Supporting Information (NMR spectra) for

Fluorination of aryl boronic acids using acetyl hypofluorite made directly from diluted fluorine

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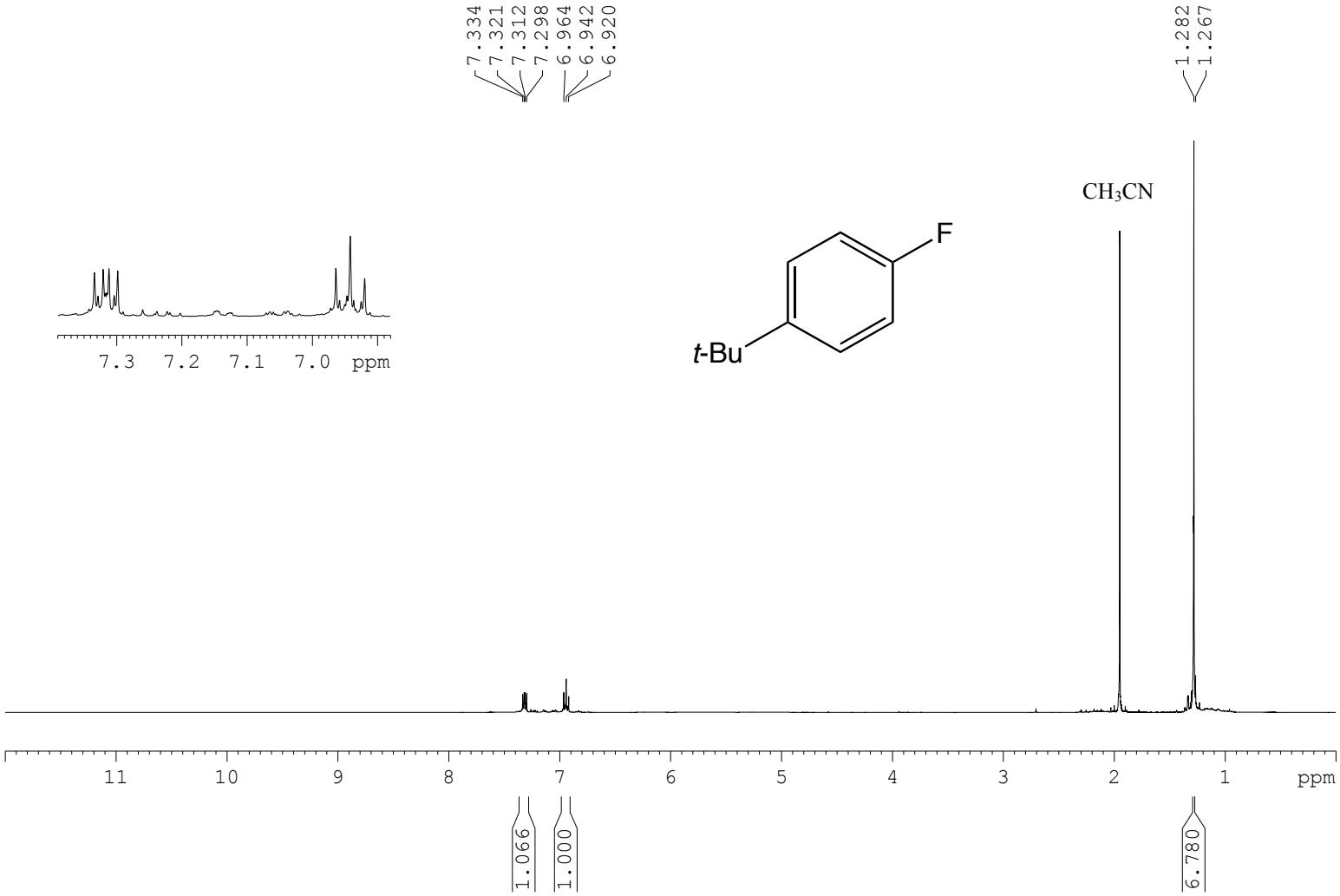
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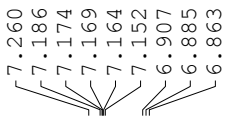
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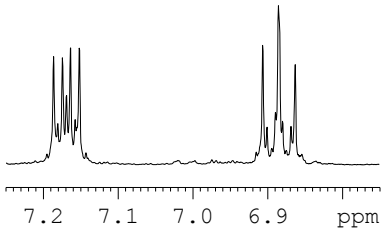
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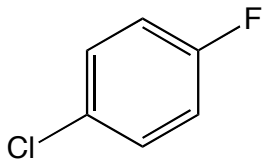
4-*tert*-butylfluorobenzene (2a)[1]
^{1}H NMR

