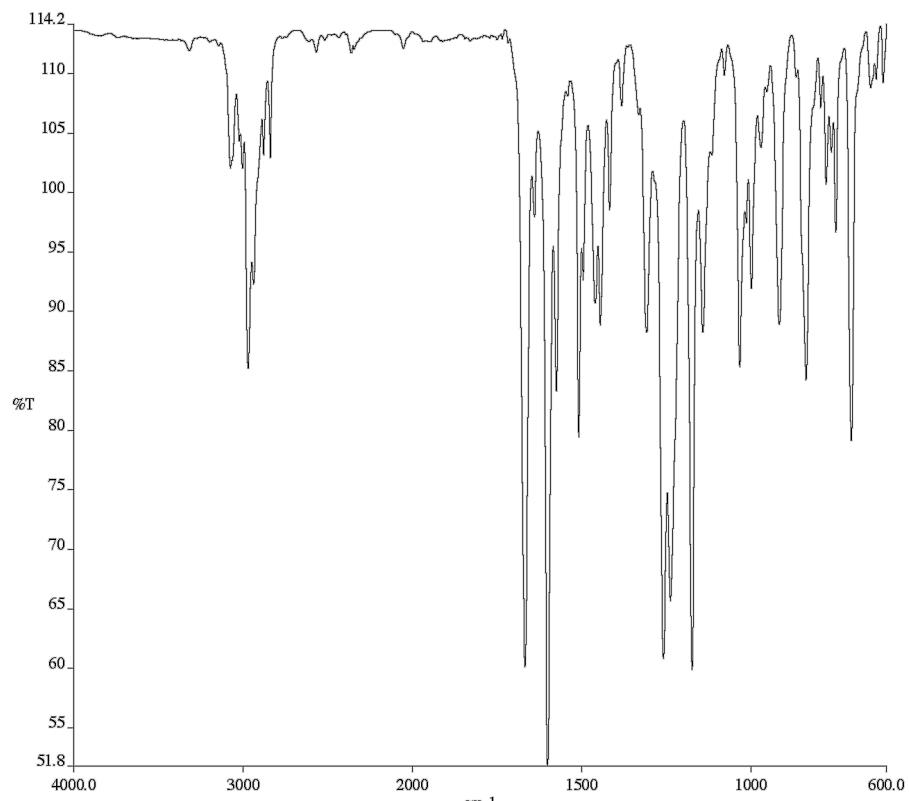
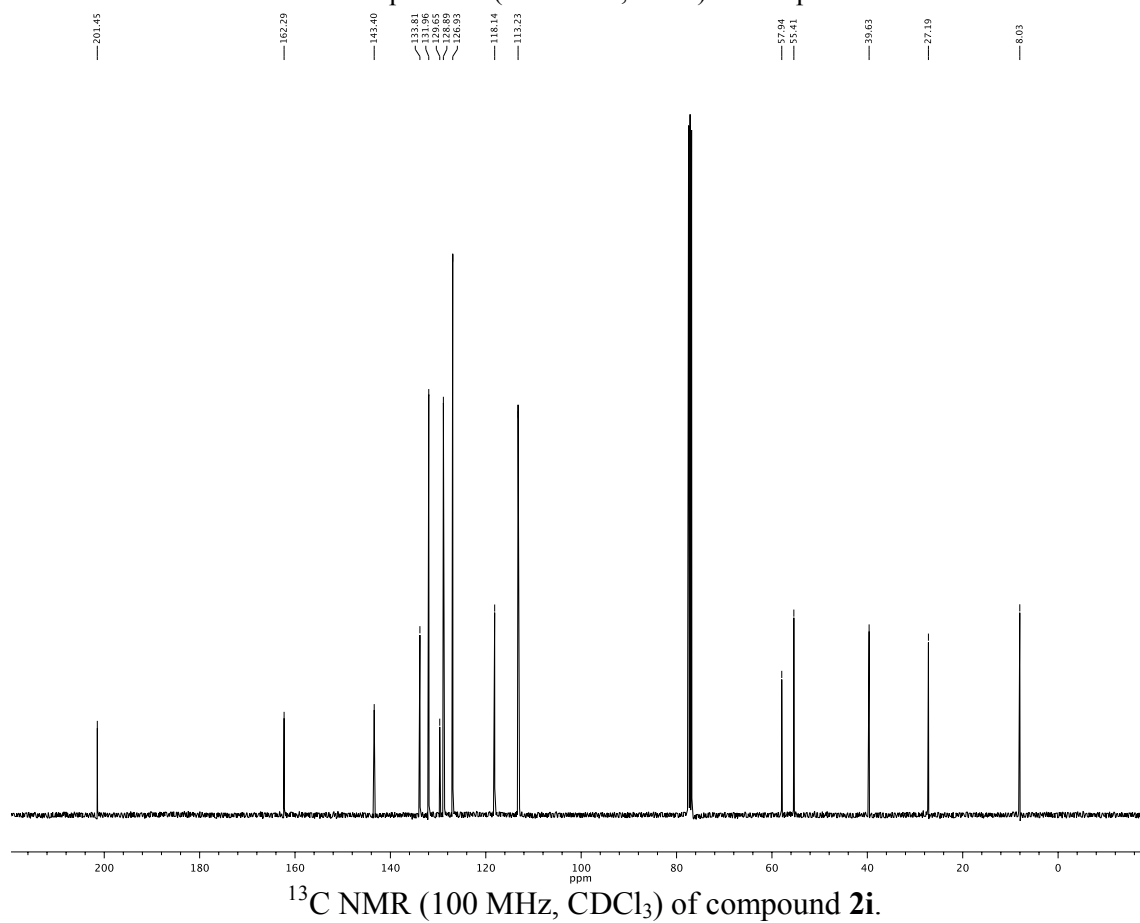


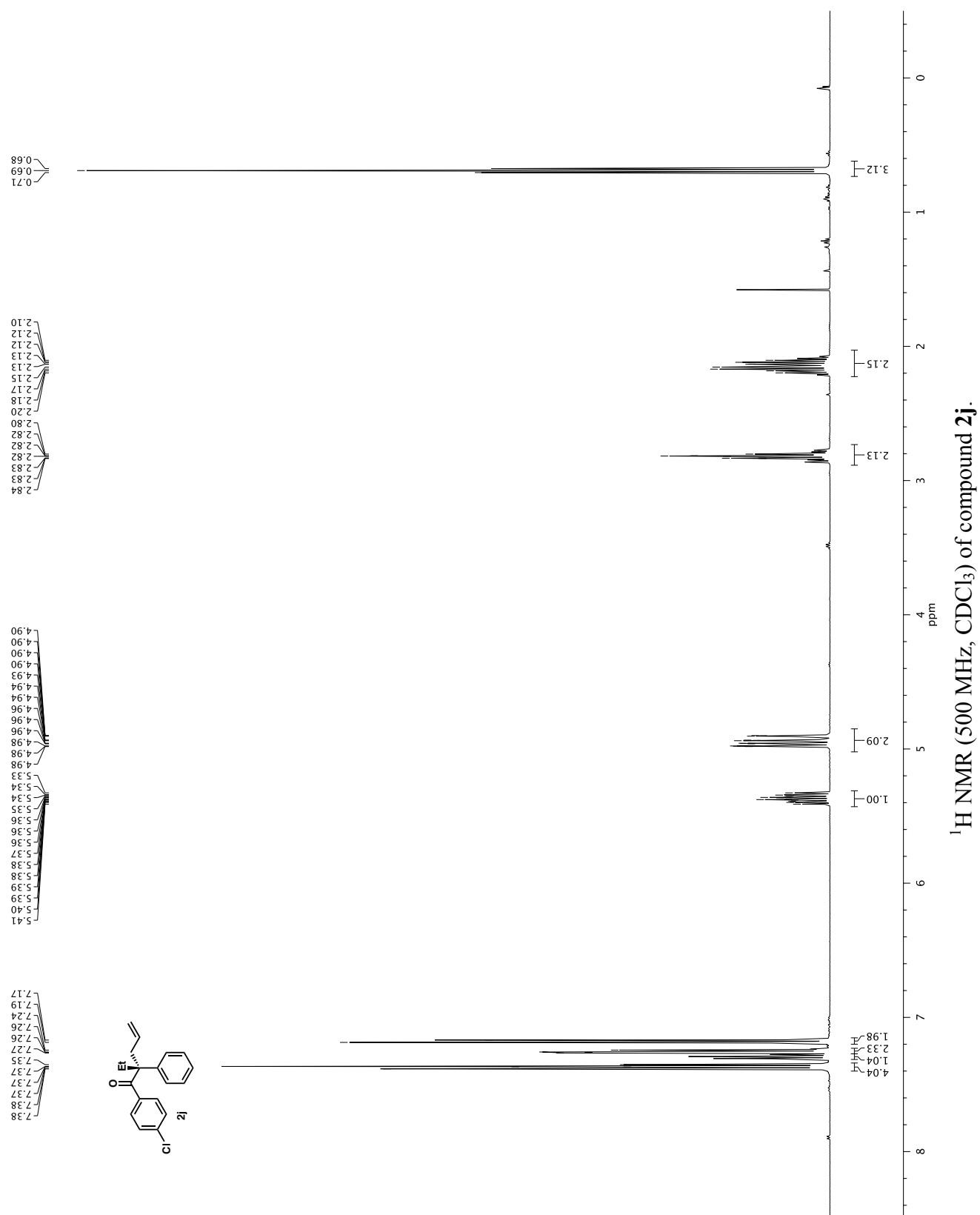


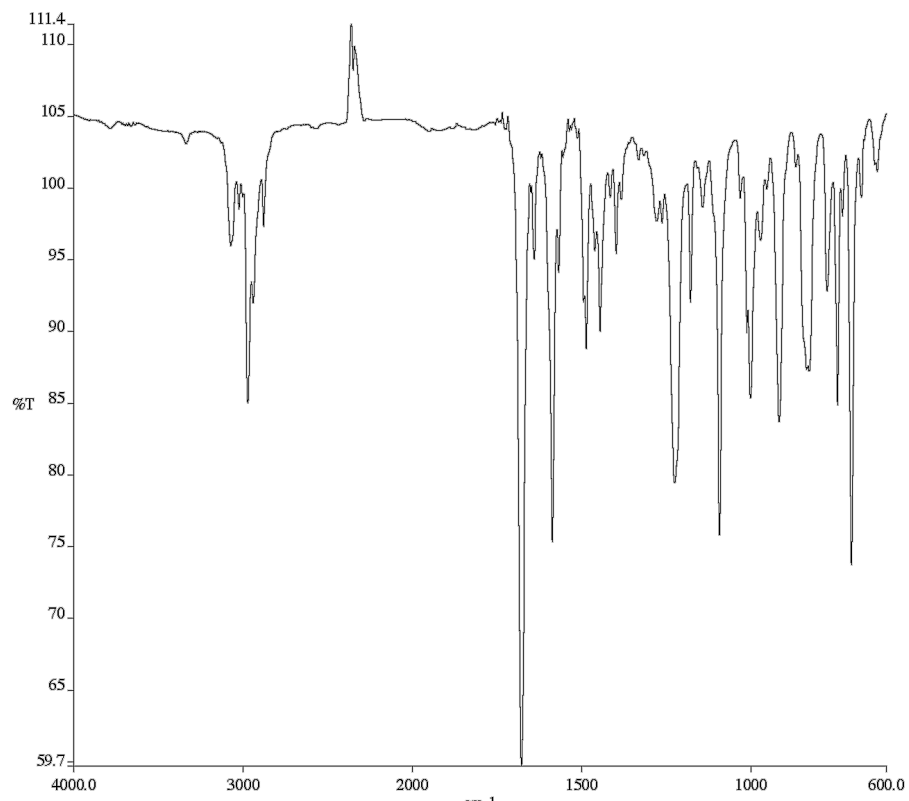
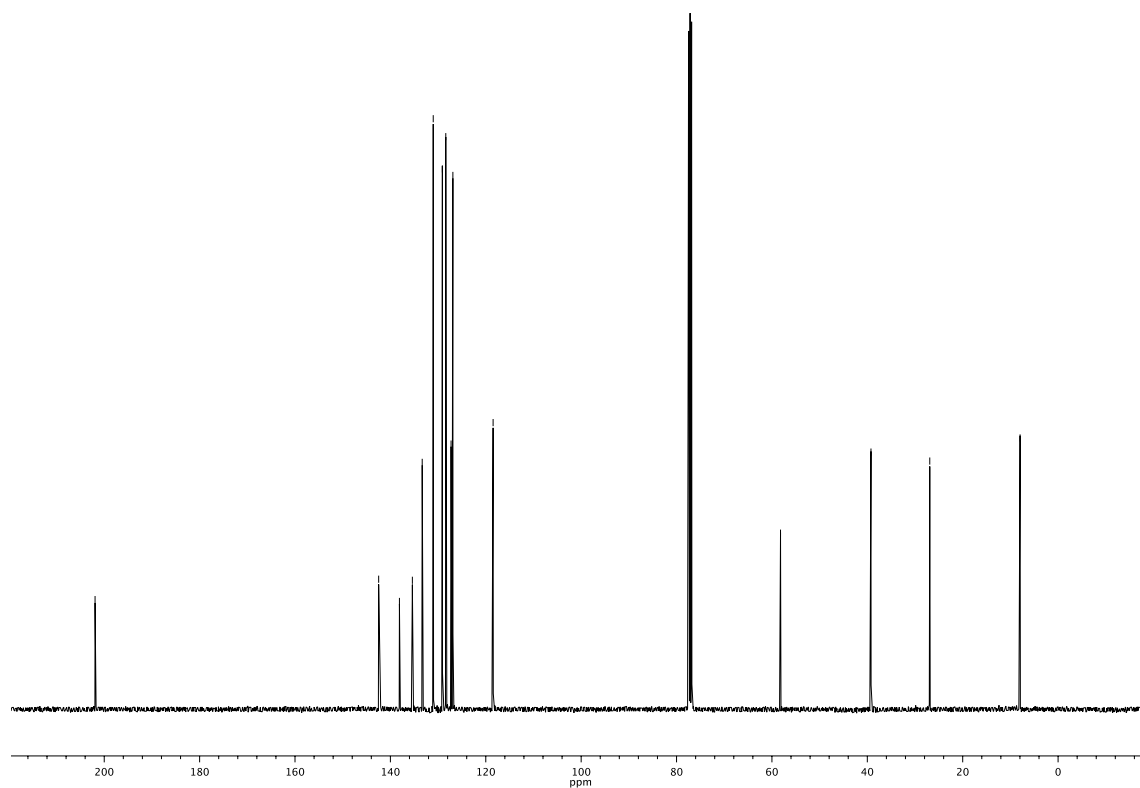


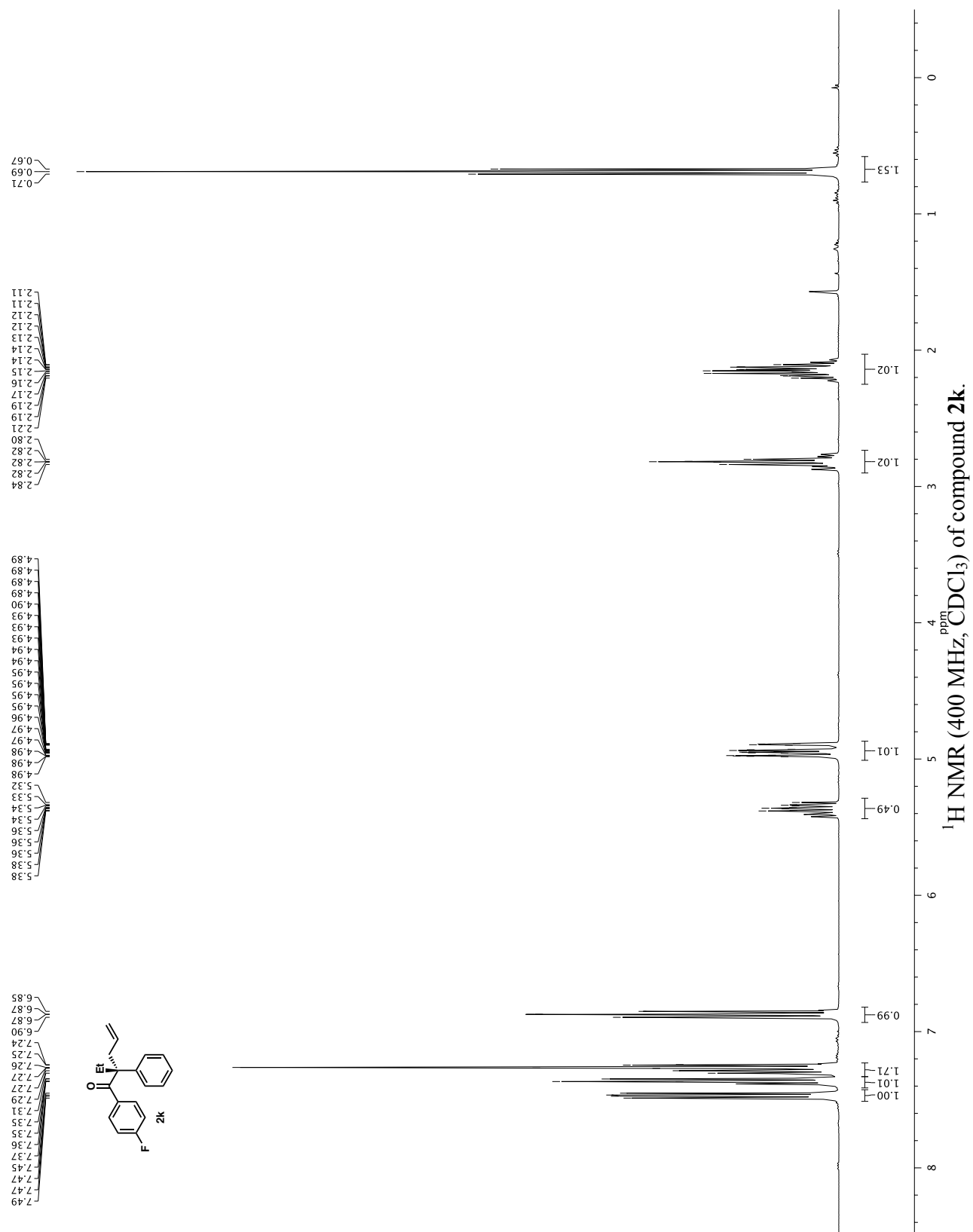


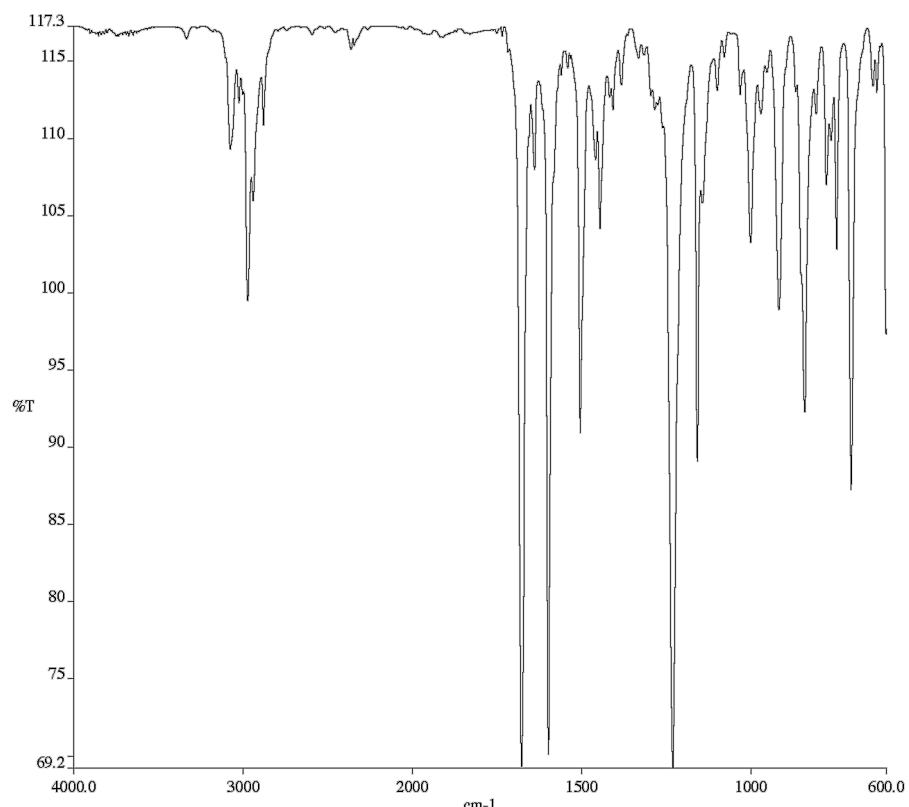


Infrared spectrum (Thin Film, NaCl) of compound **2i**.¹³C NMR (100 MHz, CDCl₃) of compound **2i**.

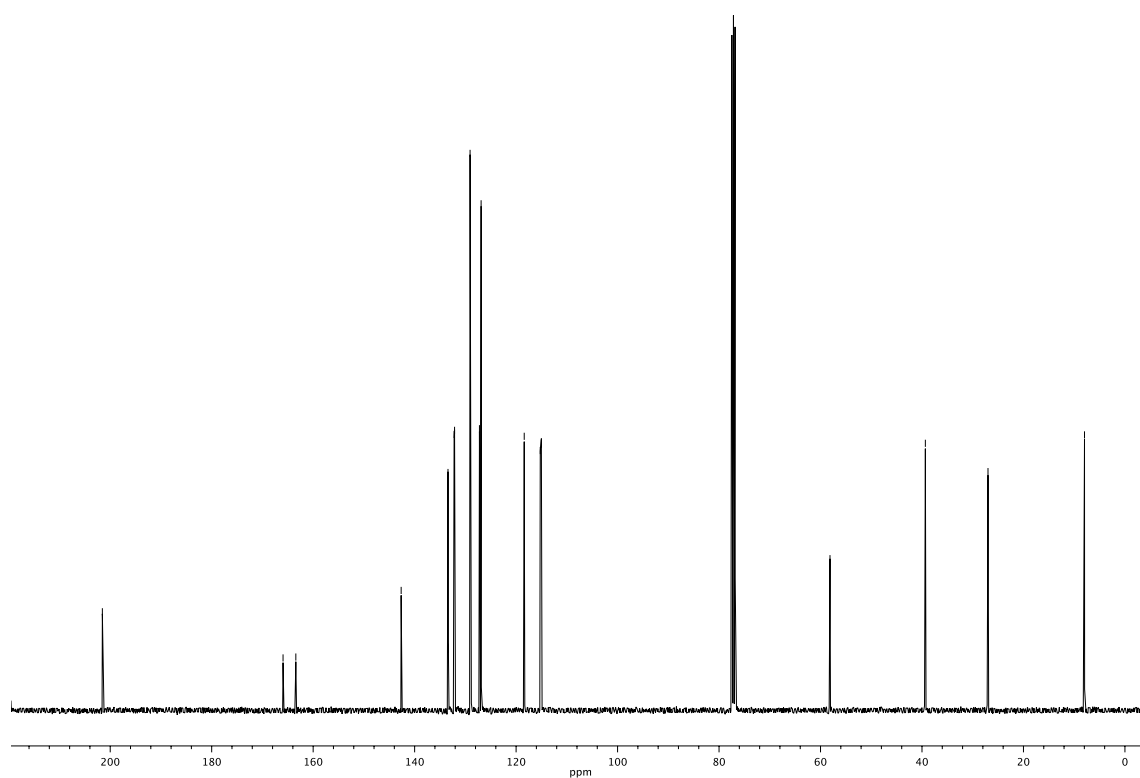


Infrared spectrum (Thin Film, NaCl) of compound **2j**.¹³C NMR (100 MHz, CDCl₃) of compound **2j**.

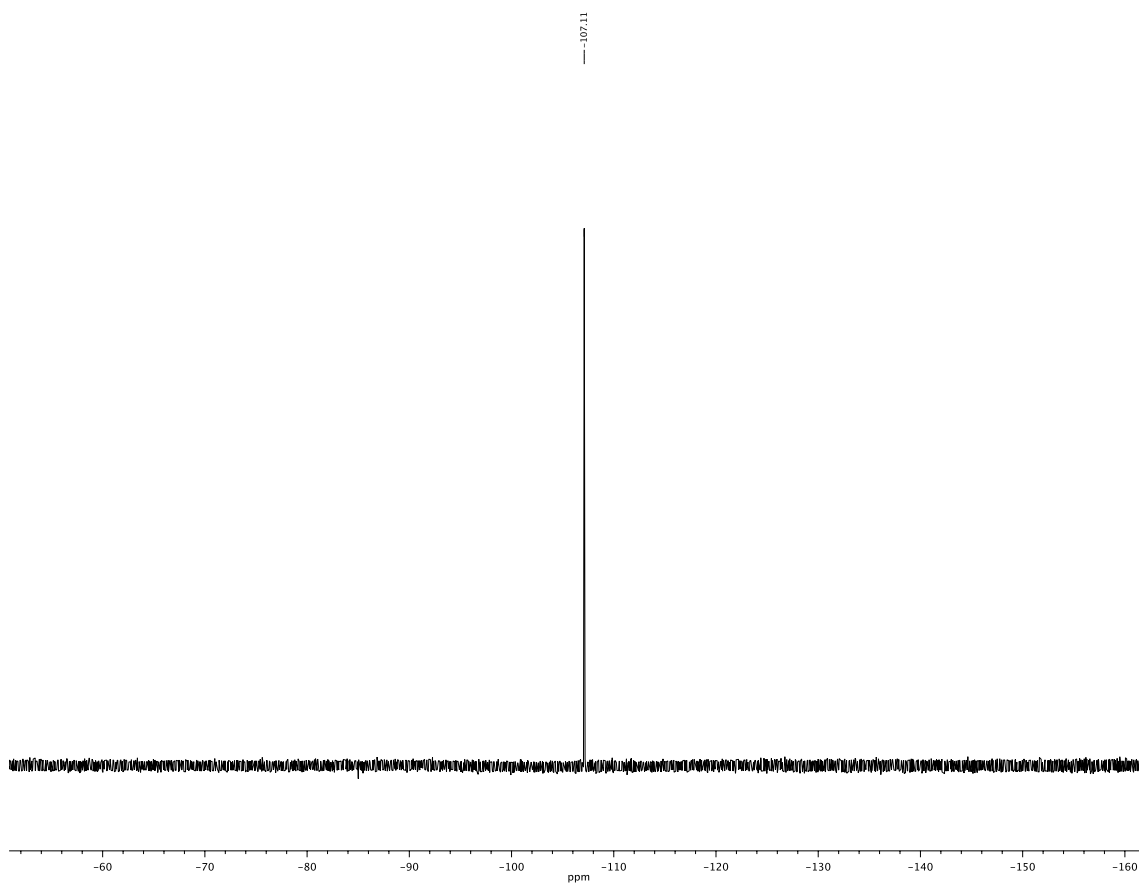




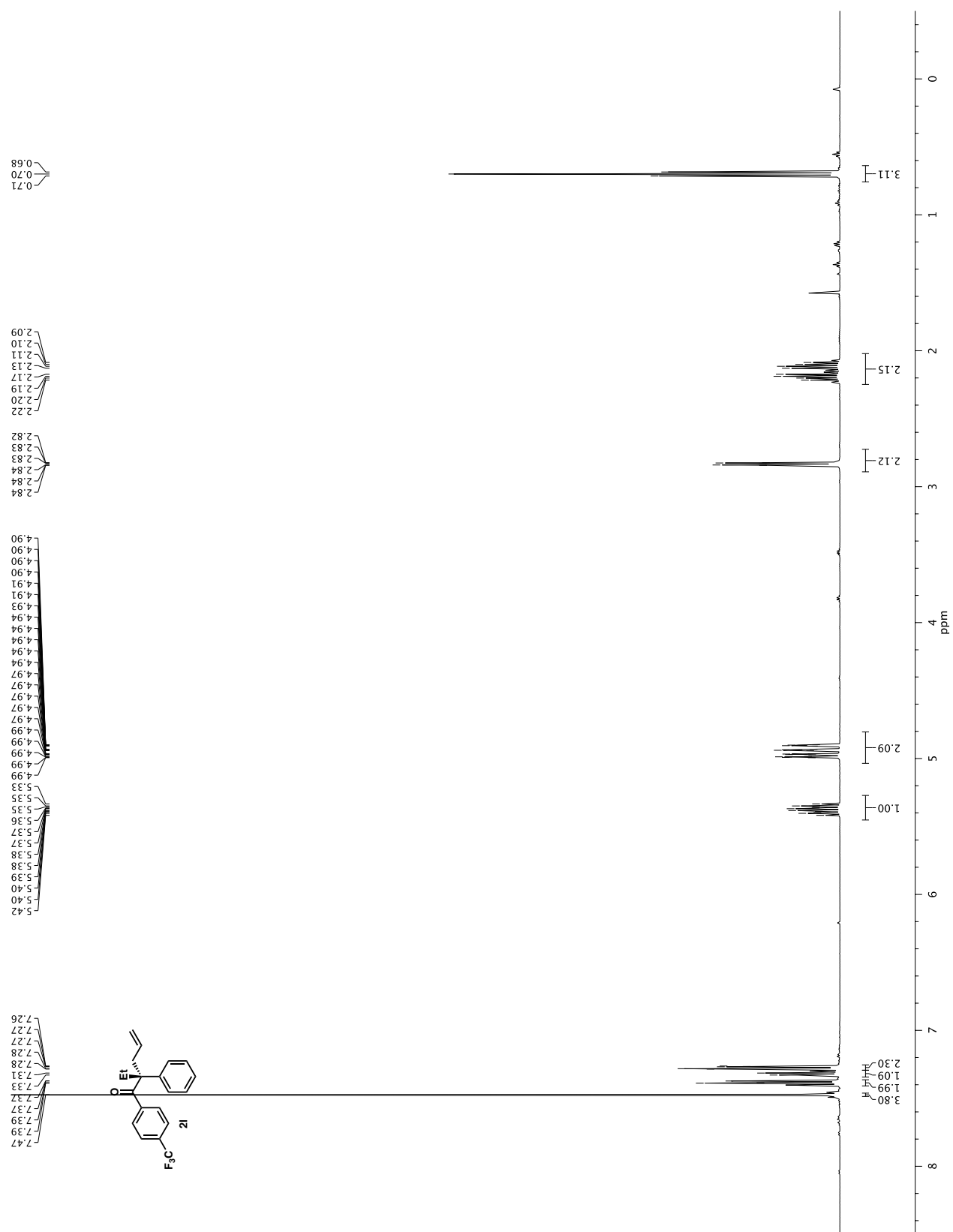
— 201.55 — 165.93 — 163.41 — 142.66 — 132.42 — 131.38 — 131.22 — 129.07 — 127.22 — 126.90 — 118.40 — 115.02 — 58.13 — 39.34 — 26.99 — 7.97

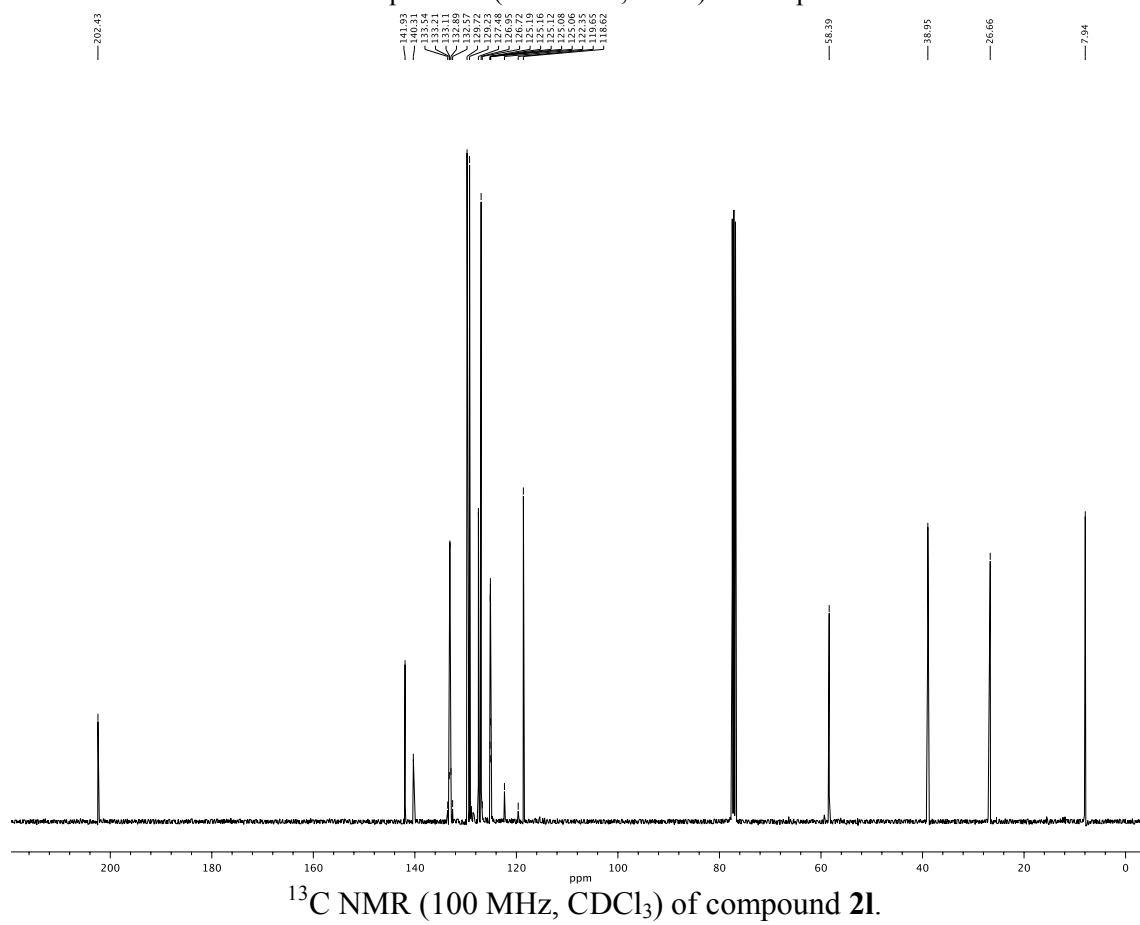
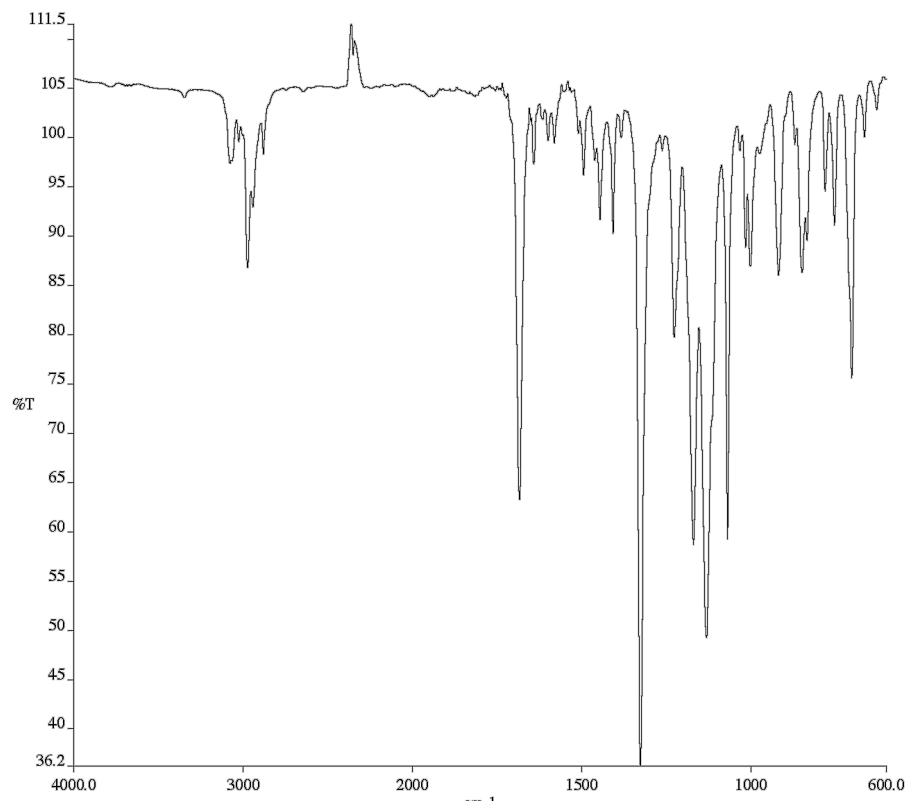


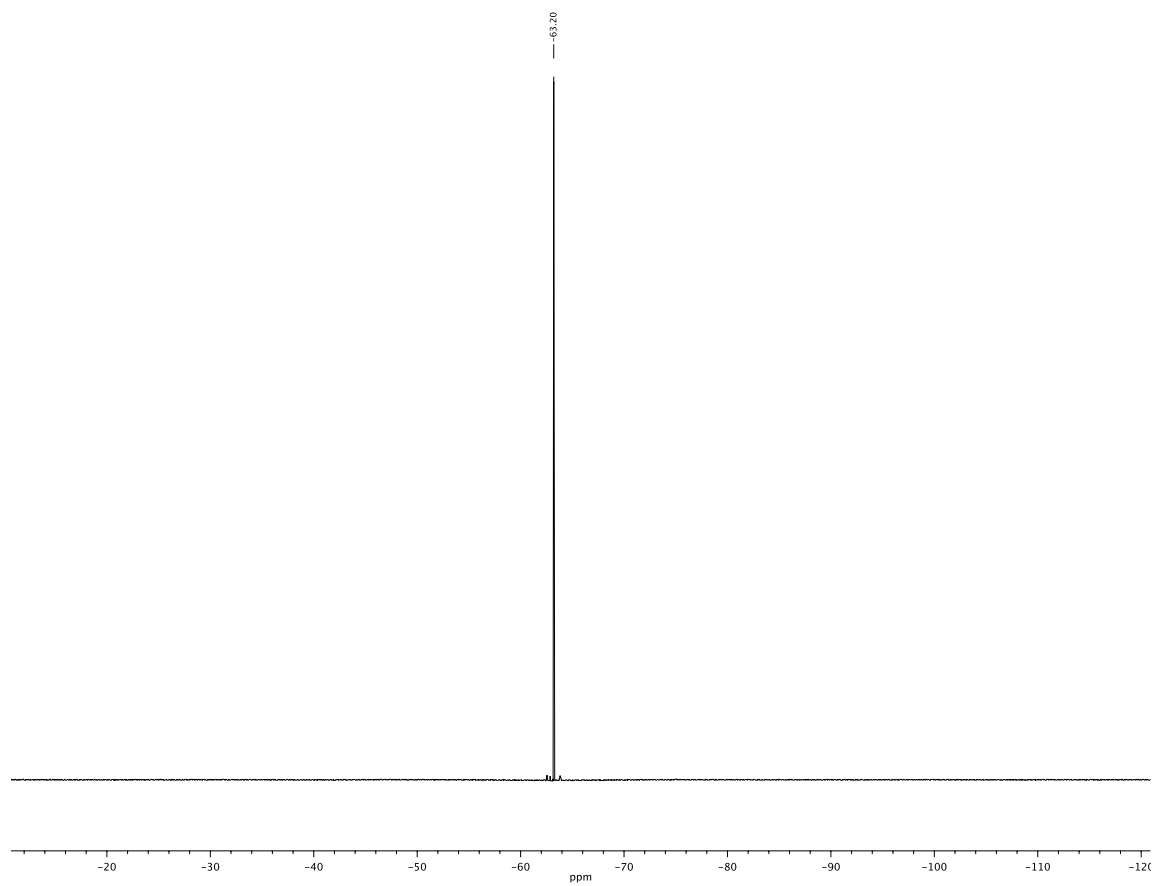
^{13}C NMR (100 MHz, CDCl_3) of compound **2k**.



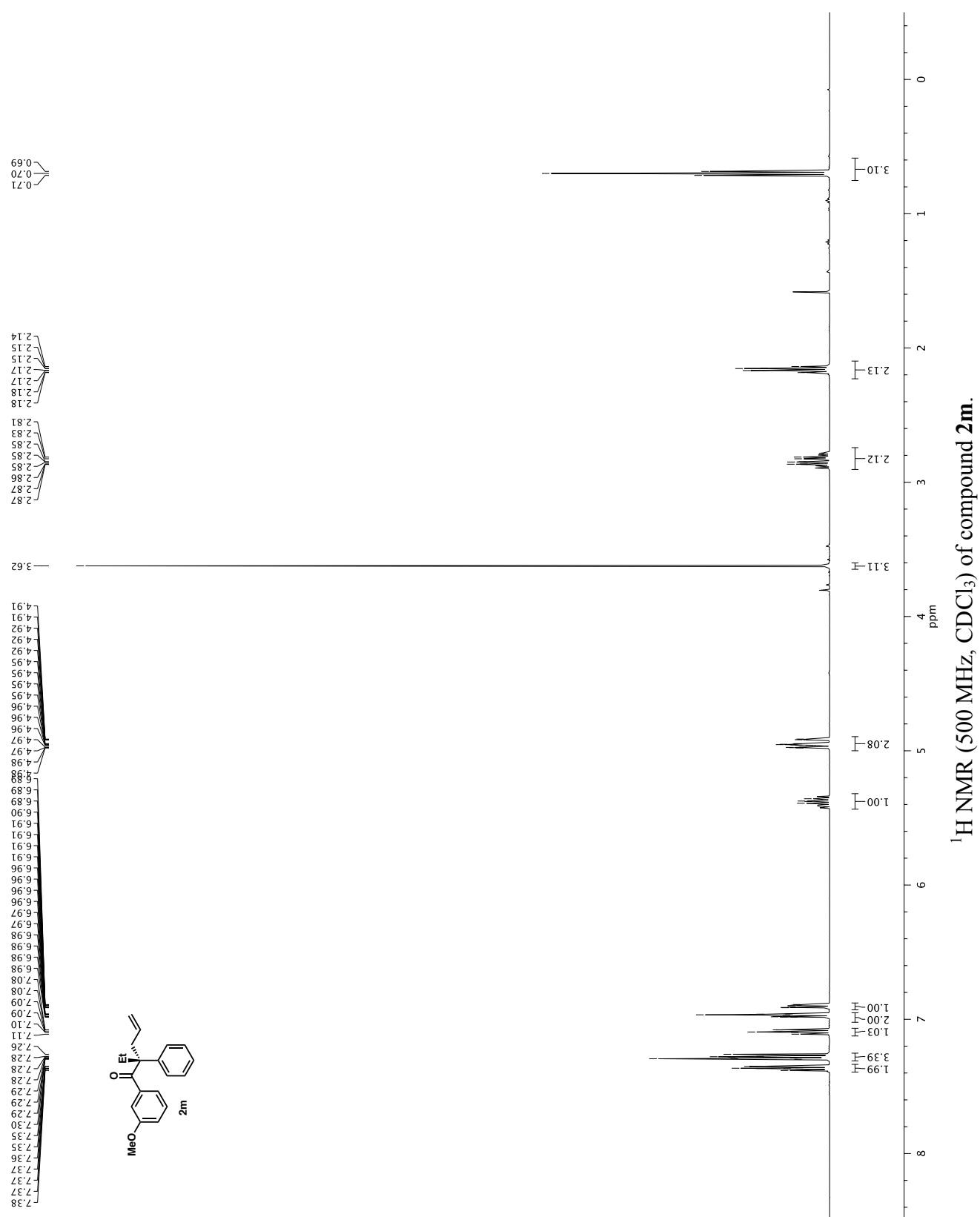
^{19}F NMR (282 MHz, CDCl_3) of compound **2k**.

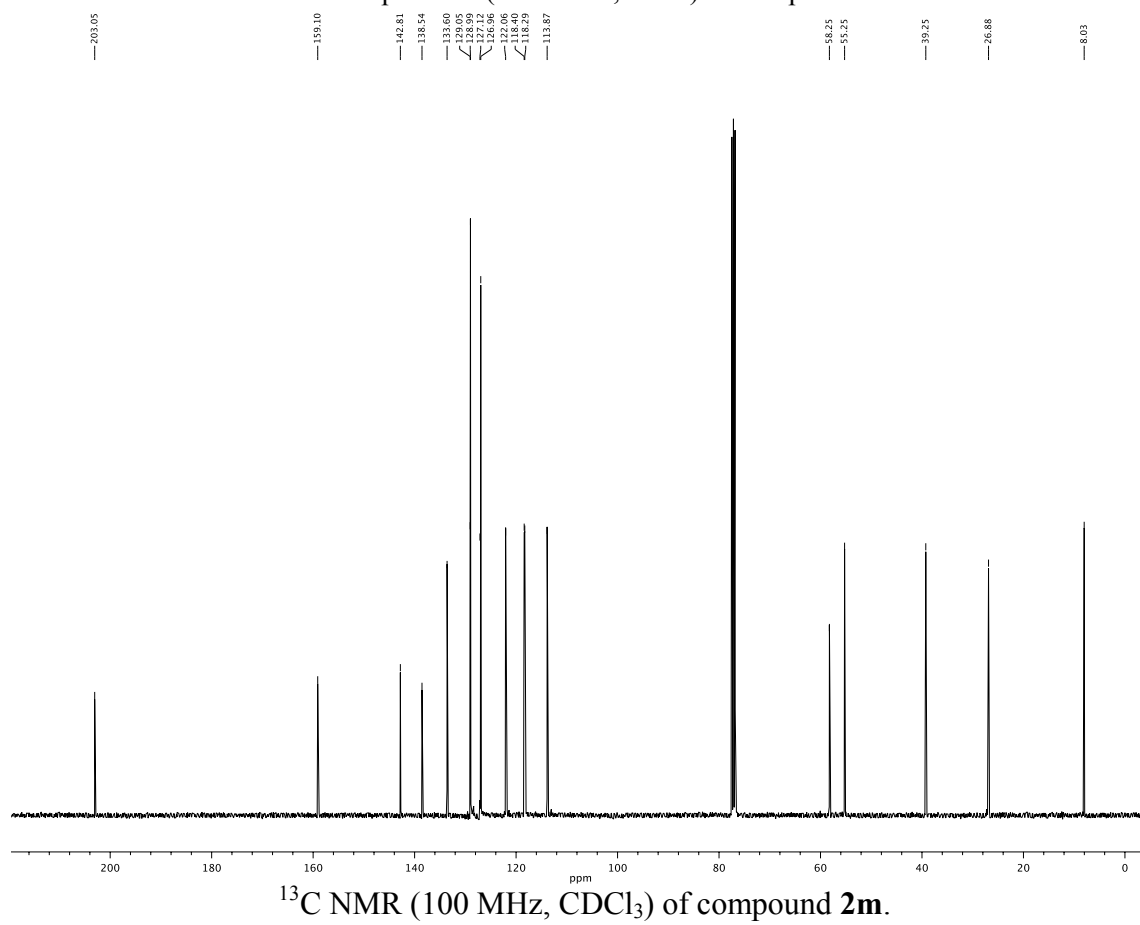
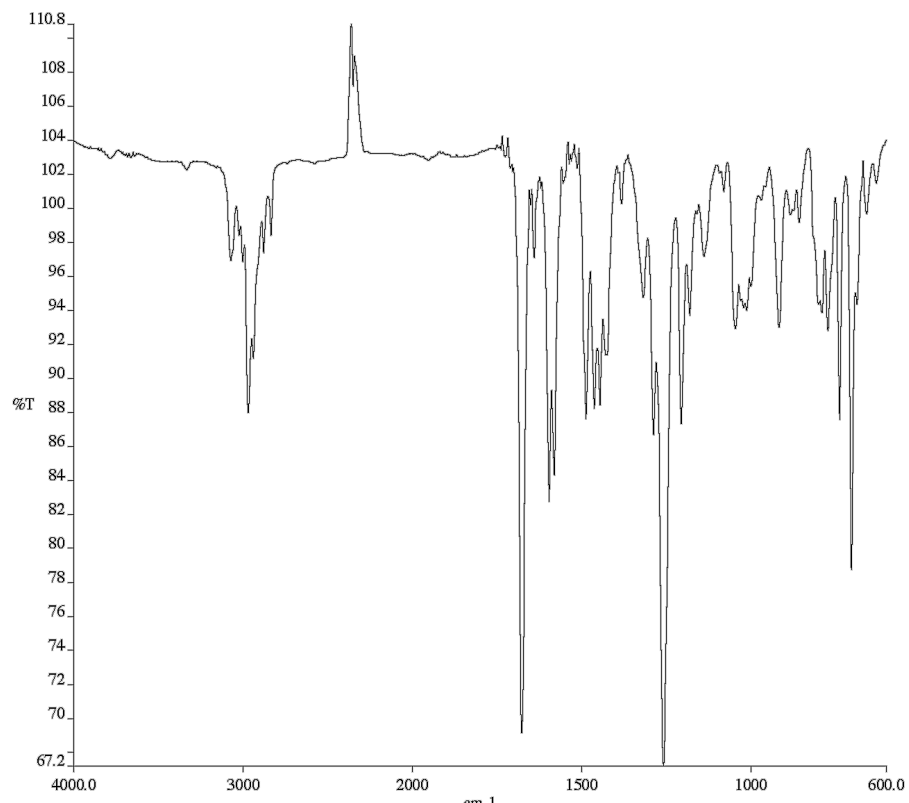


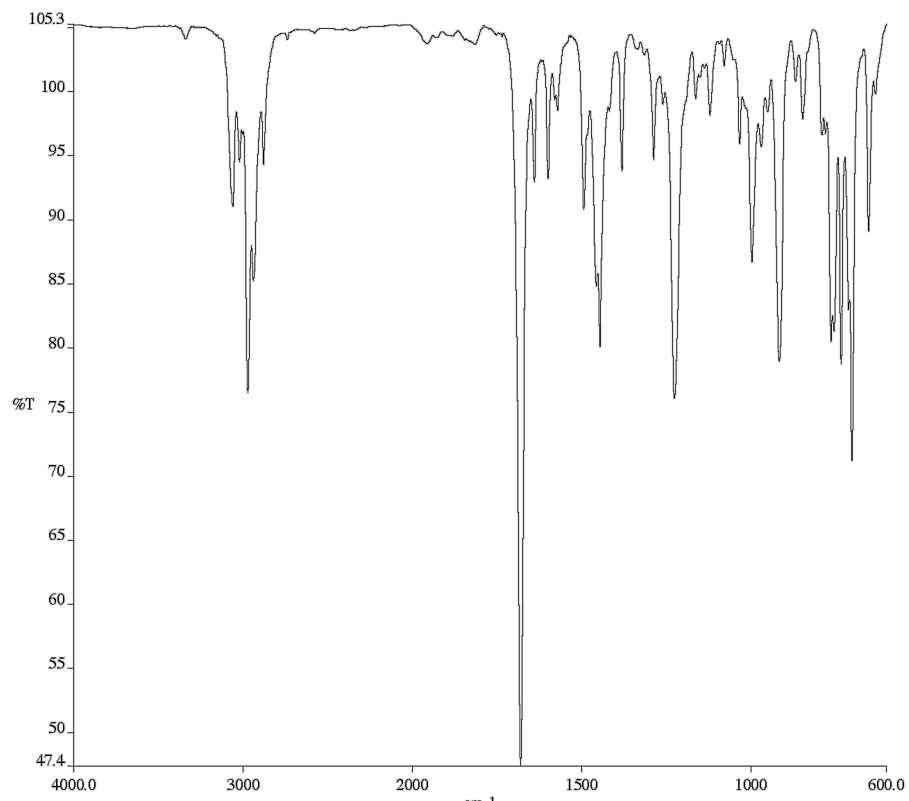




^{19}F NMR (282 MHz, CDCl_3) of compound **21**.





Infrared spectrum (Thin Film, NaCl) of compound **2n**.

