

Supporting information for

Copper-Catalyzed Thiocyanation of Cyclobutanone Oxime Esters using Ammonium Thiocyanate

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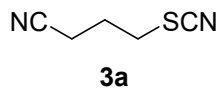
^b *CCNU-uOttawa Joint Research Centre, Key Laboratory of Pesticides & Chemical Biology Ministry of Education, College of Chemistry, Central China Normal University, Wuhan, China, 430079 E-mail: yef@mail.ccnu.edu.cn*

^c *China International Science and Technology Cooperation Base of Food Nutrition/Safety and Medicinal Chemistry, College of Biotechnology, Tianjin University of Science & Technology, Tianjin, China, 300457*

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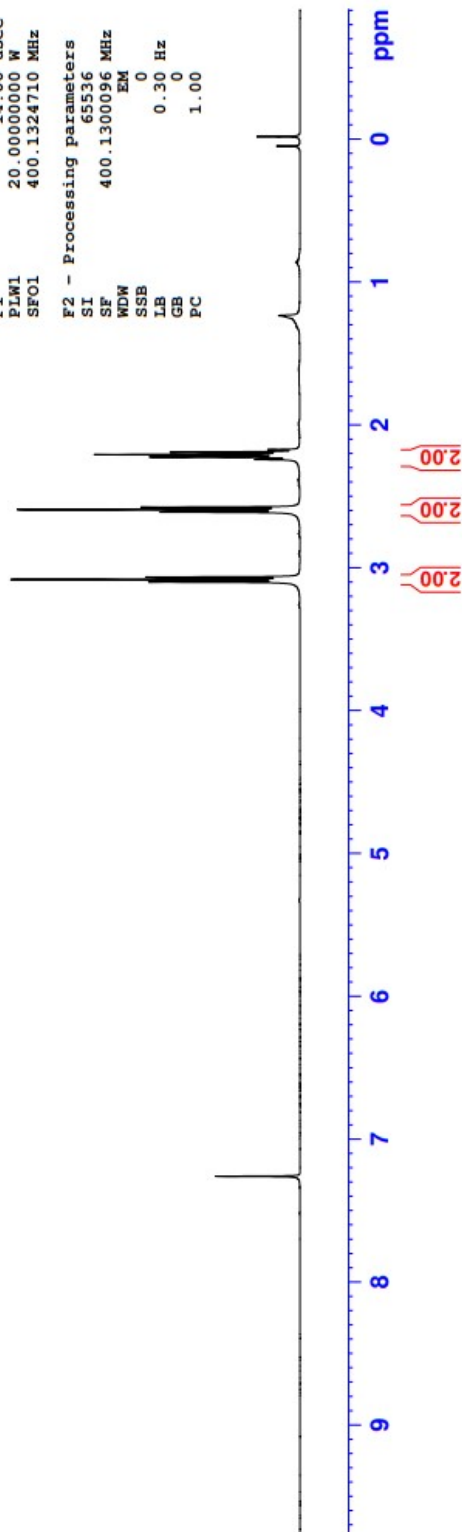
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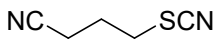
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PULPROG   zg30
TD         65536
SOLVENT   CDC13
NS         16
DS         2
SWH        8223.685 Hz
FIDRES     0.125483 Hz
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RG          101
DW          60.800 usec
DE          6.50 usec
TE          296.0 K
D1          1.00000000 sec

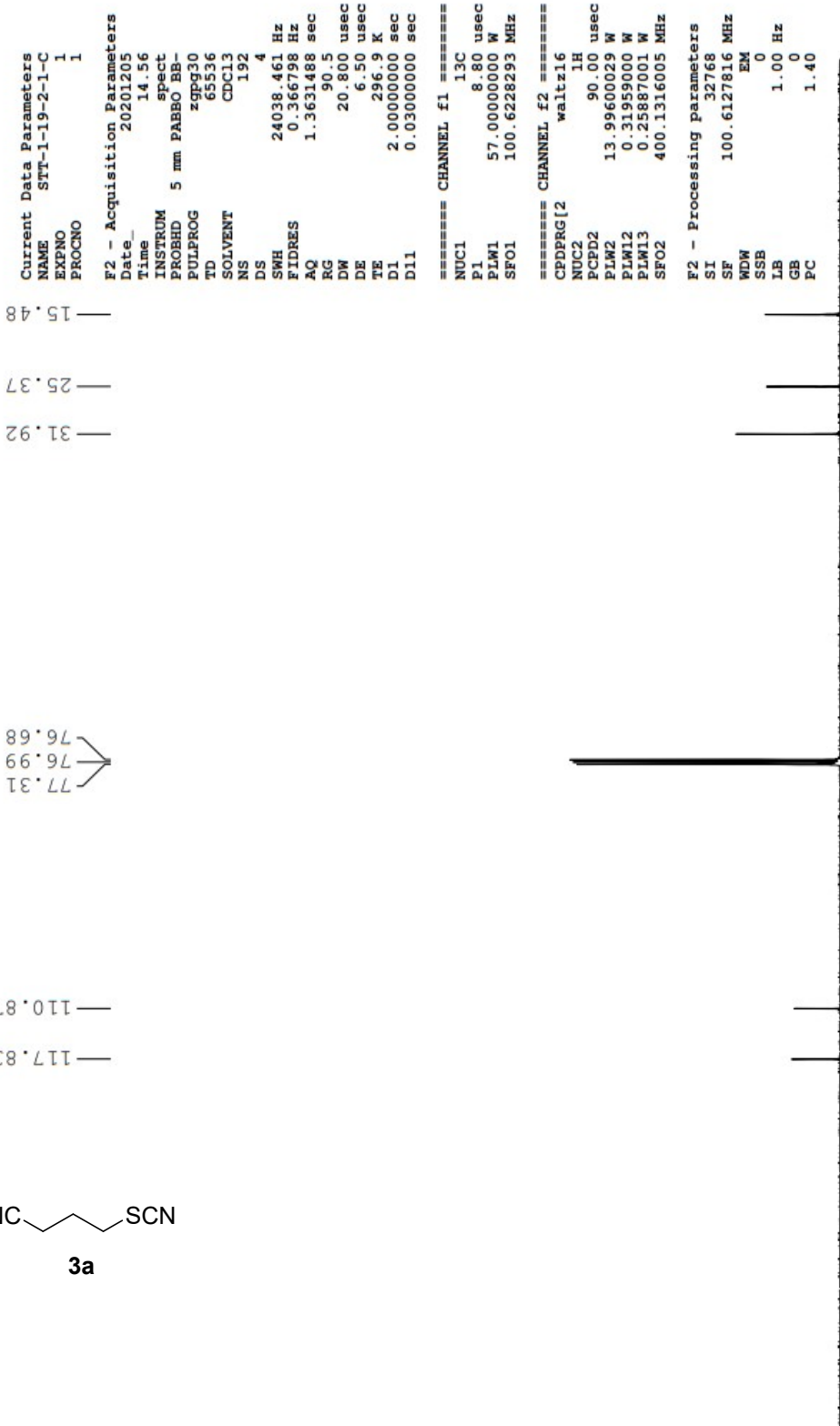
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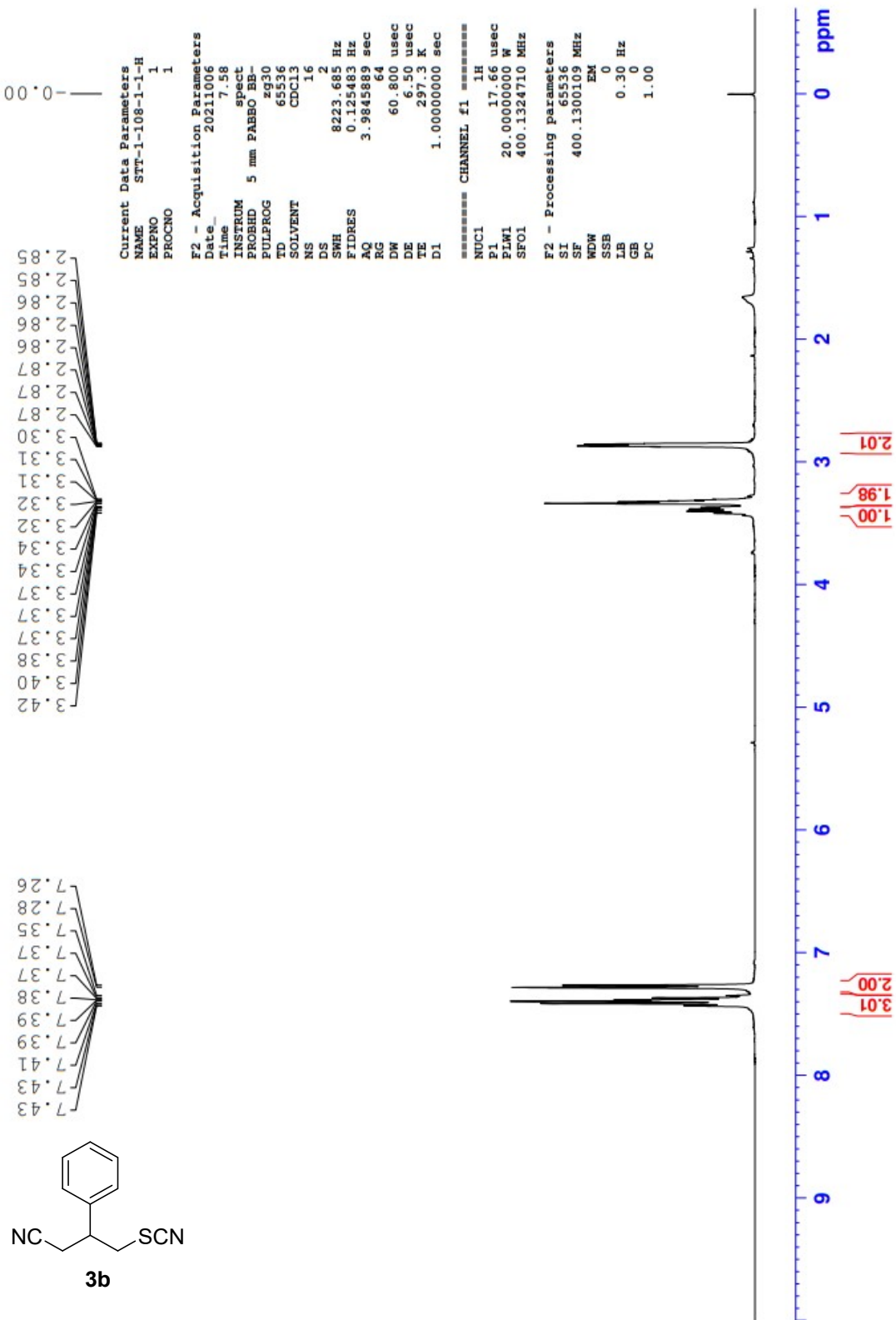
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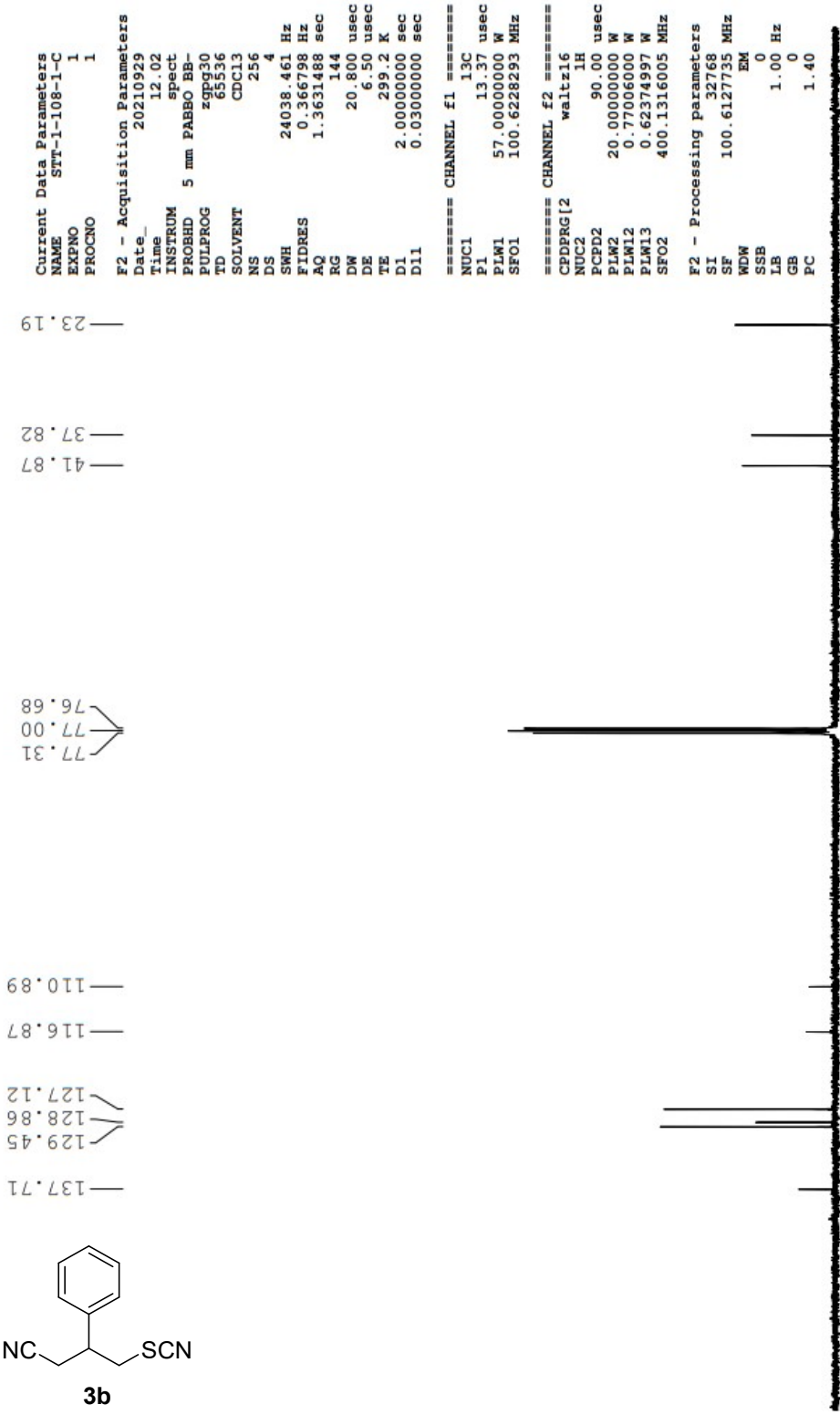
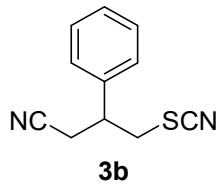


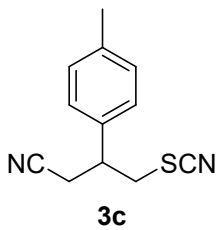


3a









7.26
7.23
7.21
7.17
7.15

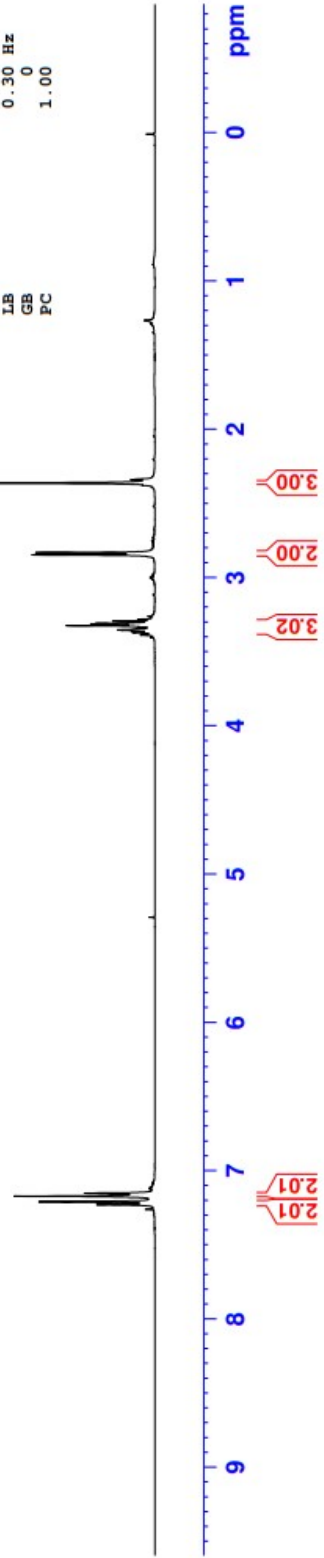
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3.37
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2.85
2.83
2.36

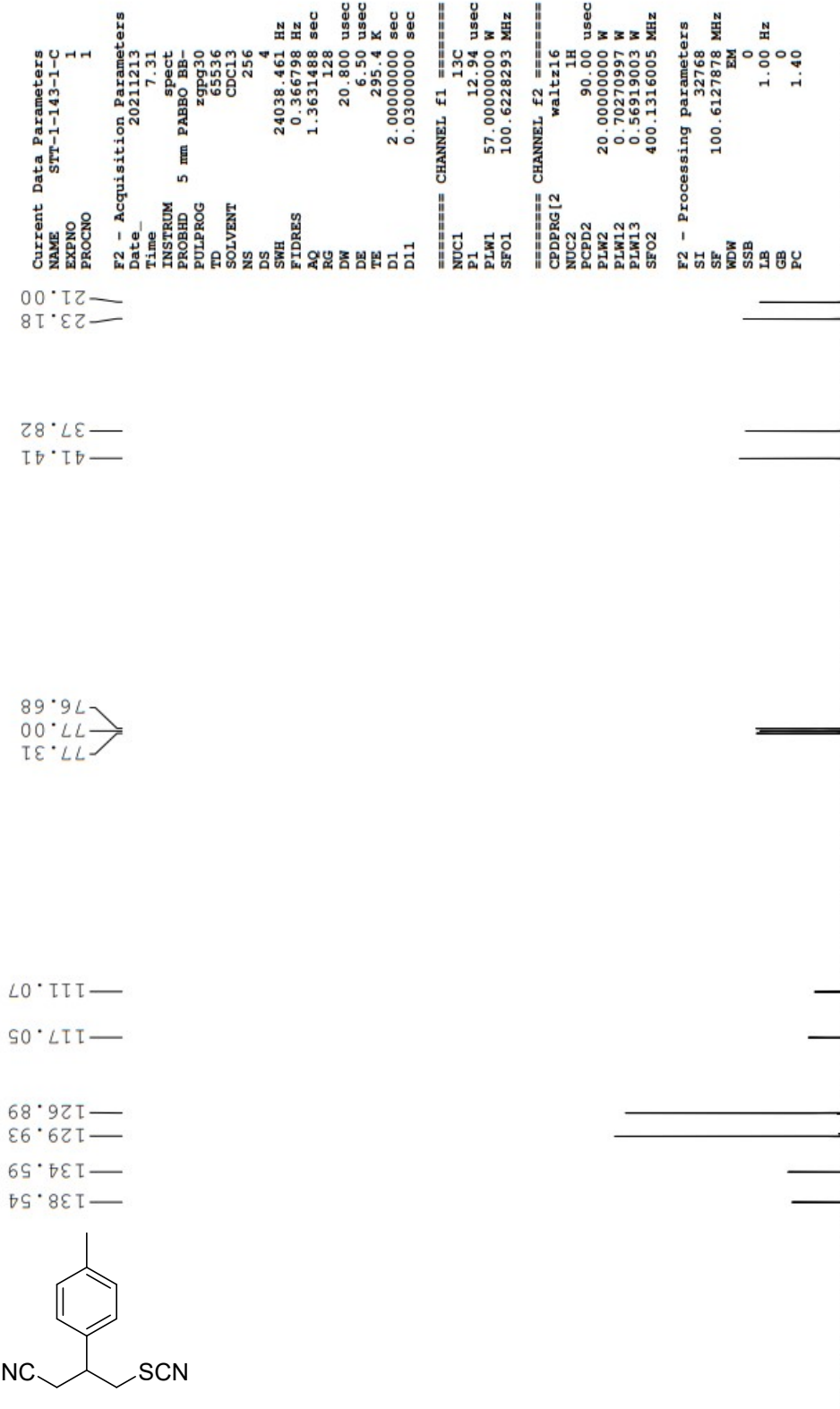
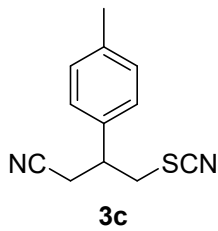
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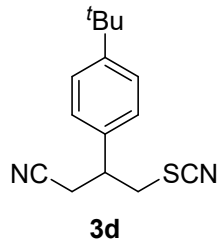
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 PROBED 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT CDC13
 NS 16
 DS 2
 SWH 8223.685 Hz
 FIDRES 0.125483 Hz
 AQ 3.9845889 sec
 RG 50.8
 DW 60.800 usec
 DE 6.50 usec
 TE 295.0 K
 D1 1.00000000 sec

===== CHANNEL f1 =====
 NUC1 1H
 P1 16.87 usec
 PLW1 20.00000000 W
 SFO1 400.1324710 MHz

F2 - Processing parameters
 SI 65536
 SF 400.1300101 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00







7.43
7.41
7.26
7.21
7.19

3.41
3.40
3.39
3.39
3.37
3.36
3.34
3.33
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3.22
2.92
2.91
2.88
2.87
2.85
2.83
2.81

1.32

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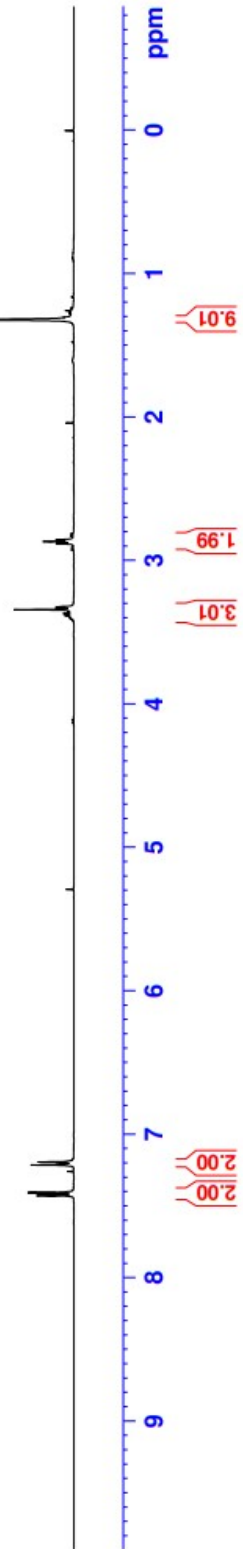
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PULPROG zg30
TD       65536
SOLVENT  CDC13
NS       16
DS       2
SWH      8223.685 Hz
FIDRES   0.125483 Hz
AQ       3.984589 sec
RG       71.8
DW       60.800 usec
DE       6.50 usec
TE       298.7 K
D1       1.00000000 sec

===== CHANNEL f1 =====
NUC1     1H
P1       16.87 usec
PLW1     20.0000000 W
SFO1     400.1324710 MHz

F2 - Processing parameters
SI       65536
SF       400.1300099 MHz
WDW      EM
SSB      0
LB       0.30 Hz
GB       0
PC       1.00

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Current Data Parameters
 NAME SFT-1-123-1-C
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20211101
 Time 17.16
 INSTRUM spect
 PROBHD 5 mm PABBO BE-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 256
 DS 4
 SWH 24038.461 Hz
 FIDRES 0.366798 Hz
 AQ 1.3631488 sec
 RG 144
 DW 20.800 usec
 DE 6.50 usec
 TE 300.9 K
 D1 2.00000000 sec
 D11 0.03000000 sec

==== CHANNEL f1 =====
 NUC1 13C
 P1 12.94 usec
 PLW1 57.0000000 W
 SF01 100.6228293 MHz

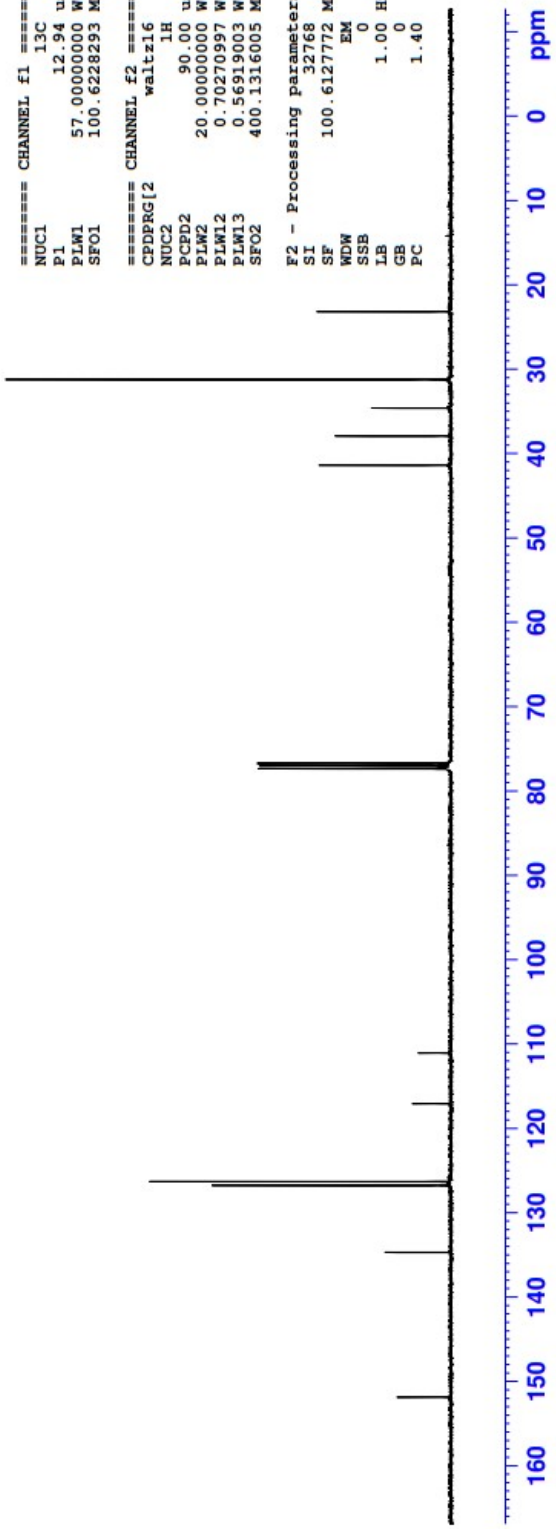
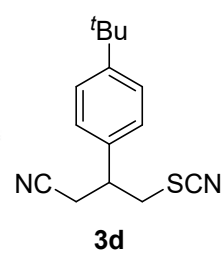
==== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 90.00 usec
 PLW2 20.0000000 W
 PLW12 0.70270997 W
 PLW13 0.56919003 W
 SF02 400.1316005 MHz

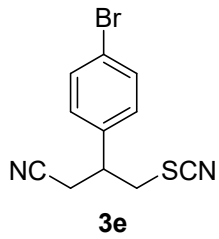
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 SF 100.6127772 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

— 23.13
 — 31.17
 — 34.56
 — 37.88
 — 41.33

76.68
 77.00
 77.32

— 111.03
 — 117.04
 126.27
 126.73
 — 134.66
 — 151.83





3.41
3.39
3.37
3.36
3.35
3.34
3.32
3.30
3.28
3.27
2.90
2.87
2.86
2.85
2.85
2.85
2.82

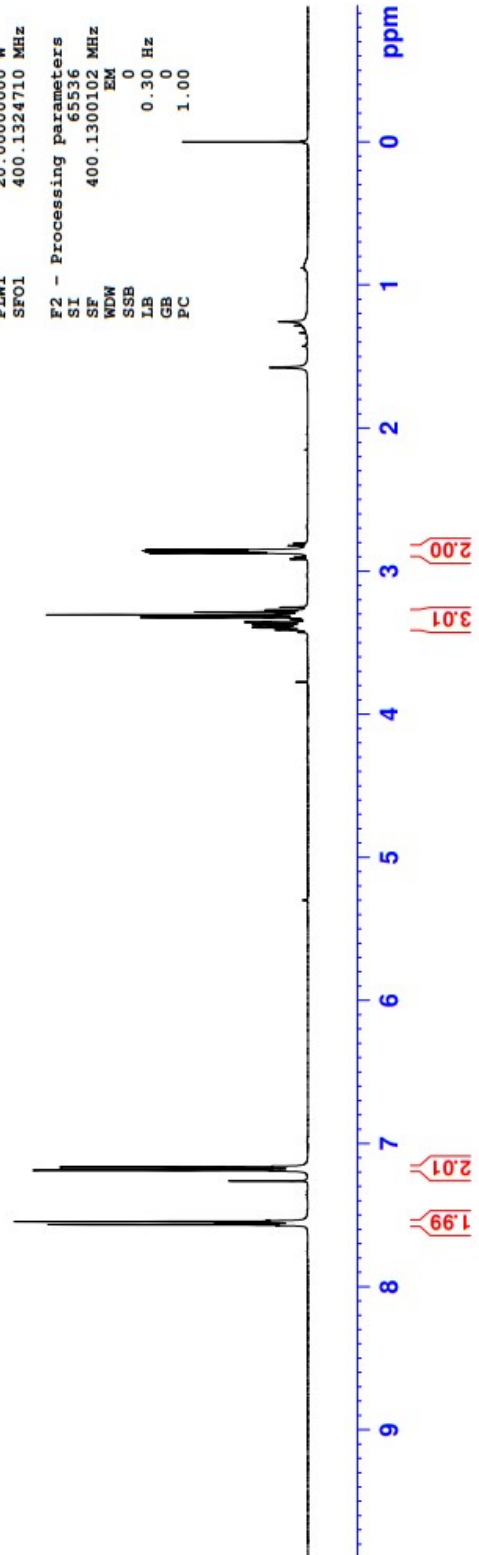
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7.54
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7.56
7.57

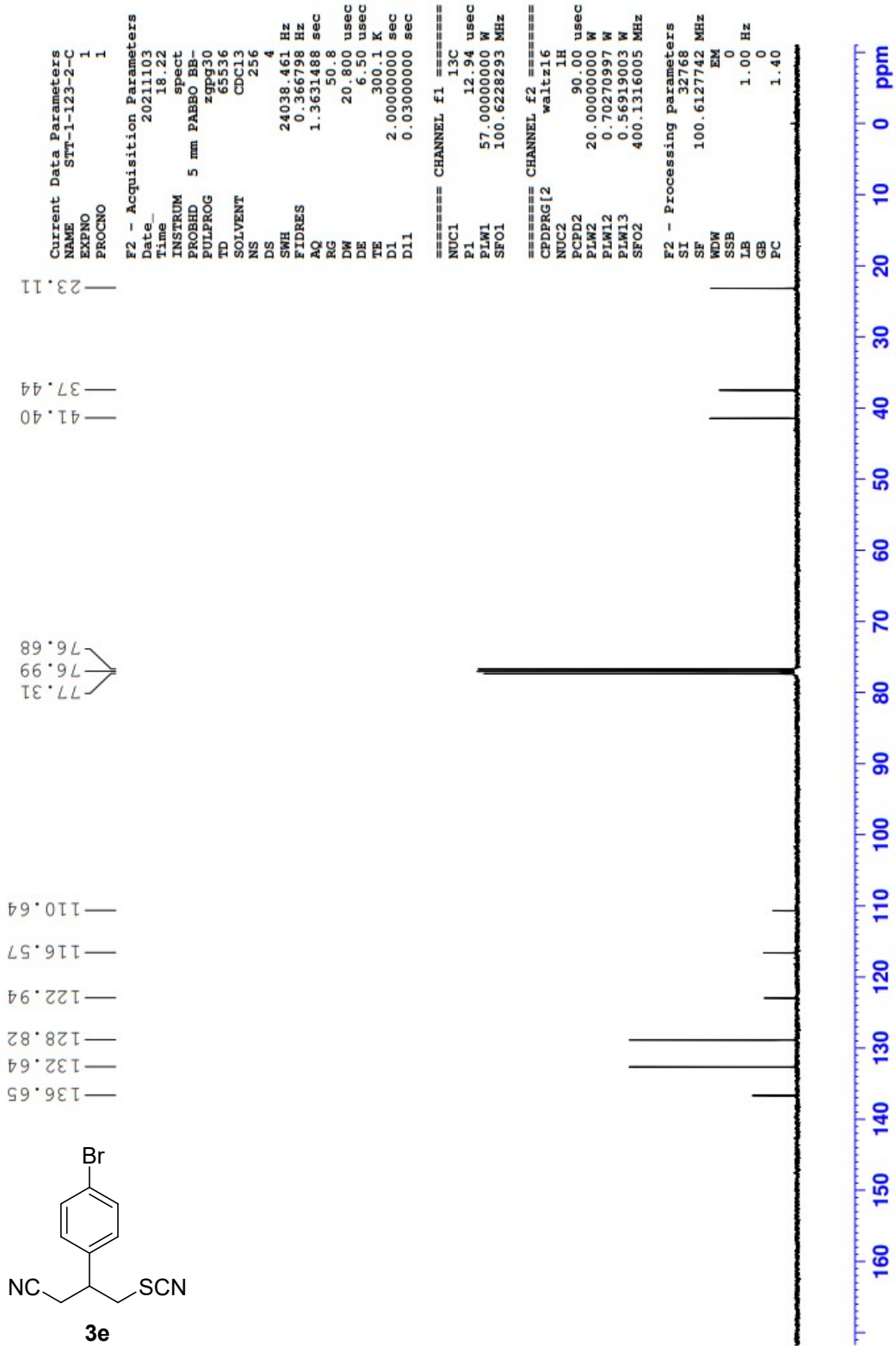
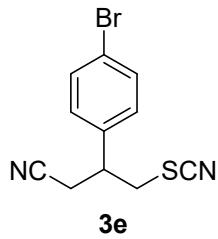
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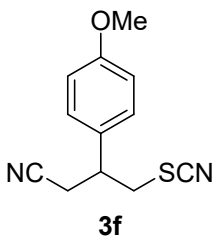
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 Date_ 20211103
 Time 15.47
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 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 8223.685 Hz
 FIDRES 0.125483 Hz
 AQ 3.9845889 sec
 RG 161
 DW 60.800 usec
 DE 6.50 usec
 TE 298.7 K
 D1 1.00000000 sec

==== CHANNEL f1 =====
 NUC1 1H
 P1 16.87 usec
 PLW1 20.0000000 W
 SF01 400.1324710 MHz

F2 - Processing parameters
 SI 65536
 SF 400.1300102 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00







7.26
7.21
7.18
6.94
6.92

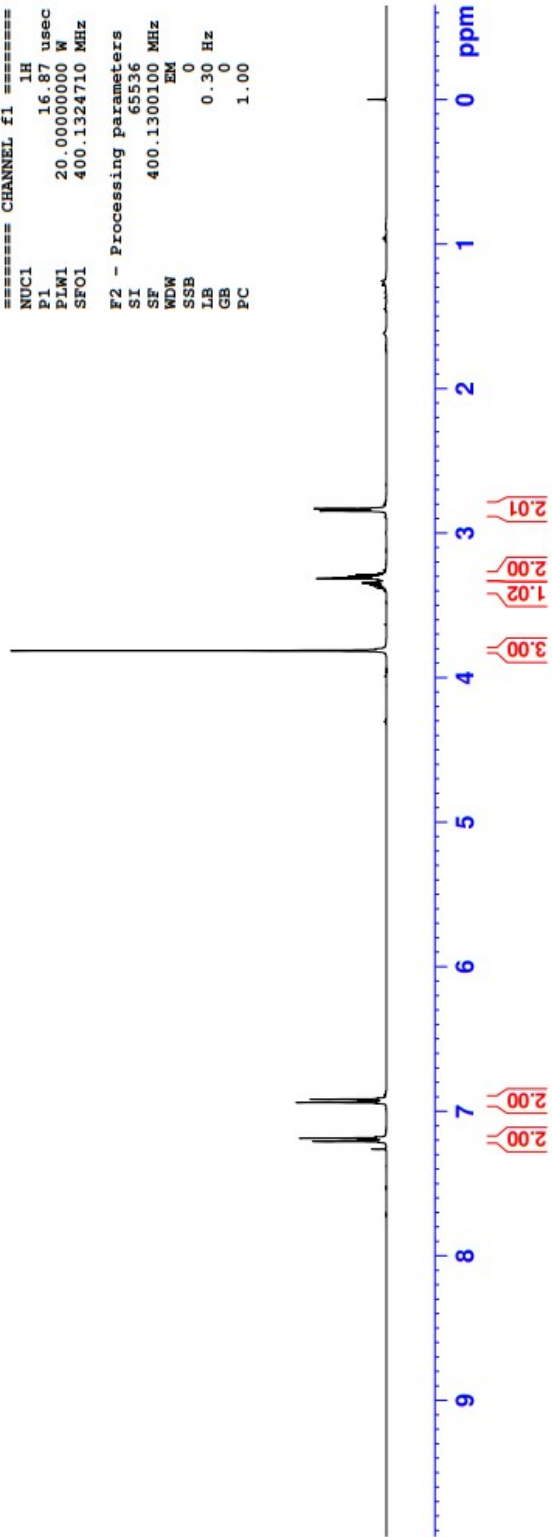
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3.34
3.33
3.32
3.31
3.31
3.30
3.29
3.28
2.84
2.84
2.83

Current Data Parameters
 NAME STT-1-152-2-1-H
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20220103
 Time 10.03
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 8223.685 Hz
 FIDRES 0.125483 Hz
 AQ 3.9845889 sec
 RG 101
 DW 60.800 usec
 DE 6.50 usec
 TE 296.8 K
 D1 1.00000000 sec

===== CHANNEL f1 =====
 NUC1 1H
 P1 16.87 usec
 PLW1 20.00000000 W
 SFO1 400.1324710 MHz

F2 - Processing parameters
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 SF 400.1300100 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