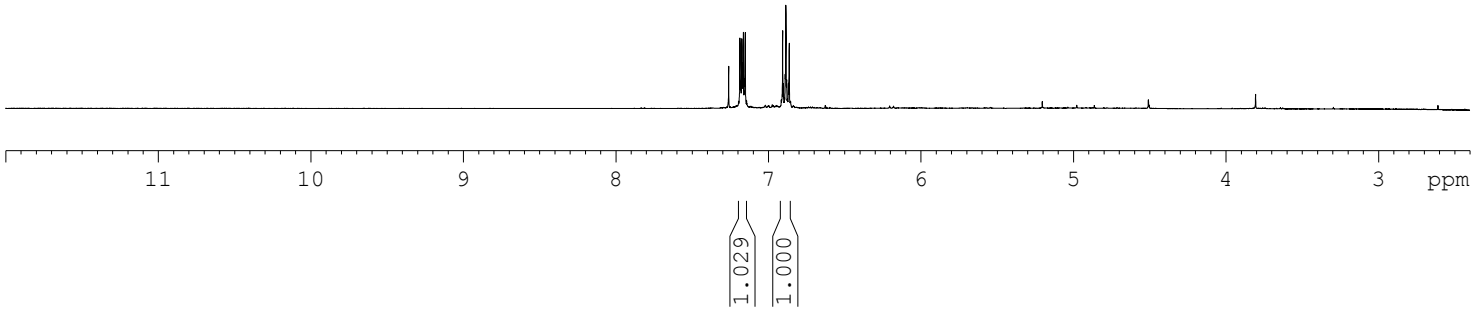


4-chlorofluorobenzene (2b)[2]
^{1}H NMR



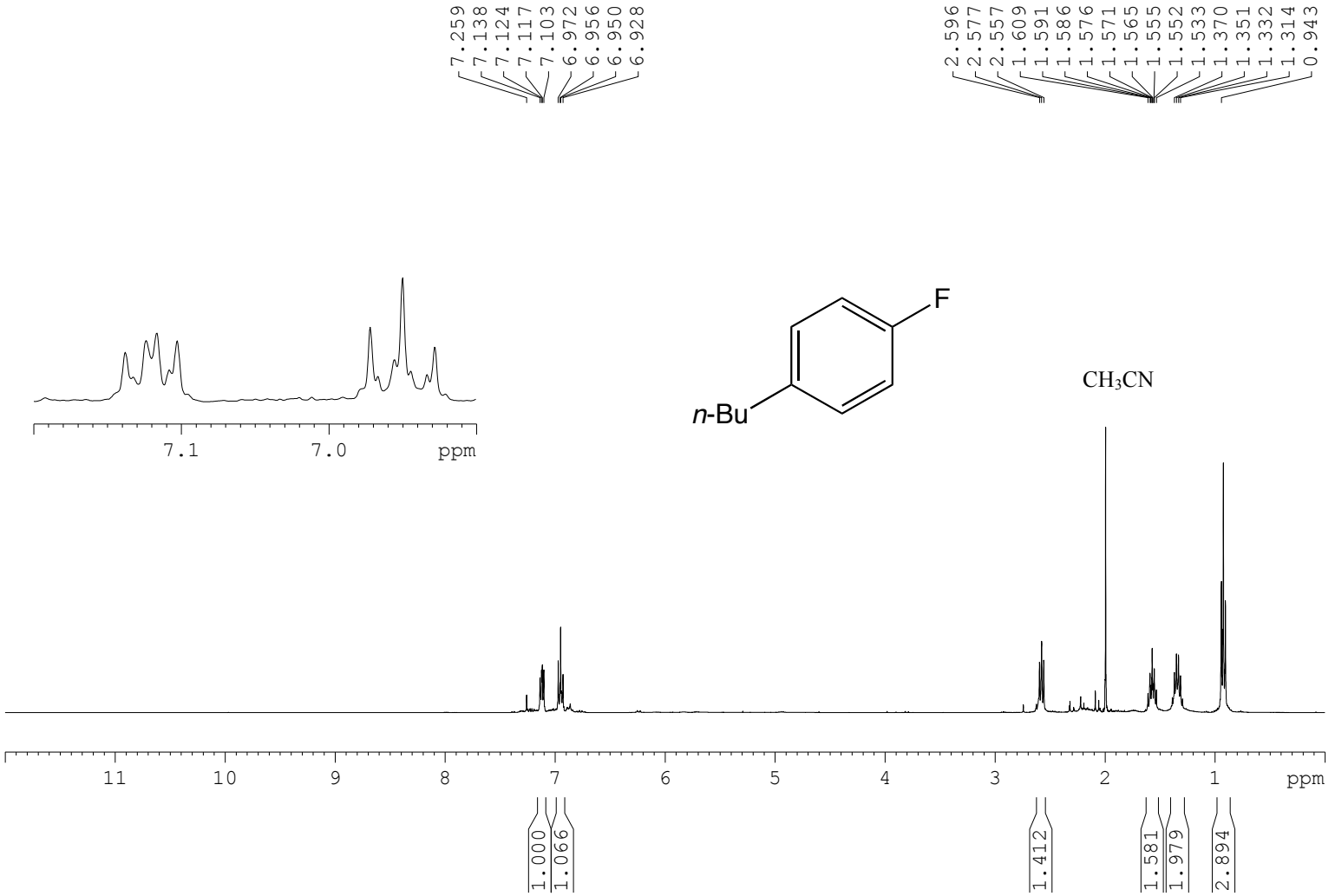




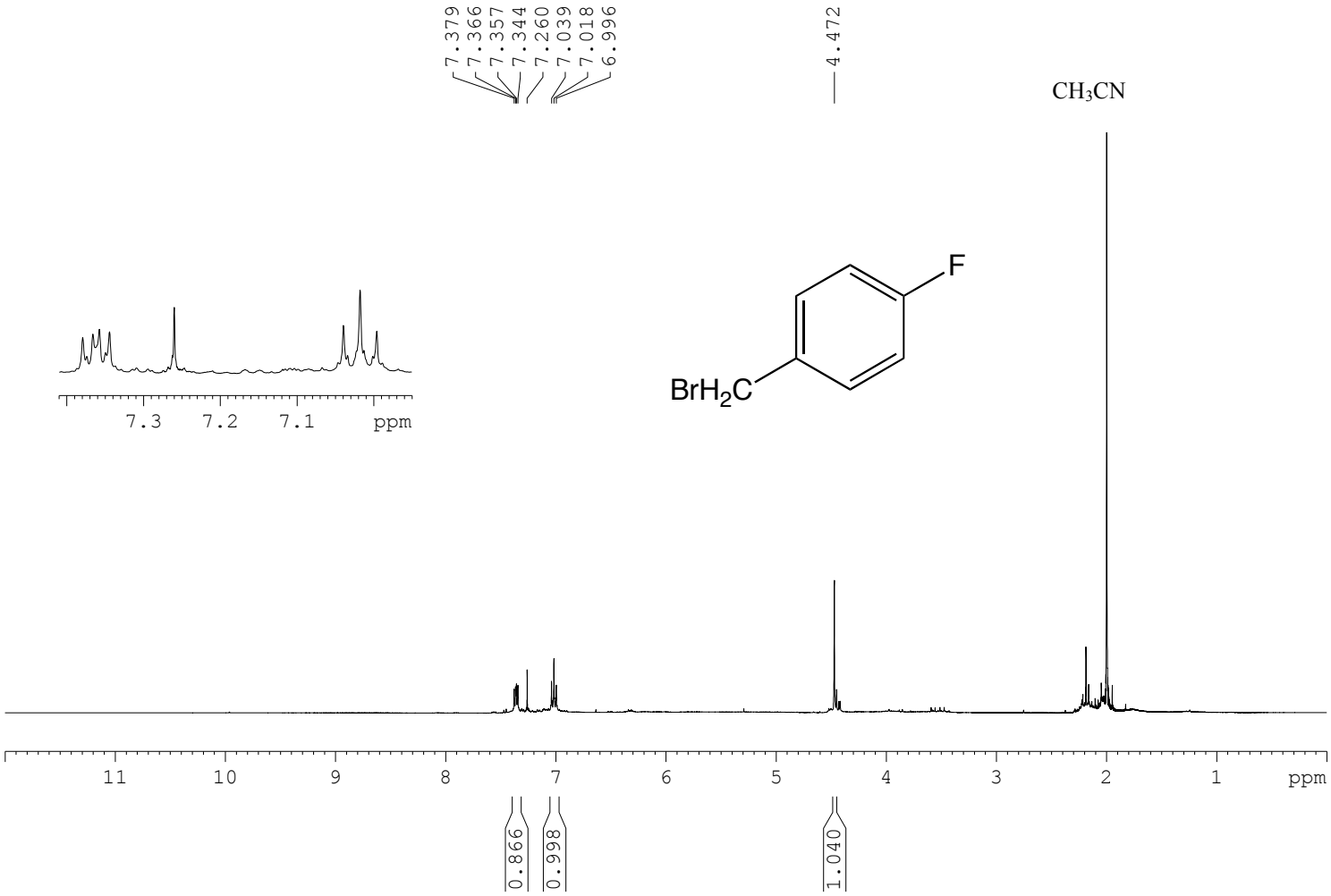


4-butylfluorobenzene (2c)[3]