— 207.15

— 141.94
— 138.27
— 138.07
— 131.91
— 129.98
— 127.59
— 127.38
— 124.65
— 118.24

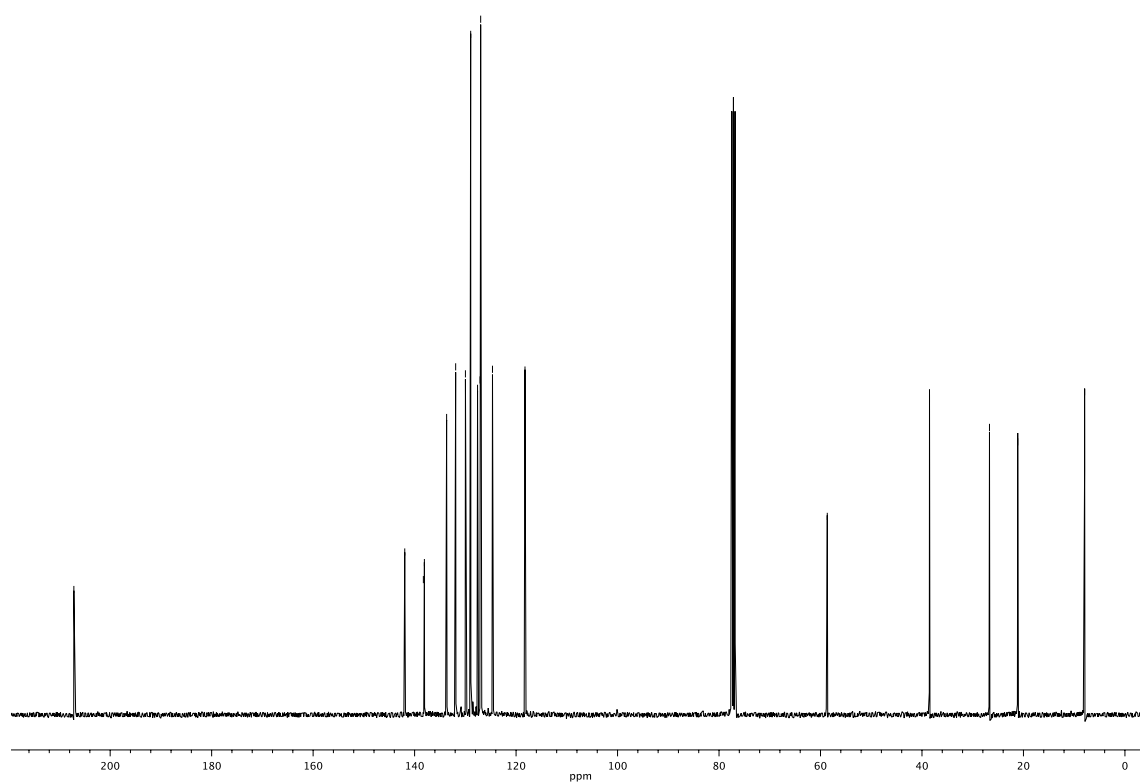
— 58.66

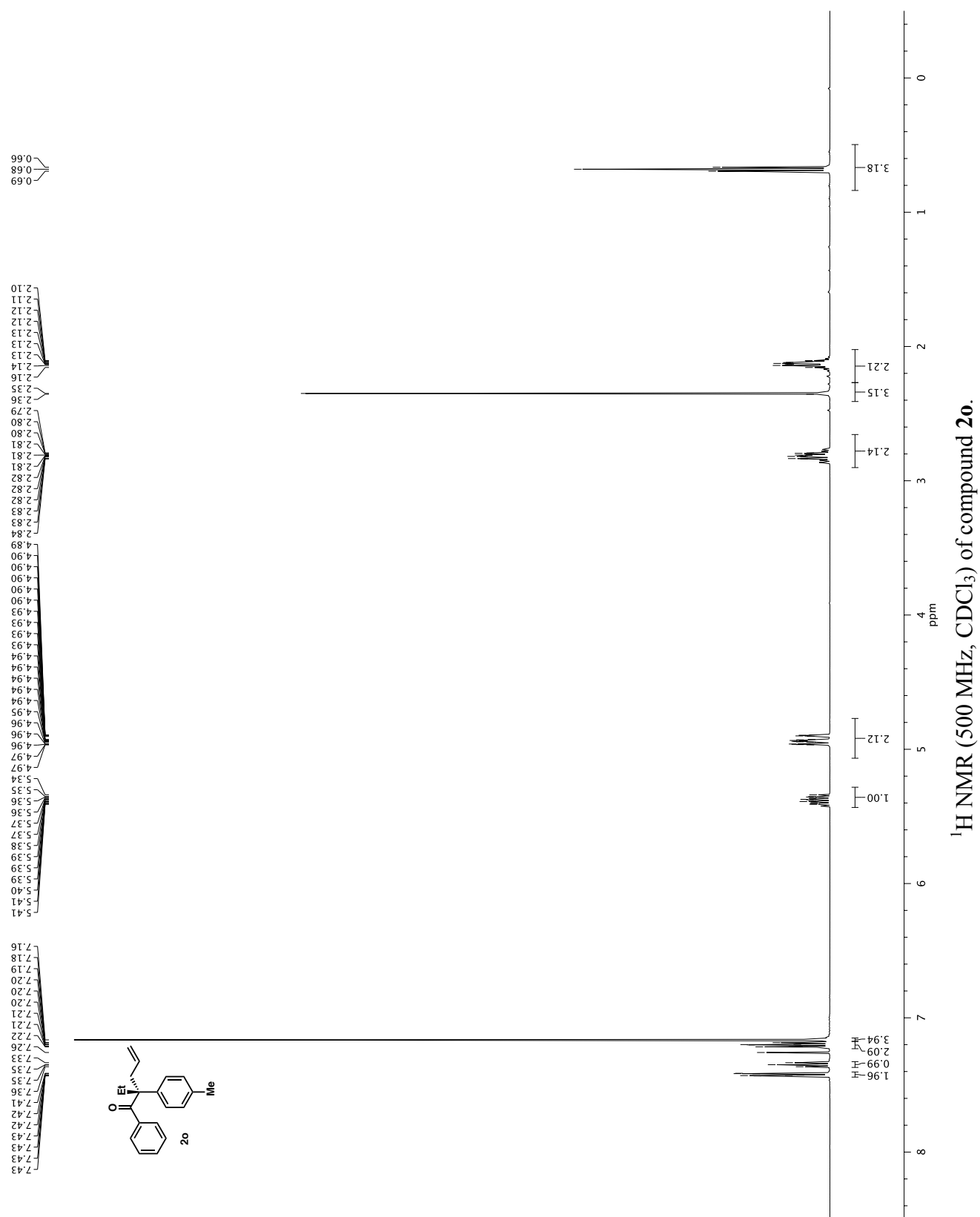
— 38.52

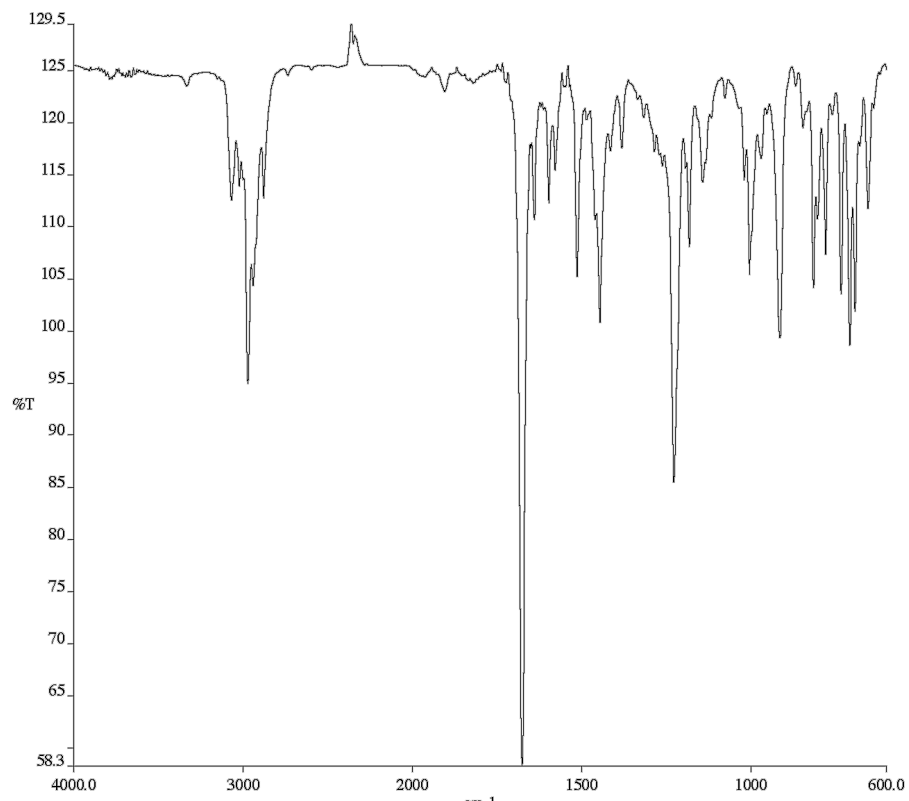
— 26.70

— 21.13

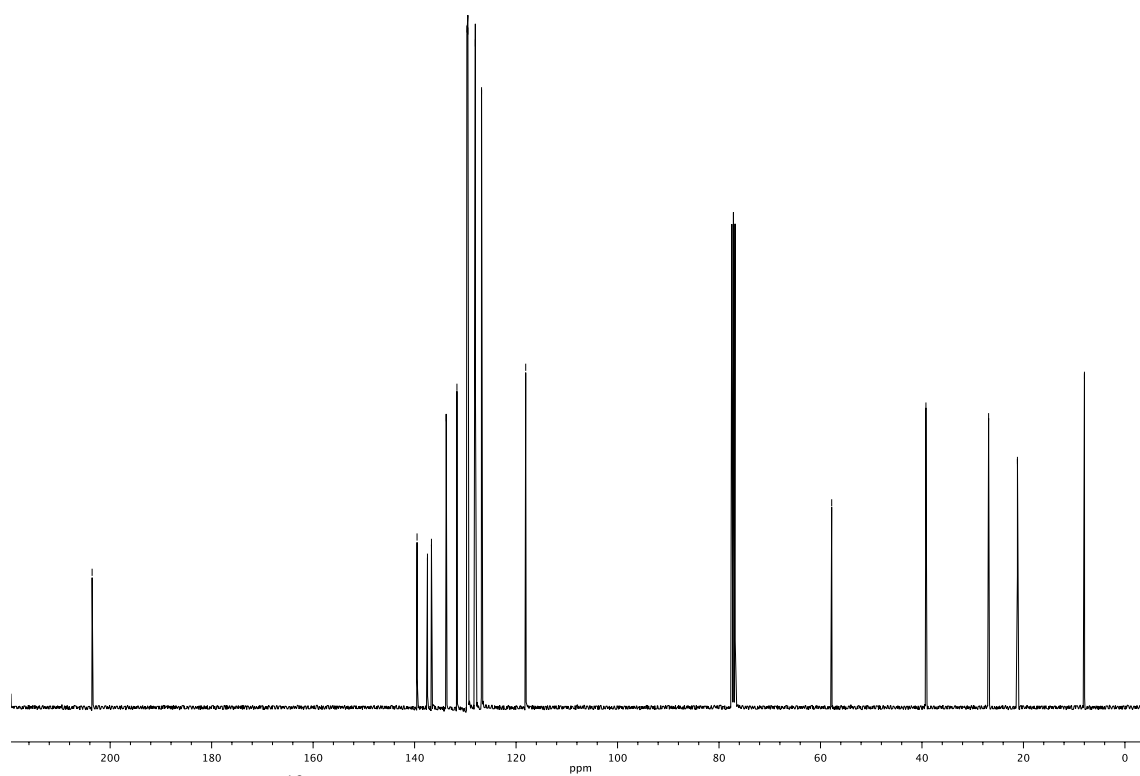
— 7.95

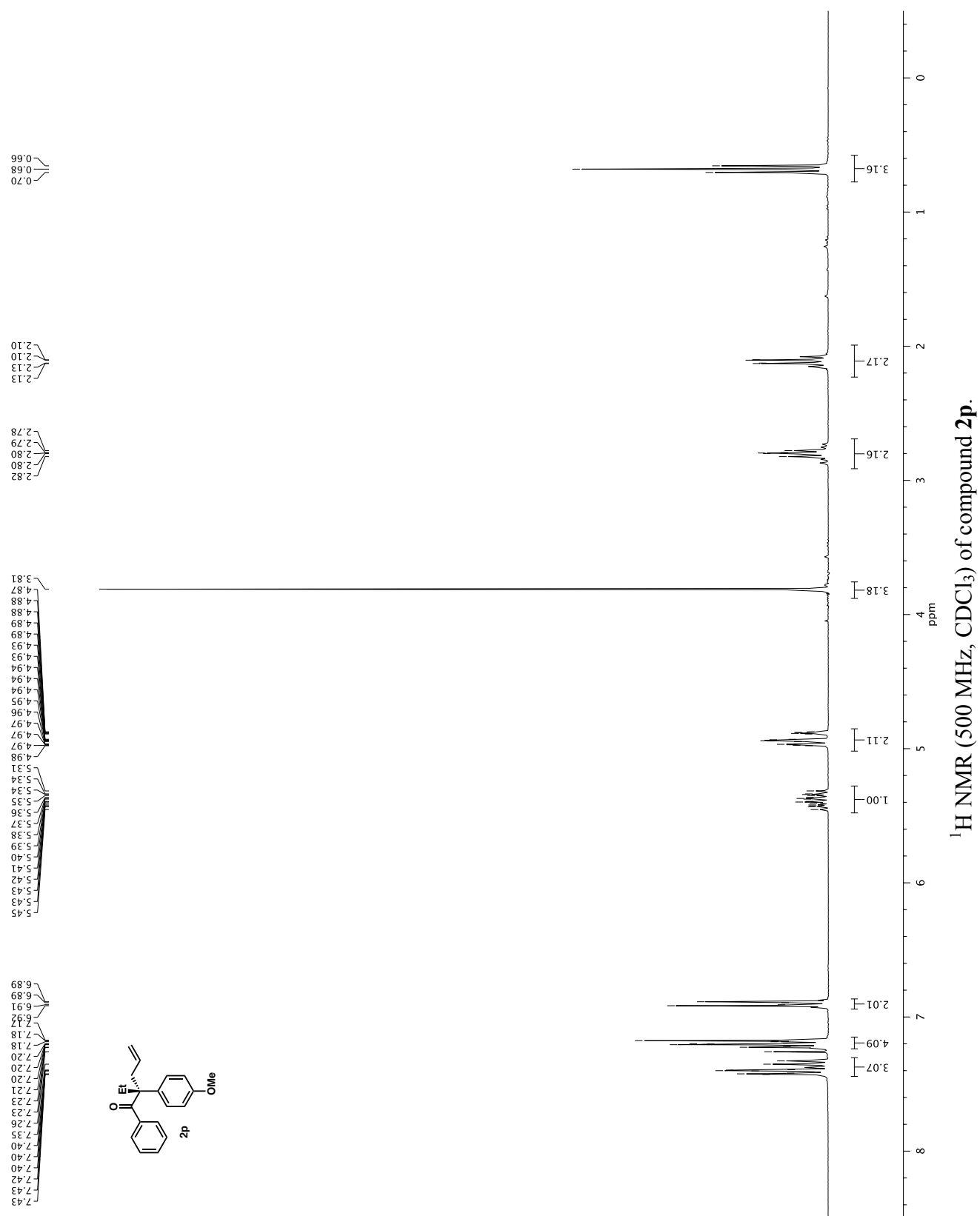
¹³C NMR (100 MHz, CDCl₃) of compound **2n**.

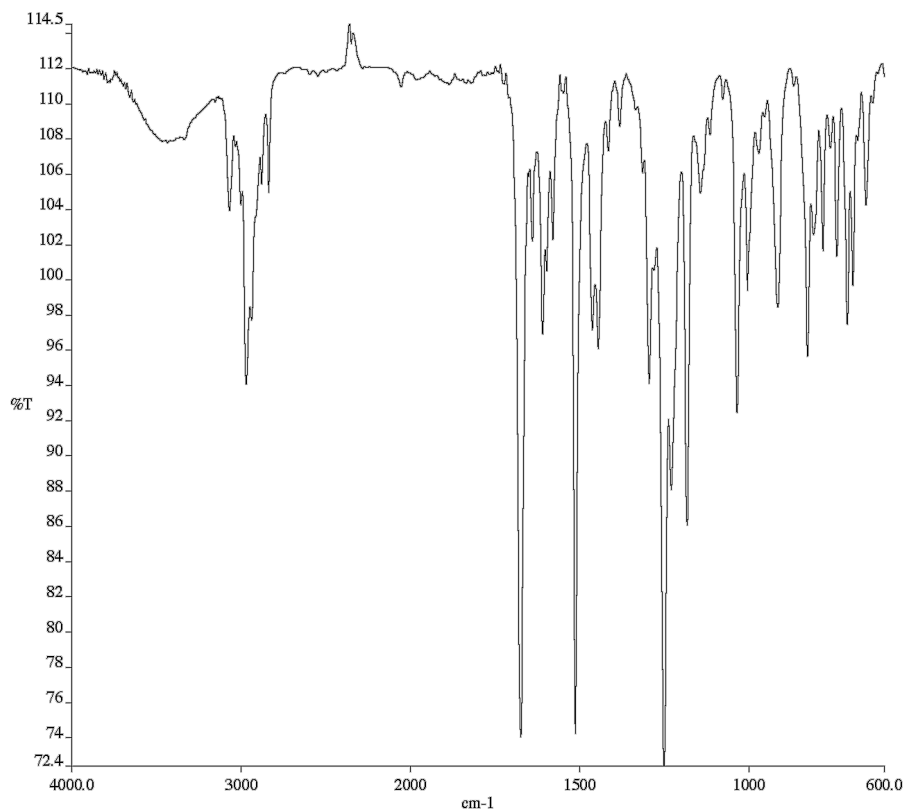
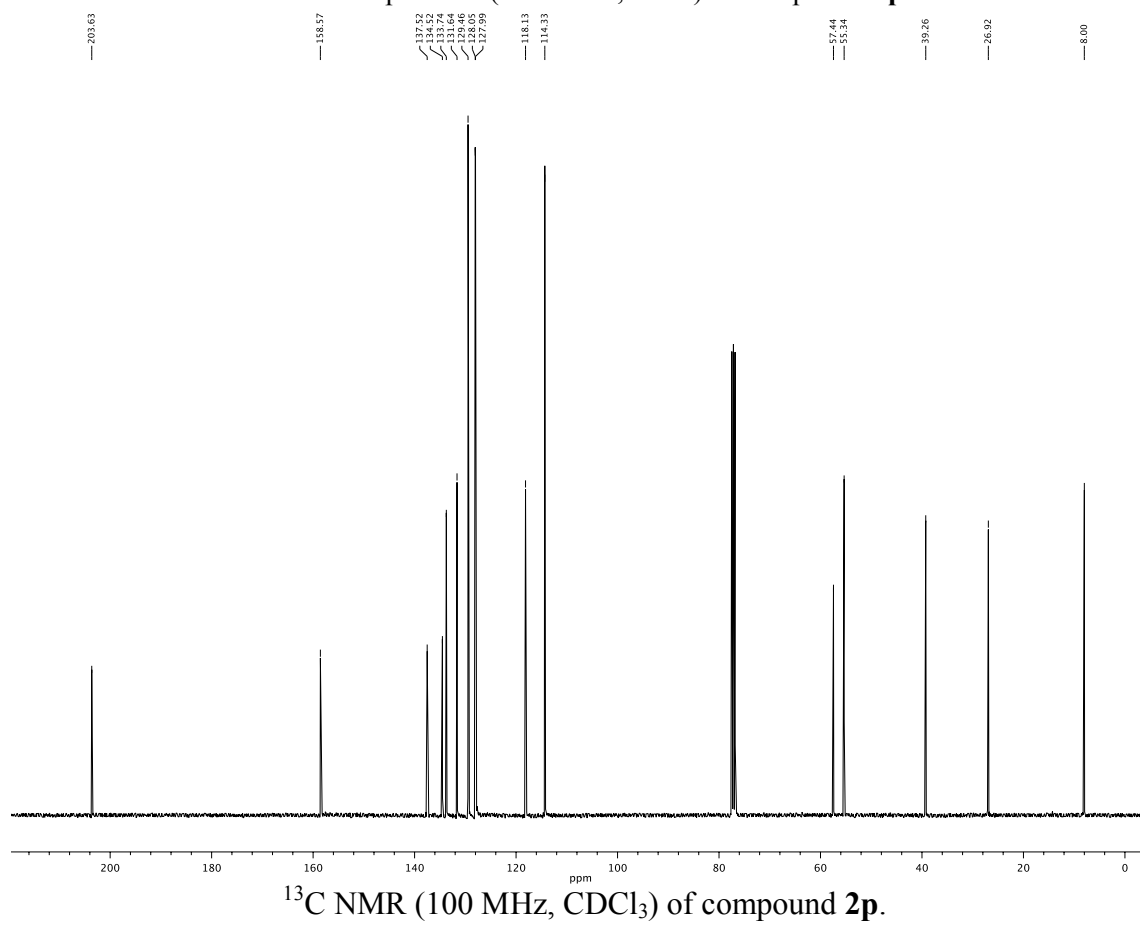


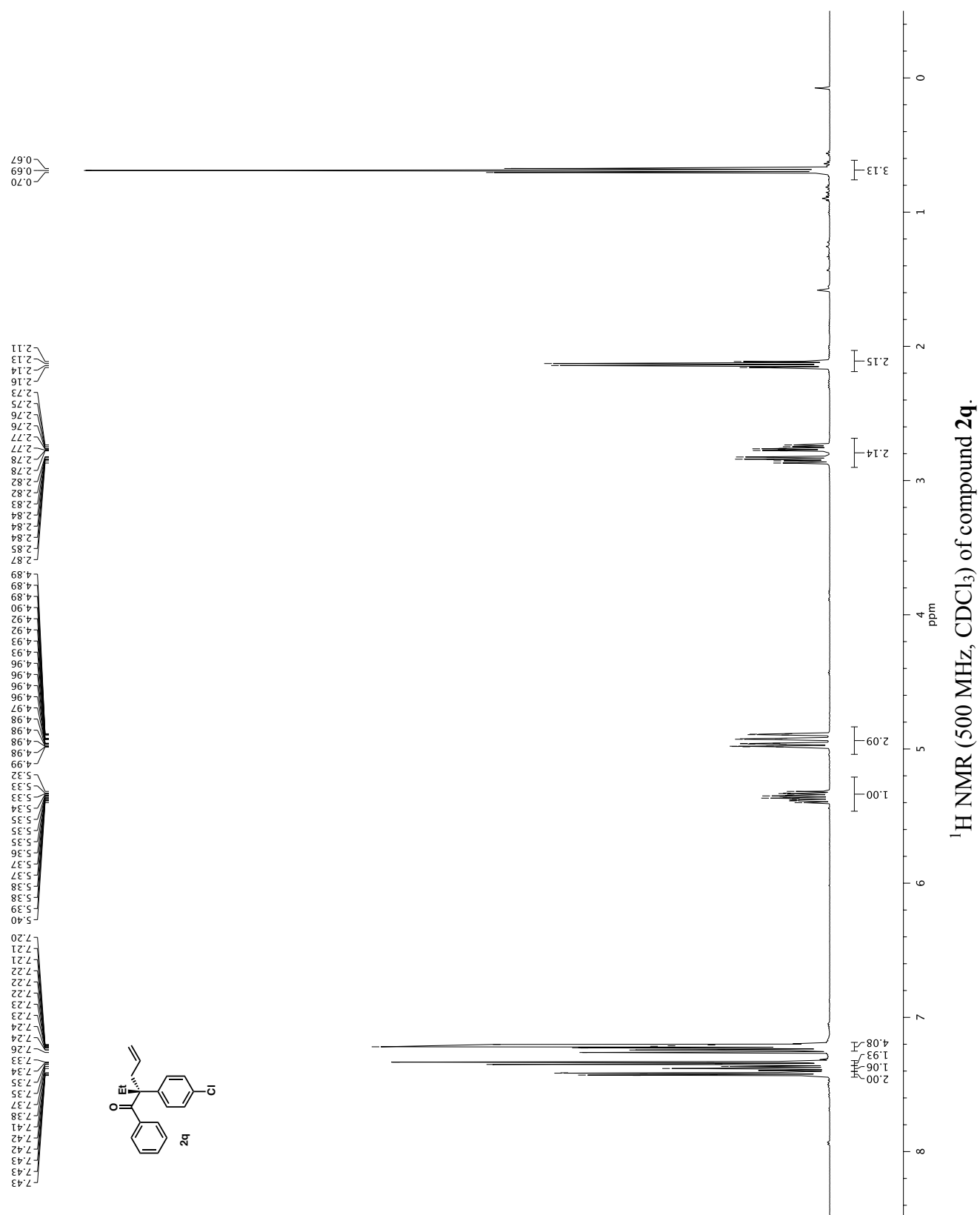
Infrared spectrum (Thin Film, NaCl) of compound **2o**.

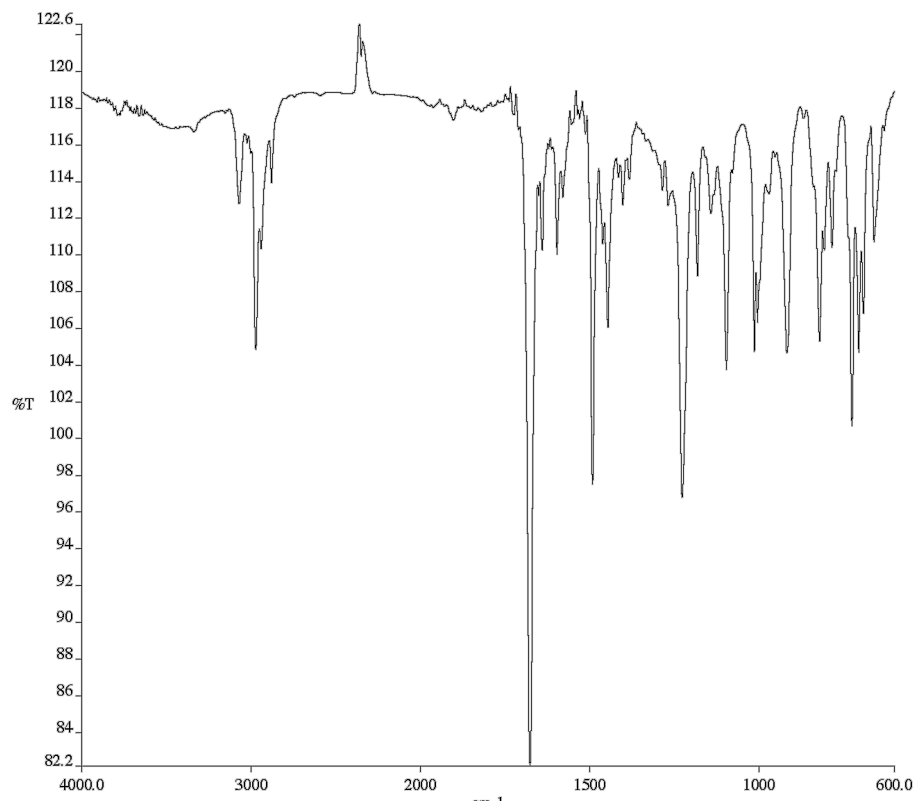
— 2031.55 — 1357.51 — 1329.46 — 1316.67 — 1311.65 — 1287.70 — 1281.03 — 1266.80 — 1118.10 — 57.79 — 39.22 — 26.87 — 21.19 — 7.98

¹³C NMR (100 MHz, CDCl₃) of compound **2o**.

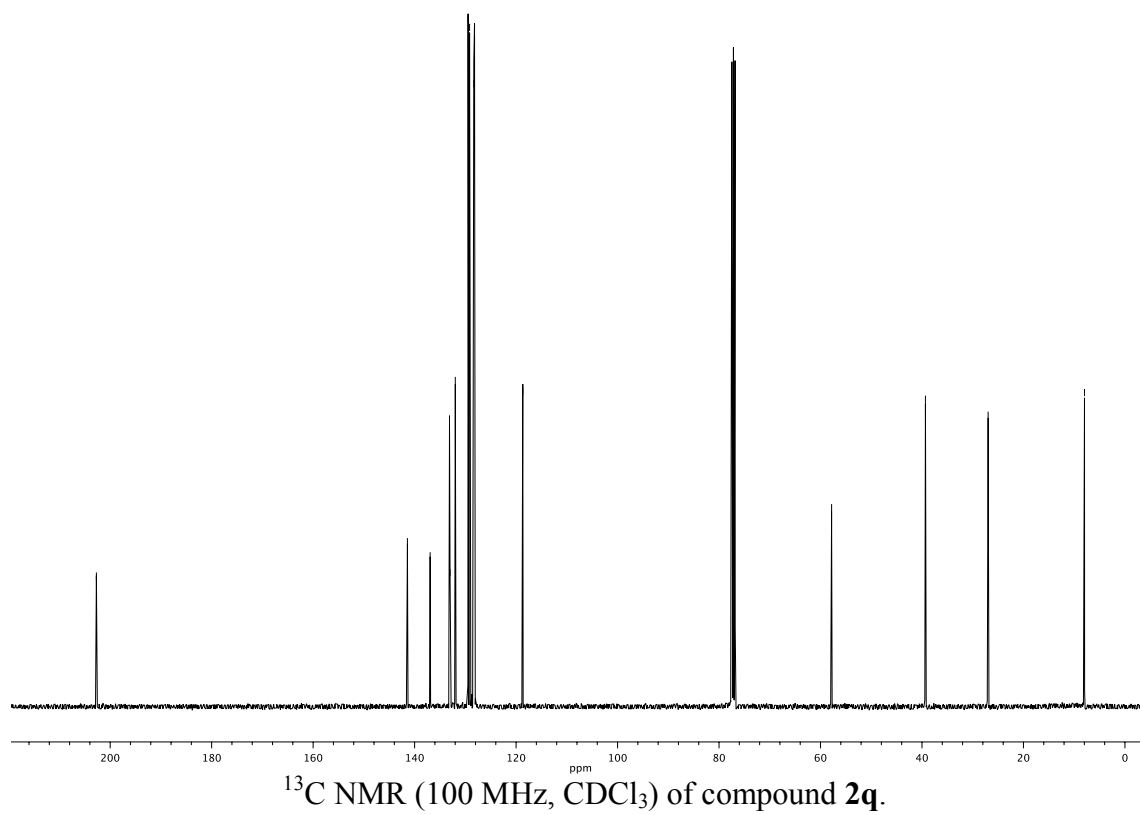


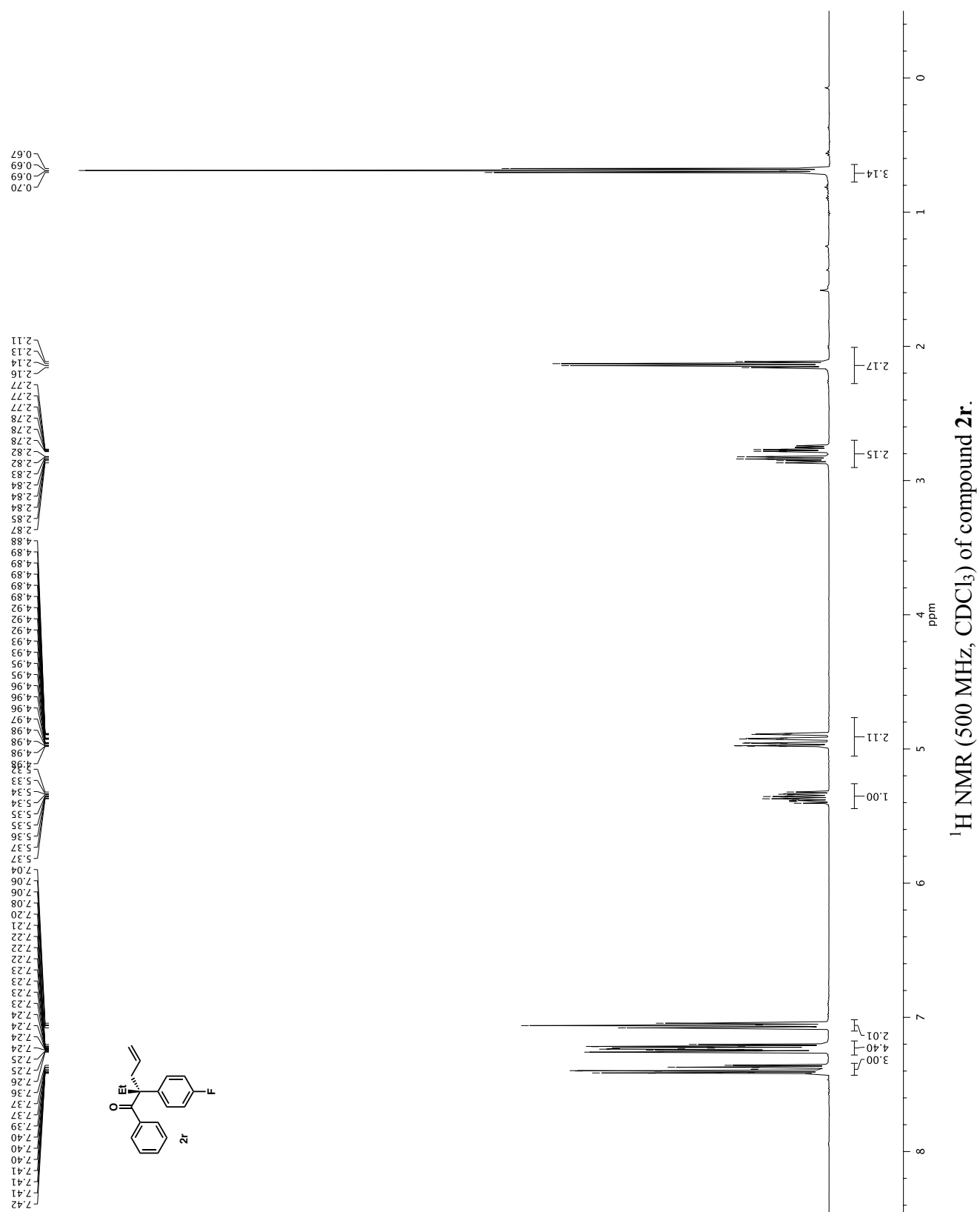
Infrared spectrum (Thin Film, NaCl) of compound **2p**.

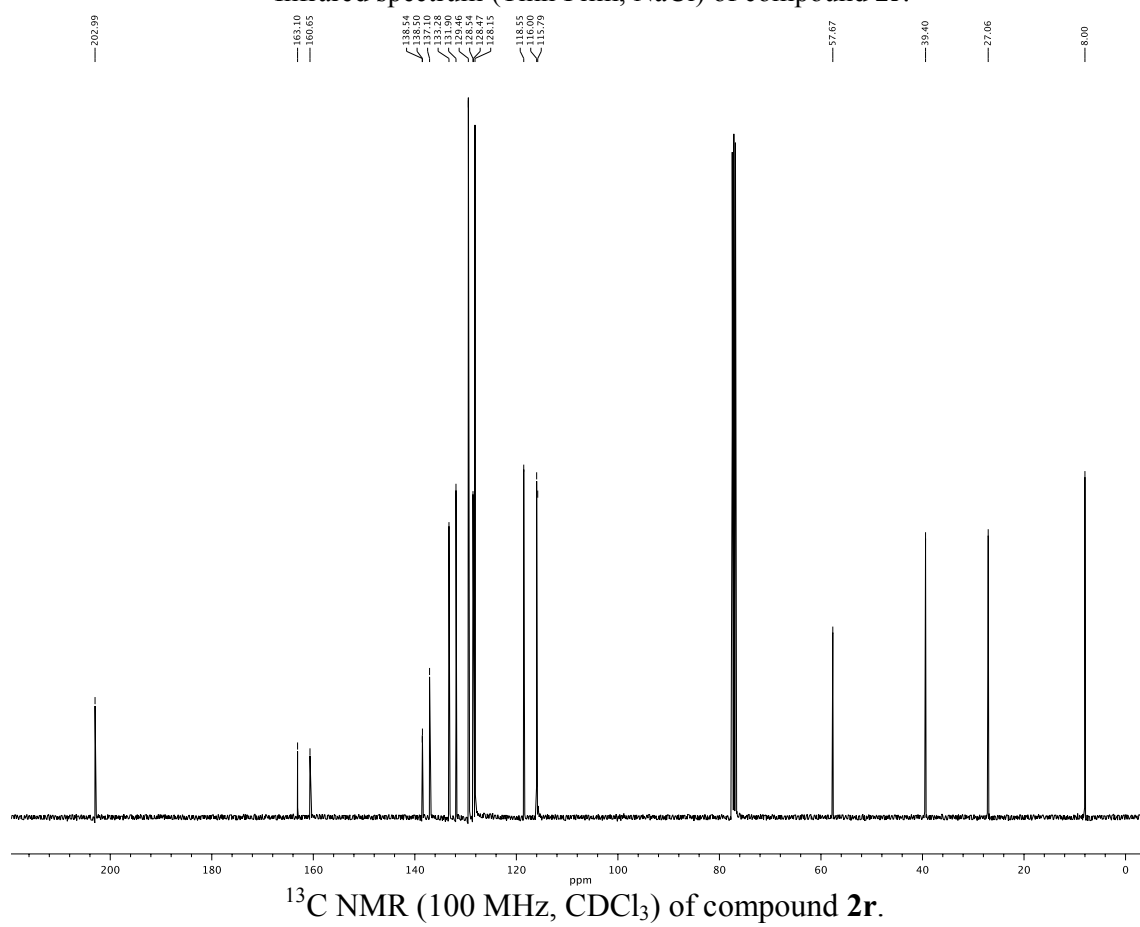
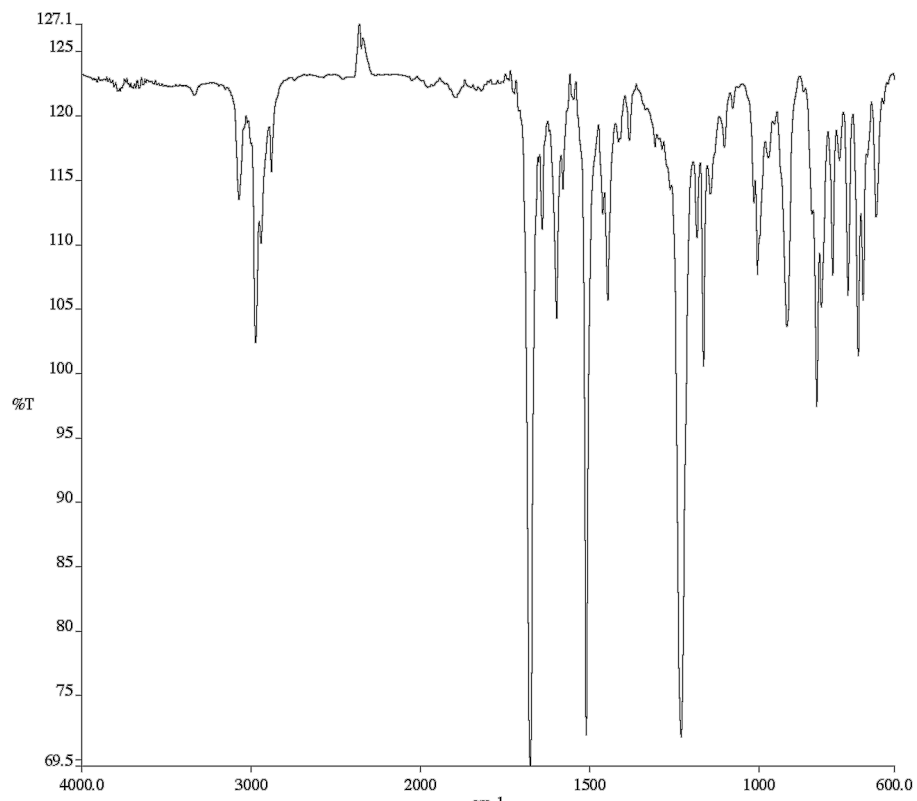


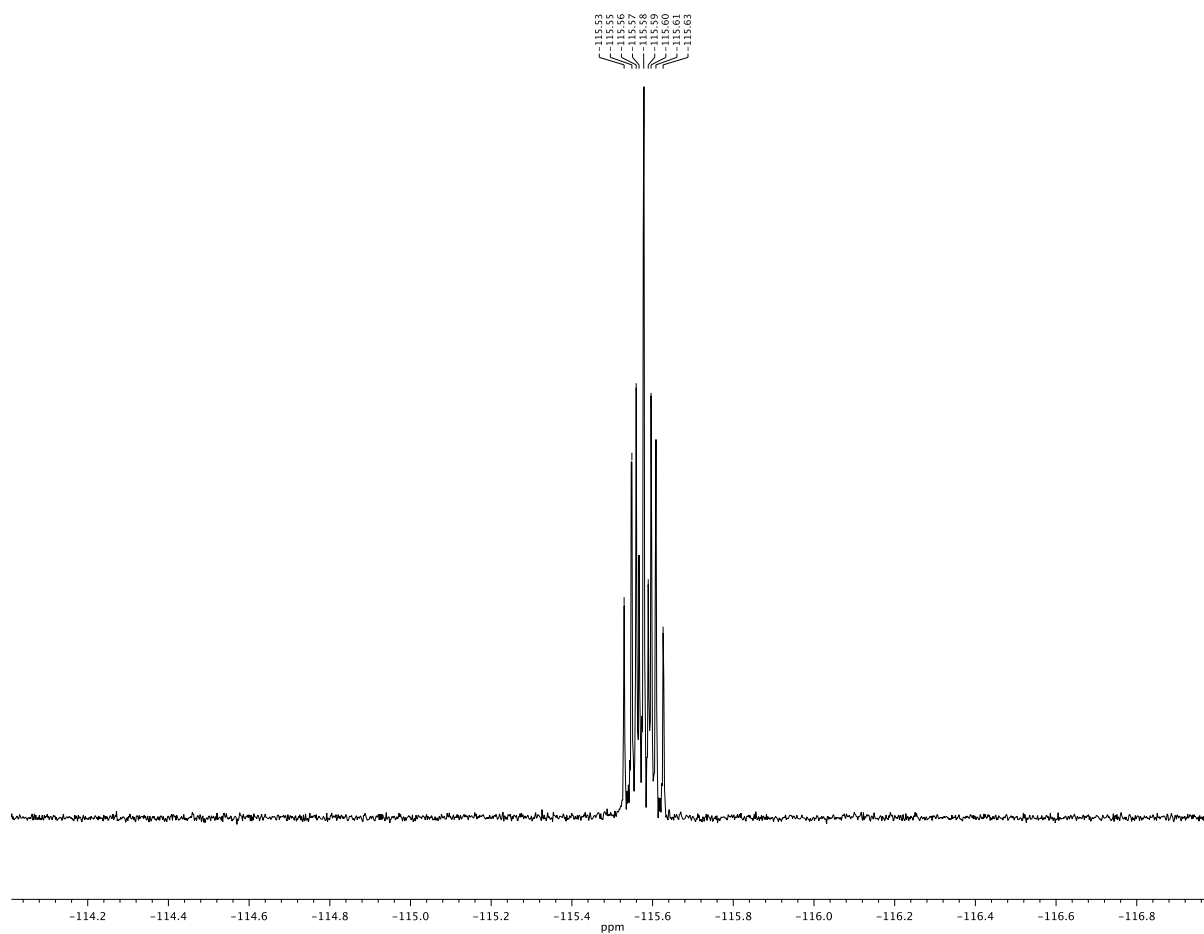
Infrared spectrum (Thin Film, NaCl) of compound **2q**.

— 2027.72 — 161.65 — 150.94 — 137.12 — 133.21 — 131.08 — 129.45 — 128.33 — 128.19 — 118.68 — 57.81 — 39.32 — 26.97 — 7.97

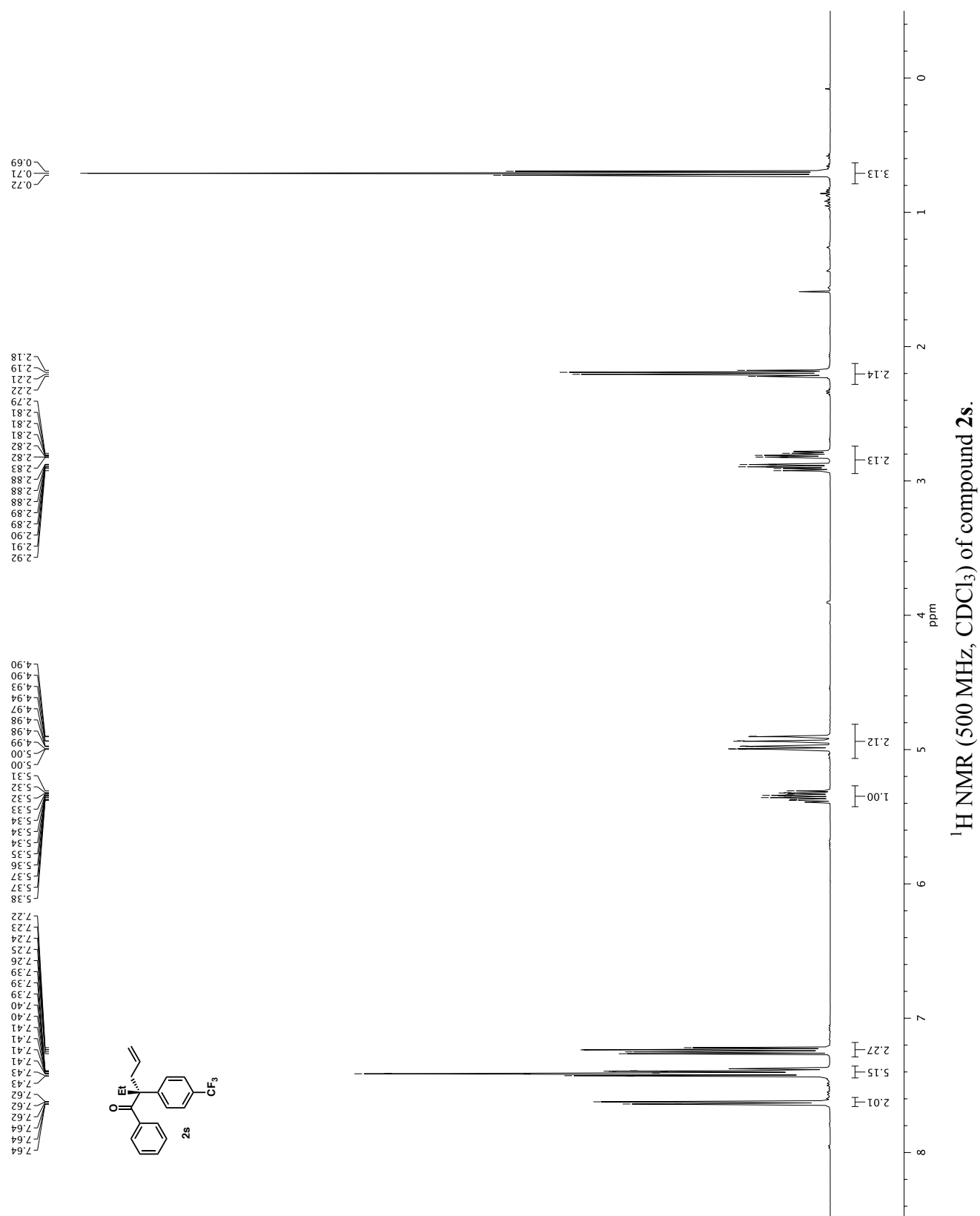


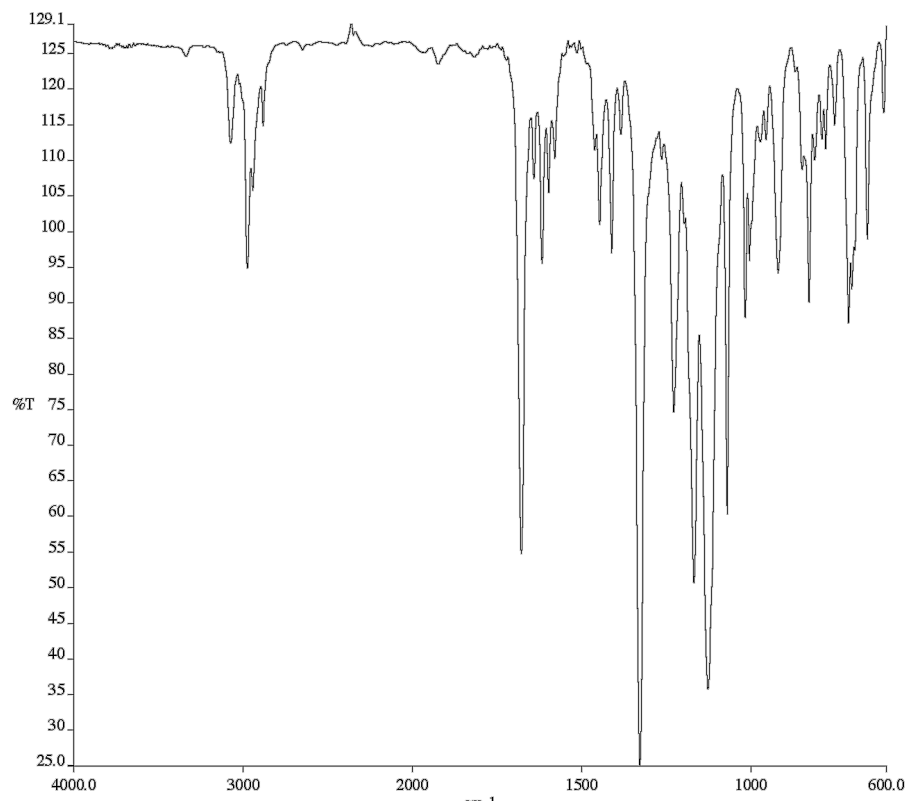
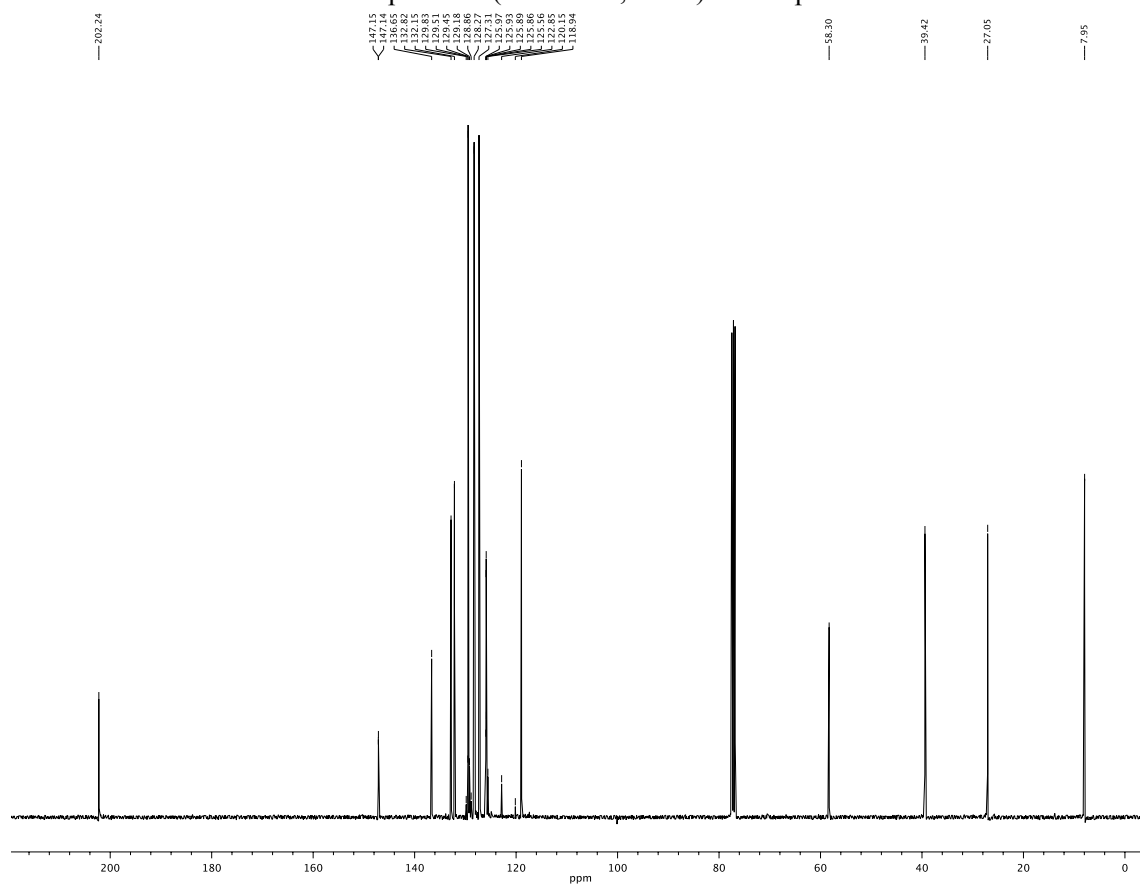


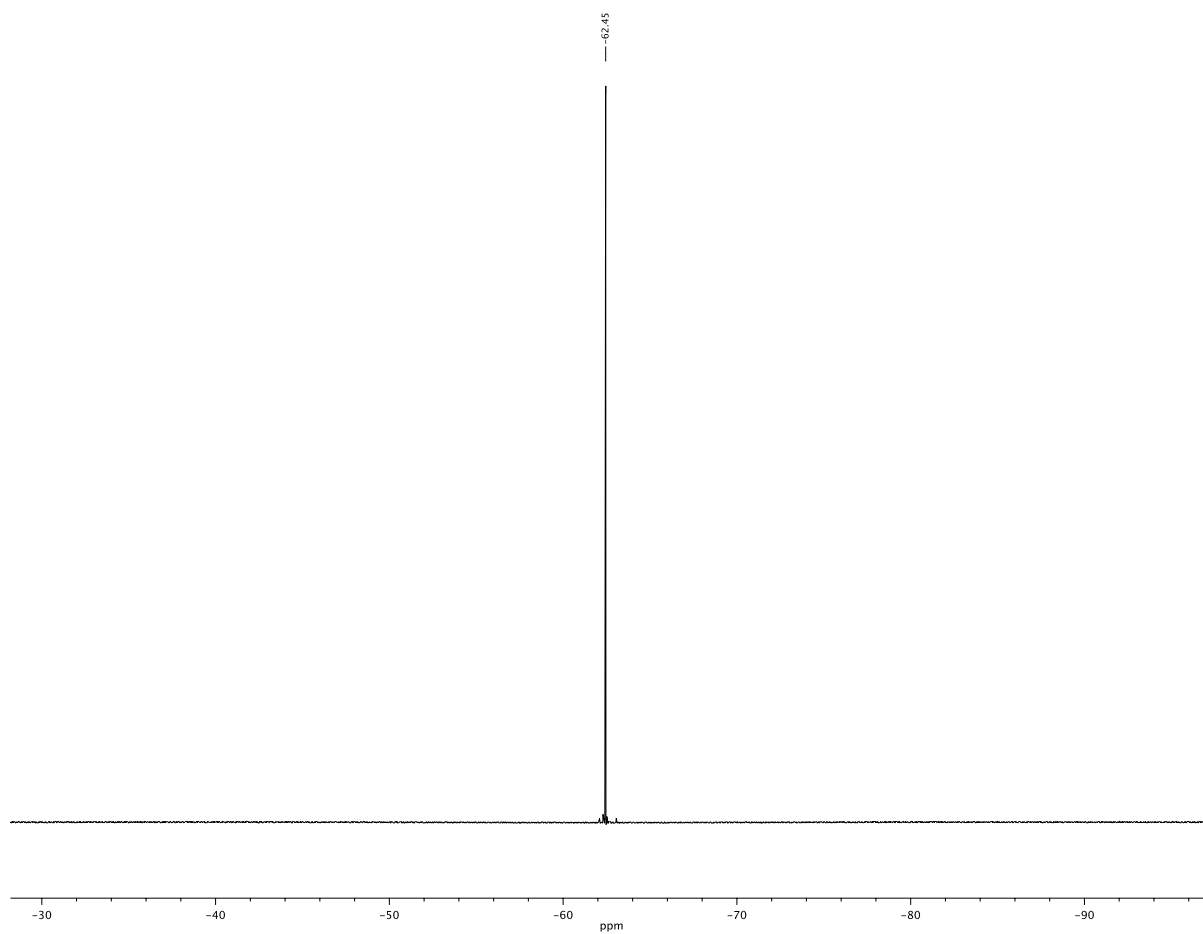




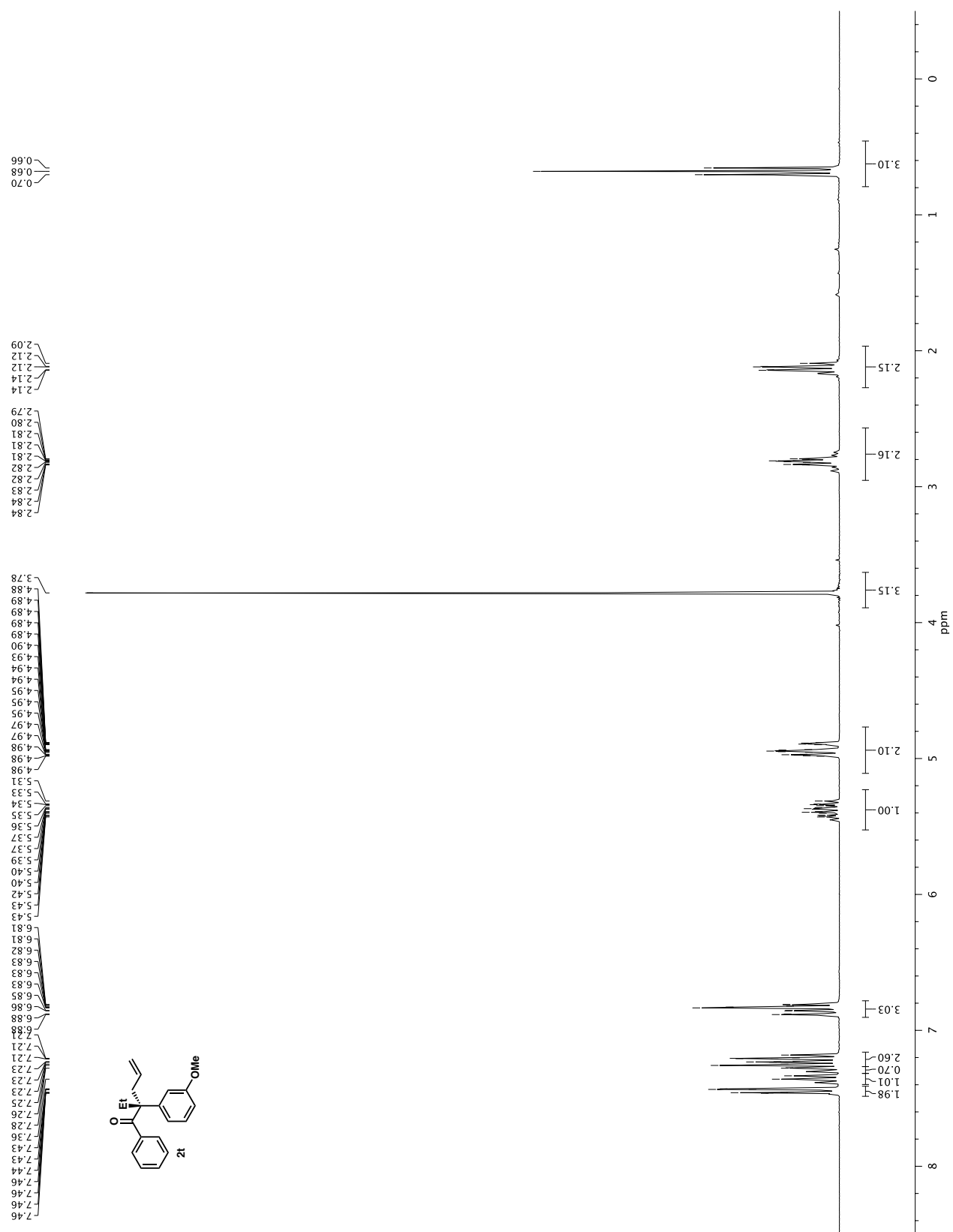
^{19}F NMR (282 MHz, CDCl_3) of compound **2r**.