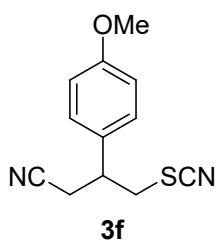
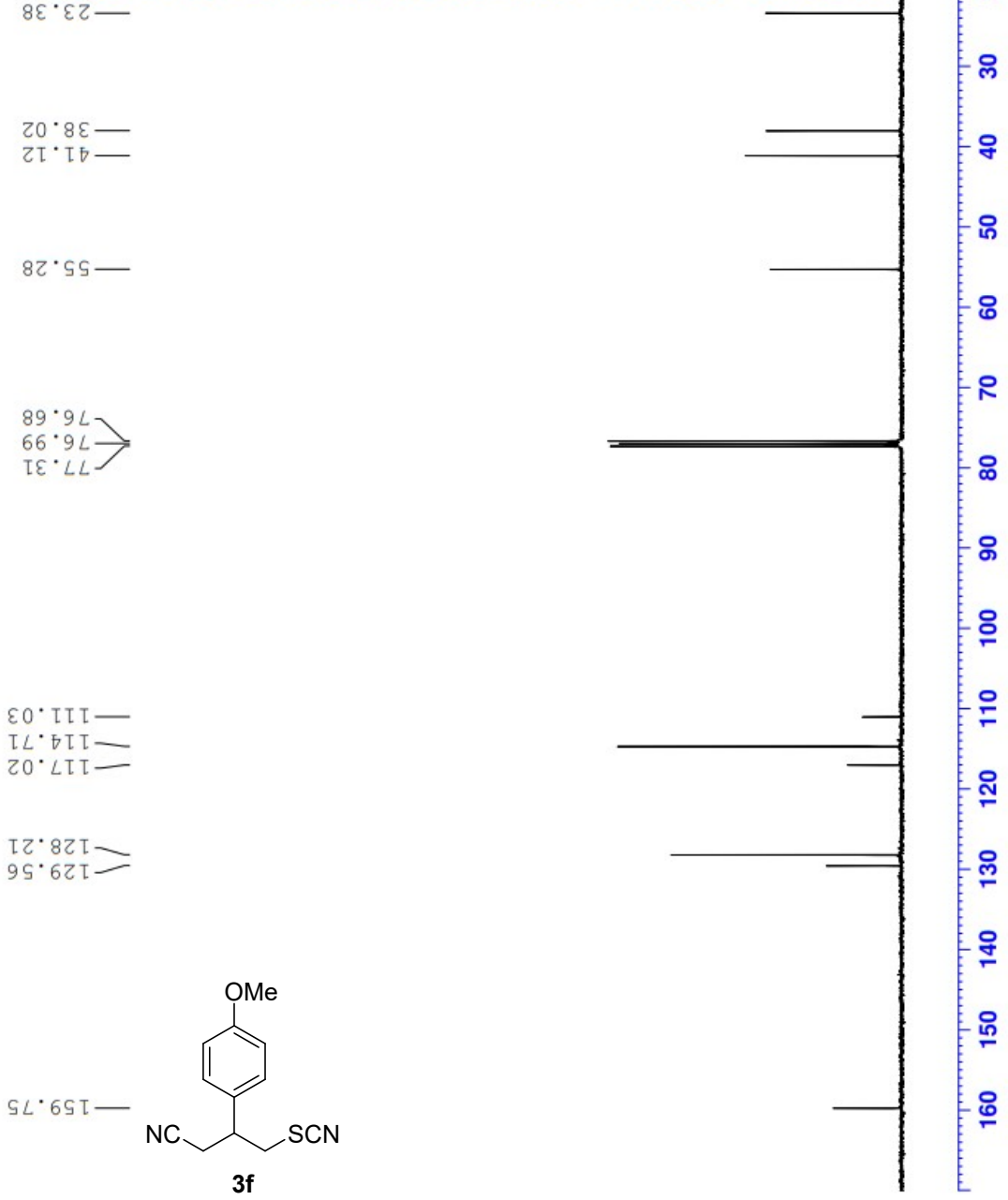
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 PROCNO 1

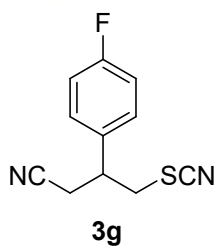
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 Time 10.20
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 PULPROG zgpg30
 TD 6536
 SOLVENT CDC13
 NS 256
 DS 4
 SWH 24038.461 Hz
 FIDRES 0.366798 Hz
 AQ 1.3631488 sec
 RG 128
 DW 20.800 usec
 DE 6.50 usec
 TE 297.8 K
 D1 2.00000000 sec
 D11 0.03000000 sec

==== CHANNEL f1 =====
 NUC1 13C
 P1 12.94 usec
 PLW1 57.0000000 W
 SFO1 100.6228293 MHz

==== CHANNEL f2 =====
 CPDPRG[2 waltz16
 NUC2 1H
 P1 90.00 usec
 PLW2 20.0000000 W
 PLW12 0.70270997 W
 PLW13 0.56919003 W
 SFO2 400.1316005 MHz

F2 - Processing parameters
 SI 32768
 SF 100.6127779 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

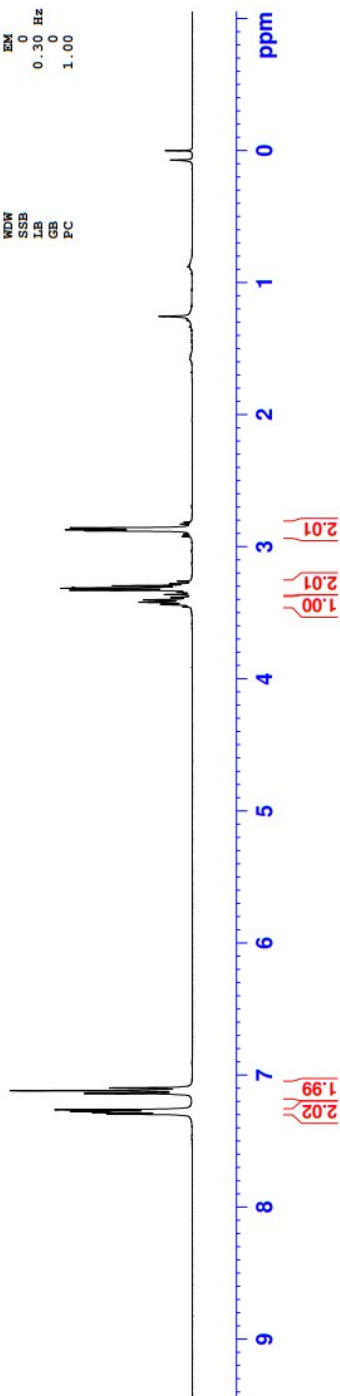


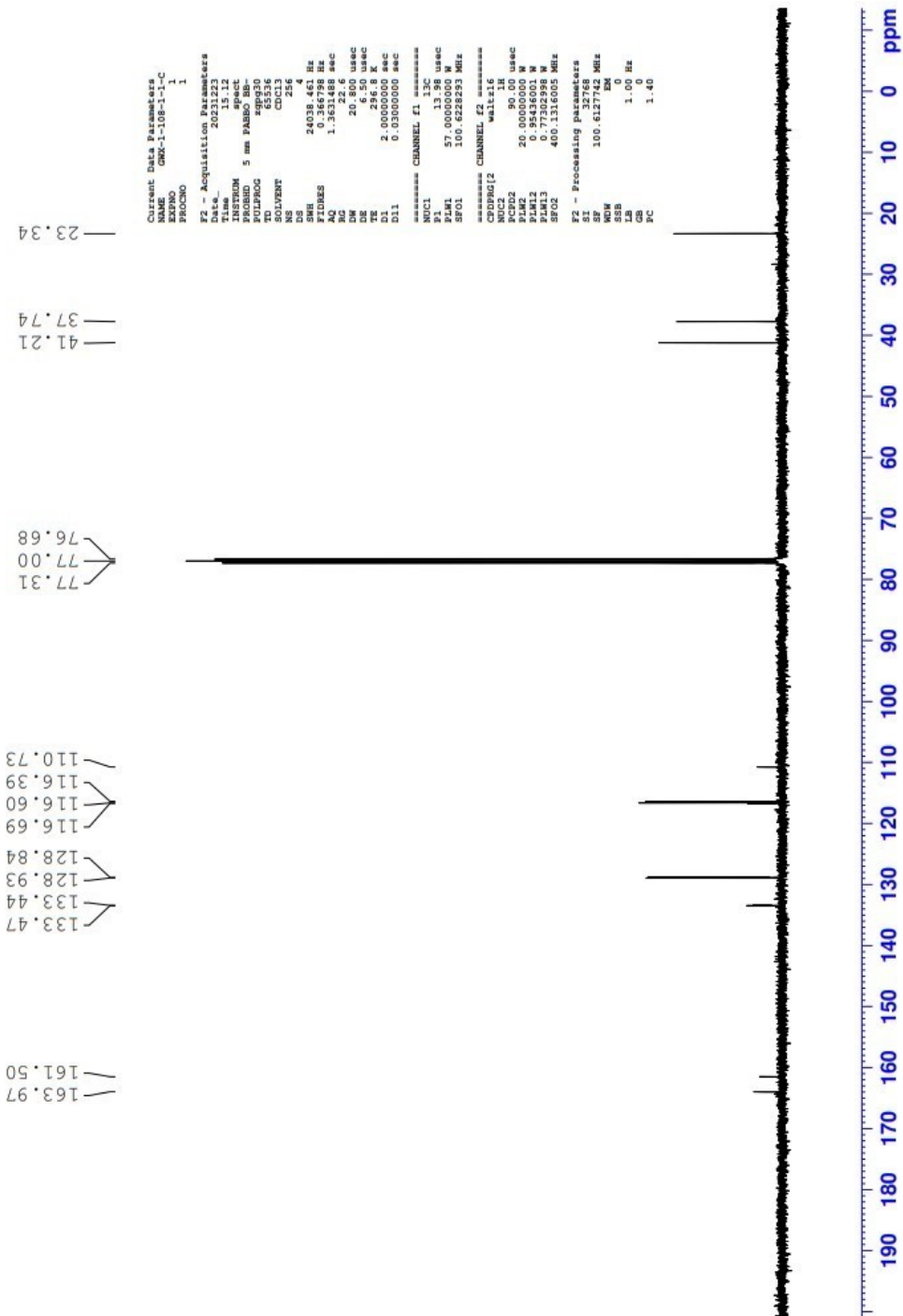
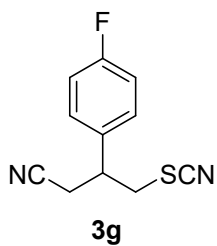


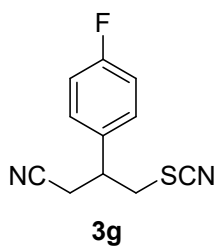
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 7.274
 7.262
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 7.133
 7.118
 7.101
 7.096

3.453
 3.436
 3.418
 3.401
 3.385
 3.361
 3.343
 3.327
 3.314
 3.311
 3.294
 3.281
 3.261
 2.921
 2.904
 2.878
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 2.861
 2.856
 2.828
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Current Data Parameters
 NAME GWX-1-108-1-1-H
 EXPNO 1
 PROCNO 1
 F2 - Acquisition Parameters
 Date_ 20231223
 Time 17.04
 INSTRUM spect
 PROBHD 5 mm PABBO BE-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 4
 SWH 8223.695 Hz
 FIDRES 0.155483 Hz
 AQ 3.9845889 sec
 RG 161
 DW 60.800 use
 DE 6.50 use
 TE 295.7 K
 D1 1.00000000 sec
 ===== CHANNEL f1 =====
 NUC1 1H
 P1 19.66 use
 PLW1 20.00000000 W
 SFO1 400.1324710 MHz
 F2 - Processing Parameters
 SI 65536
 SF 400.1300930 MHz
 WDW EM
 SSB 0
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 GB 0
 PC 1.00







-112.33

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Current Data Parameters
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PROCNO    1

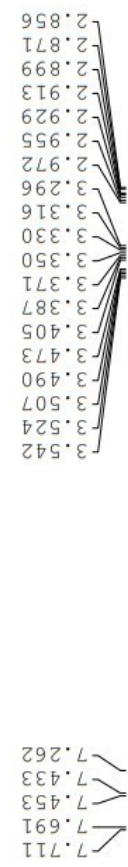
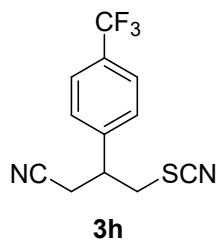
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PULPROG   zgpg30m
TD         131072
SOLVENT   CDCl3
NS         16
DS         4
SWH        89285.711 Hz
FIDRES     0.681196 Hz
AQ         0.7340032 sec
RG         203
DW         5.600 use
DE         6.50 use
TE         296.2 K
D1         1.00000000 sec
D11        0.03000000 sec
D12        0.00002000 sec

===== CHANNEL f1 =====
NUC1       19F
P1         21.80 use
PLW1       18.19700050 W
SFO1       376.4607164 MHz

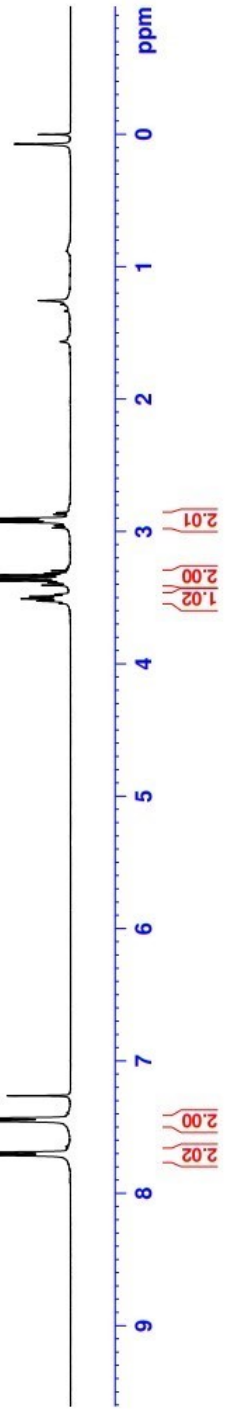
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CPDPRG2    waltz16
NUC2
PCPD2
PLW2       90.00 use
PLW2       20.00000000 W
PLW2       0.95436001 W
SFO2       400.1316005 MHz

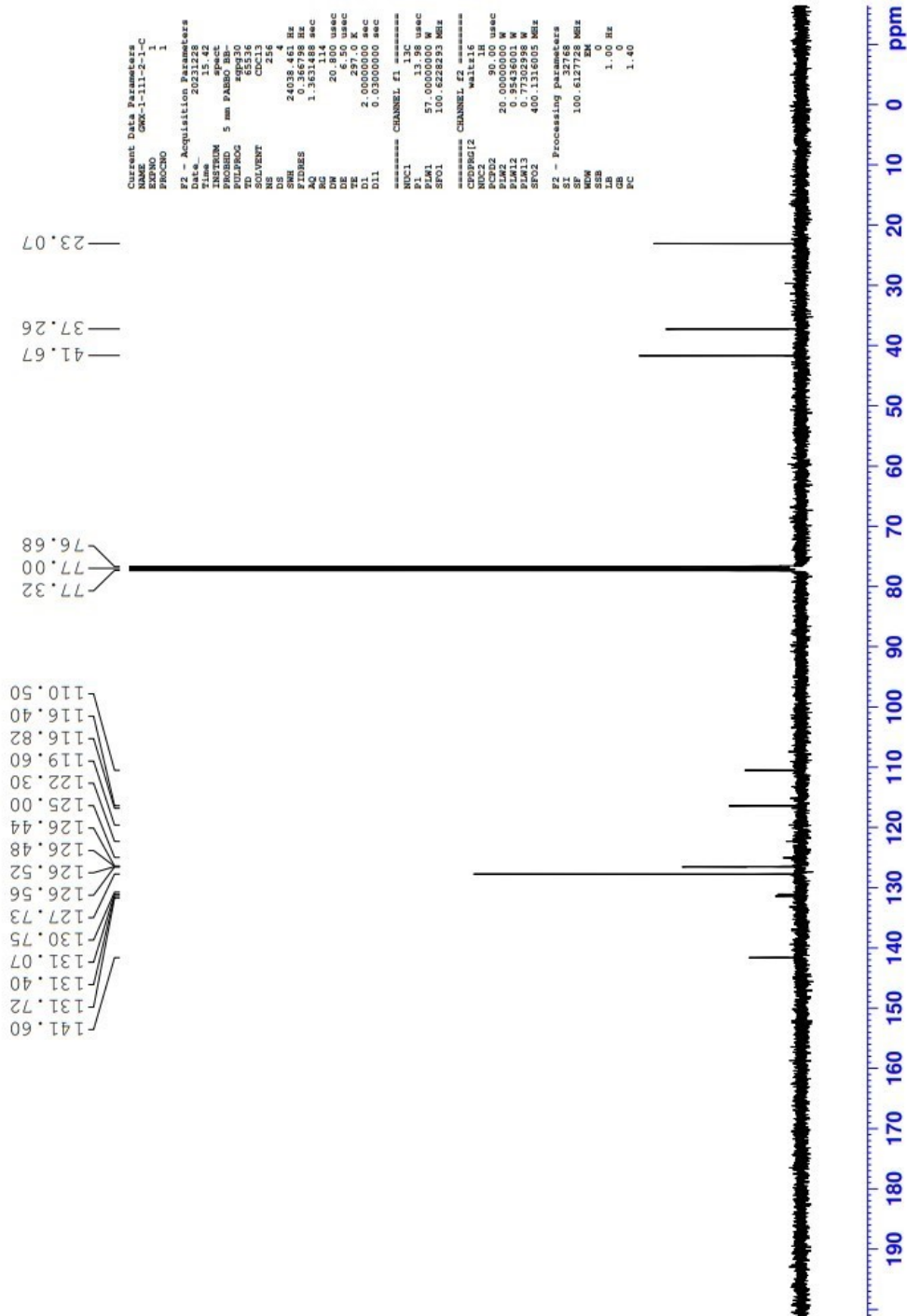
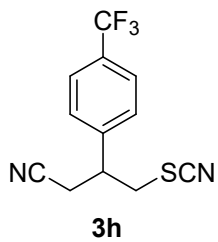
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GB         0
PC         1.00
  
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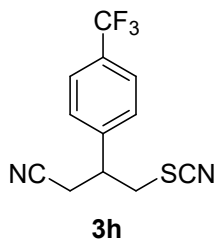




Current Data Parameters
 NAME GWX-1-111-2-1-H
 EXPNO 1
 PROCNO 1
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 Time 15:23
 PROGRAM spect
 PULPROG 5 mm PABBO E2
 TD 65536
 SFO 400.1324710 MHz
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 8223.685 Hz
 FIDRES 0.125483 Hz
 AQ 3.9845889 sec
 RG 181
 DW 60.800 use
 DE 6.50 use
 TE 296.4 K
 D1 1.0000000 sec
 CHANNEL f1
 NUC1 1H
 P1 19.66 use
 PLW1 20.0000000 W
 SFO1 400.1324710 MHz
 F2 - Processing parameters
 SI 65536
 SF 400.1300094 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00







-62.79

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Current Data Parameters
NAME      GWX-1-111-2-1-F
EXPNO     1
PROCNO    1

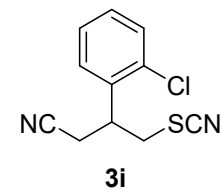
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Date_     20231228
Time      15.25
INSTRUM   spect
PROBHD    5 mm PABBO BB-
PULPROG   zgpg30
TD         131072
SOLVENT    CDCl3
NS         16
DS         4
SMH        89285.711 Hz
FIDRES     0.681196 Hz
AQ          0.7340032 sec
RG          203
DE          5.600 use
TE          296.5 K
D1          1.00000000 sec
D11         0.03000000 sec
D12         0.00002000 sec

===== CHANNEL f1 =====
NUC1       19F
P1         21.80 use
PLW1       18.19700050 W
SFO1       376.4607164 MHz

===== CHANNEL f2 =====
CPDPRG2    waltz16
NUC2       1H
PCPD2      90.00 use
PLW2       20.00000000 W
PLW12      0.95436001 W
SFO2       400.1316005 MHz