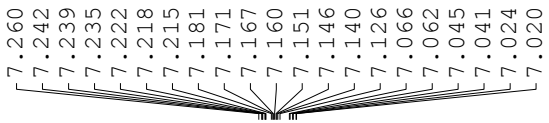
^{1}H NMR

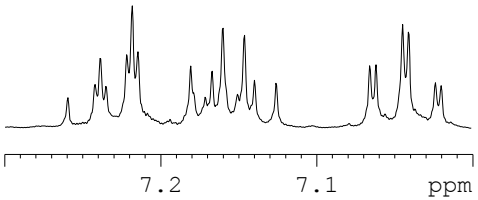


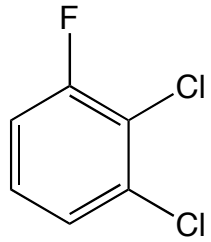
4-fluorobenzylbromide (2d)[4]
^{1}H NMR

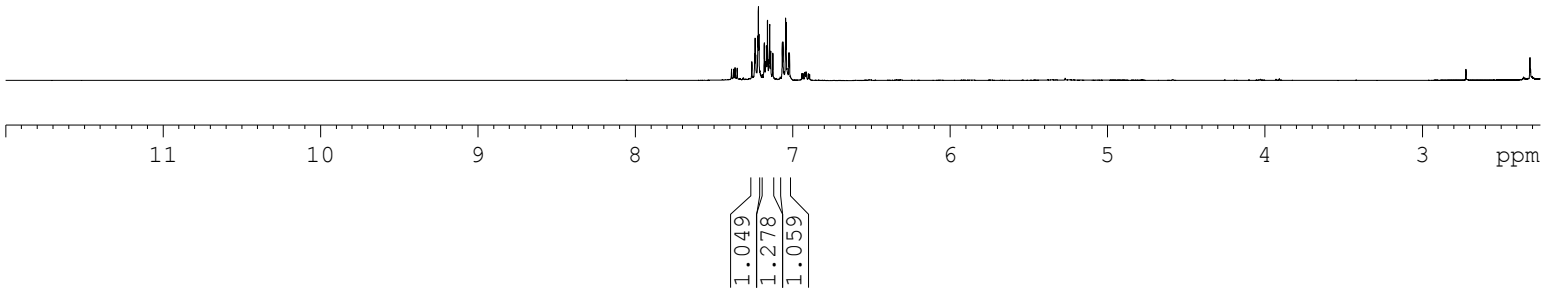


2,3-dichlorofluorobenzene (2f)[5]
^{1}H NMR



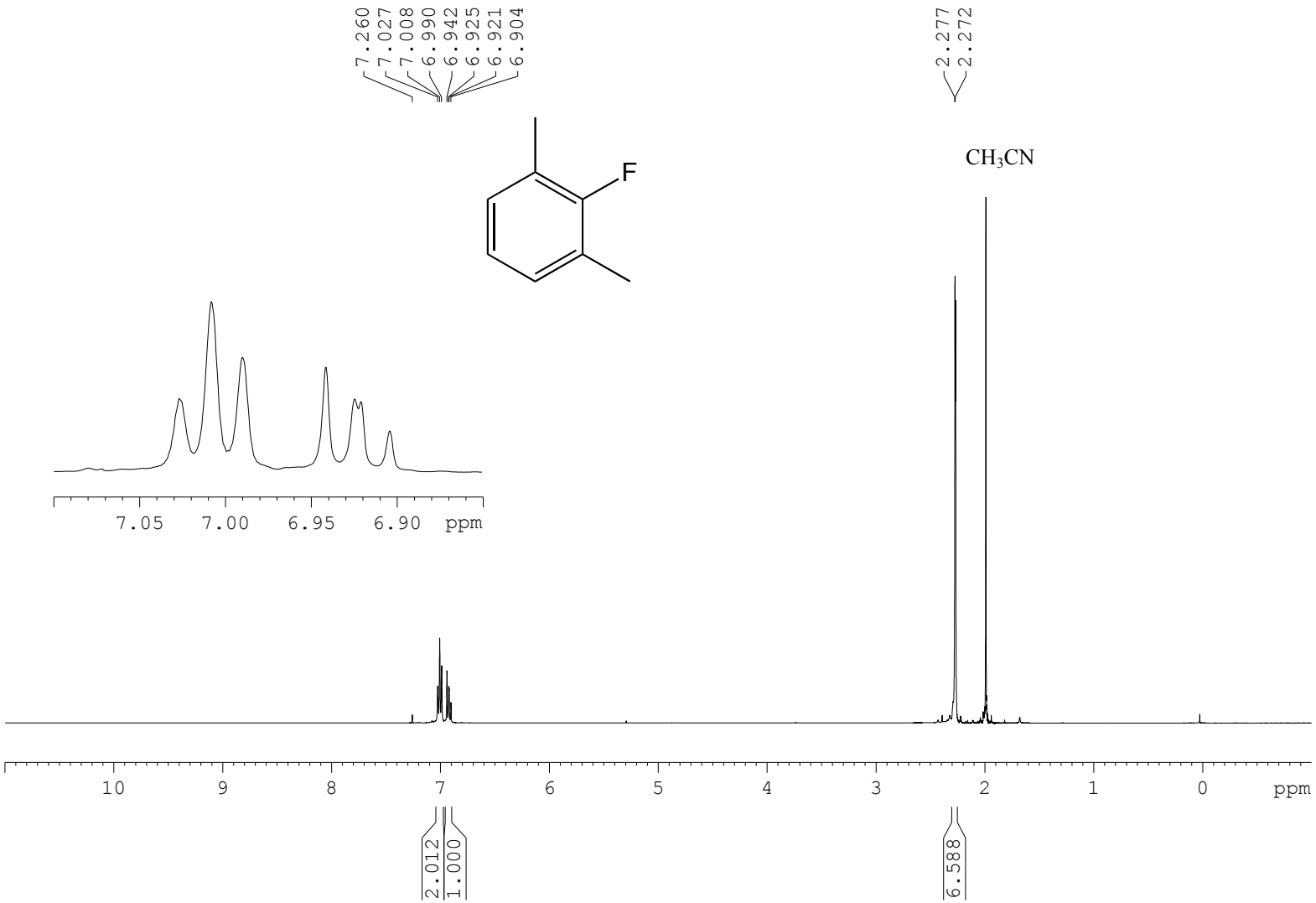




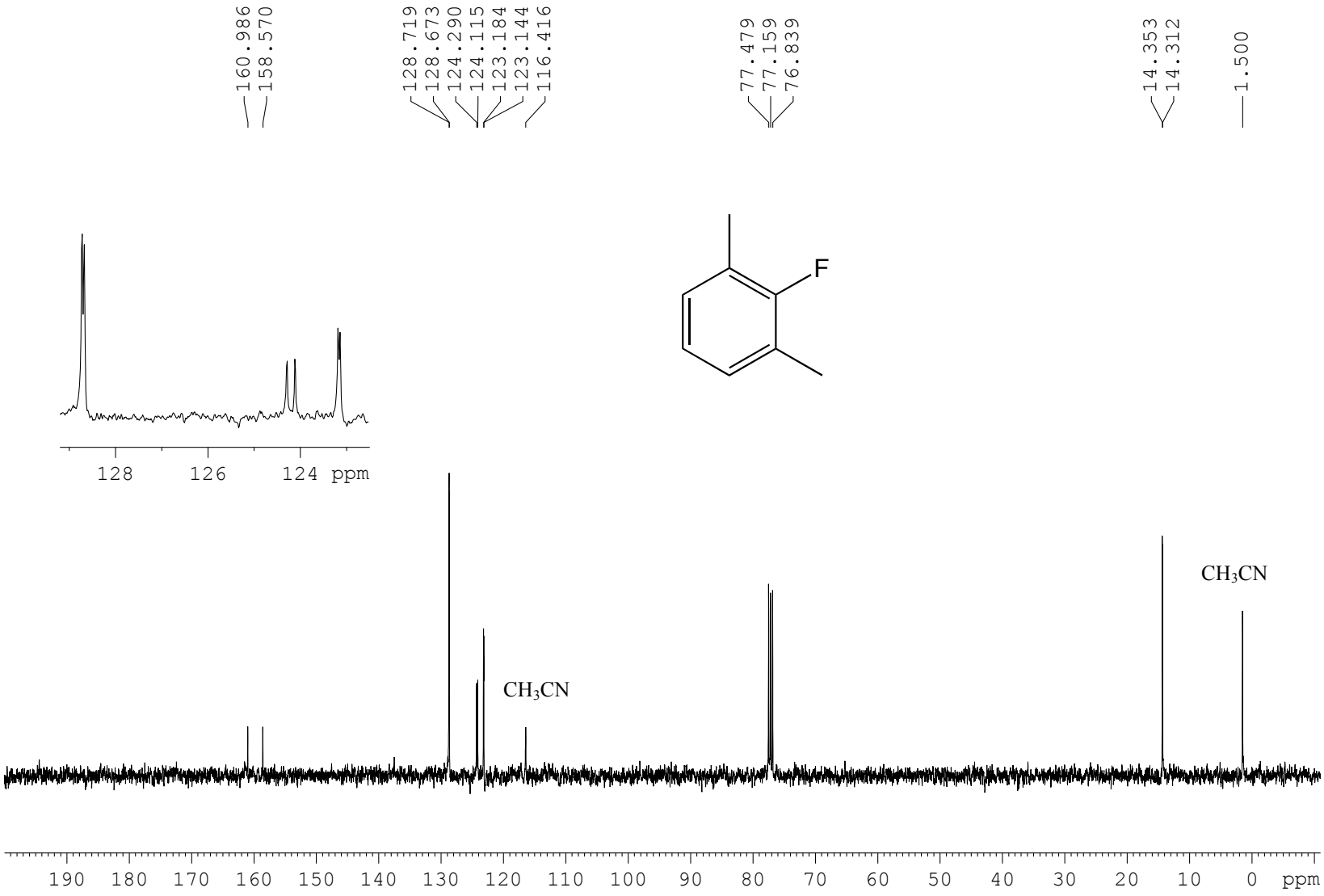


2,6-dimethylfluorobenzene (2e)[3]