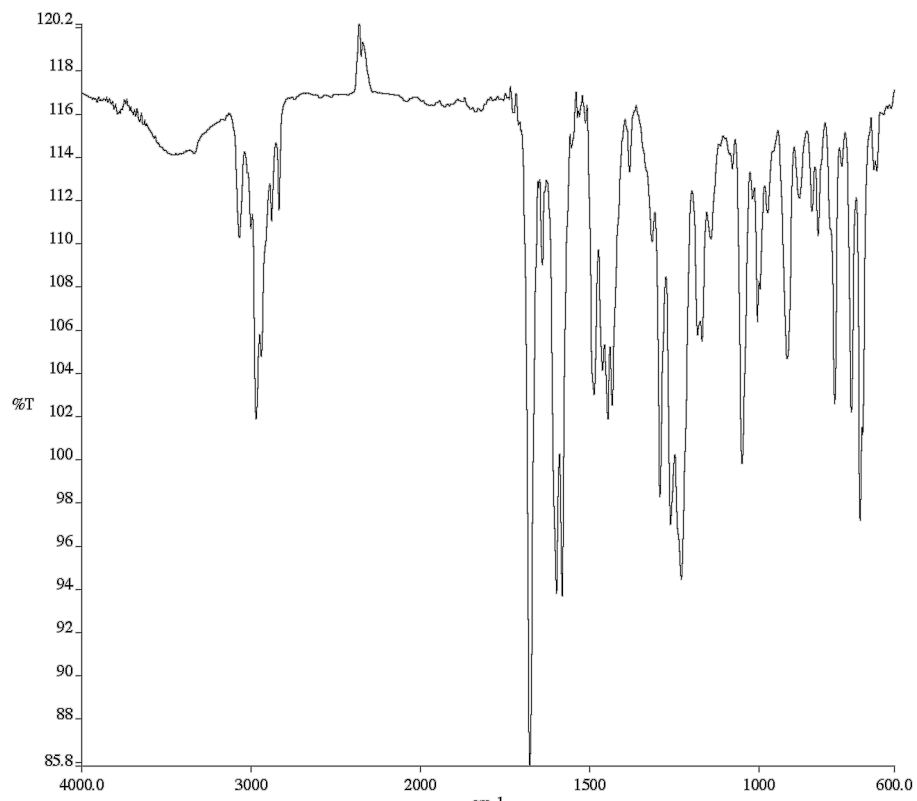
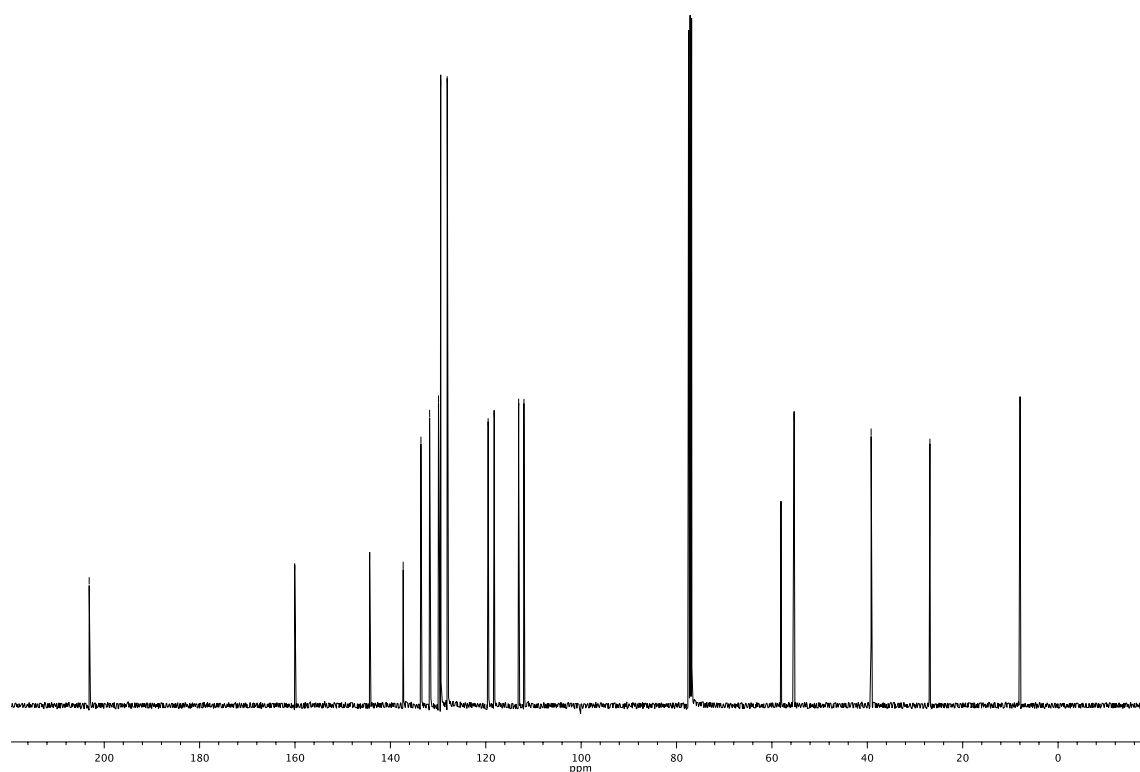


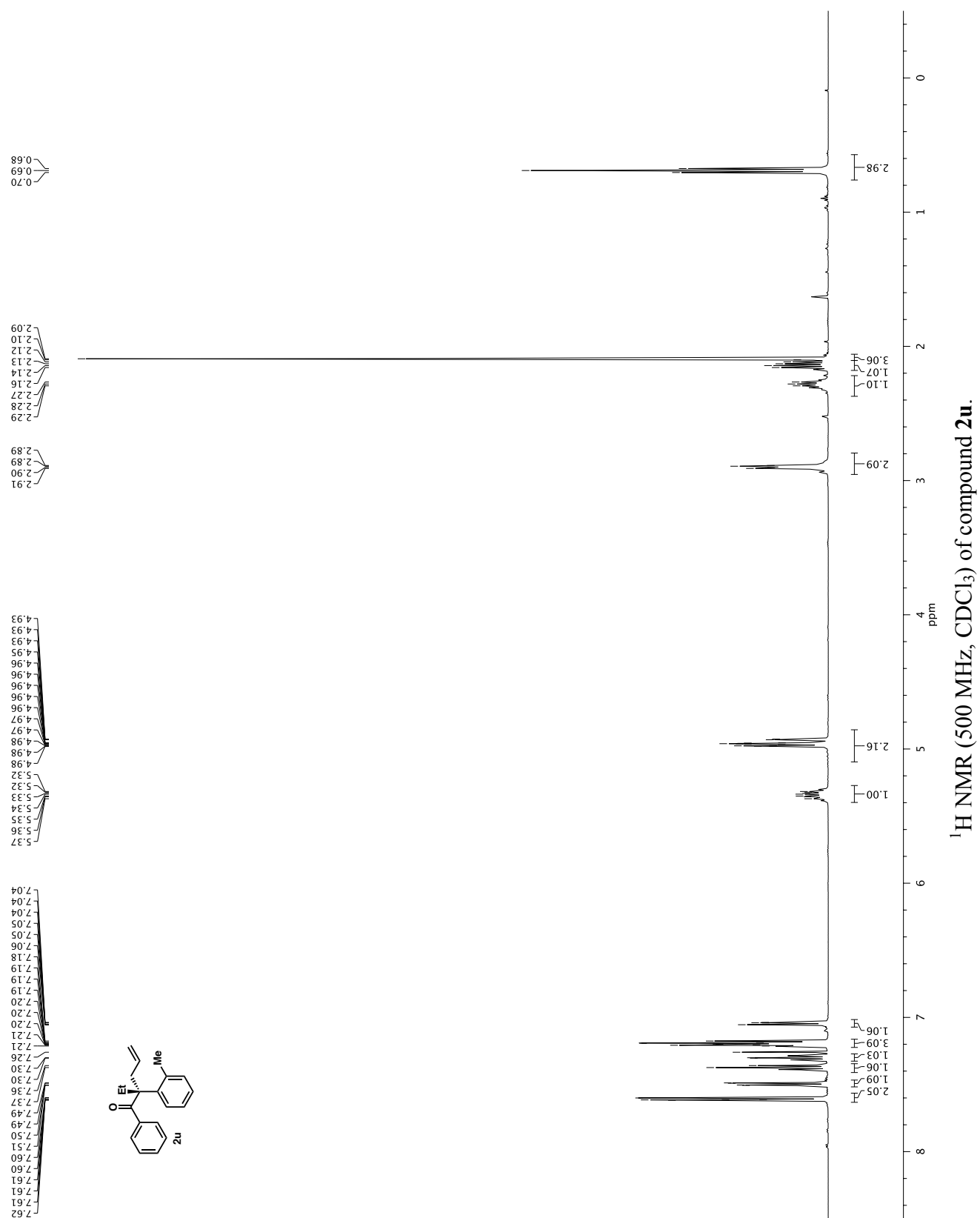
Infrared spectrum (Thin Film, NaCl) of compound **2s**. ^{13}C NMR (100 MHz, CDCl_3) of compound **2s**.

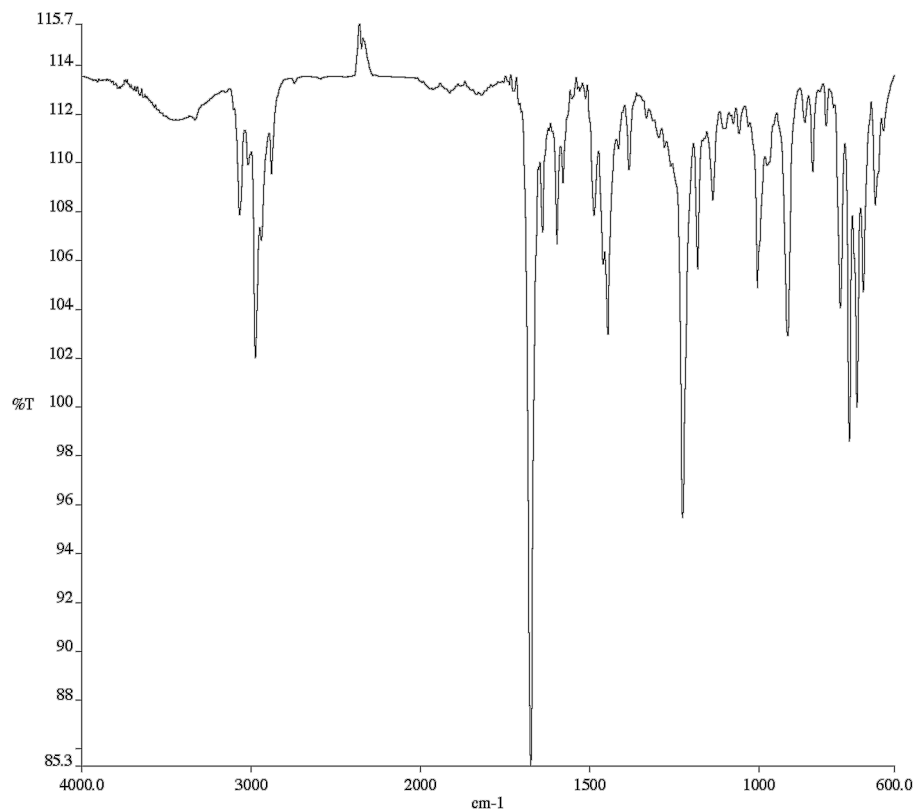


^{19}F NMR (282 MHz, CDCl_3) of compound **2s**.

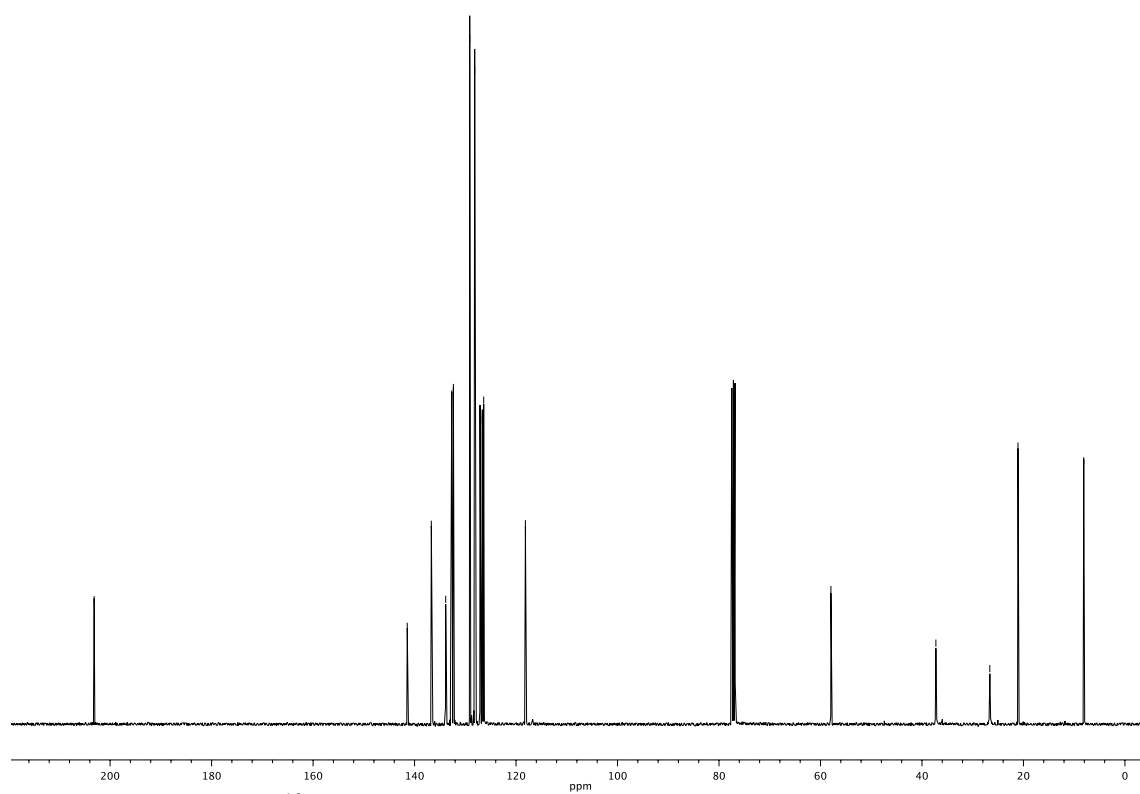


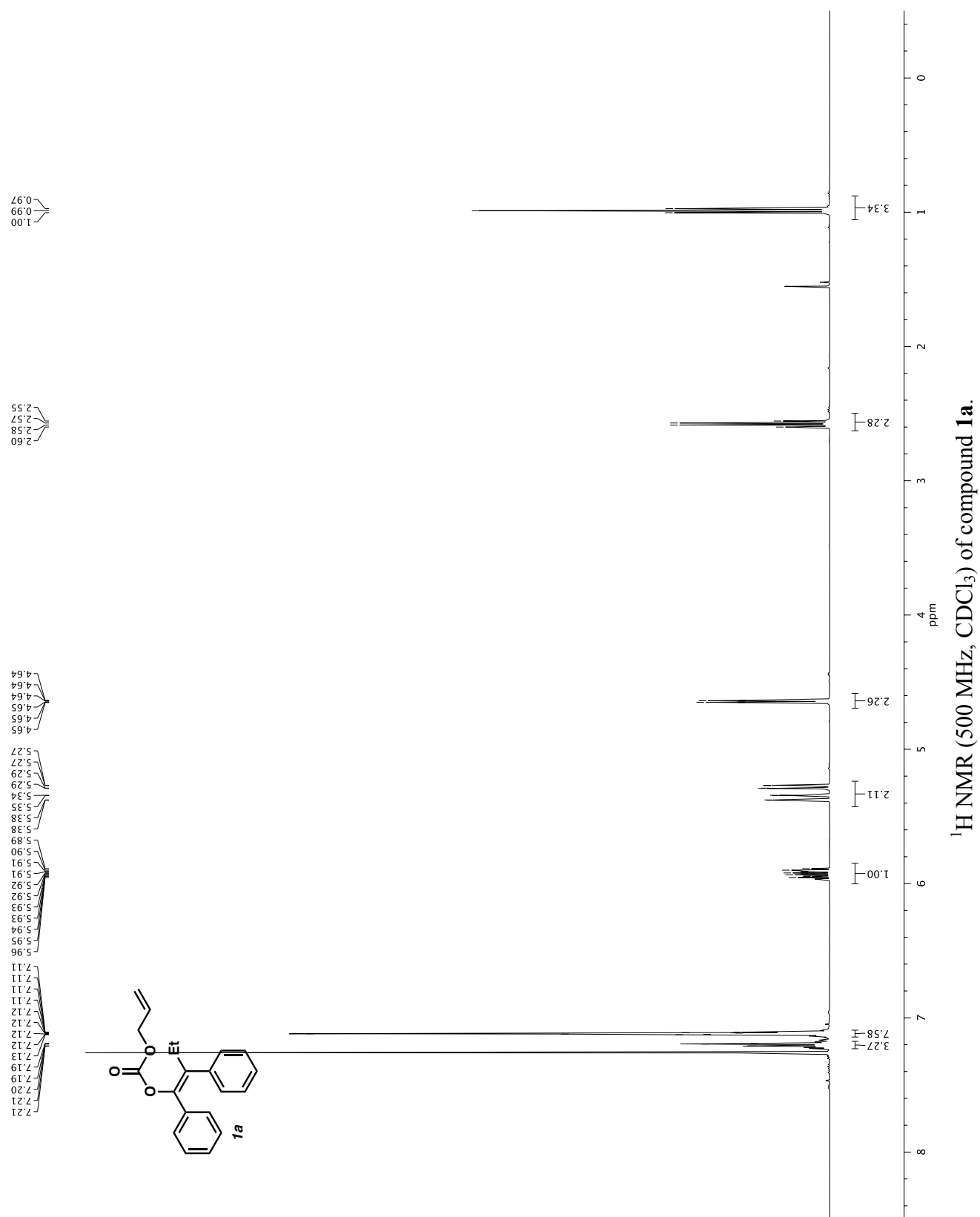
Infrared spectrum (Thin Film, NaCl) of compound **2t**.¹³C NMR (100 MHz, CDCl₃) of compound **2t**.

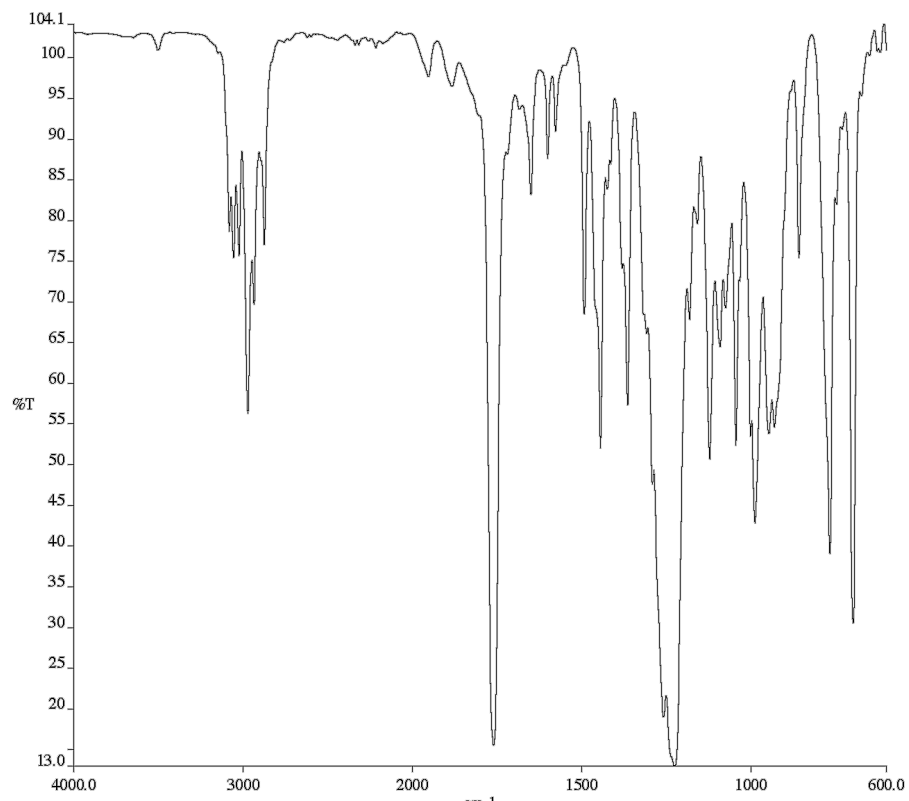
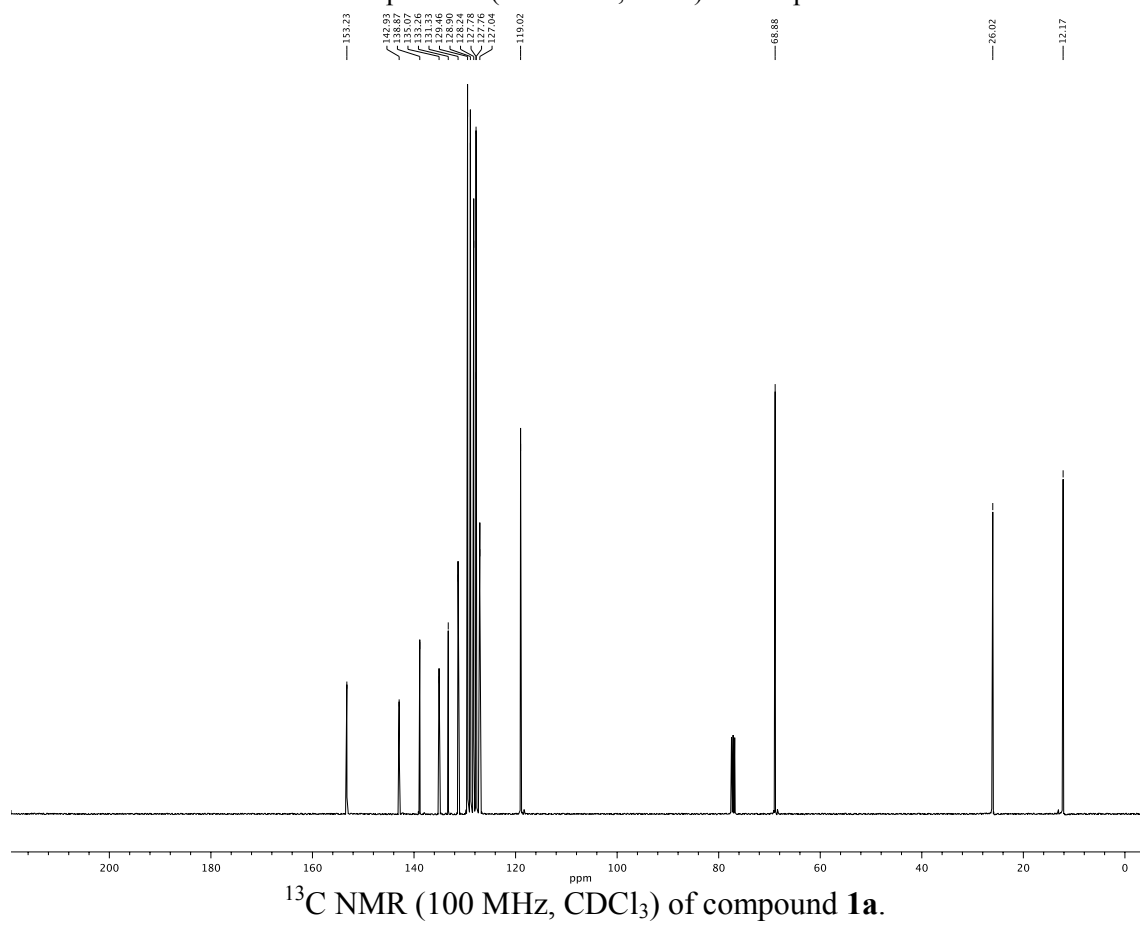


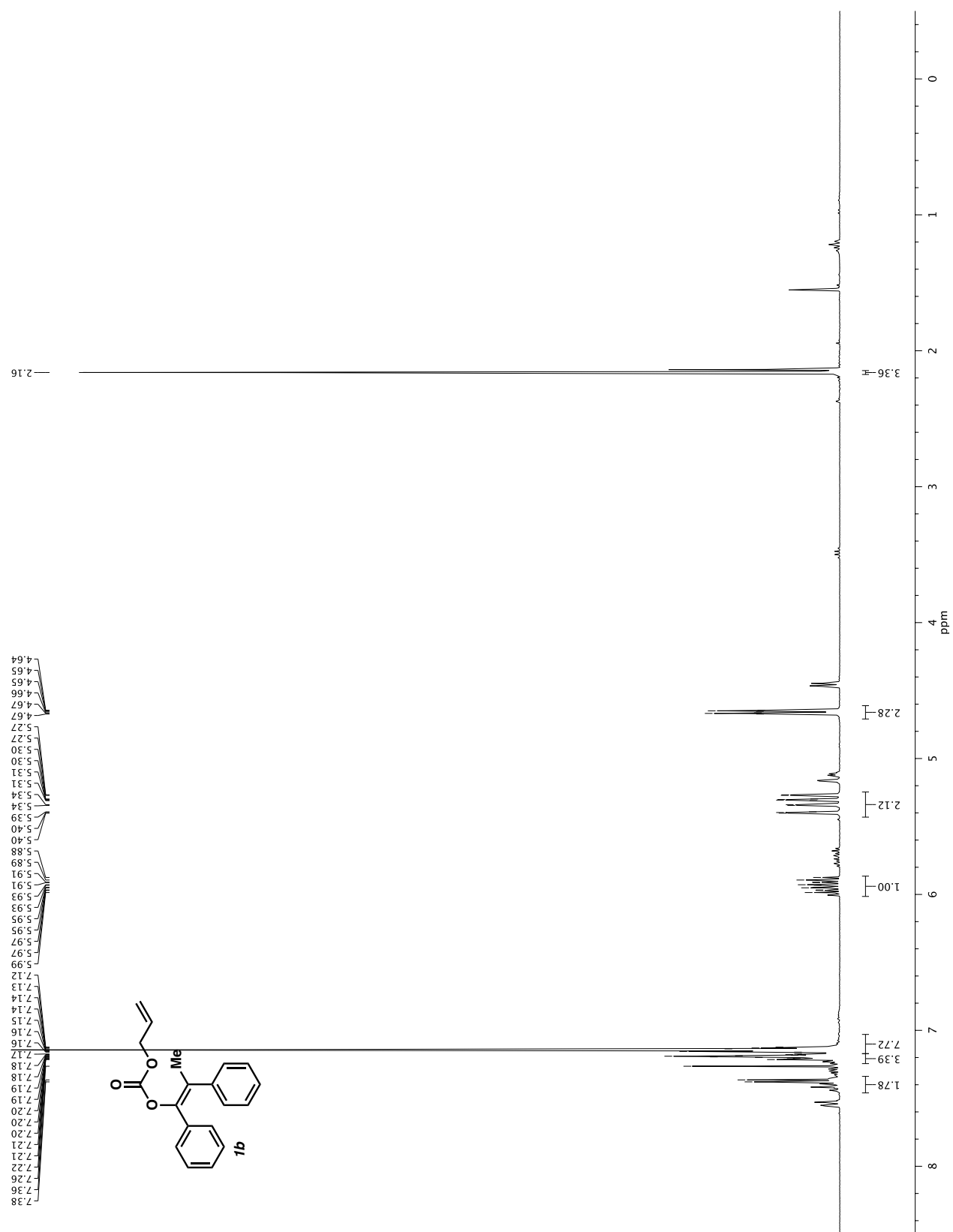
Infrared spectrum (Thin Film, NaCl) of compound **2u**.

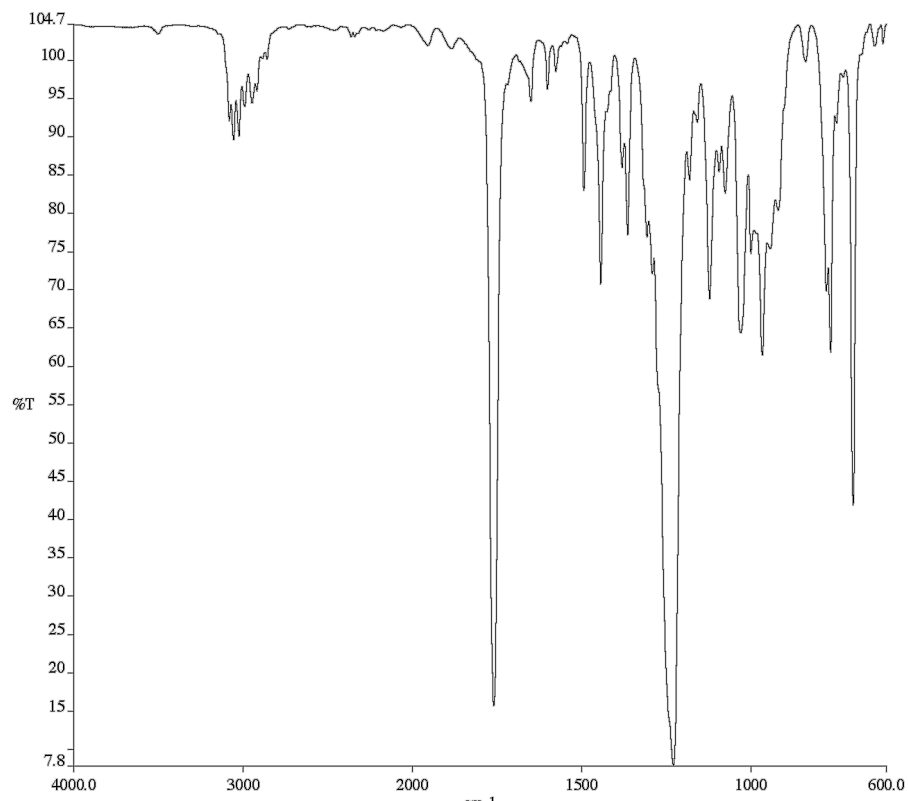
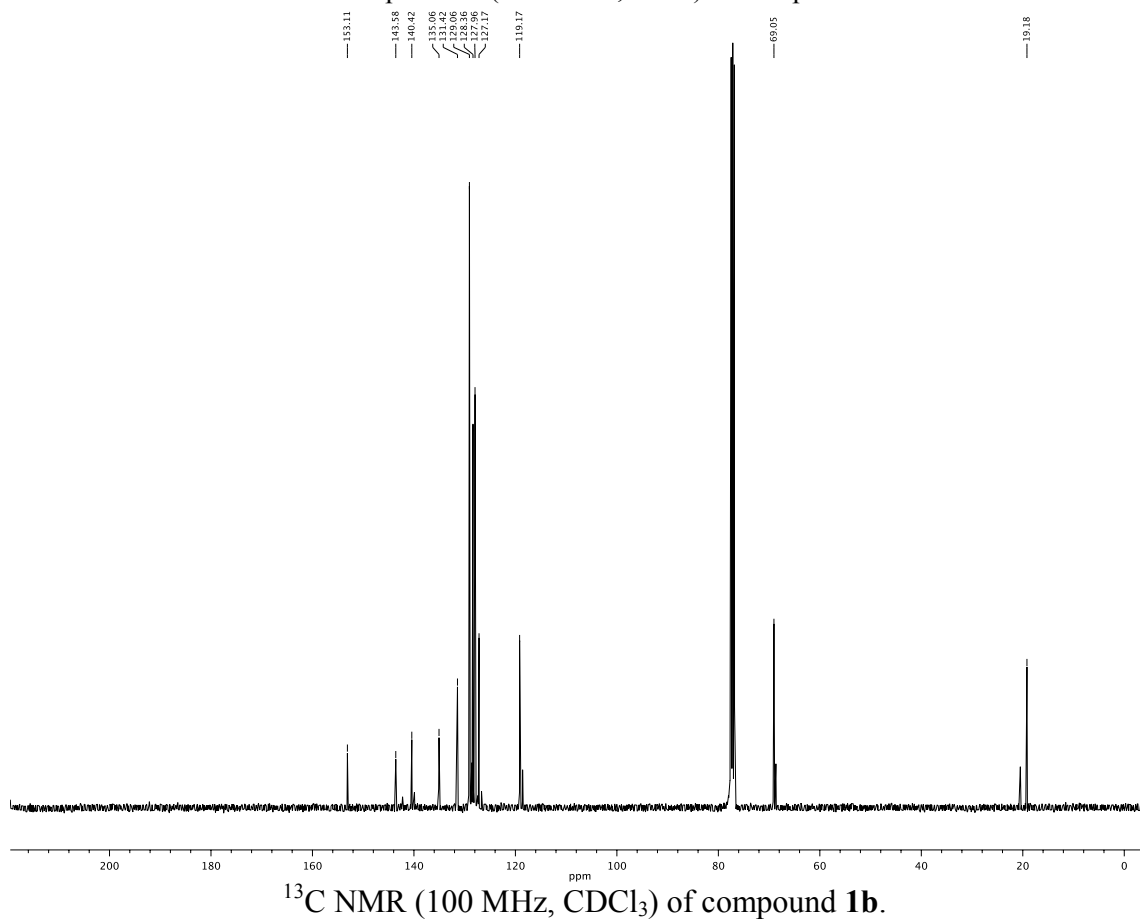
— 2031.14 — 151.64 — 136.70 — 132.86 — 132.34 — 128.12 — 127.10 — 126.65 — 126.37 — 118.15 — 57.04 — 37.25 — 26.62 — 21.08 — 8.12

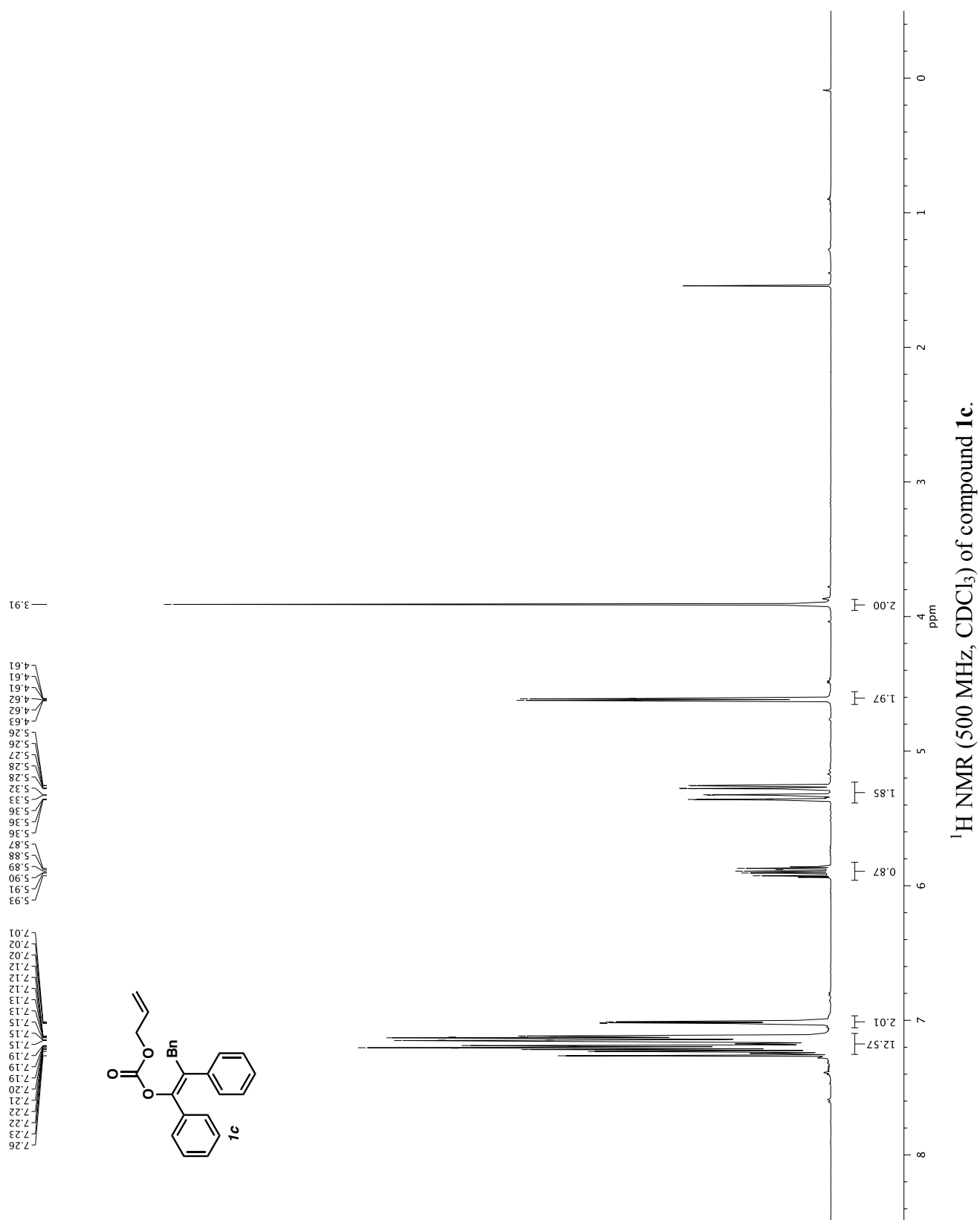
¹³C NMR (100 MHz, CDCl₃) of compound **2u**.

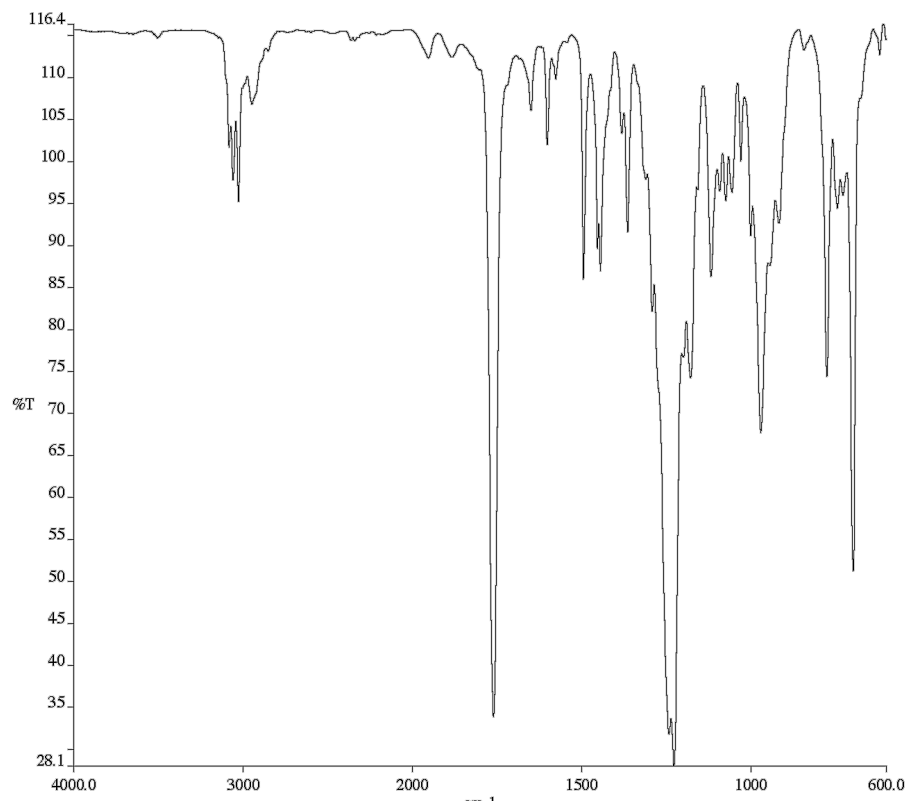
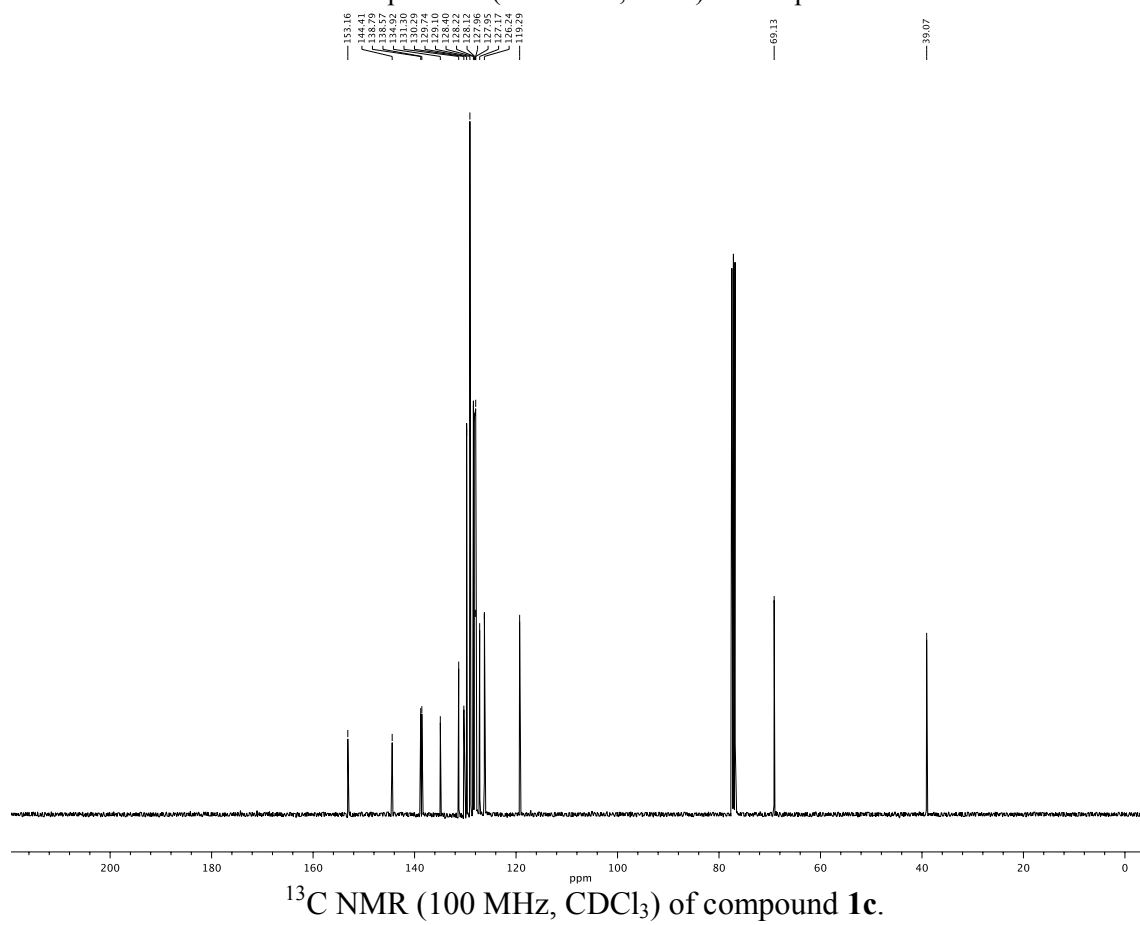


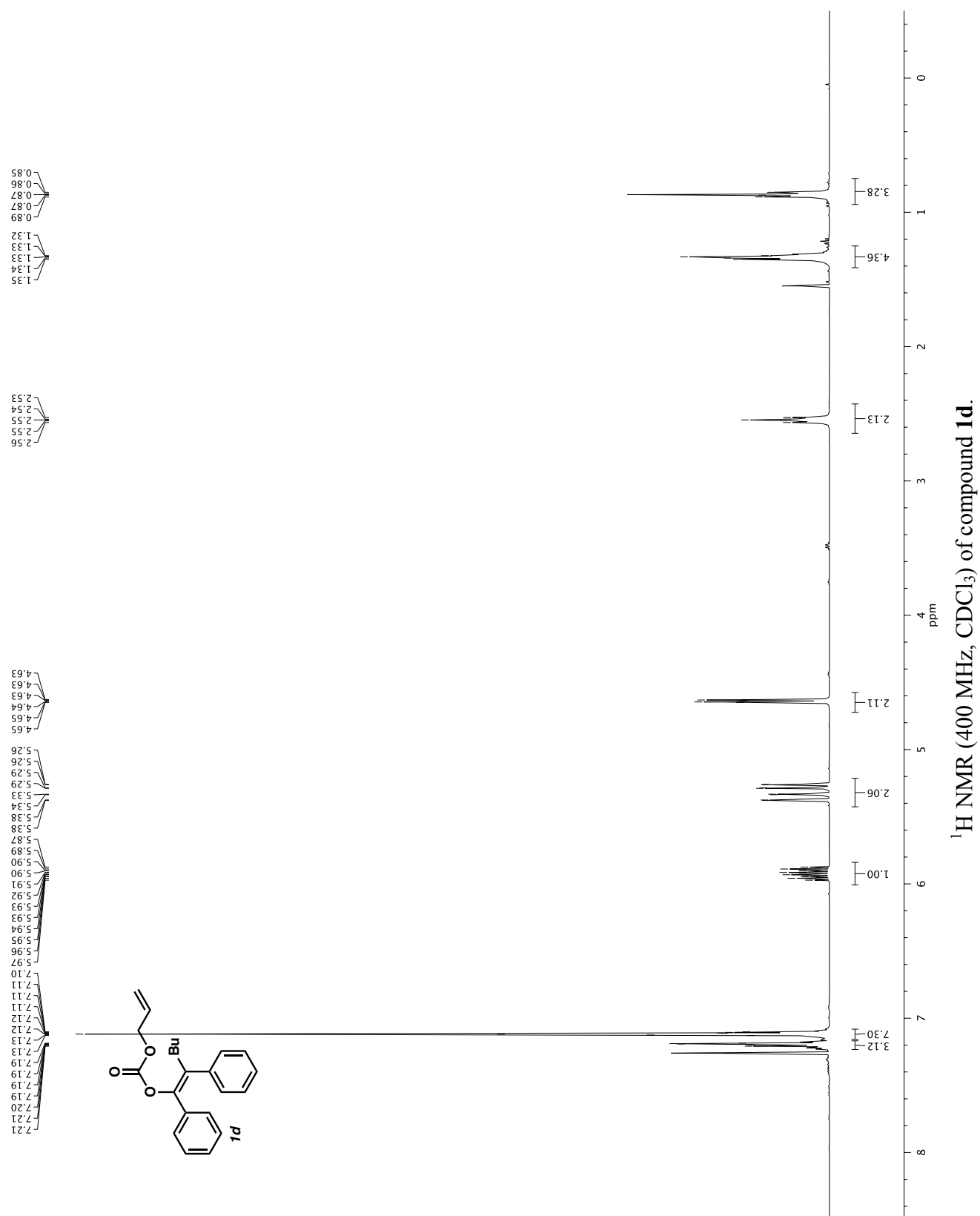
Infrared spectrum (Thin Film, NaCl) of compound **1a**.

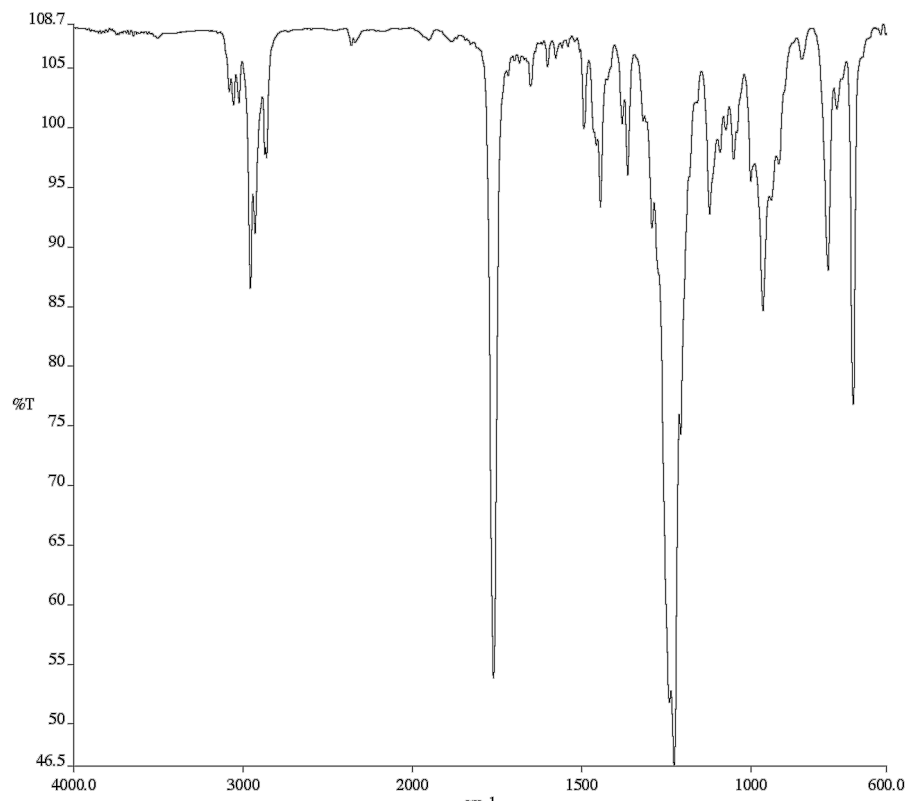


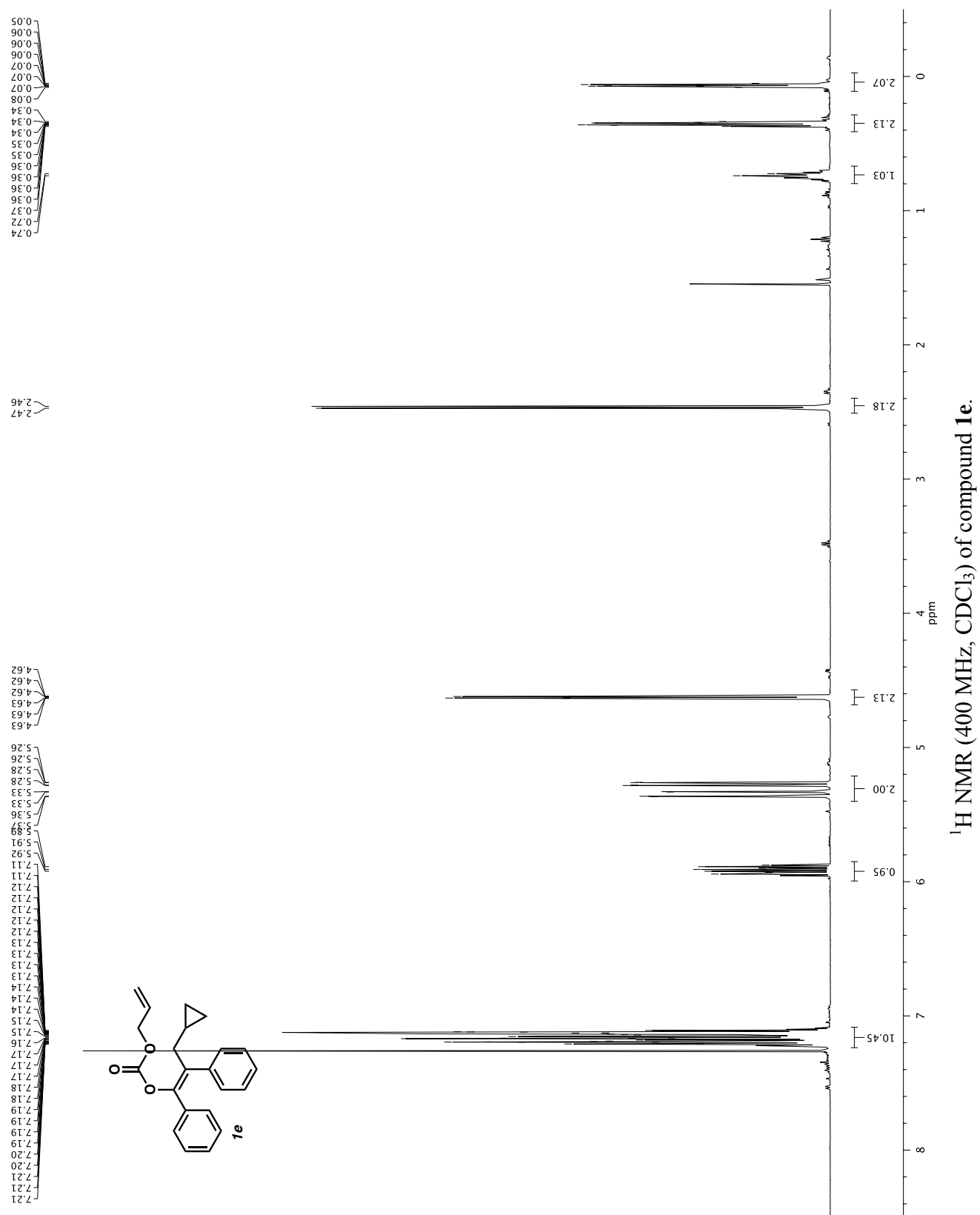
Infrared spectrum (Thin Film, NaCl) of compound **1b**.