F2 - Processing parameters
SI          65536
SF          376.4983660 MHz
WDW         EM
SSB         0
LB          0.30 Hz
GB          0
PC          1.00
  
```





7.47
7.47
7.46
7.45
7.37
7.36
7.35
7.35
7.34
7.34
7.32
7.31
7.30
7.30
7.26

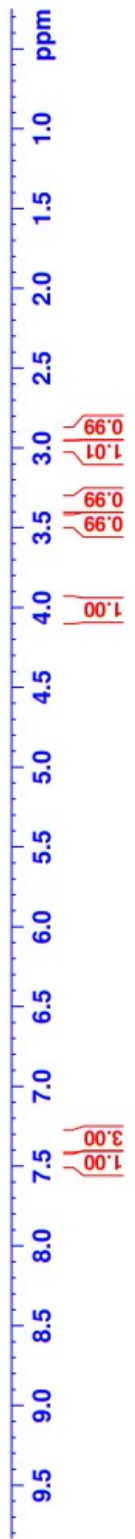
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3.98
3.48
3.47
3.45
3.43
3.38
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3.33
3.02
3.00
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2.95
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2.90
2.88
2.86

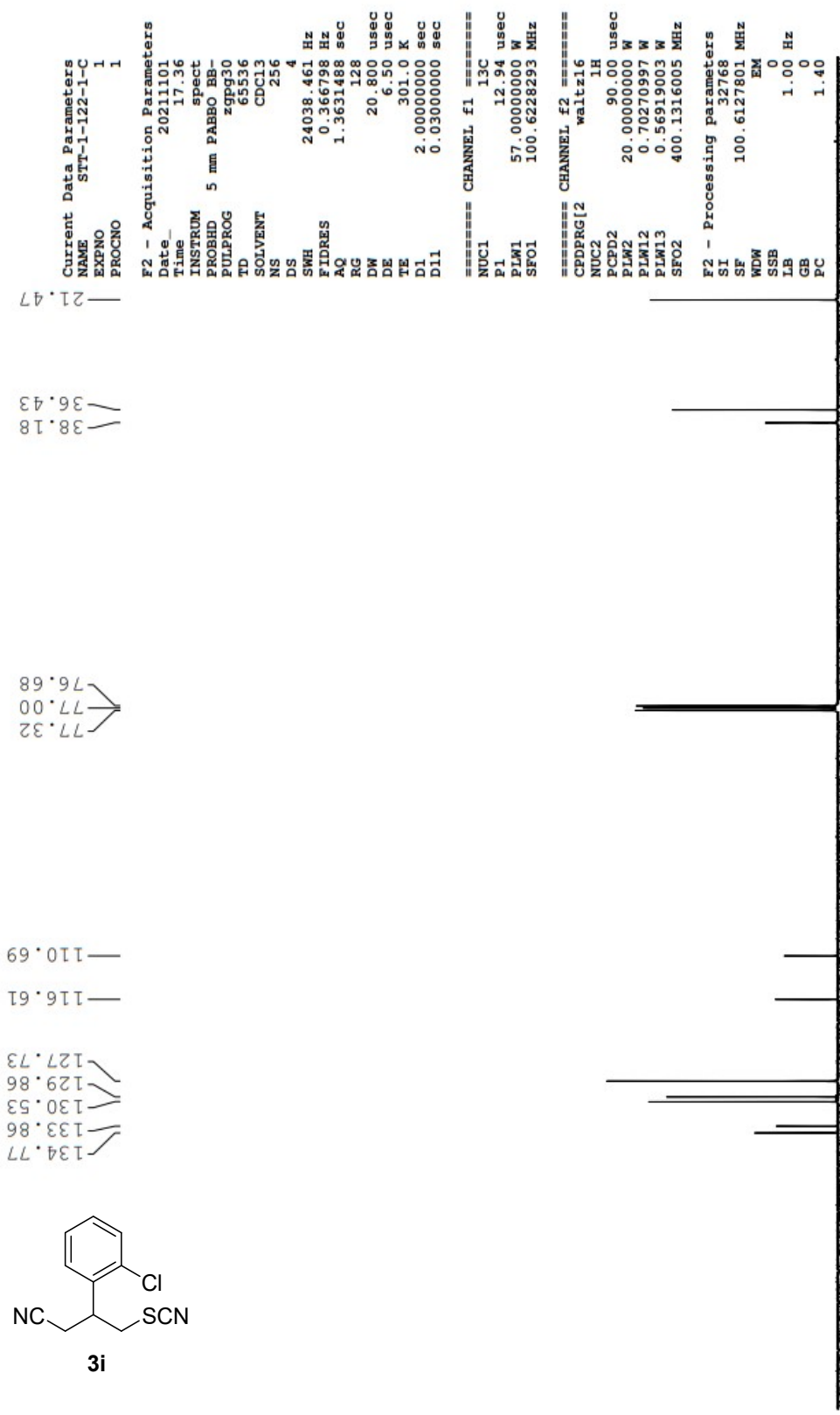
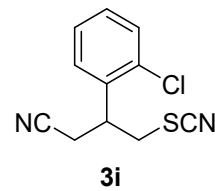
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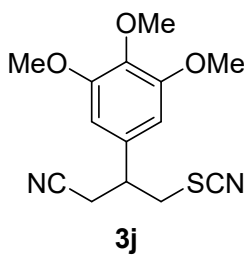
F2 - Acquisition Parameters
 Date_ 20211101
 Time 7.56
 INSTRUM spect
 PROBHD 5 mm PABBO BR-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 8223.685 Hz
 FIDRES 0.125483 Hz
 AQ 3.9845889 sec
 RG 90.5
 DW 60.800 usec
 DE 6.50 usec
 TE 298.7 K
 D1 1.00000000 sec

==== CHANNEL f1 =====
 NUC1 1H
 P1 16.87 usec
 PL1 20.00000000 W
 SF01 400.1324710 MHz

F2 - Processing parameters
 SI 65536
 SF 400.1300099 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00





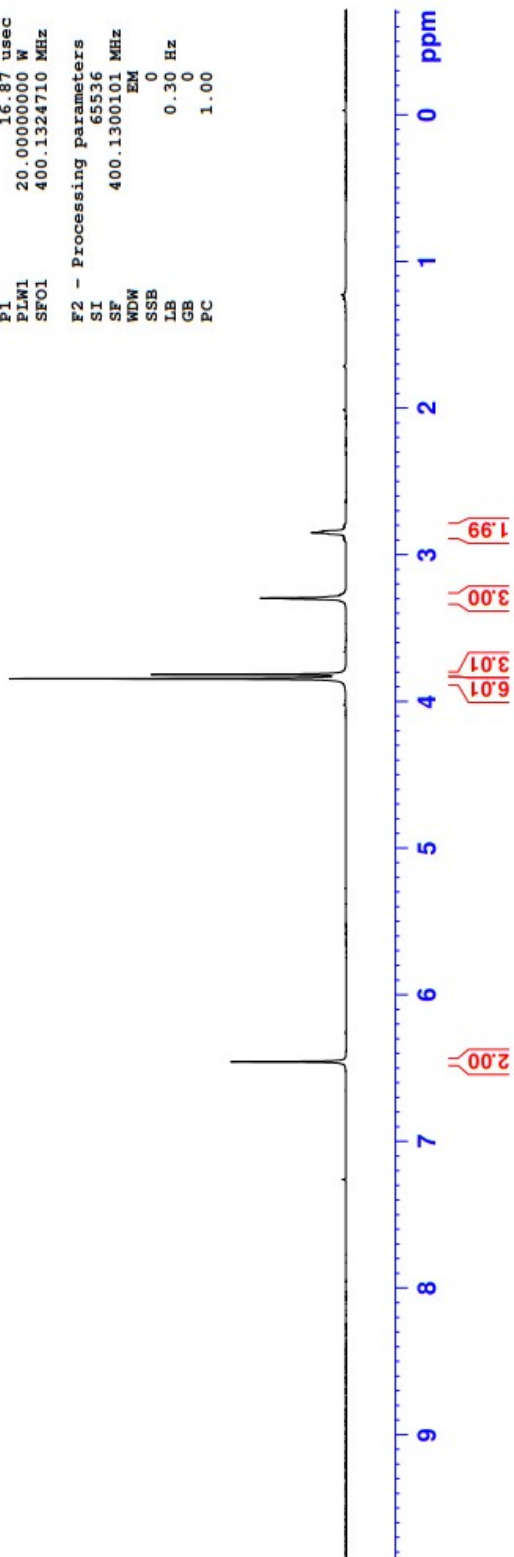


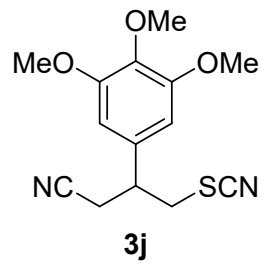
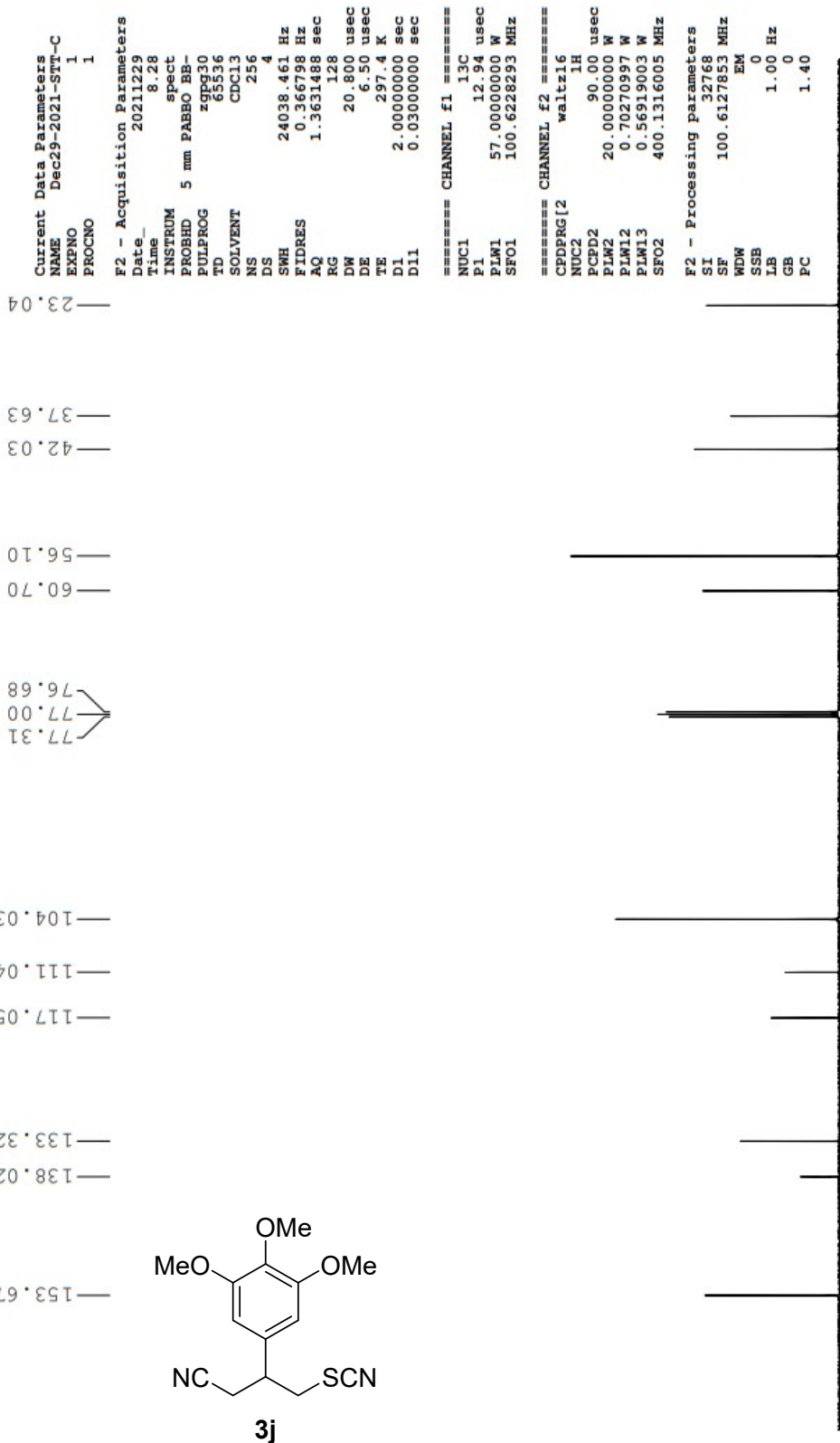
Current Data Parameters
 NAME STT-1-151-1-1-H
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20211224
 Time 17.03
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 8223.685 Hz
 FIDRES 0.125483 Hz
 AQ 3.9845889 sec
 RG 57
 DW 60.800 usec
 DE 6.50 usec
 TE 296.8 K
 D1 1.00000000 sec

===== CHANNEL f1 =====
 NUC1 1H
 P1 16.87 usec
 PLW1 20.0000000 W
 SF01 400.1324710 MHz

F2 - Processing parameters
 SI 65536
 SF 400.1300101 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00





2.95
 2.96
 2.96
 2.97
 2.98
 3.42
 3.45
 3.55
 3.57
 3.58
 3.60
 3.62

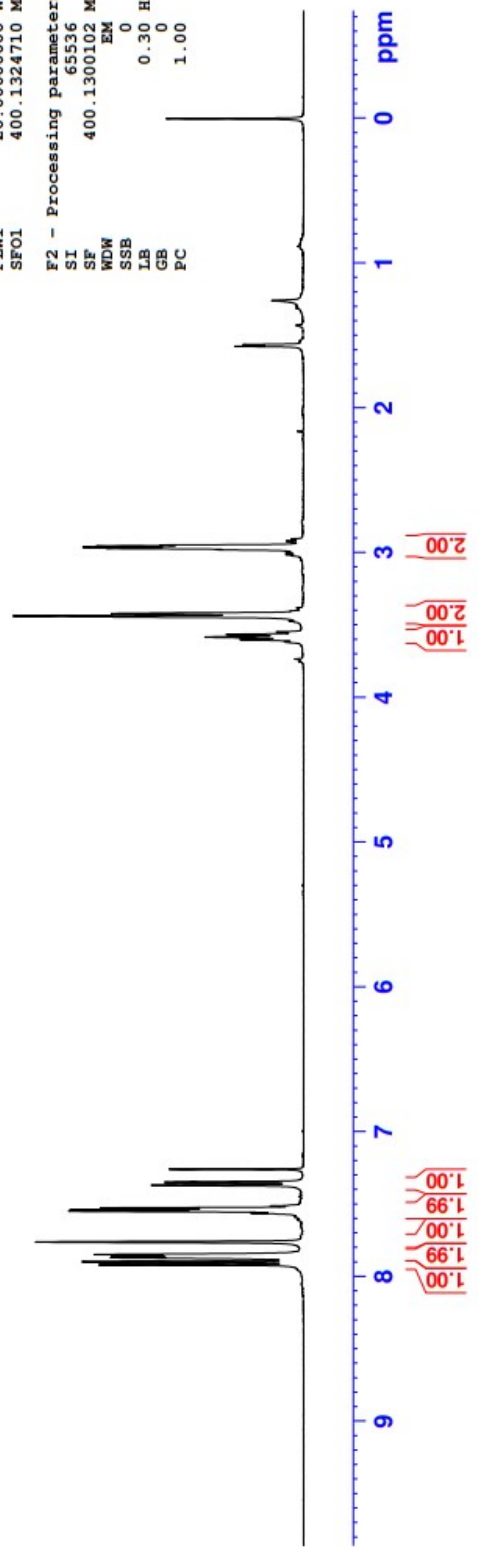
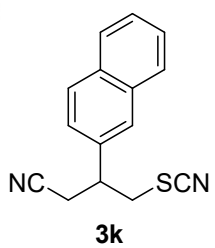
7.26
 7.35
 7.37
 7.51
 7.53
 7.54
 7.55
 7.56
 7.76
 7.85
 7.86
 7.86
 7.87
 7.90
 7.92

Current Data Parameters
 NAME STT-1-126-1-2-H
 EXPNO 1
 PROCNO 1

 F2 - Acquisition Parameters
 Date_ 20211109
 Time_ 8.20
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 8223.685 Hz
 FIDRES 0.125483 Hz
 AQ 3.9845889 sec
 RG 161
 DW 60.800 usec
 DE 6.50 usec
 TE 295.9 K
 D1 1.00000000 sec

 ===== CHANNEL f1 =====
 NUC1 1H
 P1 16.87 usec
 PLW1 20.0000000 W
 SF01 400.1324710 MHz

 F2 - Processing parameters
 SI 65536
 SF 400.1300102 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



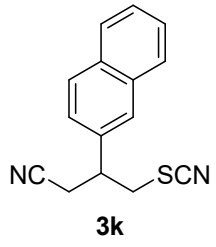
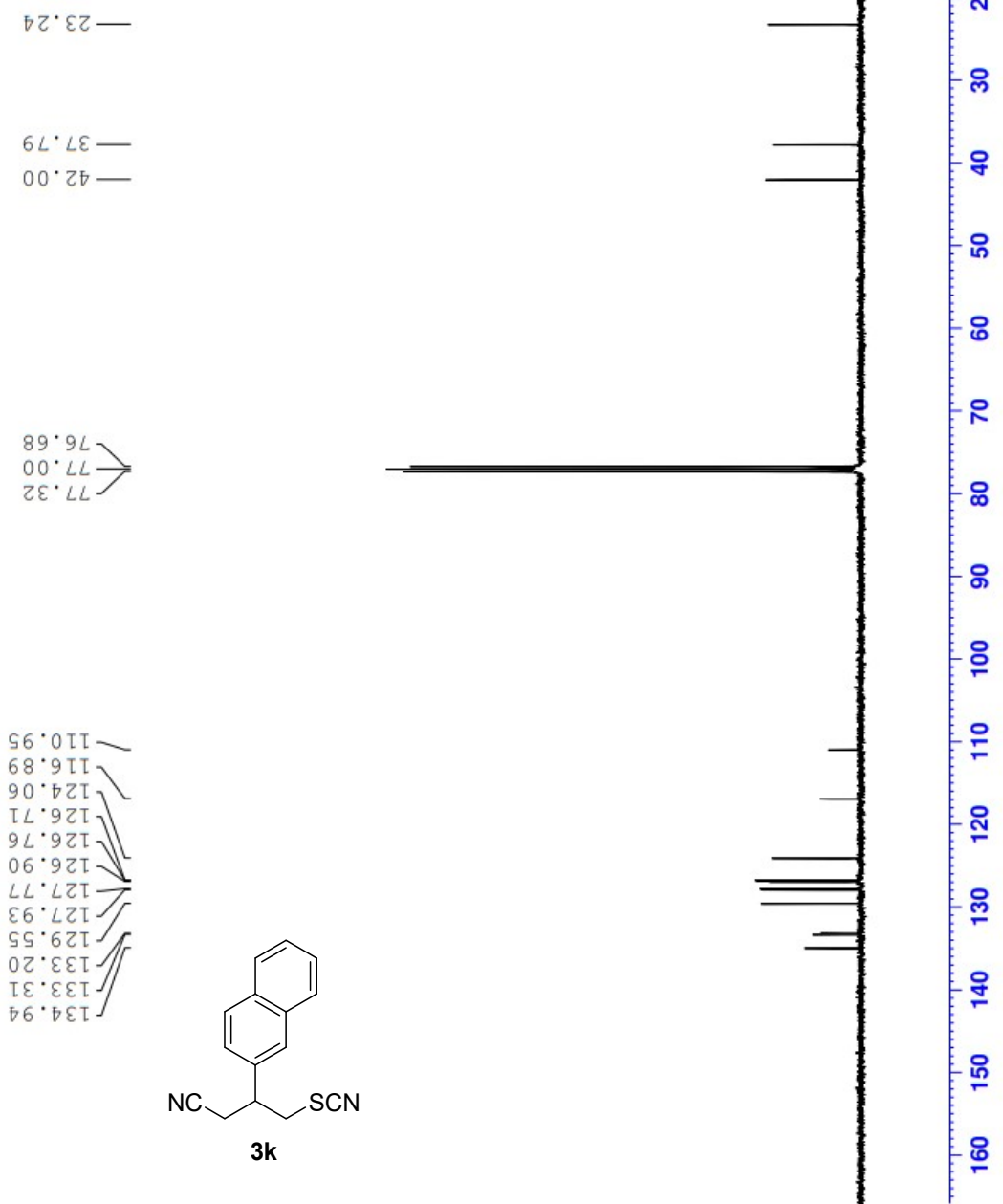
Current Data Parameters
 NAME STT-1-126-1-2-C
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20211110
 Time 9.01
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 256
 DS 4
 SWH 24038.461 Hz
 FIDRES 0.366798 Hz
 AQ 1.3631488 sec
 RG 101
 DW 20.800 usec
 DE 6.50 usec
 TE 298.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec

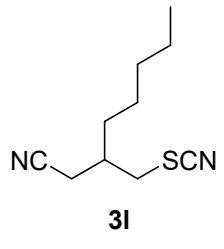
=====
 CHANNEL f1
 NUC1 13C
 P1 12.94 usec
 PLW1 57.0000000 W
 SFO1 100.6228293 MHz

=====
 CHANNEL f2
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 90.00 usec
 PLW2 20.0000000 W
 PLW12 0.70270997 W
 PLW13 0.56919003 W
 SFO2 400.1316005 MHz

F2 - Processing parameters
 SI 32768
 SF 100.6127743 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40



0.86
0.87
0.89
1.25
1.29
1.33
1.35
1.36
1.49
1.50
1.53
1.54
1.56
1.58
1.60
1.63
1.64
1.65
1.66
1.66
1.85
1.87
1.89
1.91
1.91
3.12
3.13
3.15
3.16



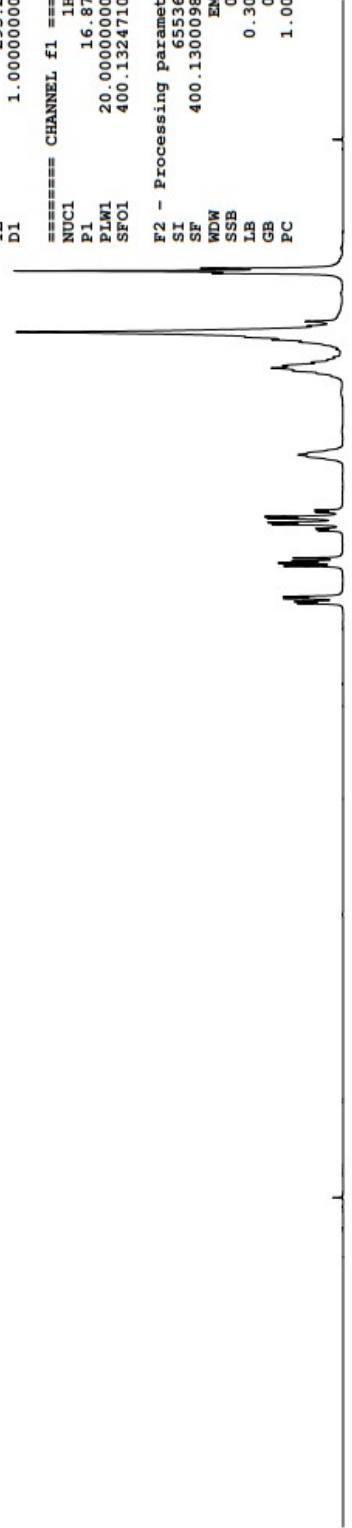
7.26

Current Data Parameters
NAME STT-1-136-1-H
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20211125
Time 9.12
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT CDC13
NS 16
DS 2
SWH 8223.685 Hz
FIDRES 0.125483 Hz
AQ 3.9845889 sec
RG 32
DW 60.800 usec
DE 6.50 usec
TE 295.2 K
D1 1.00000000 sec

==== CHANNEL f1 =====
NUC1 LH
P1 16.87 usec
PLW1 20.00000000 W
SF01 400.1324710 MHz

F2 - Processing parameters
SI 65536
SF 400.1300098 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



9 8 7 6 5 4 3 2 1 0 ppm

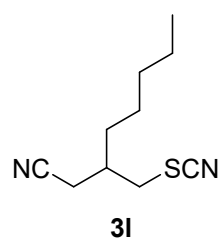
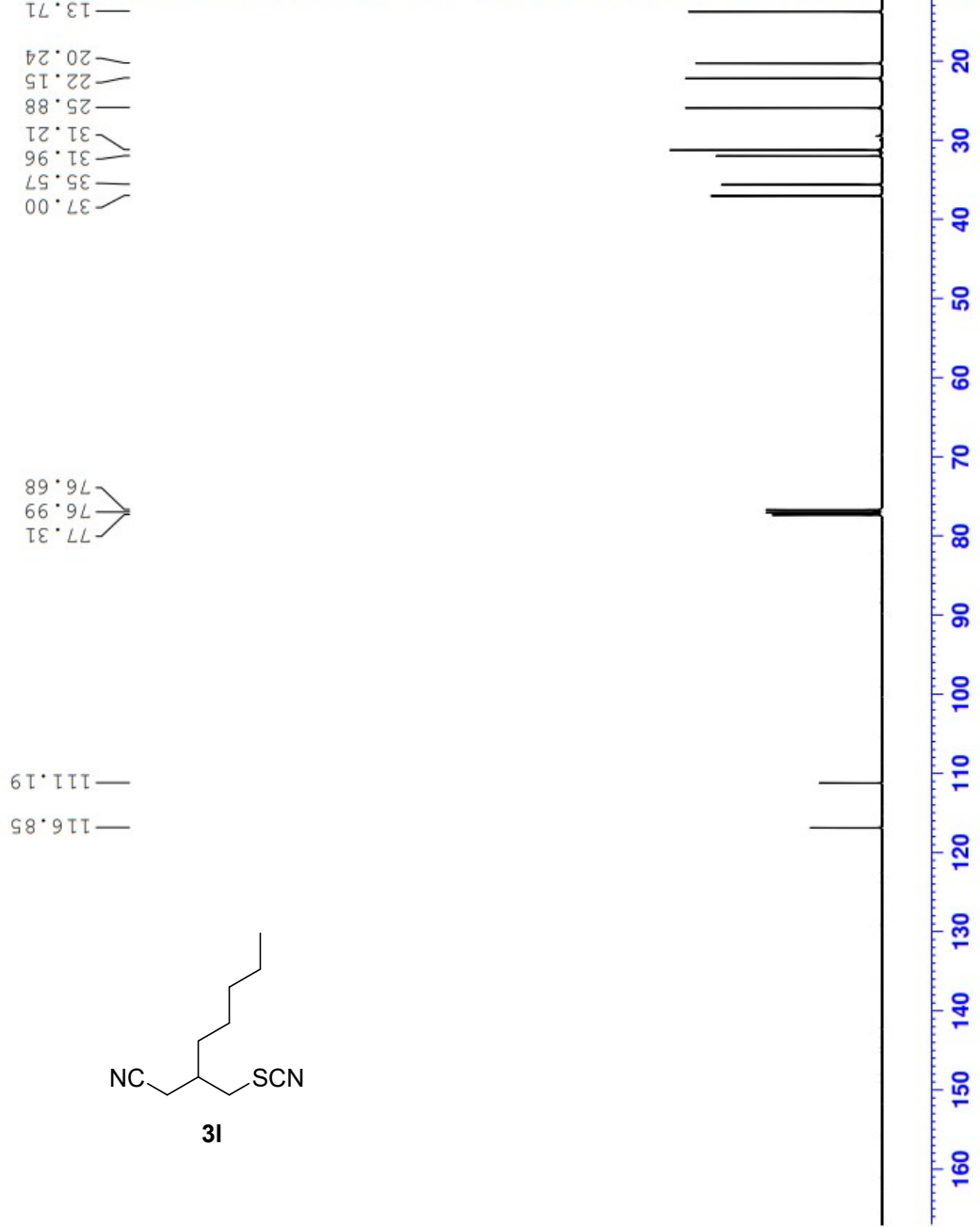
Current Data Parameters
 NAME STI-1-136-1-C
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20211129
 Time_ 7.53
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 256
 DS 4
 SWH 24038.461 Hz
 FIDRES 0.366798 Hz
 AQ 1.3631488 sec
 RG 128
 DW 20.800 usec
 DE 6.50 usec
 TE 298.3 K
 D1 2.00000000 sec
 D11 0.03000000 sec

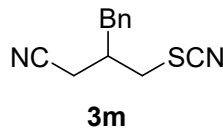
==== CHANNEL f1 =====
 NUC1 13C
 P1 12.94 usec
 PLW1 57.0000000 W
 SFO1 100.6228293 MHz

==== CHANNEL f2 =====
 CDPGRG[2] waitz16
 NOC2 1H
 PCPD2 90.00 usec
 PLW2 20.0000000 W
 PLW12 0.70270997 W
 PLW13 0.56919003 W
 SFO2 400.1316005 MHz

F2 - Processing parameters
 SI 32768
 SF 100.6127926 MHz
 EM
 WDW 0
 SSB 1.00 Hz
 LB 0
 GB 0
 PC 1.40



7.37
7.35
7.33
7.30
7.29
7.28
7.27
7.26
7.25
7.25
7.24
7.24
7.21
7.19
7.17
3.15
3.14
3.00
2.99
2.97
2.95
2.95
2.93
2.91
2.85
2.80
2.78
2.77
2.75
2.73
2.64
2.62
2.59
2.58
2.52
2.50
2.50
2.48
2.47
2.46
2.44
2.42
2.40
2.36
1.34
1.32
1.31
1.30
1.29
1.28
1.25
0.88
0.88
0.86
0.07
0.00

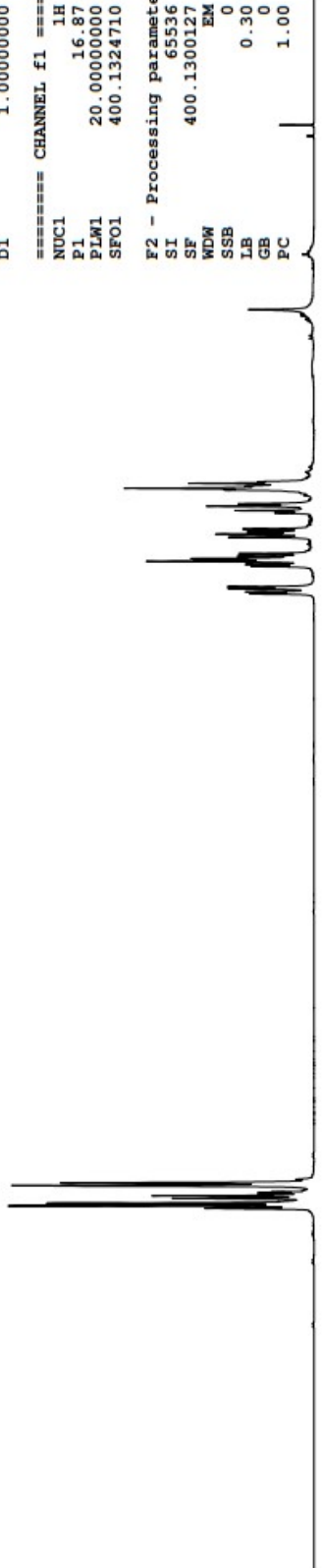


Current Data Parameters
 NAME STT-1-137-2-1-H
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20211208
 Time 8.20
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 8223.685 Hz
 FIDRES 0.125483 Hz
 AQ 3.9845889 sec
 RG 50.8
 DW 60.800 usec
 DE 6.50 usec
 TE 294.9 K
 D1 1.00000000 sec

==== CHANNEL f1 =====
 NUC1 1H
 P1 16.87 usec
 PLW1 20.00000000 W
 SFO1 400.1324710 MHz

F2 - Processing parameters
 SI 65536
 SF 400.1300127 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



2.00
1.03
2.01

0.98
2.01
1.01
1.01
1.01
2.00

ppm

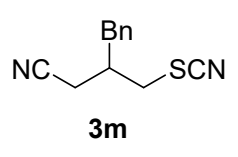
Current Data Parameters
 NAME STT-1-137-2-C
 EXPNO 1
 PROCNO 1
 19.80

36.42
 37.55
 38.08

76.68
 77.00
 77.32

111.02
 116.73

127.15
 128.75
 128.88
 136.49



F2 - Acquisition Parameters
 Date_ 20211130
 Time 8.49
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDC13
 NS 256
 DS 4
 SWH 24038.461 Hz
 FIDRES 0.366798 Hz
 AQ 1.3631488 sec
 RG 128
 DW 20.800 usec
 DE 6.50 usec
 TE 296.6 K
 D1 2.00000000 sec
 D11 0.03000000 sec

==== CHANNEL f1 =====
 NUC1 13C
 P1 12.94 usec
 PLW1 57.0000000 W
 SFO1 100.6228293 MHz

==== CHANNEL f2 =====
 CPDPRG[2] waltz16
 NUC2 1H
 P1 90.00 usec
 PLW2 20.0000000 W
 PLW12 0.70270997 W
 PLW13 0.56919003 W
 SFO2 400.1316005 MHz

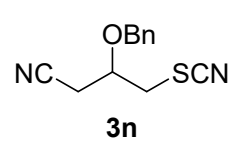
F2 - Processing parameters
 SI 32768
 SF 100.6127948 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40



0.00

4.66
4.01
4.00
3.98
3.97
3.96
3.20
3.19
3.17
3.15
3.14
3.12
3.10
2.70
2.69
2.68

7.38
7.37
7.36
7.35
7.33

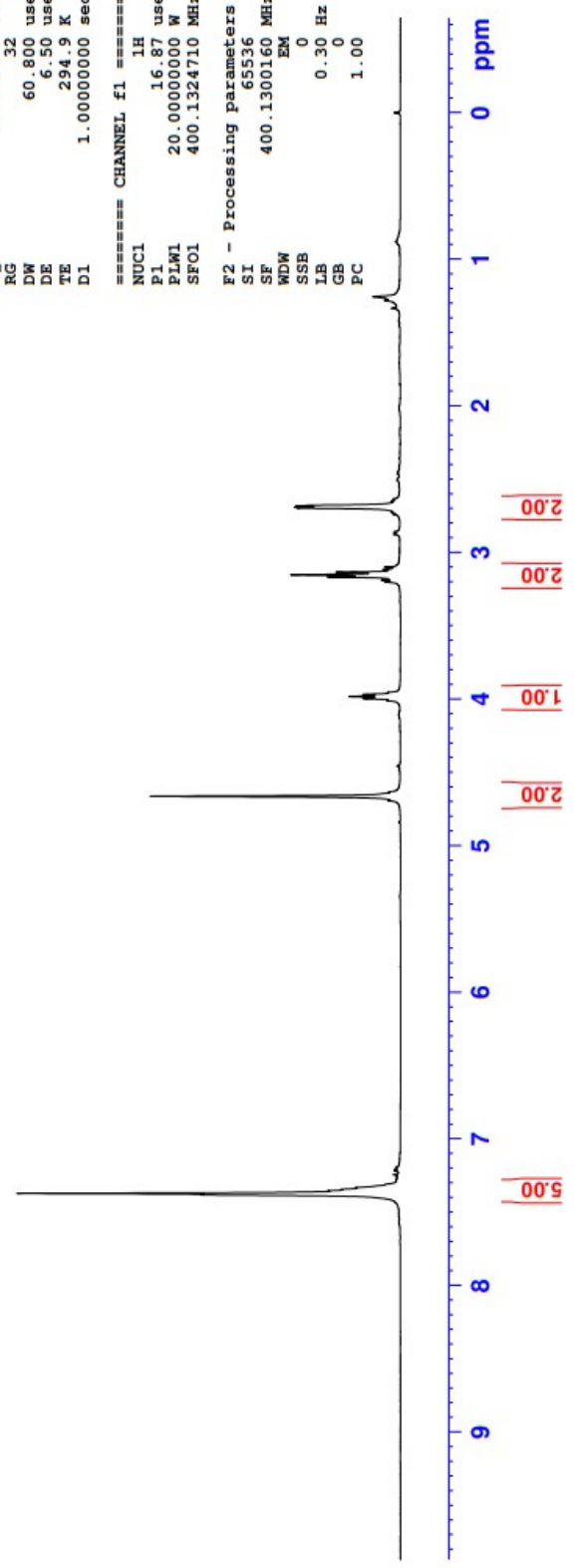


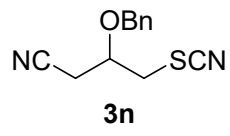
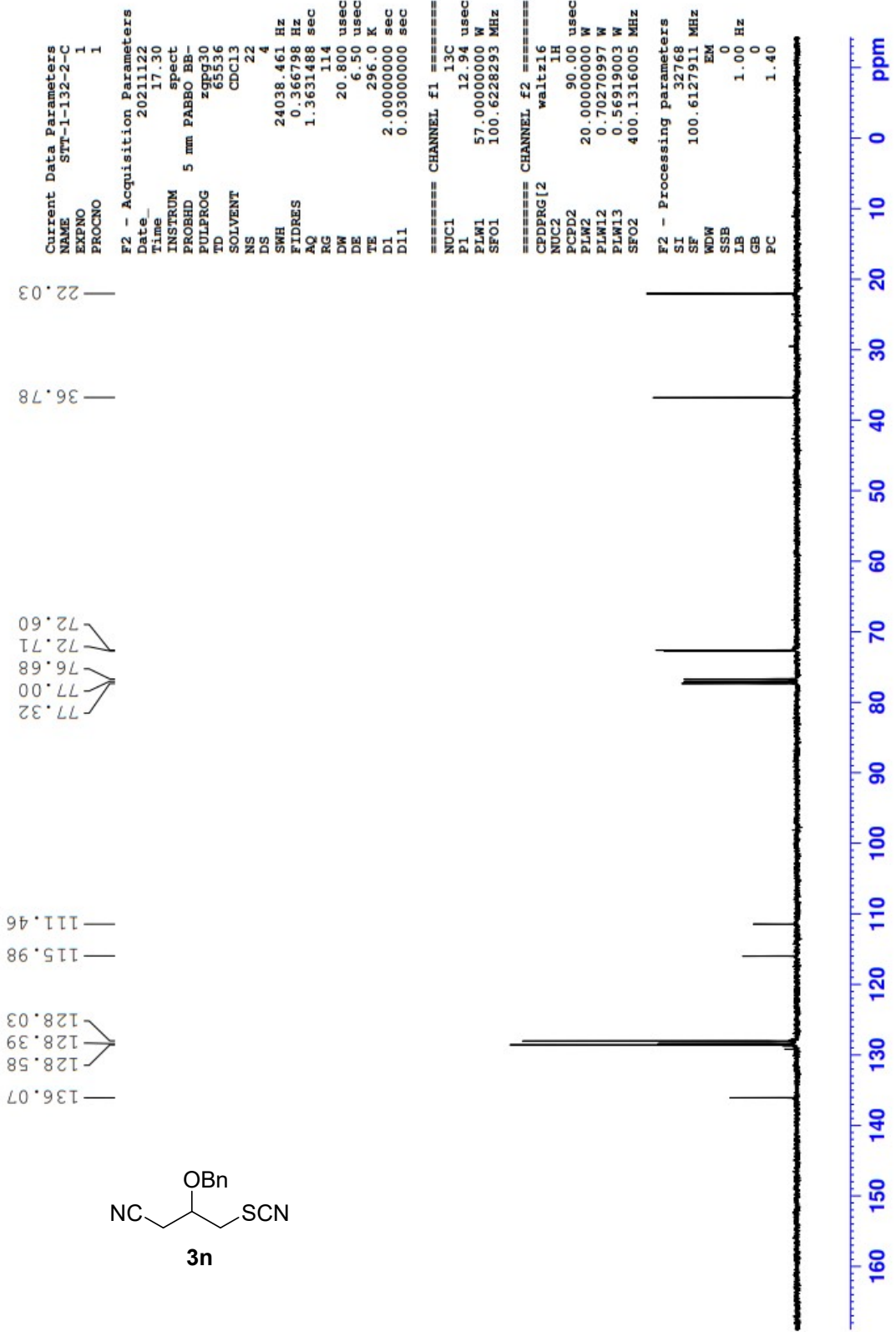
Current Data Parameters
NAME STT-1-132-2-H
EXPNO 1
PROCNO 1

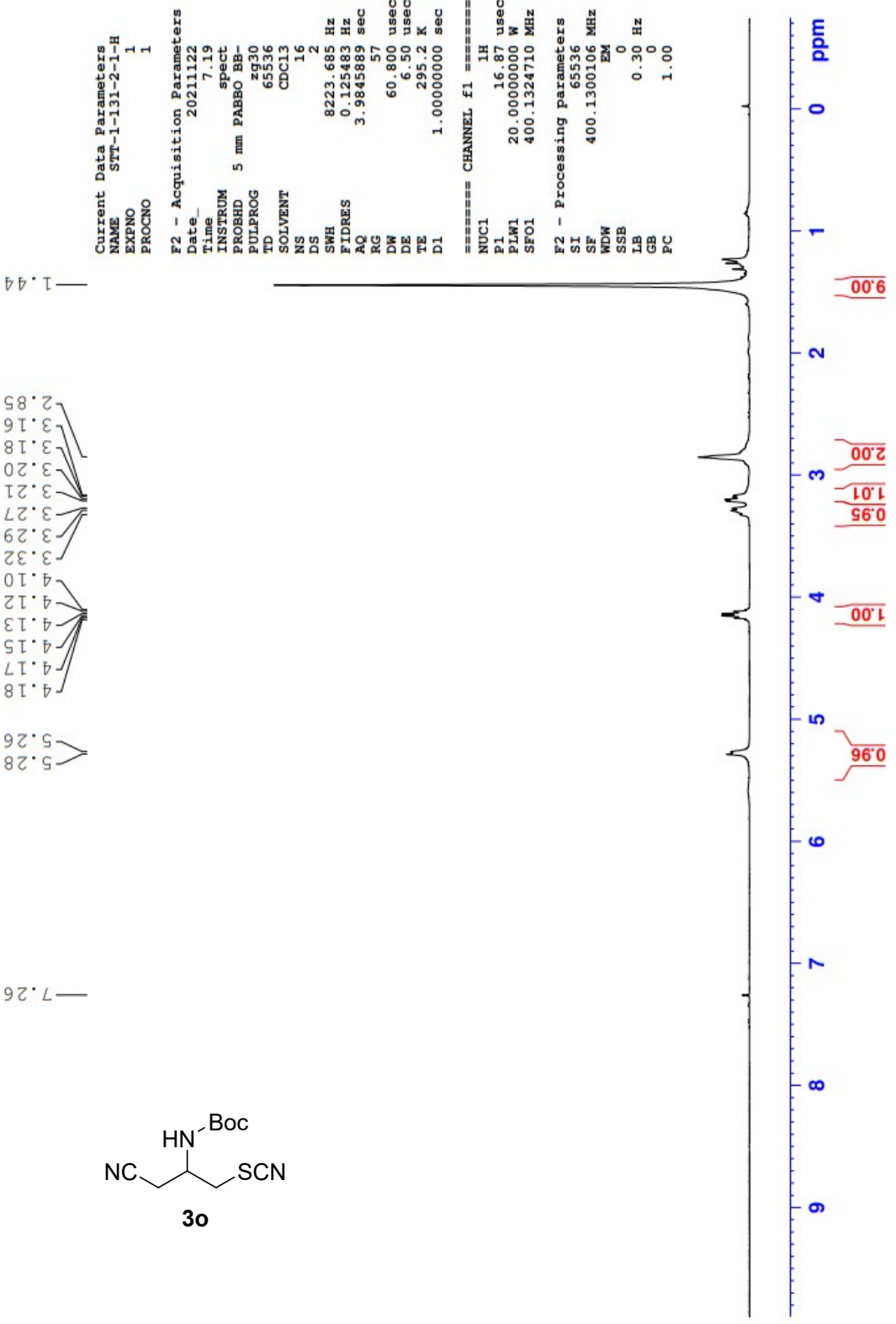
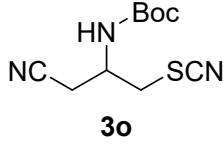
F2 - Acquisition Parameters
Date_ 20211122
Time 7.54
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT CDC13
NS 16
DS 2
SWH 8223.685 Hz
FIDRES 0.125483 Hz
AQ 3.9845689 sec
RG 32
DW 60.800 usec
DE 6.50 usec
TE 294.9 K
D1 1.00000000 sec

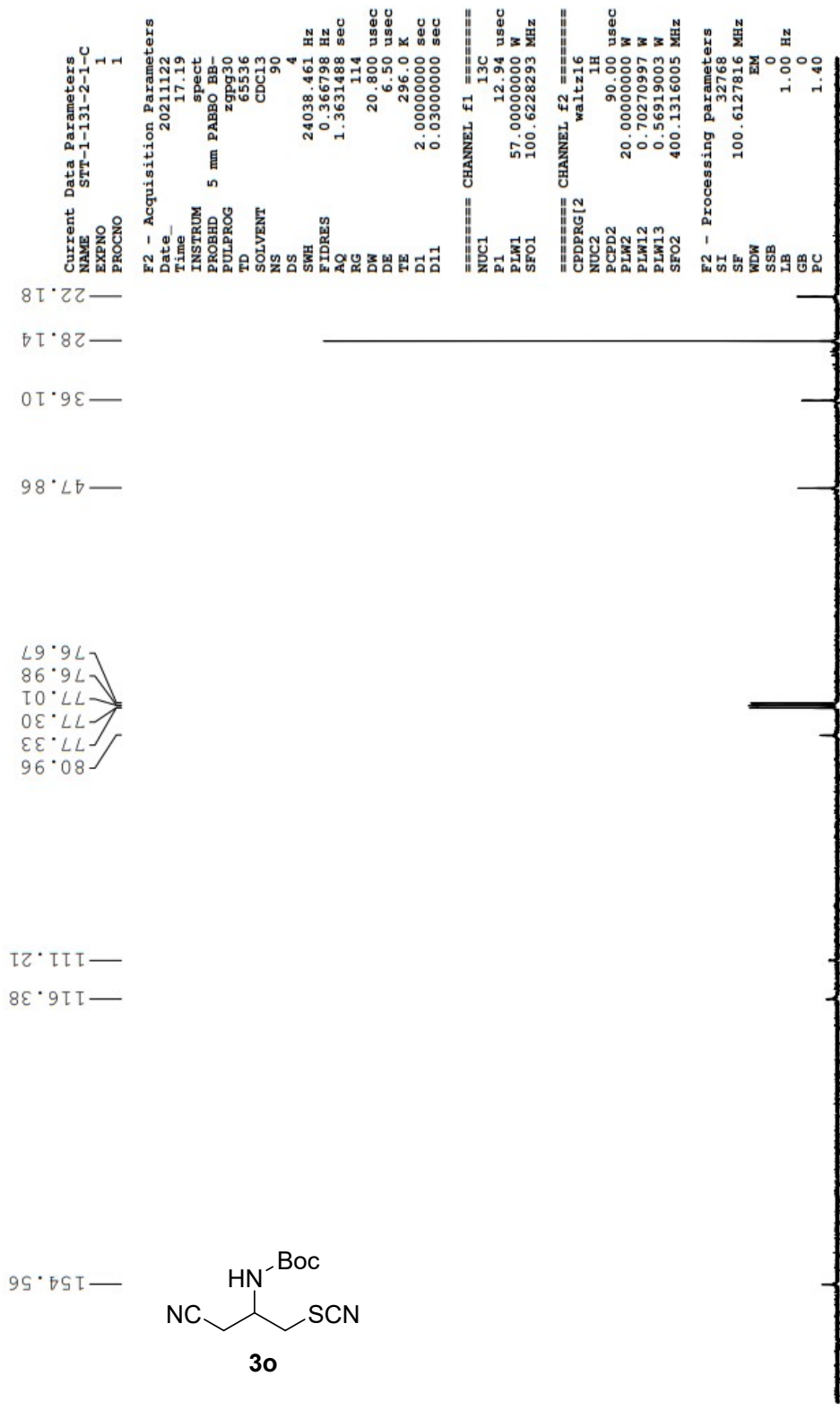
===== CHANNEL f1 =====
NUC1 1H
P1 16.87 usec
PLW1 20.00000000 W
SF01 400.1324710 MHz

F2 - Processing parameters
SI 65536
SF 400.1300160 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00









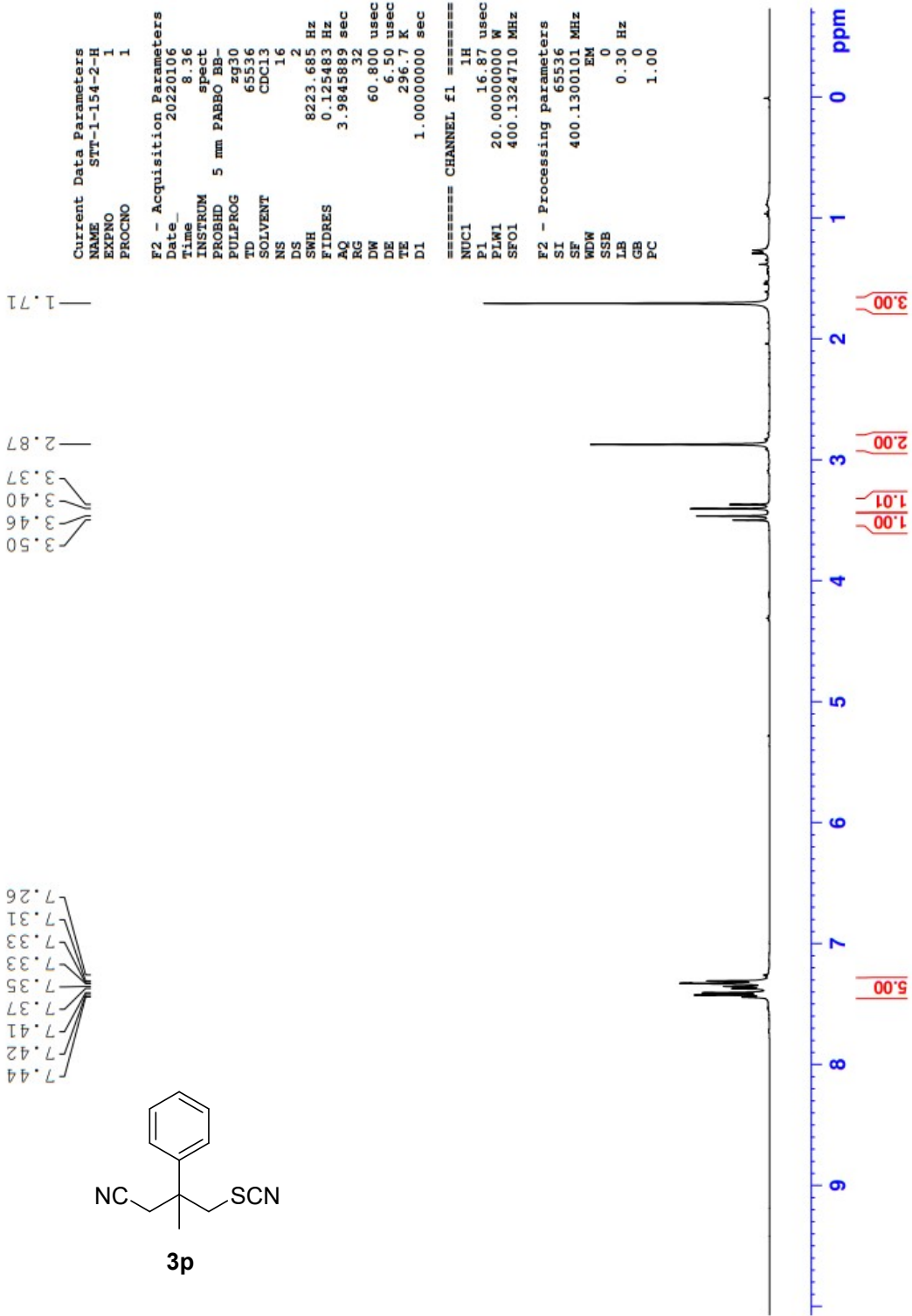
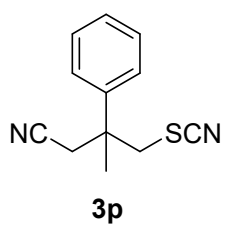
Current Data Parameters
 NAME STT-1-154-2-H
 EXPNO 1
 PROCNO 1

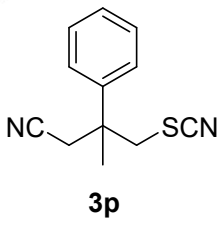
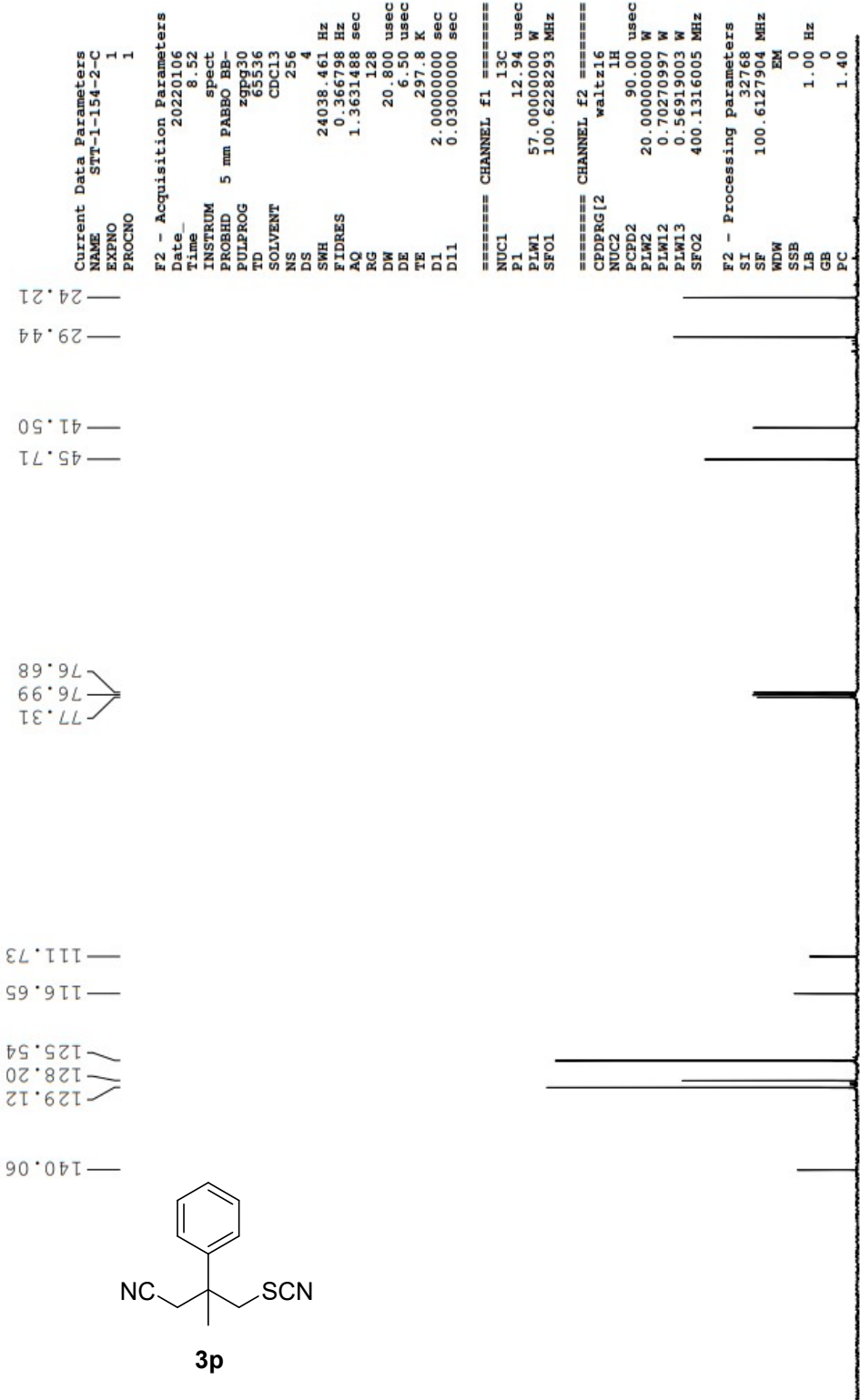
F2 - Acquisition Parameters
 Date_ 20220106
 Time 8.36
 INSTRUM spect
 PROBHD 5 mm PABBO BE-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 8223.685 Hz
 FIDRES 0.125483 Hz
 AQ 3.9845889 sec
