Supporting Information

Synthesis and biological activity of *C*-glycosides of KRN 7000 with novel ceramide residues

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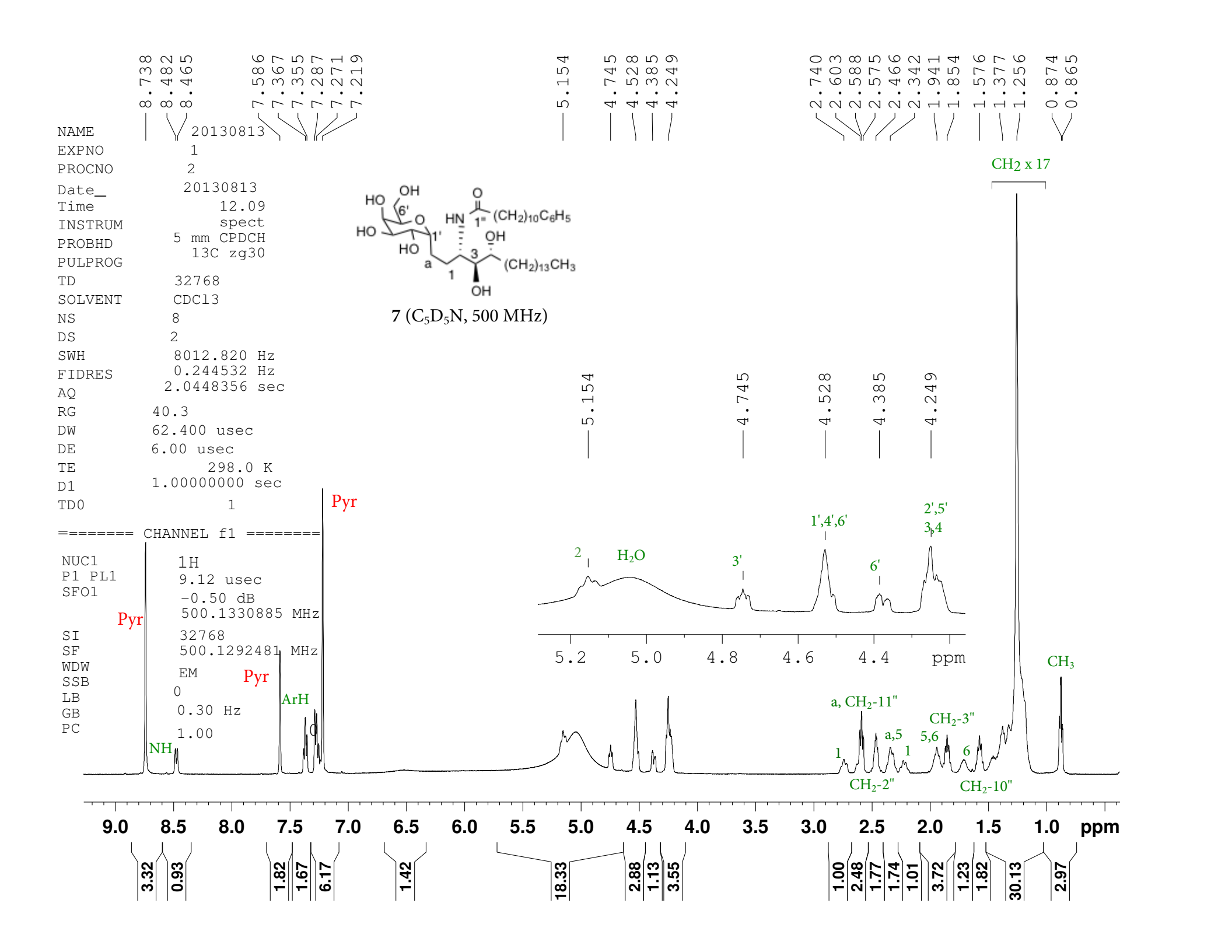
NMR charts for compounds **7, 8**. **9** and **10**. Data for **9** and **10** reproduced from reference 30.
PDF of cytokine assays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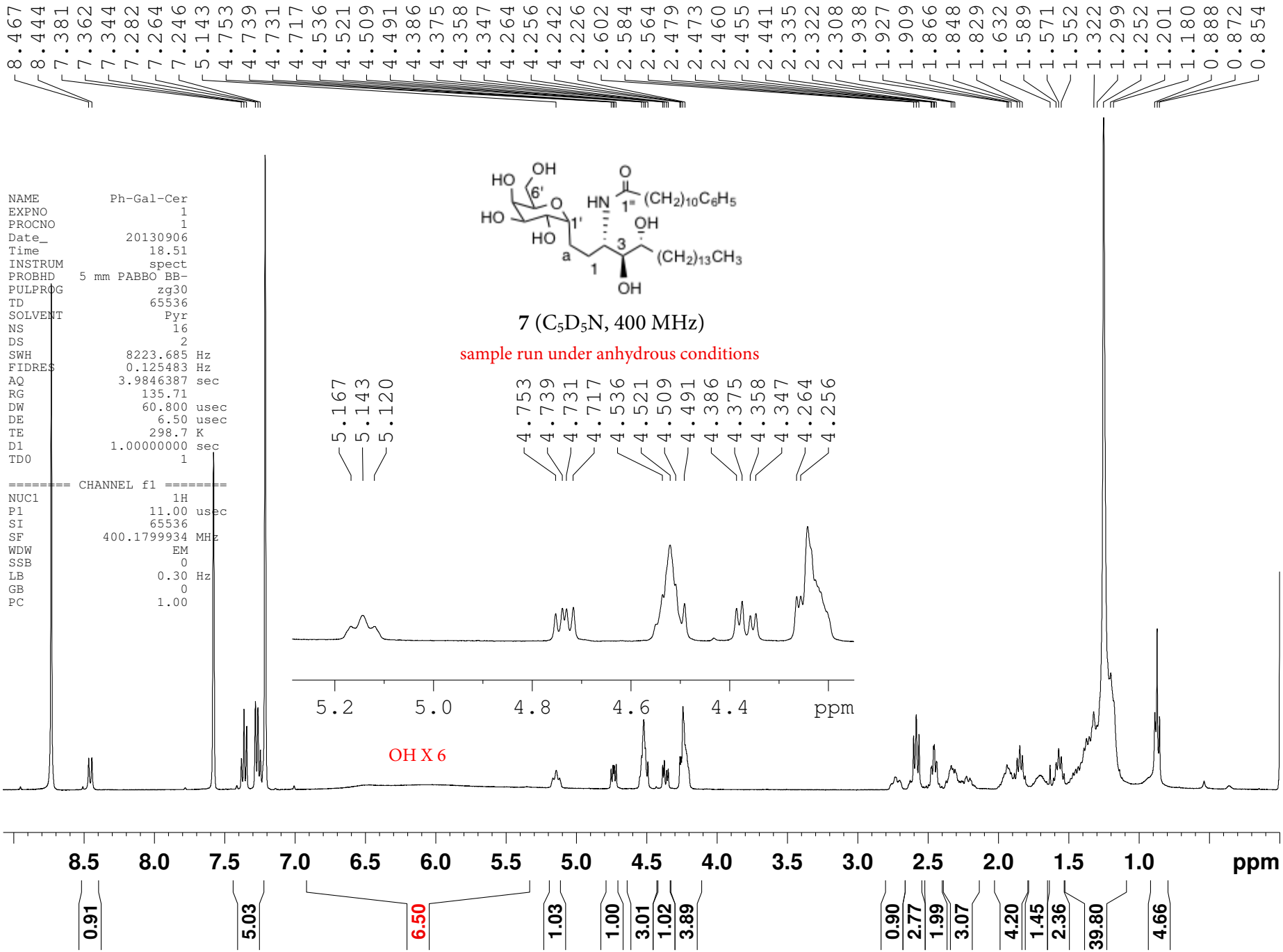
8.482
8.465
7.586
7.367
7.355
7.287
7.271
7.219
5.154
4.745
4.528
4.385
4.249
2.740
2.603
2.588
2.575
2.466
2.342
1.941
1.854
1.576
1.377
1.256
0.874
0.865
NAME 20130813
EXPNO 1
PROCNO 2
Date_ 20130813
Time 12.09
INSTRUM spect
PROBHD 5 mm CPDCH
PULPROG 13C zg30
TD 32768
SOLVENT CDCl3
NS 8
DS 2
SWH 8012.820 Hz
FIDRES 0.244532 Hz
AQ 2.0448356 sec
RG 40.3
DW 62.400 usec
DE 6.00 usec
TE 298.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
NUC1 1H
P1 PL1 9.12 usec
SFO1 -0.50 dB
500.1330885 MHz
SI 32768
SF 500.1292481 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB
PC 1.00
HO
OH
6'
O
HO
1'
HO
HN
O
1''
(CH2)10C6H5
OH
3
a
1
(CH2)13CH3
OH
7 (C5D5N, 500 MHz)
CH2 x 17
Pyr
Pyr
Pyr
NH
ArH
CH3
a, CH2-11"
a,5
1
5,6
CH2-3"
6
1
CH2-2"
CH2-10"
5.154
4.745
4.528
4.385
4.249
2
H2O
3'
1',4',6'
6'
2',5'
3,4
5.2
5.0
4.8
4.6
4.4
ppm
9.0
8.5
8.0
7.5
7.0
6.5
6.0
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
ppm
3.32
0.93
1.82
1.67
6.17
1.42
18.33
2.88
1.13
3.55
1.00
2.48
1.77
1.74
1.01
3.72
1.23
1.82
30.13
2.97