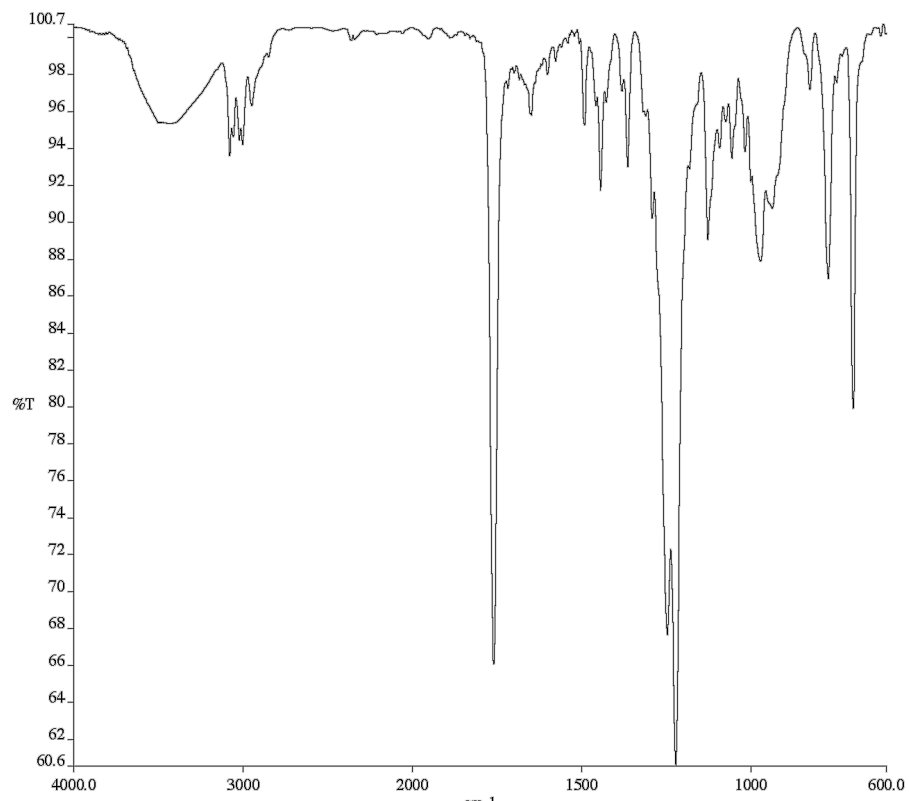


Infrared spectrum (Thin Film, NaCl) of compound **1c**.

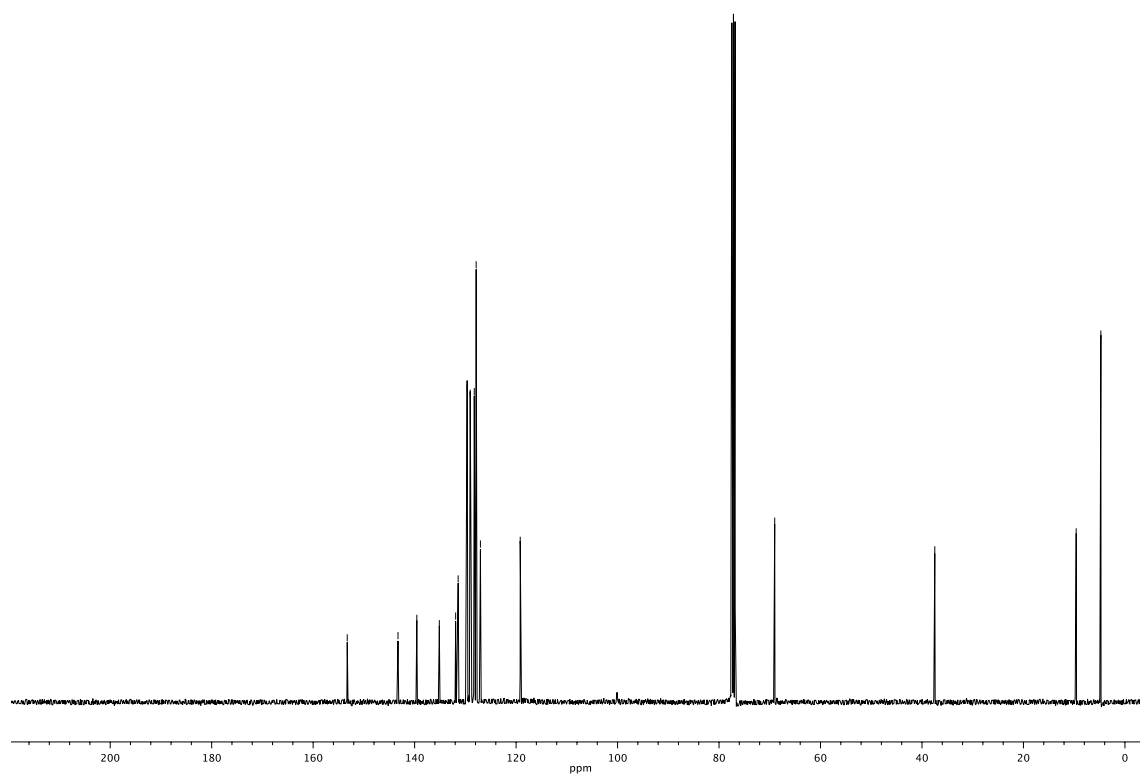


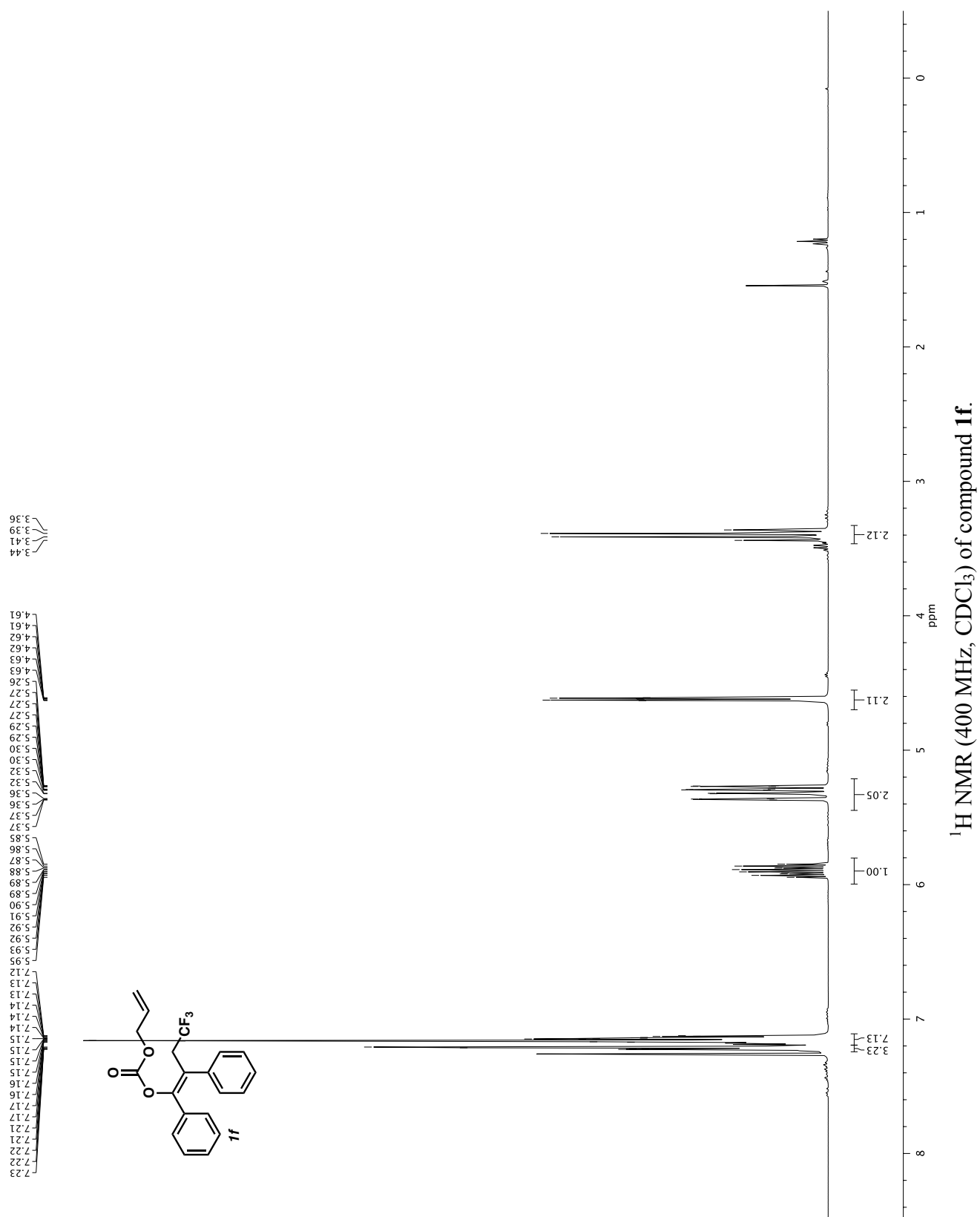
Infrared spectrum (Thin Film, NaCl) of compound **1d**.¹³C NMR (100 MHz, CDCl₃) of compound **1d**.

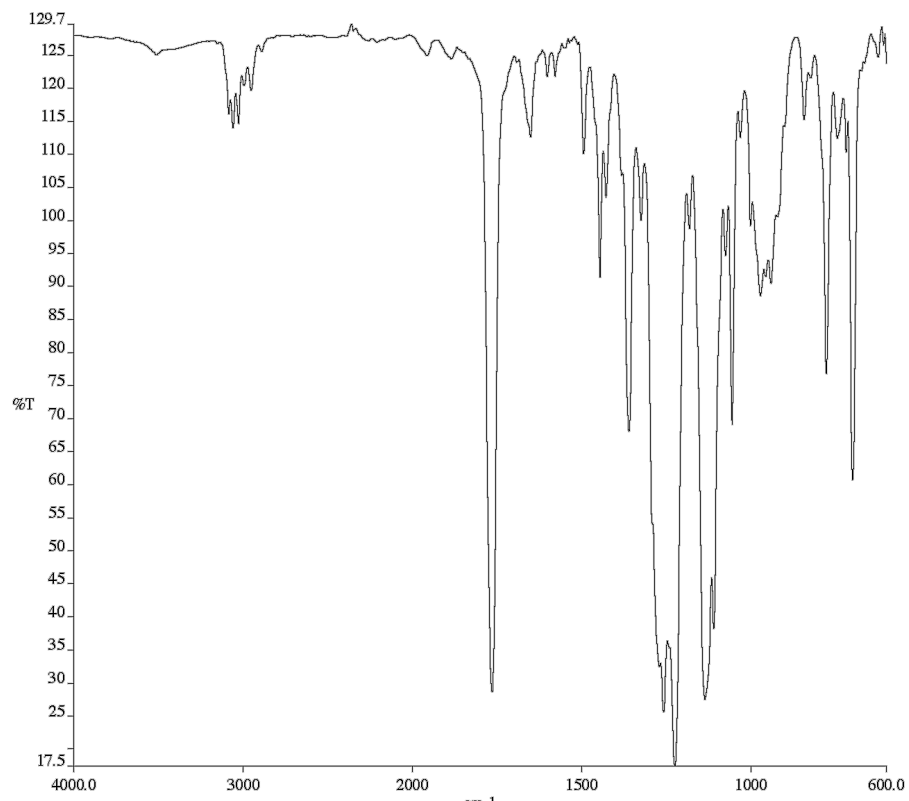


Infrared spectrum (Thin Film, NaCl) of compound **1e**.

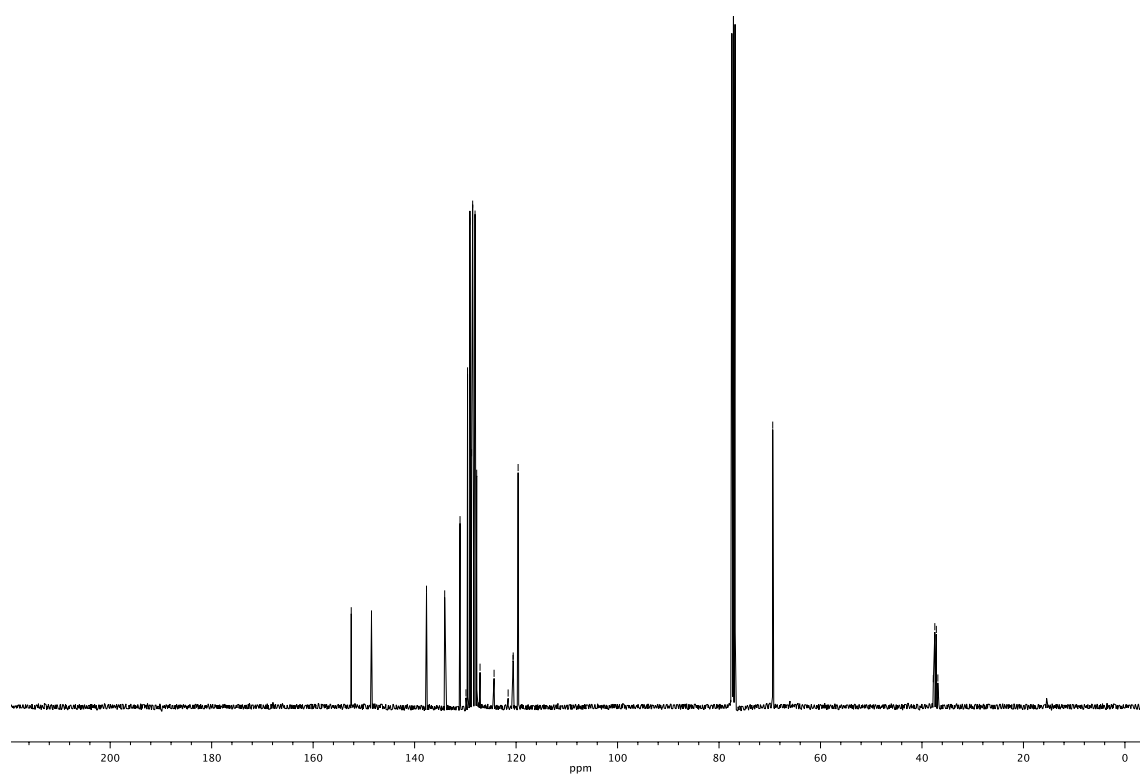
1532.8
1432.8
1395.6
1353.1
1331.4
1311.4
1290.4
1288.2
1277.0
1101.8
69.03
37.48
9.61
4.74

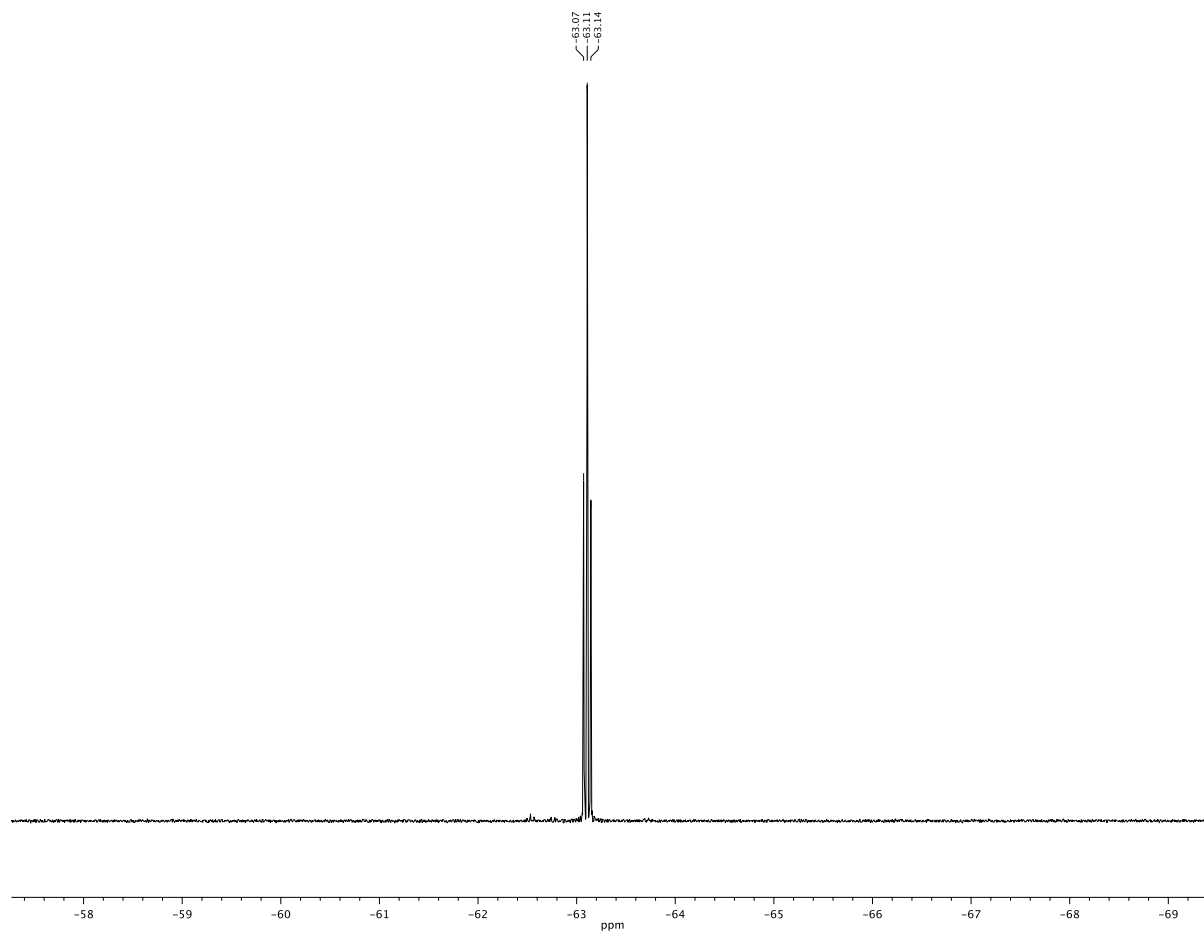
¹³C NMR (100 MHz, CDCl₃) of compound **1e**.



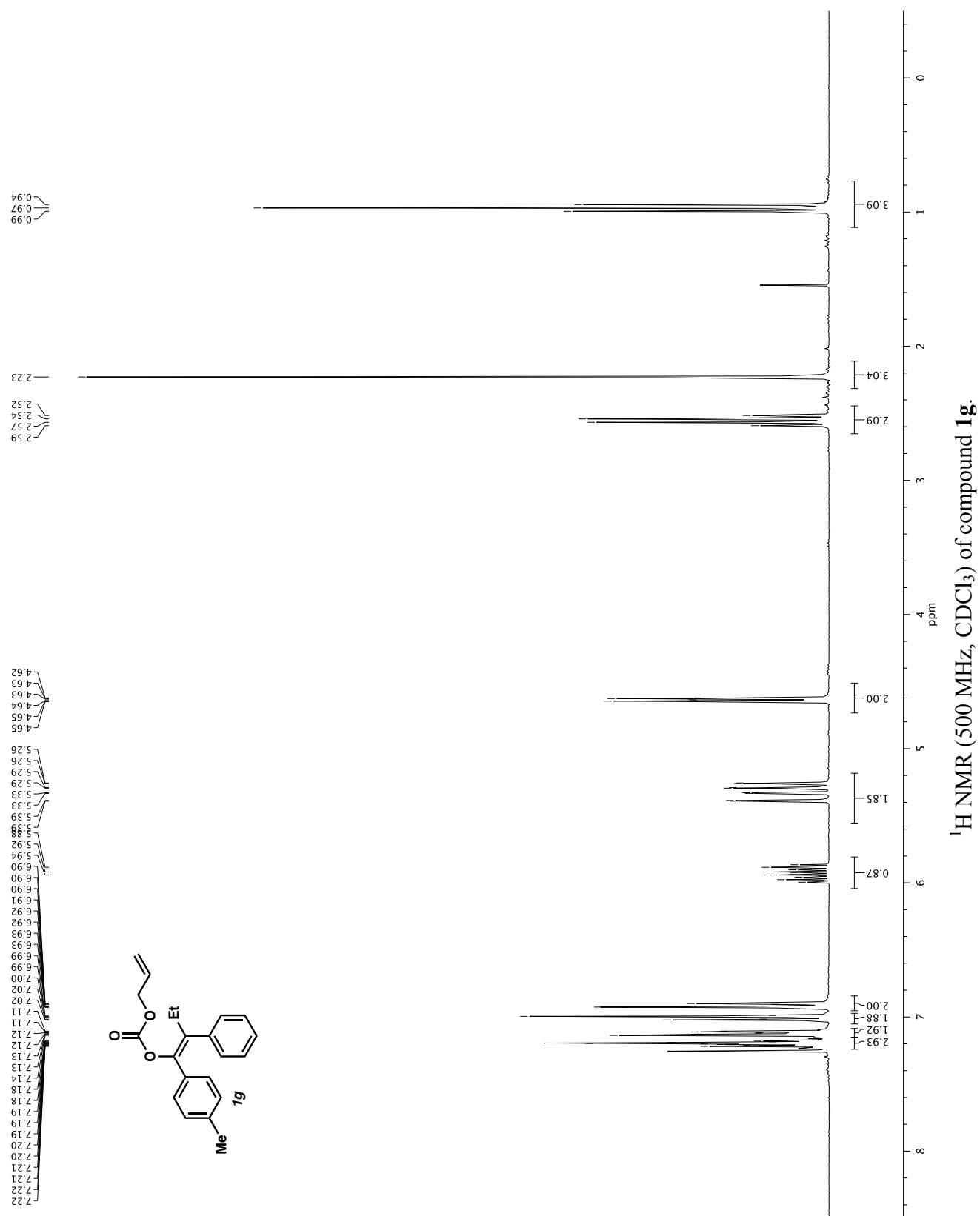
Infrared spectrum (Thin Film, NaCl) of compound **1f**.

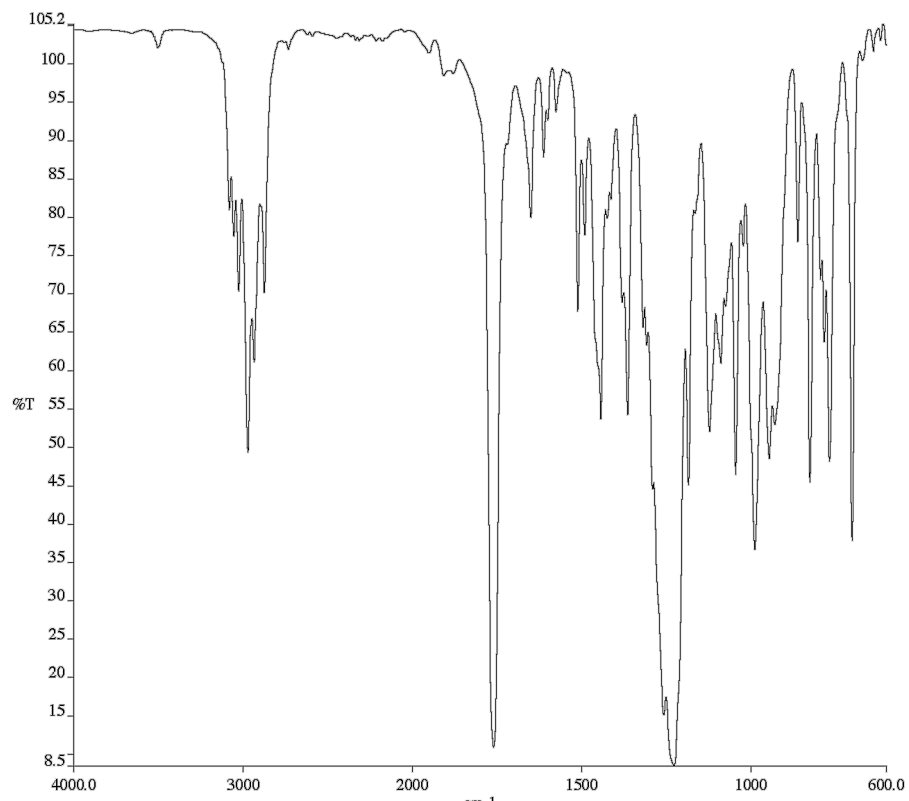
1522.49 1485.50 1377.65 1311.05 1292.87 1289.10 1288.57 1288.09 1277.10 1244.34 1205.59 1200.57 1190.60 69.42 17.77 17.47 17.17 16.87

¹³C NMR (100 MHz, CDCl₃) of compound **1f**.

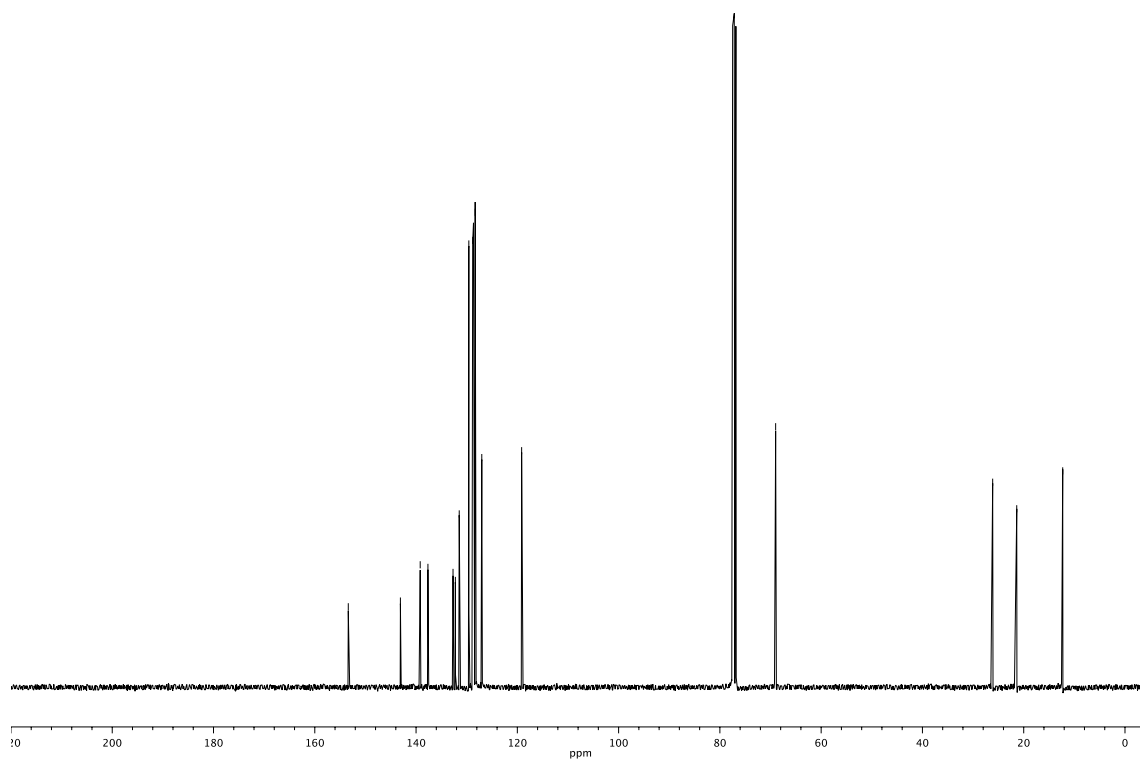


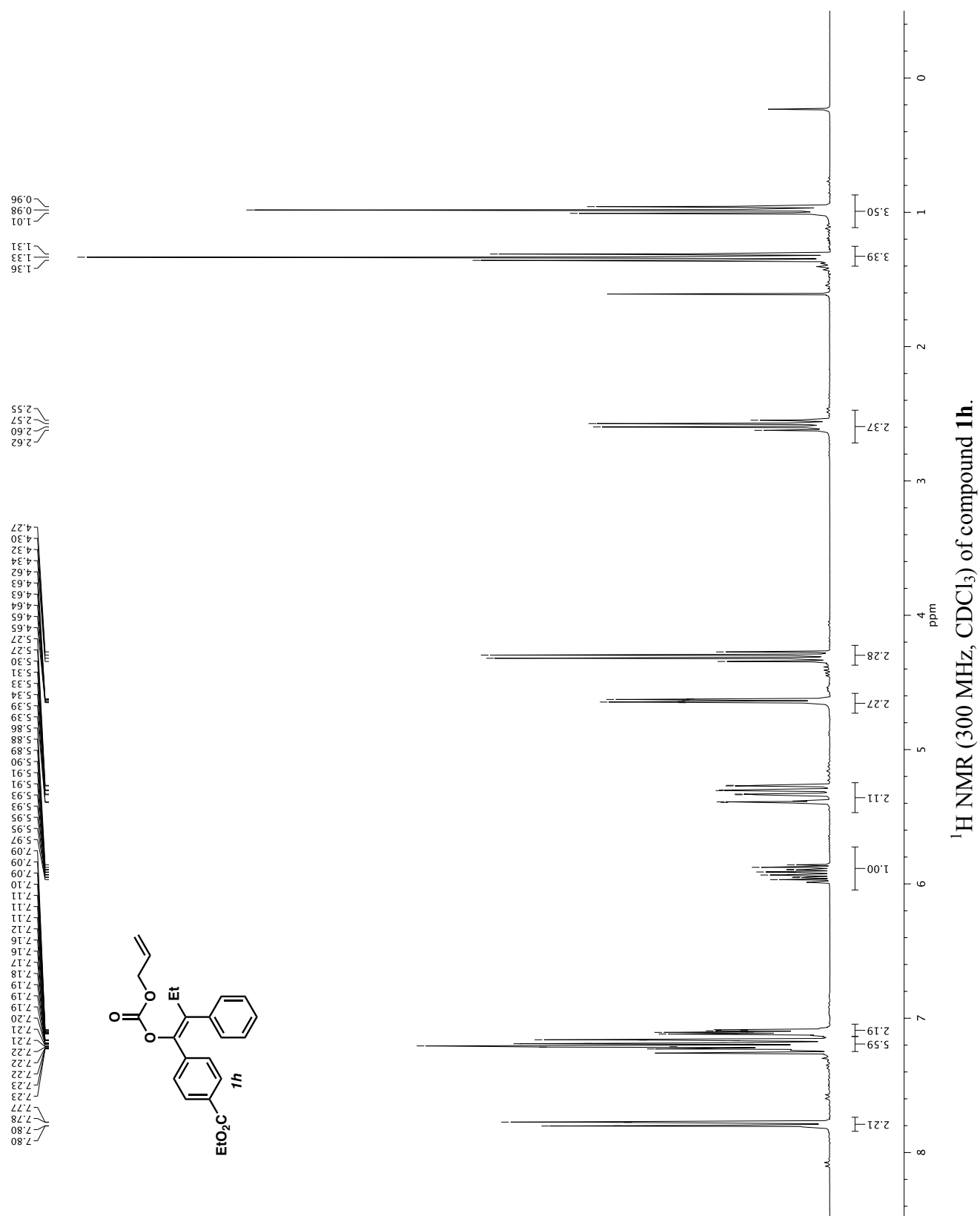
^{19}F NMR (282 MHz, CDCl_3) of compound **1f**.

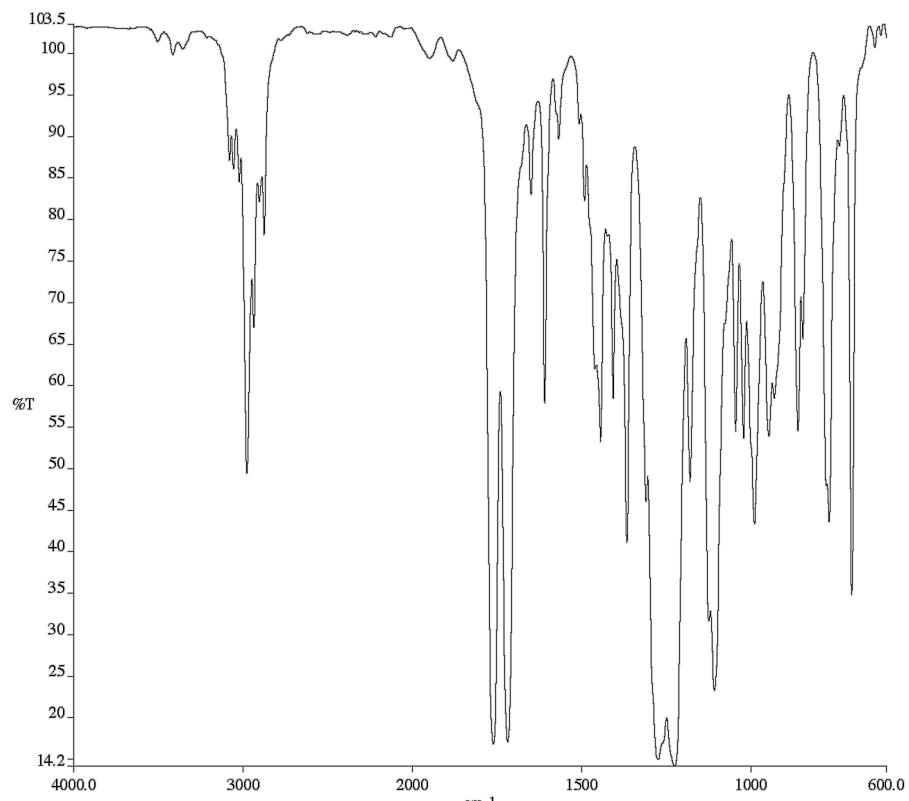


Infrared spectrum (Thin Film, NaCl) of compound **1g**.

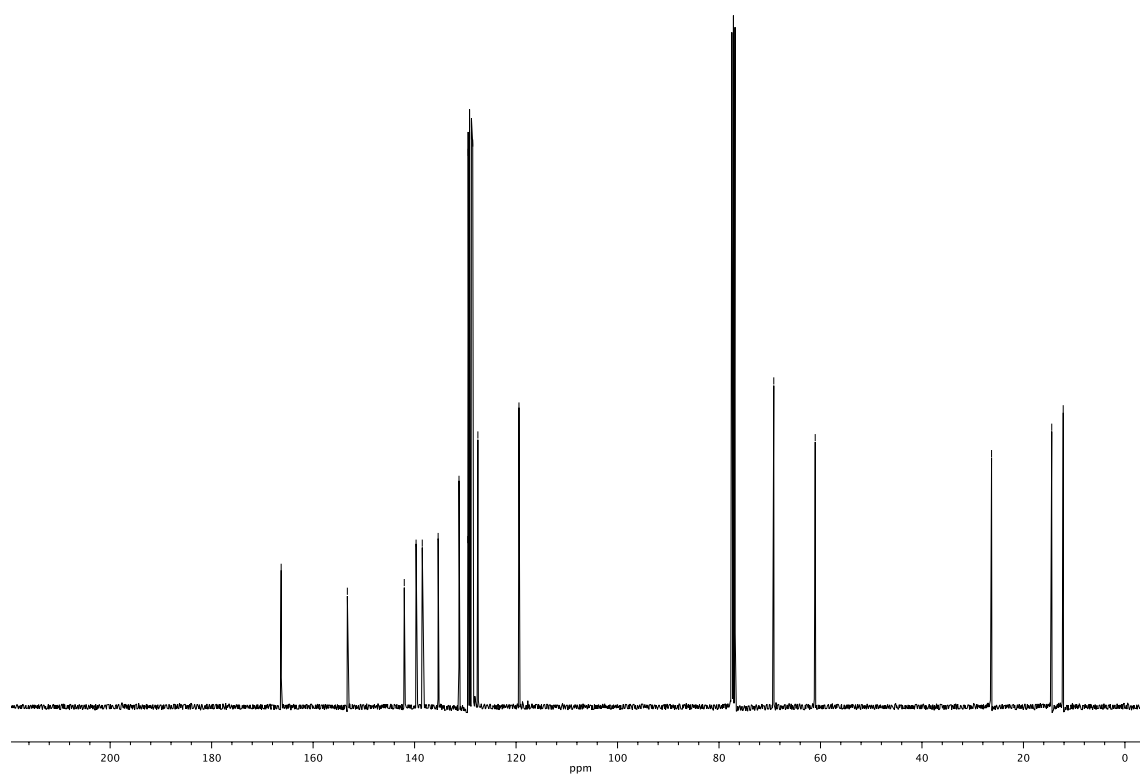
1512.38
1413.09
1395.18
1372.66
1352.24
1327.56
1297.56
1288.82
1286.85
1277.02
1119.15
68.99
26.13
21.38
12.30

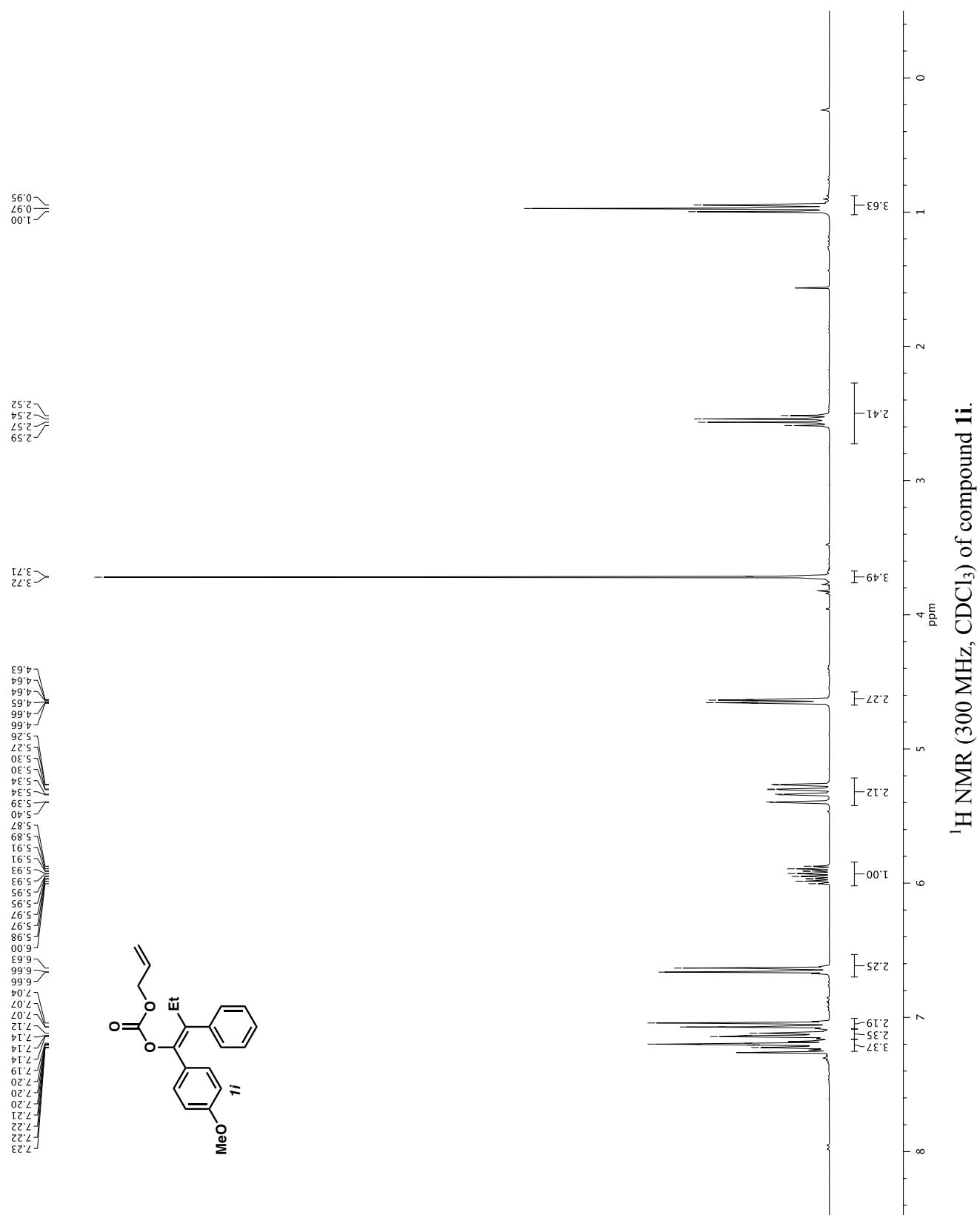
 ^{13}C NMR (100 MHz, CDCl_3) of compound **1g**.

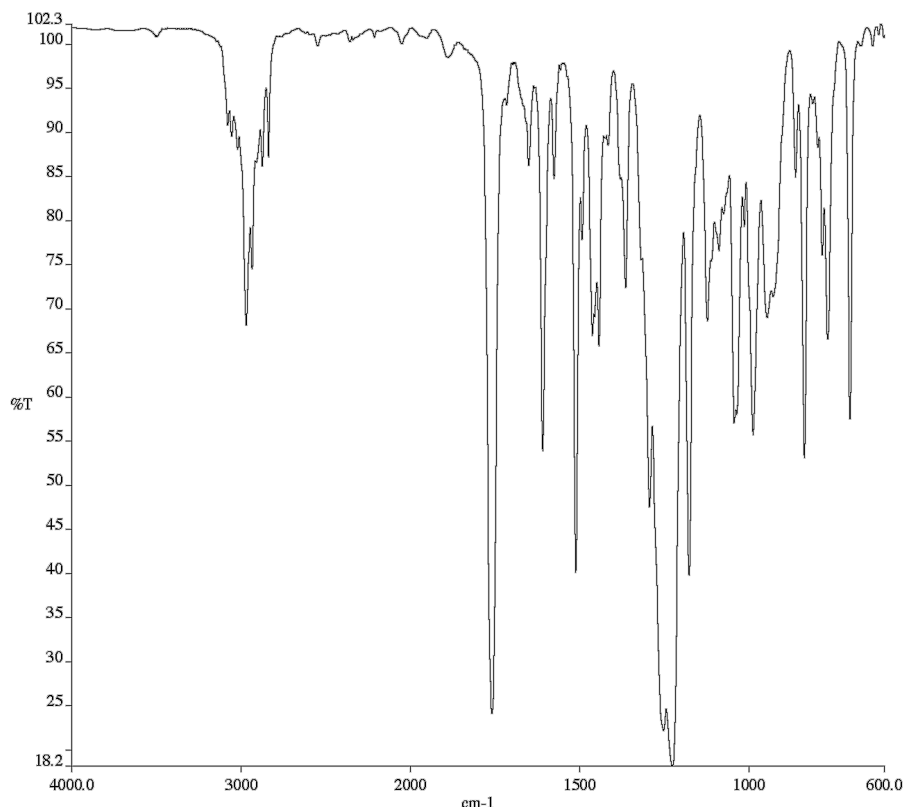


Infrared spectrum (Thin Film, NaCl) of compound **1h**.

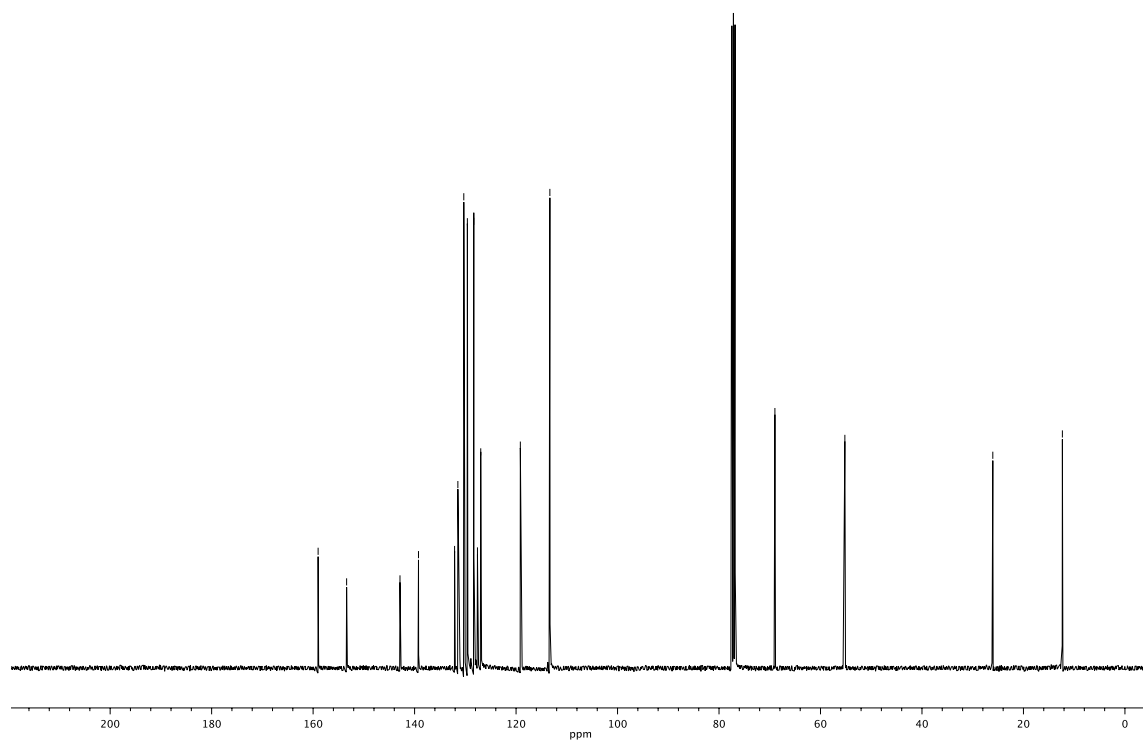
166.29 153.25 147.02 139.70 138.49 137.28 131.25 129.51 129.16 128.79 127.52 119.43 69.21 61.04 26.29 14.43 12.16

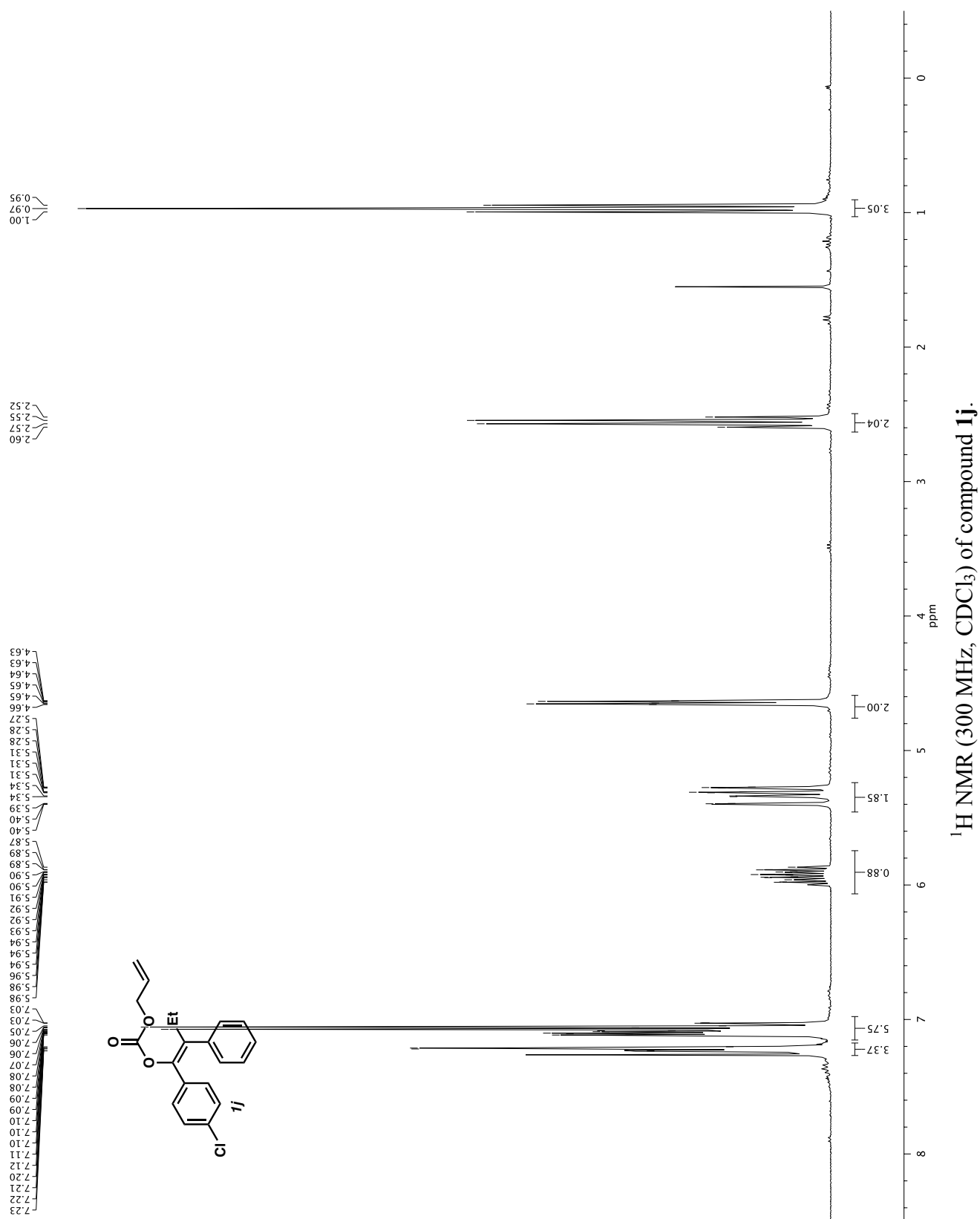
 ^{13}C NMR (100 MHz, CDCl_3) of compound **1h**.

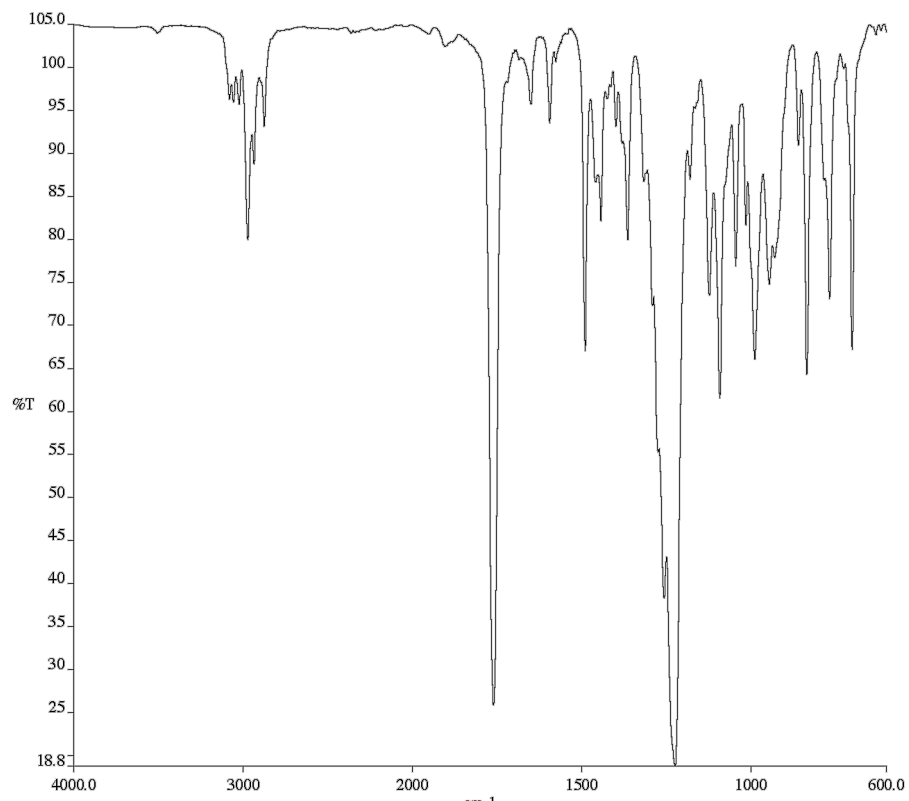
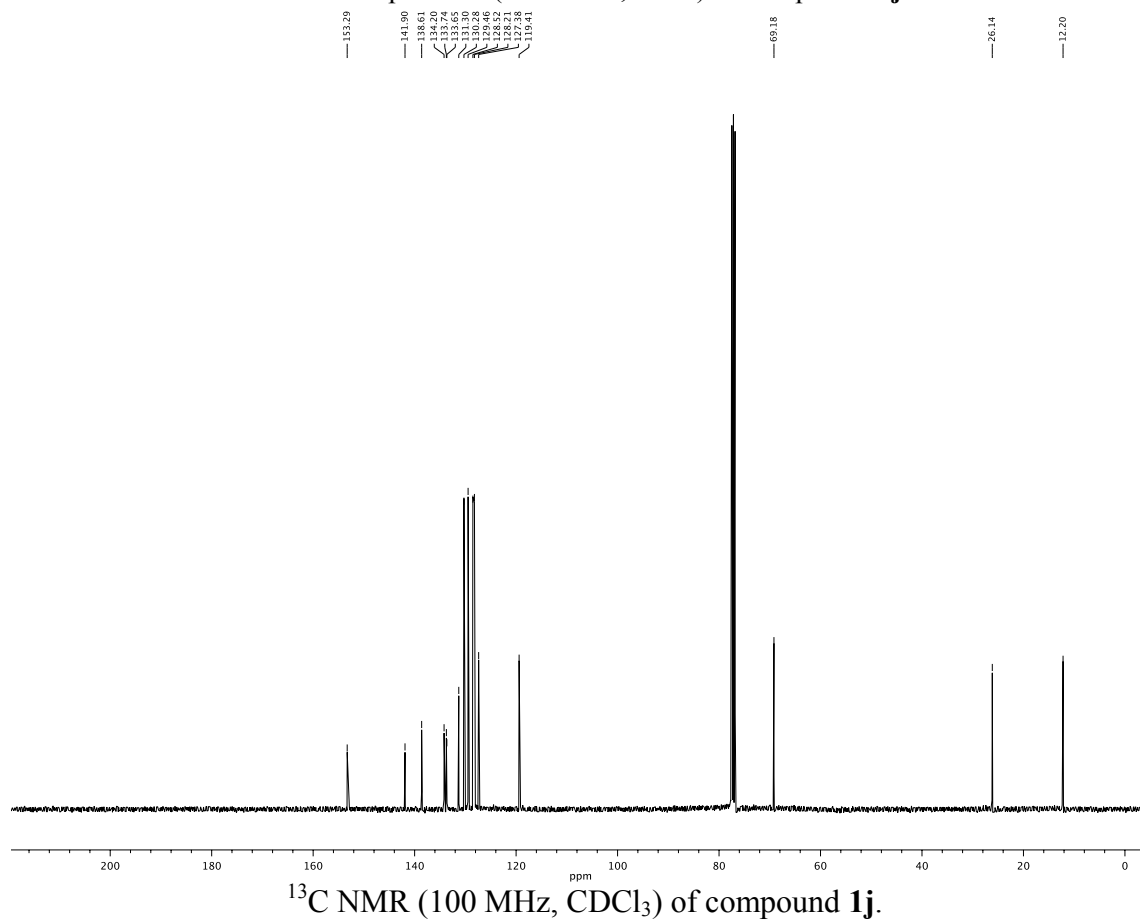


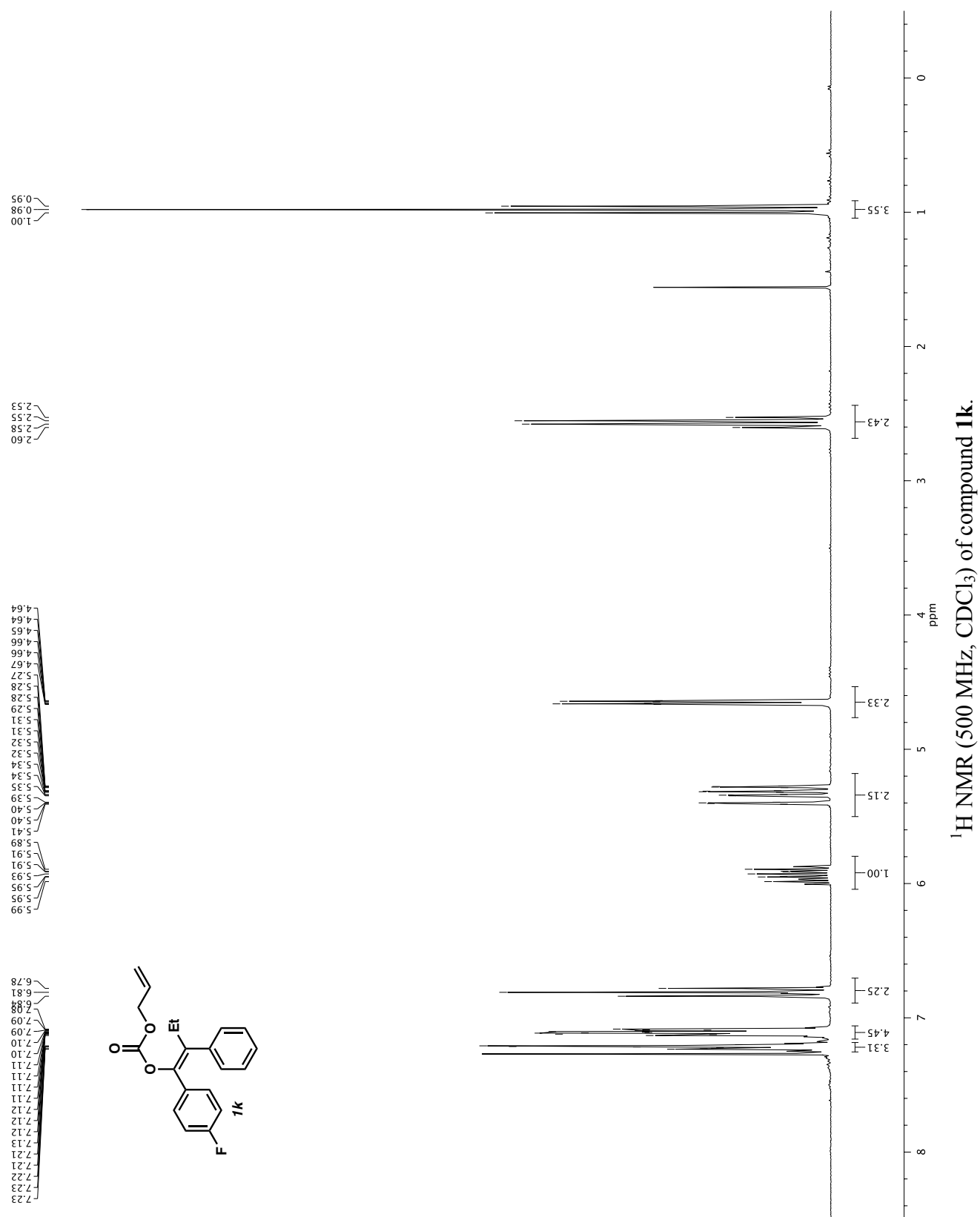
Infrared spectrum (Thin Film, NaCl) of compound **1i**.