 RG 32
 DW 60.800 usec
 DE 6.50 usec
 TE 296.7 K
 D1 1.00000000 sec

===== CHANNEL f1 =====
 NUC1 1H
 P1 16.87 usec
 PLW1 20.0000000 W
 SF01 400.1324710 MHz
 F2 - Processing parameters
 SI 65536
 SF 400.1300101 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

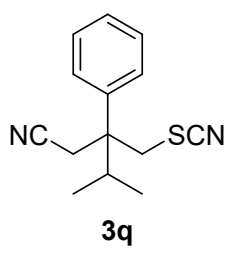
1.71
 2.87
 3.37
 3.40
 3.46
 3.50

7.26
 7.31
 7.33
 7.33
 7.35
 7.37
 7.41
 7.42
 7.44

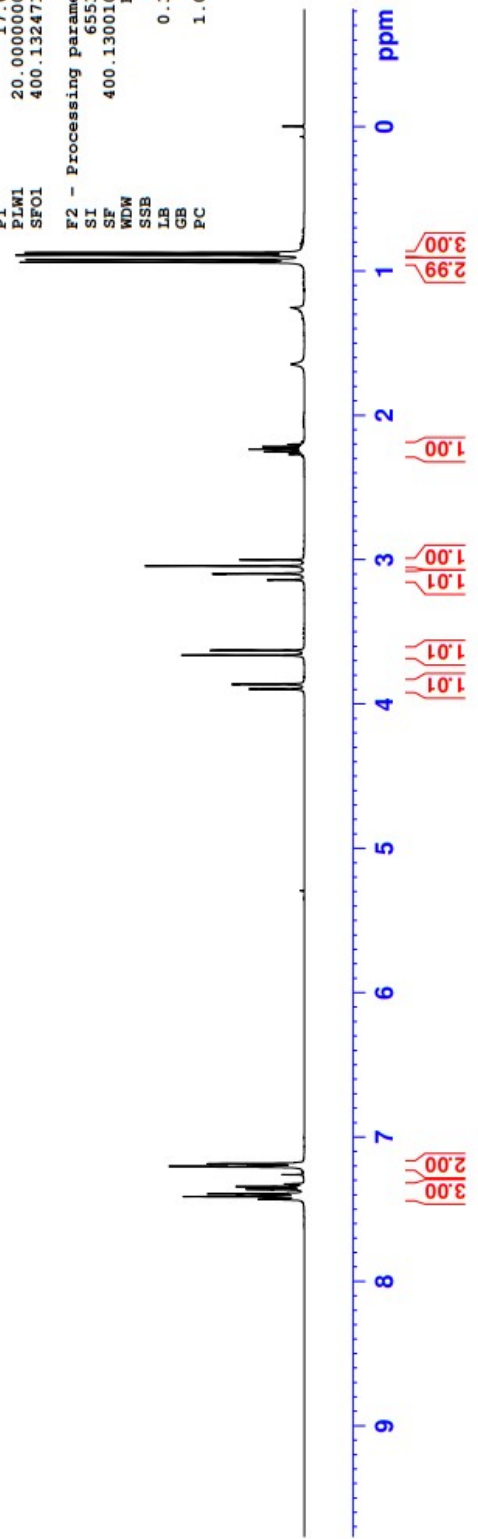




0.87
0.89
0.92
0.94
2.20
2.22
2.23
2.25
2.27
3.00
3.04
3.09
3.10
3.14
3.14
3.63
3.66
3.86
3.86
3.89
3.90
7.18
7.19
7.20
7.20
7.21
7.26
7.32
7.32
7.33
7.34
7.34
7.35
7.36
7.36
7.36
7.39
7.39
7.40
7.41
7.41
7.43
7.43
7.43



Current Data Parameters
 NAME SFT-1-33-1-1-H
 EXPNO 1
 PROCNO 1
 F2 - Acquisition Parameters
 Date_ 20211011
 Time 11.53
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 8223.685 Hz
 FIDRES 0.125483 Hz
 AQ 3.9845889 sec
 RG 71.8
 DW 60.800 usec
 DE 6.50 usec
 TE 299.3 K
 D1 1.00000000 sec
 ===== CHANNEL f1 =====
 NUC1 1H
 P1 17.66 usec
 PLW1 20.0000000 W
 SFO1 400.1324710 MHz
 F2 - Processing parameters
 SI 65536
 SF 400.1300101 MHz
 EM
 WDW 0
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



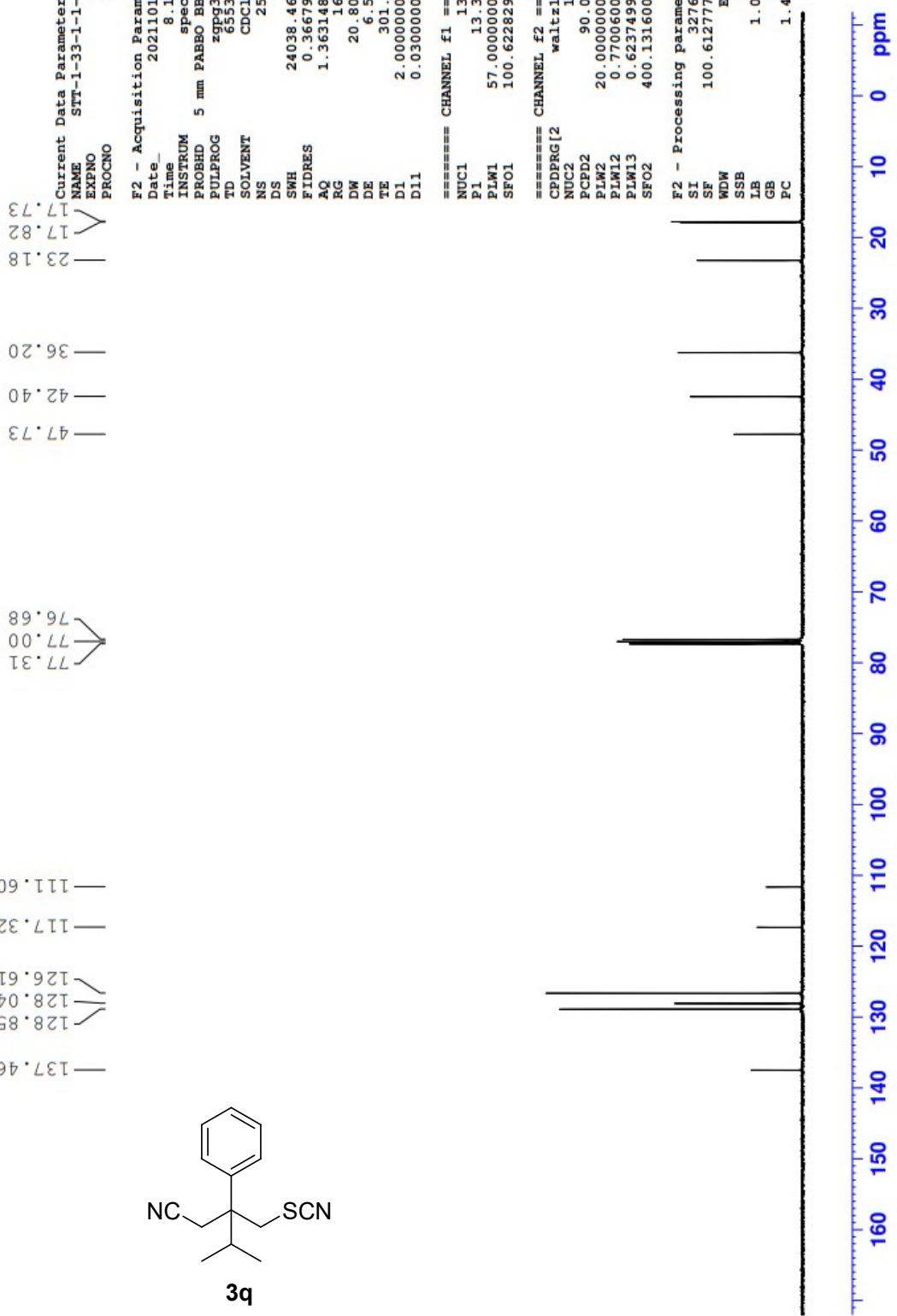
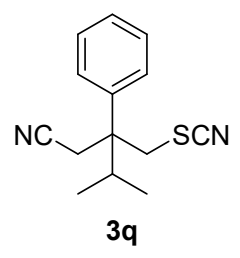
Current Data Parameters
 NAME SPT-1-33-1-1-C
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20211012
 Time 8.10
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDC13
 NS 256
 DS 4
 SWH 24038.461 Hz
 FIDRES 0.366798 Hz
 AQ 1.3631488 sec
 RG 161
 DW 20.800 usec
 DE 6.50 usec
 TE 301.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec

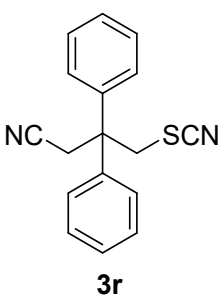
==== CHANNEL f1 =====
 NUC1 13C
 P1 13.37 usec
 PLW1 57.00000000 W
 SFO1 100.6228293 MHz

==== CHANNEL f2 =====
 CPDPRG[2] waltz16
 NUC2 1H
 P2 90.00 usec
 PLW2 20.00000000 W
 PLW12 0.77006000 W
 PLW13 0.62374997 W
 SFO2 400.1316005 MHz

F2 - Processing parameters
 SI 32768
 SF 100.6127779 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40



7.42
7.41
7.41
7.40
7.38
7.37
7.36
7.36
7.36
7.26
7.18
7.18
7.16
7.16



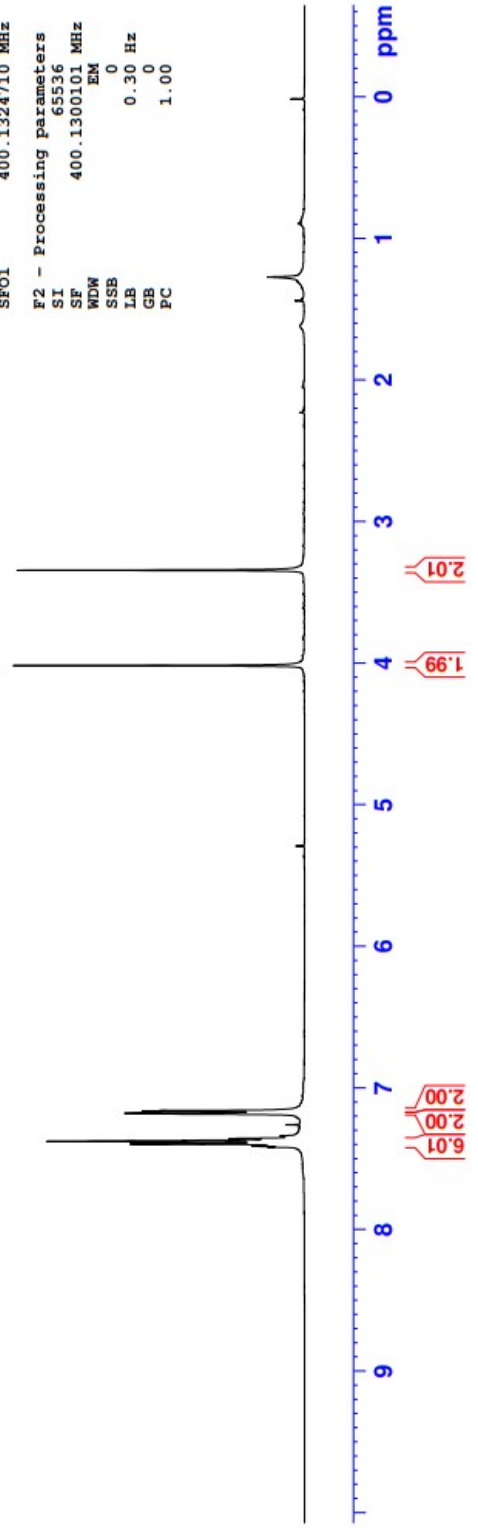
4.02
3.34

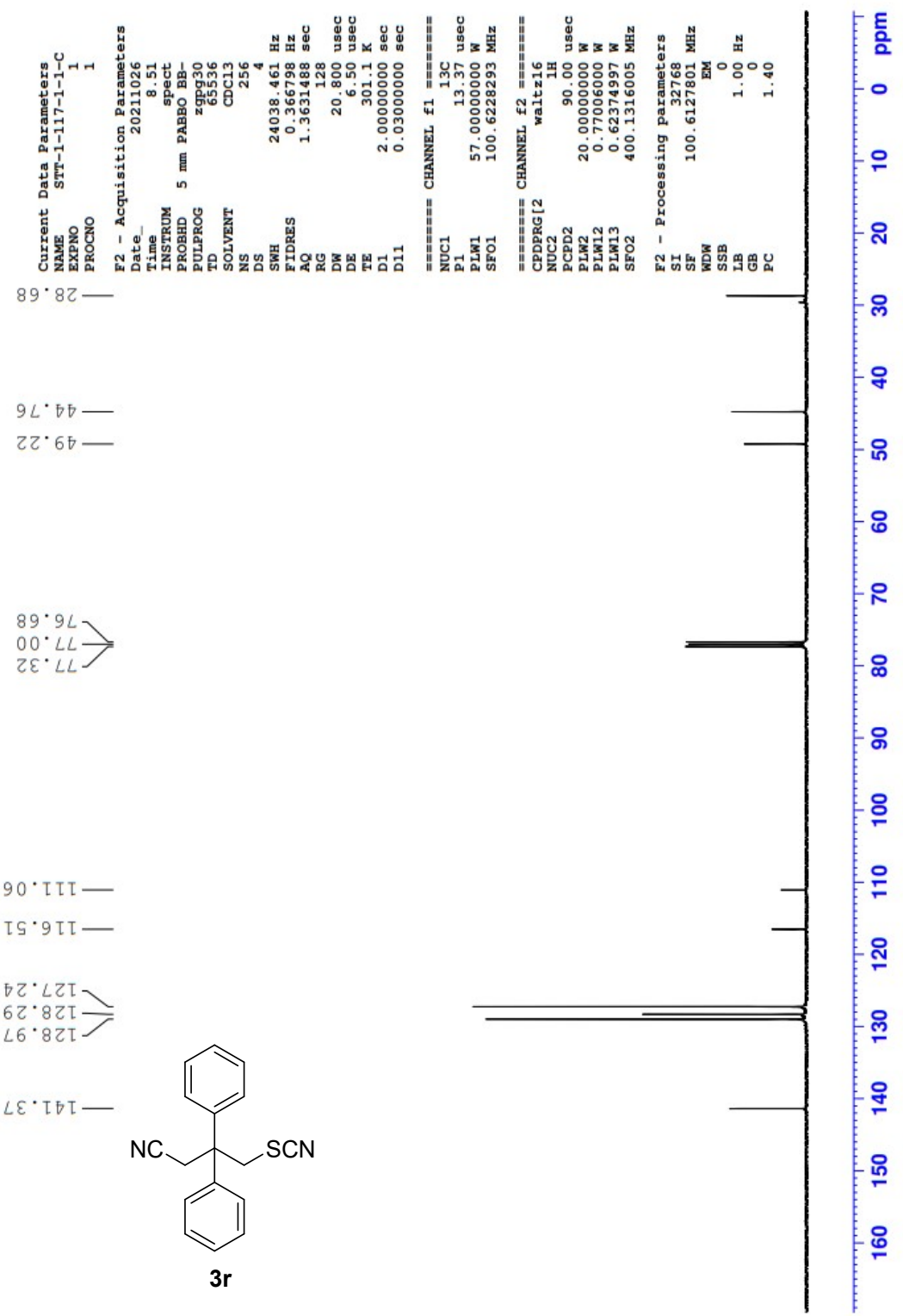
Current Data Parameters
 NAME STT-1-117-1-1-H
 EXPNO 1
 PROCNO 1

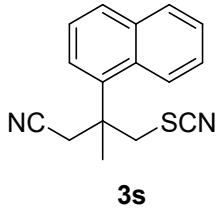
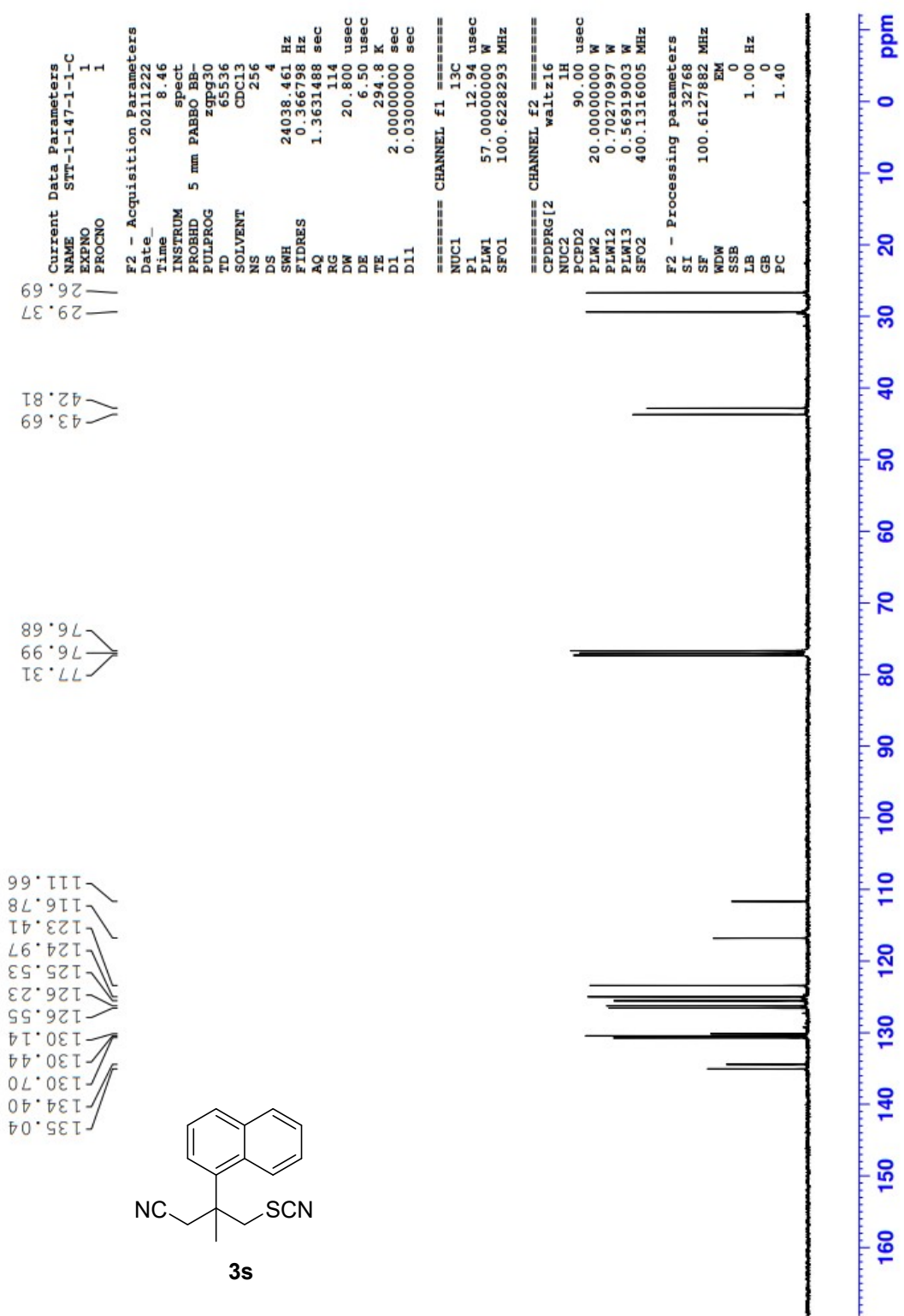
F2 - Acquisition Parameters
 Date_ 20211025
 Time 11.31
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 8223.685 Hz
 FIDRES 0.125483 Hz
 AQ 3.9845889 sec
 RG 71.8
 DW 60.800 usec
 DE 6.50 usec
 TE 299.6 K
 D1 1.00000000 sec

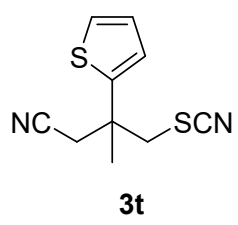
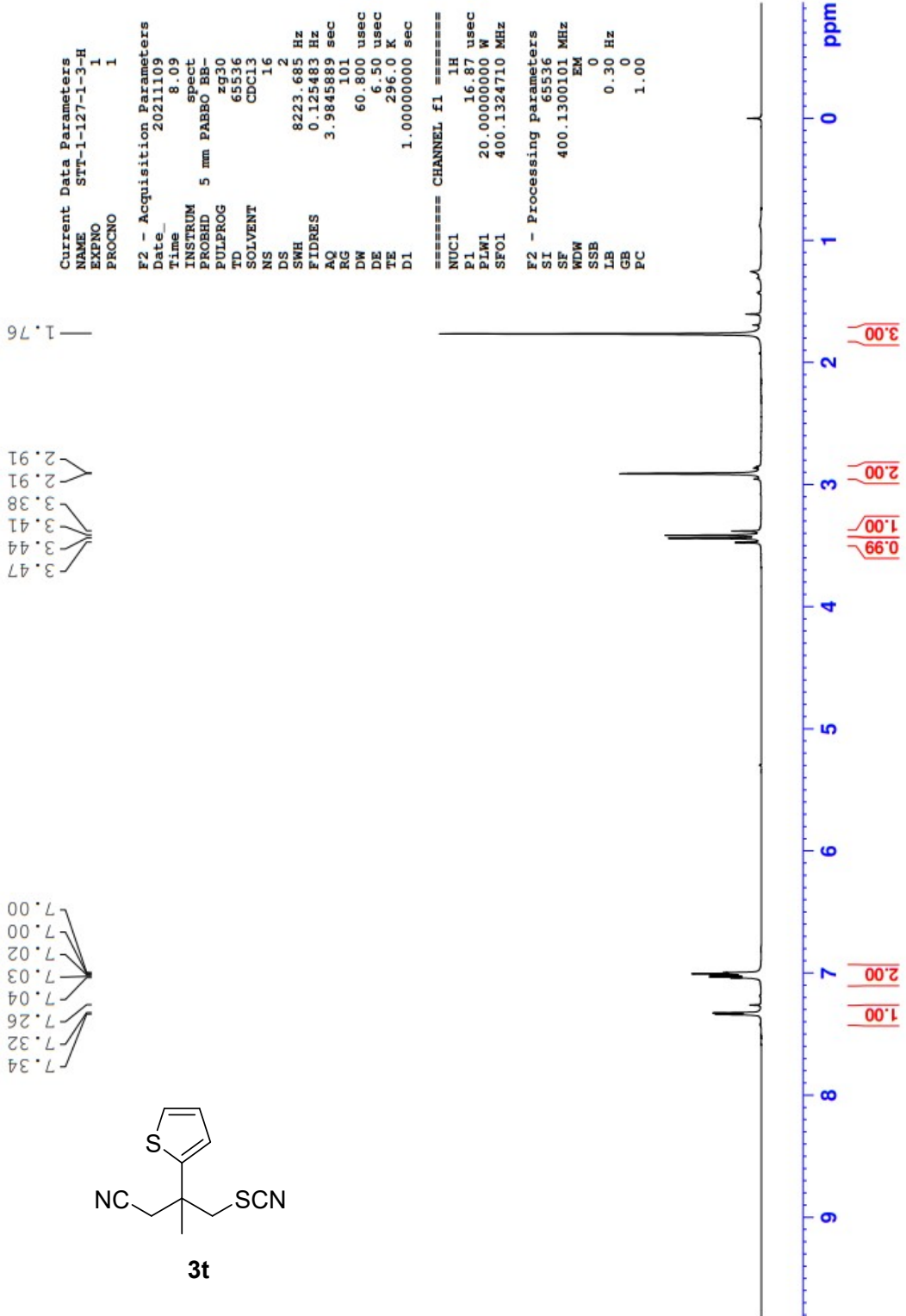
===== CHANNEL f1 =====
 NUC1 1H
 P1 17.66 usec
 PLW1 20.00000000 W
 SFO1 400.1324710 MHz

F2 - Processing parameters
 SI 65536
 SF 400.1300101 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00









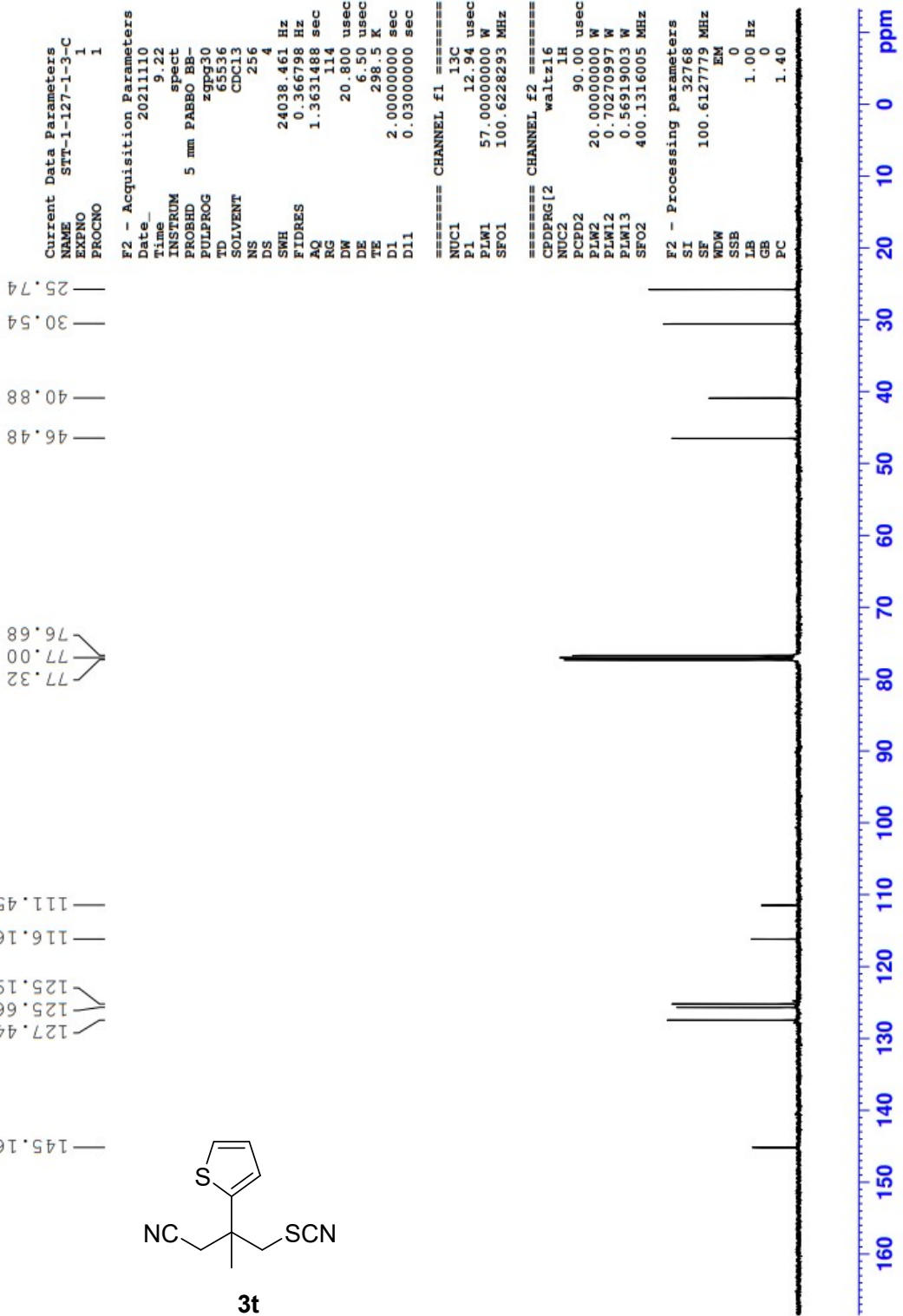
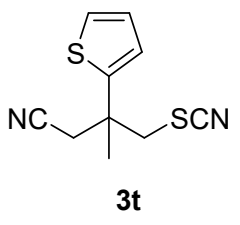
Current Data Parameters
 NAME STT-1-127-1-3-C
 EXPNO 1
 PROCNO 1

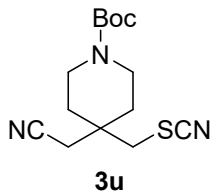
F2 - Acquisition Parameters
 Date_ 20211110
 Time 9.22
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDC13
 NS 256
 DS 4
 SWH 24038.461 Hz
 FIDRES 0.366798 Hz
 AQ 1.3631488 sec
 RG 114
 DW 20.800 usec
 DE 6.50 usec
 TE 298.5 K
 D1 2.00000000 sec
 D11 0.03000000 sec

===== CHANNEL f1 =====
 NUC1 13C
 P1 12.94 usec
 PLW1 57.0000000 W
 SF01 100.6228293 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 FCPD2 90.00 usec
 PLW2 20.0000000 W
 PLW12 0.70270997 W
 PLW13 0.56919003 W
 SF02 400.1316005 MHz

F2 - Processing parameters
 SI 32768
 SF 100.6127779 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 FC 1.40

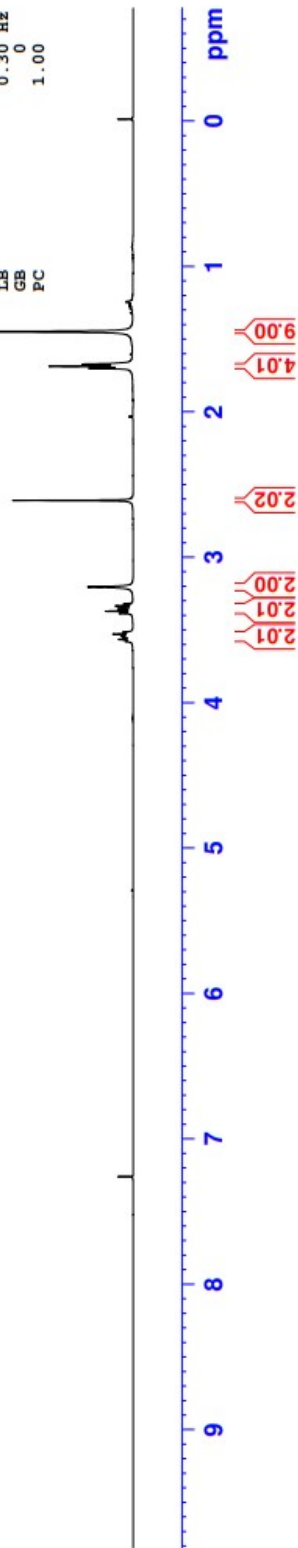




7.26

3.58
3.56
3.55
3.54
3.53
3.51
3.39
3.37
3.36
3.35
3.33
3.32
3.20
2.61
1.70
1.69
1.67
1.45

Current Data Parameters
 NAME STT-1-109-2-H
 EXPNO 1
 PROCNO 1
 F2 - Acquisition Parameters
 Date_ 20211006
 Time 8.10
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 8223.685 Hz
 FIDRES 0.125483 Hz
 AQ 3.9845889 sec
 RG 90.5
 DW 60.800 usec
 DE 6.50 usec
 TE 296.8 K
 D1 1.00000000 sec
 ===== CHANNEL f1 =====
 NUC1 1H
 P1 17.66 usec
 PLW1 20.0000000 W
 SFO1 400.1324710 MHz
 F2 - Processing parameters
 SI 65536
 SF 400.1300102 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



Current Data Parameters
 NAME STT-1-109-2-C
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20211008
 Time 11.23
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 256
 DS 4
 SWH 24038.461 Hz
 FIDRES 0.366798 Hz
 AQ 1.3631488 sec
 RG 144
 DW 20.800 usec
 DE 6.50 usec
 TE 300.1 K
 D1 2.00000000 sec
 D11 0.03000000 sec

===== CHANNEL f1 =====
 NUC1 13C
 P1 13.37 usec
 PLW1 57.0000000 W
 SF01 100.6228293 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 90.00 usec
 PLW2 20.0000000 W
 PLW12 0.77006000 W
 PLW13 0.62374997 W
 SFO2 400.1316005 MHz

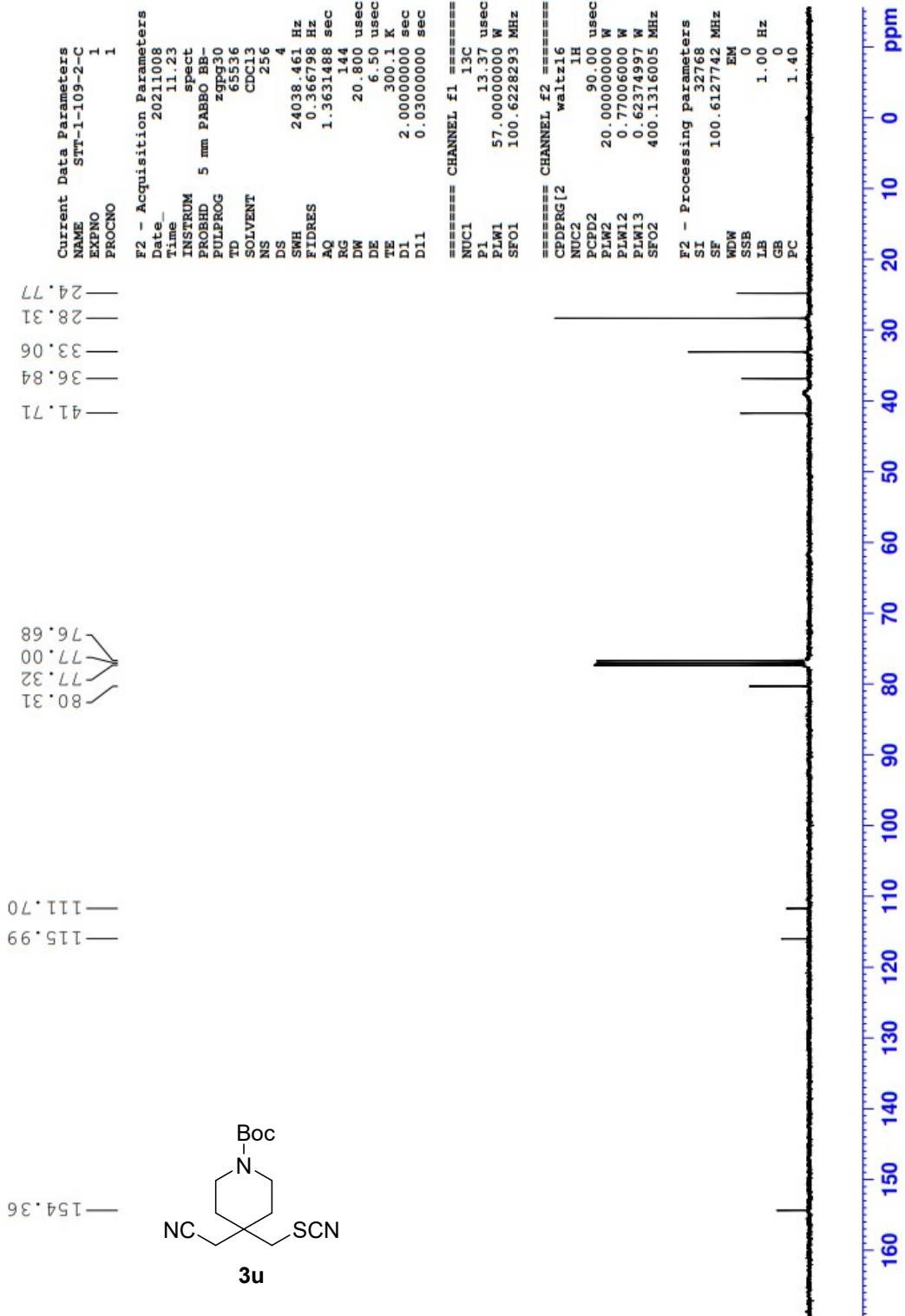
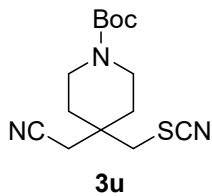
F2 - Processing parameters
 SI 32768
 SF 100.6127742 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

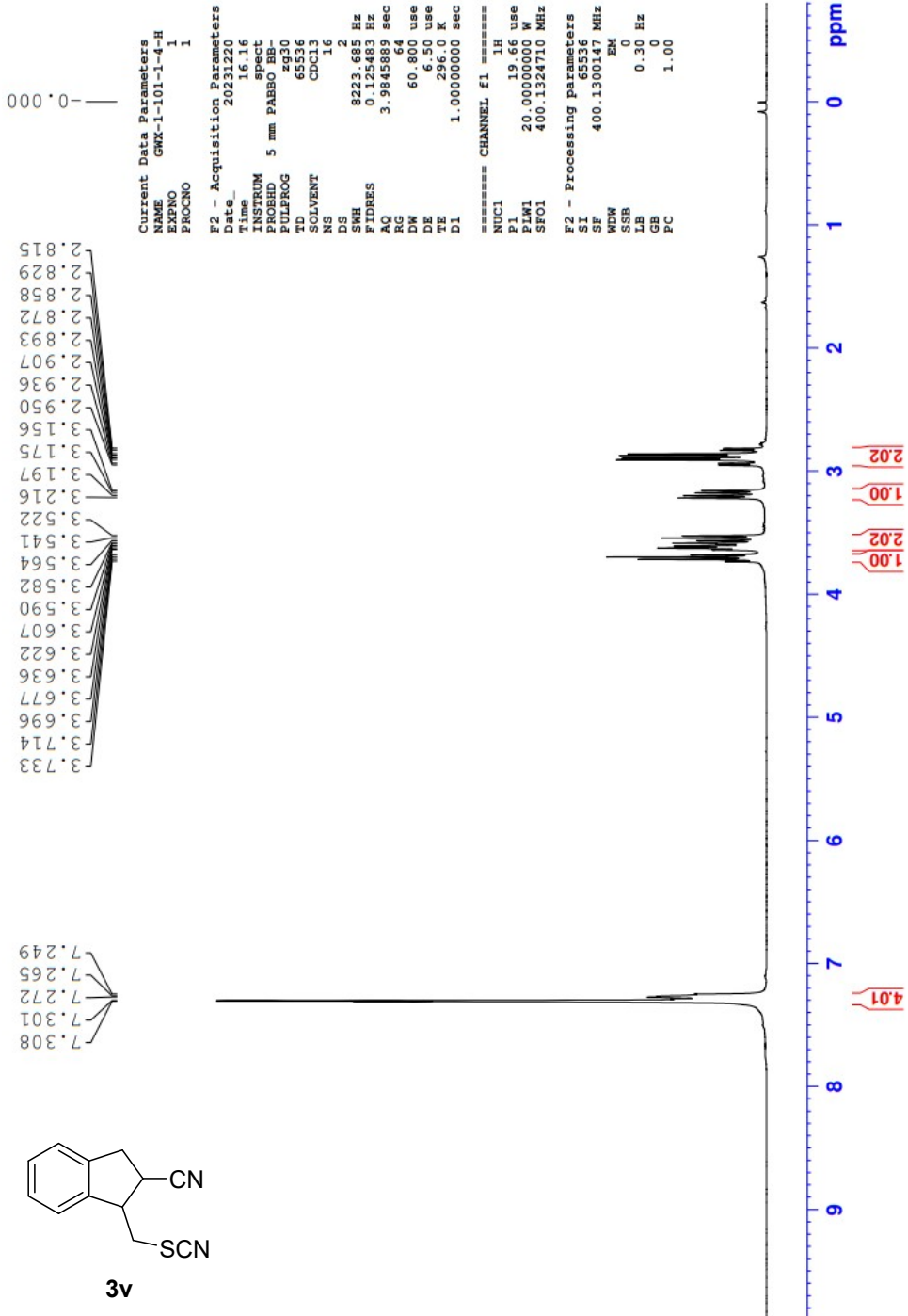
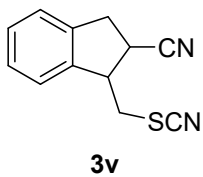
— 24.77
 — 28.31
 — 33.06
 — 36.84
 — 41.71

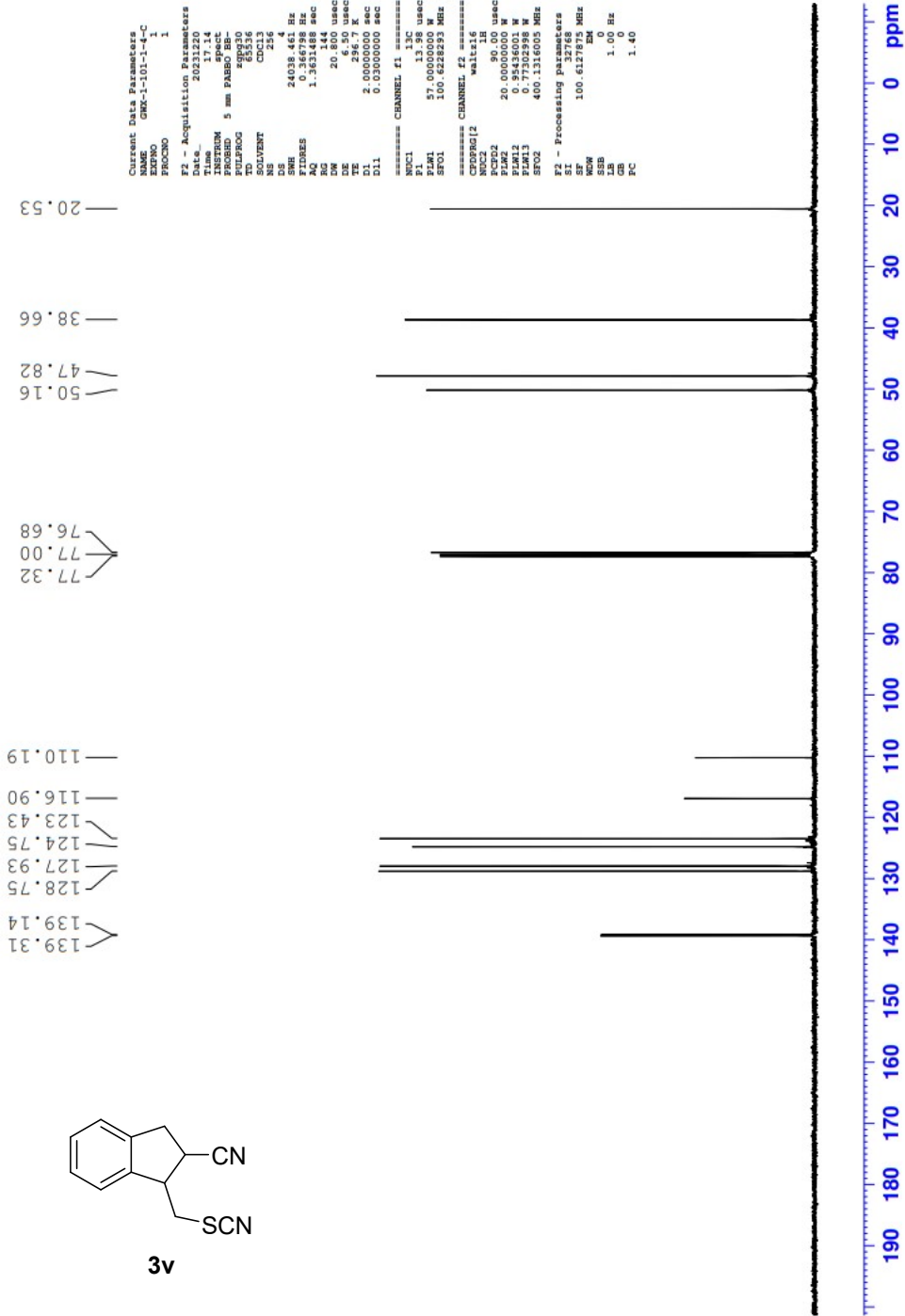
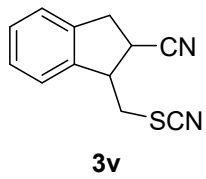
— 76.68
 — 77.00
 — 77.32
 — 80.31

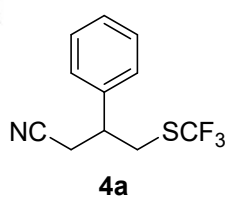
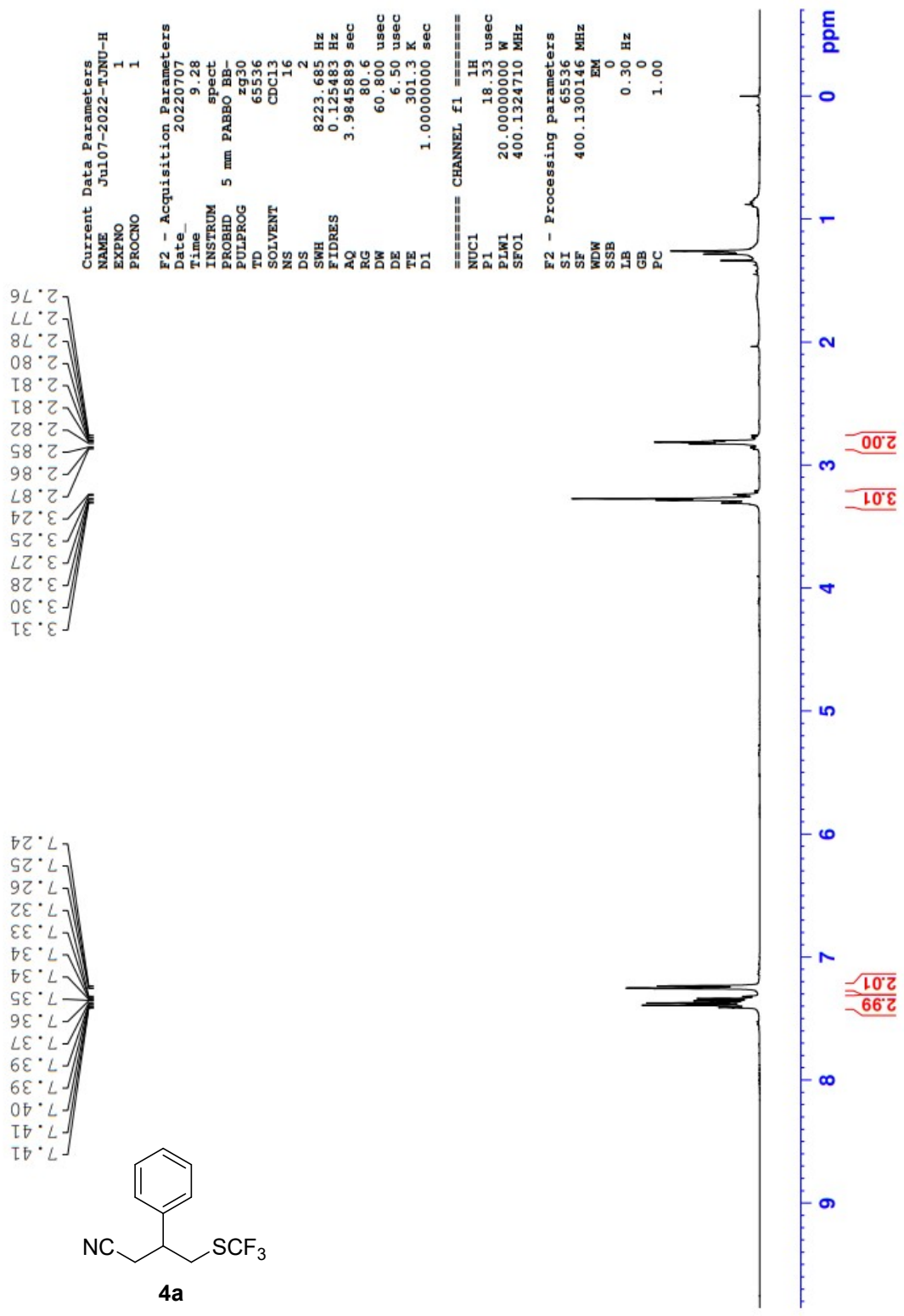
— 111.70
 — 115.99

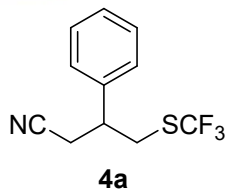
— 154.36











138.74
 135.14
 132.10
 129.24
 129.05
 128.45
 127.03
 126.00
 117.24

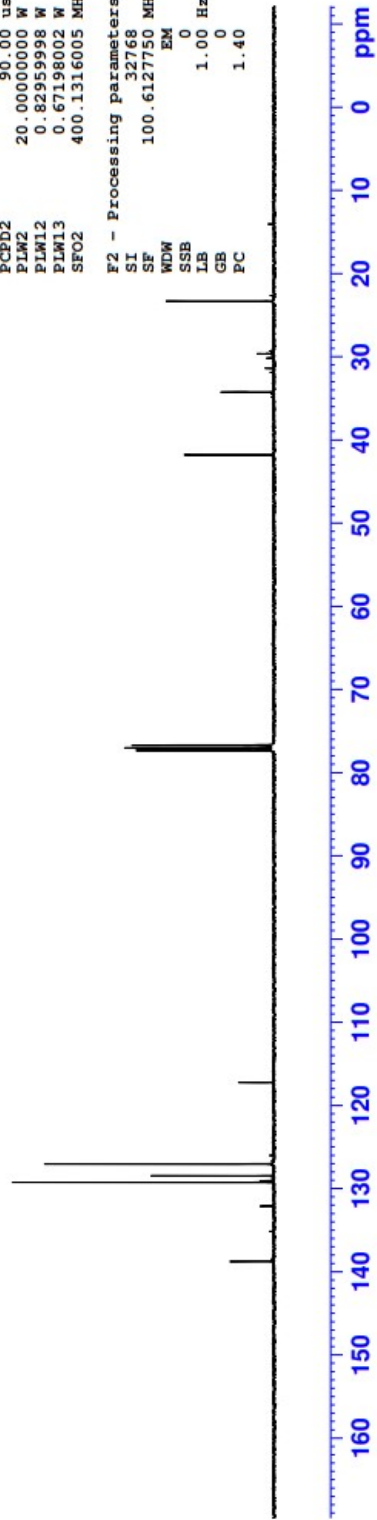
77.31
 77.00
 76.68

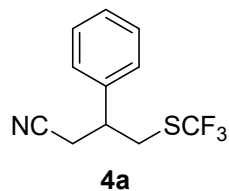
41.79

34.25
 34.23

23.31

Current Data Parameters
 NAME STW-1-163-1-C
 EXPNO 1
 PROCNO 1
 F2 - Acquisition Parameters
 Date_ 20220708
 Time 8.29
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 256
 DS 4
 SWH 24038.461 Hz
 FIDRES 0.366798 Hz
 AQ 1.3631488 sec
 RG 114
 DW 20.800 usec
 DE 6.50 usec
 TE 303.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 ===== CHANNEL f1 =====
 NUC1 13C
 P1 13.34 usec
 PLW1 57.00000000 W
 SFO1 100.6228293 MHz
 ===== CHANNEL f2 =====
 CPDPRG[2] waltz16
 NUC2 1H
 P2 90.00 usec
 PLW2 20.00000000 W
 PLW12 0.8295998 W
 PLW13 0.67198002 W
 SFO2 400.1316005 MHz
 F2 - Processing parameters
 SI 32768
 SF 100.6127750 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40





—40.89

Current Data Parameters
 NAME Jul07-2022-TJNU-F
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20220707
 Time 9.30
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 131072
 SOLVENT CDCl3
 NS 16
 DS 4
 SWH 89285.711 Hz
 FIDRES 0.681196 Hz
 AQ 0.7340032 sec
 RG 203
 DW 5.600 usec
 DE 6.50 usec
 TE 301.4 K
 D1 1.0000000 sec
 D11 0.0300000 sec
 D12 0.0000200 sec

===== CHANNEL f1 =====
 NUC1 19F
 P1 20.58 usec
 PLW1 18.19700050 W
 SFO1 376.4607164 MHz

===== CHANNEL f2 =====
 CPDPRG[2] waltz16
 NUC2 1H
 PCPD2 90.00 usec
 PLW2 20.0000000 W
 PLW12 0.8295998 W
 SFO2 400.1316005 MHz

F2 - Processing parameters
 SI 65536
 SF 376.4983660 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

ppm

-160

-140

-120

-100

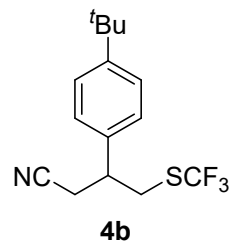
-80

-60

-40

-20

0



7.42
7.40
7.26
7.19
7.17

3.33
3.33
3.33
3.31
3.30
3.29
3.28
3.27
3.26
3.24
3.22
2.83
2.83
2.82
2.82
2.81

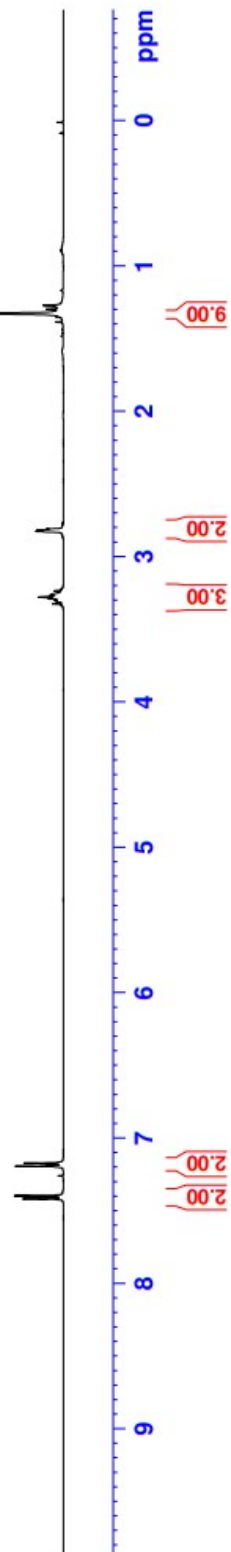
1.33

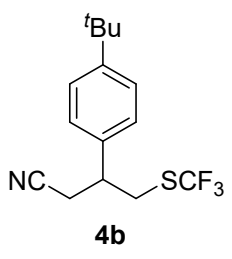
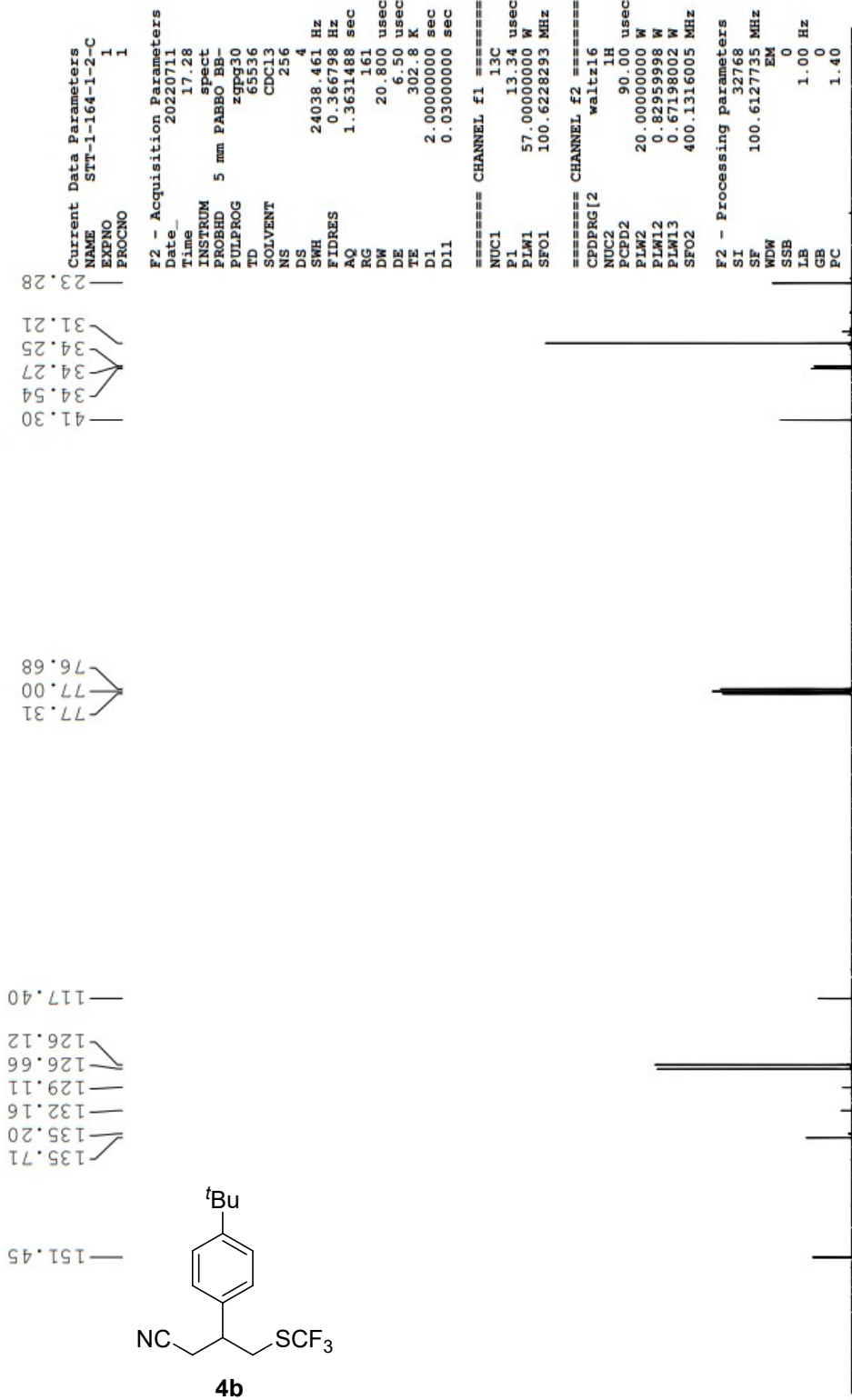
Current Data Parameters
 NAME STT-1-164-1-2-H
 EXPNO 1
 PROCNO 1

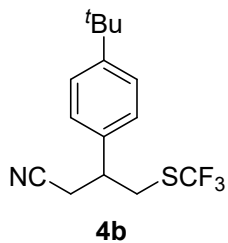
F2 - Acquisition Parameters
 Date 20220711
 Time 17.12
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 8223.685 Hz
 FIDRES 0.125483 Hz
 AQ 3.984589 sec
 RG 64
 DW 60.800 usec
 DE 6.50 usec
 TE 301.5 K
 D1 1.00000000 sec

===== CHANNEL f1 =====
 NUC1 1H
 P1 18.33 usec
 PLW1 20.00000000 W
 SF01 400.1324710 MHz

F2 - Processing parameters
 SI 65536
 SF 400.1300099 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 FC 1.00







— -40.88