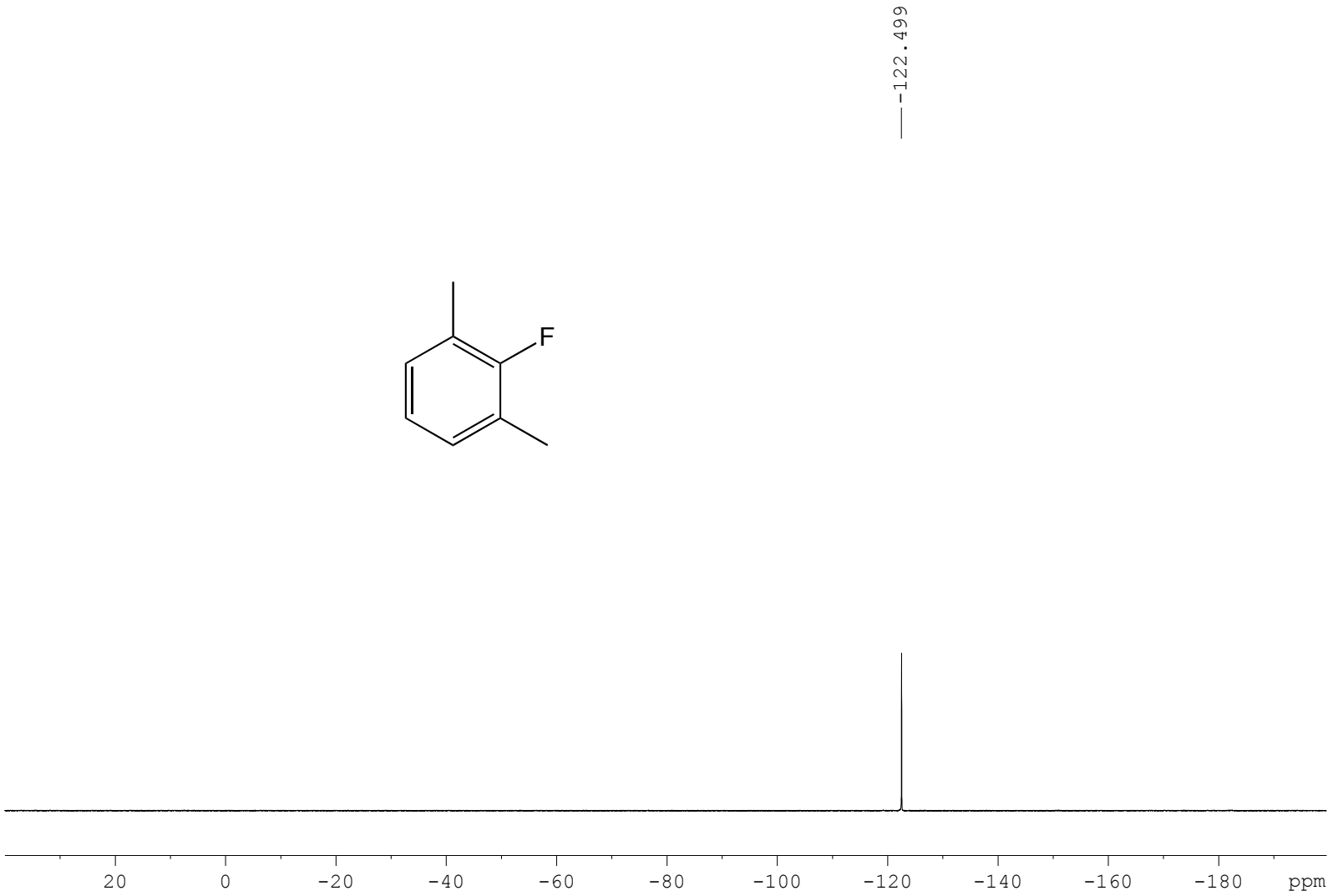
^{1}H NMR



^{13}C NMR

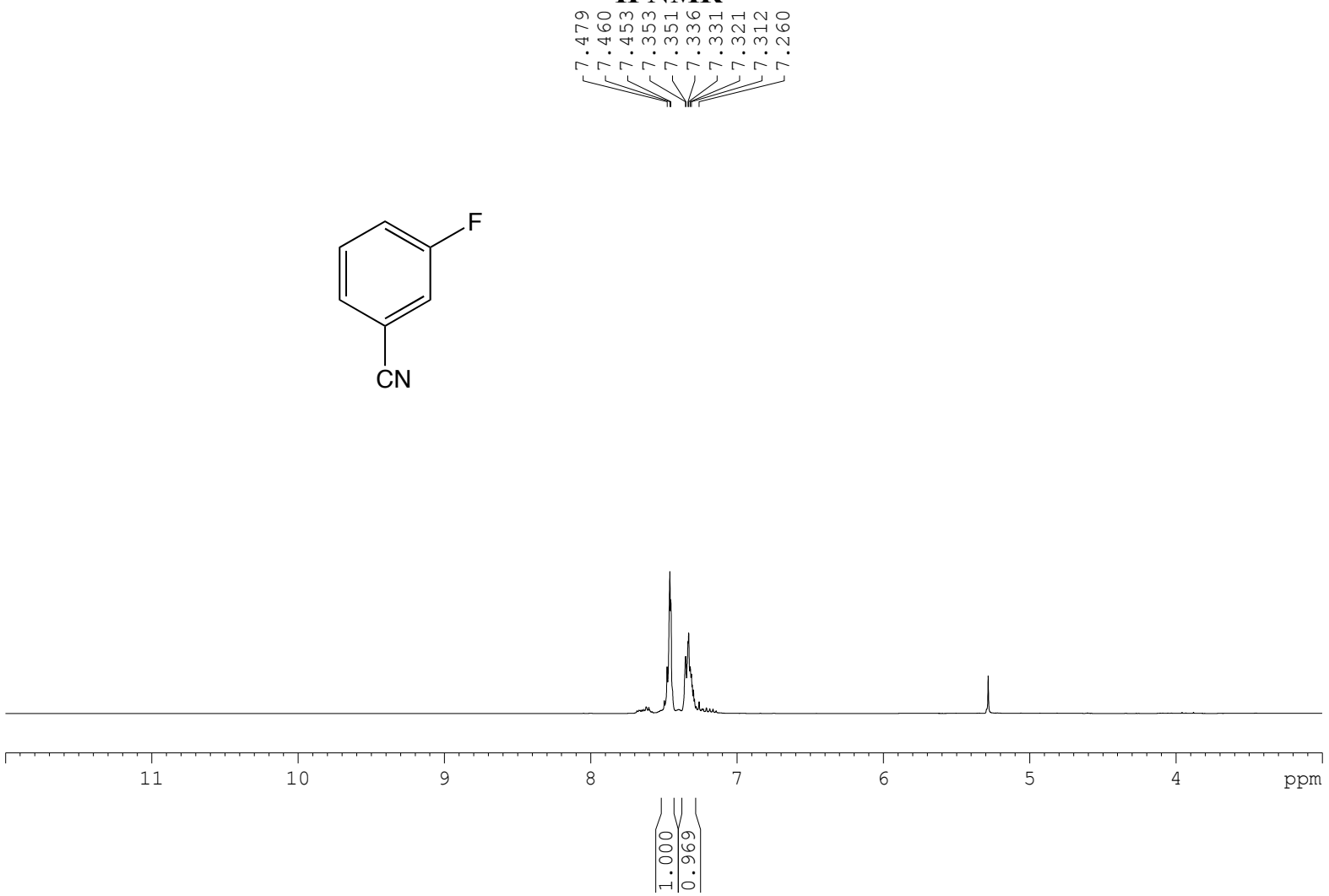

160.986
158.570
128.719
128.673
124.290
124.115
123.184
123.144
116.416
77.479
77.159
76.839
14.353
14.312
1.500
F
128
126
124 ppm
CH3CN
CH3CN
190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 ppm