8.467 8.444 7.381 7.362 7.344 7.282 7.264 7.246 5.143 4.753 4.739 4.731 4.717 4.536 4.521 4.509 4.491 4.386 4.375 4.358 4.347 4.264 4.256 4.242 4.226 2.602 2.584 2.564 2.479 2.473 2.460 2.455 2.441 2.335 2.322 2.308 1.938 1.927 1.909 1.866 1.848 1.829 1.632 1.589 1.571 1.552 1.322 1.299 1.252 1.201 1.180 0.888 0.872 0.854
NAME Ph-Gal-Cer
EXPNO 1
PROCNO 1
Date_ 20130906
Time 18.51
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT Pyr
NS 16
DS 2
SWH 8223.685 Hz
FIDRES 0.125483 Hz
AQ 3.9846387 sec
RG 135.71
DW 60.800 usec
DE 6.50 usec
TE 298.7 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
NUC1 1H
P1 11.00 usec
SI 65536
SF 400.1799934 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
HO
OH
6'
O
HO
HO
1'
HN
O
1
(CH2)10C6H5
OH
3
a
1
(CH2)13CH3
OH
7 (C5D5N, 400 MHz)
sample run under anhydrous conditions
5.167 5.143 5.120
4.753 4.739 4.731 4.717 4.536 4.521 4.509 4.491 4.386 4.375 4.358 4.347 4.264 4.256
5.2 5.0 4.8 4.6 4.4 ppm
OH X 6
8.5 8.0 7.5 7.0 6.5 6.0 5.5 5.0 4.5 4.0 3.5 3.0 2.5 2.0 1.5 1.0 ppm
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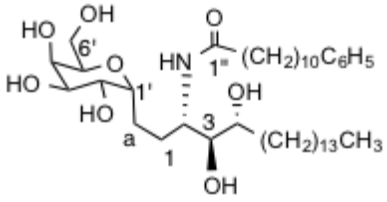
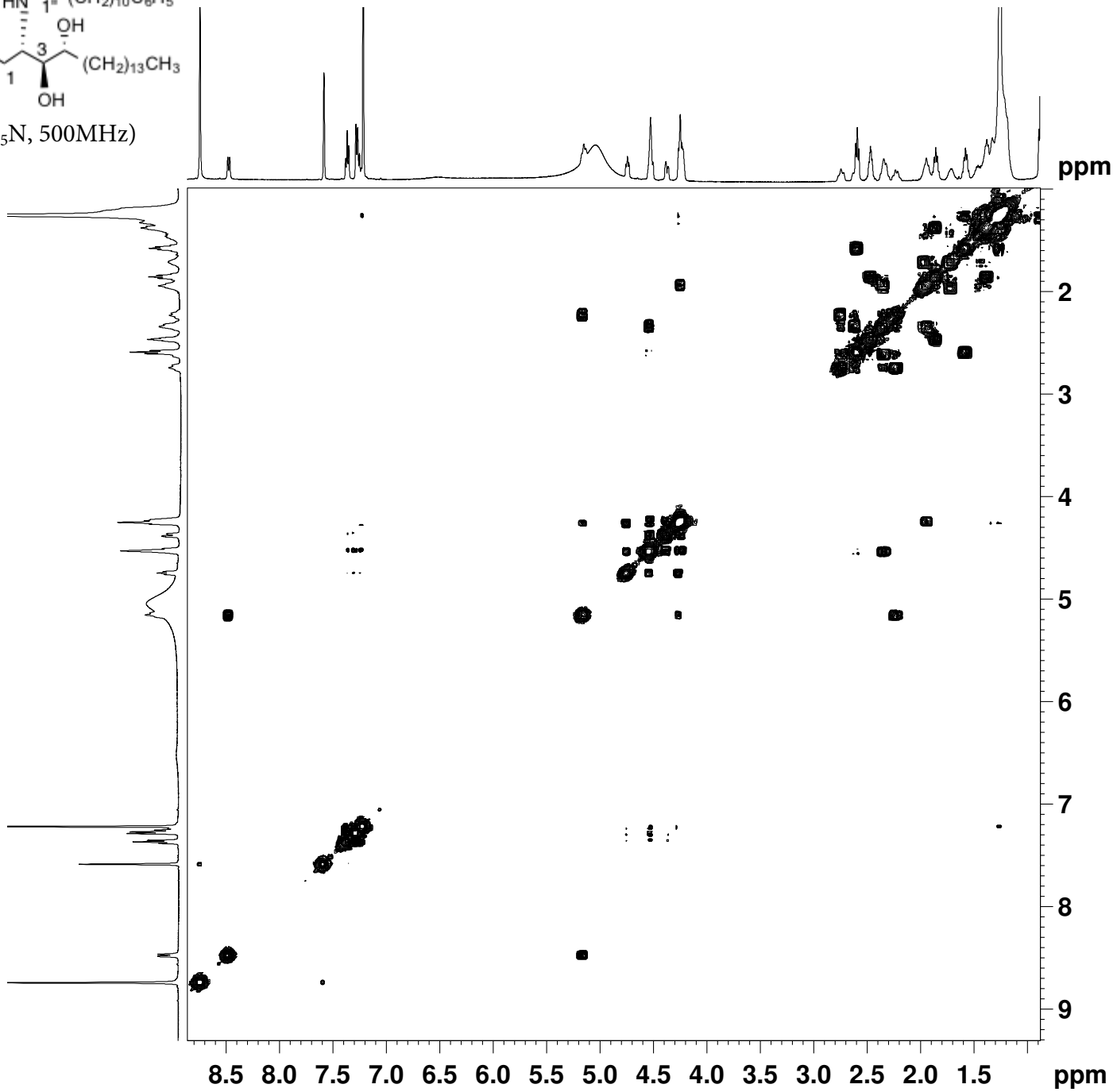
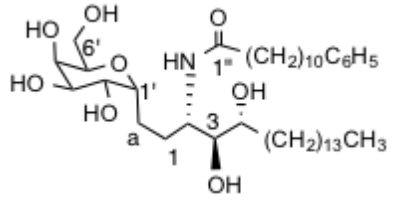


7 (C_5D_5N, 500MHz)