```

Current Data Parameters
NAME STT-1-164-1-F
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20220708
Time 7.50
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 131072
SOLVENT CDCl3
NS 16
DS 4
SWH 89285.711 Hz
FIDRES 0.681196 Hz
AQ 0.7340032 sec
RG 203
DW 5.600 usec
DE 6.50 usec
TE 302.1 K
D1 1.00000000 sec
D11 0.03000000 sec
D12 0.00002000 sec

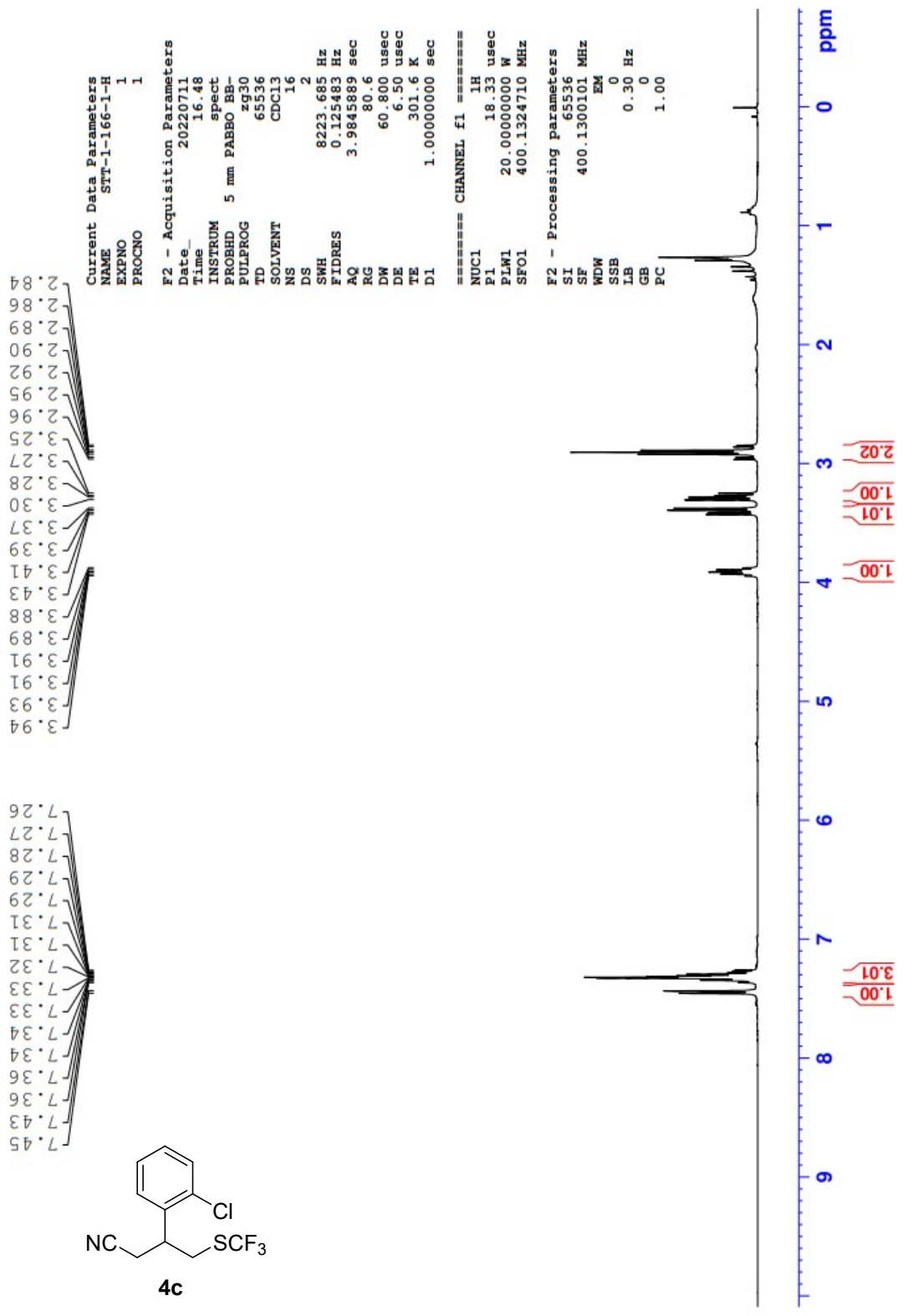
===== CHANNEL f1 =====
NUC1 13F
P1 20.58 usec
PLW1 18.19700050 W
SFO1 376.4607164 MHz

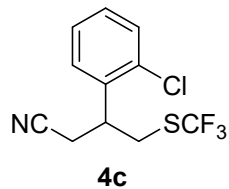
===== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
P2 90.00 usec
PLW2 20.00000000 W
SFO2 400.1316005 MHz

F2 - Processing parameters
SI 65536
SF 376.4983660 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

```

0 -20 -40 -60 -80 -100 -120 -140 -160 ppm





134.89
 134.07
 132.86
 131.01
 129.43
 128.56
 127.97
 126.66
 126.55
 124.92
 115.93

76.36
 76.04
 75.73

36.63
 31.68
 31.66

20.70
 0.00

```

Current Data Parameters
NAME      STY-1-166-1-C
EXENO     1
PROCNO    1

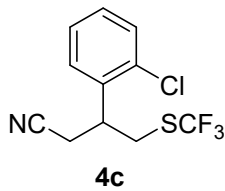
F2 - Acquisition Parameters
Date_     20220719
Time      10.00
INSTRUM   spect
PROBHD    5 mm PABBO BB-
PULPROG   zgpg30
TD         65536
SOLVENT    CDCl3
NS         200
DS         4
SWH        24038.461 Hz
FIDRES     0.366798 Hz
AQ          1.3631488 sec
RG          161
DW          20.800 usec
DE          6.50 usec
TE          302.9 K
D1          2.00000000 sec
D11         0.03000000 sec

===== CHANNEL f1 =====
NUC1       13C
F1         13.34 usec
PLW1       57.00000000 W
SFO1       100.6228293 MHz

===== CHANNEL f2 =====
CPDPRG[2] waltz16
NUC2       1H
PCPD2      90.00 usec
PLW2       20.00000000 W
PLW12      0.82959998 W
PLW13      0.67198002 W
SFO2       400.1316005 MHz

F2 - Processing parameters
SI         32768
SF         100.6128708 MHz
WDW        EM
SSB        0
LB         1.00 Hz
GB         0
PC         1.40
  
```





—40.85

```

Current Data Parameters
NAME      SPT-1-166-1-F
EXPNO     1
PROCNO    1

F2 - Acquisition Parameters
Date_     20220711
Time      16.50
INSTRUM   spect
PROBHD    5 mm PABBO BB-
PULPROG   zgfhigpn
TD         131072
SOLVENT    CDCl3
NS         16
DS         4
SWH       89285.711 Hz
FIDRES    0.681196 Hz
AQ         0.7340032 sec
RG         203
DE         5.600 usec
TE         301.8 K
D1         1.00000000 sec
D11        0.03000000 sec
D12        0.00002000 sec

===== CHANNEL f1 =====
NUC1       19F
P1         20.58 usec
PLW1       18.19700050 W
SF01       376.4607164 MHz

===== CHANNEL f2 =====
CPDPRG2    waltz16
NUC2       1H
PCPD2      90.00 usec
PLW2       20.00000000 W
PLW12      0.82959998 W
SF02       400.1316005 MHz

F2 - Processing parameters
SI         65536
SF         376.4983660 MHz
WDW        EM
SSB        0
LB         0.30 Hz
GB         0
PC         1.00
  
```

ppm

-160

-140

-120

-100

-80

-60

-40

-20

0

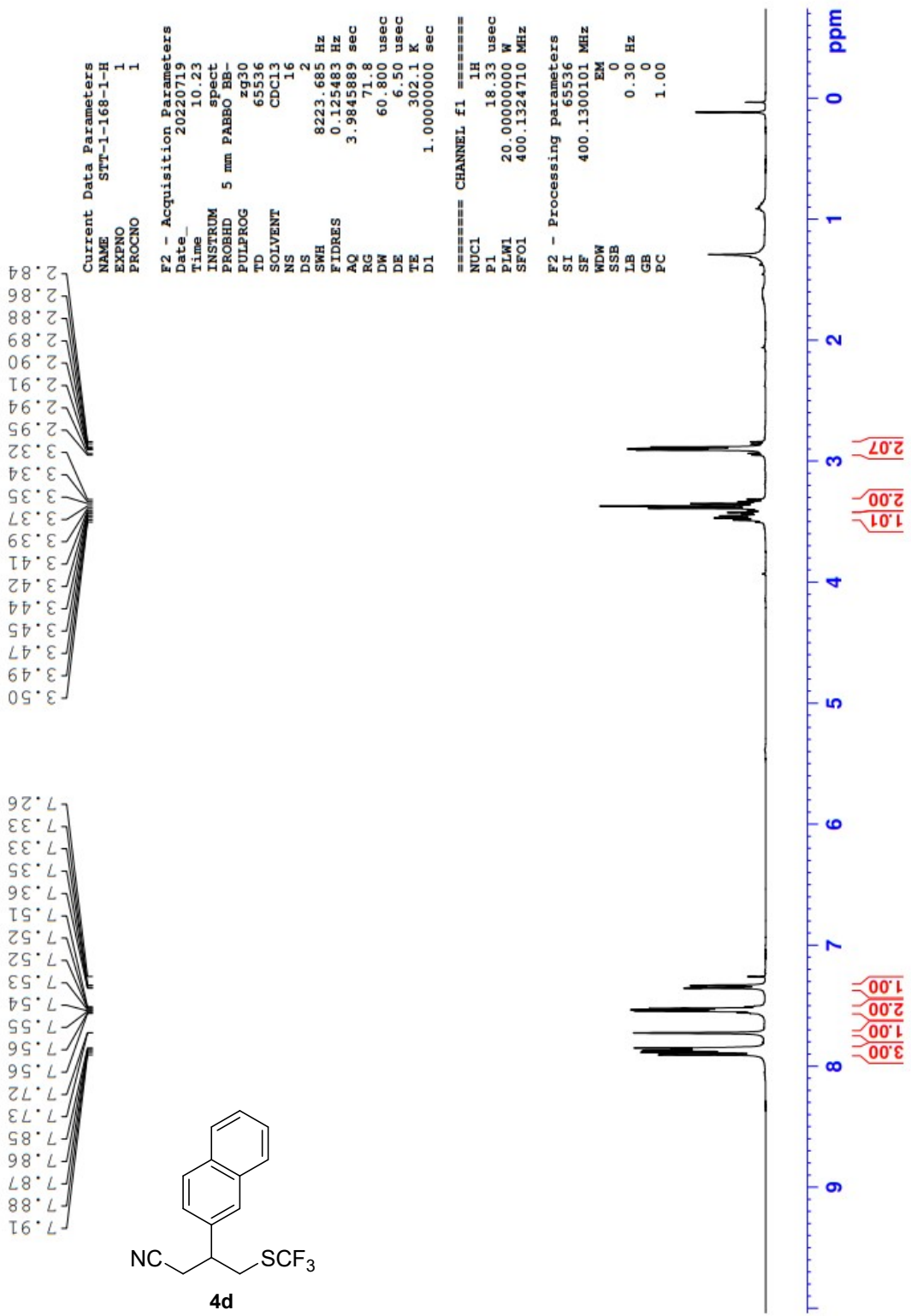
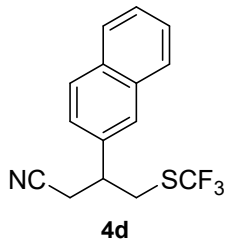
Current Data Parameters
NAME STT-1-168-1-H
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20220719
Time 10.23
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 16
DS 2
SWH 8223.685 Hz
FIDRES 0.125483 Hz
AQ 3.9845889 sec
RG 71.8
DW 60.800 usec
DE 6.50 usec
TE 302.1 K
D1 1.00000000 sec

==== CHANNEL f1 =====
NUC1 1H
P1 18.33 usec
PLW1 20.00000000 W
SF01 400.1324710 MHz

F2 - Processing parameters
SI 65536
SF 400.1300101 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

7.91
7.88
7.87
7.86
7.85
7.73
7.72
7.56
7.56
7.56
7.55
7.54
7.53
7.52
7.52
7.51
7.36
7.35
7.33
7.33
7.26



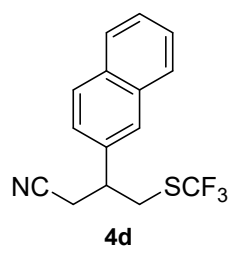
Current Data Parameters
 NAME STT-1-168-1-C
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20220719
 Time 10.56
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 200
 DS 4
 SWH 24038.461 Hz
 FIDRES 0.366798 Hz
 AQ 1.3631488 sec
 RG 161
 DW 20.800 usec
 DE 6.50 usec
 TE 303.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec

==== CHANNEL f1 =====
 NUC1 13C
 P1 13.34 usec
 PLW1 57.00000000 W
 SFO1 100.6228293 MHz

==== CHANNEL f2 =====
 CPDPRG[2] waitz16
 NUC2 1H
 P1 90.00 usec
 PLW2 20.00000000 W
 PLM12 0.82959998 W
 PLM13 0.67198002 W
 SFO2 400.1316005 MHz

F2 - Processing parameters
 SI 32768
 SF 100.6127690 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40



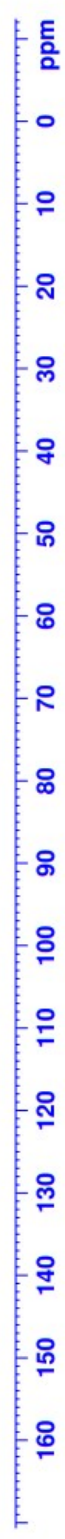
136.08
 135.25
 133.40
 133.15
 132.20
 129.34
 129.15
 127.96
 127.79
 126.78
 126.60
 126.49
 126.10
 124.35
 117.34

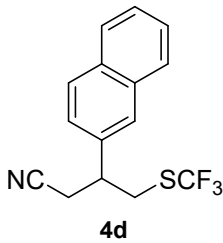
77.40
 77.08
 76.76

42.01

34.31
 34.29

23.38





—40.80

```

Current Data Parameters
NAME      STT-1-168-1-F
EXPNO     1
PROCNO    1

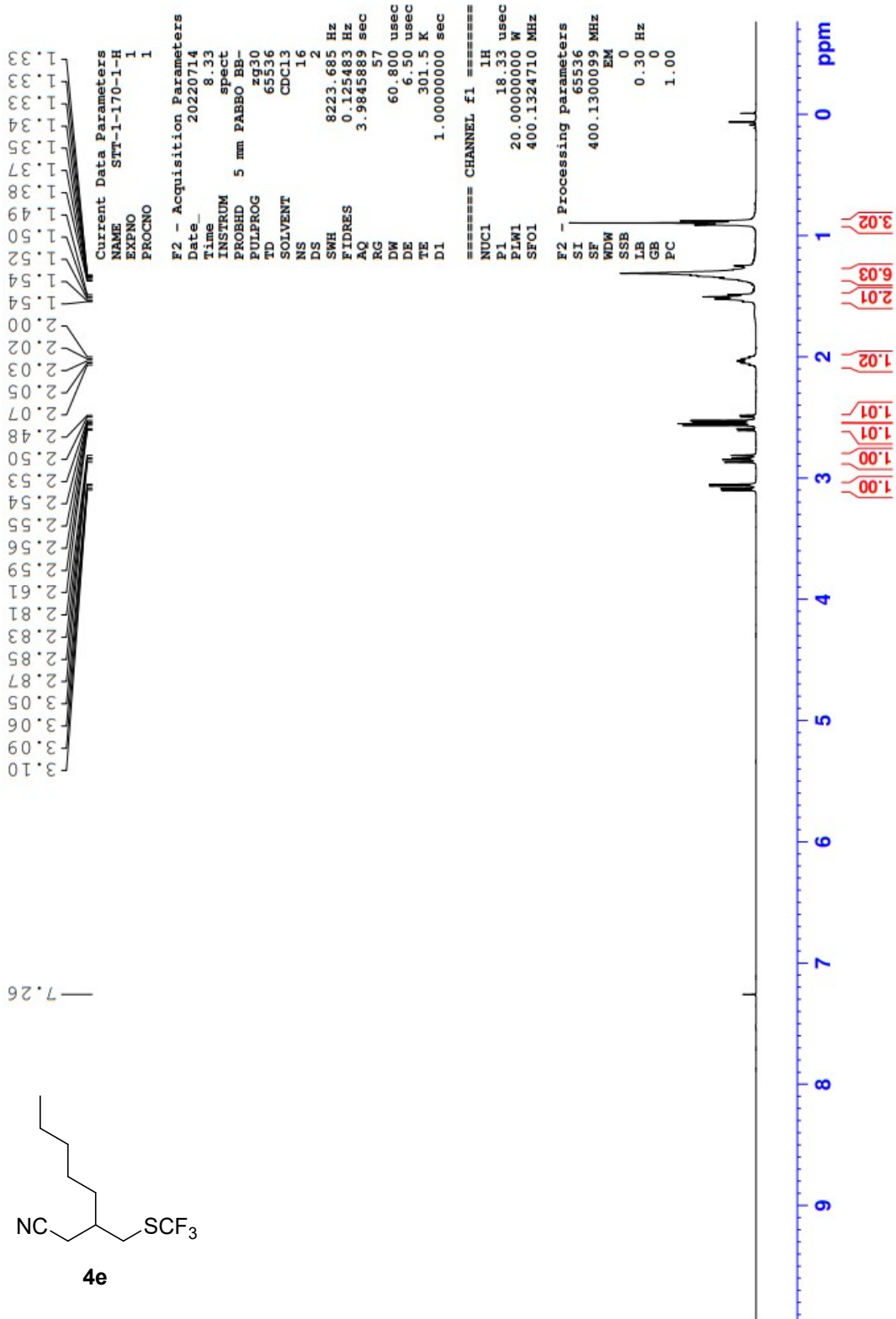
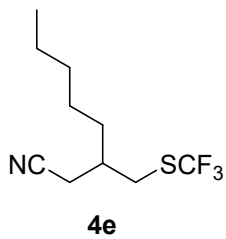
F2 - Acquisition Parameters
Date_     20220711
Time      16.58
INSTRUM   spect
PROBHD    5 mm PABEO BB-
PULPROG   zgfgiqgn
TD         131072
SOLVENT    CDCl3
NS         16
DS         4
SWH        89285.711 Hz
FIDRES     0.681196 Hz
AQ         0.7340032 sec
RG         203
DW         5.600 usec
DE         6.50 usec
TE         301.7 K
D1         1.00000000 sec
D11        0.03000000 sec
D12        0.00002000 sec