^{19}F NMR

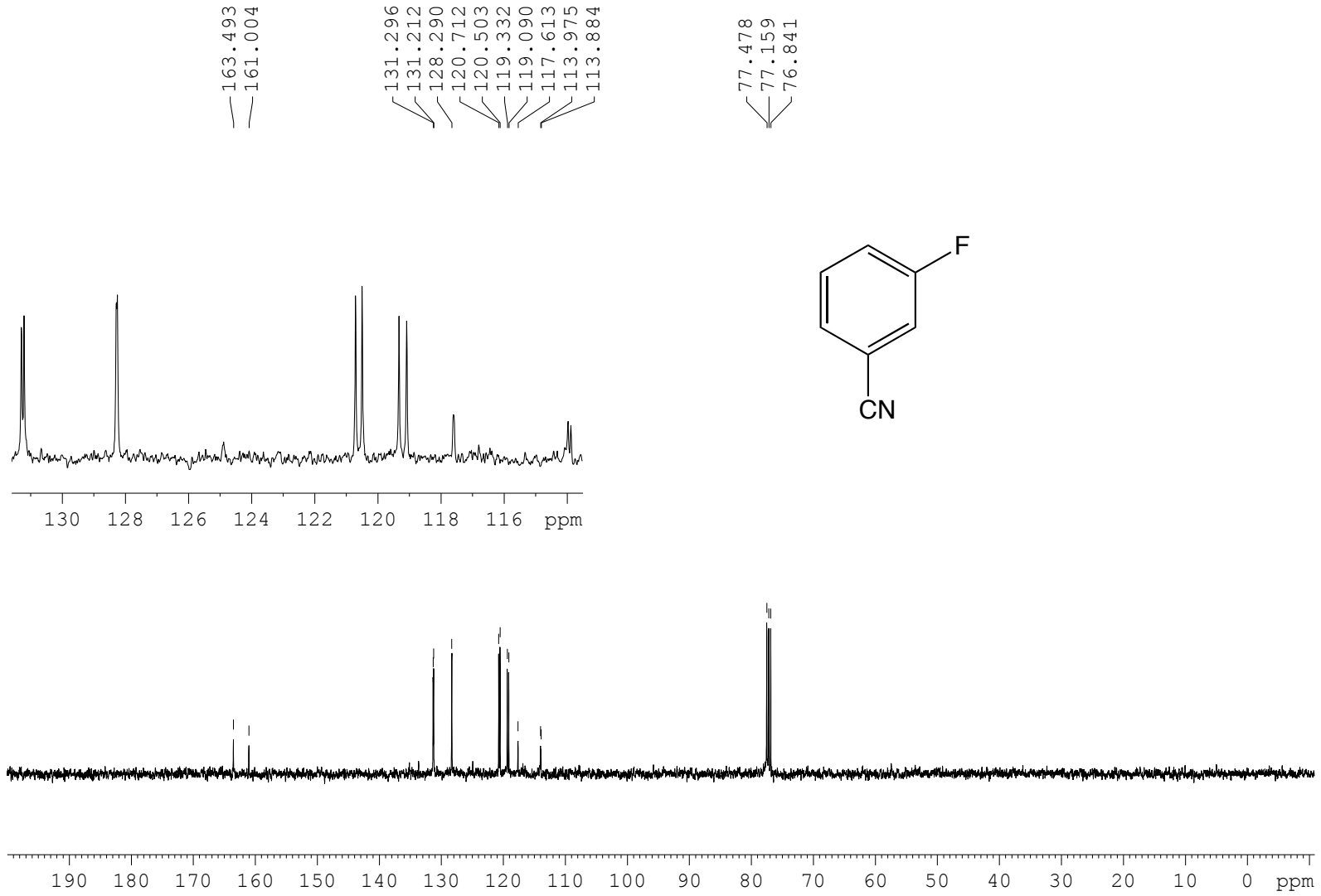


3-fluorobenzonitrile (3i)[6]