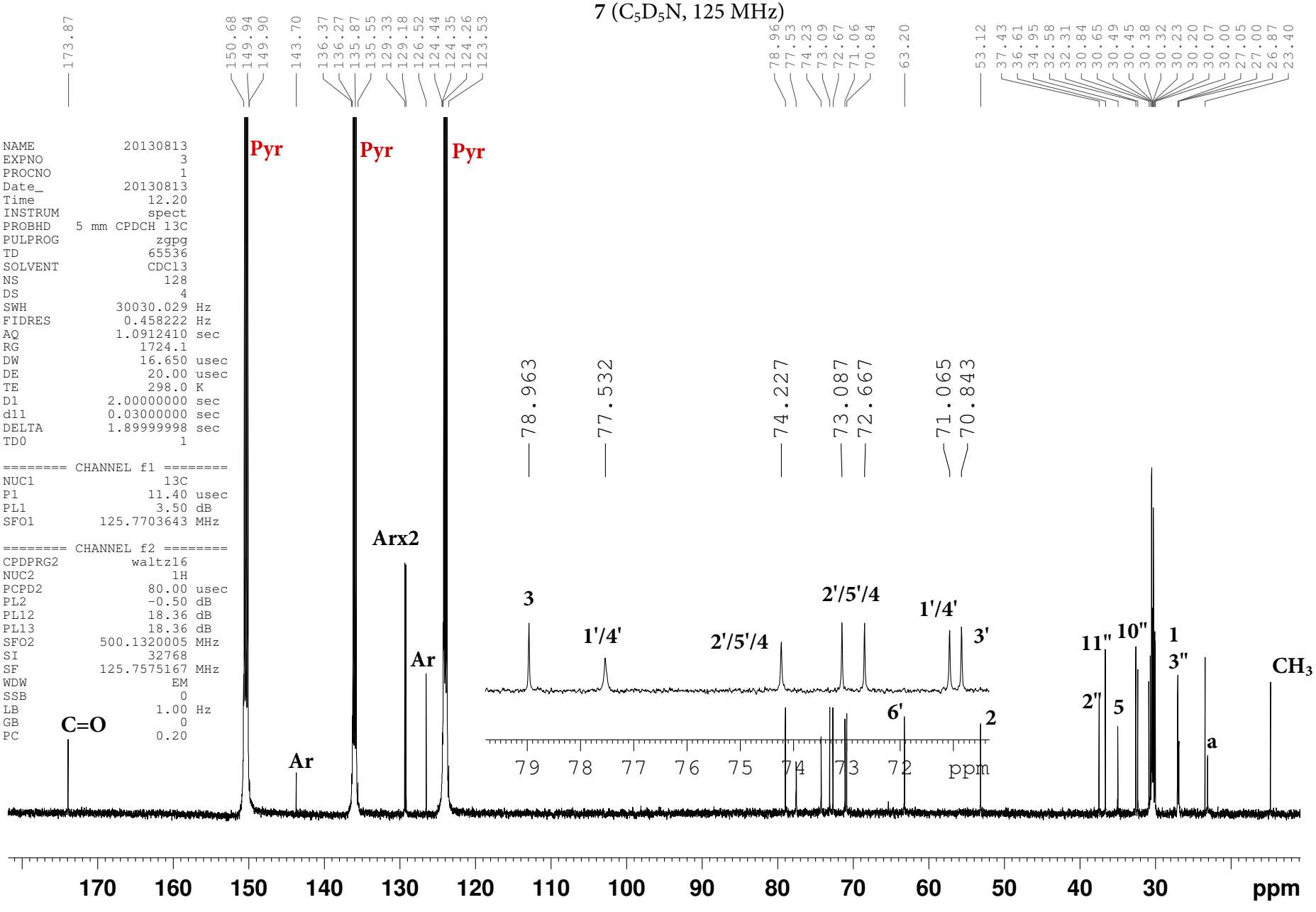


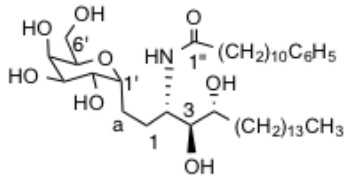
BRUKER

NAME	20130813	
EXPNO	2	
PROCNO	1	
Date_	20130813	
Time	12.09	
INSTRUM	spect	
PROBHD	5 mm CPDCH 13C	
PULPROG	cosygpqf	
TD	2048	
SOLVENT	CDCl3	
NS	1	
DS	8	
SWH	6666.667	Hz
FIDRES	3.255208	Hz
AQ	0.1537250	sec
RG	22.6	
DW	75.000	usec
DE	6.00	usec
TE	298.0	K
d0	0.00000300	sec
D1	1.48689198	sec
d13	0.00000400	sec
D16	0.00020000	sec
IN0	0.00015000	sec
======== CHANNEL f1 ========		
NUC1	1H	
P0	9.12	usec
P1	9.12	usec
PL1	-0.50	dB
SFO1	500.1330069	MHz
====== GRADIENT CHANNEL =====		
GPNAM1	SINE.100	
GPZ1	10.00	%
P16	1000.00	usec
ND0	1	
TD	128	
SFO1	500.133	MHz
FIDRES	52.083332	Hz
SW	13.330	ppm
FnMODE	QF	
SI	1024	
SF	500.1292440	MHz
WDW	SINE	
SSB	0	
LB	0.00	Hz
GB	0	
PC	1.40	
SI	1024	
MC2	QF	
SF	500.1292441	MHz
WDW	SINE	
SSB	0	
LB	0.00	Hz
GB	0	

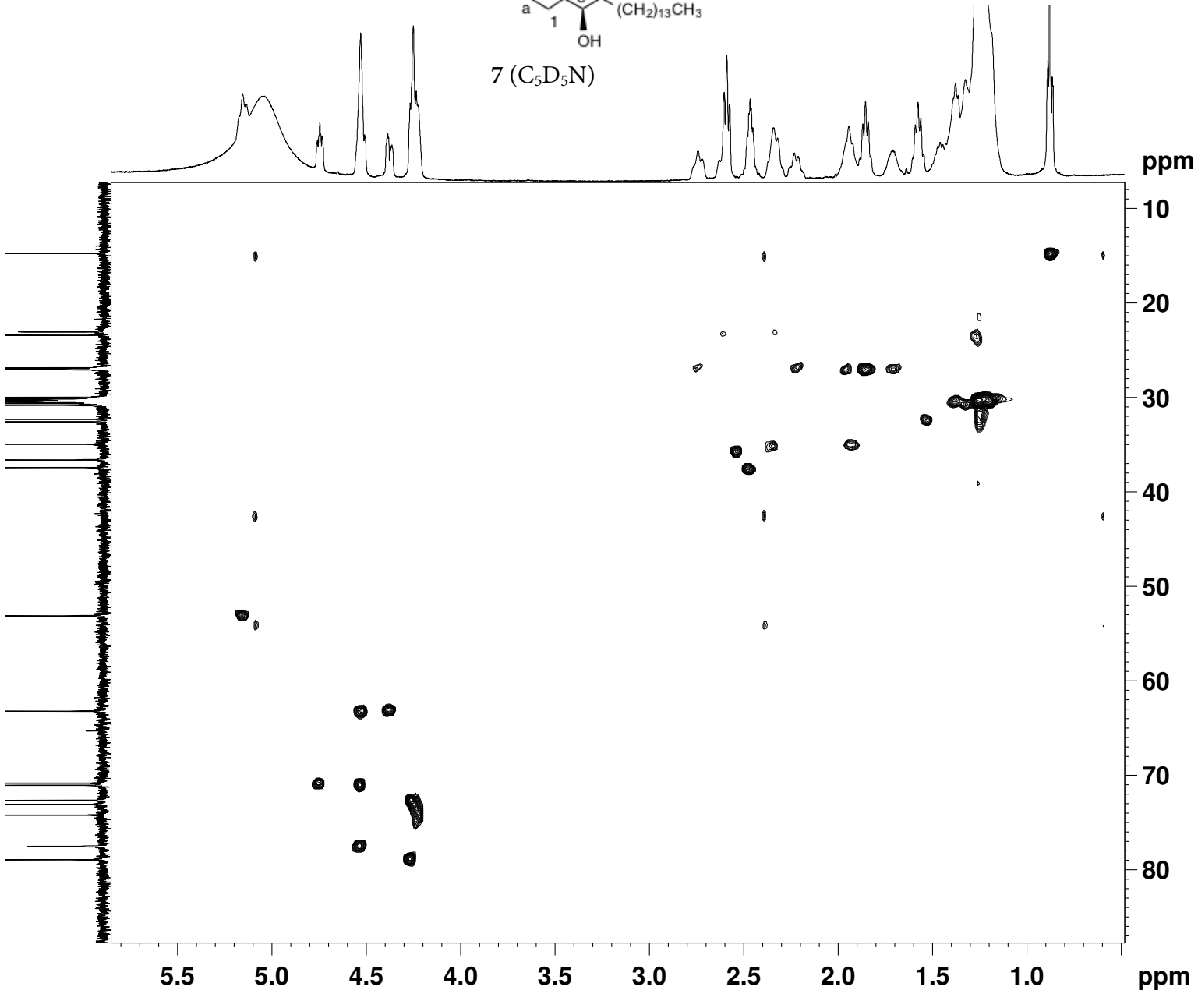


7 (C_5D_5N, 125 MHz)



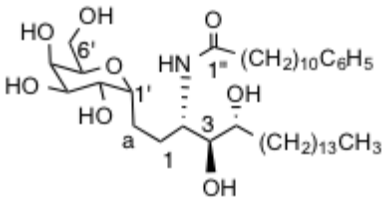


7 (C_5D_5N)