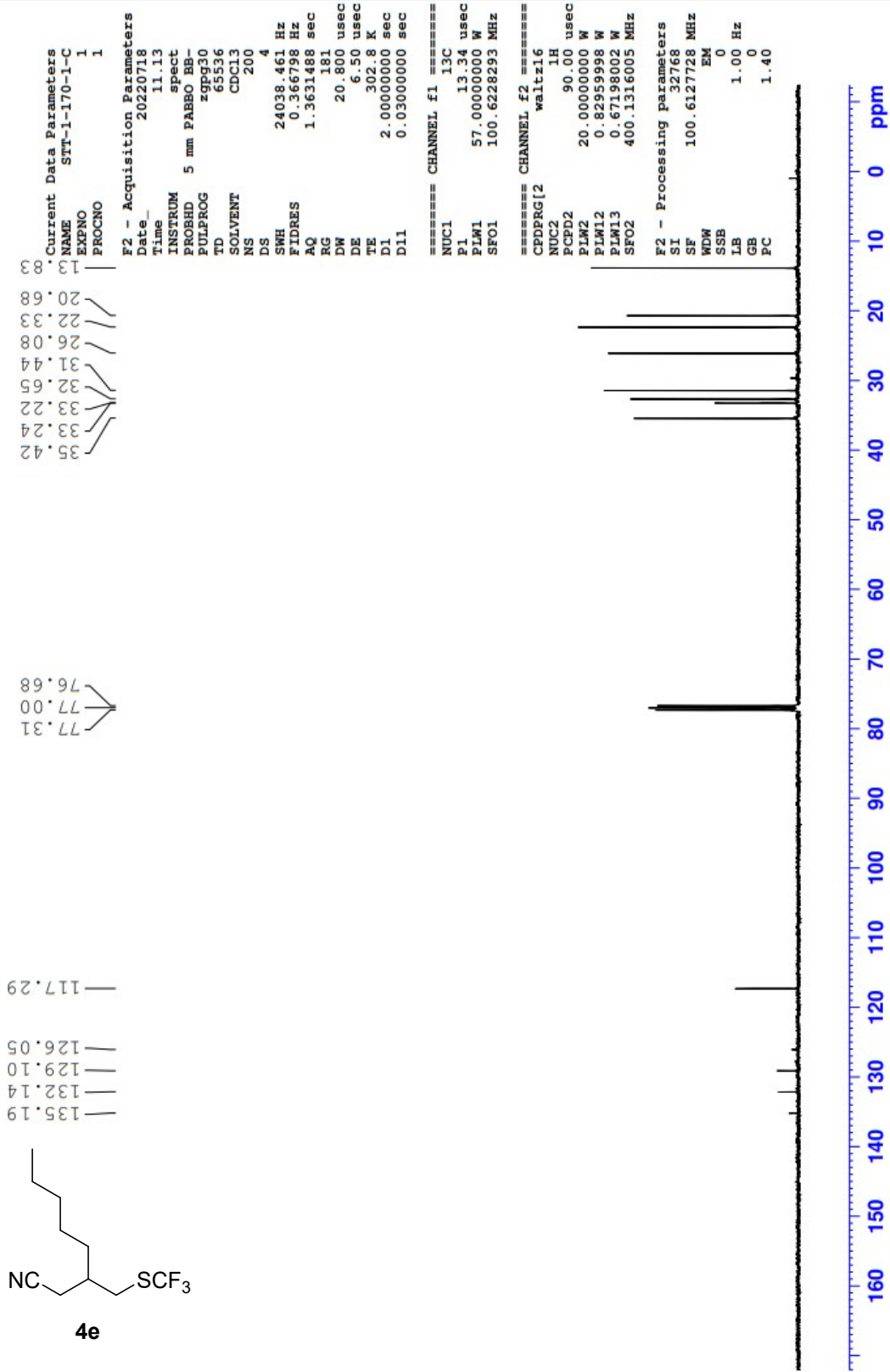
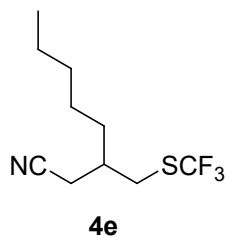
===== CHANNEL f1 =====
NUC1       19F
P1         20.58 usec
PLW1       18.19700050 W
SFO1       376.4607164 MHz

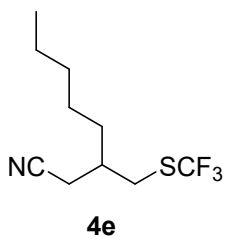
===== CHANNEL f2 =====
CPDPRG[2] waltz16
NUC2       1H
PCPD2      90.00 usec
PLW2       20.00000000 W
PLW12      0.82559998 W
SFO2       400.1316005 MHz

F2 - Processing parameters
SI         65536
SF         376.4983660 MHz
WDW        EM
SSB        0
LB         0.30 Hz
GB         0
PC         1.00
  
```









—40.91

```

Current Data Parameters
NAME      STW-1-170-1-F
EXPNO     1
PROCNO    1

F2 - Acquisition Parameters
Date_     20220714
Time      8.35
INSTRUM   spect
PROBHD    5 mm PABBO BB-
PULPROG   zgfh1gn
TD         131072
SOLVENT   CDCl3
NS         16
DS         4
SWH        89285.711 Hz
FIDRES     0.681196 Hz
AQ         0.7340032 sec
RG         203
DW         5.600 usec
DE         6.50 usec
TE         301.7 K
D1         1.00000000 sec
D11        0.03000000 sec
D12        0.00002000 sec

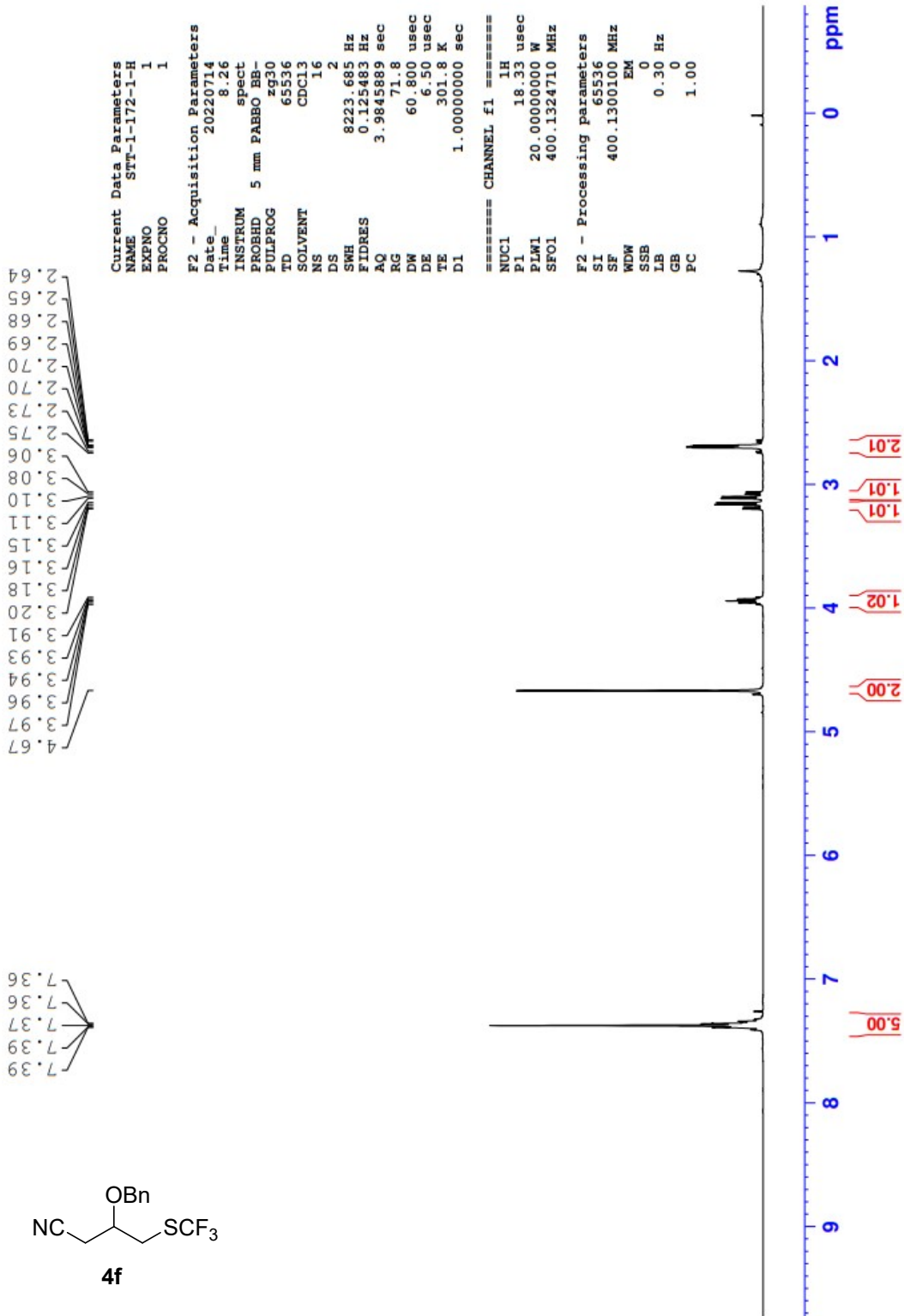
===== CHANNEL f1 =====
NUC1       19F
P1         20.58 usec
PLM1       18.13700050 W
SFO1       376.4607164 MHz

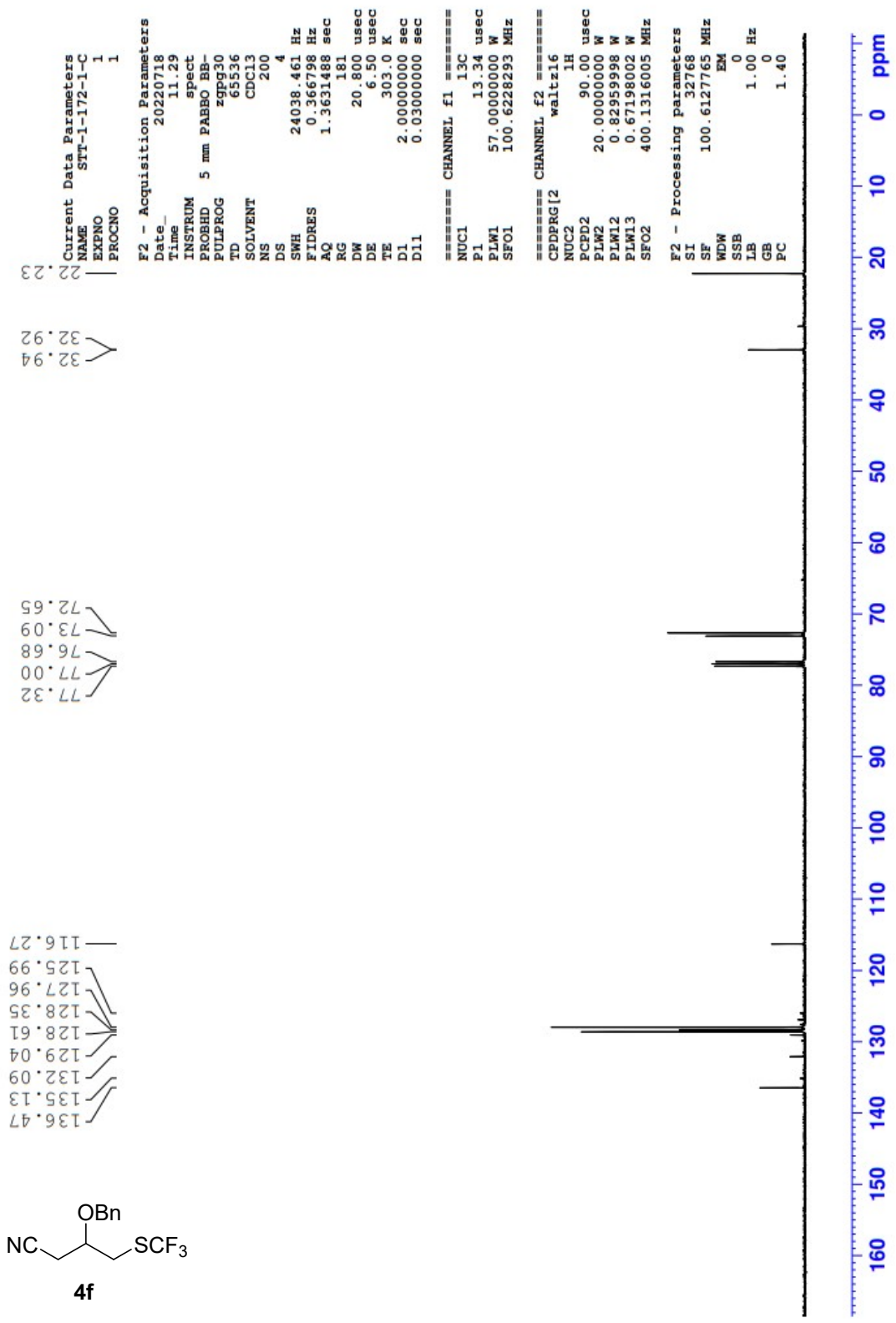
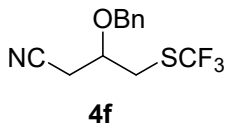
===== CHANNEL f2 =====
CPDPRG[2] waltz16
NUC2       1H
PCPD2      90.00 usec
PLM2       20.00000000 W
PLM12      0.82959998 W
SFO2       400.1316005 MHz

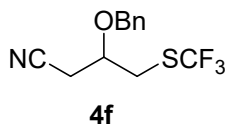
F2 - Processing parameters
SI         65536
SF         376.4983660 MHz
WDW        EM
SSB        0
LB         0.30 Hz
GB         0
PC         1.00

```

0 -20 -40 -60 -80 -100 -120 -140 -160 ppm







— -41.04

```

Current Data Parameters
NAME      STT-1-172-1-f
EXPNO     1
PROCNO    1

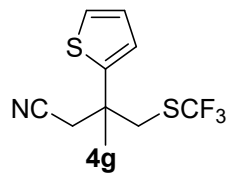
F2 - Acquisition Parameters
Date_     20220714
Time      8.28
INSTRUM   spect
PROBHD    5 mm PABBO BB-
PULPROG   zgfg19gn
TD         131072
SOLVENT   CDC13
NS         16
DS         4
SWH        89285.711 Hz
FIDRES     0.881196 Hz
AQ          0.7340032 sec
RG          203
DE          5.600 usec
TE          301.9 K
D1          1.00000000 sec
D11         0.03000000 sec
D12         0.00002000 sec

===== CHANNEL f1 =====
NUC1       19F
P1         20.58 usec
PLW1       18.19700050 W
SF01       376.4607164 MHz

===== CHANNEL f2 =====
CPDPRG[2]  waltz16
NUC2       1H
PCPD2      90.00 usec
PLW2       20.00000000 W
PLW12      0.82959998 W
SF02       400.1316005 MHz

F2 - Processing parameters
SI          65536
SF          376.4983660 MHz
WDW         EM
SSB         0
LB          0.30 Hz
GB          0
PC          1.00
  
```





7.29
7.29
7.28
7.28
7.28
7.26
7.01
7.00
6.99
6.98
6.98
6.97
6.97
6.97

3.39
3.36
3.32
3.29
2.87
2.86

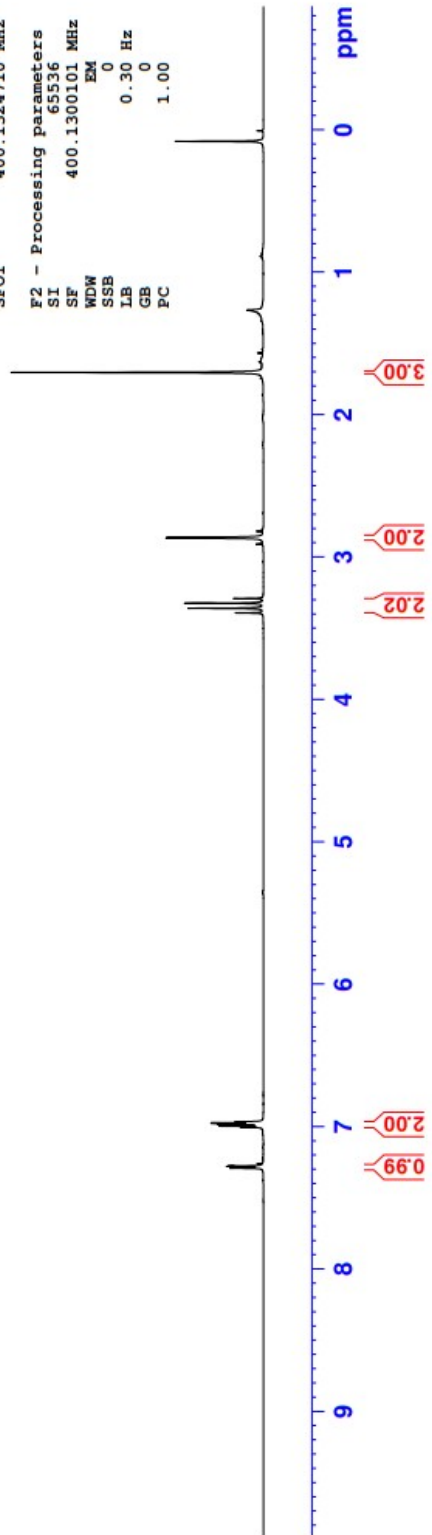
1.70

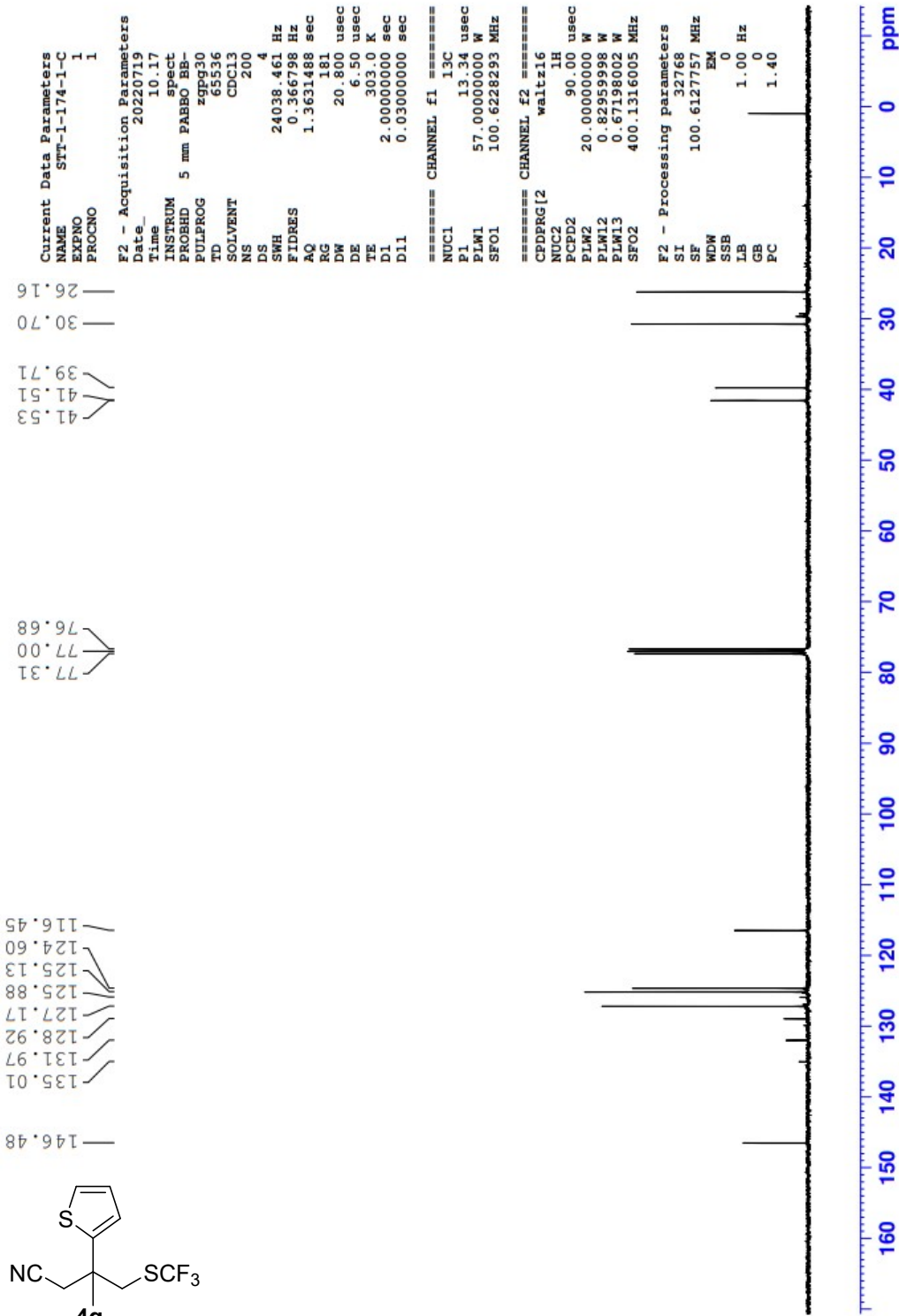
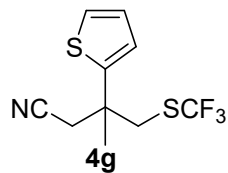
Current Data Parameters
 NAME STT-1-174-1-H
 EXPNO 1
 PROCNO 1

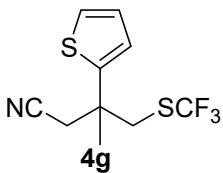
F2 - Acquisition Parameters
 Date_ 20220718
 Time 10.54
 INSTRUM spect
 PROBHD 5 mm PABEO BB-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 8223.685 Hz
 FIDRES 0.125483 Hz
 AQ 3.984589 sec
 RG 71.8
 DW 60.800 usec
 DE 6.50 usec
 TE 301.6 K
 D1 1.00000000 sec

==== CHANNEL f1 =====
 NUC1 1H
 P1 18.33 usec
 PLW1 20.0000000 W
 SF01 400.1324710 MHz

F2 - Processing parameters
 SI 65536
 SF 400.1300101 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00







—40.93

```

Current Data Parameters
NAME      STW-1-174-1-F
EXPNO    1
PROCNO   1

F2 - Acquisition Parameters
Date_    20220718
Time     10.56
INSTRUM  spect
PROBHD   5 mm PABBO BB-
PULPROG  zgfgn
TD       131072
SOLVENT  CDCl3
NS       16
DS       4
SWH      89285.711 Hz
FIDRES   0.681196 Hz
AQ       0.7340032 sec
RG       203
DW       5.600 usec
DE       6.50 usec
TE       301.8 K
D1       1.00000000 sec
D11      0.03000000 sec
D12      0.00002000 sec

===== CHANNEL f1 =====
NUC1     19F
P1       20.58 usec
PLW1     18.19700050 W
SFO1     376.4607164 MHz

===== CHANNEL f2 =====
CPDPRG2  waltz16
NUC2     1H
PCPD2    90.00 usec
PLW2     20.00000000 W
PLW12    0.82959998 W
SFO2     400.1316005 MHz

F2 - Processing parameters
SI       65536
SF       376.4983660 MHz
WDW      EM
SSB      0
LB       0.30 Hz
GB       0
PC       1.00
  
```

ppm

-160

-140

-120

-100

-80

-60

-40

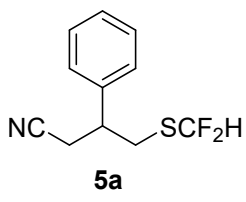
-20

0

0.00

3.32
3.30
3.28
3.27
3.25
3.24
3.22
3.21
3.19
3.17
3.16
3.14
2.89
2.88
2.85
2.84
2.83
2.81
2.78
2.77

7.41
7.41
7.40
7.39
7.39
7.37
7.35
7.35
7.34
7.33
7.31
7.27
7.27
7.26
7.25
6.87
6.73
6.59

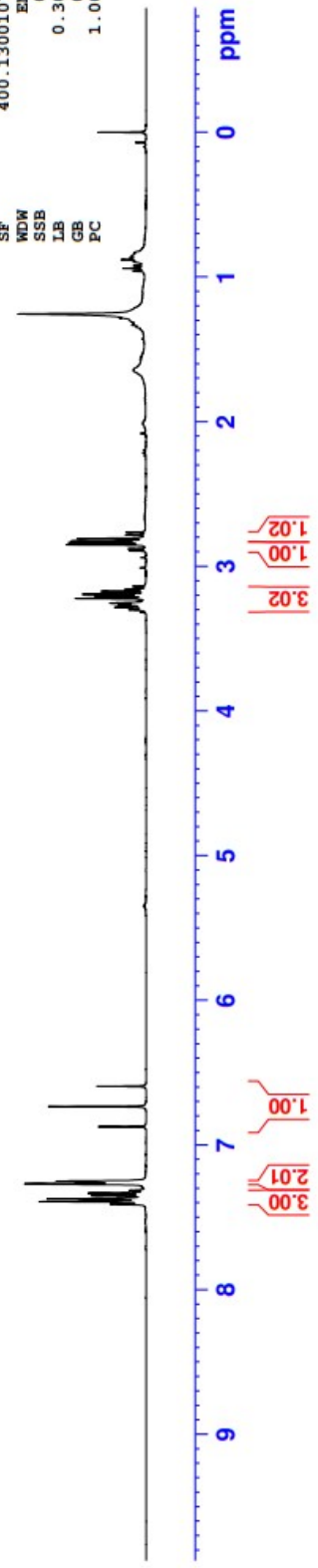


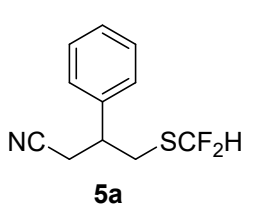
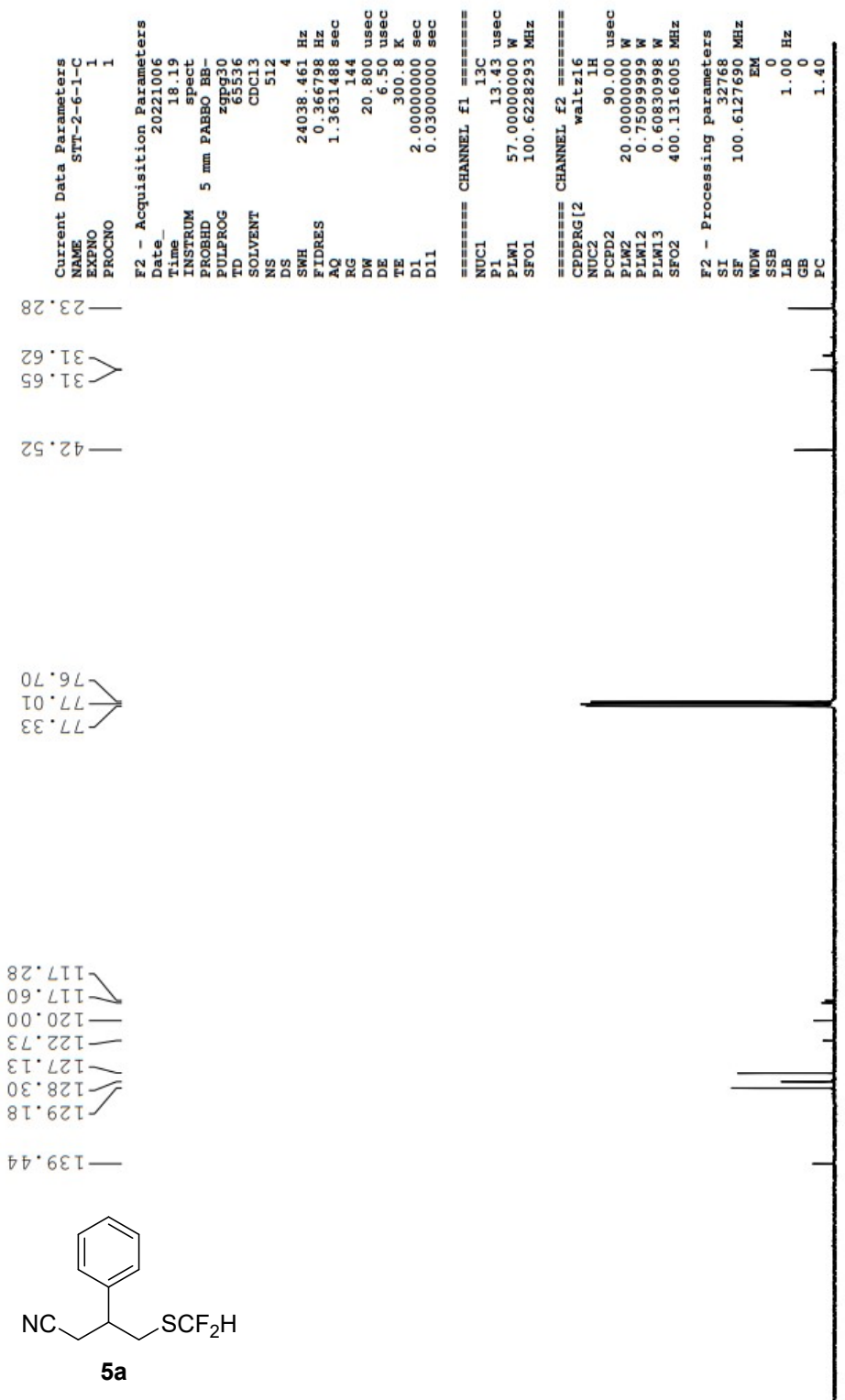
Current Data Parameters
 NAME STY-2-6-1-H
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20221005
 Time 8.37
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 8223.685 Hz
 FIDRES 0.125483 Hz
 AQ 3.9845889 sec
 RG 144
 DW 60.800 usec
 DE 6.50 usec
 TE 297.6 K
 D1 1.00000000 sec

==== CHANNEL f1 =====
 NUC1 1H
 P1 17.44 usec
 PLW1 20.0000000 W
 SFO1 400.1324710 MHz

F2 - Processing parameters
 SI 65536
 SF 400.1300107 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00





91.52
92.15
92.77
93.41

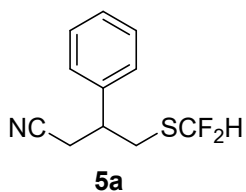
Current Data Parameters
NAME SFT-2-6-1-F
EXPNO 1
PROCNO 1

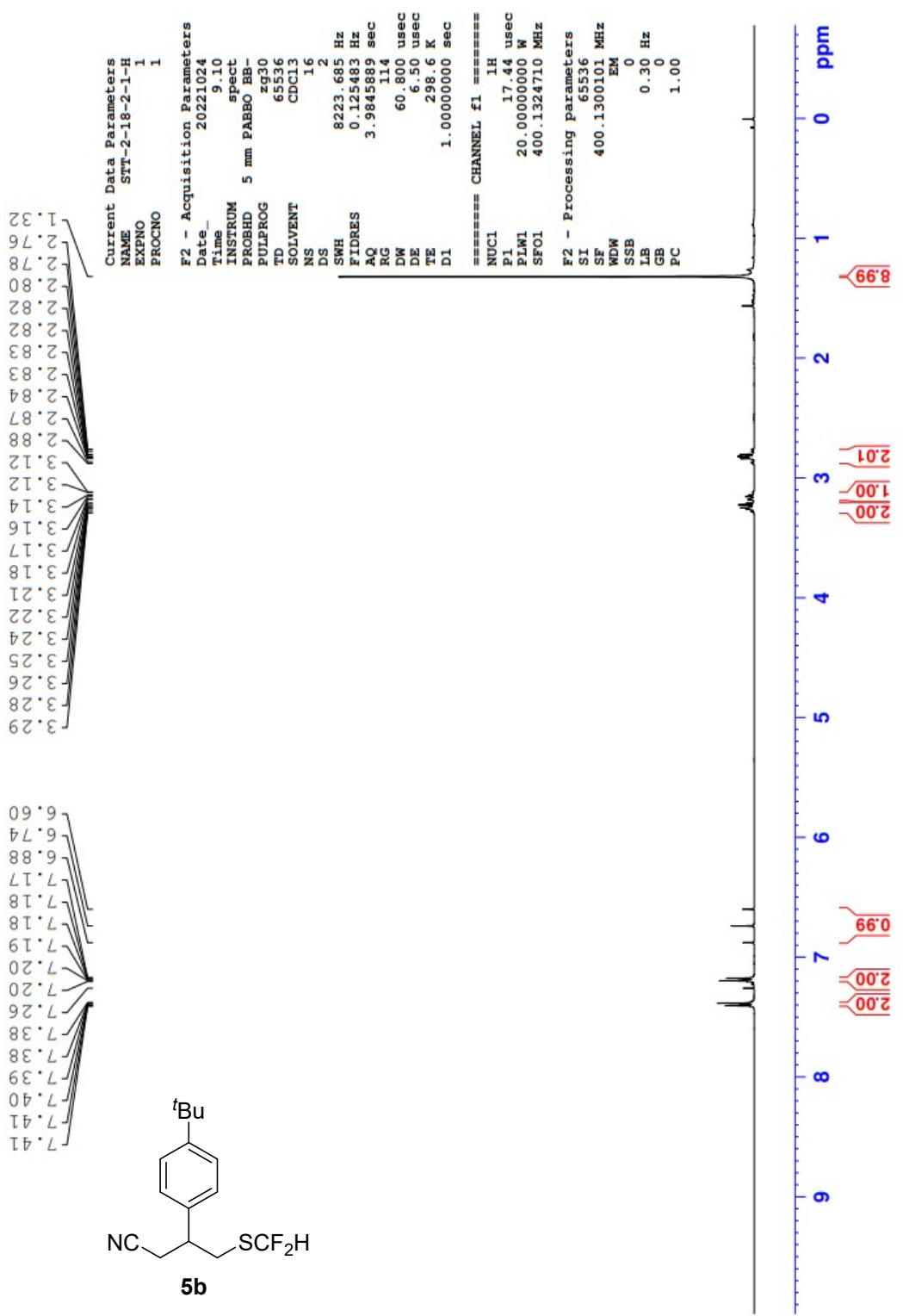
F2 - Acquisition Parameters
Date_ 20221006
Time 17.09
INSTRUM spect
PROBHD 5 mm PABBO BE-
PULPROG zgfg1gcn
TD 131072
SOLVENT CDCl3
NS 16
DS 4
SWH 89285.711 Hz
FIDRES 0.681196 Hz
AQ 0.7340032 sec
RG 203
DW 5.600 usec
DE 6.50 usec
TE 297.3 K
D1 1.00000000 sec
D11 0.03000000 sec
D12 0.00002000 sec

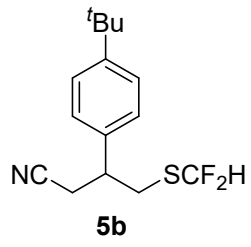
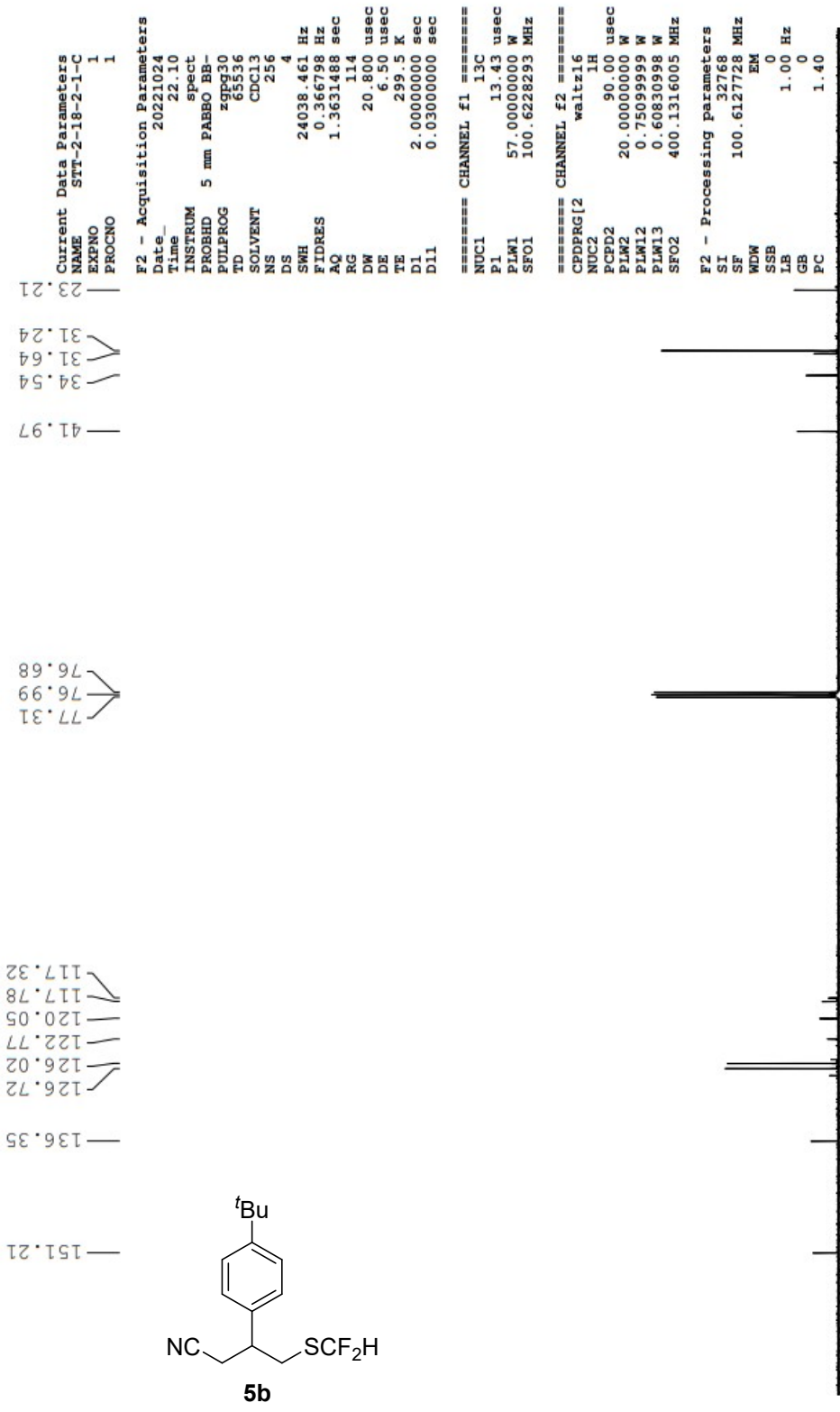
===== CHANNEL f1 =====
NUC1 19F
P1 22.22 usec
PLW1 18.19700050 W
SFO1 376.4607164 MHz

===== CHANNEL f2 =====
CPDPRG2 waitz16
NUC2 1H
PCPD2 90.00 usec
PLW2 20.00000000 W
PLW12 0.75099999 W
SFO2 400.1316005 MHz

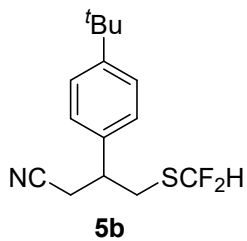
F2 - Processing parameters
SI 65536
SF 376.4983660 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00







-93.41
-92.77
-92.06
-91.42