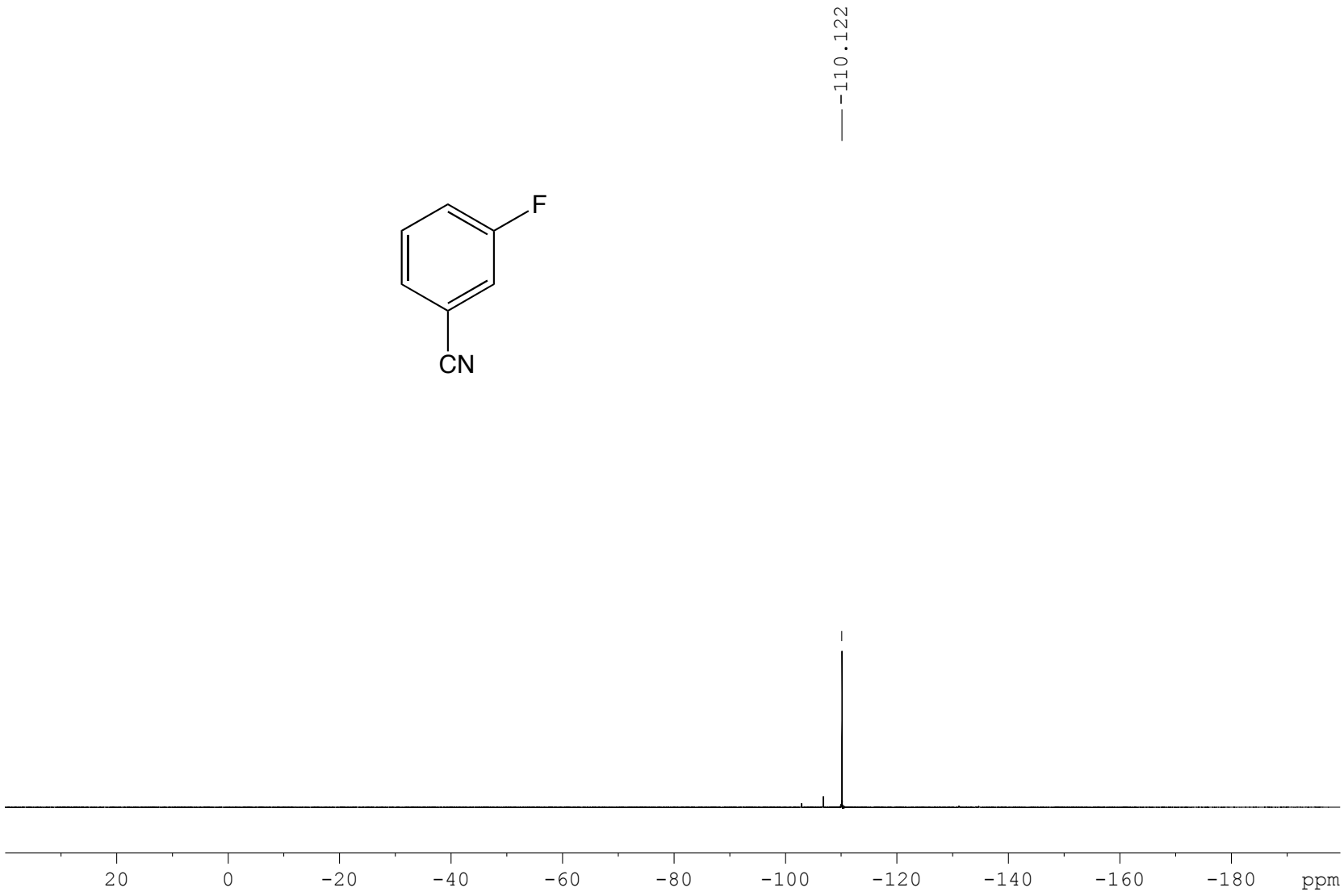
^{1}H NMR



^{13}C NMR

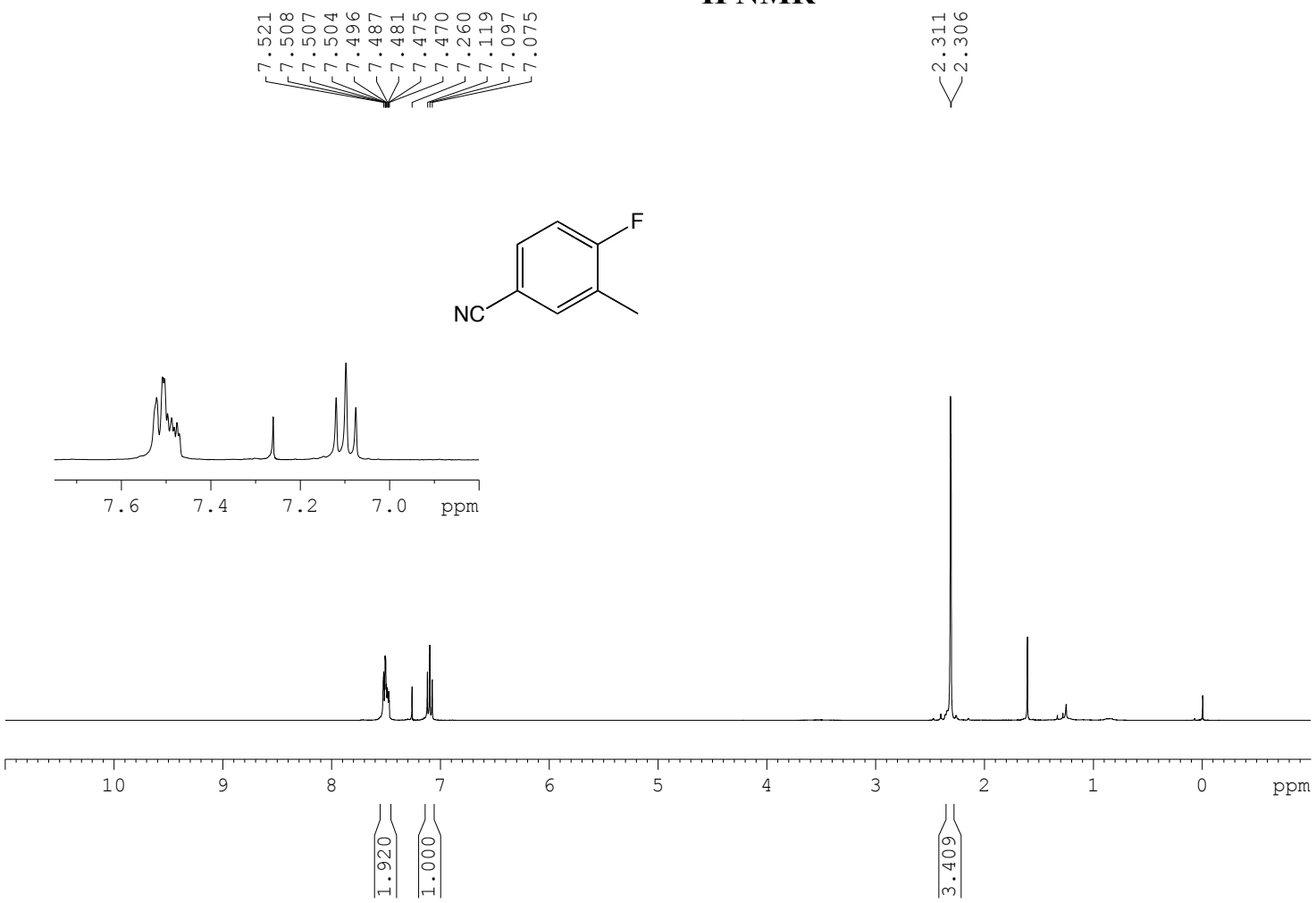

163.493
161.004
131.296
131.212
128.290
120.712
120.503
119.332
119.090
117.613
113.975
113.884
77.478
77.159
76.841
F
CN
130 128 126 124 122 120 118 116 ppm
190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 ppm

^{19}F NMR

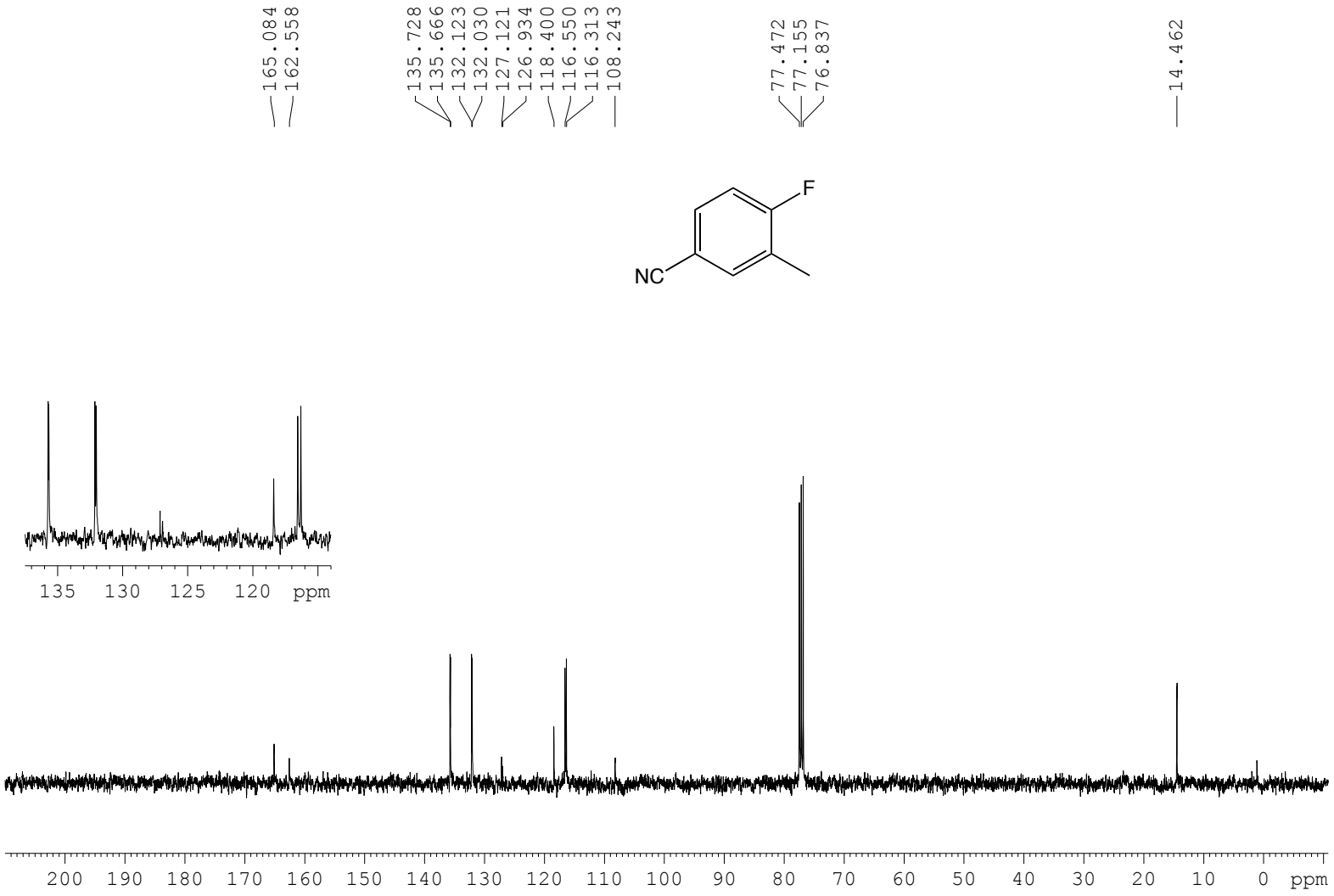


4-fluoro-3-methylbenzonitrile (2l)[7]