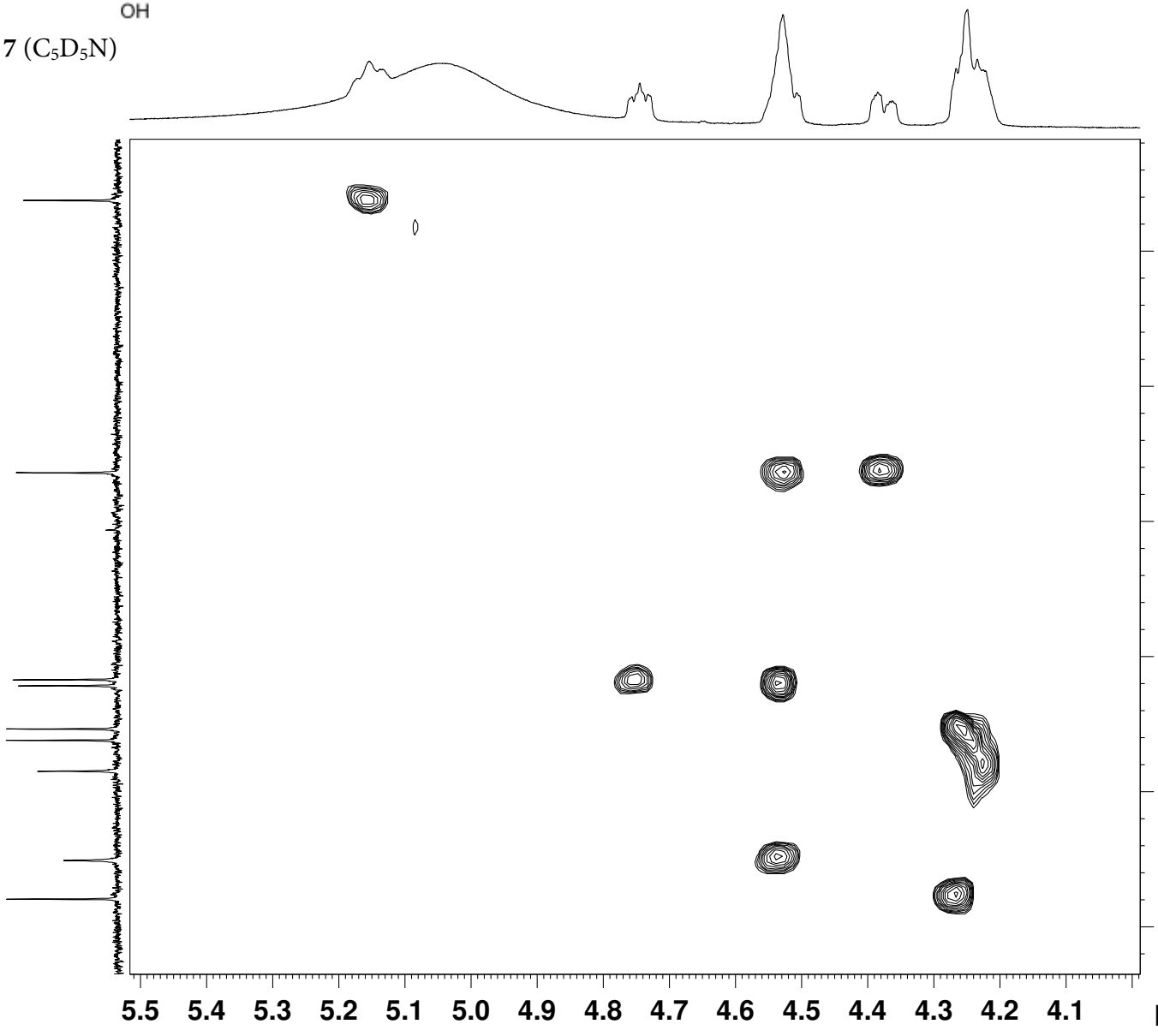


BRUKER

```
NAME              20130812
EXPNO                    4
PROCNO                   1
Date_             20130812
Time                 15.40
INSTRUM              spect
PROBHD    5 mm CPDCH 13C
PULPROG          hsqcetgp
TD                    1024
SOLVENT                Pyr
NS                      10
DS                      16
SWH               6666.667 Hz
FIDRES            6.510417 Hz
AQ               0.0769250 sec
RG                   29193
DW                 75.000 usec
DE                  6.00 usec
TE                  298.0 K
CNST2         145.0000000
d0             0.00000300 sec
D1             1.20000005 sec
d4             0.00172414 sec
d11            0.03000000 sec
d13            0.00000400 sec
D16            0.00020000 sec
DELTA          0.00122424 sec
DELTA1         0.00071614 sec
IN0            0.00001990 sec
ST1CNT                  0
ZGOPTNS

======== CHANNEL f1 ========
NUC1                   1H
P1                   9.12 usec
p2                  18.24 usec
P28               2000.00 usec
PL1                 -0.50 dB
SFO1          500.1330069 MHz

======== CHANNEL f2 ========
CPDPRG2              garp
NUC2                  13C
P3                  11.40 usec
p4                  22.80 usec
PCPD2               70.00 usec
PL2                  3.50 dB
PL12                19.26 dB
SFO2          125.7678496 MHz

====== GRADIENT CHANNEL =====
GPNAM1           SINE.100
GPNAM2           SINE.100
GPZ1                80.00 %
GPZ2                20.10 %
P16               1000.00 usec
ND0                     2
TD                    128
SFO1            125.7678 MHz
FIDRES        196.293976 Hz
SW               199.778 ppm
FnMODE     Echo-Antiecho
SI                   1024
SF            500.1299792 MHz
WDW                 QSINE
SSB                     2
LB                   0.00 Hz
GB                      0
PC                   1.40
SI                   1024
MC2        echo-antiecho
SF           125.7576890 MHz
WDW                 QSINE
SSB                     2
LB                   0.00 Hz
GB                      0
```

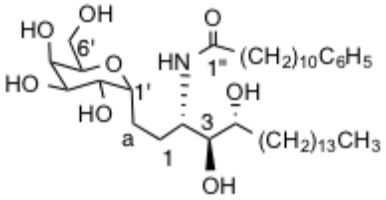


7 (C_5D_5N)

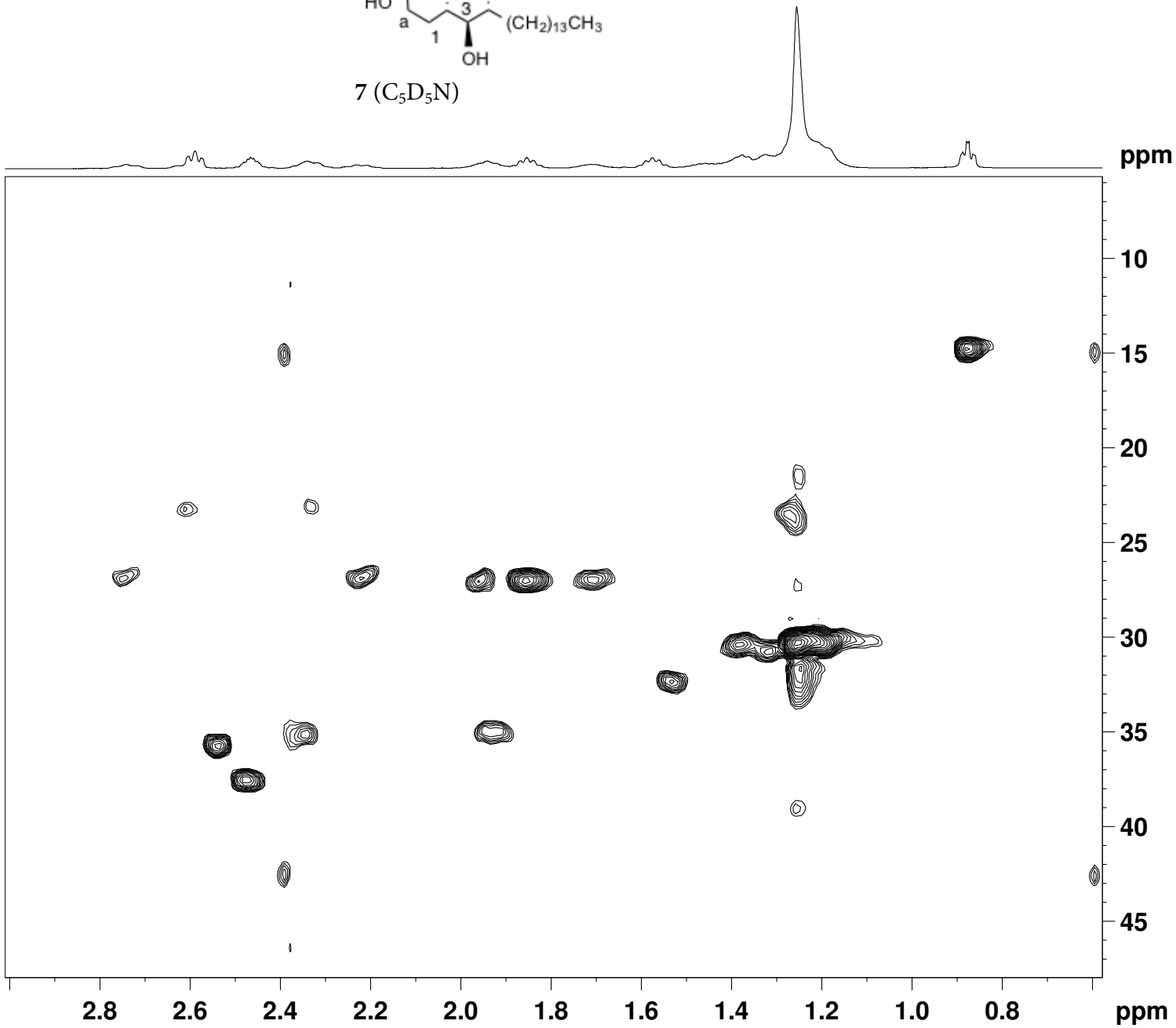


BRUKER

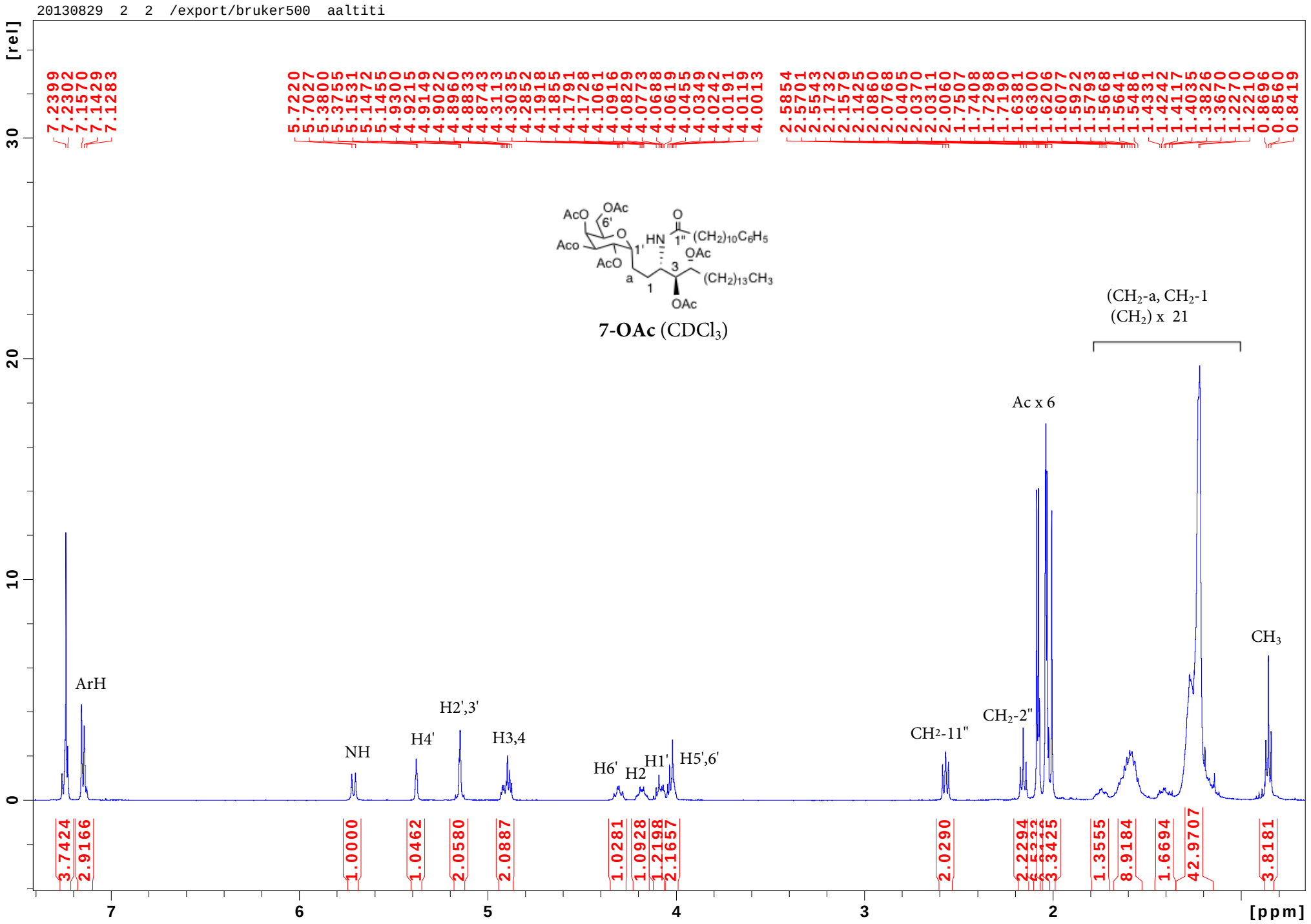
```
NAME                20130812
EXPNO                      4
PROCNO                     1
Date_               20130812
Time                   15.40
INSTRUM                spect
PROBHD   5 mm CPDCH 13C
PULPROG          hsqcetgp
TD                      1024
SOLVENT                 Pyr
NS                       10
DS                       16
SWH                6666.667 Hz
FIDRES             6.510417 Hz
AQ                 0.0769250 sec
RG                     29193
DW                    75.000 usec
DE                     6.00 usec
TE                    298.0 K
CNST2             145.0000000
d0                 0.00000300 sec
D1                 1.20000005 sec
d4                 0.00172414 sec
d11                0.03000000 sec
d13                0.00000400 sec
D16                0.00020000 sec
DELTA              0.00122424 sec
DELTA1             0.00071614 sec
IN0                0.00001990 sec
ST1CNT                      0
ZGOPTNS

======== CHANNEL f1 ========
NUC1                       1H
P1                       9.12 usec
p2                      18.24 usec
P28                   2000.00 usec
PL1                     -0.50 dB
SFO1               500.1330069 MHz

======== CHANNEL f2 ========
CPDPRG2                  garp
NUC2                      13C
P3                      11.40 usec
p4                      22.80 usec
PCPD2                   70.00 usec
PL2                      3.50 dB
PL12                    19.26 dB
SFO2               125.7678496 MHz

====== GRADIENT CHANNEL =====
GPNAM1                SINE.100
GPNAM2                SINE.100
GPZ1                    80.00 %
GPZ2                    20.10 %
P16                   1000.00 usec
ND0                         2
TD                        128
SFO1                125.7678 MHz
FIDRES             196.293976 Hz
SW                    199.778 ppm
FnMODE          Echo-Antiecho
SI                       1024
SF                 500.1299792 MHz
WDW                      QSINE
SSB                         2
LB                       0.00 Hz
GB                          0
PC                       1.40
SI                       1024
MC2             echo-antiecho
SF                 125.7576890 MHz
WDW                      QSINE
SSB                         2
LB                       0.00 Hz
GB                          0
```