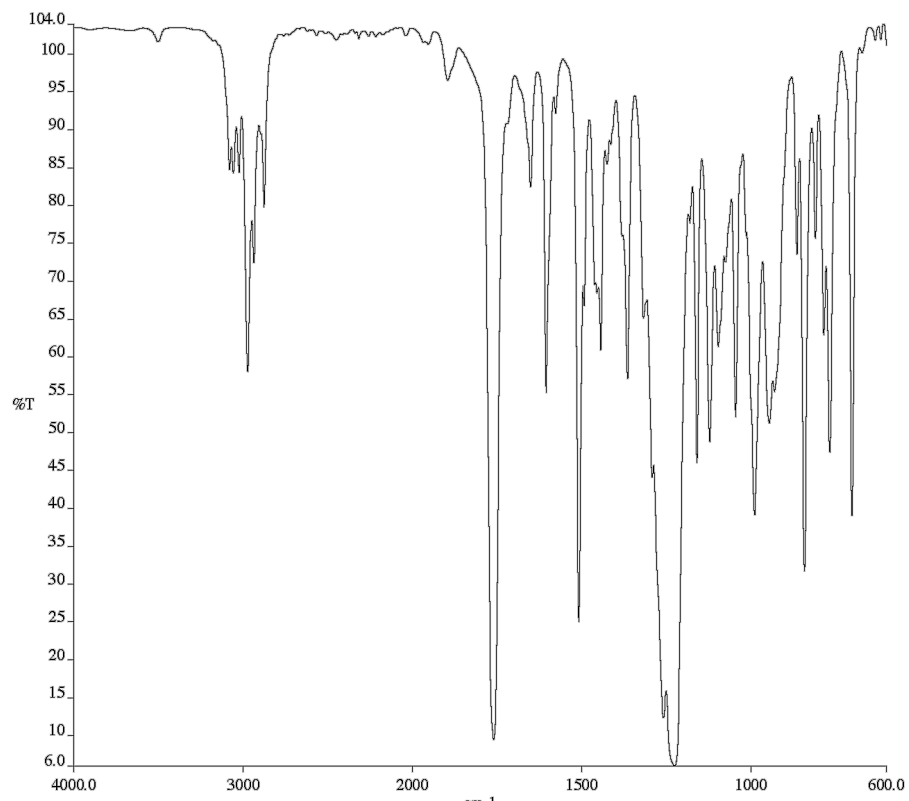
1599.01
1533.40
1472.88
1399.23
1327.12
1311.47
1306.30
1288.83
1277.61
1266.94
1199.16
1133.34
68.99
55.20
26.04
12.33

¹³C NMR (100 MHz, CDCl₃) of compound **1i**.

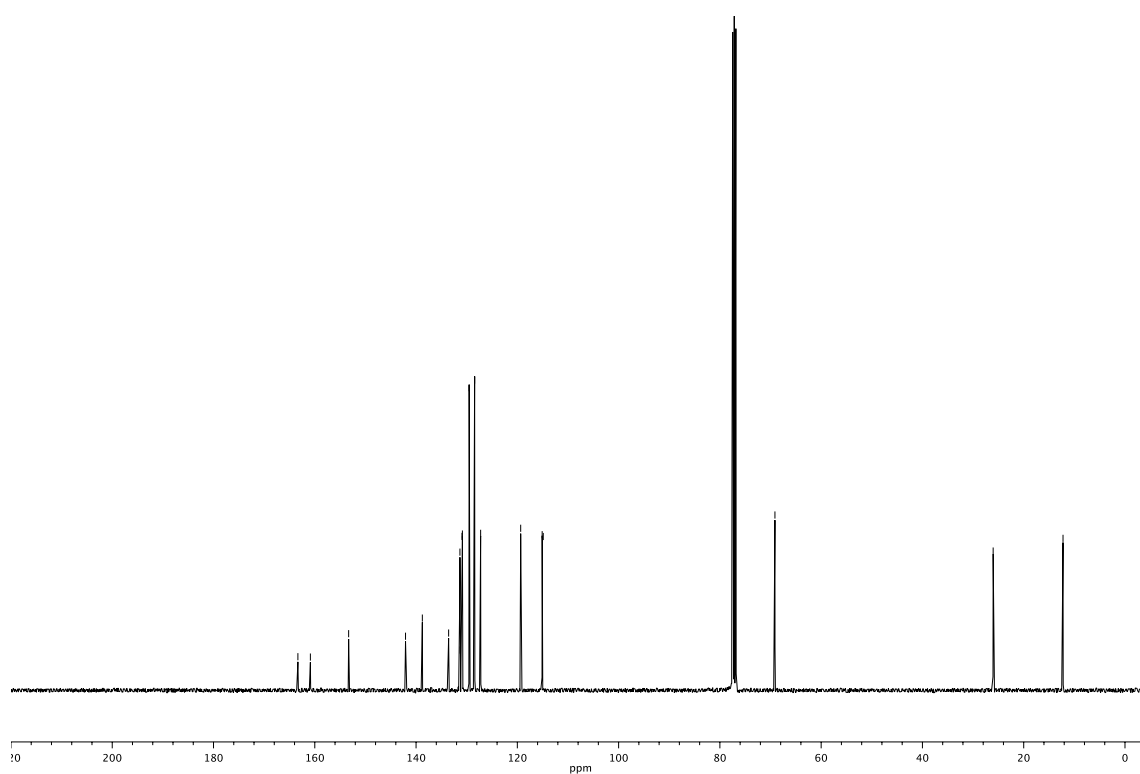


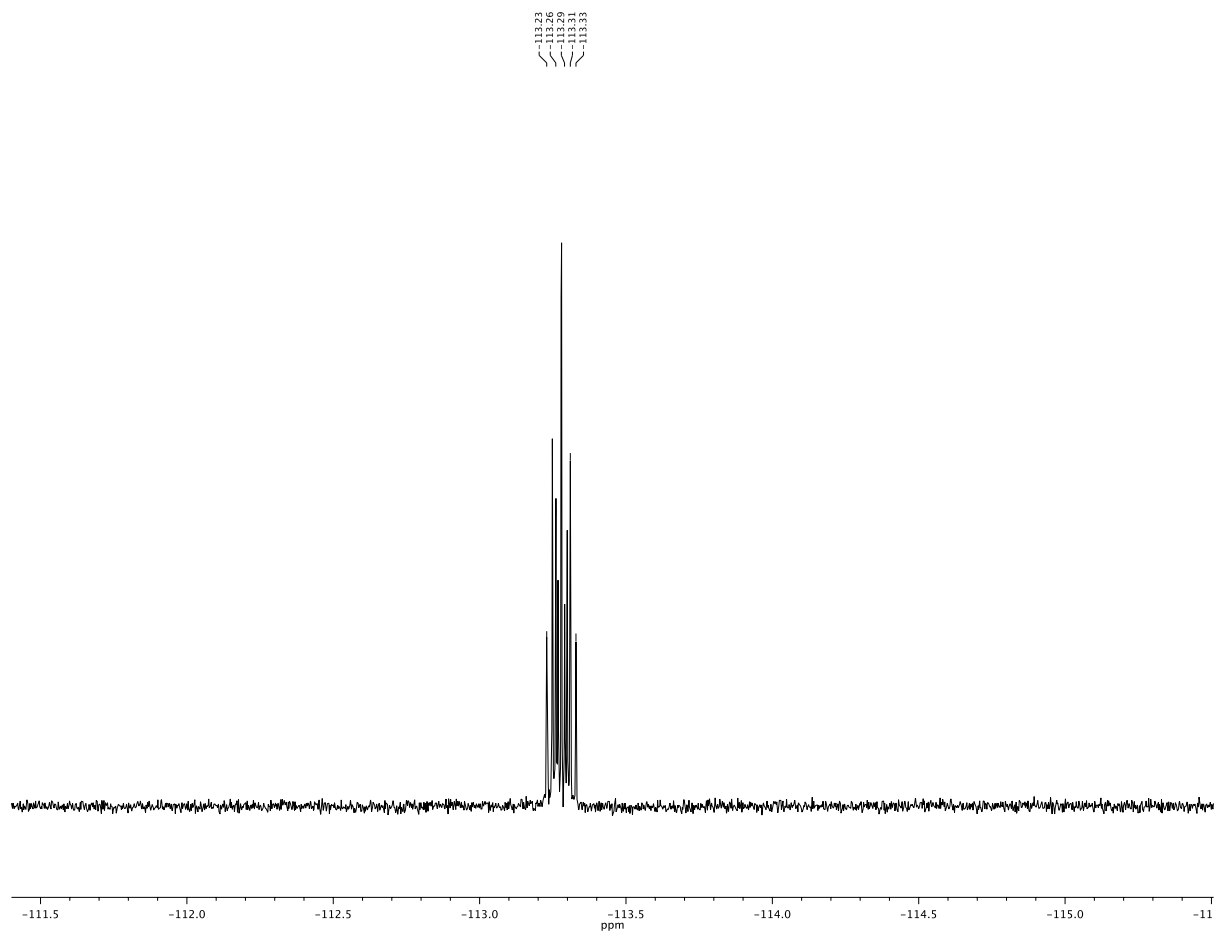
Infrared spectrum (Thin Film, NaCl) of compound **1j**.



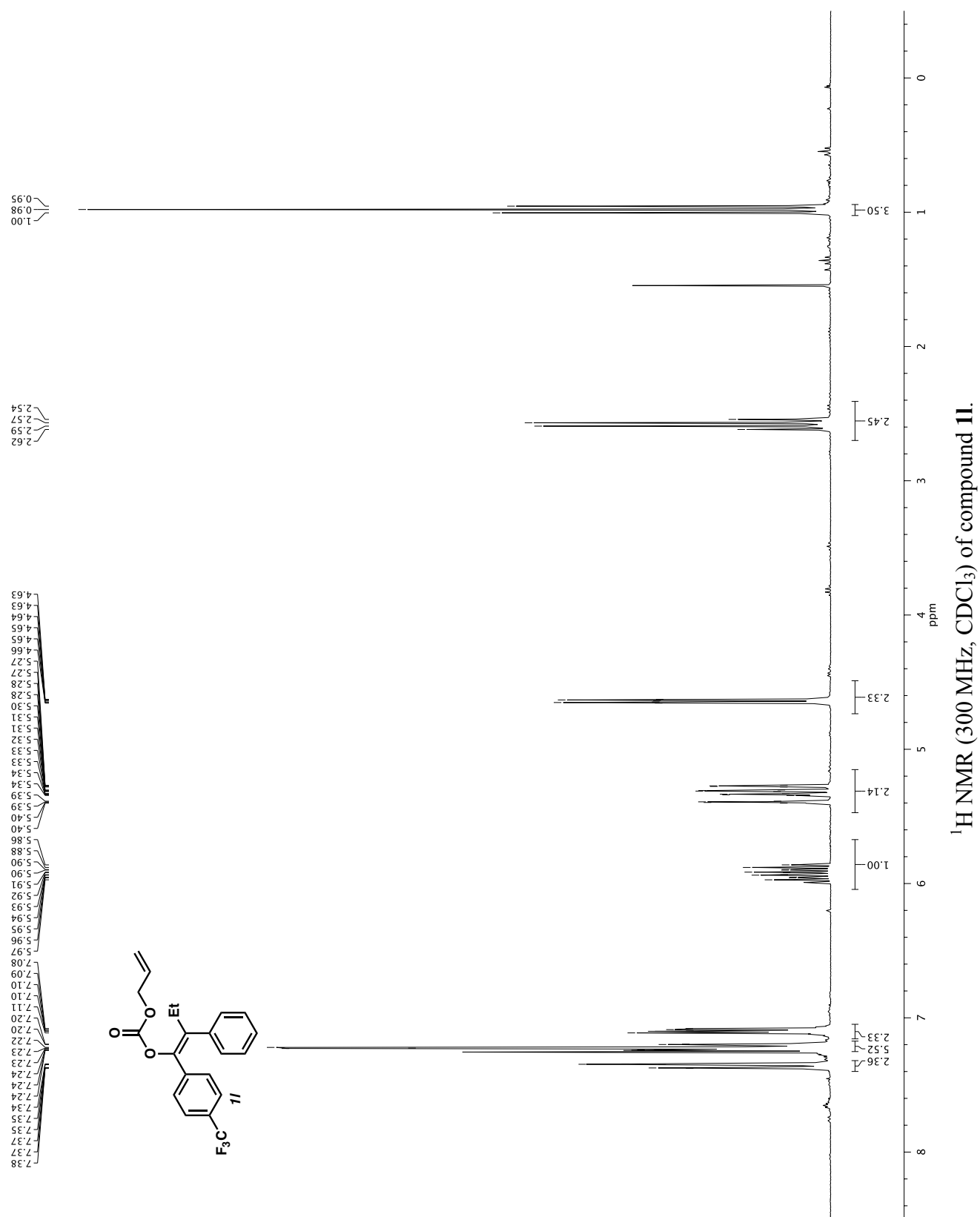
Infrared spectrum (Thin Film, NaCl) of compound **1k**.

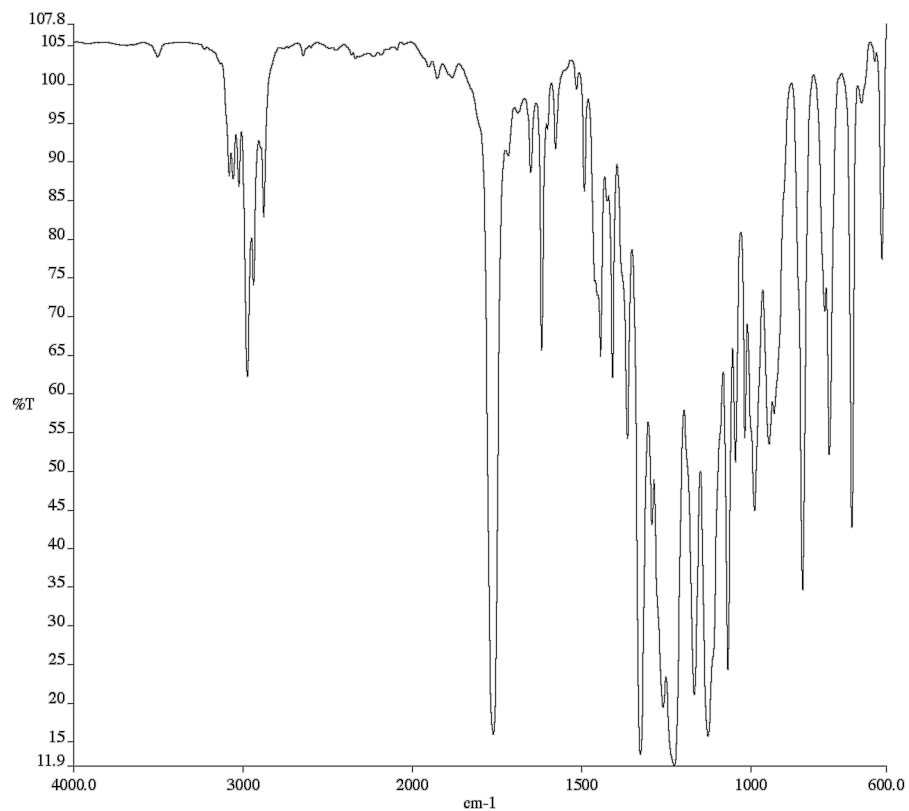
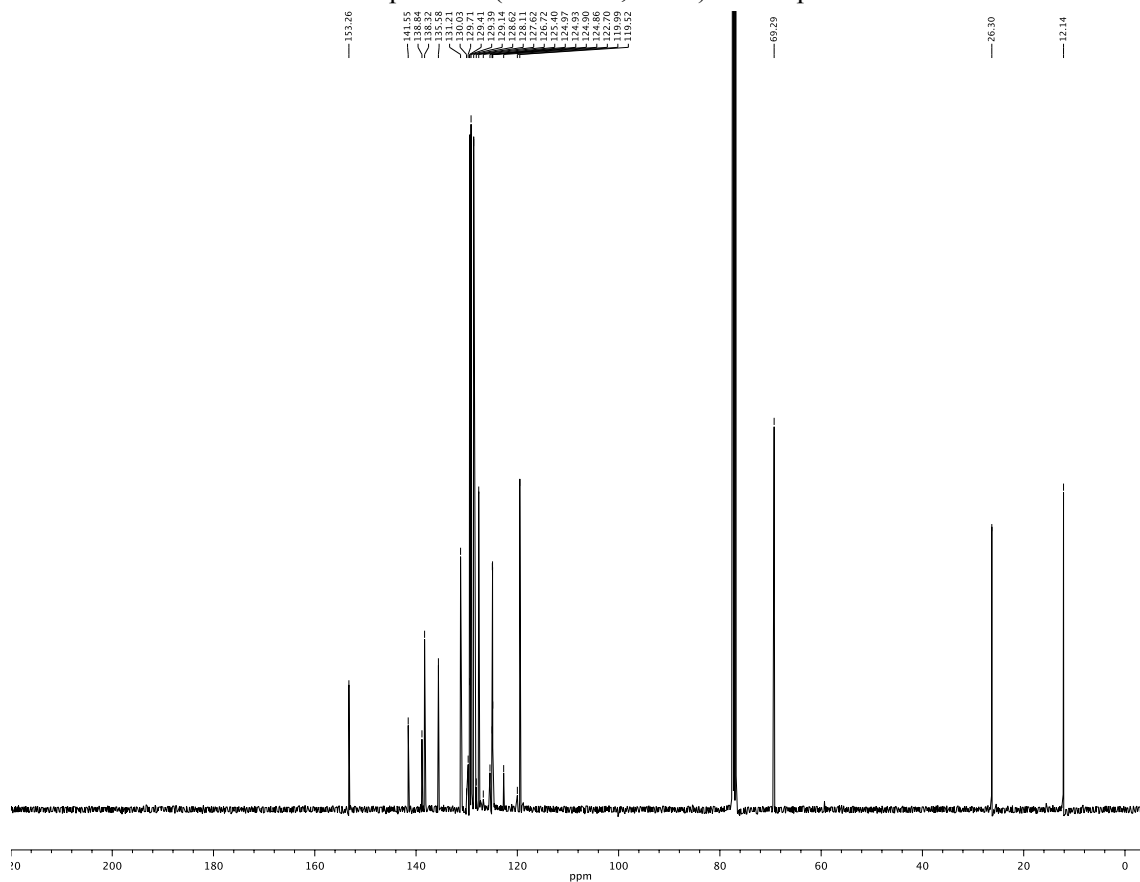
1653.34
1608.87
1553.31
1442.08
1385.57
1371.46
1331.36
1300.93
1290.82
1288.43
1277.25
1193.34
1152.10
1144.88
89.13
26.03
12.24

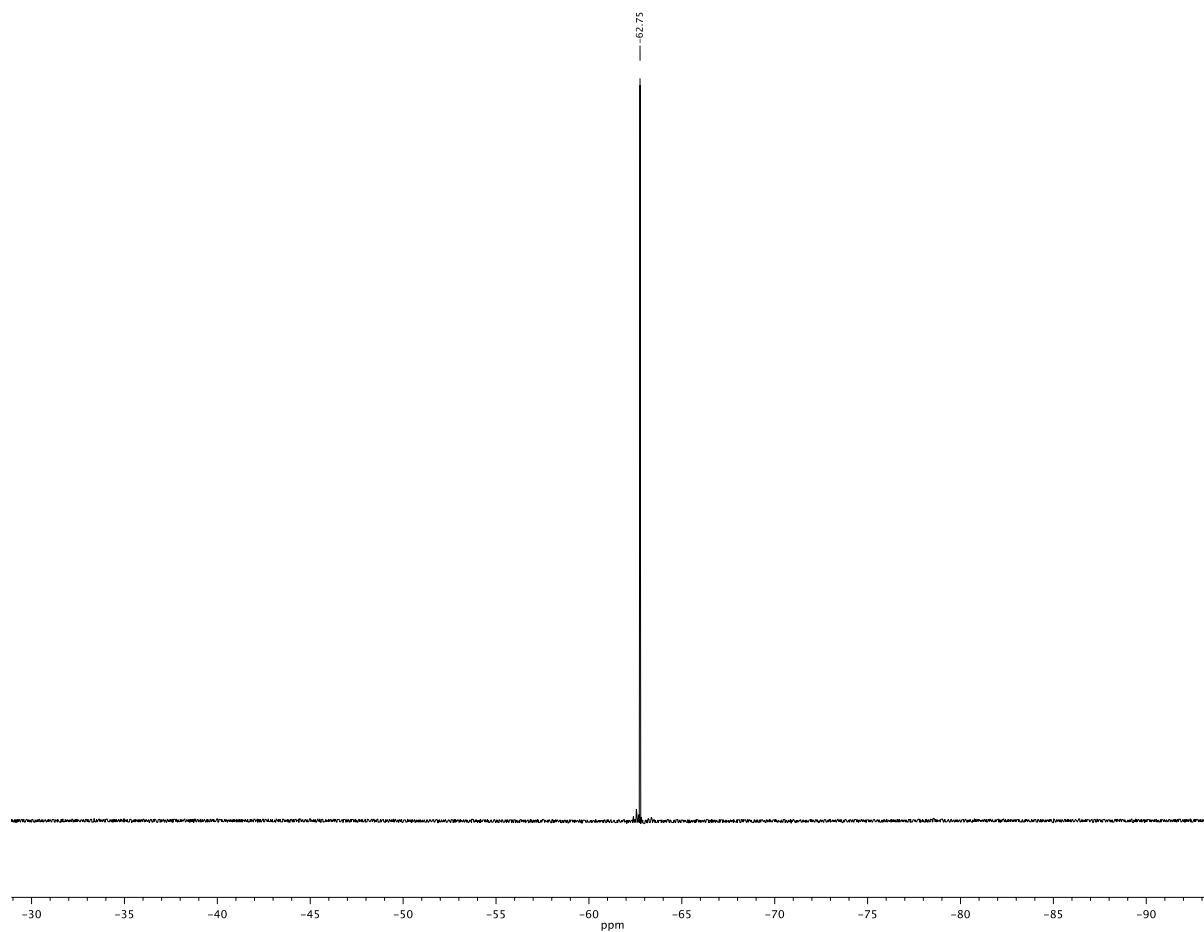
 ^{13}C NMR (100 MHz, CDCl_3) of compound **1k**.



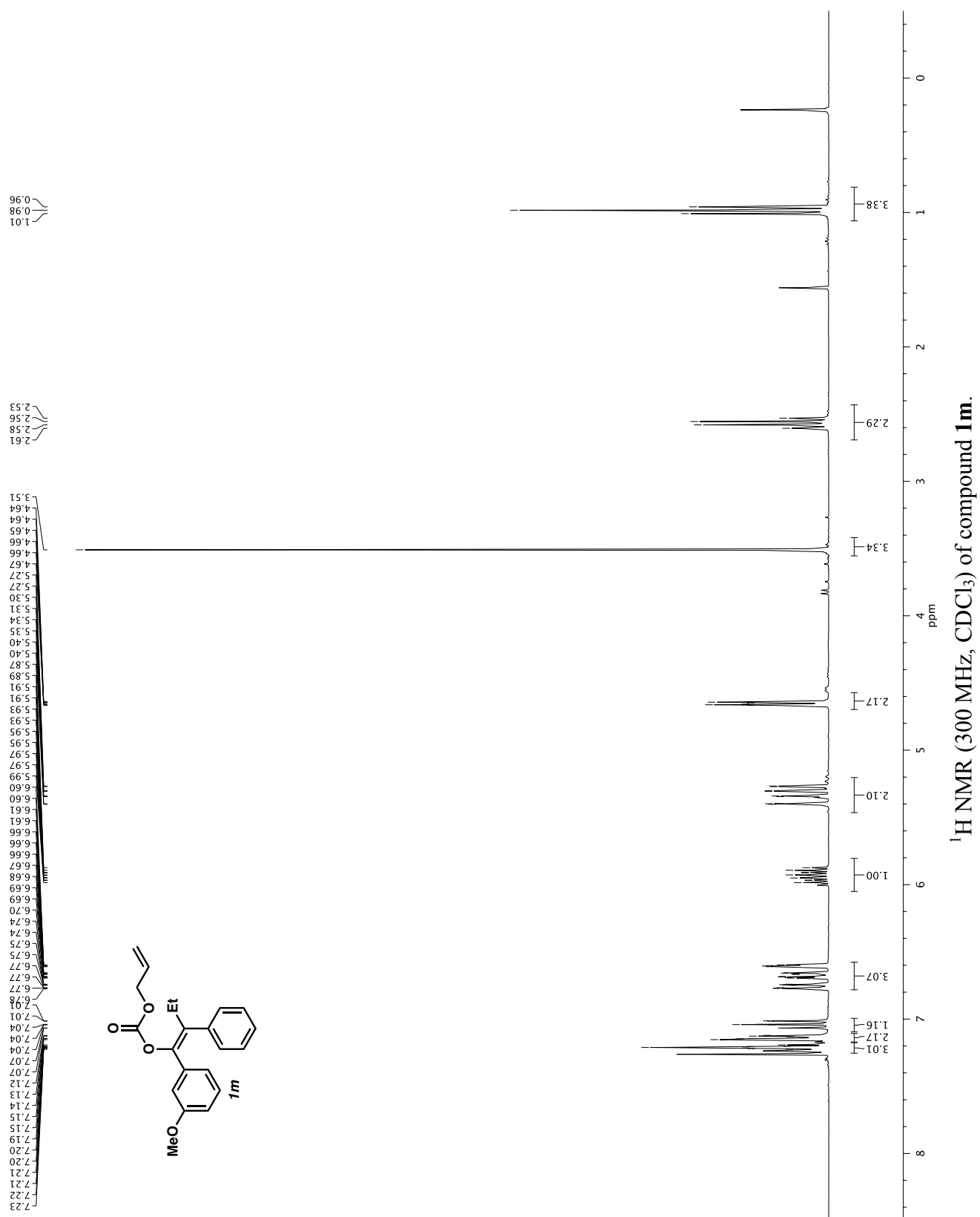
^{19}F NMR (282 MHz, CDCl_3) of compound **1k**.

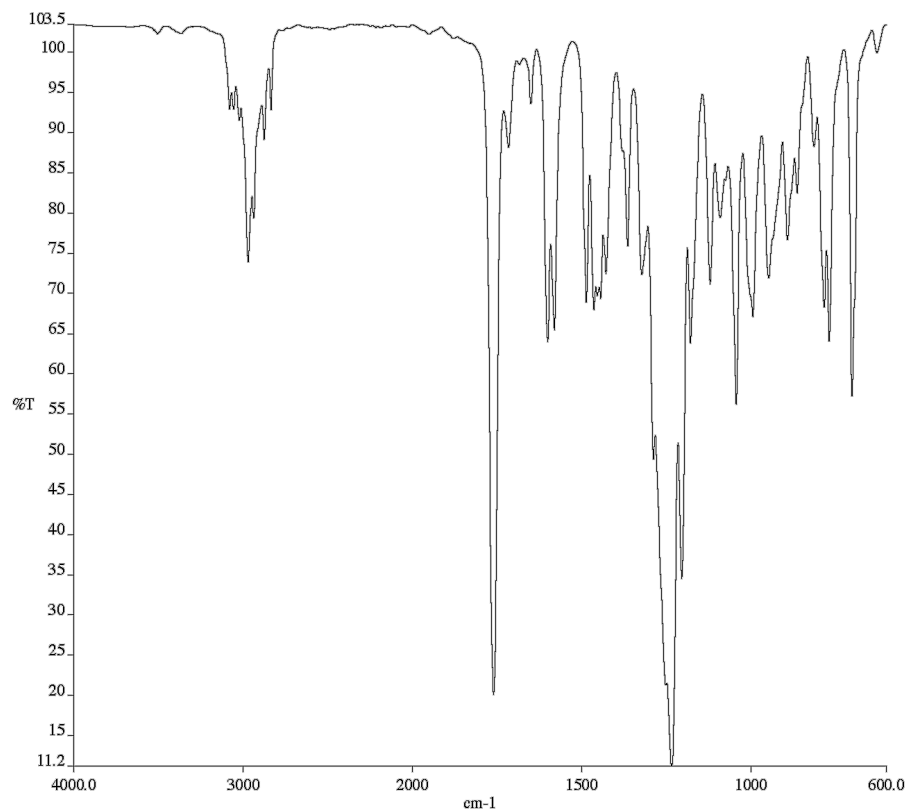


Infrared spectrum (Thin Film, NaCl) of compound **11**.¹³C NMR (100 MHz, CDCl₃) of compound **11**.

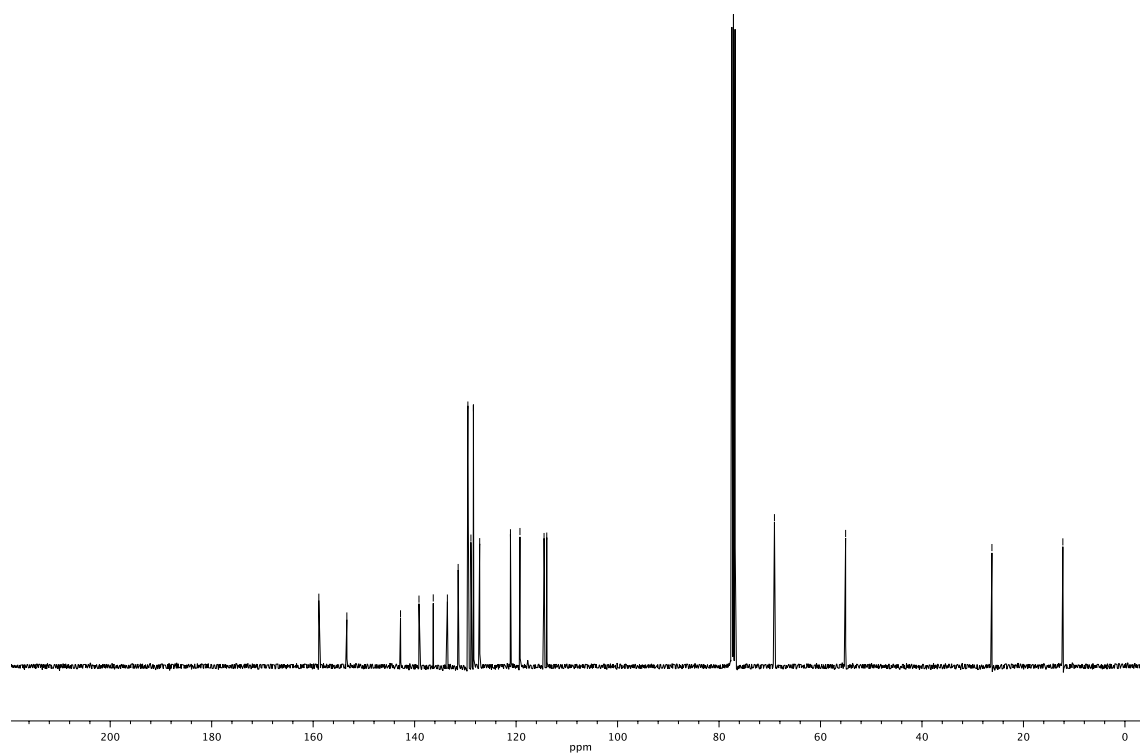


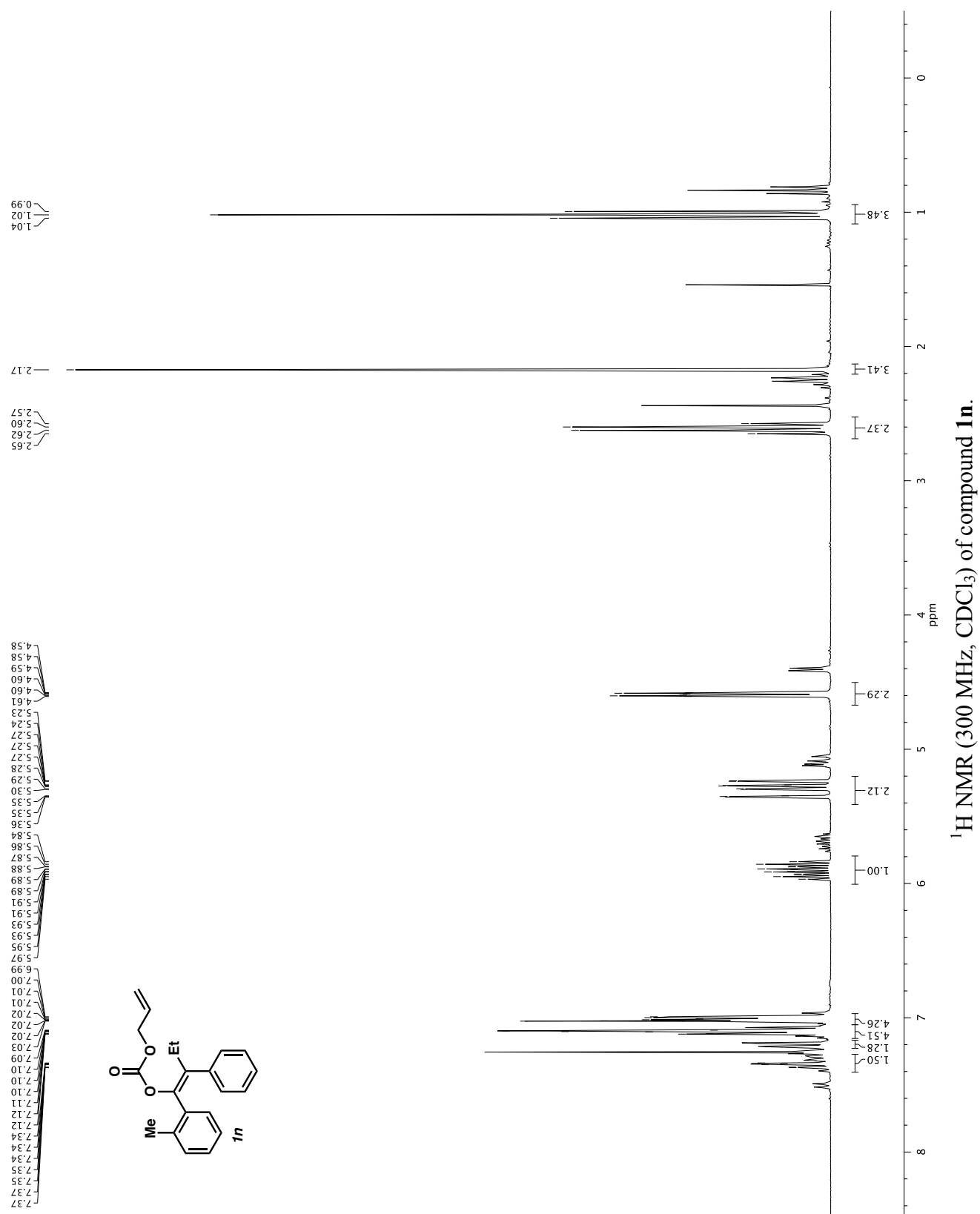
^{19}F NMR (100 MHz, CDCl_3) of compound **11**.

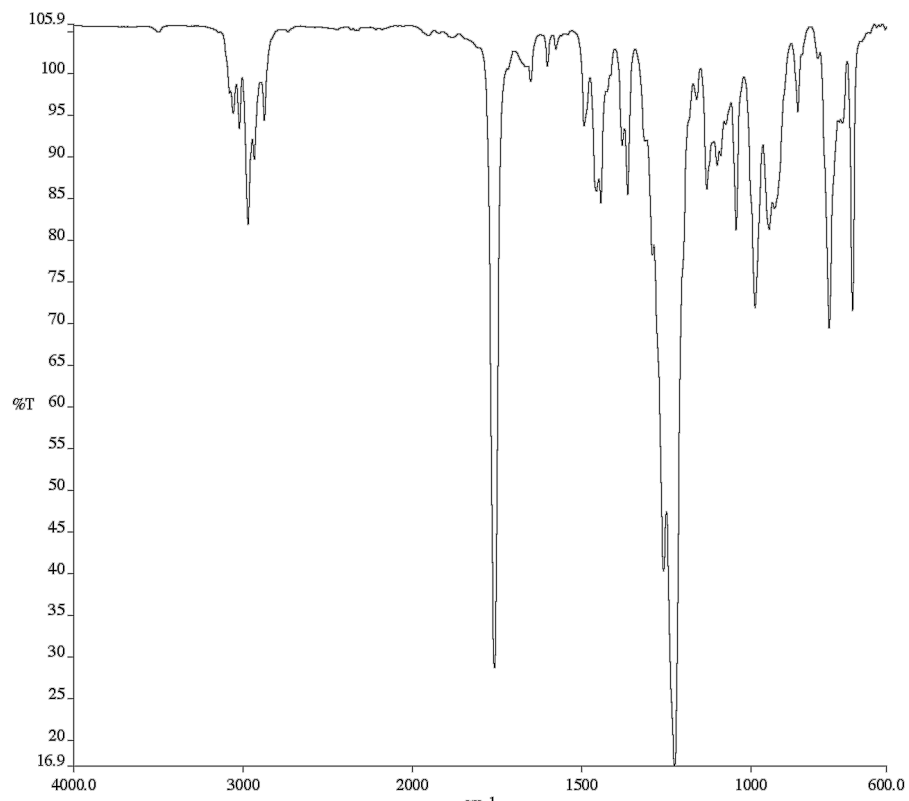
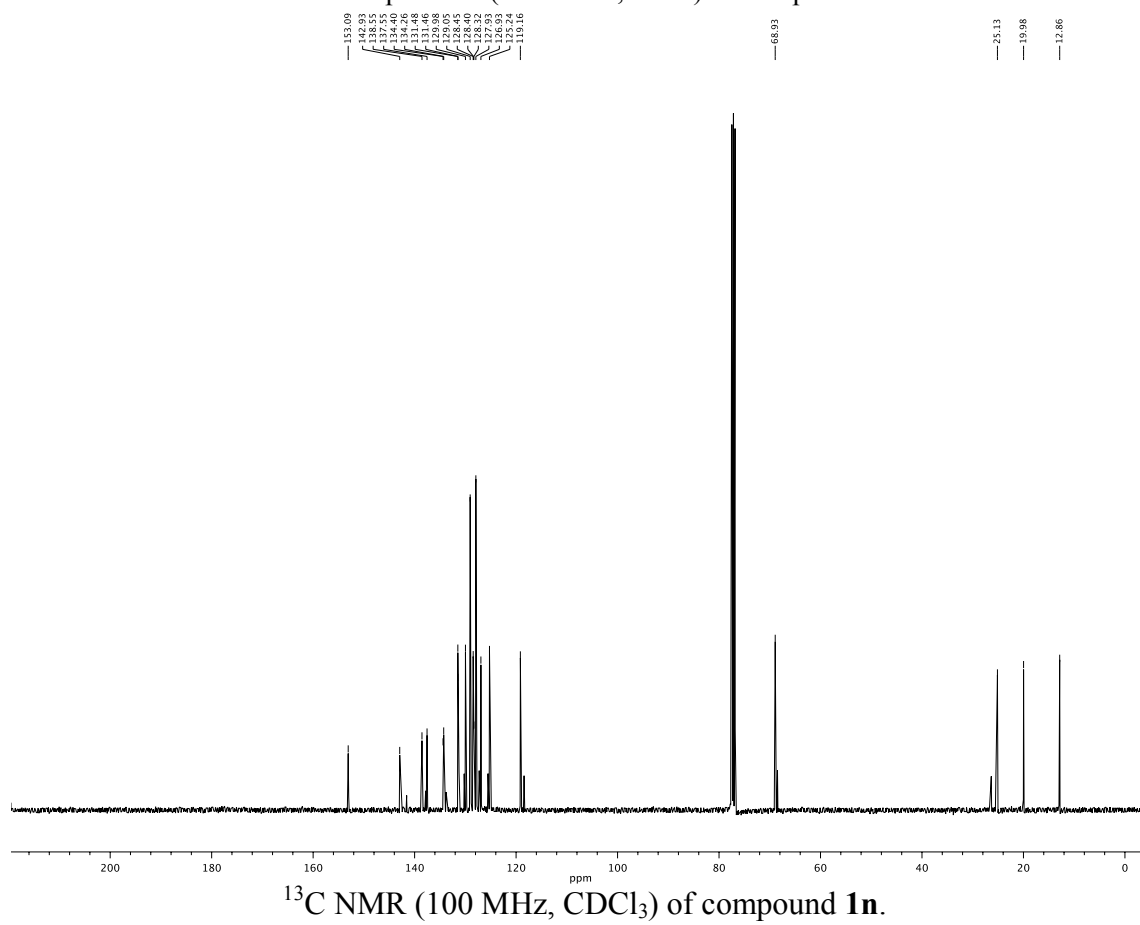


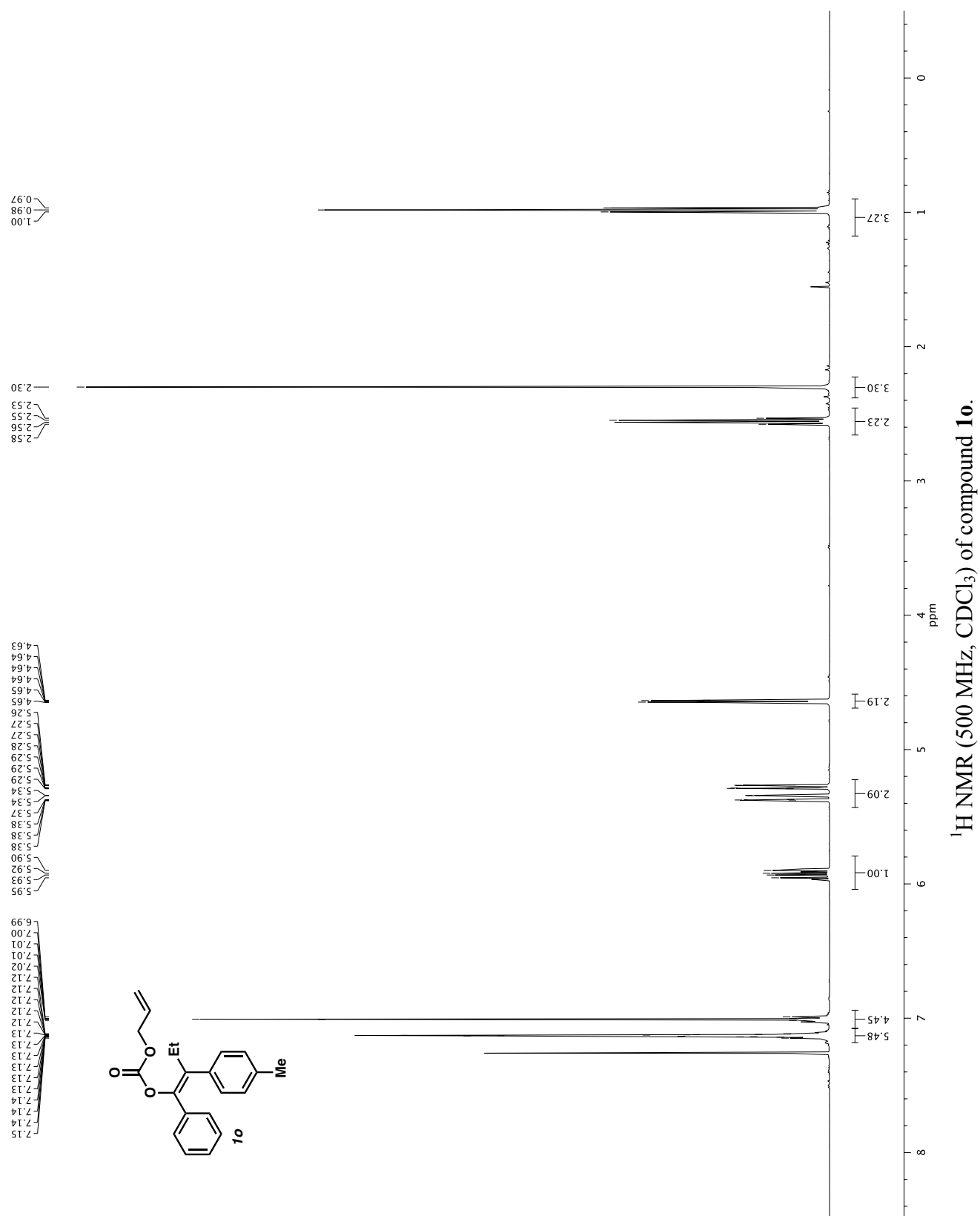
Infrared spectrum (Thin Film, NaCl) of compound **1m**.

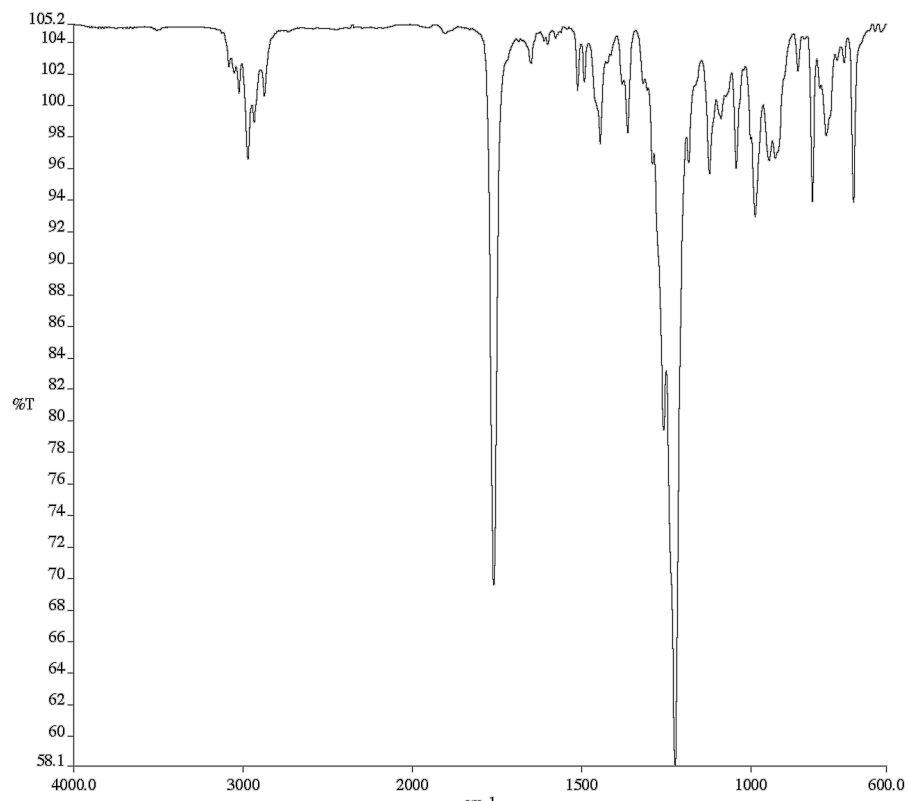
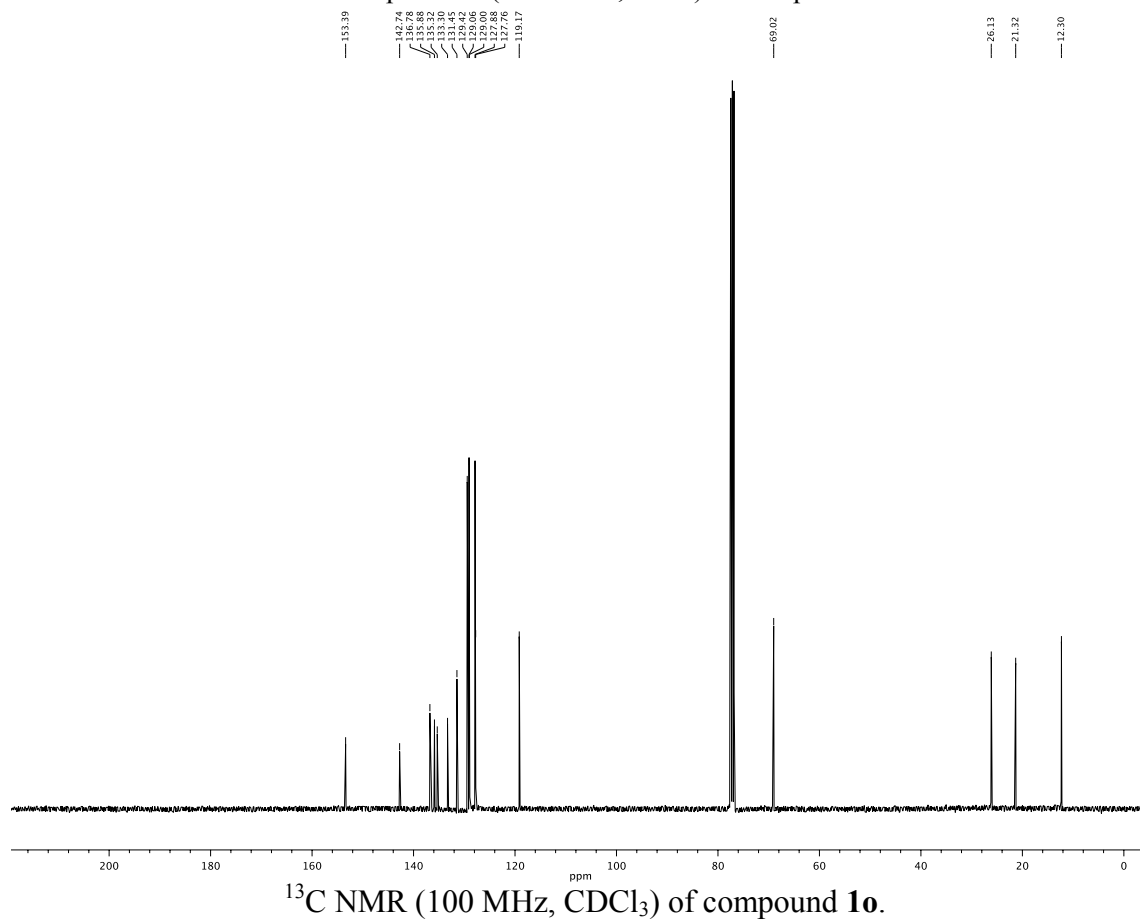
158.88
153.36
142.78
139.35
138.14
133.54
132.96
128.90
127.18
121.11
119.24
114.49
113.96
69.08
55.05
26.21
12.24

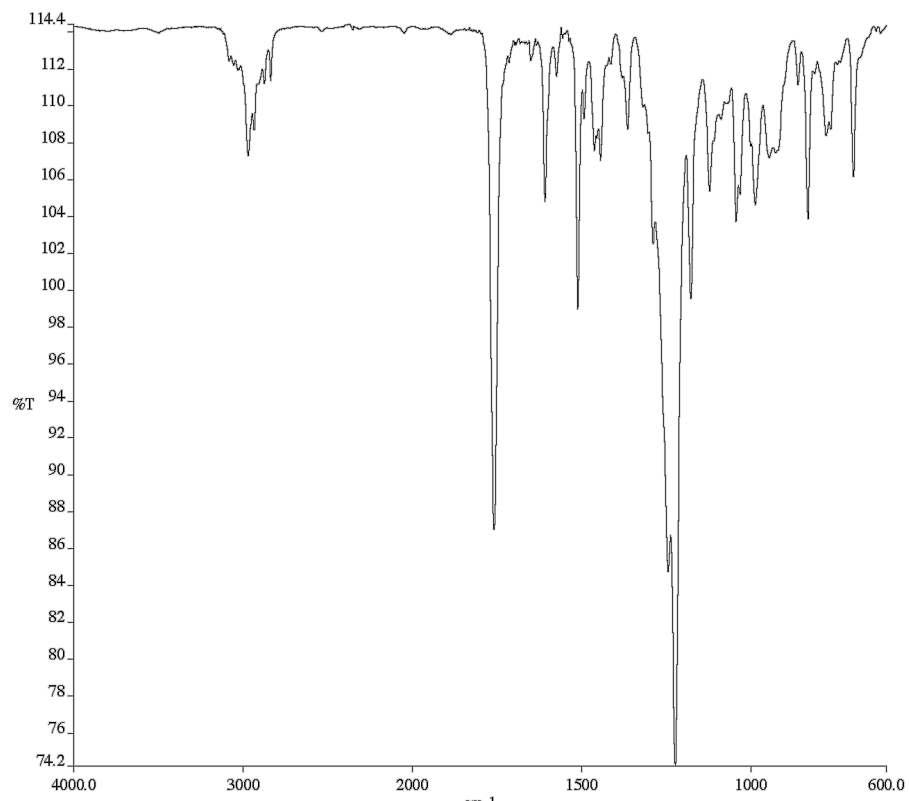
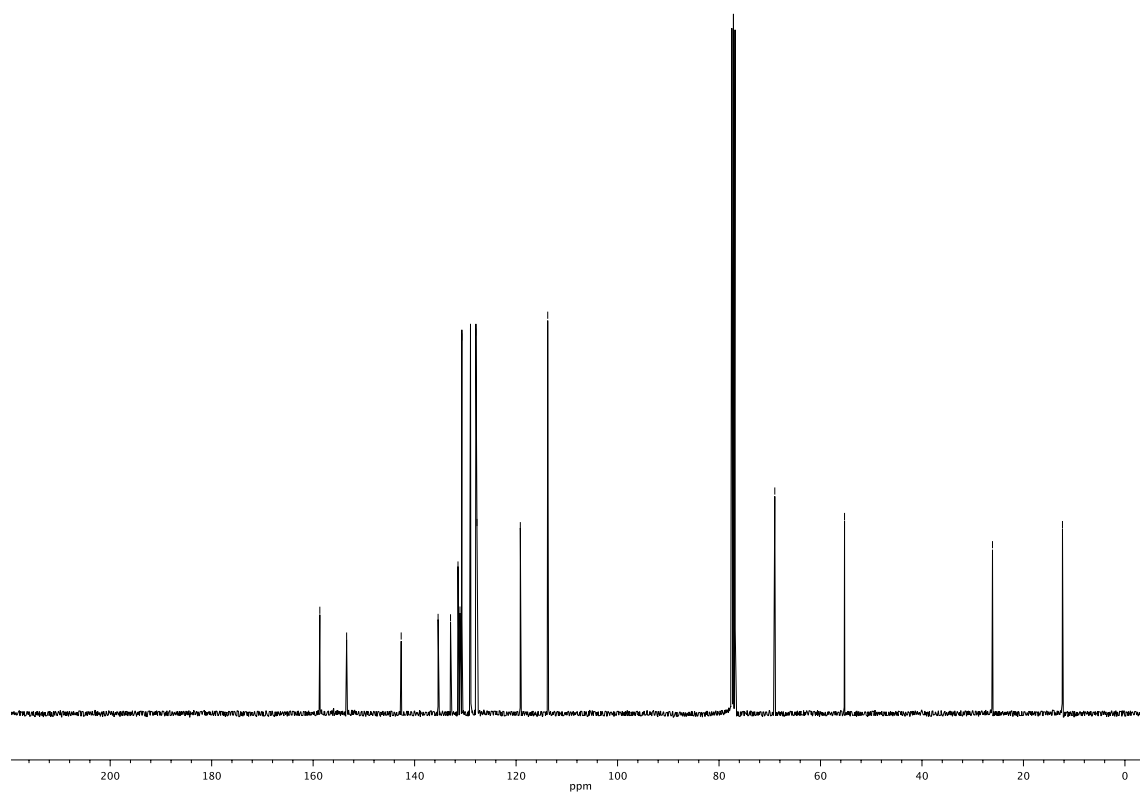
¹³C NMR (100 MHz, CDCl₃) of compound **1m**.