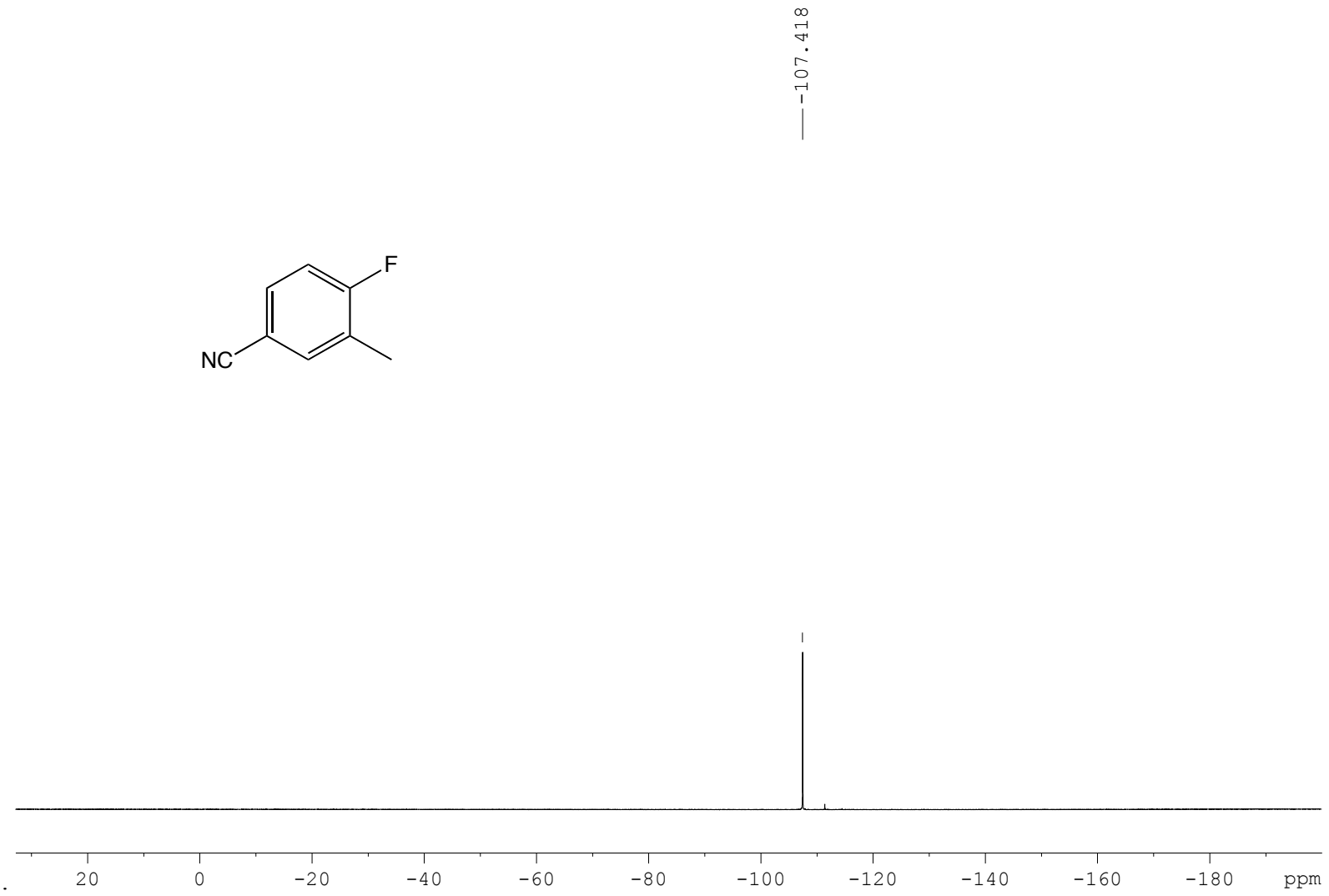
^{1}H NMR



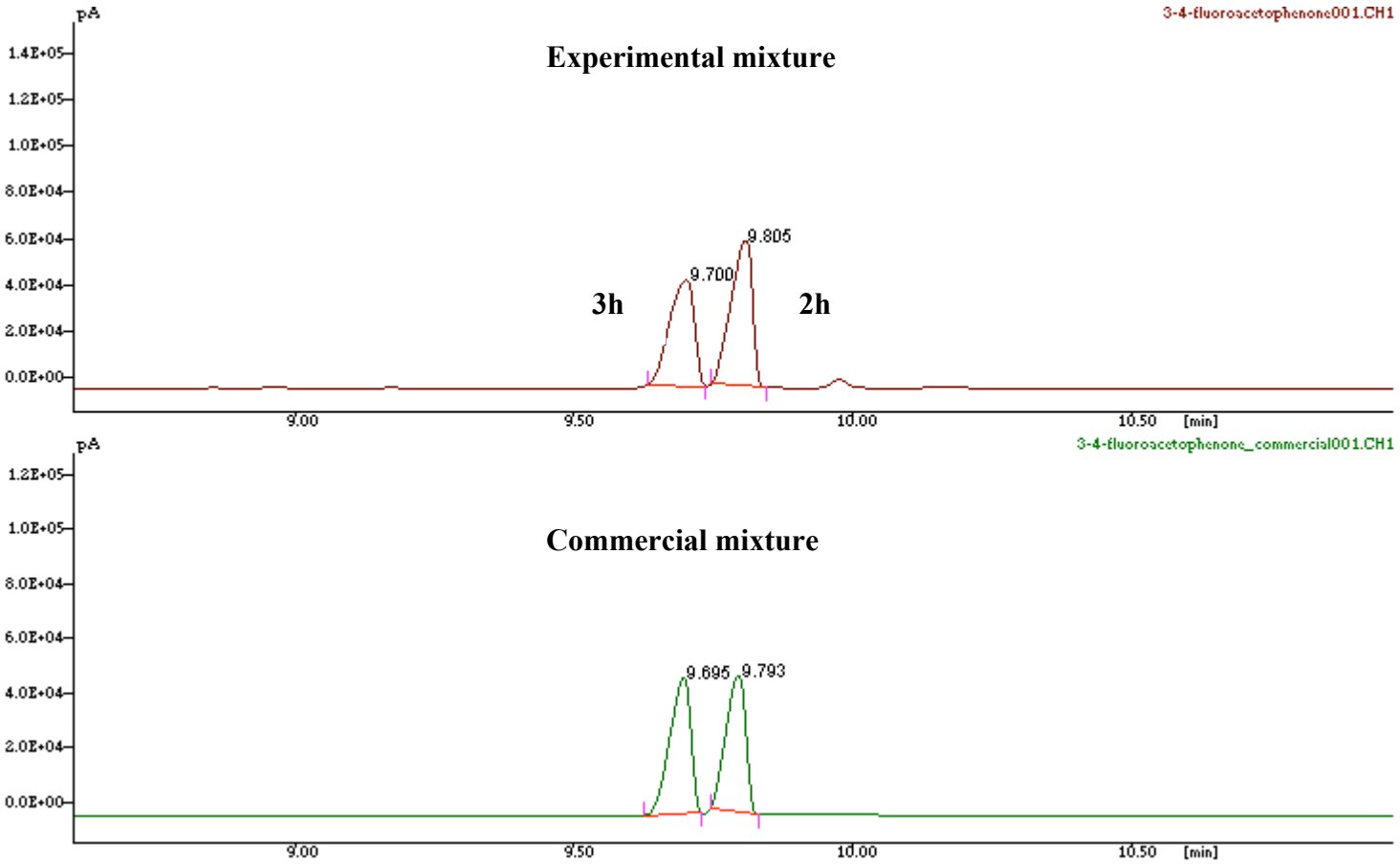
^{13}C NMR


165.084
162.558
135.728
135.666
132.123
132.030
127.121
126.934
118.400
116.550
116.313
108.243
77.472
77.155
76.837
14.462
F
NC
135 130 125 120 ppm
200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 ppm