```
Current Data Parameters
NAME STW-2-18-2-1-F
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20221024
Time 9.12
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgfglgn
TD 131072
SOLVENT CDCl3
NS 16
DS 4
SWH 89285.711 Hz
FIDRES 0.681196 Hz
AQ 0.7340032 sec
RG 203
DE 5.600 usec
TE 298.8 K
D1 1.00000000 sec
D11 0.03000000 sec
D12 0.00002000 sec

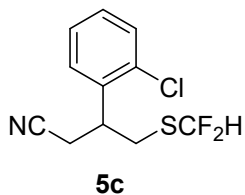
===== CHANNEL f1 =====
NUC1 19F
P1 22.22 usec
PLW1 18.19700050 W
SFO1 376.4607164 MHz

===== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PLW2 20.00000000 W
PLW12 0.75099999 W
SFO2 400.1316005 MHz

F2 - Processing parameters
SI 65536
SF 376.4983660 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
```



7.45
7.43
7.34
7.34
7.33
7.33
7.31
7.30
7.29
7.29
7.28
7.28
7.27
7.27
7.26
6.93
6.79
6.65

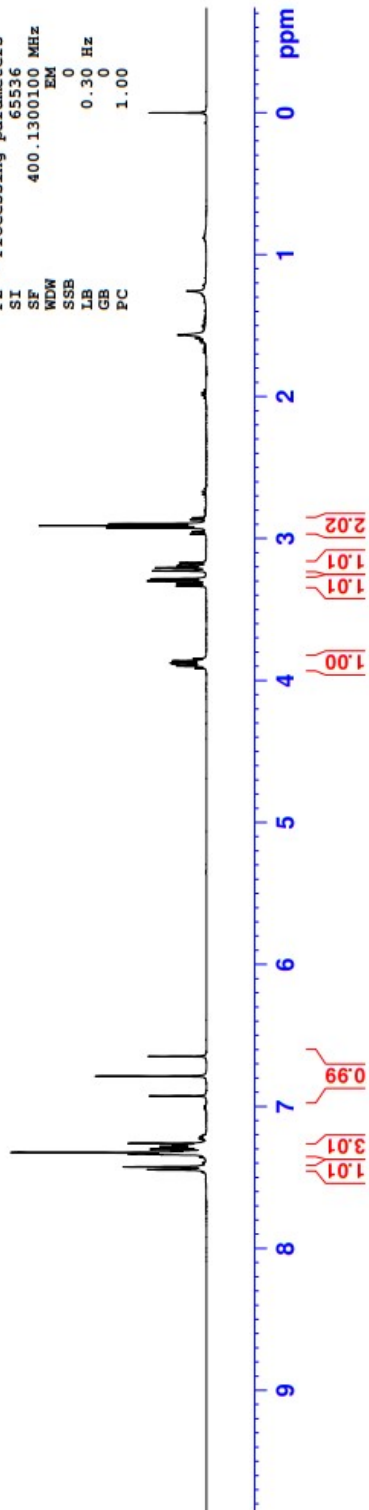


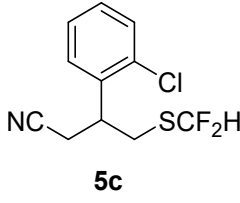
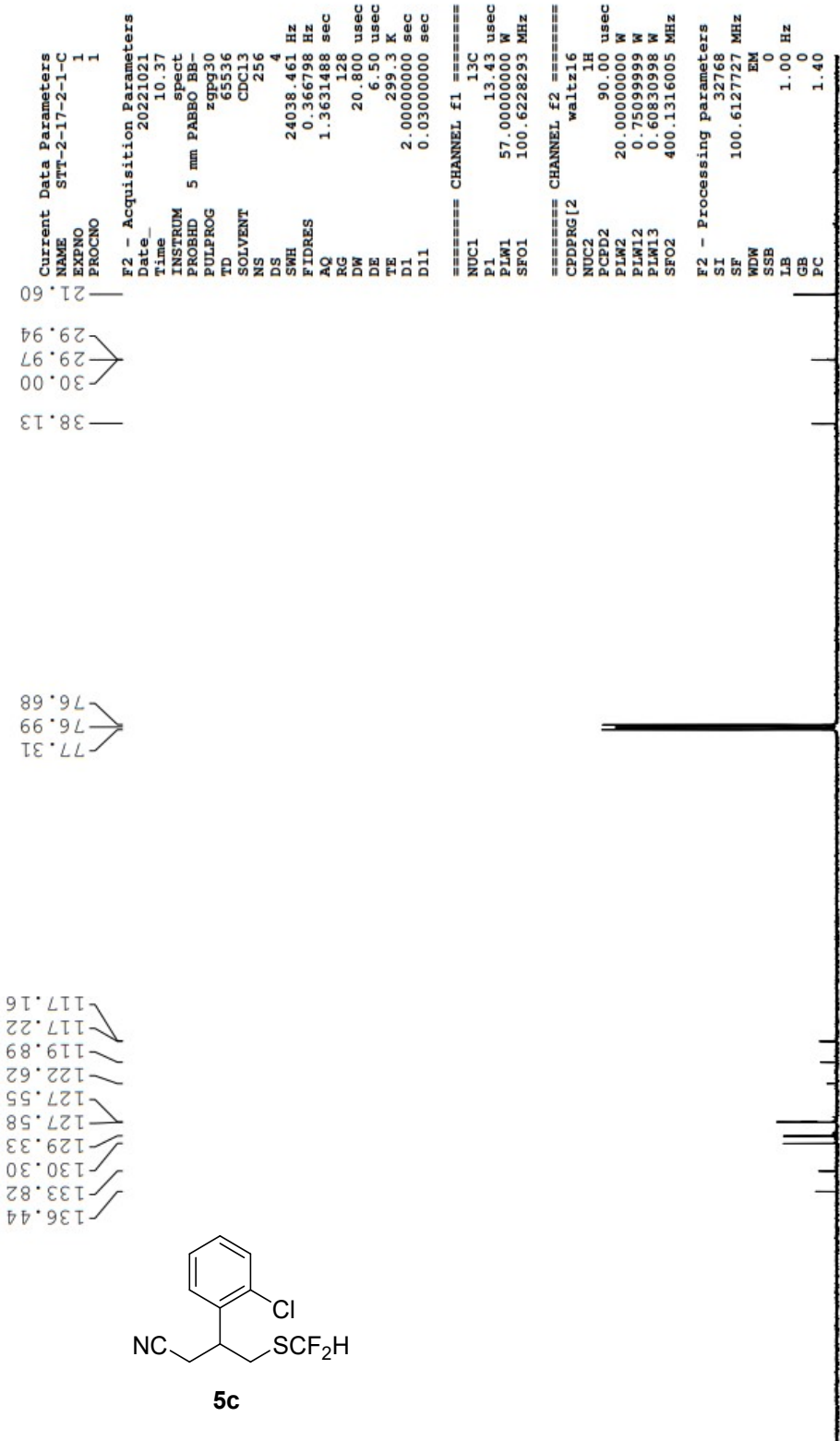
Current Data Parameters
 NAME STT-2-17-2-1-H
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20221021
 Time 8.58
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 8223.685 Hz
 FIDRES 0.125483 Hz
 AQ 3.9845889 sec
 RG 181
 DW 60.800 usec
 DE 6.50 usec
 TE 298.6 K
 D1 1.00000000 sec

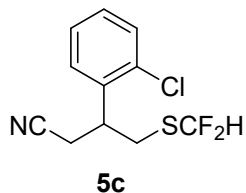
==== CHANNEL f1 =====
 NUC1 1H
 P1 17.44 usec
 PLW1 20.00000000 W
 SF01 400.1324710 MHz

F2 - Processing parameters
 SI 65536
 SF 400.1300100 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00





91.52
92.16
92.46
93.10



```

Current Data Parameters
NAME      STT-2-17-2-1-F
EXPNO    1
PROCNO   1

F2 - Acquisition Parameters
Date_    20221021
Time     9.00
INSTRUM  spect
PROBHD   5 mm PABBO BB-
PULPROG  zgfhigqn
TD        131072
SOLVENT  CDCl3
NS        16
DS        4
SWH       89285.711 Hz
FIDRES    0.681196 Hz
AQ         0.7340032 sec
RG         203
DW         5.600 usec
DE         6.50 usec
TE         298.8 K
D1         1.0000000 sec
D11        0.0300000 sec
D12        0.0000200 sec

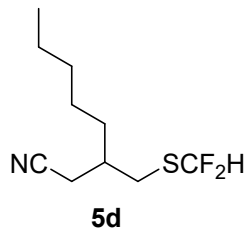
===== CHANNEL f1 =====
NUC1      19F
P1         22.22 usec
PLW1      18.19700050 W
SFO1      376.4607164 MHz

===== CHANNEL f2 =====
CPDPRG[2  waltz16
NUC2       1H
PCPD2      90.00 usec
PLW2       20.0000000 W
PLW12      0.75099999 W
SFO2       400.1316005 MHz

F2 - Processing parameters
SI         65536
SF         376.4983660 MHz
WDW        EM
SSB        0
LB         0.30 Hz
GB         0
PC         1.00
  
```

0 -10 -20 -30 -40 -50 -60 -70 -80 -90 -100 -110 -120 -130 -140 -150 -160 ppm

7.26
 6.66
 6.80
 6.94
 3.05
 3.04
 3.01
 3.00
 2.78
 2.76
 2.75
 2.72
 2.60
 2.59
 2.56
 2.55
 2.54
 2.52
 2.49
 2.48
 2.05
 2.03
 2.02
 2.00
 1.98
 1.59
 1.54
 1.53
 1.52
 1.50
 1.48
 1.36
 1.35
 1.33
 1.31
 1.26

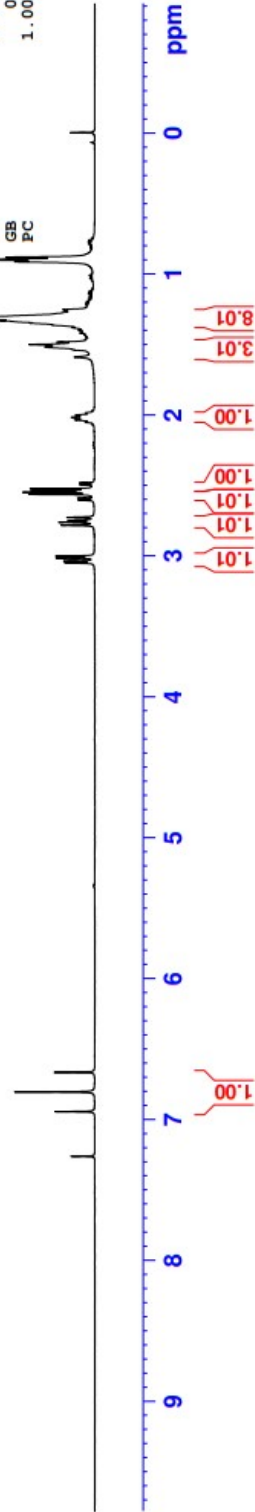


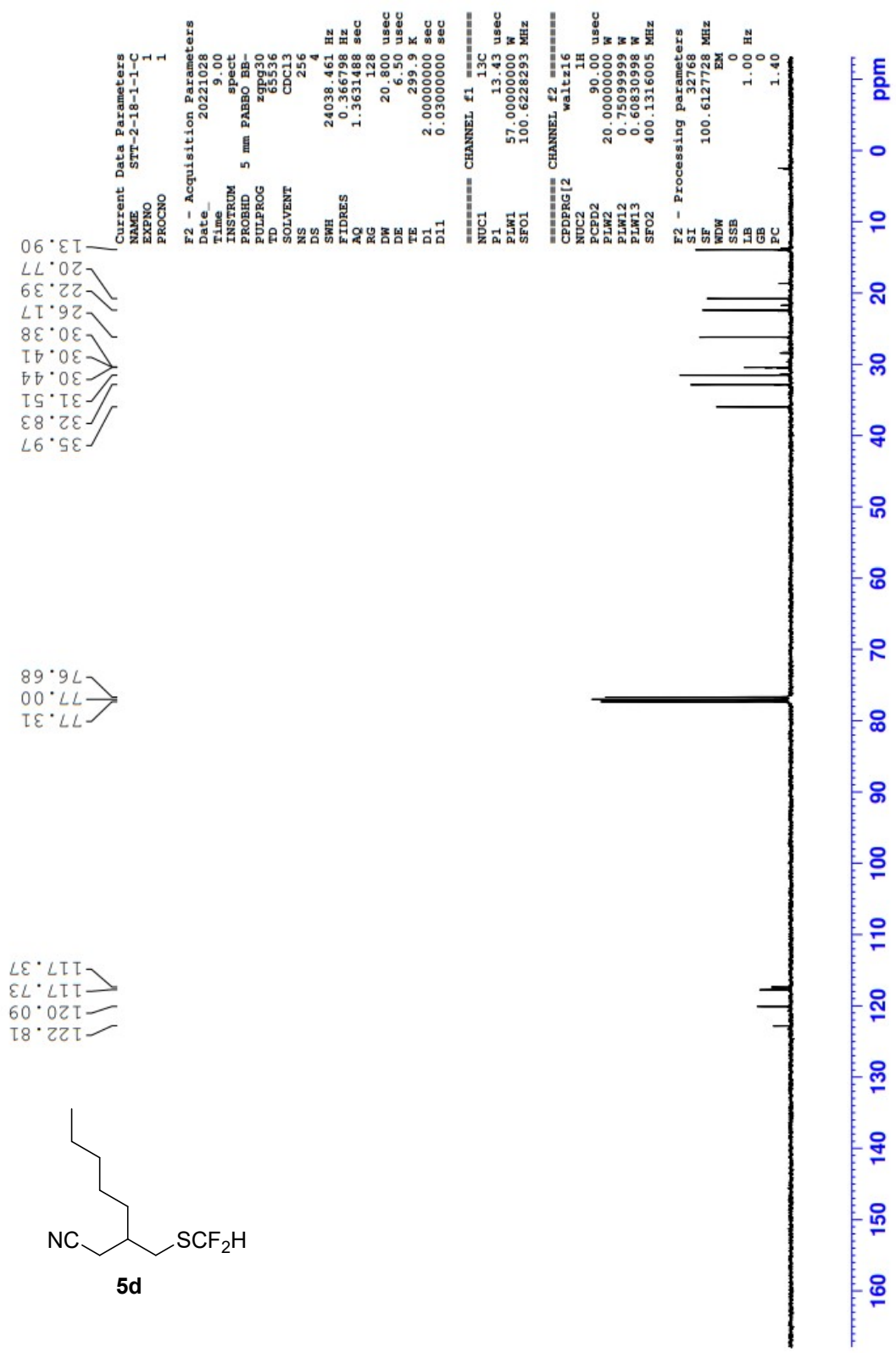
Current Data Parameters
 NAME STT-2-18-1-1-H
 EXPNO 1
 PROCNO 1

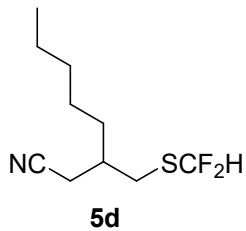
F2 - Acquisition Parameters
 Date_ 20221022
 Time 8.29
 INSTRUM spect
 PROBHD 5 mm PABBO RB-
 PULPROG zg30
 TD 65536
 SOLVENT CDC13
 NS 16
 DS 2
 SWH 8223.685 Hz
 FIDRES 0.125483 Hz
 AQ 3.9845889 sec
 RG 90.5
 DW 60.800 usec
 DE 6.50 usec
 TE 298.5 K
 D1 1.00000000 sec

===== CHANNEL f1 =====
 NUC1 1H
 P1 17.44 usec
 PLW1 20.00000000 W
 SF01 400.1324710 MHz

F2 - Processing parameters
 SI 65536
 SF 400.1300104 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00







91.29
91.93
92.67
93.31

```

Current Data Parameters
NAME      STT-2-18-1-1-F
EXPNO    1
PROCNO   1

F2 - Acquisition Parameters
Date_    20221022
Time     8.31
INSTRUM  spect
PROBHD   5 mm PABBO BB-
PULPROG  zgpg30
TD       131072
SOLVENT  CDCl3
NS       16
DS       4
SWH      89285.711 Hz
FIDRES   0.681196 Hz
AQ       0.7340032 sec
RG       203
DW       5.600 usec
DE       6.50 usec
TE       298.6 K
D1       1.00000000 sec
D11      0.03000000 sec
D12      0.00002000 sec

===== CHANNEL f1 =====
NUC1     19F
P1       22.22 usec
PLW1     18.19700050 W
SFO1     376.4607164 MHz

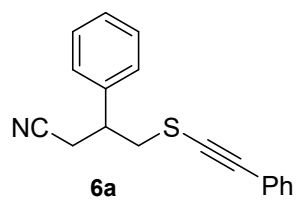
===== CHANNEL f2 =====
CPDPRG2  waitz16
NUC2     1H
PCPD2    90.00 usec
PLW2     20.00000000 W
PLW12    0.75099999 W
SFO2     400.1316005 MHz

F2 - Processing parameters
SI       65536
SF       376.4983660 MHz
WDW      EM
SSB      0
LB       0.30 Hz
GB       0
PC       1.00

```



7.45
7.44
7.43
7.43
7.42
7.42
7.42
7.40
7.39
7.38
7.35
7.35
7.35
7.34
7.33
7.33
7.32
7.31
7.30
7.26

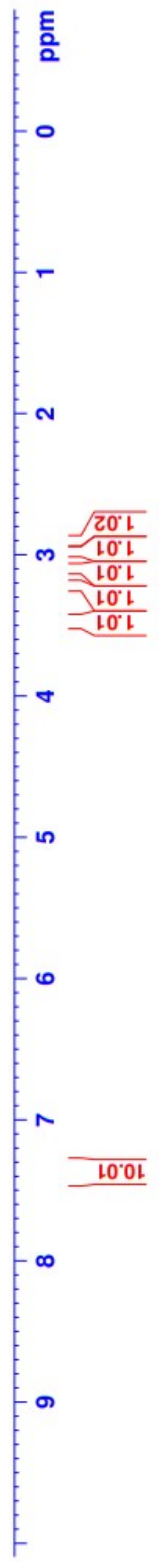
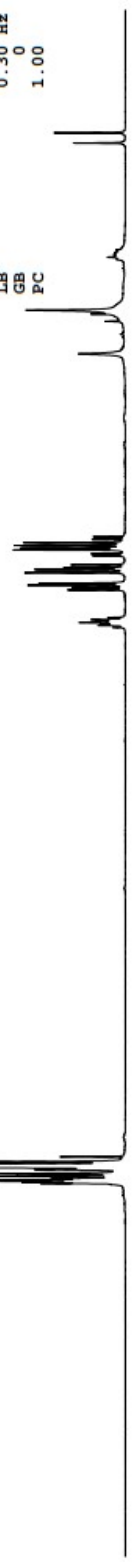


Current Data Parameters
 NAME STT-1-185-1-H
 EXPNO 5
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20220819
 Time 10.38
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 8223.685 Hz
 FIDRES 0.125483 Hz
 AQ 3.9845889 sec
 RG 128
 DW 60.800 usec
 DE 6.50 usec
 TE 298.0 K
 D1 1.00000000 sec

==== CHANNEL f1 =====
 NUC1 1H
 P1 18.33 usec
 PLW1 20.00000000 W
 SF01 400.1324710 MHz

F2 - Processing parameters
 SI 65536
 SF 400.1300101 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



Current Data Parameters
 NAME STT-1-185-1-C
 EXPNO 5
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20220819
 Time 10.50
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 170
 DS 4
 SWH 24038.461 Hz
 FIDRES 0.366798 Hz
 AQ 1.3631488 sec
 RG 128
 DW 20.800 usec
 DE 6.50 usec
 TE 299.2 K
 D1 2.00000000 sec
 D11 0.03000000 sec

=====
 CHANNEL f1
 NUC1 13C
 P1 13.34 usec
 PLW1 57.0000000 W
 SF01 100.6228293 MHz

=====
 CHANNEL f2
 CPDPRG[2] waltz16
 NUC2 1H
 PCPD2 90.00 usec
 PLW2 20.0000000 W
 PLM12 0.82959998 W
 PLM13 0.67198002 W
 SF02 400.1316005 MHz

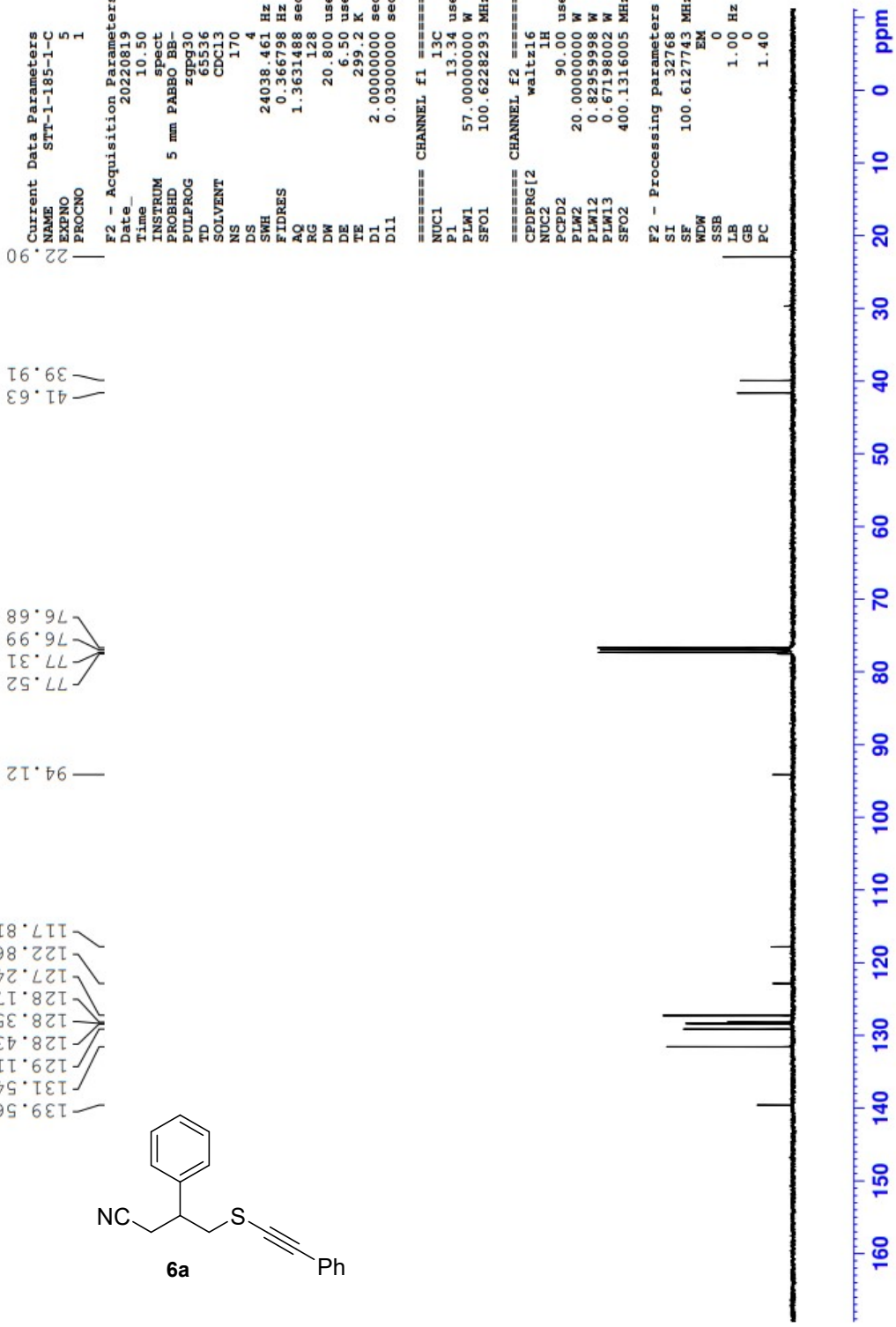
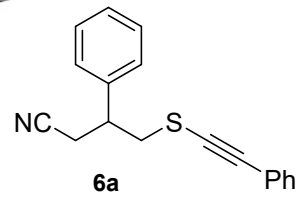
F2 - Processing parameters
 SI 32768
 SF 100.6127743 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

41.63
 39.91

77.52
 77.31
 76.99
 76.68

94.12

139.56
 131.54
 129.11
 128.43
 128.35
 128.17
 127.24
 122.86
 117.81



1.30
2.84
2.86
2.89
2.90
2.91
2.92
2.95
2.97
3.04
3.06
3.07
3.09
3.19
3.20
3.22
3.24
3.40
3.42
3.44
3.45
3.46
3.47

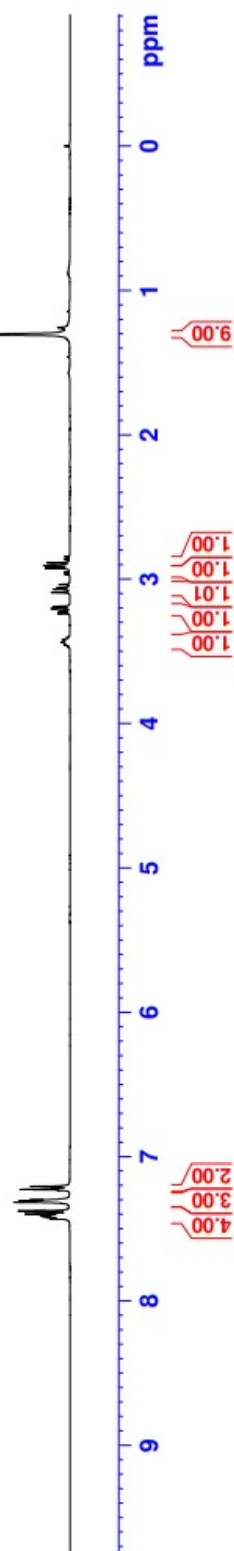
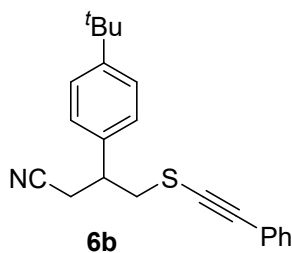
7.21
7.23
7.30
7.31
7.32
7.32
7.38
7.40
7.41
7.42
7.42
7.42
7.43

Current Data Parameters
 NAME STT-1-193-2-H
 EXPNO 4
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20220830
 Time 11.33
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT CDC13
 NS 16
 DS 2
 SWH 8223.685 Hz
 FIDRES 0.125483 Hz
 AQ 3.9845889 sec
 RG 50.8
 DW 60.800 usec
 DE 6.50 usec
 TE 296.9 K
 D1 1.00000000 sec

===== CHANNEL f1 =====
 NUC1 1H
 P1 18.33 usec
 PLW1 20.0000000 W
 SFO1 400.1324710 MHz

F2 - Processing parameters
 SI 65536
 SF 400.1300205 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



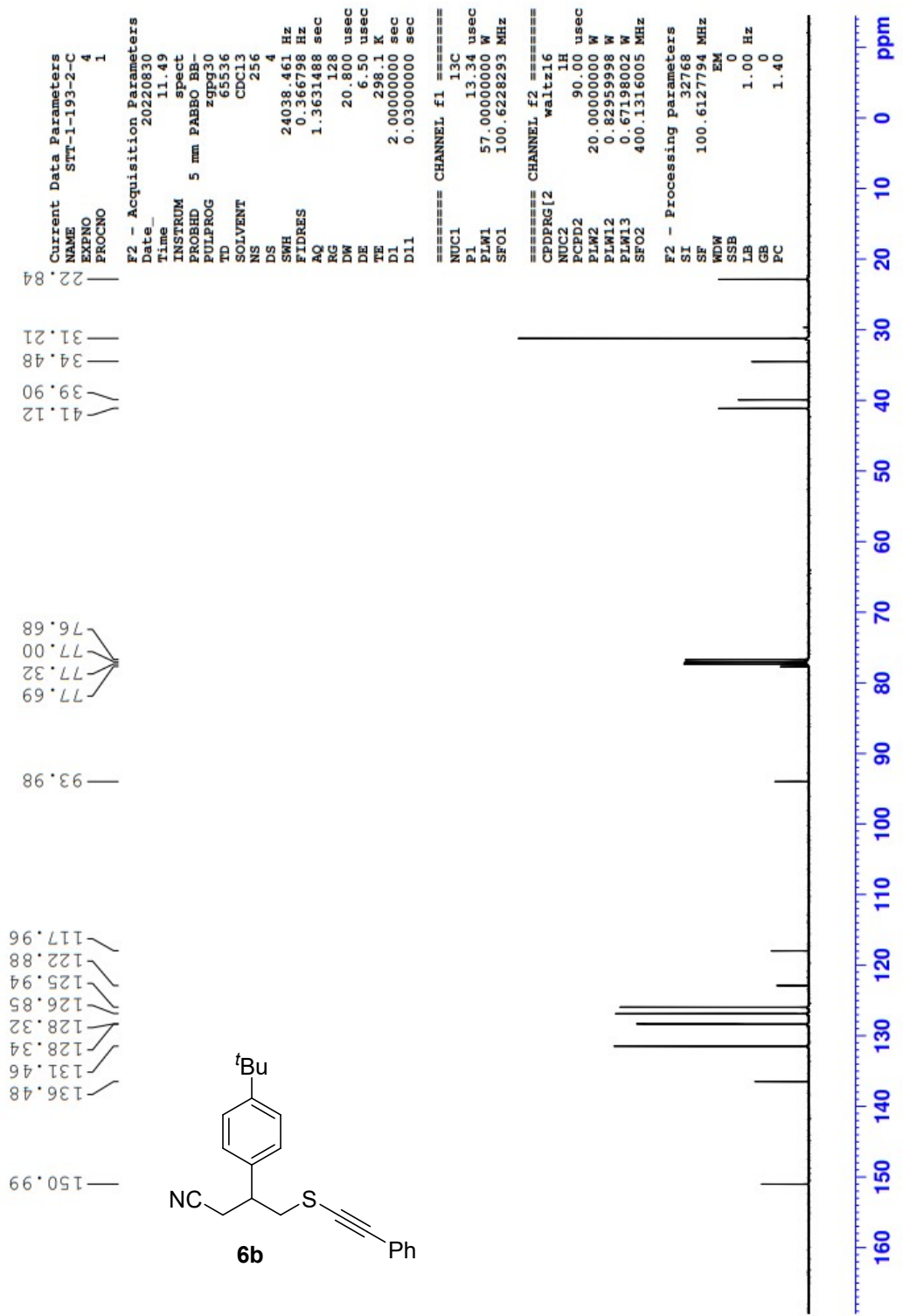
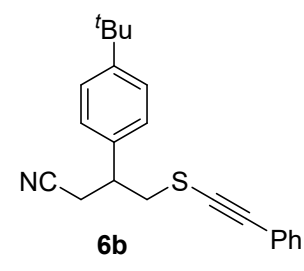
Current Data Parameters
 NAME ST1-1-193-2-C
 EXPNO 4
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20220830
 Time 11.49
 INSTRUM spect
 PROBED 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 256
 DS 4
 SWH 24038.461 Hz
 FIDRES 0.366798 Hz
 AQ 1.3631488 sec
 RG 128
 DW 20.800 usec
 DE 6.50 usec
 TE 298.1 K
 D1 2.0000000 sec
 D11 0.0300000 sec

==== CHANNEL f1 =====
 NUC1 13C
 P1 13.34 usec
 PLW1 57.0000000 W
 SFO1 100.6228293 MHz

==== CHANNEL f2 =====
 CPDPRG[2] waltz16
 NUC2 1H
 PCPD2 90.00 usec
 PLW2 20.0000000 W
 PLW12 0.8295998 W
 PLW13 0.6719802 W
 SFO2 400.1316005 MHz

F2 - Processing parameters
 SI 32768
 SF 100.6127794 MHz
 EM
 WDW 0
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40



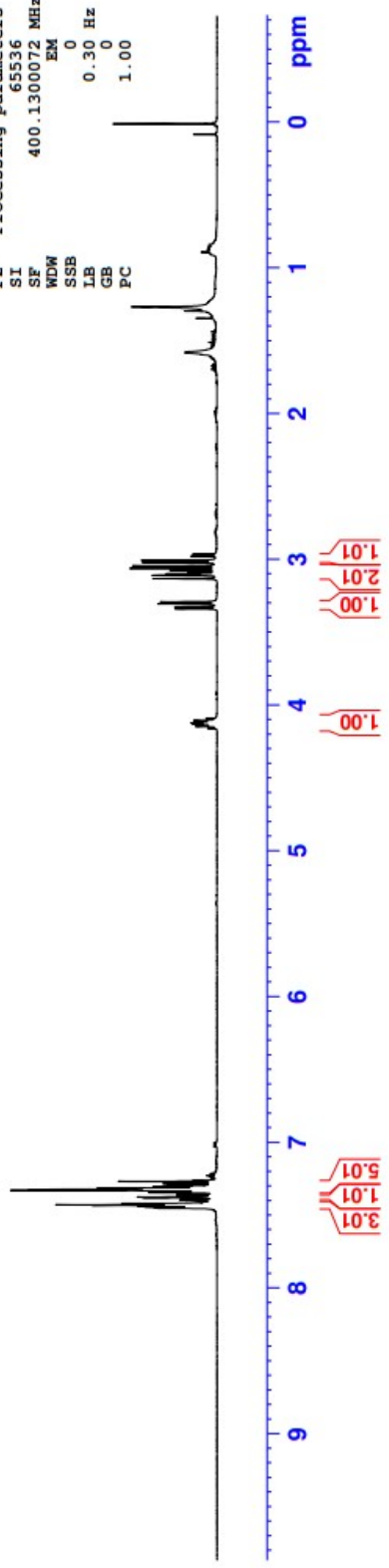
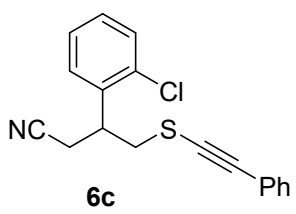
7.96
7.98
7.01
7.02
7.03
7.04
7.06
7.07
7.09
7.10
7.10
7.11
7.13
7.29
7.30
7.32
7.34
7.09
7.10
7.11
7.12
7.13
7.13
7.13
7.14
7.16
7.26
7.27
7.28
7.28
7.30
7.30
7.31
7.32
7.32
7.33
7.34
7.34
7.36
7.37
7.38
7.39
7.41
7.41
7.42
7.42
7.42
7.42
7.43
7.43
7.44

Current Data Parameters
 NAME STT-1-194-2-1-H
 EXPNO 1
 PROCNO 1

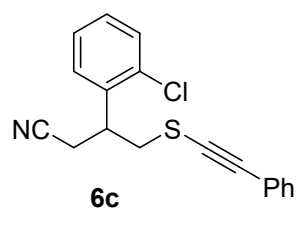
F2 - Acquisition Parameters
 Date_ 20220913
 Time 14.06
 INSTRUM spect
 PROBHD 5 mm FAPBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 8223.685 Hz
 FIDRES 0.125483 Hz
 AQ 3.9845889 sec
 RG 161
 DW 60.800 usec
 DE 6.50 usec
 TE 298.9 K
 D1 1.00000000 sec

===== CHANNEL f1 =====
 NUC1 1H
 P1 17.44 usec
 PLW1 20.0000000 W
 SF01 400.1324710 MHz

F2 - Processing parameters
 SI 65536
 SF 400.1300072 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



21.23
 Current Data Parameters
 NAME STT-1-194-2-C
 EXPNO 5
 PROCNO 1
 F2 - Acquisition Parameters
 Date_ 20220830
 Time 12.10
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 256
 DS 4
 SWH 24038.461 Hz
 FIDRES 0.366798 Hz
 AQ 1.3631488 sec
 RG 114
 DW 20.800 usec
 DE 6.50 usec
 TE 298.2 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 ===== CHANNEL f1 =====
 NUC1 13C
 P1 13.34 usec
 PLW1 57.00000000 W
 SFO1 100.6228293 MHz
 ===== CHANNEL f2 =====
 CPDPRG[2] waltz16
 NUC2 1H
 PCPD2 90.00 usec
 PLW2 20.00000000 W
 PLW12 0.82959998 W
 PLW13 0.67198002 W
 SFO2 400.1316005 MHz
 F2 - Processing parameters
 SI 32768
 SF 100.6127735 MHz
 MDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

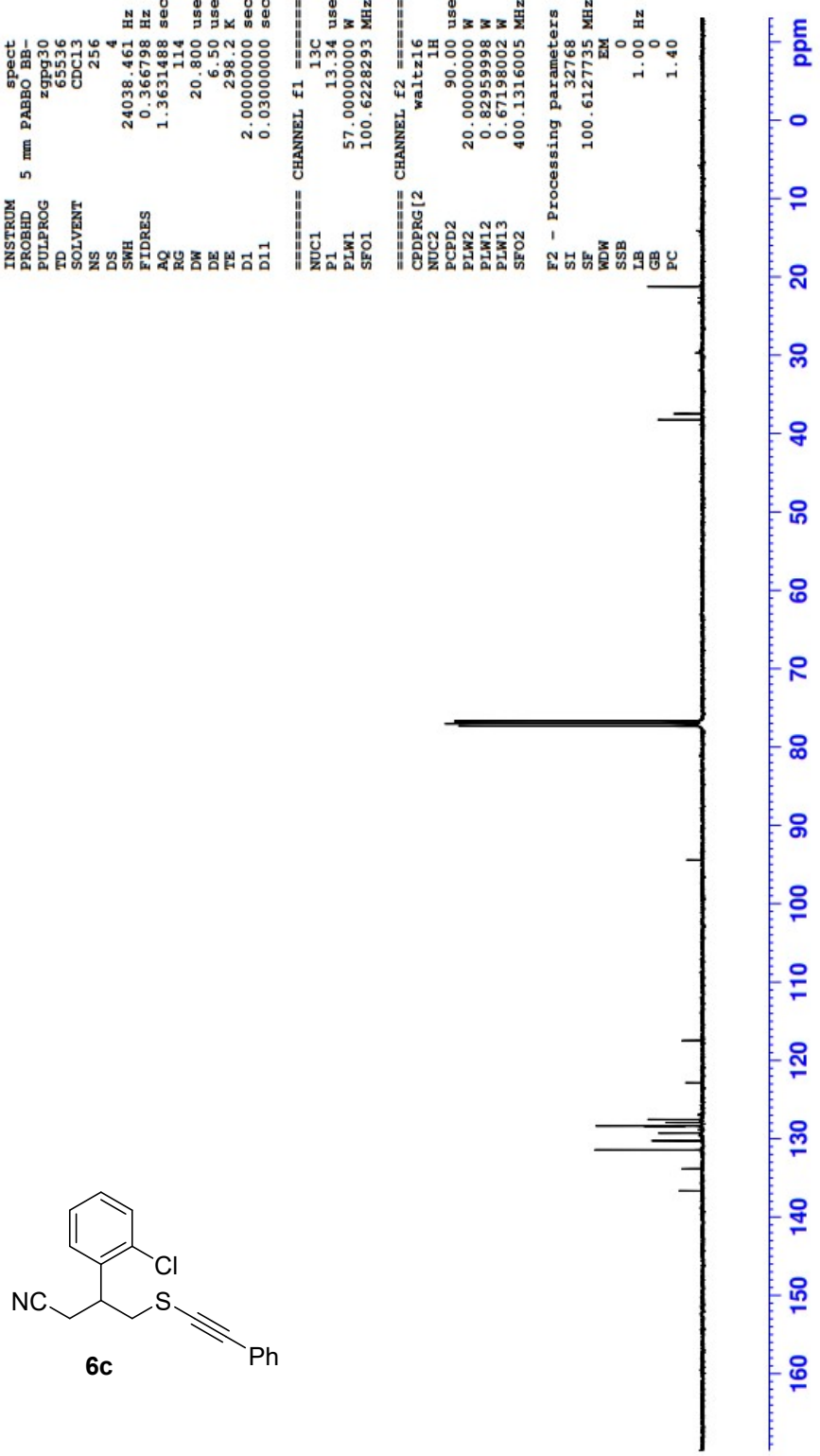


117.45
 122.85
 127.53
 127.93
 128.33
 128.37
 129.26
 130.24
 131.42
 133.83
 136.63

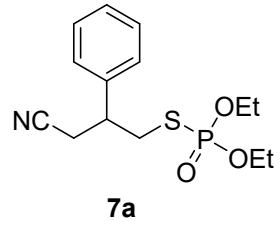
77.31
 77.15
 77.00
 76.68

94.40

38.22
 37.46



7.39
7.38
7.36
7.33
7.32
7.31
7.31
7.30
7.28
7.28
7.27
7.26
4.19
4.18
4.17
4.16
4.15
4.15
4.15
4.14
4.14
4.14
4.13
4.13
4.12
4.11
4.10
4.09
4.07
4.06
3.37
3.35
3.33
3.32
3.30
3.24
3.22
3.22
3.20
3.20
3.19
3.18
3.16
3.16
3.00

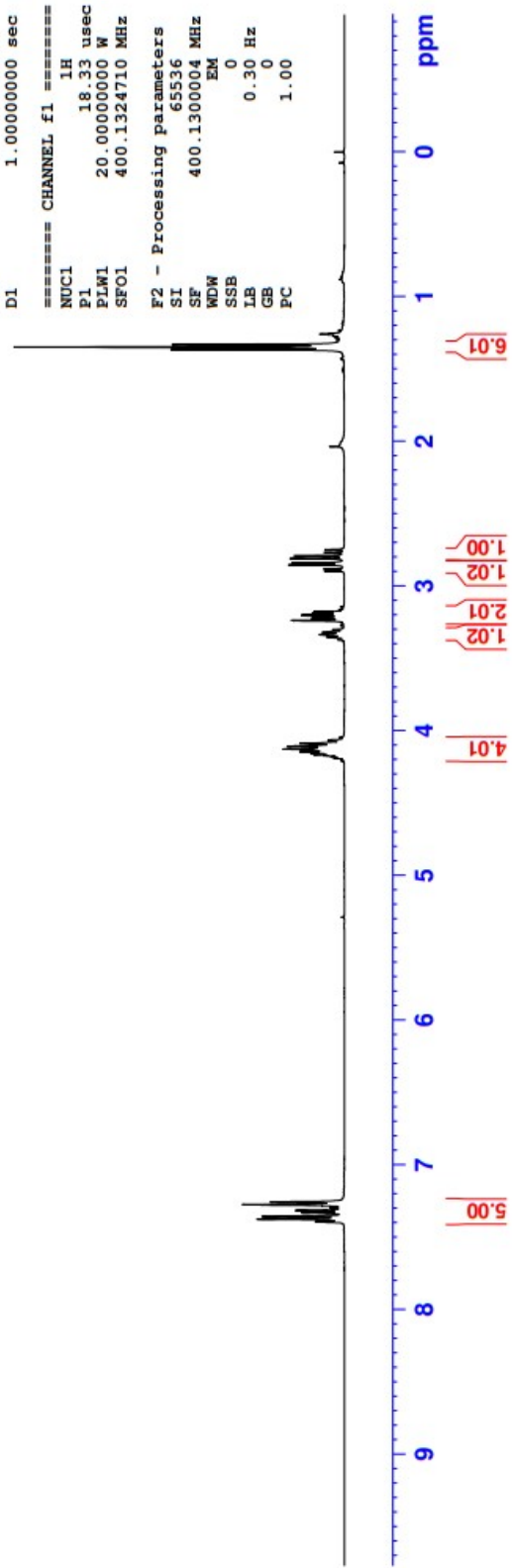


Current Data Parameters
 NAME STT-1-195-1-H
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20220907
 Time 15.13
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT CDC13
 NS 16
 DS 2
 SWH 8223.685 Hz
 FIDRES 0.125483 Hz
 AQ 3.9845889 sec
 RG 32
 DW 60.800 usec
 DE 6.50 usec
 TE 297.8 K
 D1 1.00000000 sec

===== CHANNEL f1 =====
 NUC1 1H
 P1 18.33 usec
 PLW1 20.0000000 W
 SFO1 400.1324710 MHz

F2 - Processing parameters
 SI 65536
 SF 400.1300004 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



88
 15.88
 15.95
 23.08
 35.01
 35.05
 42.57
 42.62
 63.76
 63.78
 63.82
 63.85
 76.68
 77.00
 77.31
 117.58
 127.10
 128.04
 128.94
 139.26

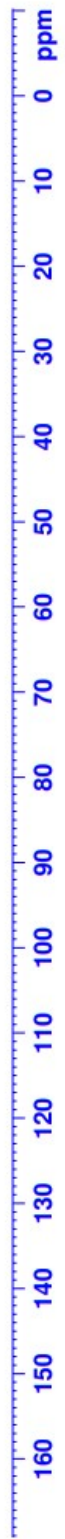
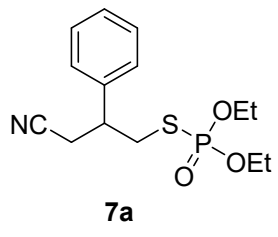
Current Data Parameters
 NAME STT-1-195-1-C
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20220907
 Time 15.27
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDC13
 NS 200
 DS 4
 SWH 24038.461 Hz
 FIDRES 0.366798 Hz
 AQ 1.3631488 sec
 RG 50.8
 DW 20.800 usec
 DE 6.50 usec
 TE 298.8 K
 D1 2.00000000 sec
 D11 0.03000000 sec

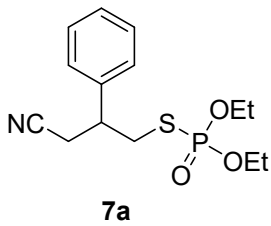
===== CHANNEL f1 =====
 NUC1 13C
 P1 13.34 usec
 PLW1 57.00000000 W
 SFO1 100.6228293 MHz

===== CHANNEL f2 =====
 CPDPRG[2] waltz16
 NUC2 1H
 PCPD2 90.00 usec
 PLW2 20.00000000 W
 PLW12 0.82959998 W
 PLW13 0.67198002 W
 SFO2 400.1316005 MHz

F2 - Processing parameters
 SI 32768
 SF 100.6127838 MHz
 EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40



—26.27