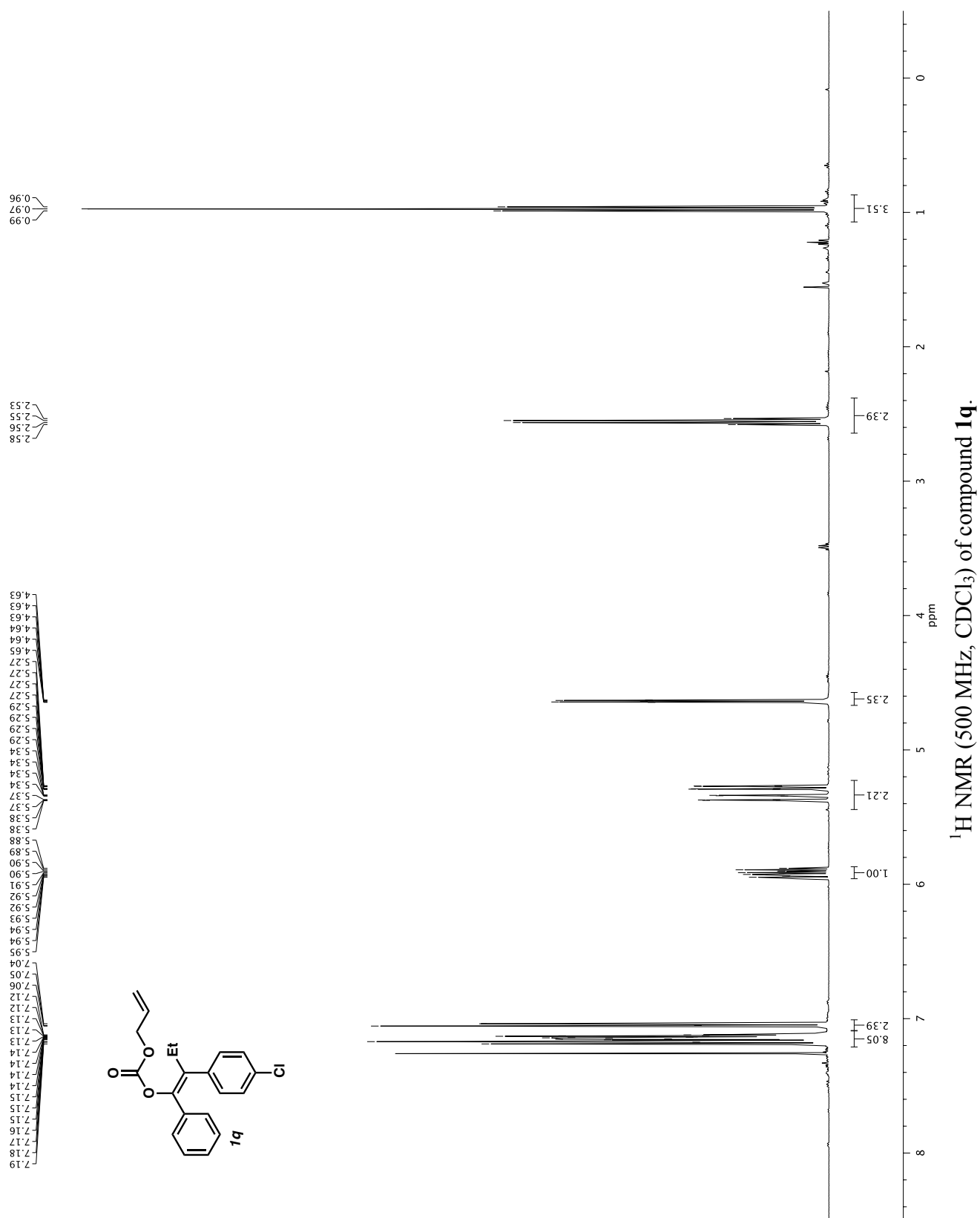


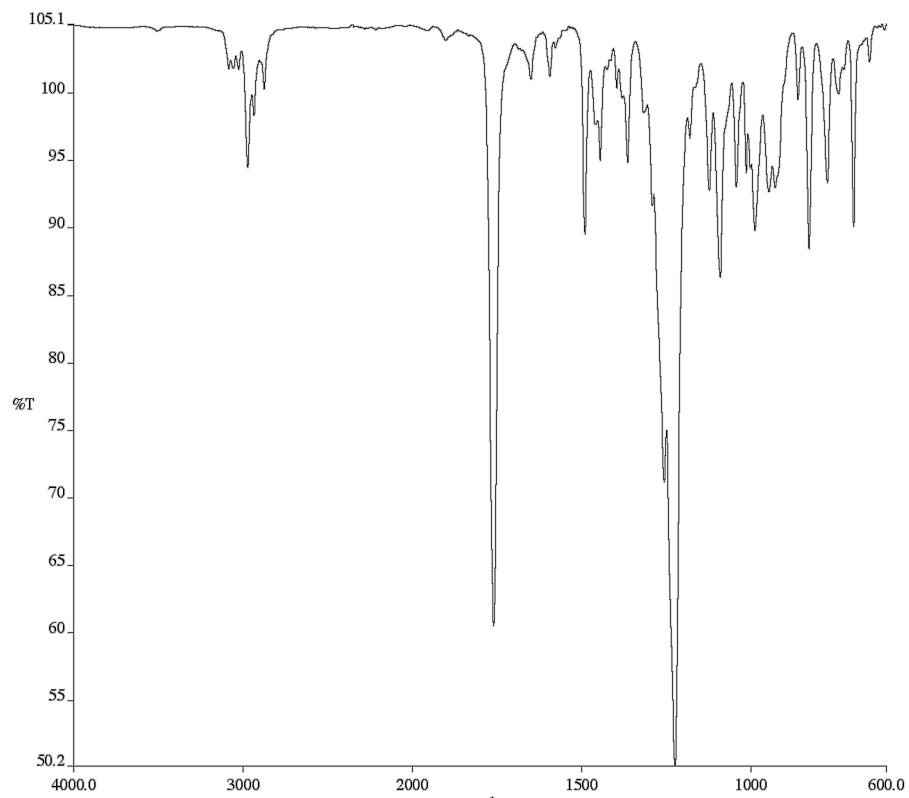
Infrared spectrum (Thin Film, NaCl) of compound **1n**.¹³C NMR (100 MHz, CDCl₃) of compound **1n**.



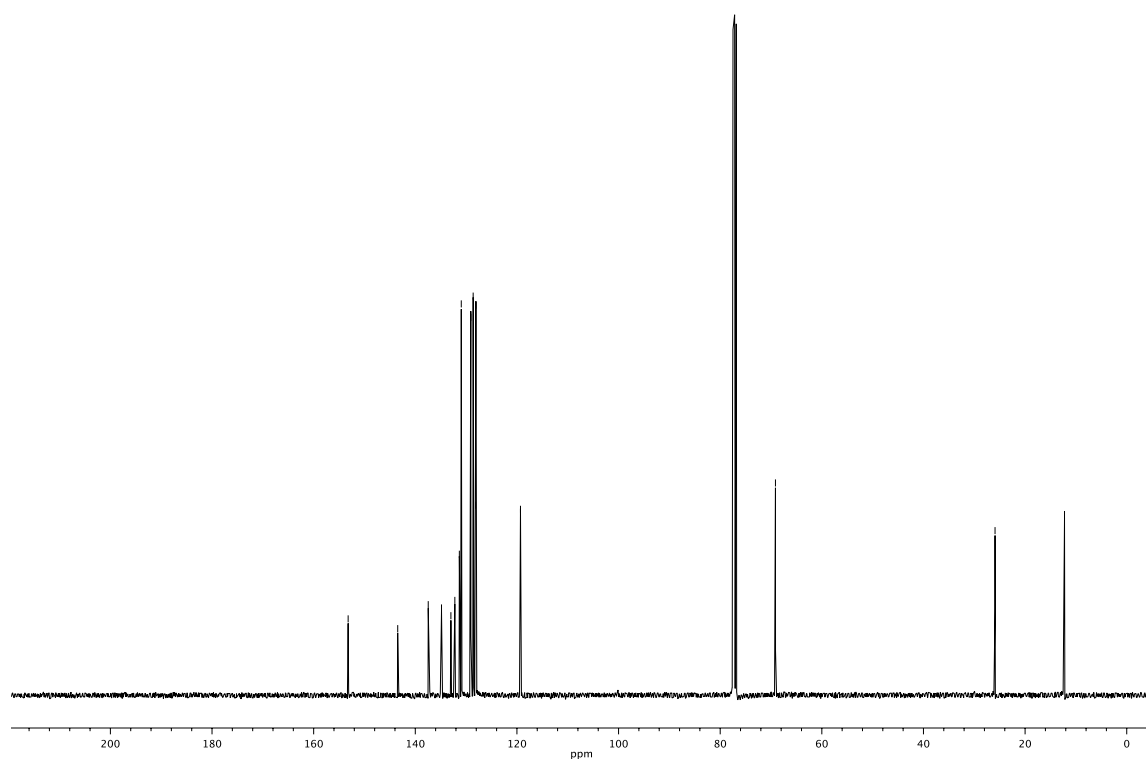
Infrared spectrum (Thin Film, NaCl) of compound **1o**.

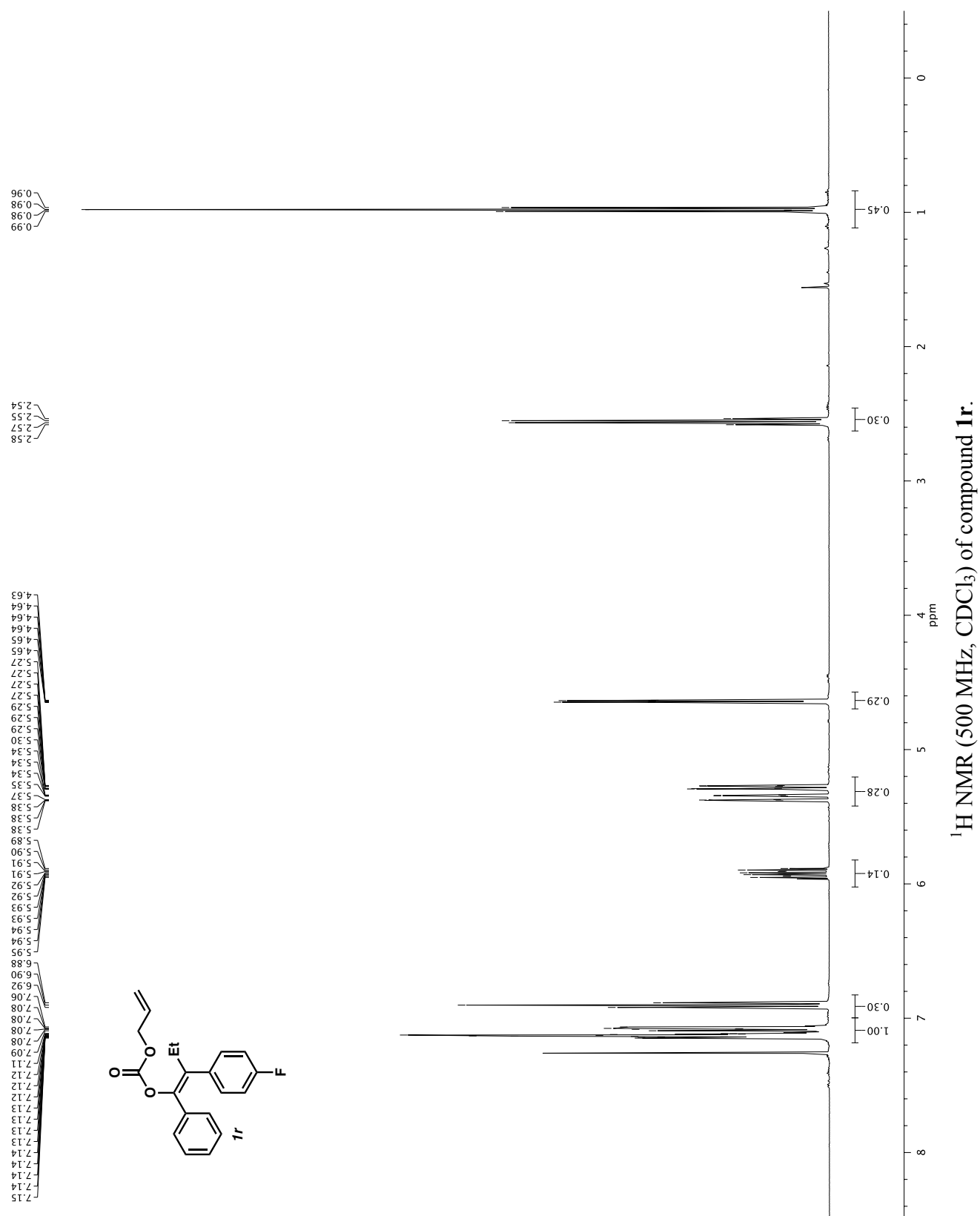
Infrared spectrum (Thin Film, NaCl) of compound **1p**.¹³C NMR (100 MHz, CDCl₃) of compound **1p**.

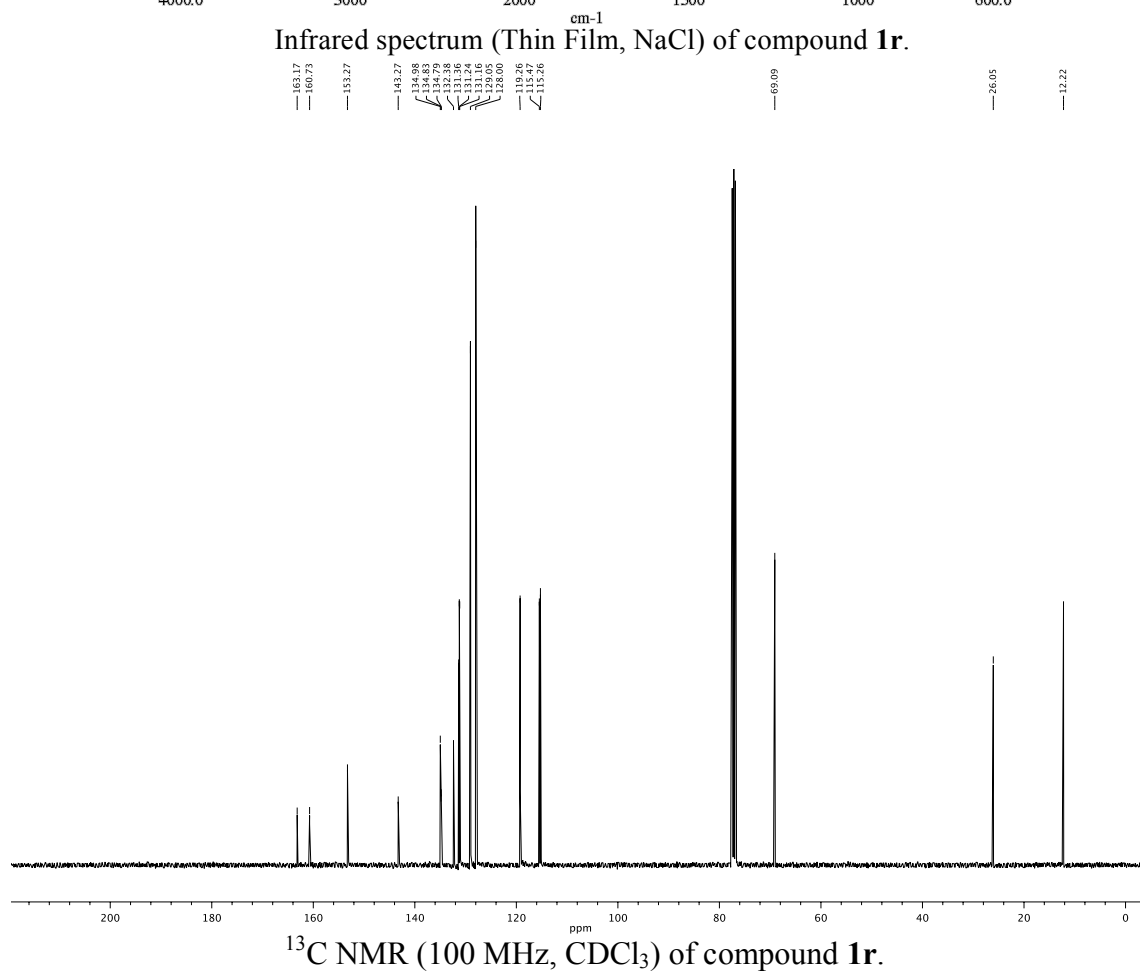
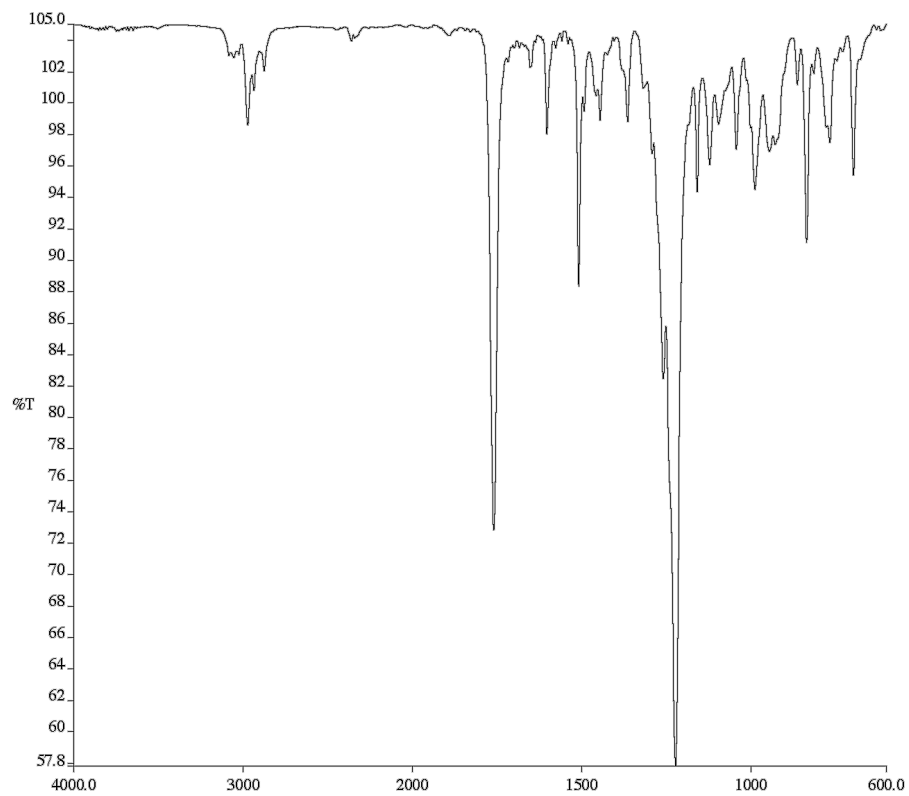


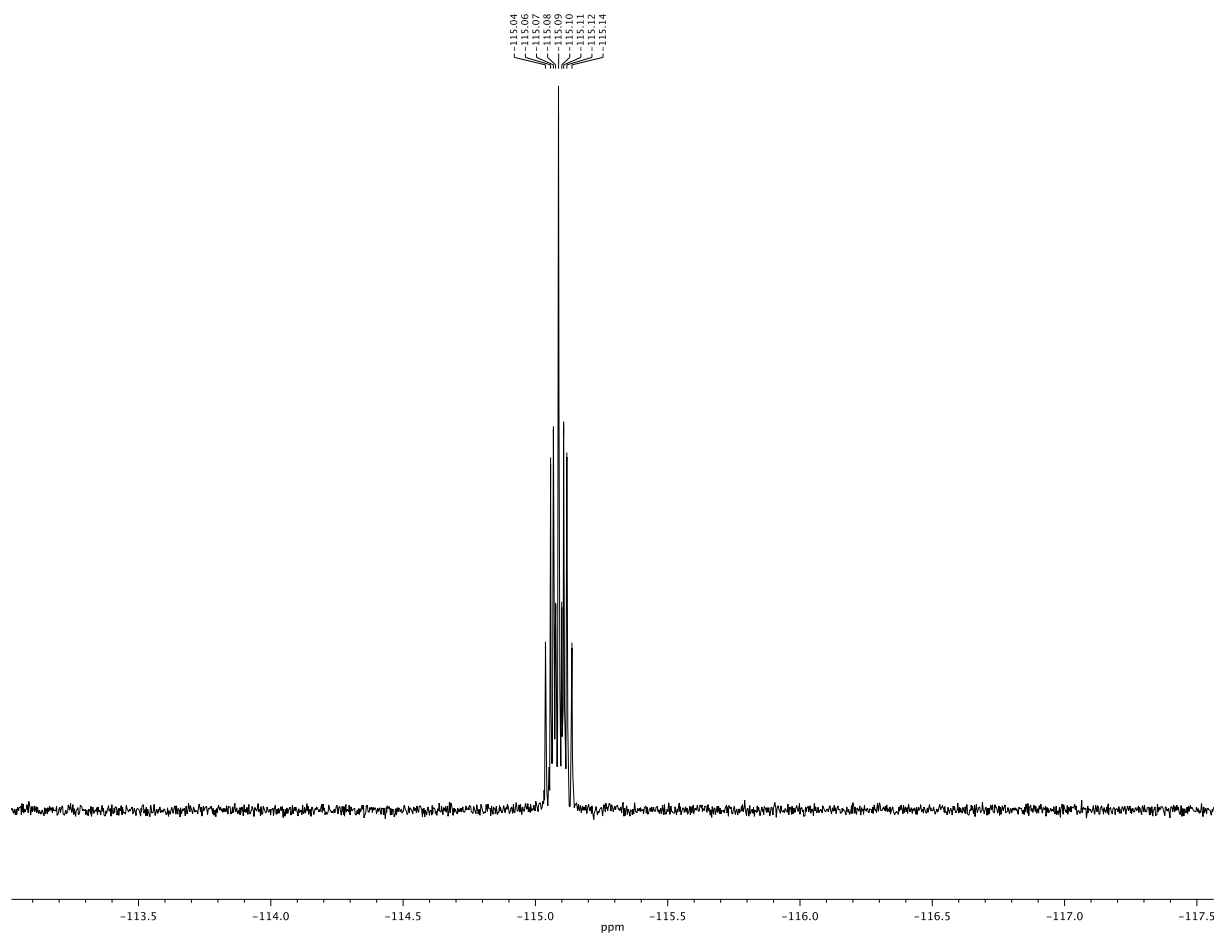
Infrared spectrum (Thin Film, NaCl) of compound **1q**.

1532.21, 1434.46, 1377.45, 1359.96, 1327.22, 1309.53, 1290.07, 1288.74, 1288.07, 1189.30, 699.12, 259.1, 12.24

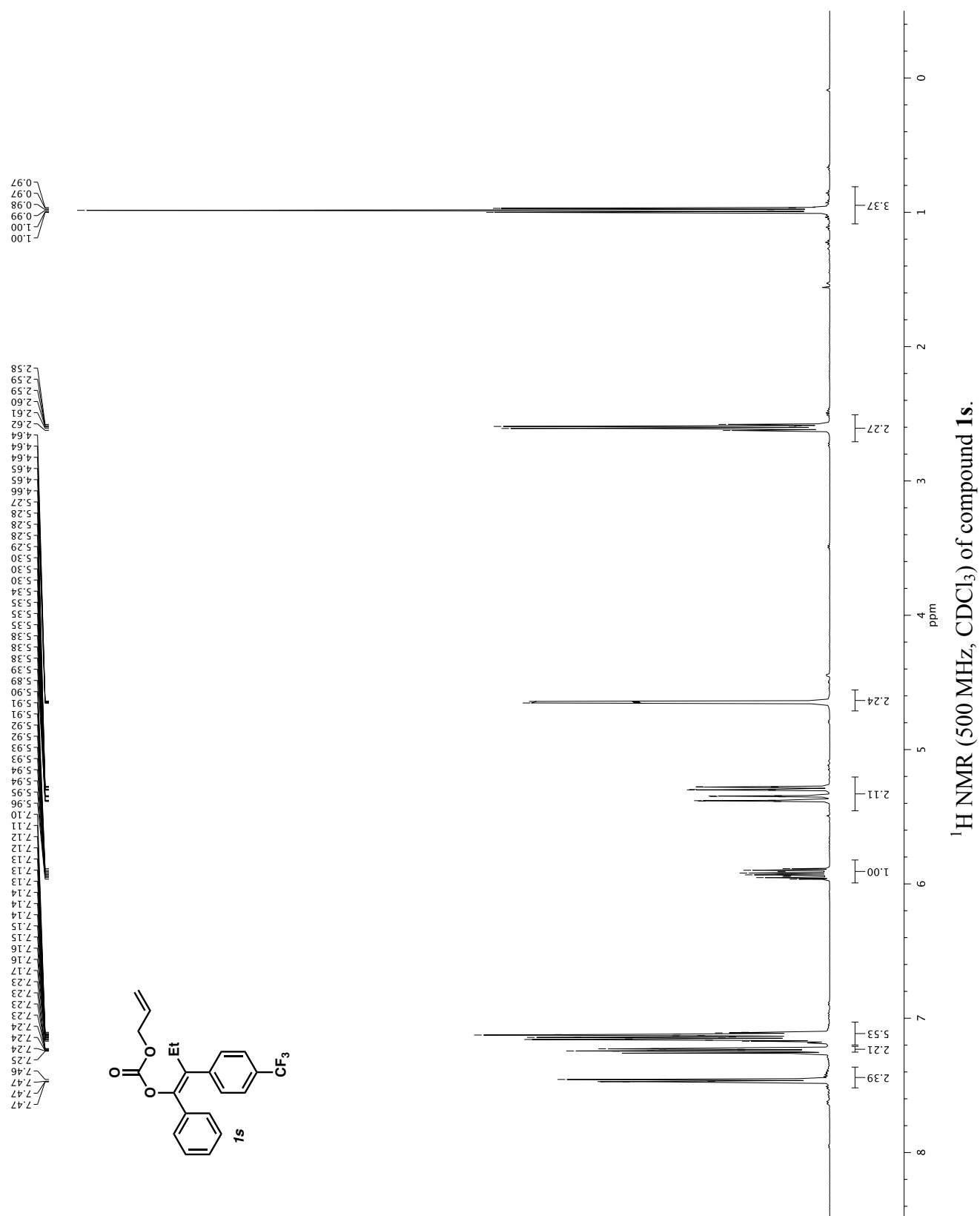
¹³C NMR (100 MHz, CDCl₃) of compound **1q**.

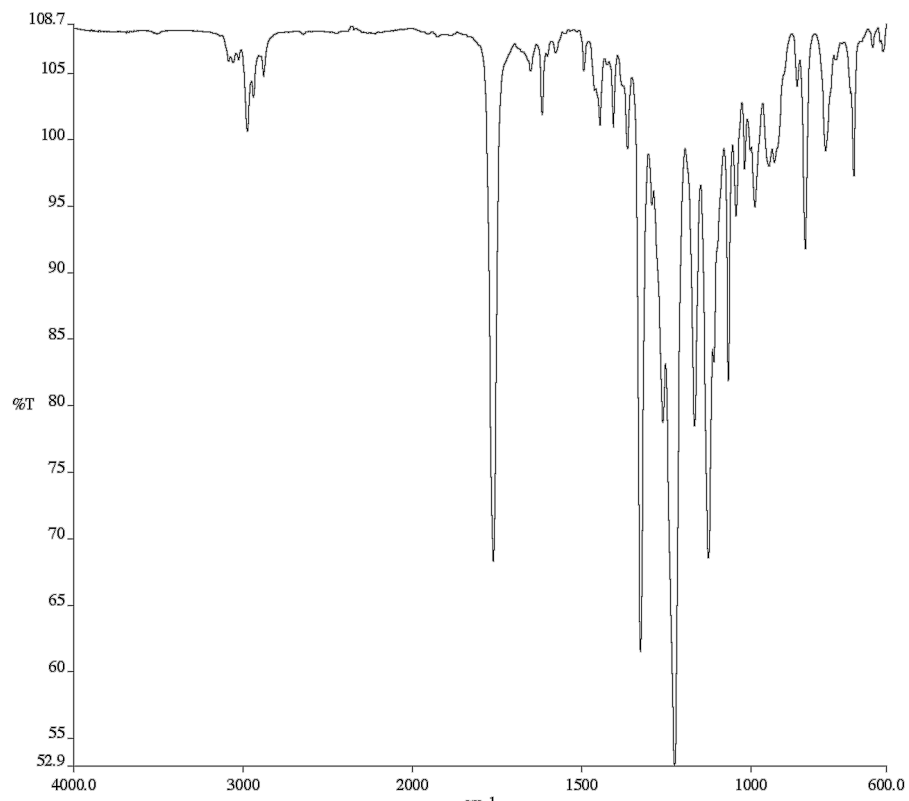
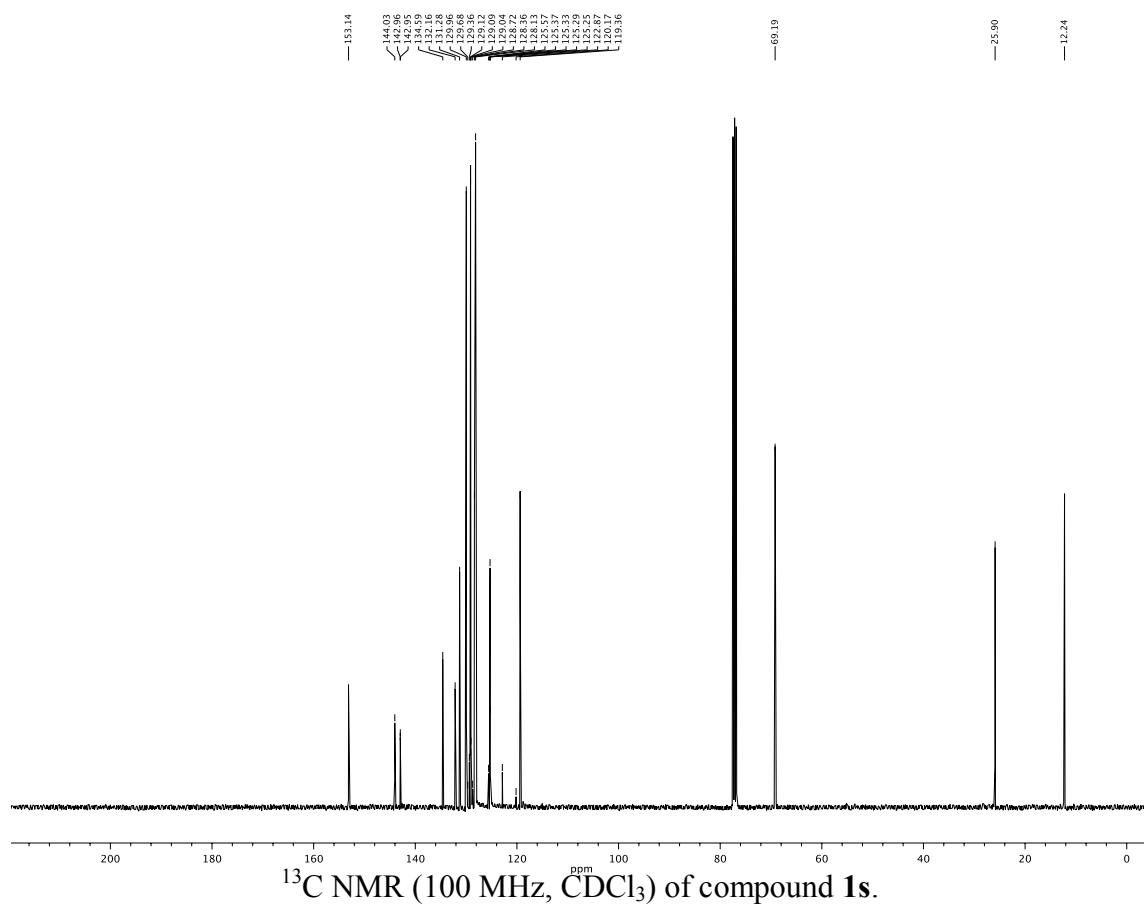


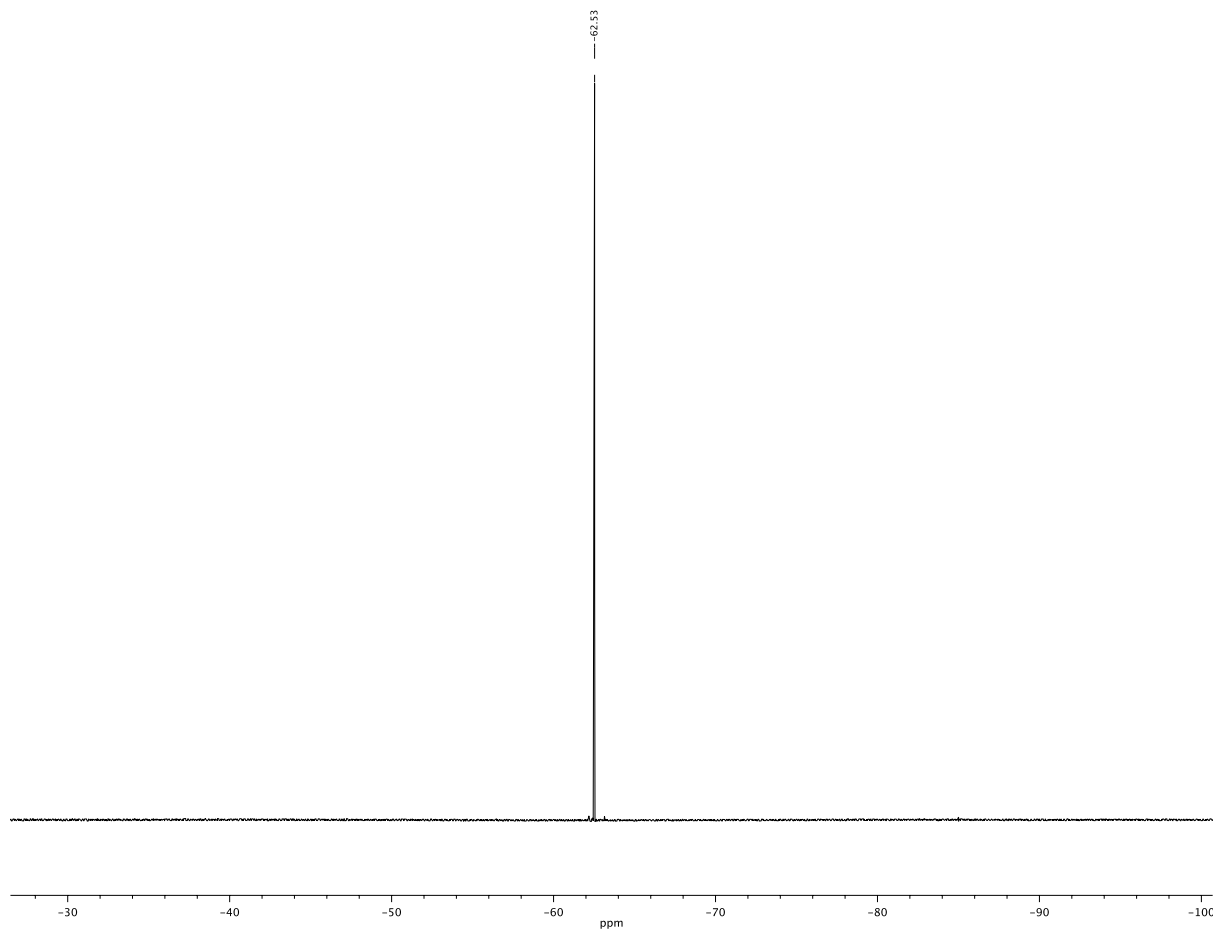




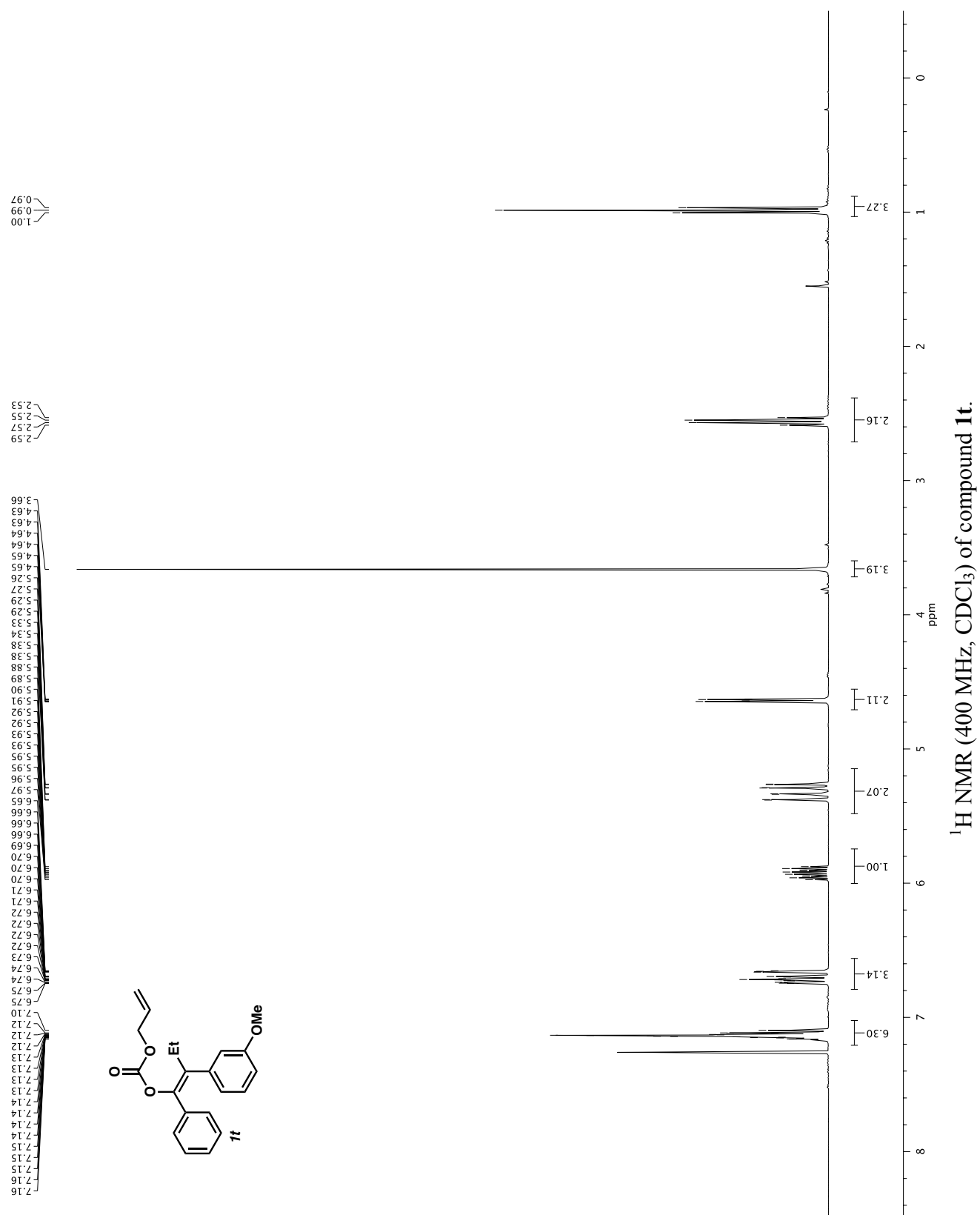
^{19}F NMR (282 MHz, CDCl_3) of compound **1r**.

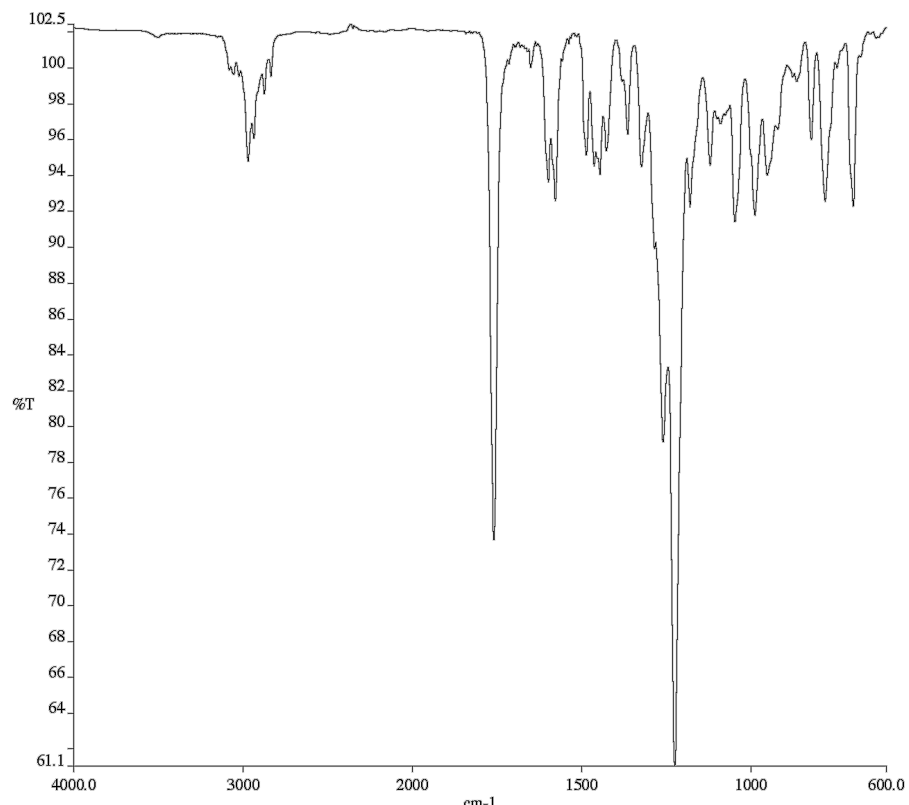
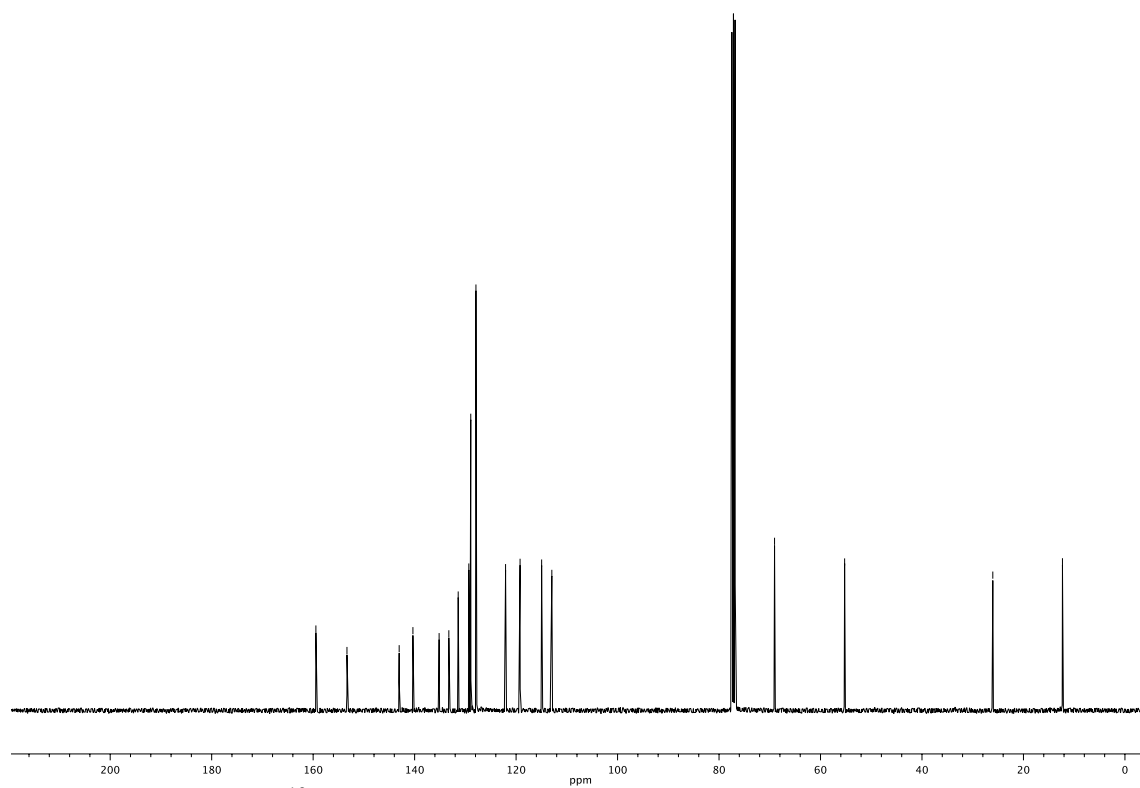


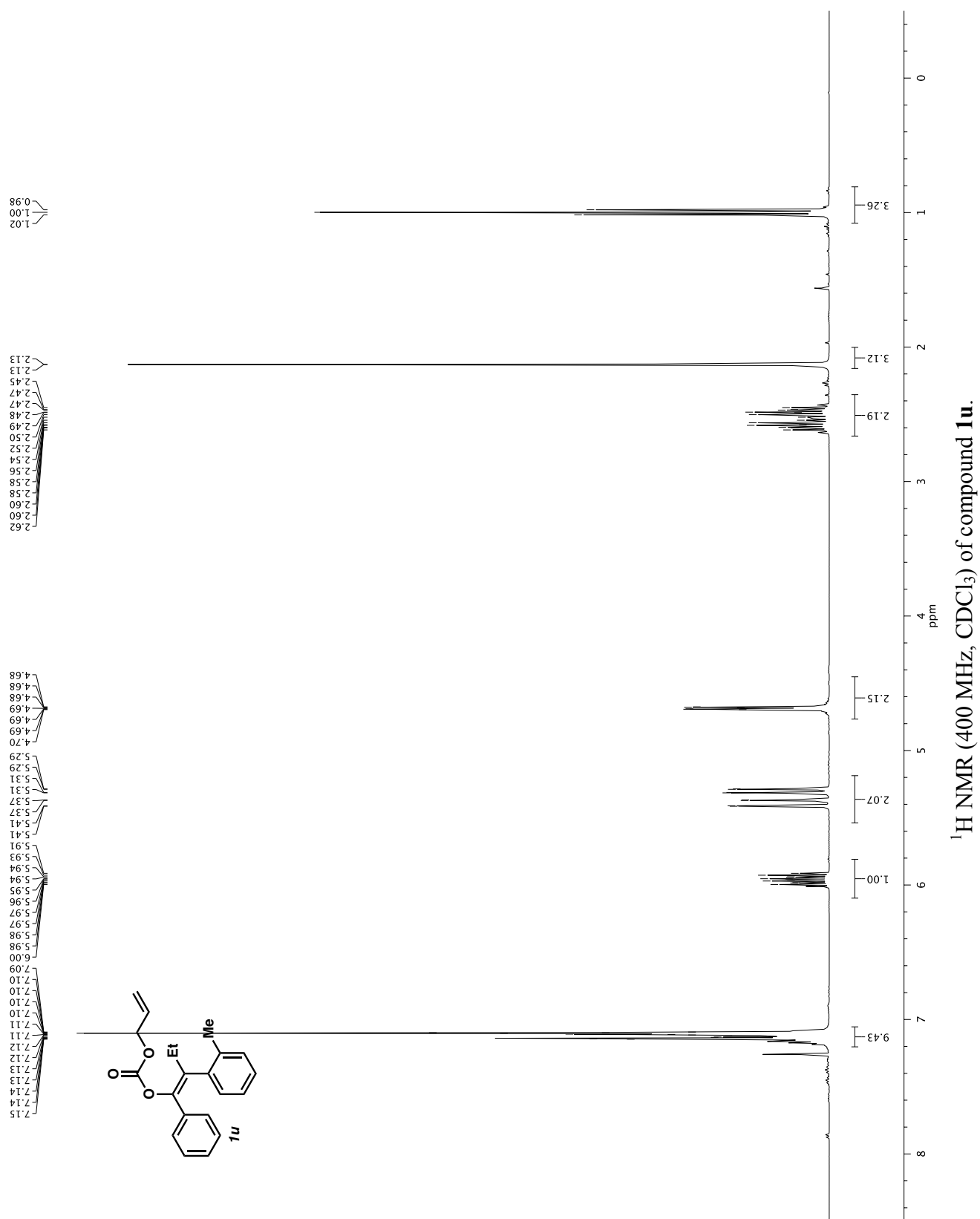
Infrared spectrum (Thin Film, NaCl) of compound **1s**.¹³C NMR (100 MHz, CDCl₃) of compound **1s**.

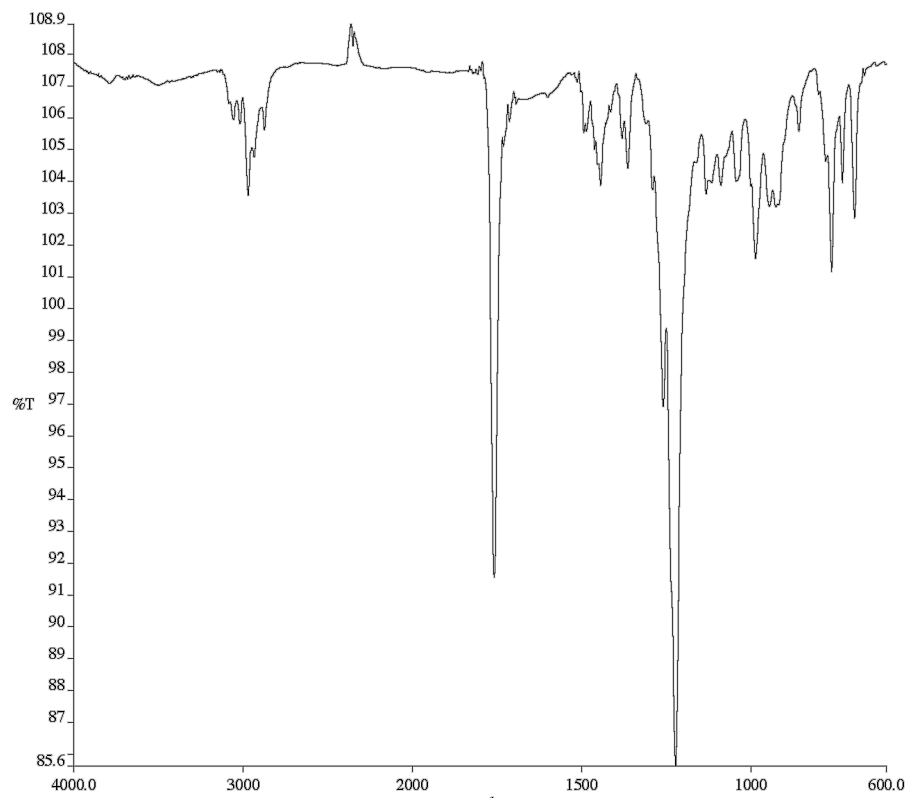


^{19}F NMR (282 MHz, CDCl_3) of compound **1s**.