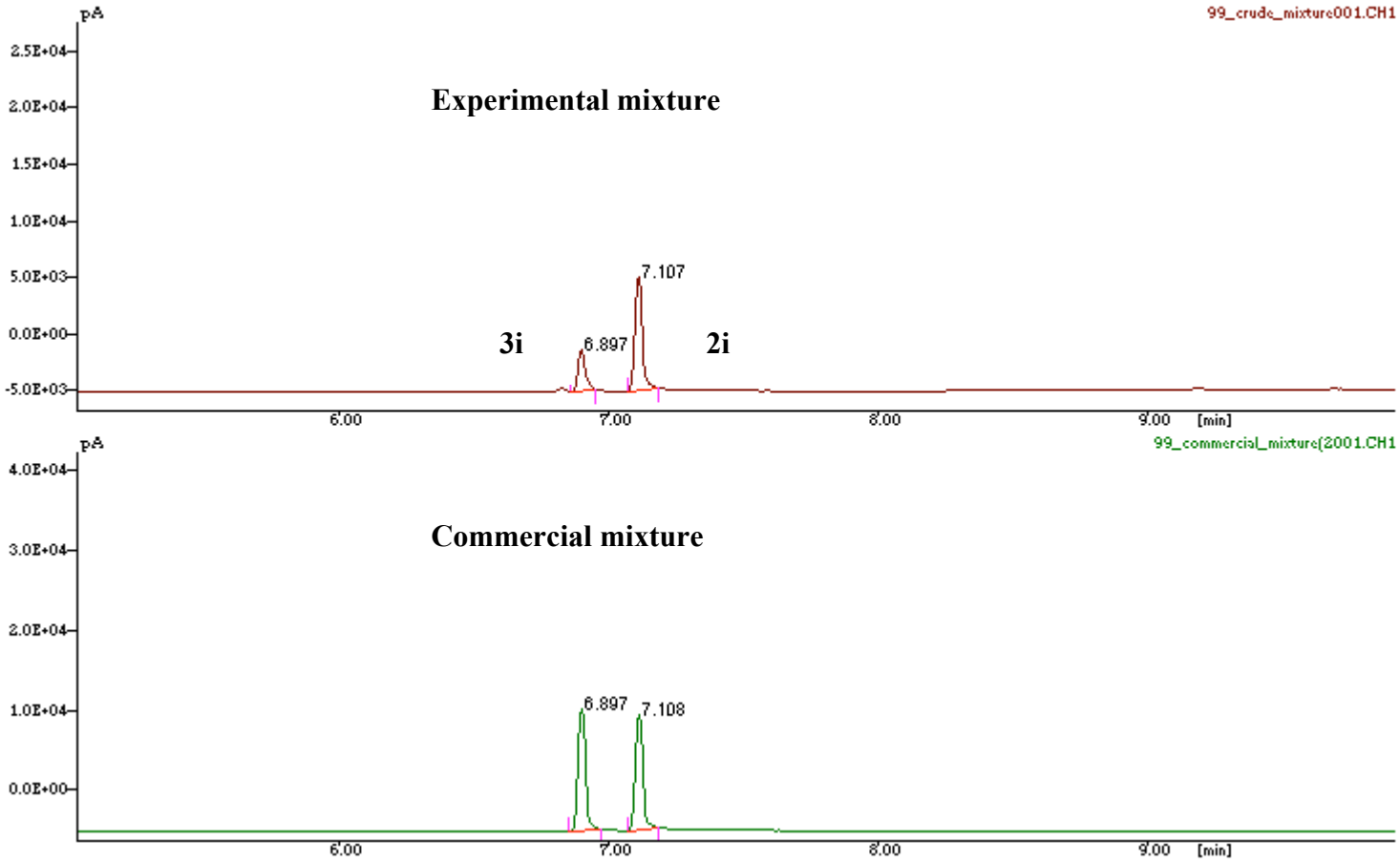
^{19}F NMR



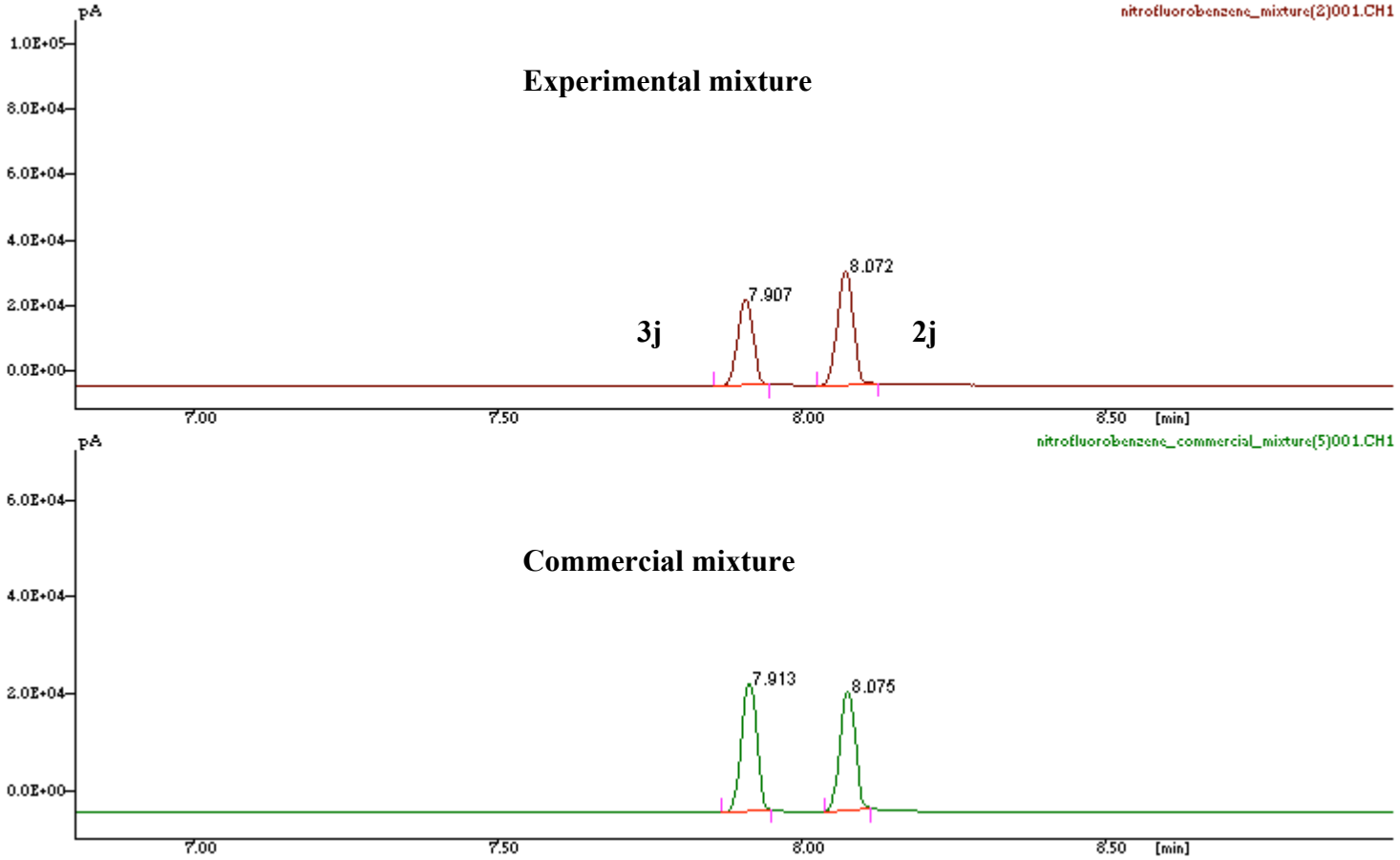
GC of 4-fluoroacetophenone (2h)[4] and 3-fluoroacetophenone (3h)[4]



GC of 4-fluorobenzonitrile (2i)[8] and 3-fluorobenzonitrile (3i)[6]



GC of 4-fluoronitrobenzene (2j)[9] and 3-fluoronitrobenzene (3j)[2]



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