```
Current Data Parameters
NAME      SFT-1-195-1-P
EXPNO     1
PROCNO    1

F2 - Acquisition Parameters
Date_     20220926
Time      9.38
INSTRUM   spect
PROBHD    5 mm PABBO BB-
PULPROG   zgpg30
TD        65536
SOLVENT   CDCl3
NS        16
DS        4
SWH       64102.563 Hz
FIDRES    0.978127 Hz
AQ        0.5111808 sec
RG        203
DW        7.800 usec
DE        6.50 usec
TE        296.8 K
D1        2.00000000 sec
D11       0.03000000 sec

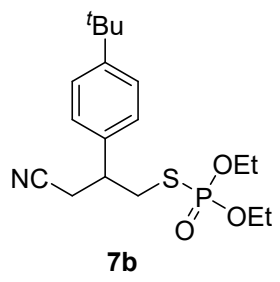
===== CHANNEL f1 =====
NUC1      31P
P1        20.93 usec
PLW1     13.0019986 W
SFO1     161.9674942 MHz

===== CHANNEL f2 =====
CPDPRG2   waltz16
NUC2      1H
PCPD2     90.00 usec
PLW2     20.00000000 W
PLW12    0.75099999 W
PLW13    0.60830998 W
SFO2     400.1316005 MHz

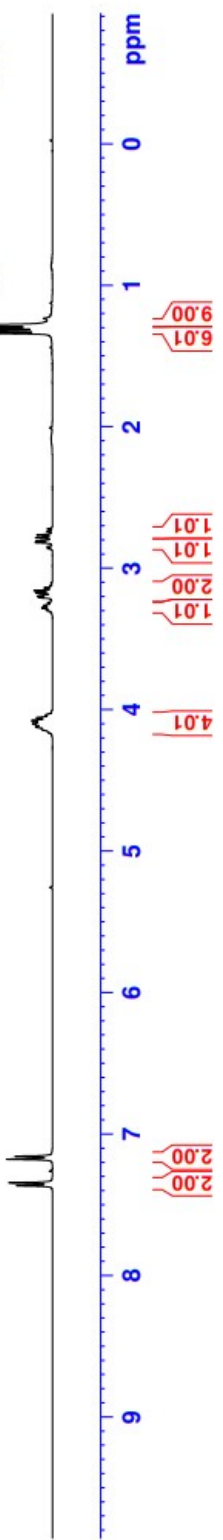
F2 - Processing parameters
SI        32768
SF        161.9755930 MHz
WDW       EM
SSB       0
LB        1.00 Hz
GB        0
PC        1.40
```

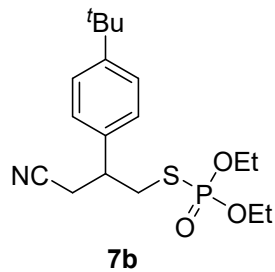
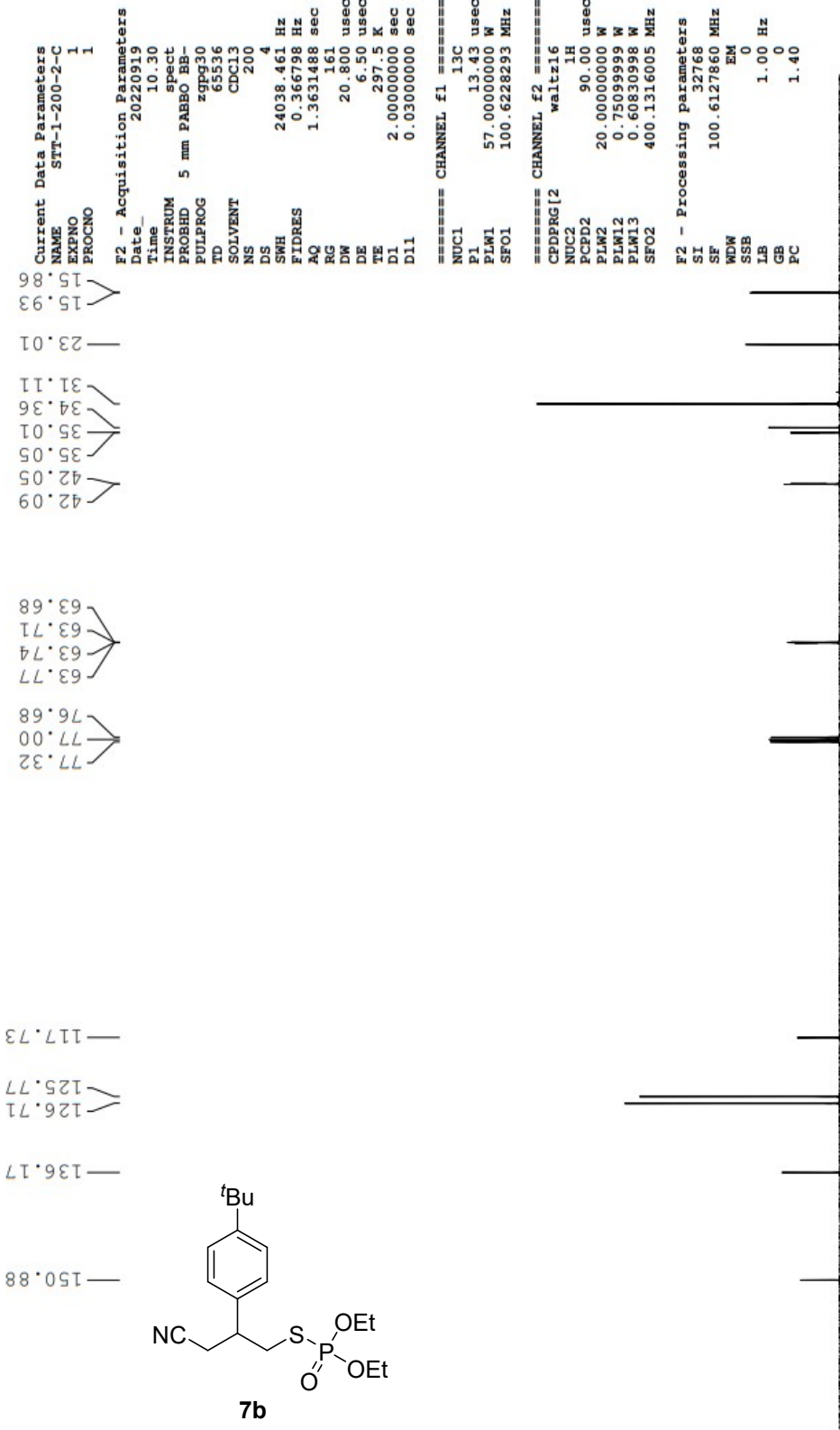
120 100 80 60 40 20 0 -20 -40 -60 -80 -100 -120 ppm

1.28
 1.30
 1.32
 1.34
 1.72
 1.74
 2.74
 2.76
 2.78
 2.80
 2.82
 2.85
 2.86
 3.12
 3.14
 3.16
 3.17
 3.19
 3.21
 3.24
 3.26
 3.28
 3.29
 3.31
 4.03
 4.06
 4.07
 4.08
 4.09
 4.10
 4.10
 4.10
 4.12
 4.12
 4.13
 4.16
 7.16
 7.18
 7.26
 7.34
 7.36

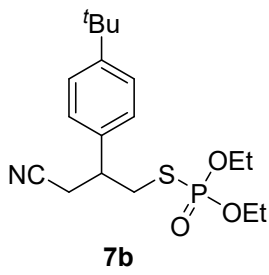


Current Data Parameters
 NAME STT-1-200-2-H
 EXPNO 1
 PROCNO 1
 F2 - Acquisition Parameters
 Date_ 20220919
 Time 10.14
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 8223.685 Hz
 FIDRES 0.125483 Hz
 AQ 3.9845889 sec
 RG 32
 DW 60.800 usec
 DE 6.50 usec
 TE 296.5 K
 D1 1.00000000 sec
 ===== CHANNEL f1 =====
 NUC1 1H
 P1 17.44 usec
 PLW1 20.00000000 W
 SF01 400.1324710 MHz
 F2 - Processing parameters
 SI 65536
 SF 400.1300102 MHz
 WDM EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00





— 26.46



```
Current Data Parameters
NAME      STT-1-200-2-P
EXPNO     1
PROCNO    1

F2 - Acquisition Parameters
Date_     20220919
Time      10.17
INSTRUM   spect
PROBHD    5 mm FABIO BB-
PULPROG   zgpg30
TD         65536
SOLVENT    CDCl3
NS         16
DS         4
SWH        64102.563 Hz
FIDRES     0.978127 Hz
AQ          0.5111808 sec
RG          203
DW          7.800 usec
DE          6.50 usec
TE          296.9 K
D1          2.00000000 sec
D11         0.03000000 sec

===== CHANNEL f1 =====
NUC1       31P
P1         20.93 usec
PLW1       13.0019986 W
SF01       161.9674942 MHz

===== CHANNEL f2 =====
CPDPRG[2] waltz16
NUC2       1H
PCPD2      90.00 usec
PLW2       20.0000000 W
PLW12      0.75099999 W
PLW13      0.60830998 W
SF02       400.1316005 MHz

F2 - Processing parameters
SI          32768
SF          161.9755930 MHz
WDW         EM
SSB         0
LB          1.00 Hz
GB          0
PC          1.40
```

120 100 80 60 40 20 0 -20 -40 -60 -80 -100 -120 ppm

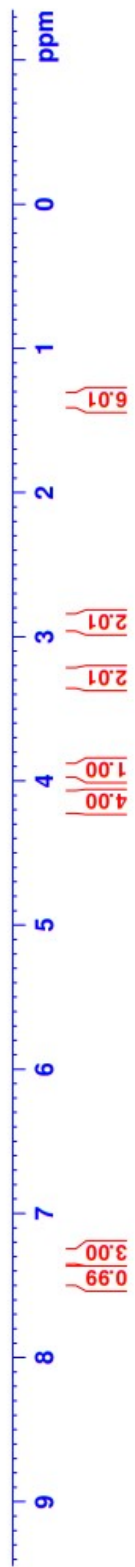
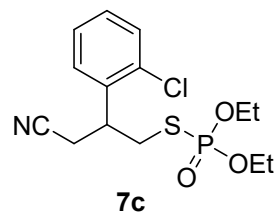
7.44
7.42
7.33
7.29
7.28
7.28
7.27
7.26
7.25
4.22
4.21
4.20
4.19
4.17
4.16
4.16
4.14
4.14
4.14
4.12
4.12
4.12
4.11
4.10
4.09
4.08
4.08
3.96
3.94
3.93
3.91
3.89
3.35
3.33
3.32
3.31
3.30
3.29
3.28
3.27
3.25
3.24
3.22
2.95
2.94
2.91
2.90
2.90
2.90
2.89
2.86
2.85
1.38
1.37
1.36
1.36
1.36
1.35
1.34
0.00

Current Data Parameters
 NAME STT-2-5-1-H
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20220926
 Time 9.44
 INSTRUM spect
 PROBHD 5 mm FAPRO BB-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 8223.685 Hz
 FIDRES 0.125483 Hz
 AQ 3.9845889 sec
 RG 71.8
 DW 60.800 usec
 DE 6.50 usec
 TE 296.2 K
 D1 1.00000000 sec

==== CHANNEL f1 =====
 NUC1 1H
 P1 17.44 usec
 PLW1 20.0000000 W
 SFO1 400.1324710 MHz

F2 - Processing parameters
 SI 65536
 SF 400.1300021 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



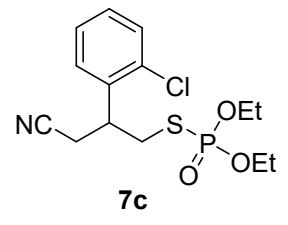
Current Data Parameters
 STT-2-5-1-C
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20220926
 Time 9.57
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDC13
 NS 200
 DS 4
 SWH 24038.461 Hz
 FIDRES 0.366798 Hz
 AQ 1.3631488 sec
 RG 144
 DW 20.800 usec
 DE 6.50 usec
 TE 297.2 K
 D1 2.00000000 sec
 D11 0.03000000 sec

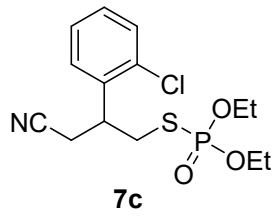
==== CHANNEL f1 =====
 NUC1 13C
 P1 13.43 usec
 PLW1 57.00000000 W
 SFO1 100.6228293 MHz

==== CHANNEL f2 =====
 CPDPRG[2] waitz16
 NUC2 1H
 P2 90.00 usec
 PLW2 20.00000000 W
 PLW12 0.75099999 W
 PLW13 0.60830998 W
 SFO2 400.1316005 MHz

F2 - Processing parameters
 SI 32768
 SF 100.6127787 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40



— 26.08



```
Current Data Parameters
NAME      STT-2-5-1-P
EXPNO     1
PROCNO    1

F2 - Acquisition Parameters
Date_     20220927
Time      14.46
INSTRUM   spect
PROBHD    5 mm PABBO BB
PULPROG   zgpg30
TD         65536
SOLVENT   CDCl3
NS         16
DS         4
SWH        64102.563 Hz
FIDRES     0.978127 Hz
AQ         0.5111808 sec
RG         203
DW         7.800 usec
DE         6.50 usec
TE         297.3 K
D1         2.00000000 sec
D11        0.03000000 sec

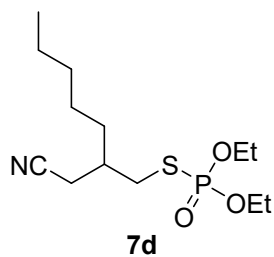
===== CHANNEL f1 =====
NUC1       31P
P1         20.93 usec
PLW1       13.0019986 W
SFO1       161.9674942 MHz

===== CHANNEL f2 =====
CPDPRG[2] waltz16
NUC2       1H
PCPD2      90.00 usec
PLW2       20.0000000 W
PLW12      0.75099999 W
PLW13      0.60830998 W
SFO2       400.1316005 MHz

F2 - Processing parameters
SI         32768
SF         161.9755930 MHz
WDW        EM
SSB        0
LB         1.00 Hz
GB         0
PC         1.40
```

120 100 80 60 40 20 0 -20 -40 -60 -80 -100 -120 ppm

1.30
1.32
1.34
1.36
1.45
1.47
1.49
1.51
2.01
2.02
2.04
2.06
2.07
2.51
2.52
2.73
2.75
2.76
2.77
2.79
2.80
2.83
2.95
2.96
2.99
3.00
3.02
3.03
4.09
4.09
4.11
4.12
4.13
4.15
4.17
4.19
4.19
4.20

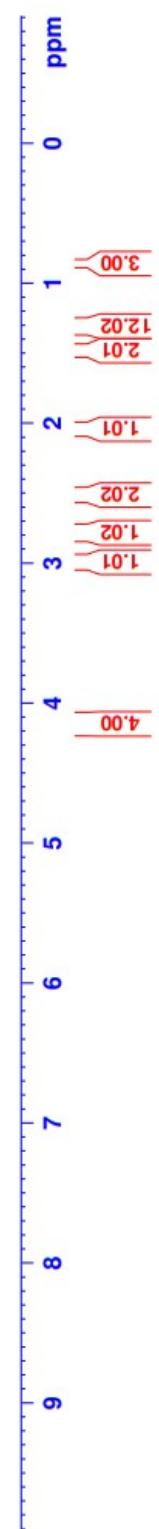


Current Data Parameters
 Name STT-2-5-2-H
 ExpNO 1
 ProcNO 1

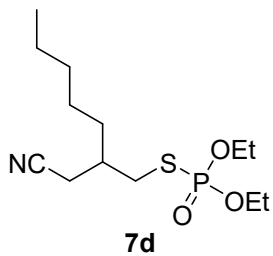
F2 - Acquisition Parameters
 Date_ 20220929
 Time_ 8.04
 Instrum spect
 Probed 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 8223.685 Hz
 FIDRES 0.125483 Hz
 Aq 3.9845889 sec
 RG 32
 DW 60.800 usec
 DE 6.50 usec
 TE 296.7 K
 D1 1.00000000 sec

===== CHANNEL f1 =====
 NUC1 1H
 P1 17.44 usec
 PLW1 20.00000000 W
 SFO1 400.1324710 MHz

F2 - Processing parameters
 SI 65536
 SF 400.1300100 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



117.72



77.31
77.00
76.68
63.83
63.80
63.77
63.74
36.26
36.21
34.09
34.06
32.57
31.46
26.06
22.31
20.72
16.00
15.93
13.85

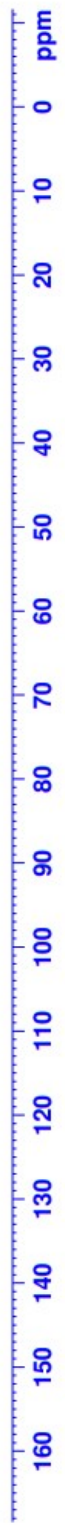
Current Data Parameters
NAME STT-2-5-2-C
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20220929
Time 8.19
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT CDC13
NS 200
DS 4
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 161
DW 20.800 usec
DE 6.50 usec
TE 297.8 K
D1 2.0000000 sec
D11 0.0300000 sec

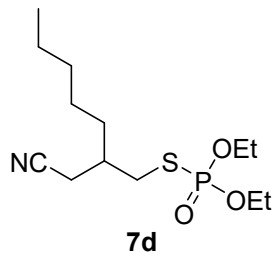
=====
CHANNEL f1
NUC1 13C
P1 13.43 usec
PLW1 57.0000000 W
SFO1 100.6228293 MHz

=====
CHANNEL f2
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PLW2 20.0000000 W
PLW12 0.75099999 W
PLW13 0.60830998 W
SFO2 400.1316005 MHz

F2 - Processing parameters
SI 32768
SF 100.6127787 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40



— 26.66



Current Data Parameters
NAME STY-2-5-2-P
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20220929
Time 8.06
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 16
DS 4
SWH 64102.563 Hz
FIDRES 0.978127 Hz
AQ 0.5111808 sec
RG 203
DW 7.800 usec
DE 6.50 usec
TE 297.2 K
D1 2.00000000 sec
D11 0.03000000 sec

=====
CHANNEL f1 =====
NUC1 31P
P1 20.93 usec
PLW1 13.00199986 W
SFO1 161.9674942 MHz

=====
CHANNEL f2 =====
CPDPRG[2] waltz16
NUC2 1H
PCPD2 90.00 usec
PLW2 20.00000000 W
PLW12 0.75099999 W
PLW13 0.60830998 W
SFO2 400.1316005 MHz

F2 - Processing parameters
SI 32768
SF 161.9755930 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

120 100 80 60 40 20 0 -20 -40 -60 -80 -100 -120 ppm

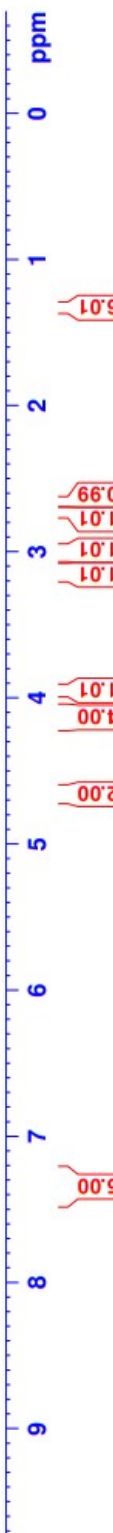
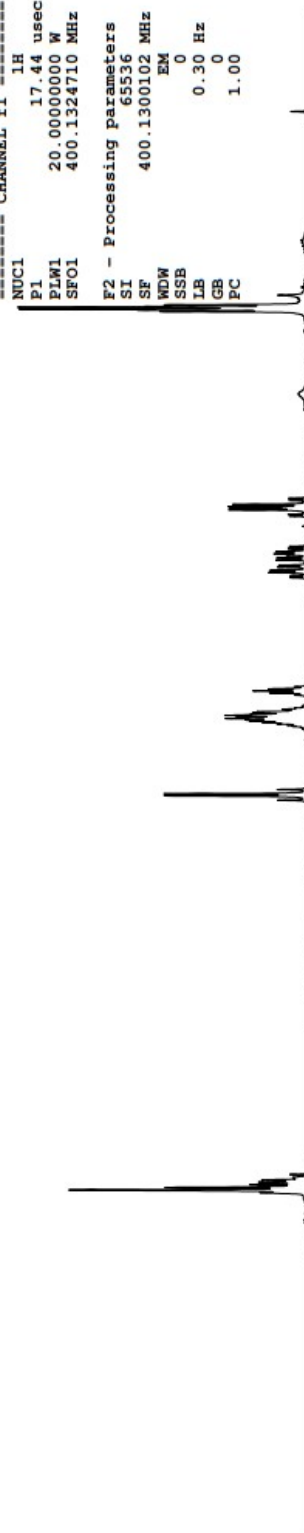
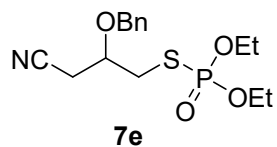


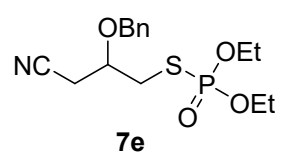
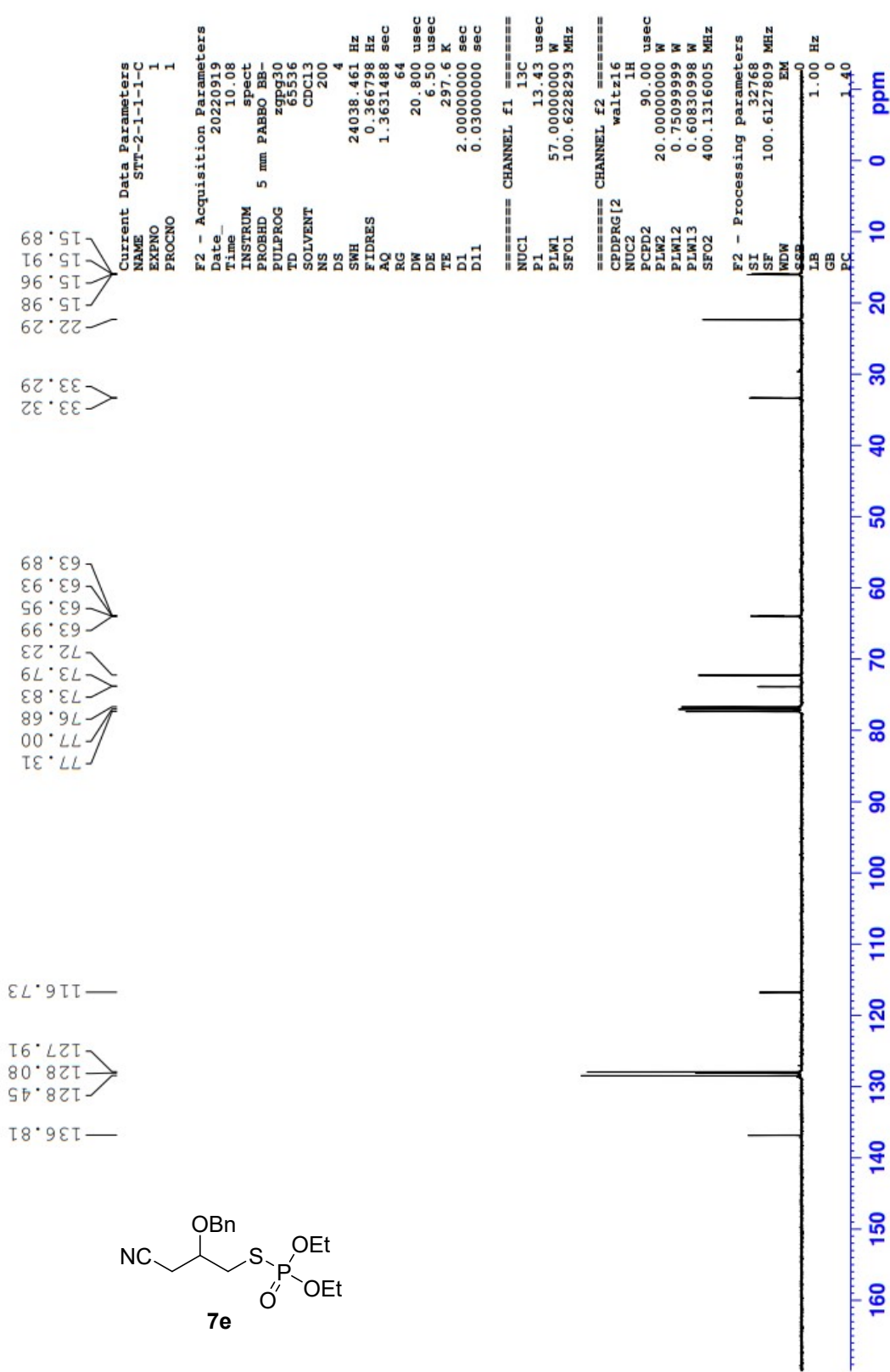
Current Data Parameters
NAME STY-2-1-1-H
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20220919
Time 9.52
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT CDC13
NS 16
DS 2
SWH 8223.685 Hz
FIDRES 0.125483 Hz
AQ 3.9845889 sec
RG 57
DE 60.800 usec
TE 296.5 K
D1 1.0000000 sec

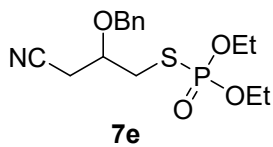
===== CHANNEL f1 =====
NUC1 LH
P1 17.44 usec
PLW1 20.0000000 W
SFO1 400.1324710 MHz

F2 - Processing parameters
SI 65536
SF 400.1300102 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00





— 26.49



Current Data Parameters
NAME STT-2-1-1-P
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20220919
Time 9.54
INSTRUM spect
PROBHD 5 mm PABBO BE-
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 16
DS 4
SWH 64102.563 Hz
FIDRES 0.978127 Hz
AQ 0.5111808 sec
RG 203
DW 7.800 usec
DE 6.50 usec
TE 297.0 K
D1 2.0000000 sec
D11 0.0300000 sec

==== CHANNEL f1 =====
NUC1 31P
F1 20.93 usec
PLW1 13.00199986 W
SFO1 161.9674942 MHz

==== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PLW2 20.0000000 W
PLM12 0.75099999 W
PLM13 0.60830998 W
SFO2 400.1316005 MHz

F2 - Processing parameters
SI 32768
SF 161.9755930 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