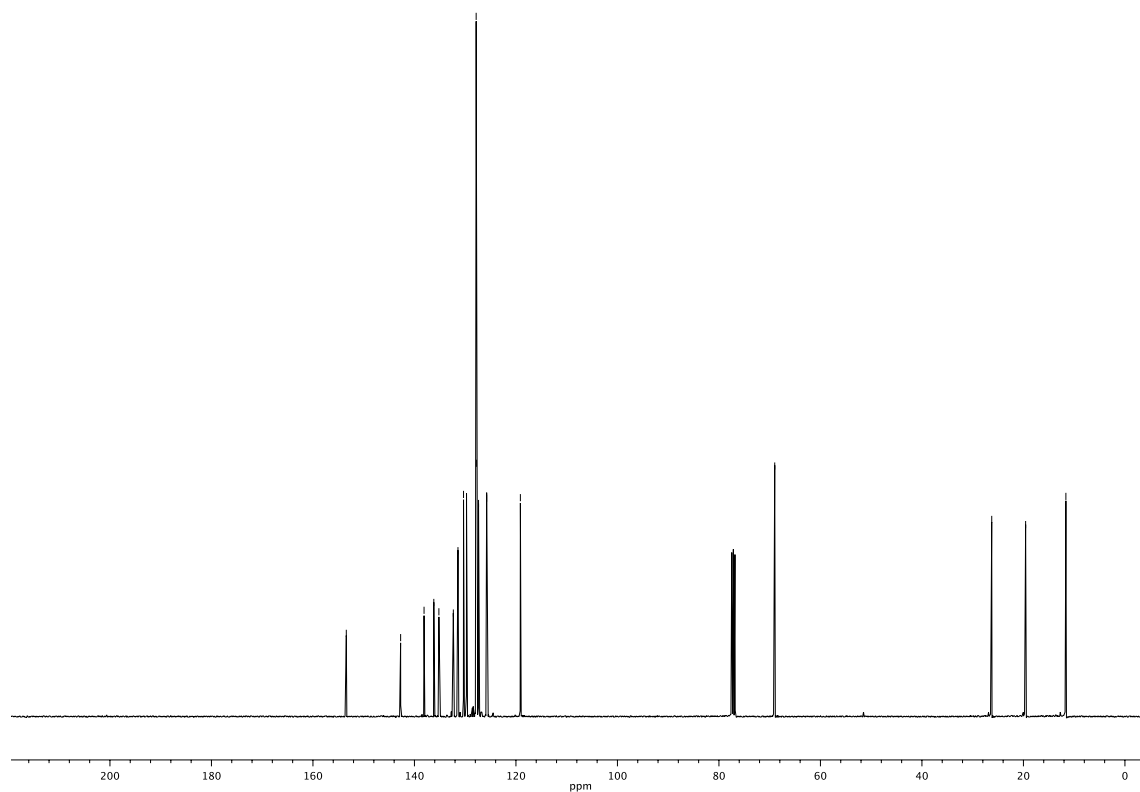


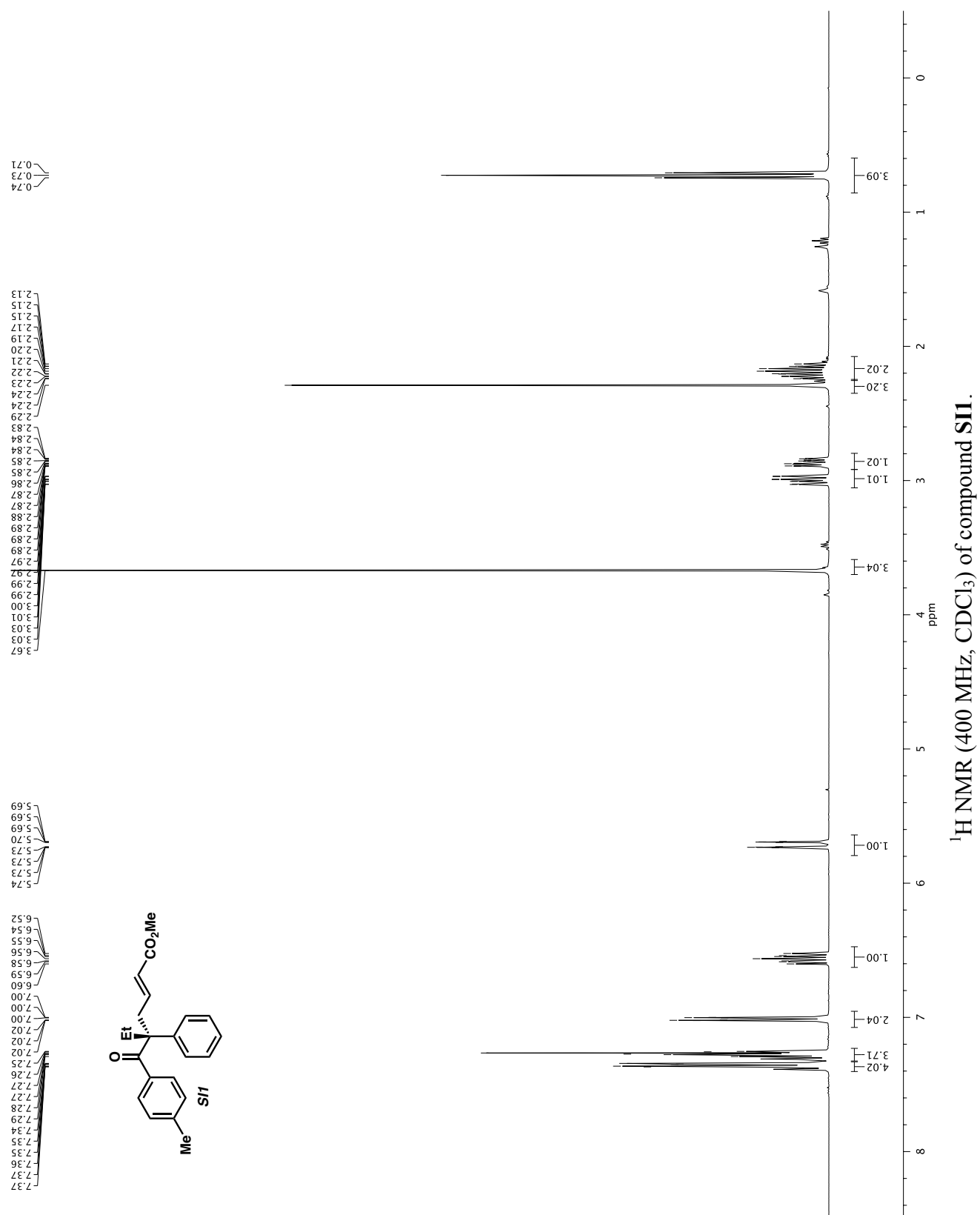
Infrared spectrum (Thin Film, NaCl) of compound **1t**.¹³C NMR (100 MHz, CDCl₃) of compound **1t**.

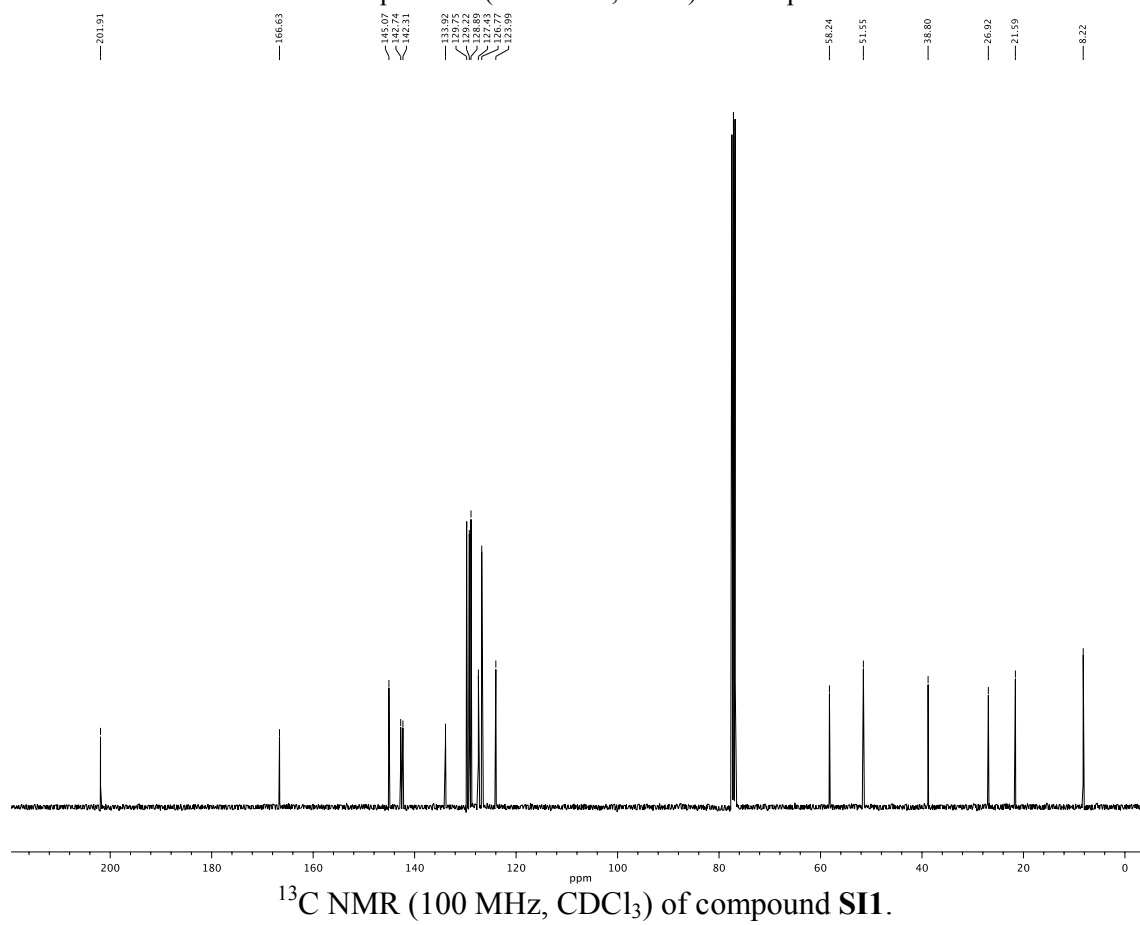
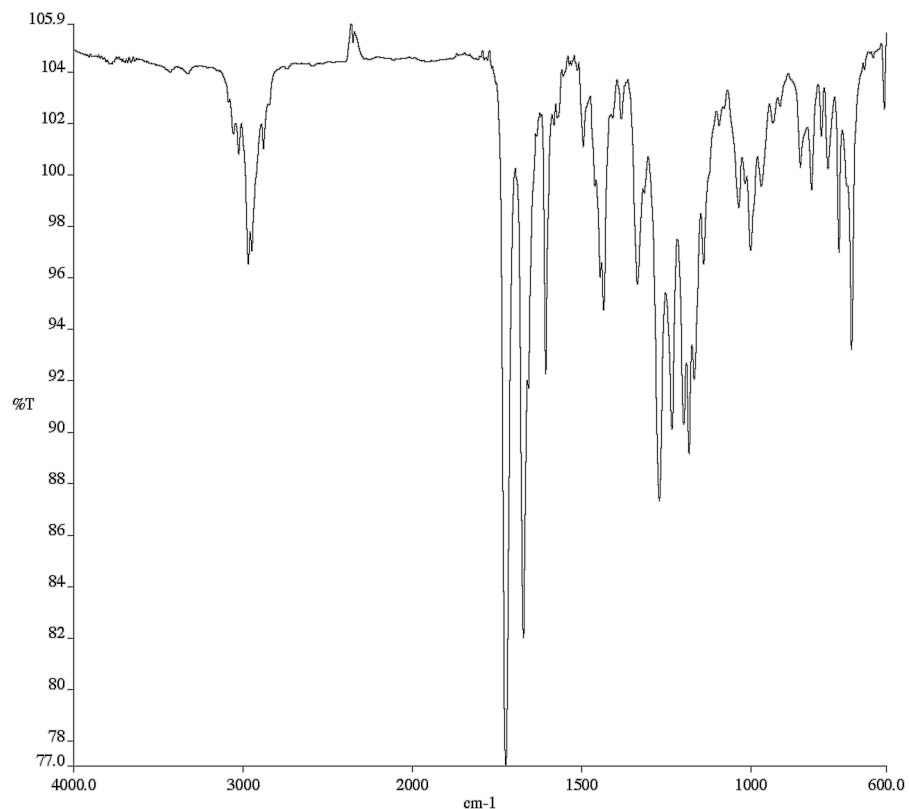


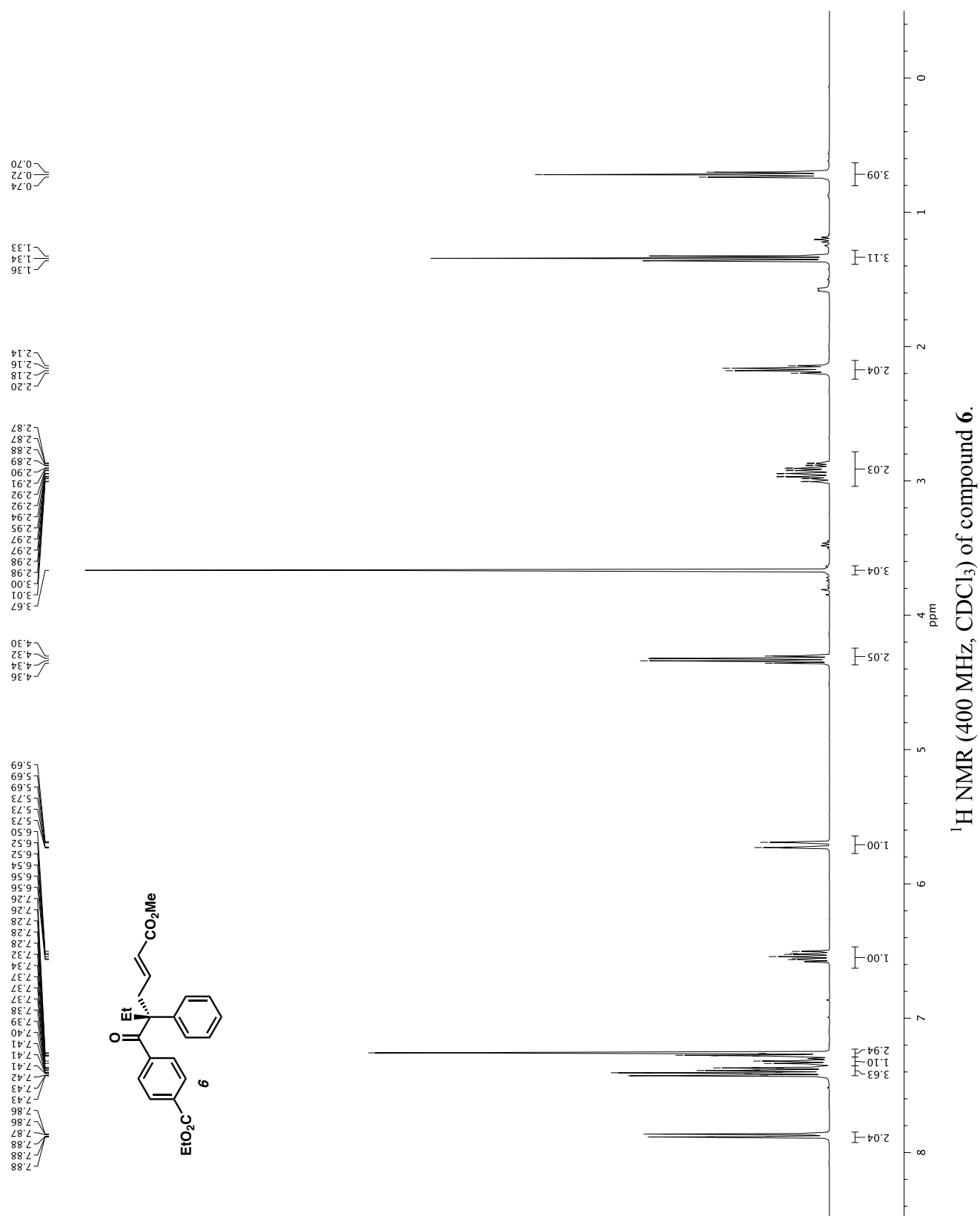
Infrared spectrum (Thin Film, NaCl) of compound **1u**.

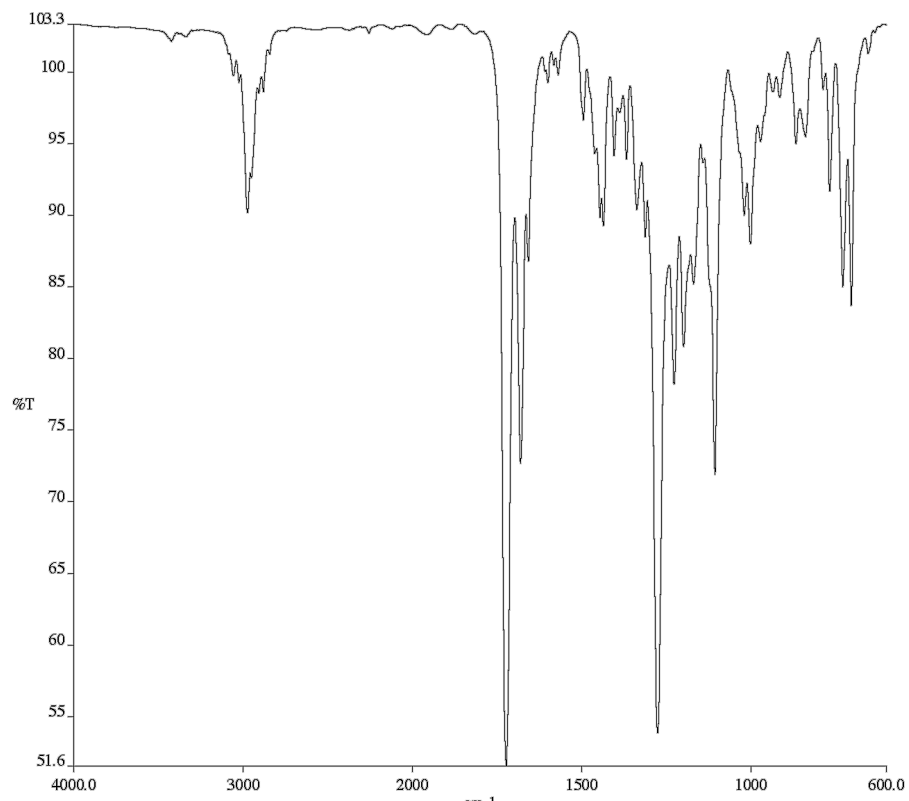
1532.43
1427.72
1388.11
1366.18
1322.13
1307.52
1289.74
1277.86
1272.37
1158.13
89.01
26.25
19.57
11.63

 ^{13}C NMR (100 MHz, CDCl_3) of compound **1u**.

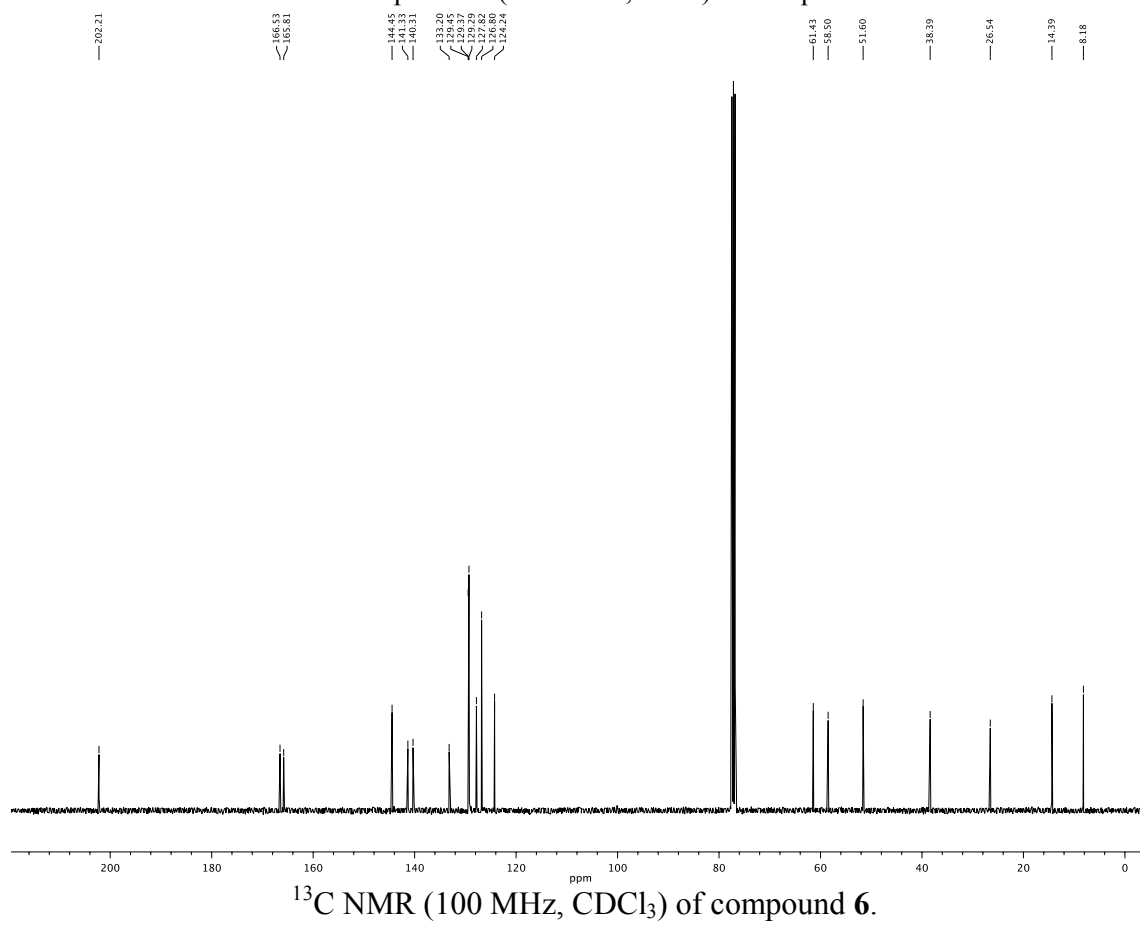


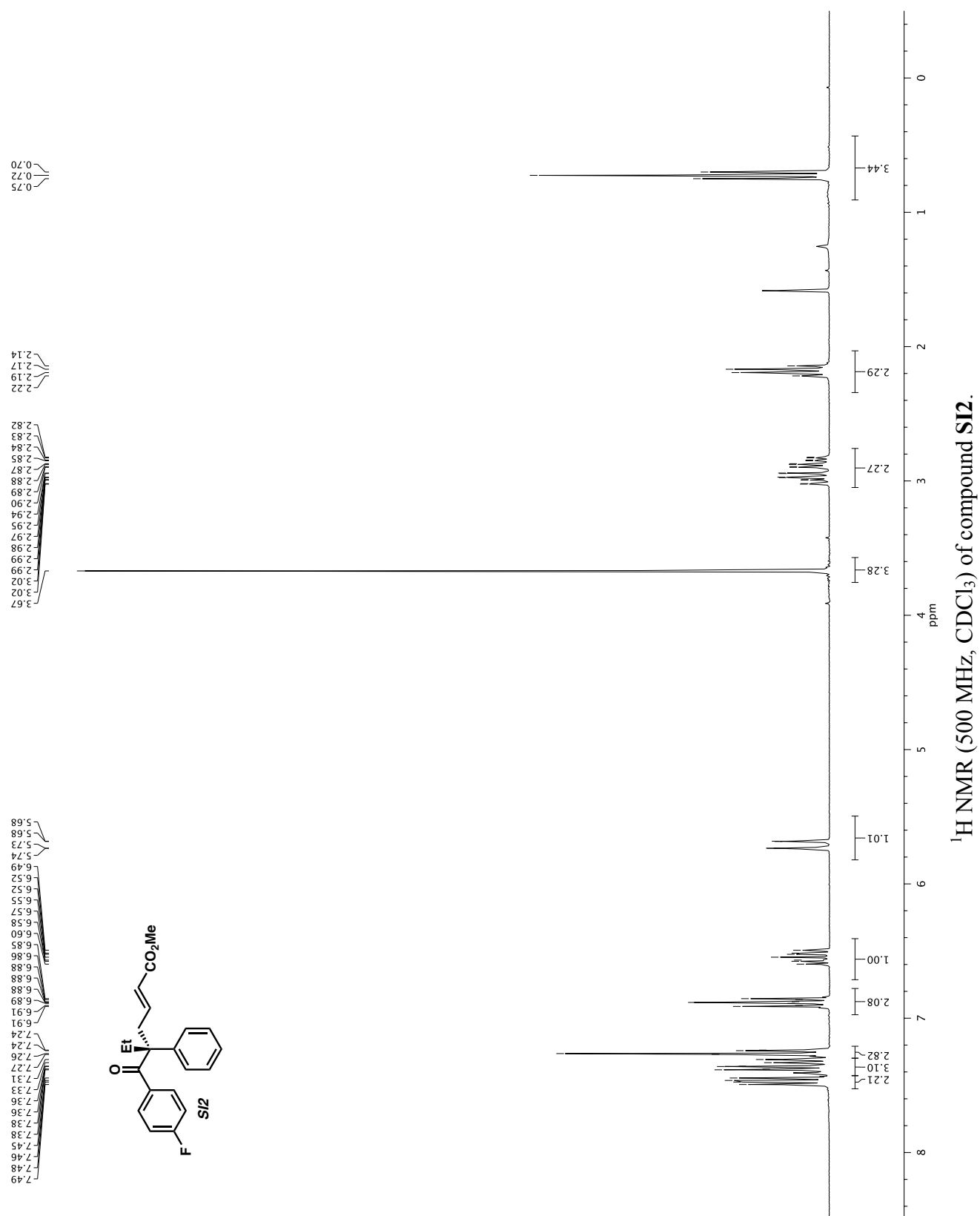


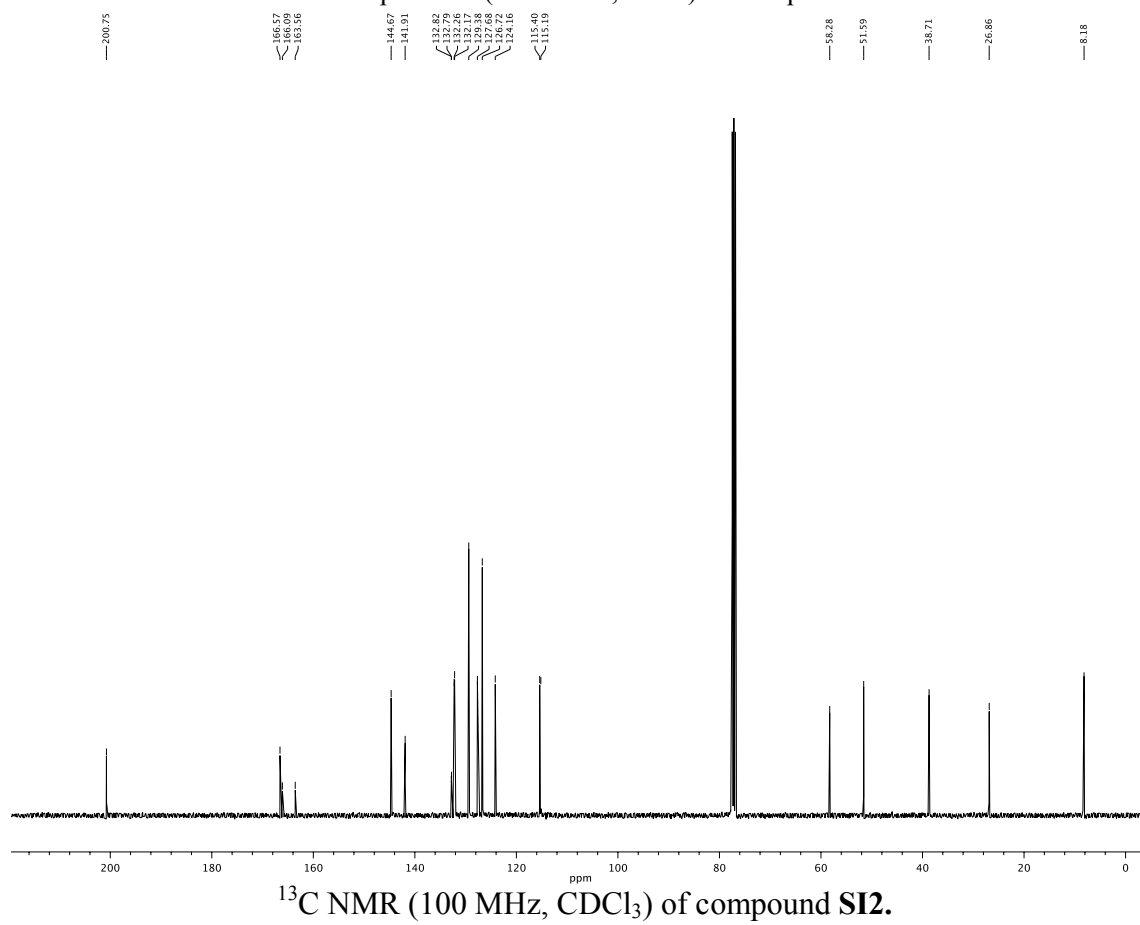
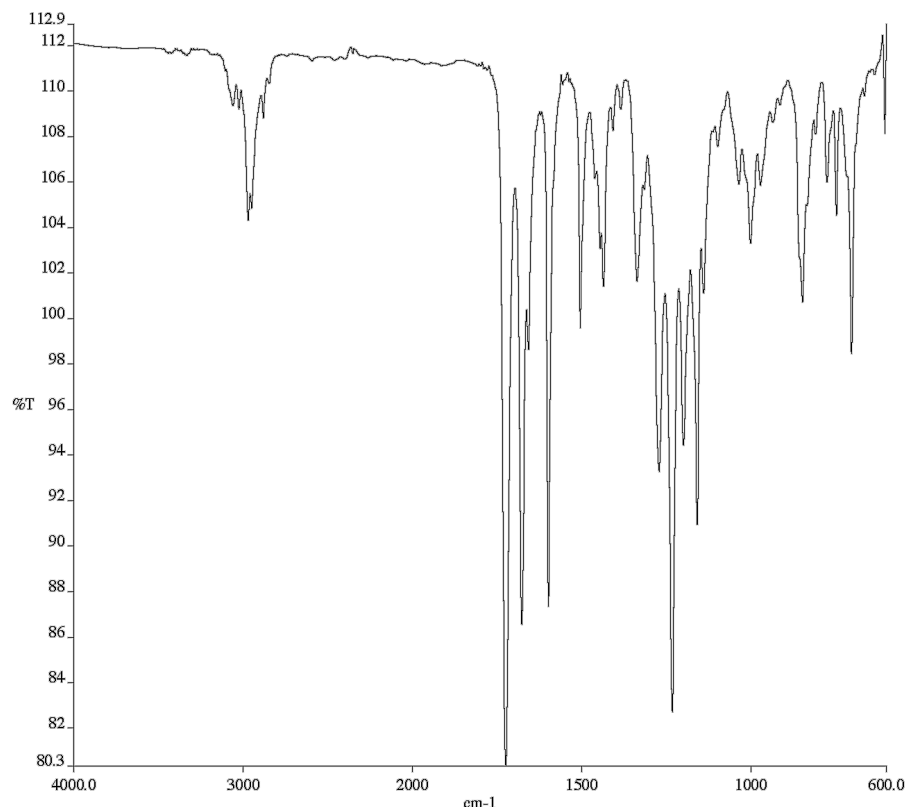


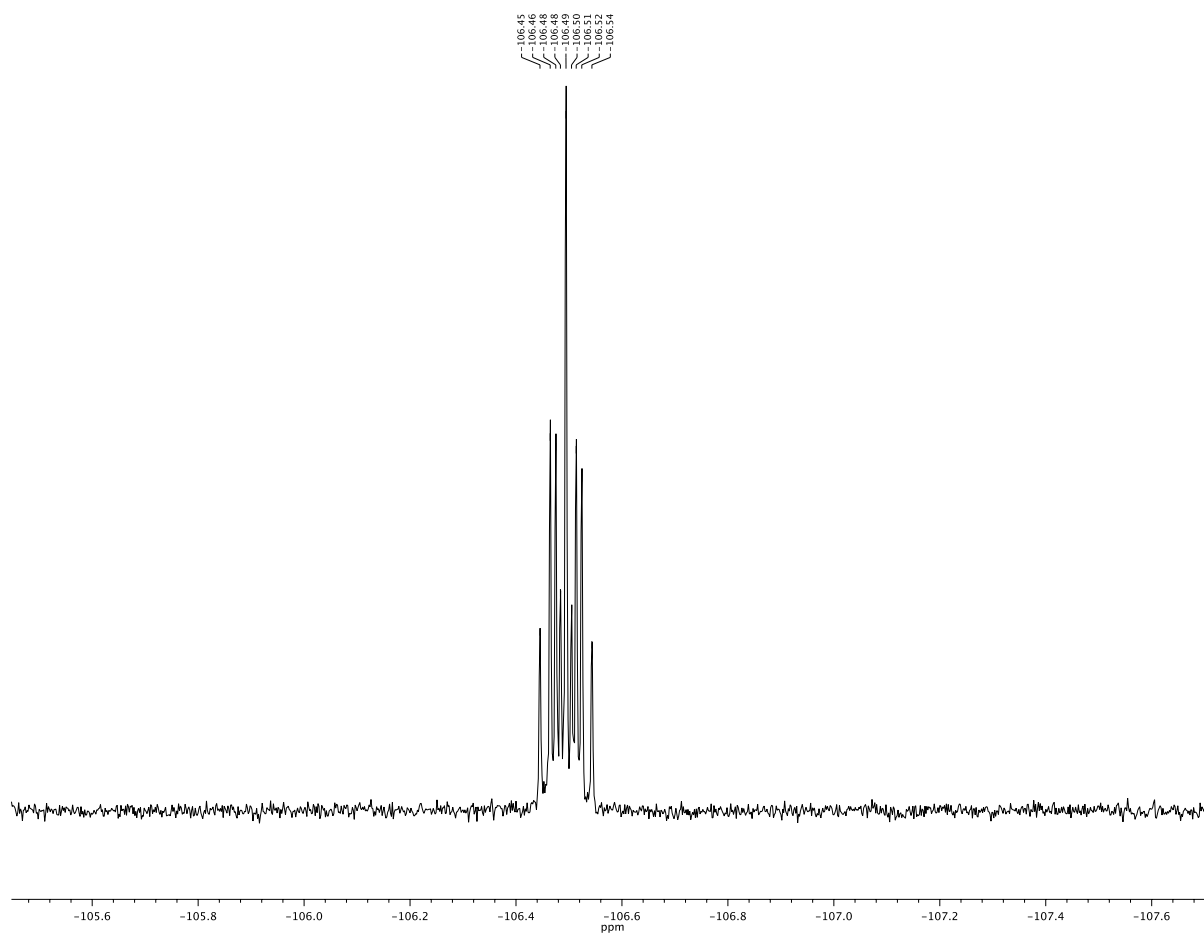


Infrared spectrum (Thin Film, NaCl) of compound 6.

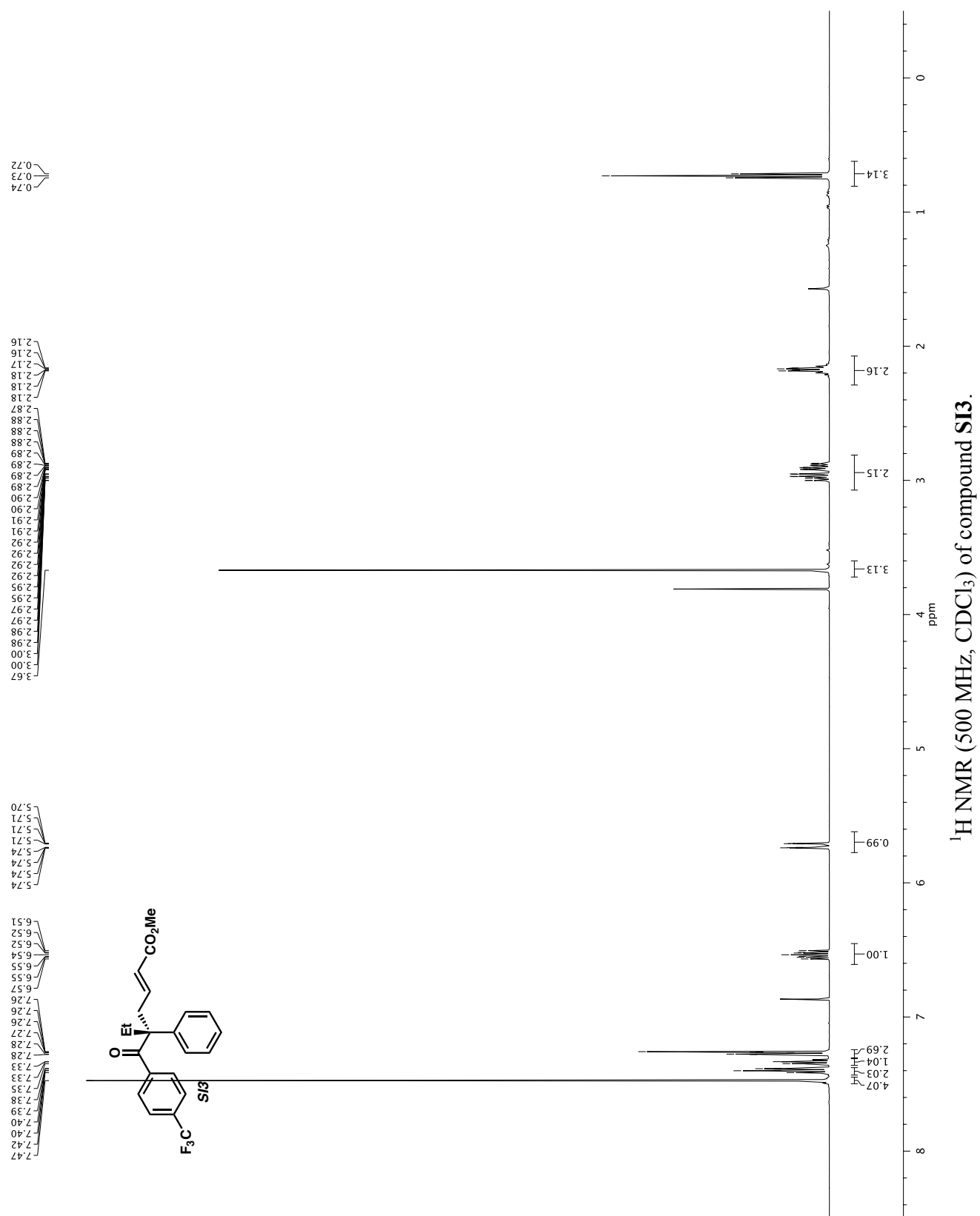
¹³C NMR (100 MHz, CDCl₃) of compound 6.

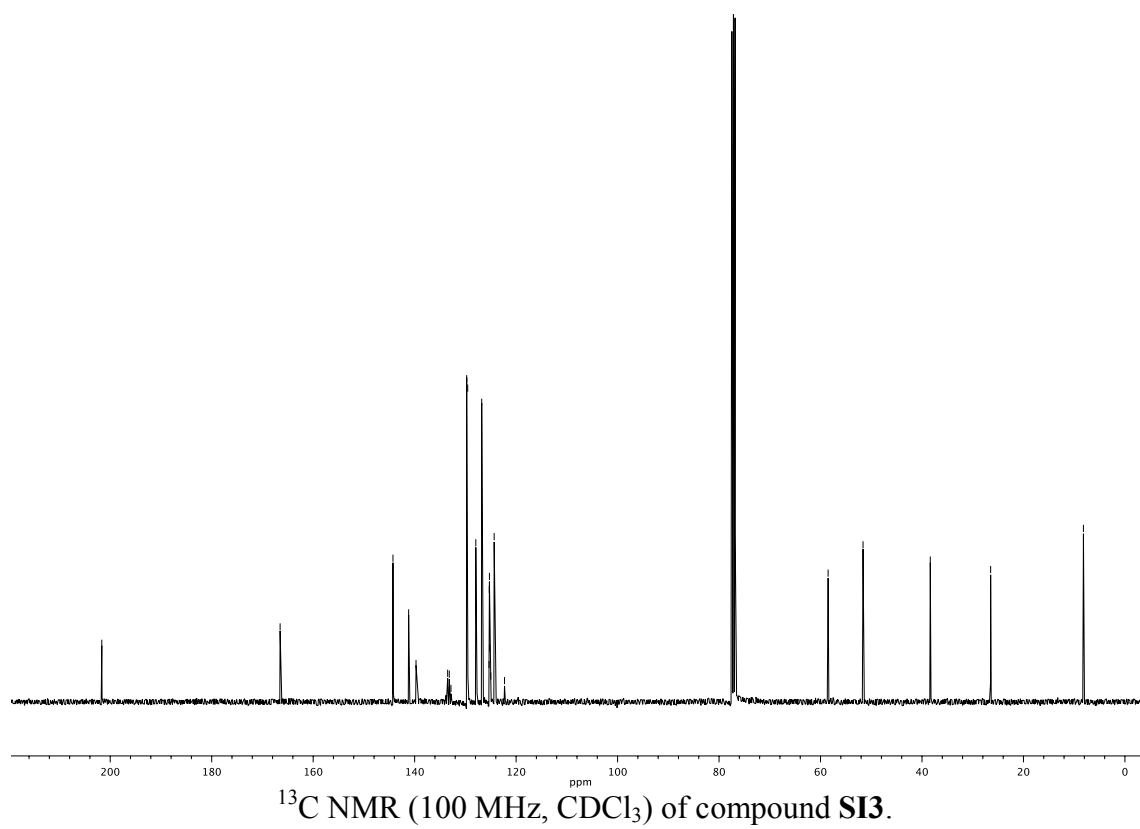
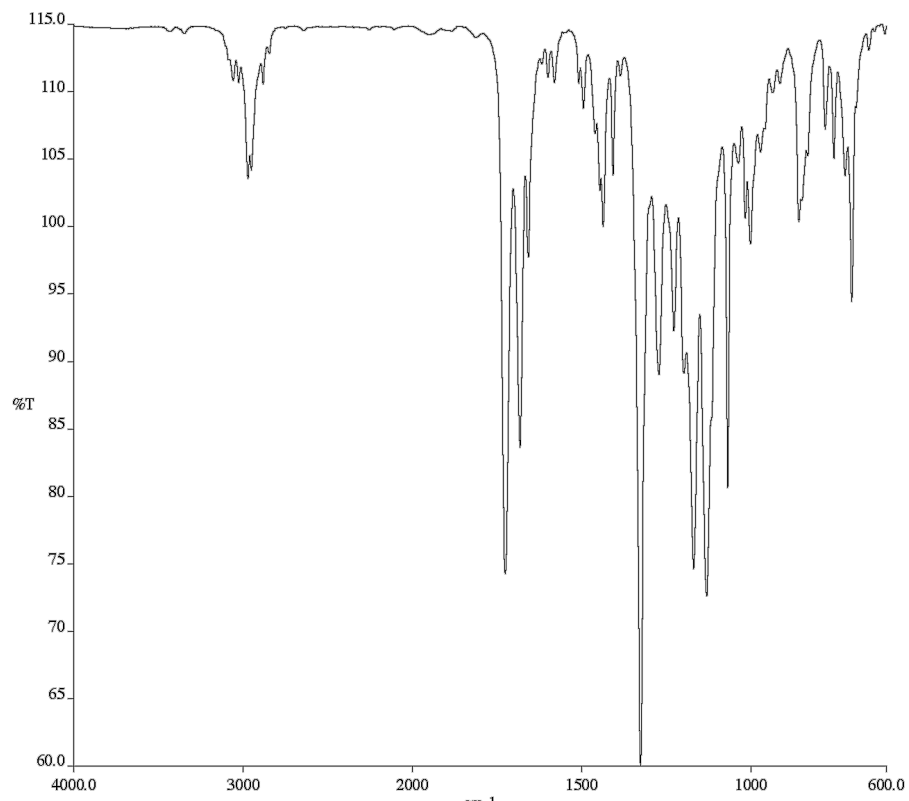


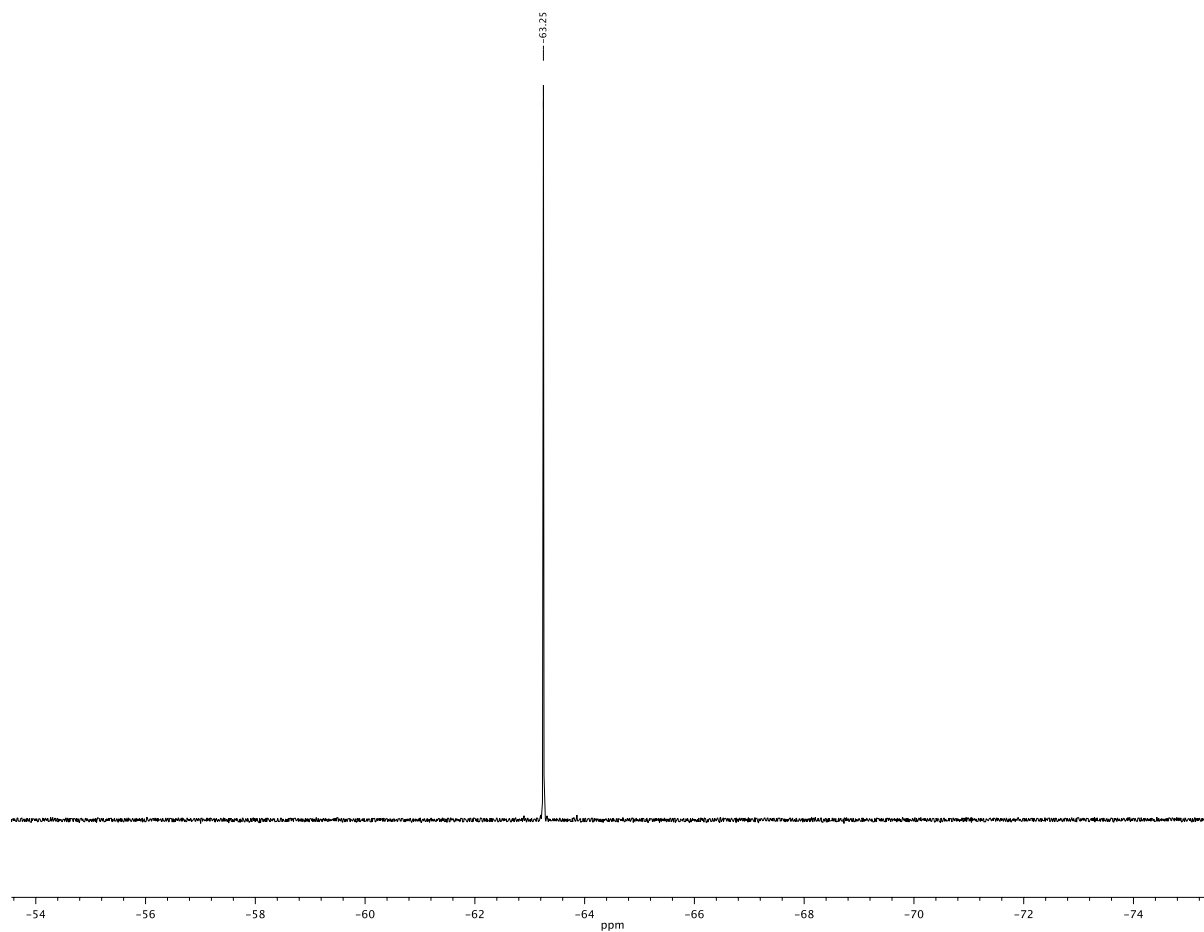




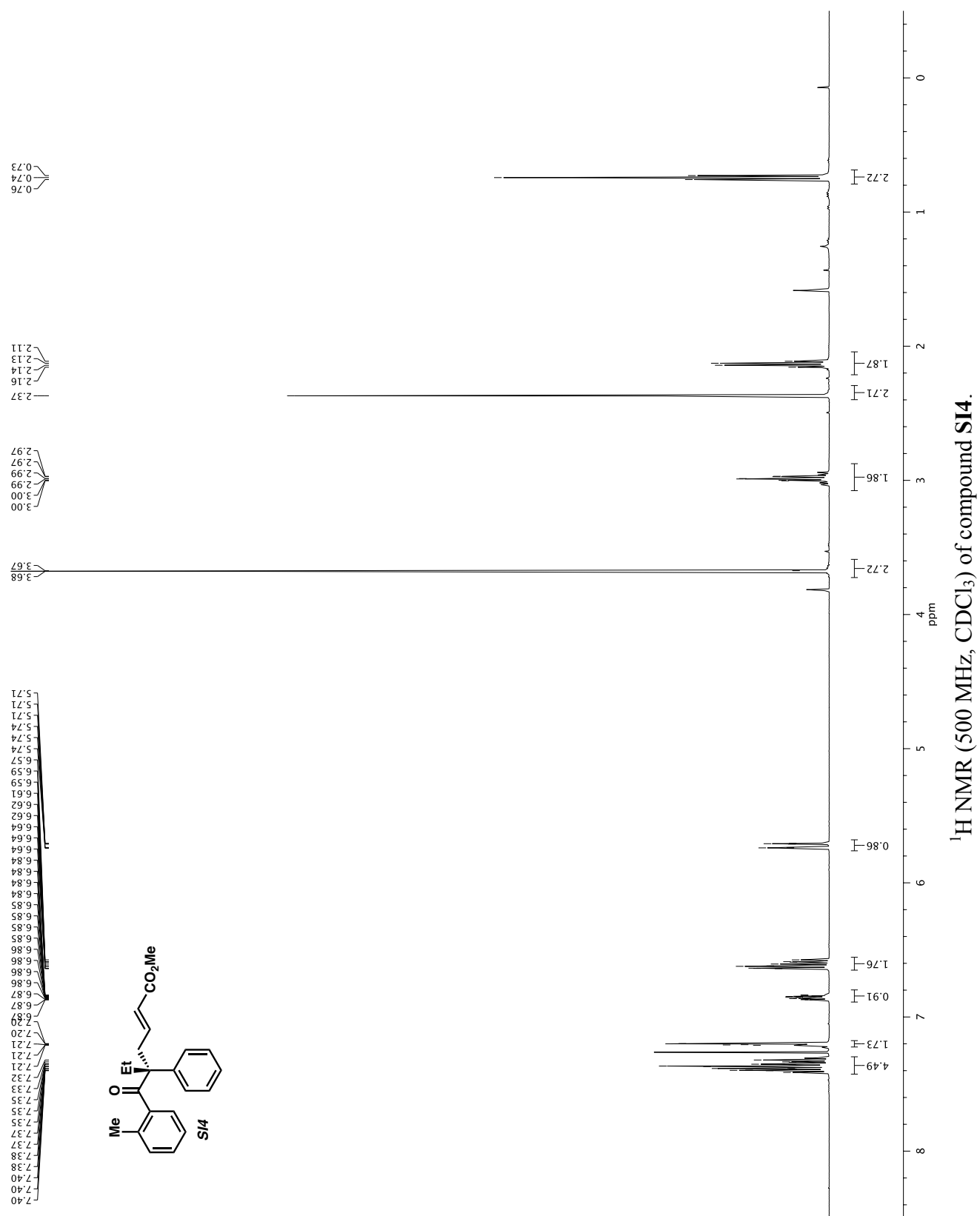
¹⁹F NMR (282 MHz, CDCl₃) of compound **SI2**.