7 (C_5D_5N)




```
NAME            20130812
EXPNO                  4
PROCNO                 1
Date_           20130812
Time                15.40
INSTRUM             spect
PROBHD    5 mm CPDCH 13C
PULPROG         hsqcetgp
TD                  1024
SOLVENT              Pyr
NS                    10
DS                    16
SWH             6666.667 Hz
FIDRES          6.510417 Hz
AQ             0.0769250 sec
RG                 29193
DW                75.000 usec
DE                 6.00 usec
TE                298.0 K
CNST2        145.0000000
d0             0.00000300 sec
D1             1.20000005 sec
d4             0.00172414 sec
d11            0.03000000 sec
d13            0.00000400 sec
D16            0.00020000 sec
DELTA          0.00122424 sec
DELTA1         0.00071614 sec
IN0            0.00001990 sec
ST1CNT                  0
ZGOPTNS

======== CHANNEL f1 ========
NUC1                   1H
P1                   9.12 usec
p2                  18.24 usec
P28               2000.00 usec
PL1                 -0.50 dB
SFO1          500.1330069 MHz

======== CHANNEL f2 ========
CPDPRG2              garp
NUC2                  13C
P3                  11.40 usec
p4                  22.80 usec
PCPD2               70.00 usec
PL2                  3.50 dB
PL12                19.26 dB
SFO2          125.7678496 MHz

====== GRADIENT CHANNEL =====
GPNAM1           SINE.100
GPNAM2           SINE.100
GPZ1                80.00 %
GPZ2                20.10 %
P16               1000.00 usec
ND0                    2
TD                   128
SFO1            125.7678 MHz
FIDRES        196.293976 Hz
SW               199.778 ppm
FnMODE     Echo-Antiecho
SI                  1024
SF            500.1299792 MHz
WDW                 QSINE
SSB                    2
LB                  0.00 Hz
GB                     0
PC                  1.40
SI                  1024
MC2         echo-antiecho
SF            125.7576890 MHz
WDW                 QSINE
SSB                    2
LB                  0.00 Hz
GB                     0
```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7.1429
7.1283
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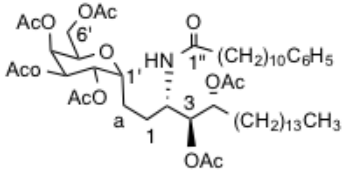
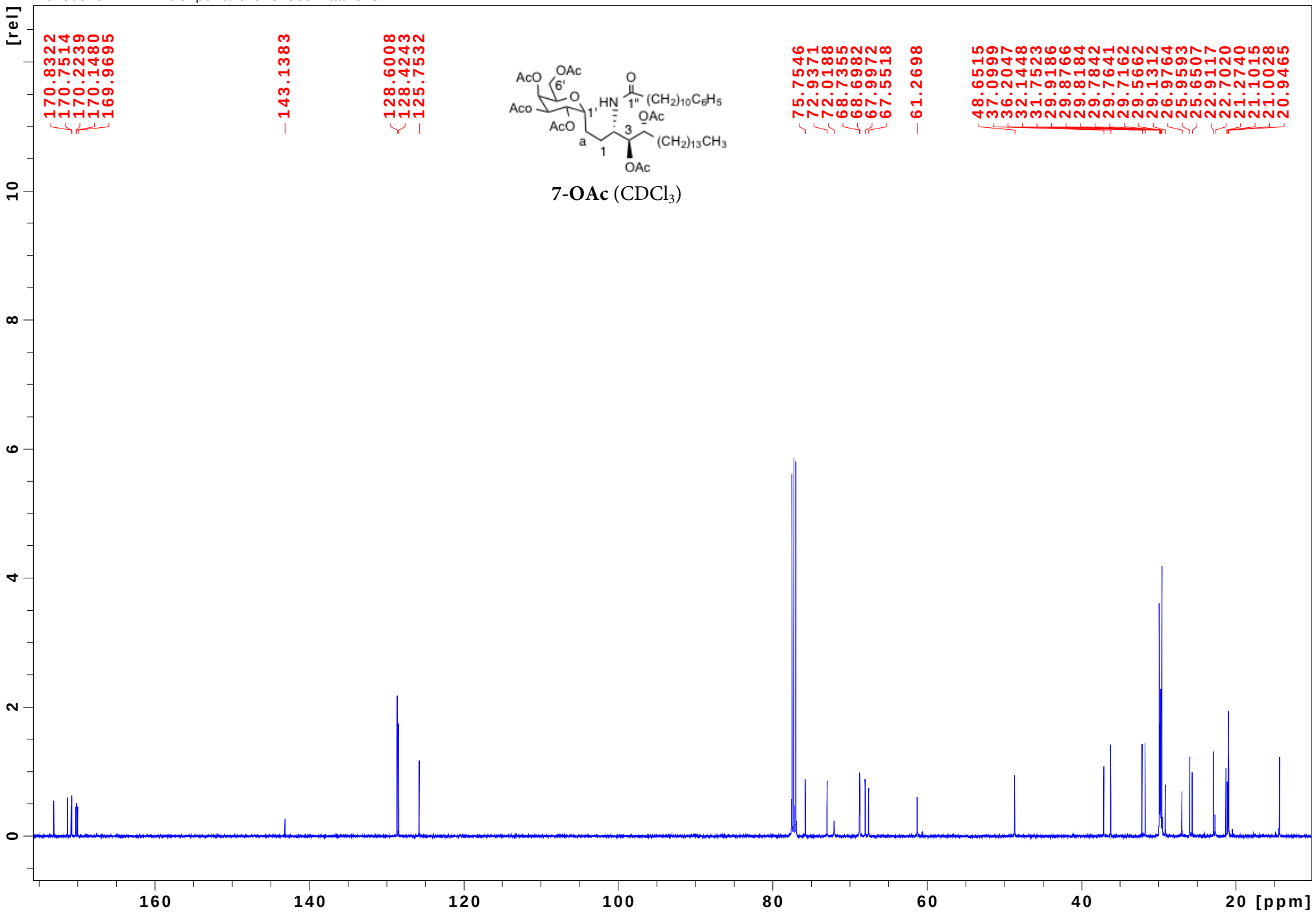
5.7027
5.3800
5.3755
5.1531
5.1472
5.1455
4.9300
4.9215
4.9149
4.9022
4.8960
4.8833
4.8743
4.3113
4.3035
4.2852
4.1918
4.1855
4.1791
4.1728
4.1061
4.0916
4.0829
4.0773
4.0688
4.0619
4.0455
4.0349
4.0242
4.0191
4.0119
4.0013
2.5854
2.5701
2.5543
2.1732
2.1579
2.1425
2.0860
2.0768
2.0405
2.0370
2.0311
2.0060
1.7507
1.7408
1.7298
1.7190
1.6381
1.6300
1.6206
1.6077
1.5922
1.5793
1.5668
1.5641
1.5486
1.4331
1.4242
1.4117
1.4035
1.3826
1.3670
1.2270
1.2210
0.8696
0.8560
0.8419
AcO
OAc
6'
O
Aco
AcO
1'
HN
1"
(CH2)10C6H5
OAc
3
a
1
(CH2)13CH3
OAc
7-OAc (CDCl3)
(CH2-a, CH2-1
(CH2) x 21
Ac x 6
CH3
ArH
NH
H4'
H2',3'
H3,4
H6'
H2
H1'
H5',6'
CH2-11"
CH2-2"
3.7424
2.9166
1.0000
1.0462
2.0580
2.0887
1.0281
1.0928
1.2198
2.1657
2.0290
2.2294
6.5222
3.3425
1.3555
8.9184
1.6694
42.9707
3.8181

20130829 3 1 /export/bruker500 aaltiti



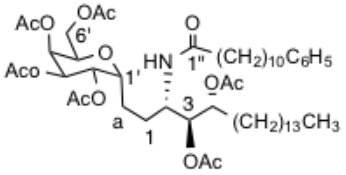
7-OAc ($CDCl_3$)

20130829 4 1 /export/bruker500 aaltiti

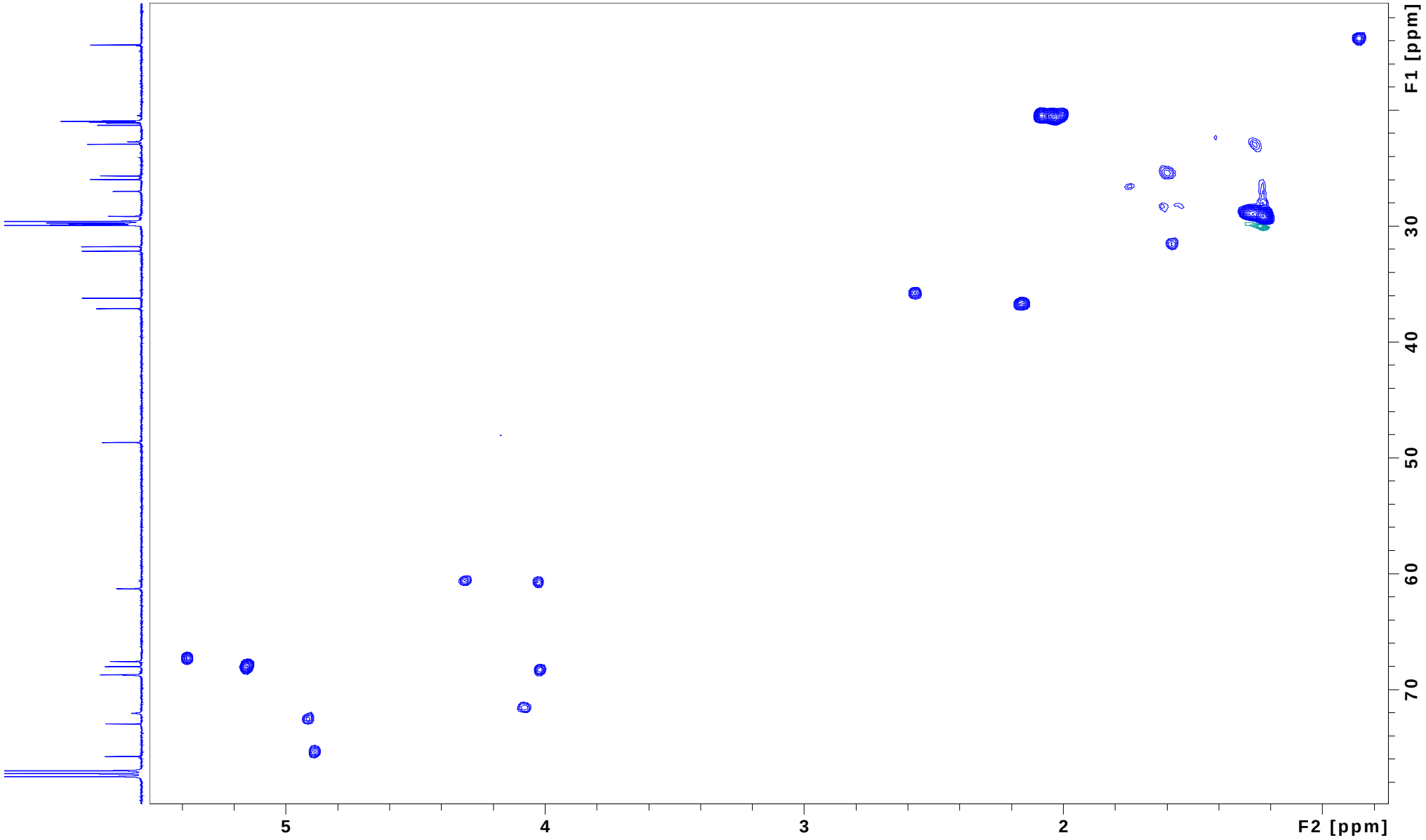


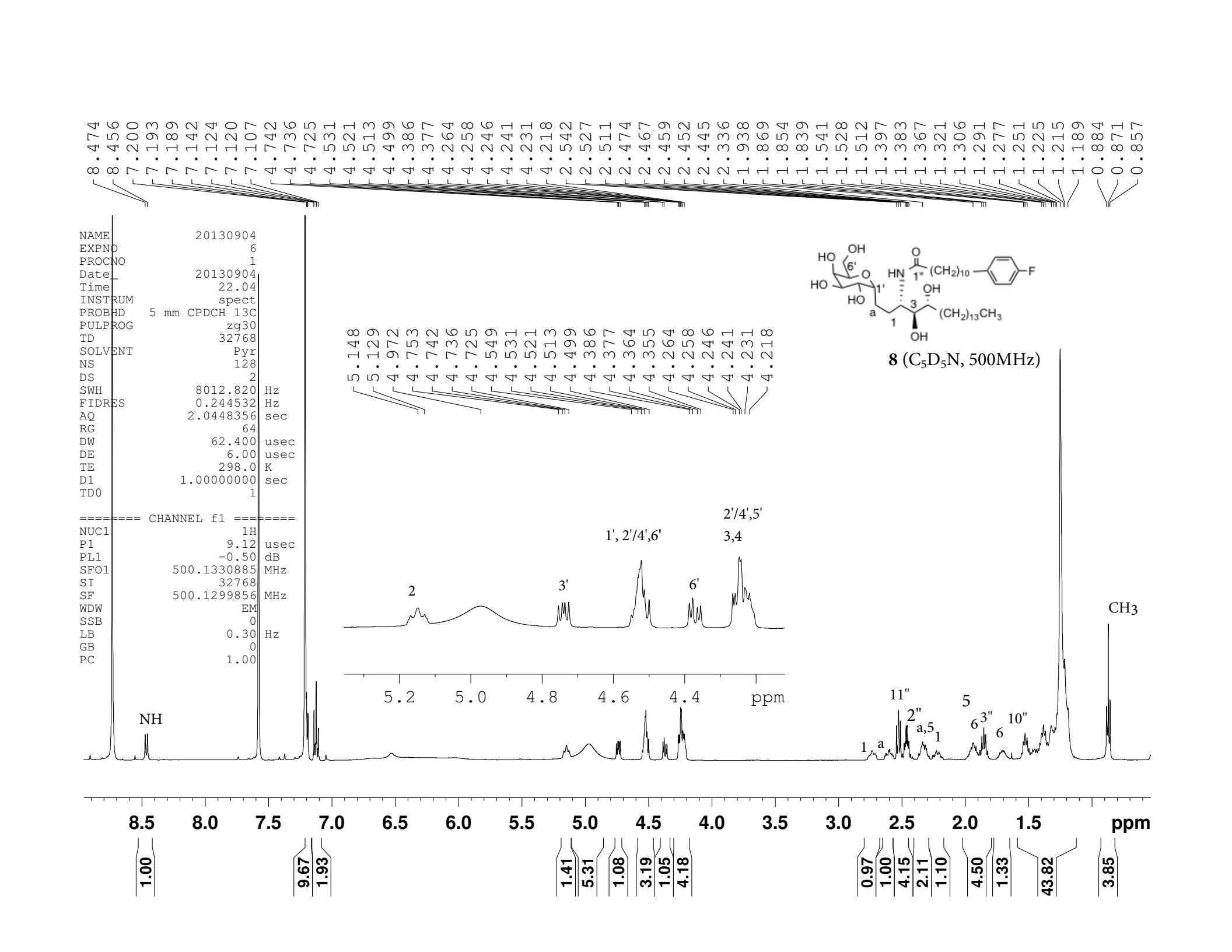
7-OAc ($CDCl_3$)

20130829 5 1 /export/bruker500 aaltiti



7-OAc ($CDCl_3$)