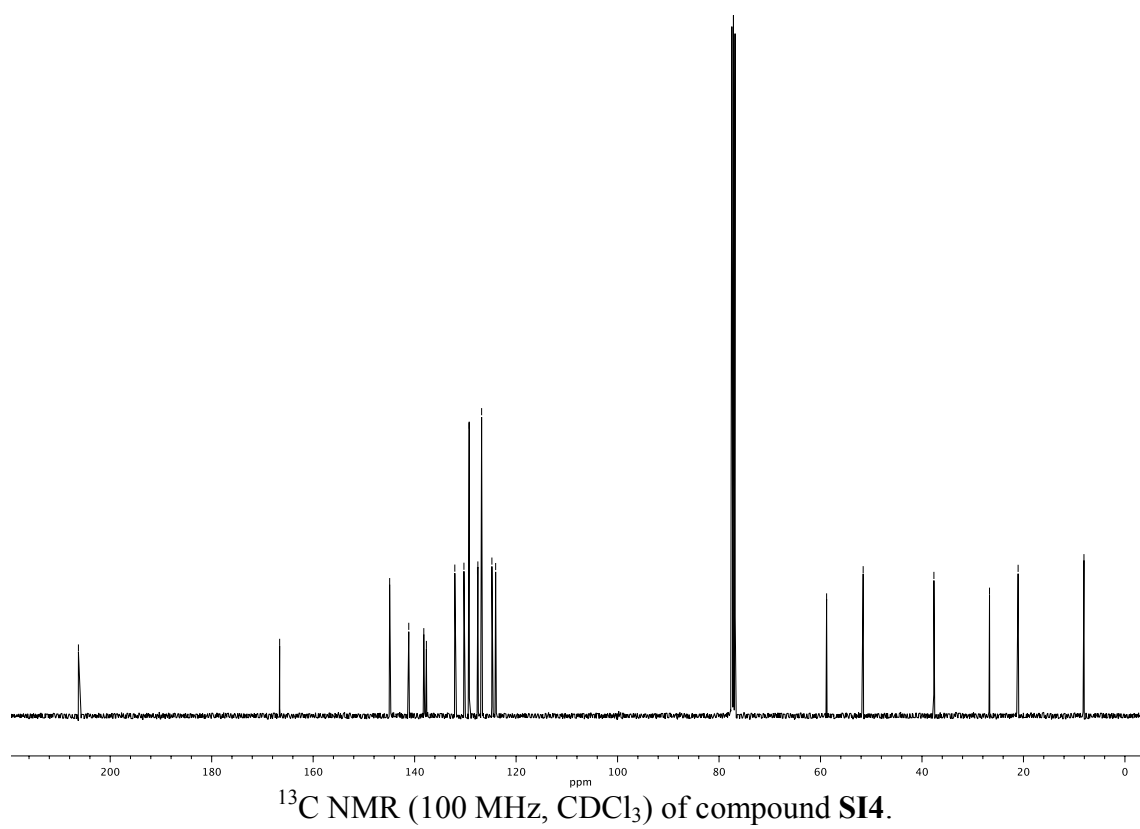
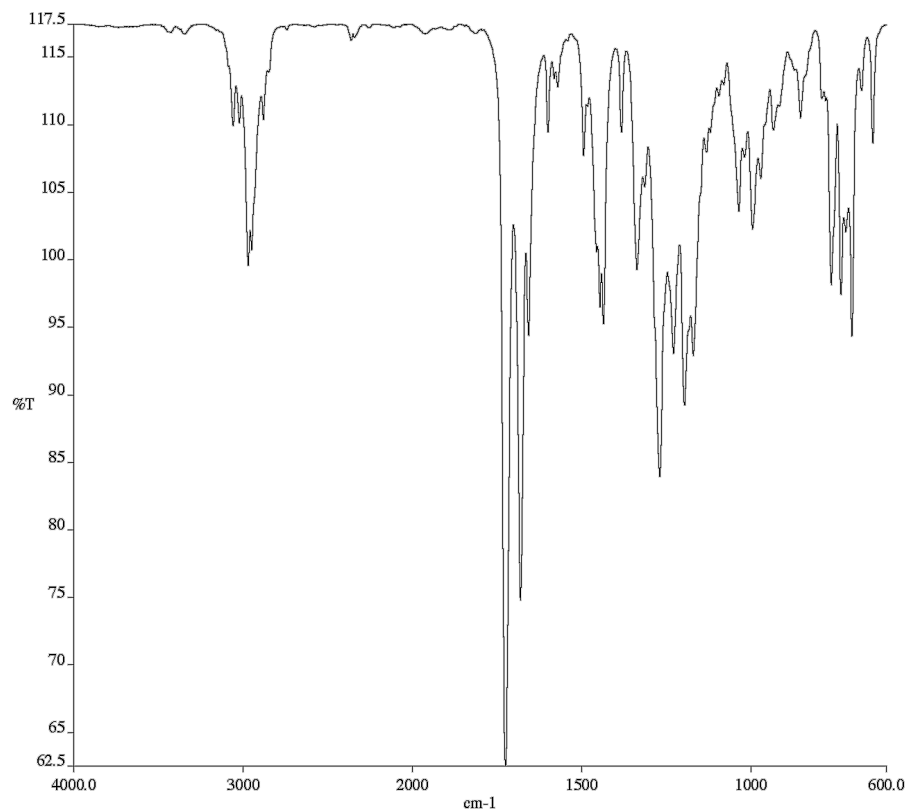


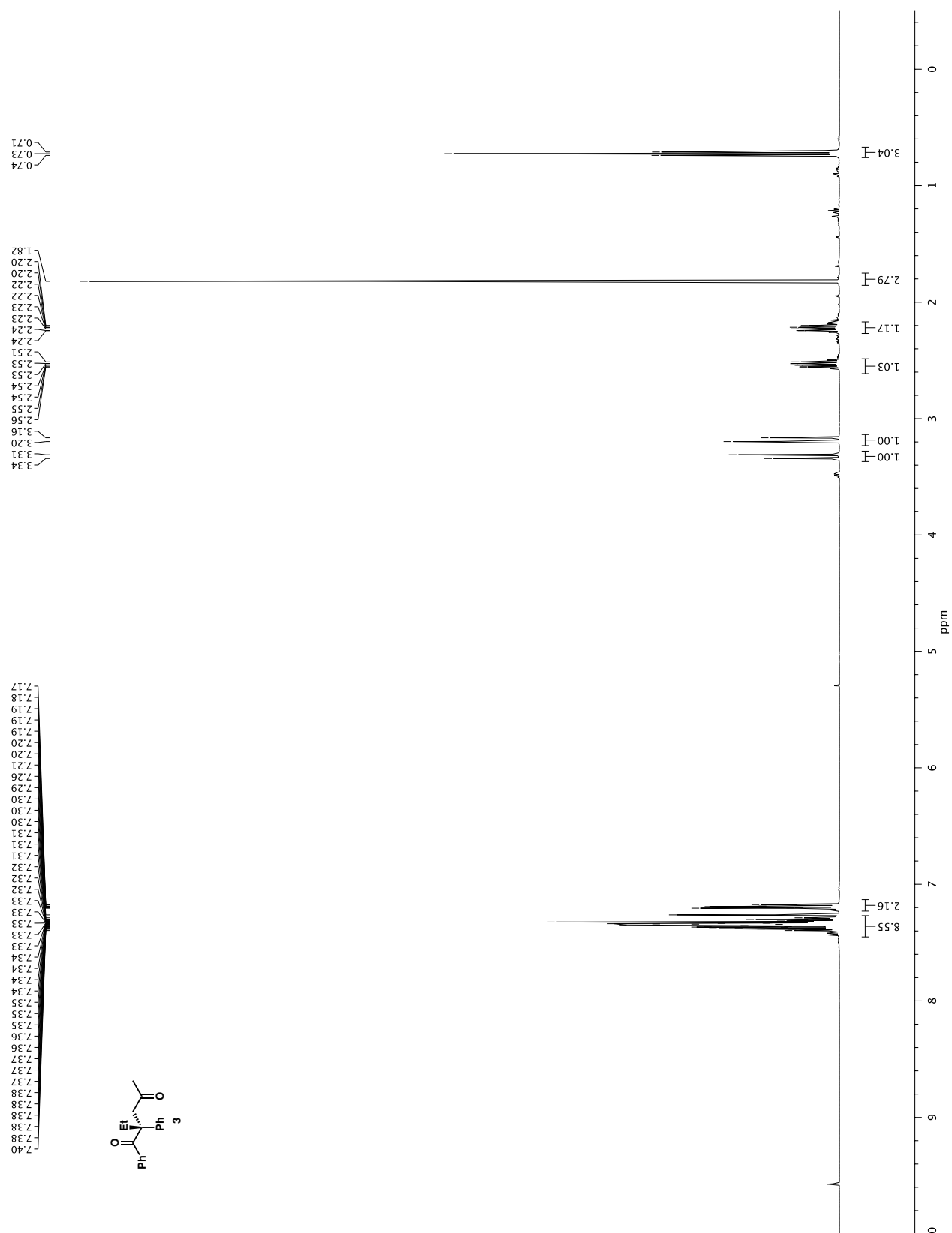


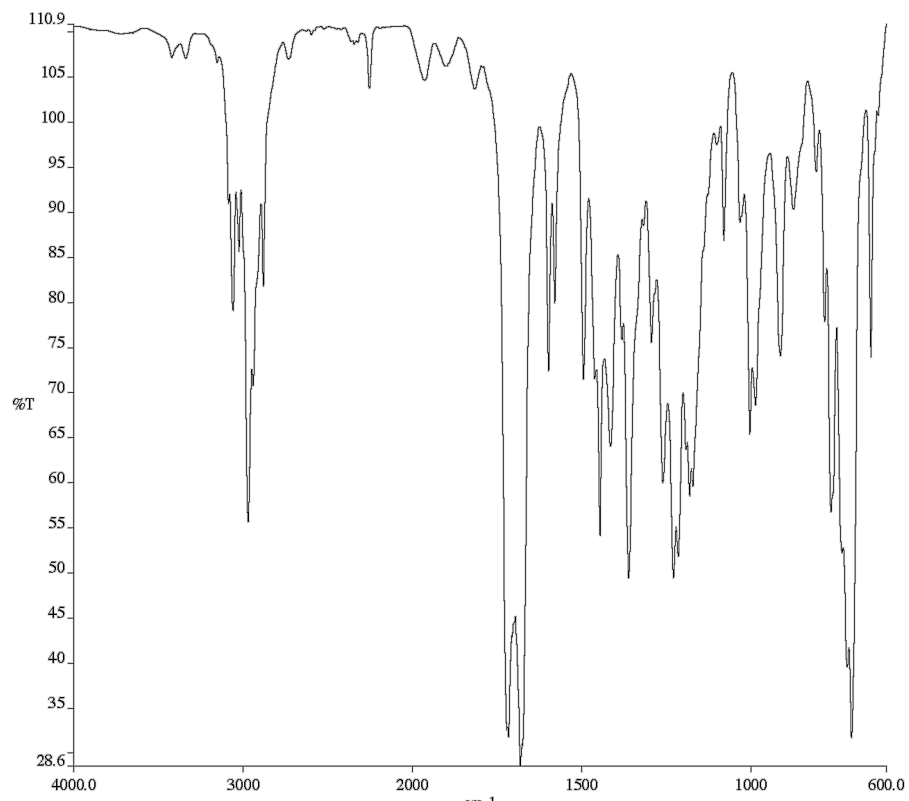


^{19}F NMR (282 MHz, CDCl_3) of compound **SI3**.









Infrared spectrum (Thin Film, NaCl) of compound 3.

— 2073.31
— 2022.66— 1414.44
— 1377.47
— 1328.51
— 1292.00
— 1258.04
— 1216.87

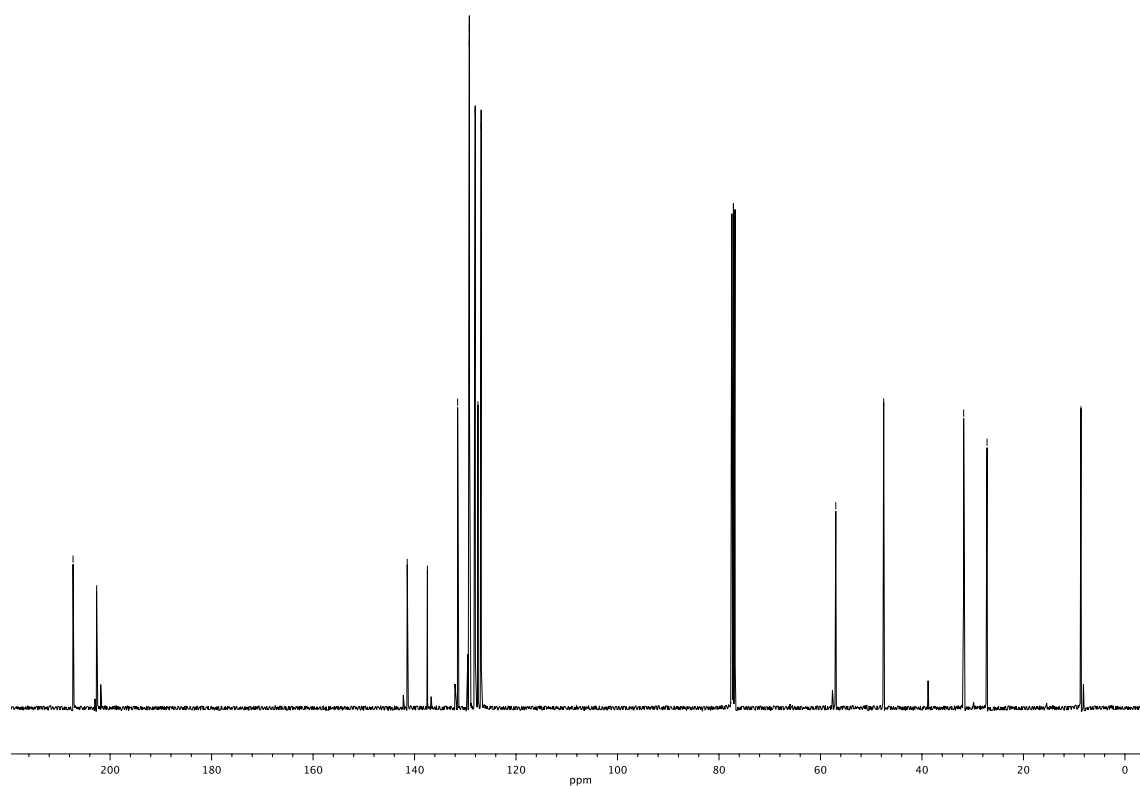
— 56.98

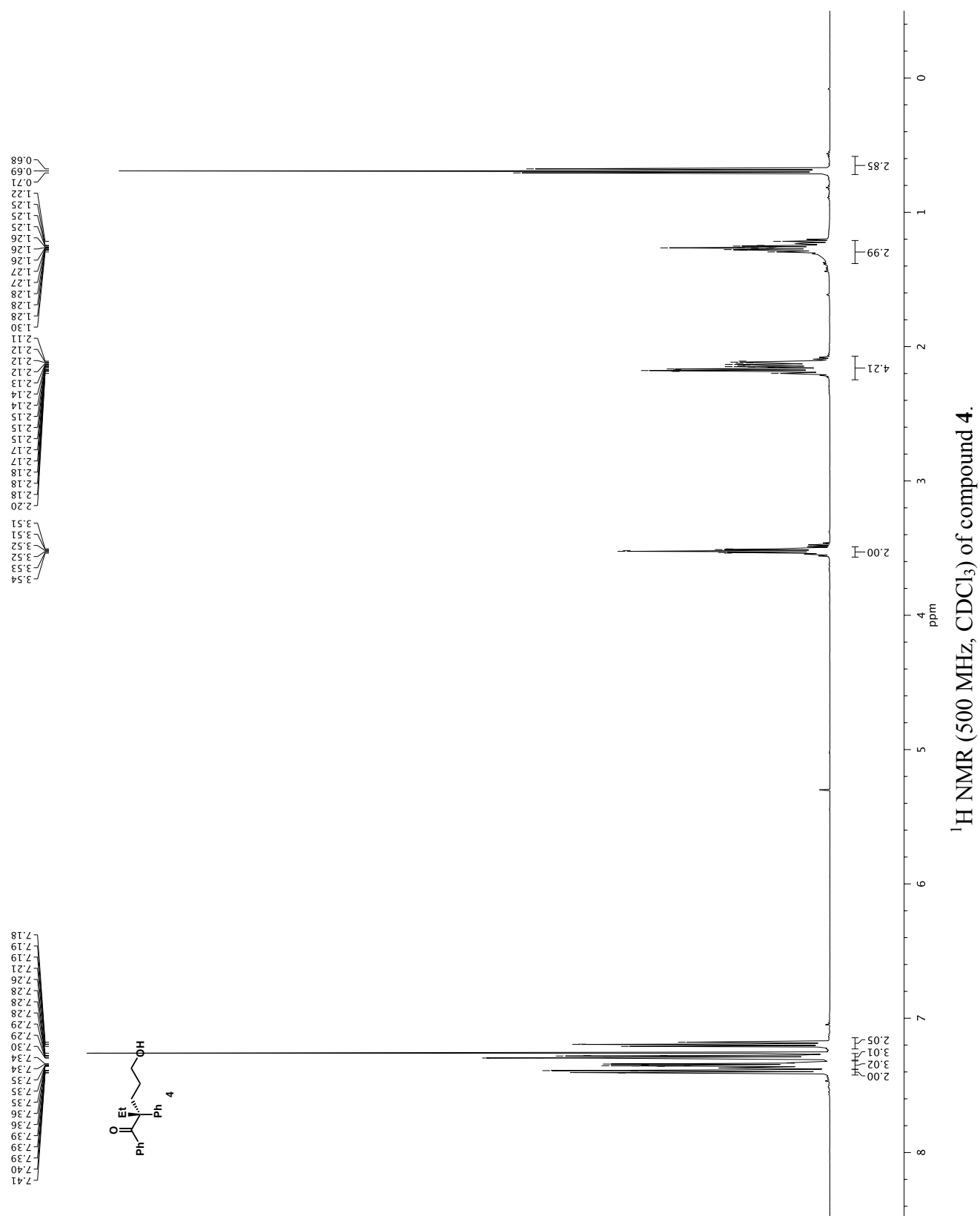
— 47.54

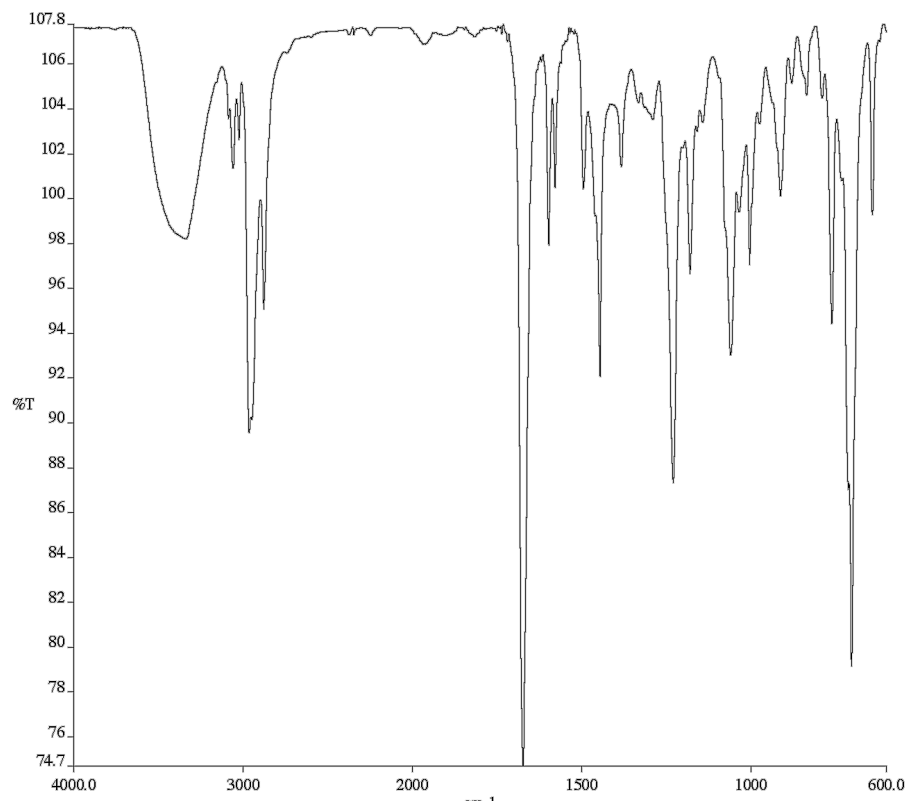
— 31.78

— 27.18

— 8.06

¹³C NMR (100 MHz, CDCl₃) of compound 3.



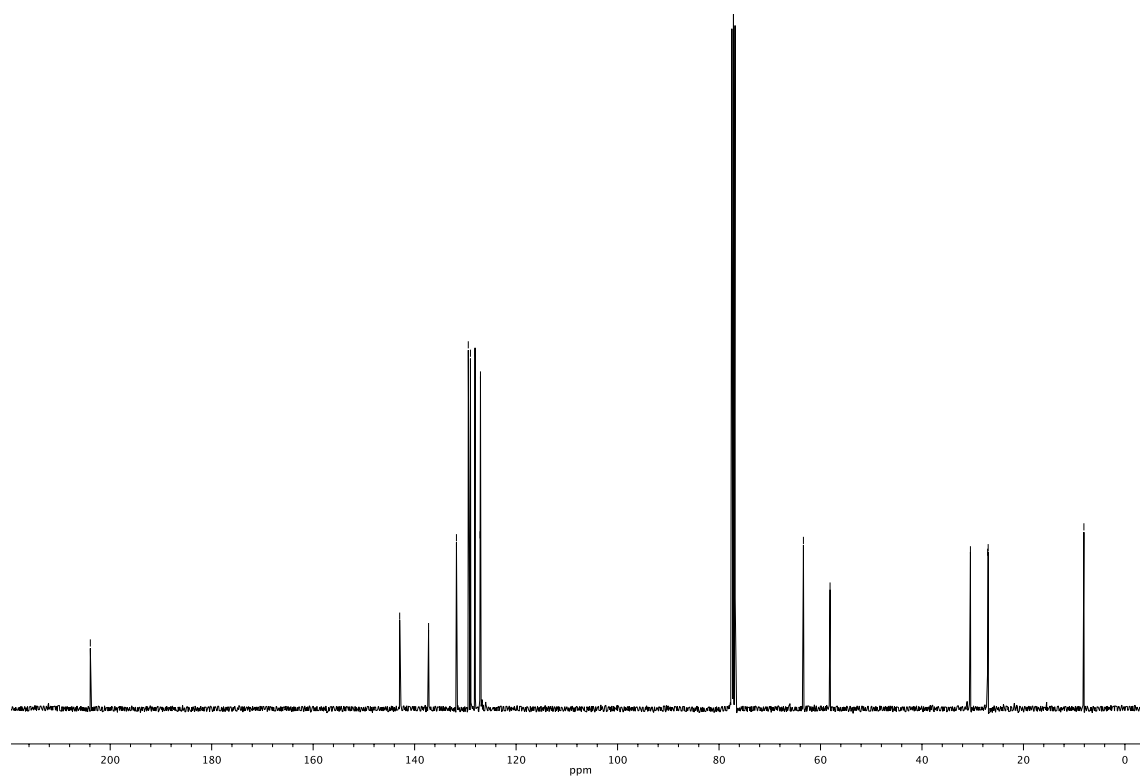


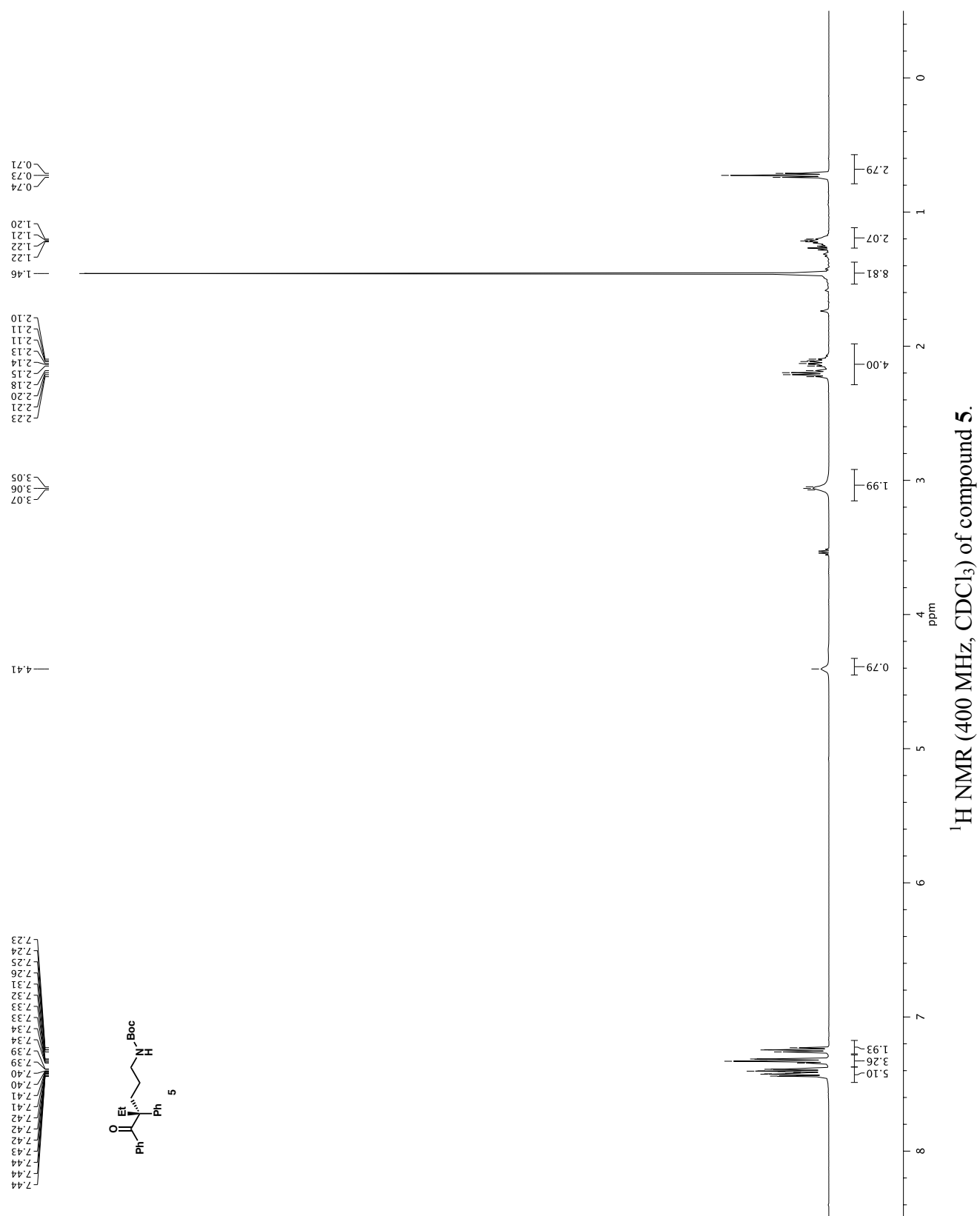
Infrared spectrum (Thin Film, NaCl) of compound 4.

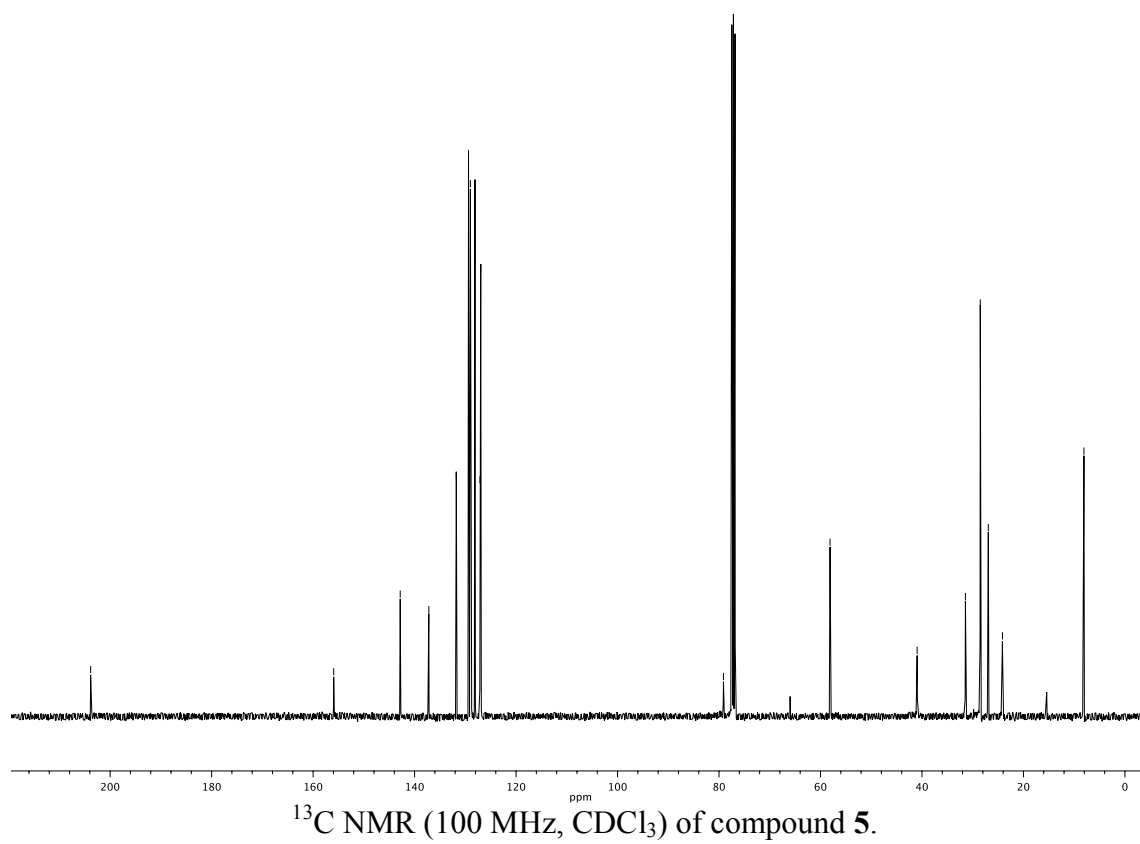
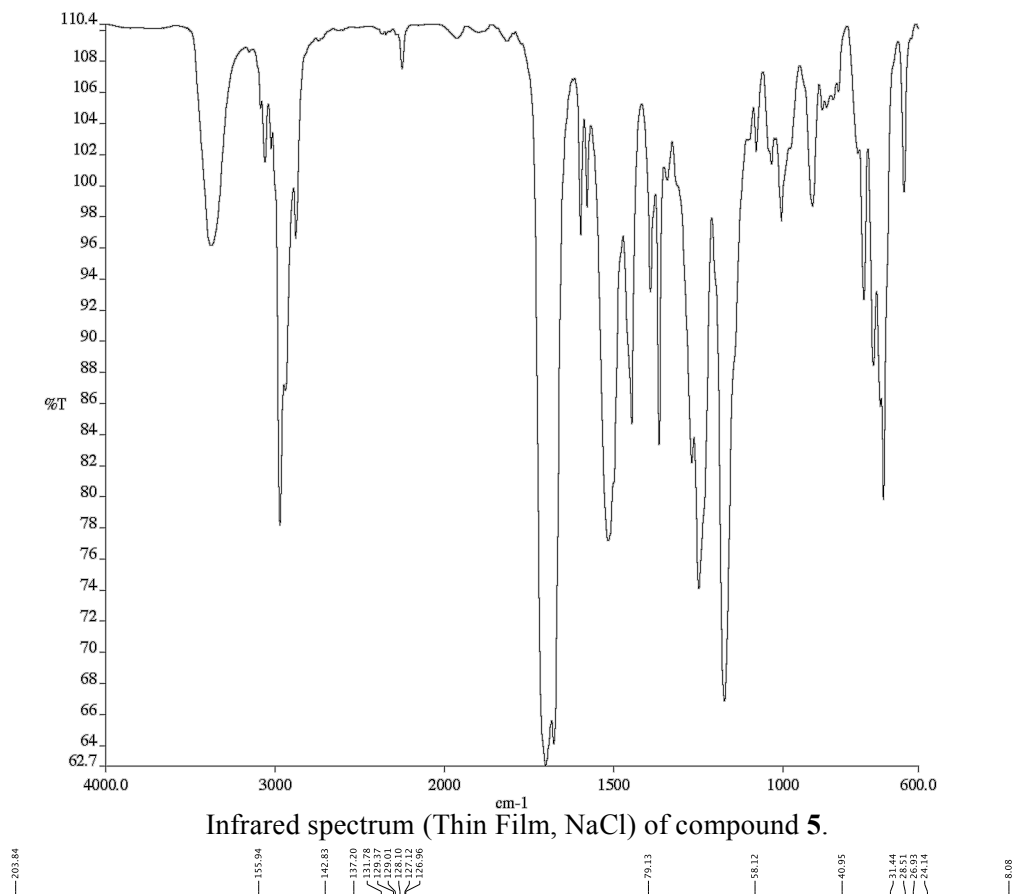
— 2033.92

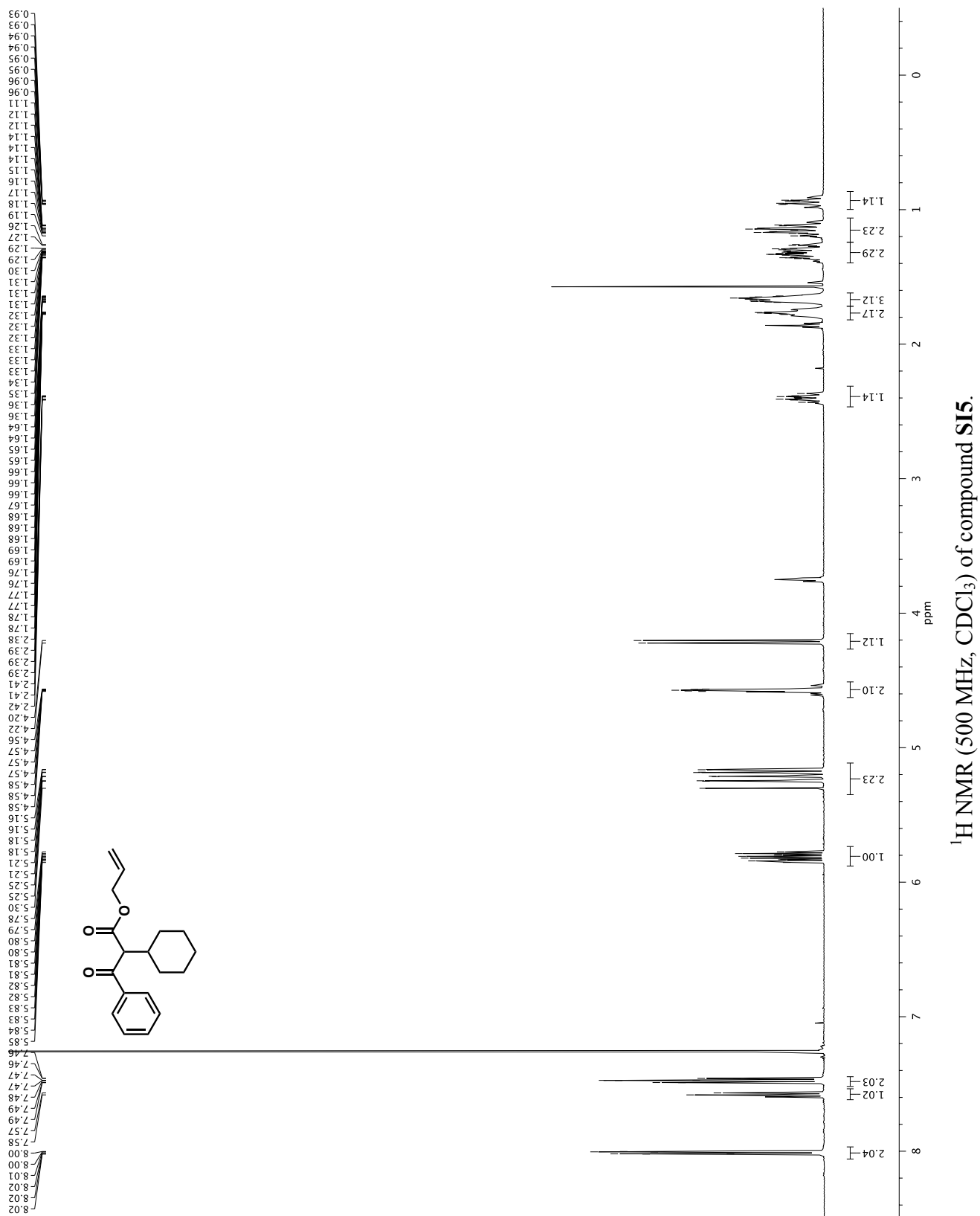
— 1422.94
— 1377.25
— 1331.76
— 1297.00
— 1258.09
— 1217.02— 632.37
— 58.12— 37.45
— 26.95

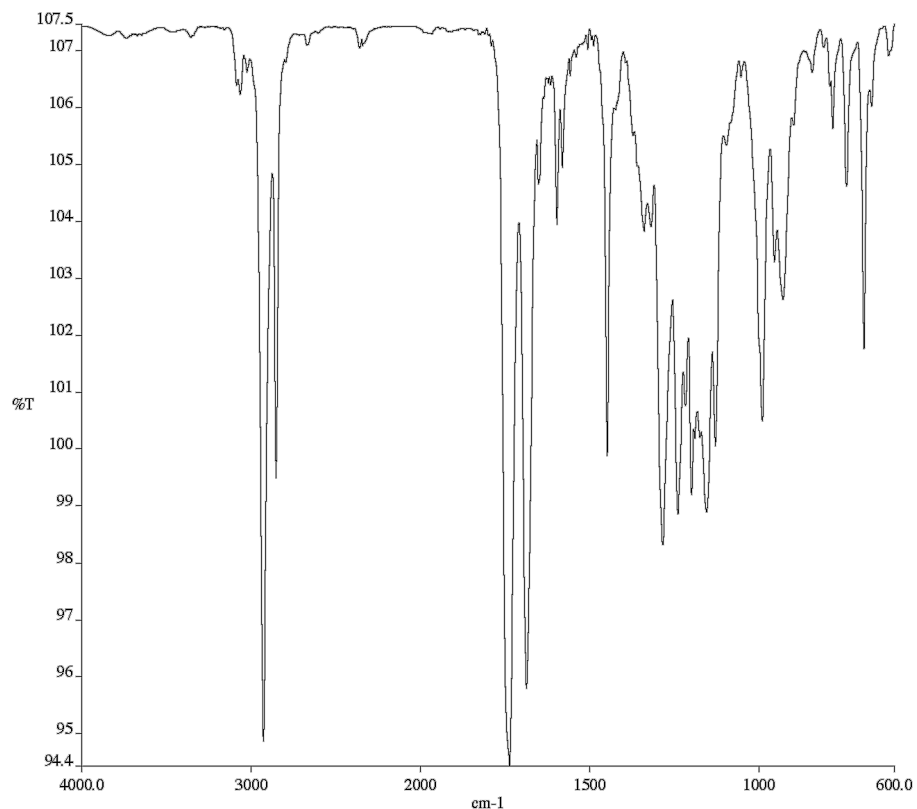
— 8.09

¹³C NMR (100 MHz, CDCl₃) of compound 4.

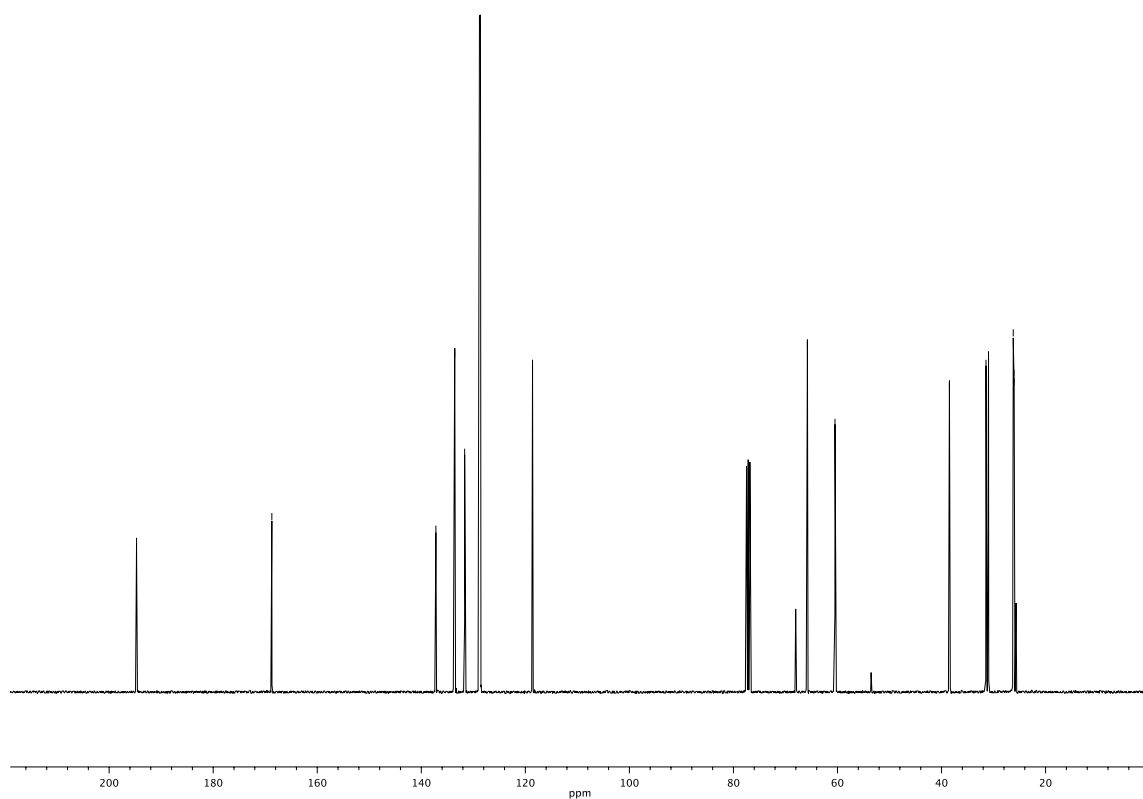


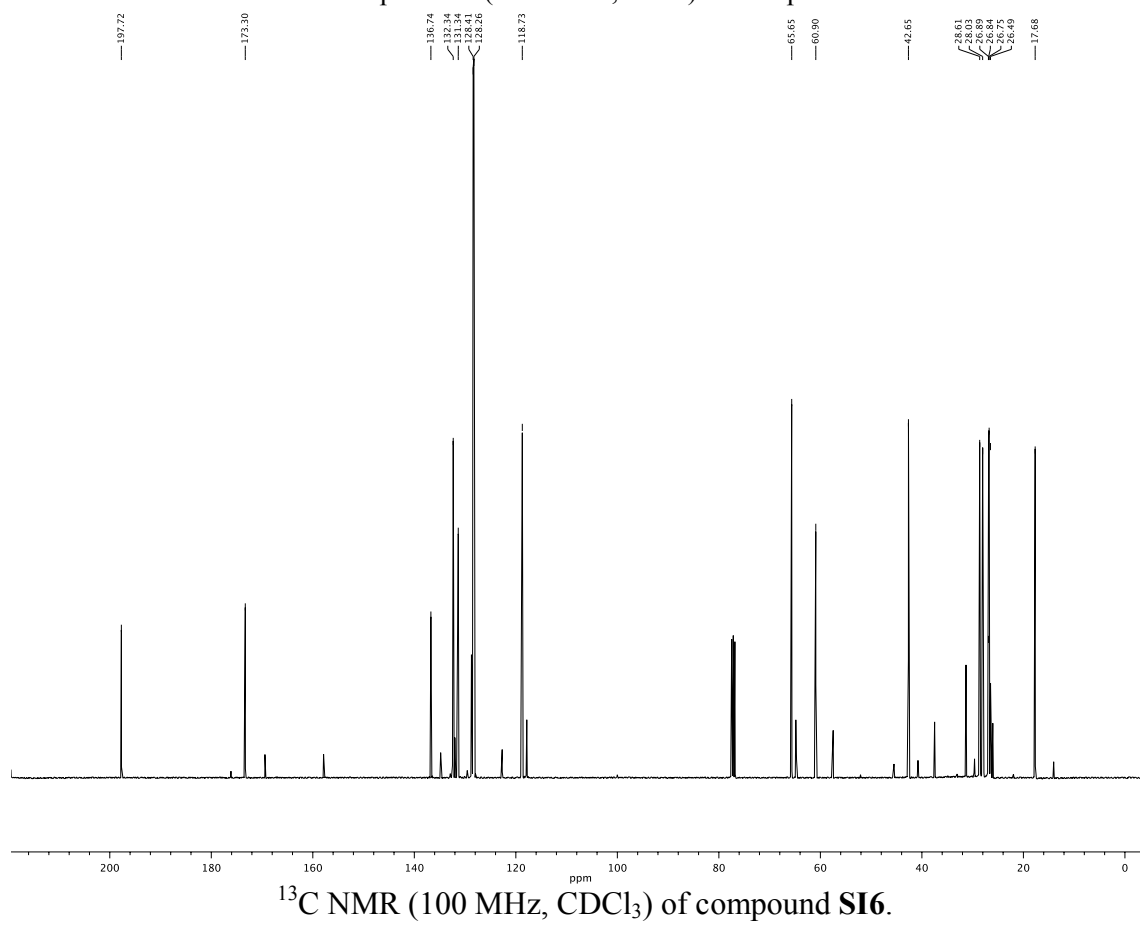
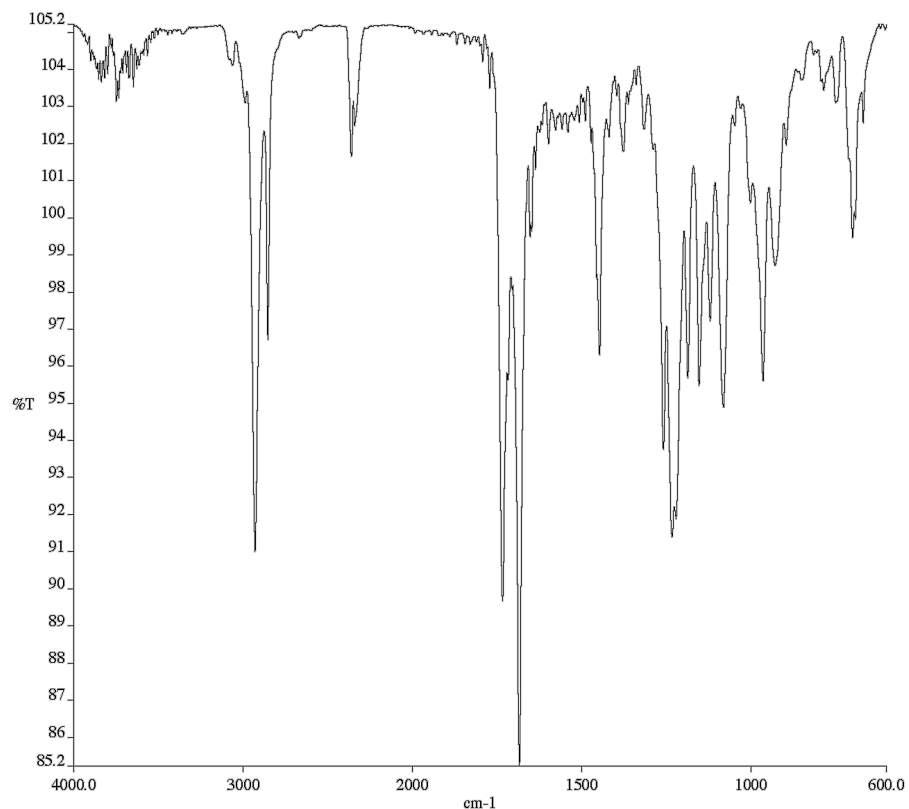


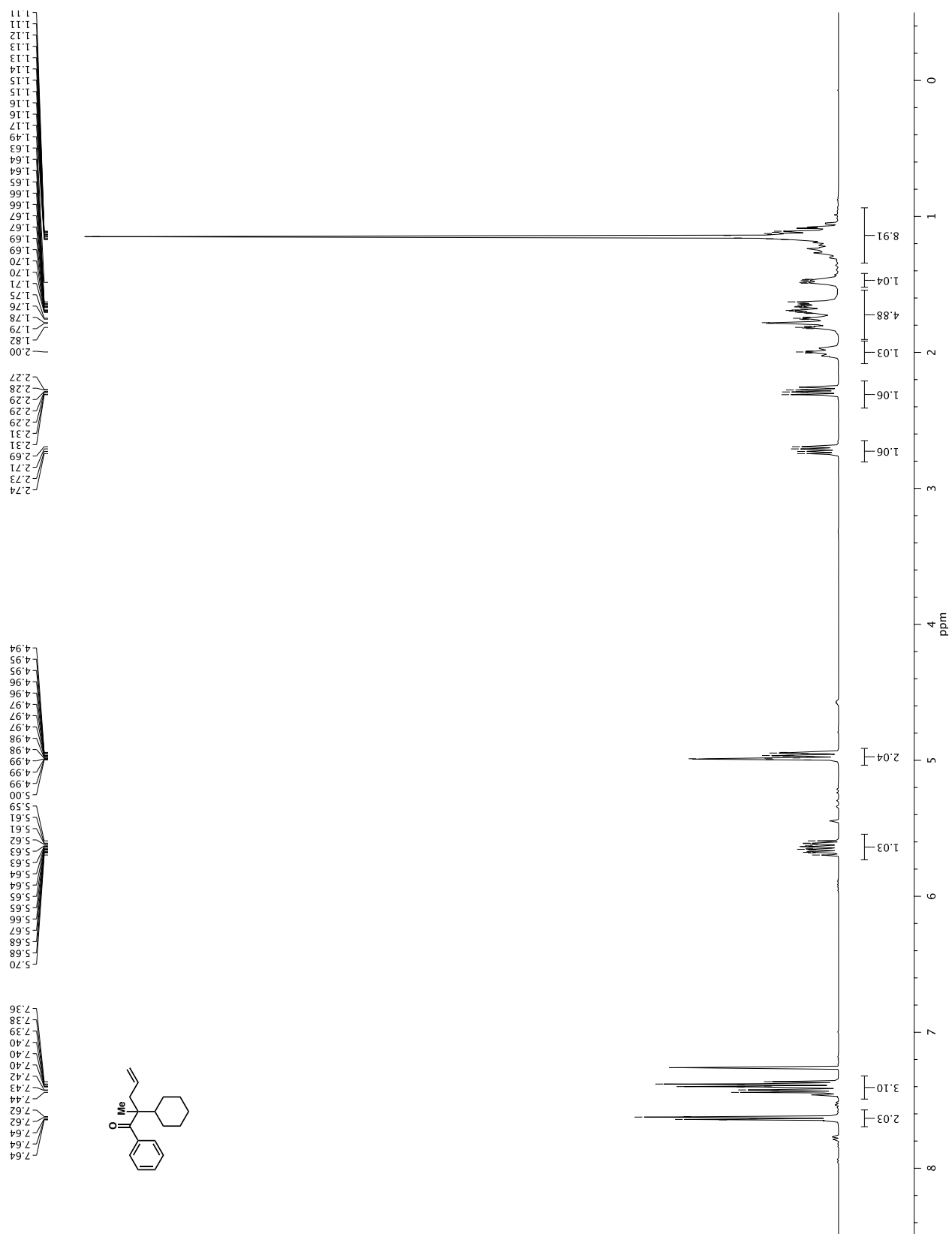


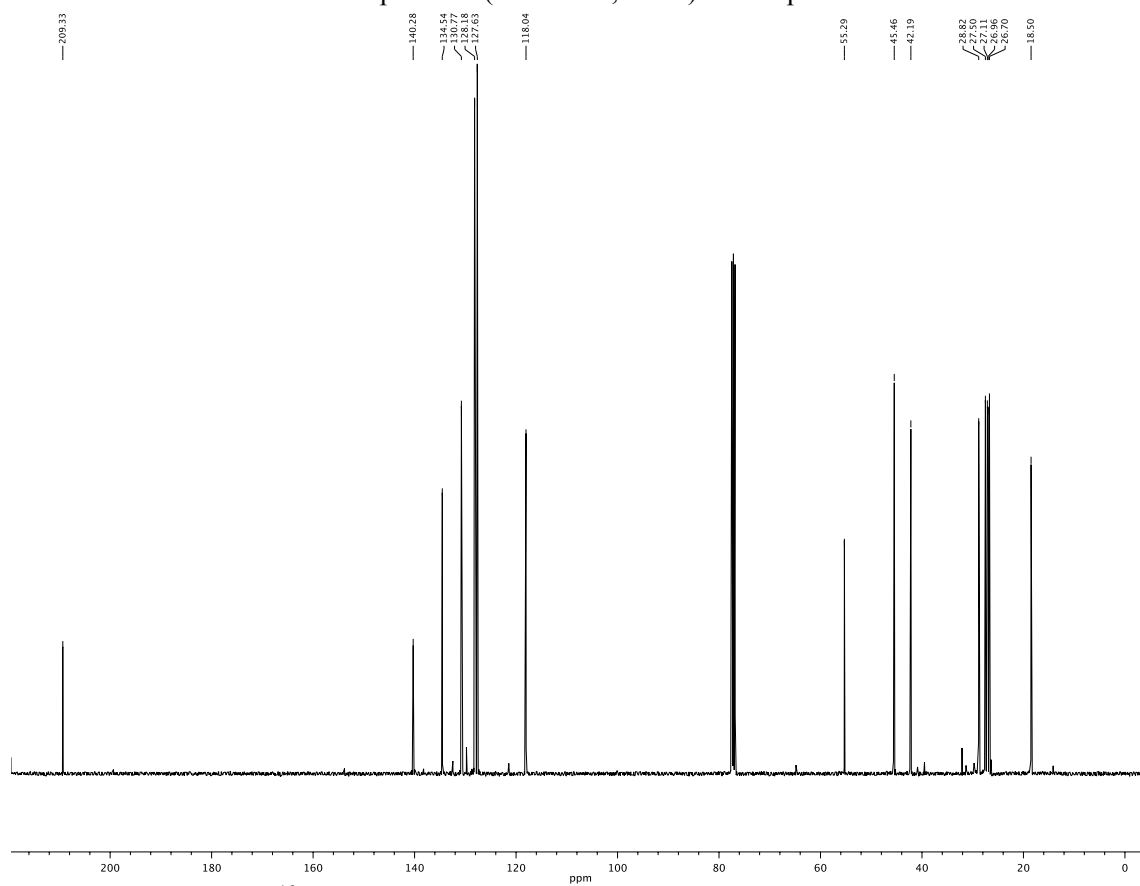
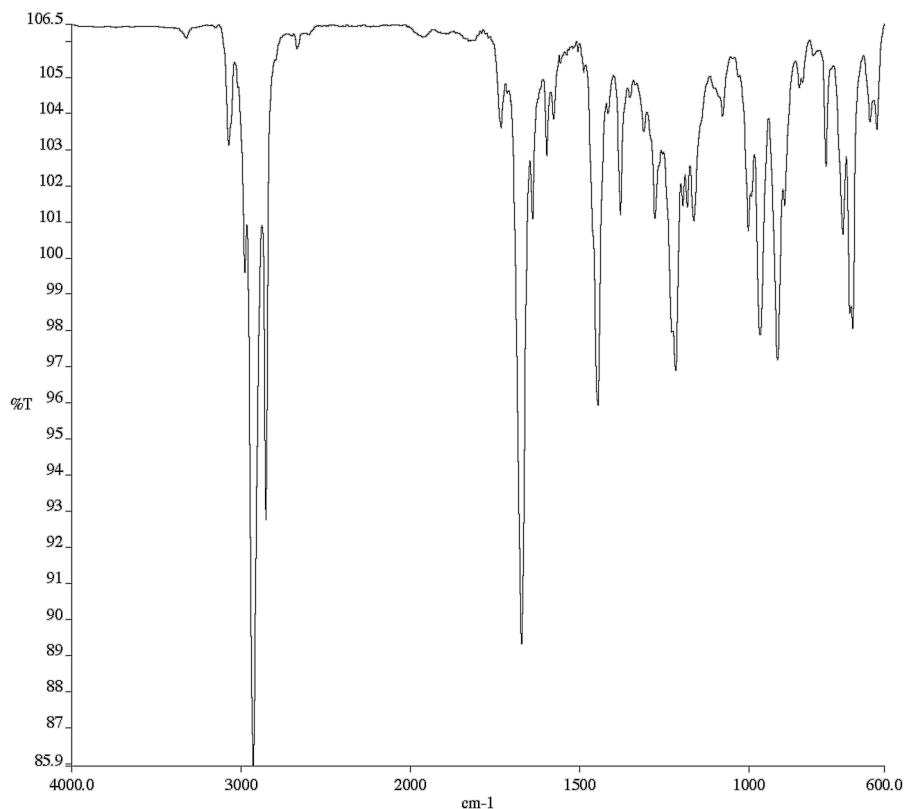
Infrared spectrum (Thin Film, NaCl) of compound **SI5**.

— 1947.73
— 1687.73
— 1377.09
— 1353.57
— 1331.66
— 1288.63
— 1186.62
— 65.78
— 60.48
— 38.48
— 31.15
— 30.97
— 26.22
— 26.04

¹³C NMR (100 MHz, CDCl₃) of compound **SI5**.





 ^{13}C NMR (100 MHz, CDCl_3) of compound **SI7**.