8.474 8.456 7.200 7.193 7.189 7.142 7.124 7.120 7.107 4.742 4.736 4.725 4.531 4.521 4.513 4.499 4.386 4.377 4.264 4.258 4.246 4.241 4.231 4.218 2.542 2.527 2.511 2.474 2.467 2.459 2.452 2.445 2.336 1.938 1.869 1.854 1.839 1.541 1.528 1.512 1.397 1.383 1.367 1.321 1.306 1.291 1.277 1.251 1.225 1.215 1.189 0.884 0.871 0.857
NAME 20130904
EXPNO 6
PROCNO 1
Date_ 20130904
Time 22.04
INSTRUM spect
PROBHD 5 mm CPDCH 13C
PULPROG zg30
TD 32768
SOLVENT Pyr
NS 128
DS 2
SWH 8012.820 Hz
FIDRES 0.244532 Hz
AQ 2.0448356 sec
RG 64
DW 62.400 usec
DE 6.00 usec
TE 298.0 K
D1 1.00000000 sec
TD0 1
======== CHANNEL f1 ========
NUC1 1H
P1 9.12 usec
PL1 -0.50 dB
SFO1 500.1330885 MHz
SI 32768
SF 500.1299856 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
5.148 5.129 4.972 4.753 4.742 4.736 4.725 4.549 4.531 4.521 4.513 4.499 4.386 4.377 4.364 4.355 4.264 4.258 4.246 4.241 4.231 4.218
8 (C5D5N, 500MHz)
NH
2
3'
1', 2'/4',6'
6'
2'/4',5'
3,4
5.2 5.0 4.8 4.6 4.4 ppm
CH3
11"
2"
a,5
1
5
6
3"
6
10"
1
a
8.5 8.0 7.5 7.0 6.5 6.0 5.5 5.0 4.5 4.0 3.5 3.0 2.5 2.0 1.5 ppm
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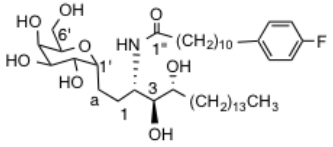
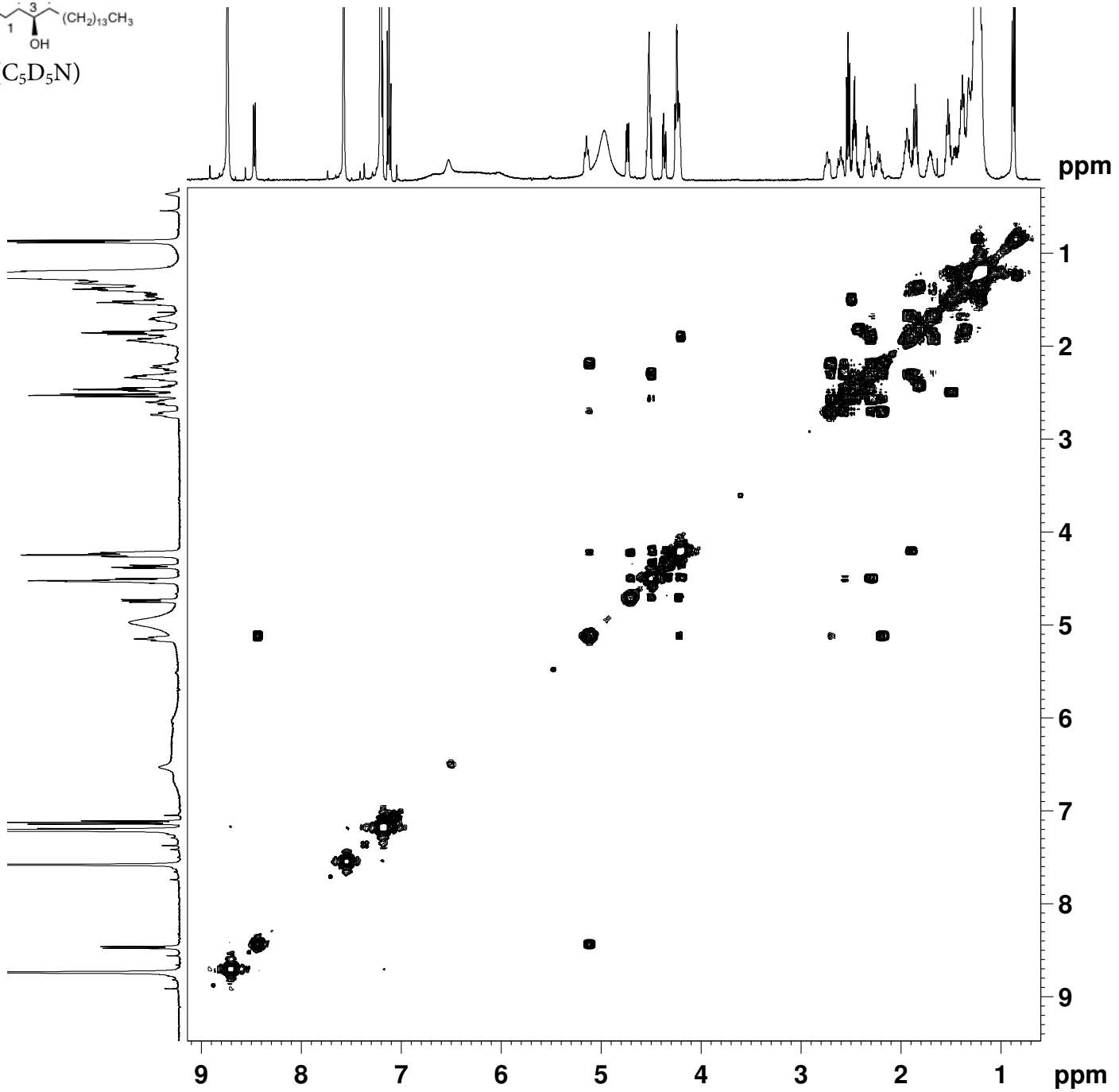
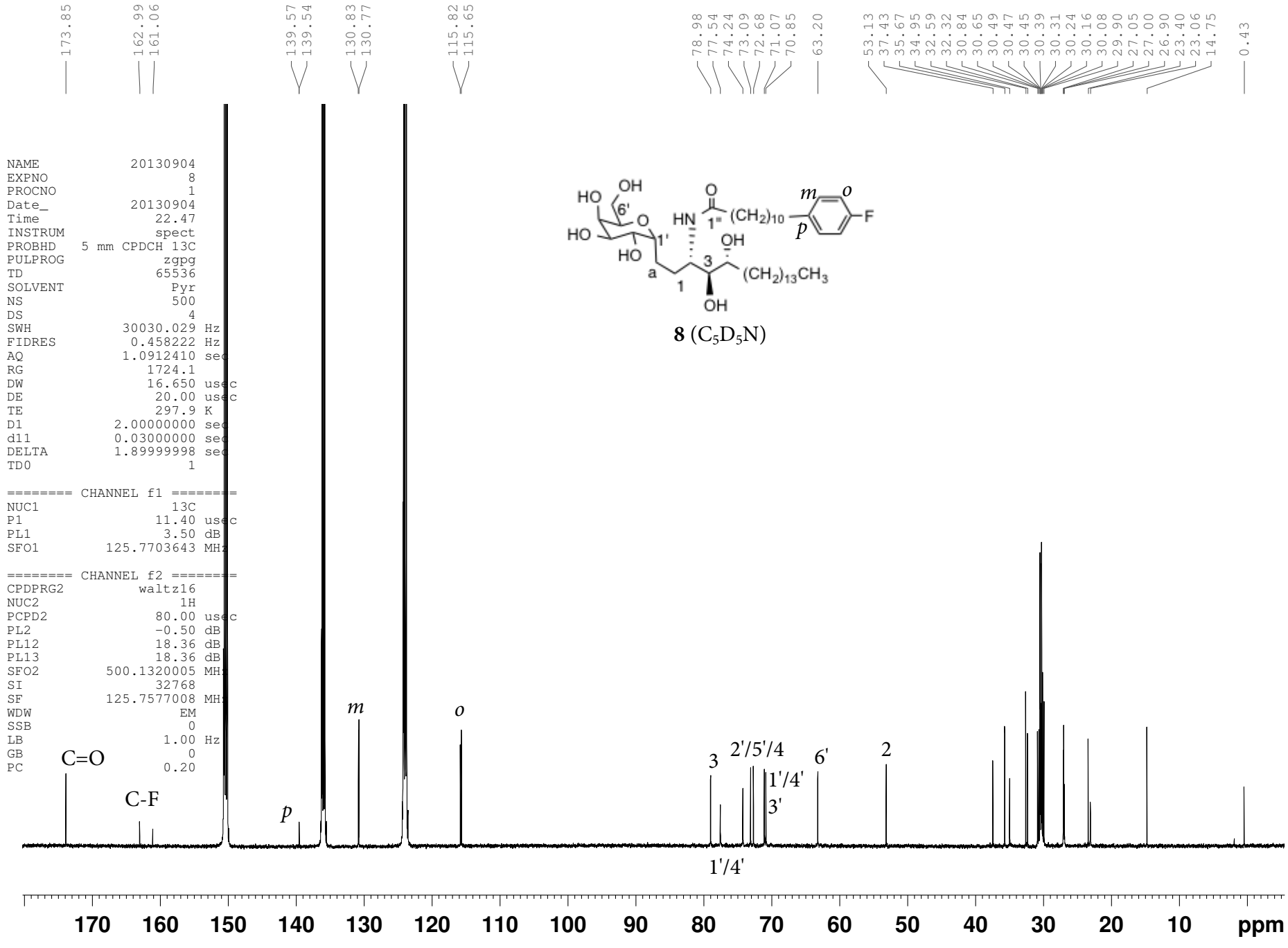


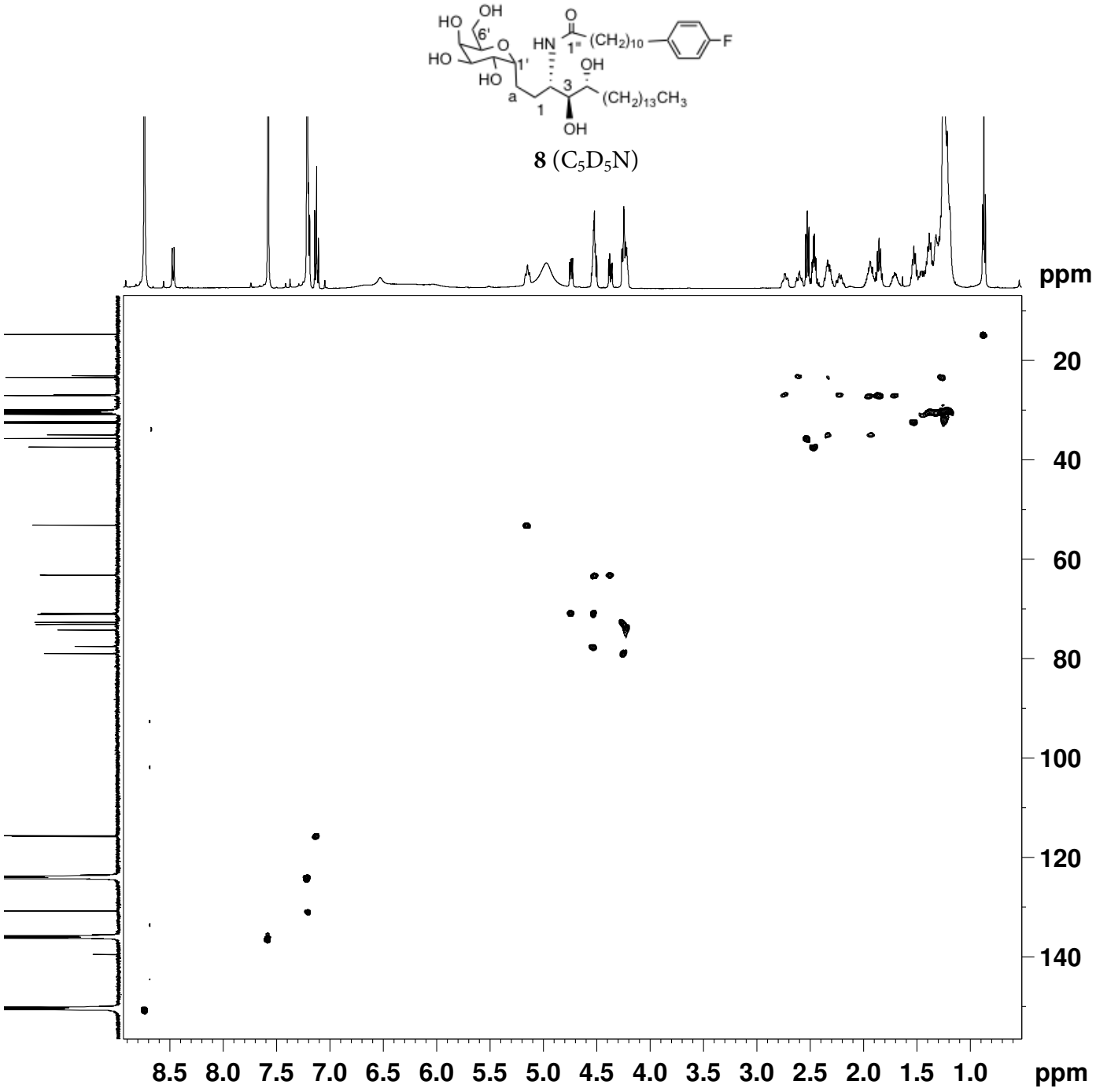
8 (C_5D_5N)



BRUKER

NAME	20130904
EXPNO	7
PROCNO	1
Date_	20130904
Time	22.04
INSTRUM	spect
PROBHD	5 mm CPDCH 13C
PULPROG	cosygpqf
TD	2048
SOLVENT	Pyr
NS	5
DS	8
SWH	6666.667 Hz
FIDRES	3.255208 Hz
AQ	0.1537250 sec
RG	32
DW	75.000 usec
DE	6.00 usec
TE	298.0 K
d0	0.00000300 sec
D1	1.48689198 sec
d13	0.00000400 sec
D16	0.00020000 sec
IN0	0.00015000 sec
======== CHANNEL f1 ========	
NUC1	1H
P0	9.12 usec
P1	9.12 usec
PL1	-0.50 dB
SFO1	500.1330069 MHz
====== GRADIENT CHANNEL =====	
GPNAM1	SINE.100
GPZ1	10.00 %
P16	1000.00 usec
ND0	1
TD	116
SFO1	500.133 MHz
FIDRES	57.471264 Hz
SW	13.330 ppm
FnMODE	QF
SI	1024
SF	500.1299998 MHz
WDW	SINE
SSB	0
LB	0.00 Hz
GB	0
PC	1.40
SI	1024
MC2	QF
SF	500.1300010 MHz
WDW	SINE
SSB	0
LB	0.00 Hz
GB	0

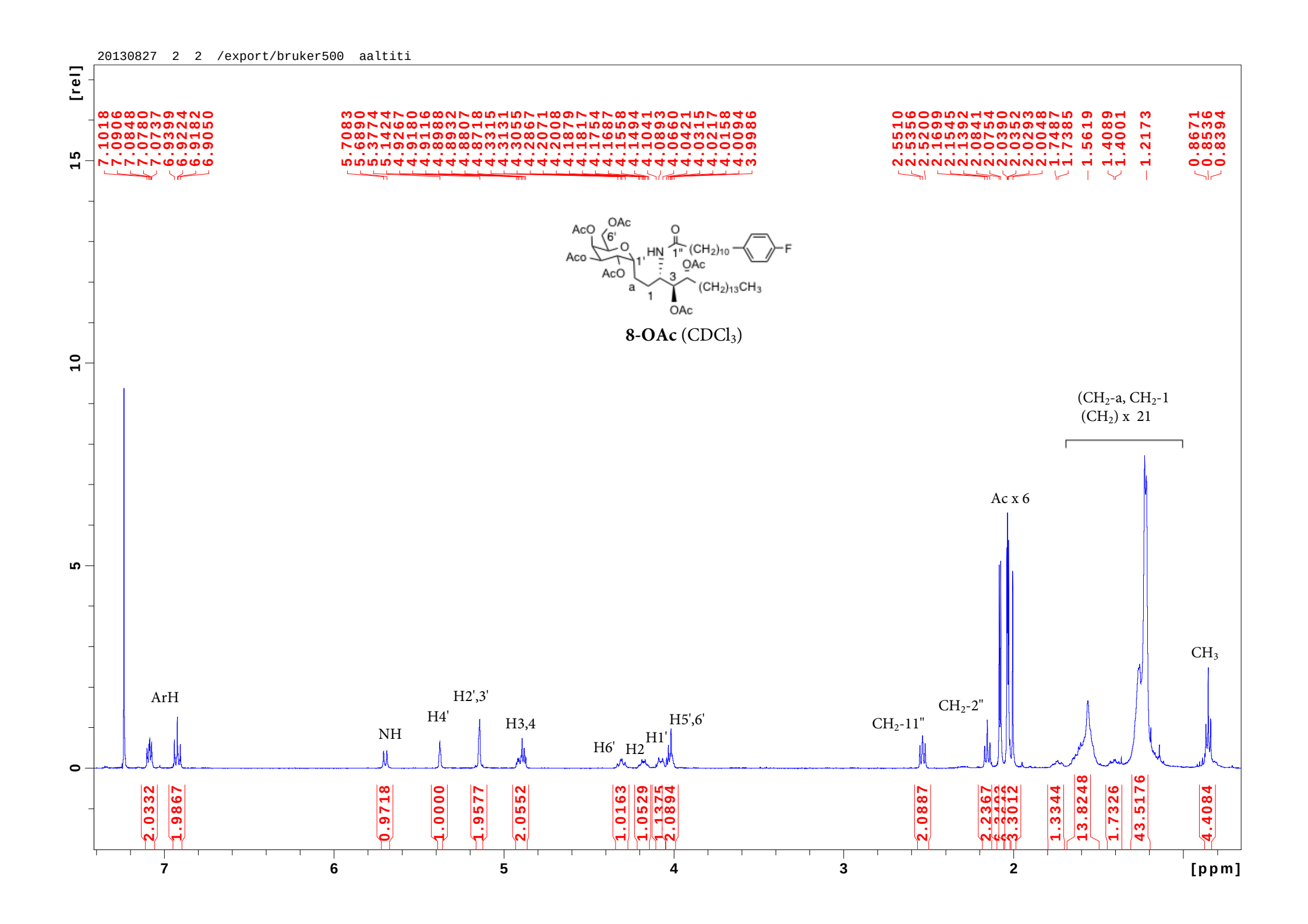

173.85
162.99
161.06
139.57
139.54
130.83
130.77
115.82
115.65
78.98
77.54
74.24
73.09
72.68
71.07
70.85
63.20
53.13
37.43
35.67
34.95
32.59
32.32
30.84
30.65
30.49
30.47
30.45
30.39
30.31
30.24
30.16
30.08
29.90
27.05
27.00
26.90
23.40
23.06
14.75
0.43
NAME 20130904
EXPNO 8
PROCNO 1
Date_ 20130904
Time 22.47
INSTRUM spect
PROBHD 5 mm CPDCH 13C
PULPROG zgpg
TD 65536
SOLVENT Pyr
NS 500
DS 4
SWH 30030.029 Hz
FIDRES 0.458222 Hz
AQ 1.0912410 sec
RG 1724.1
DW 16.650 usec
DE 20.00 usec
TE 297.9 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
TD0 1
======== CHANNEL f1 ========
NUC1 13C
P1 11.40 usec
PL1 3.50 dB
SFO1 125.7703643 MHz
======== CHANNEL f2 ========
CPDPRG2 waltz16
NUC2 1H
PCPD2 80.00 usec
PL2 -0.50 dB
PL12 18.36 dB
PL13 18.36 dB
SFO2 500.1320005 MHz
SI 32768
SF 125.7577008 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 0.20
HO
OH
6'
O
HO
HO
1'
HN
O
1"
(CH2)10
m
o
p
F
OH
3
a
1
(CH2)13CH3
OH
8 (C5D5N)
C=O
C-F
p
m
o
3
2'/5'/4
1'/4'
3'
6'
2
1'/4'
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
ppm

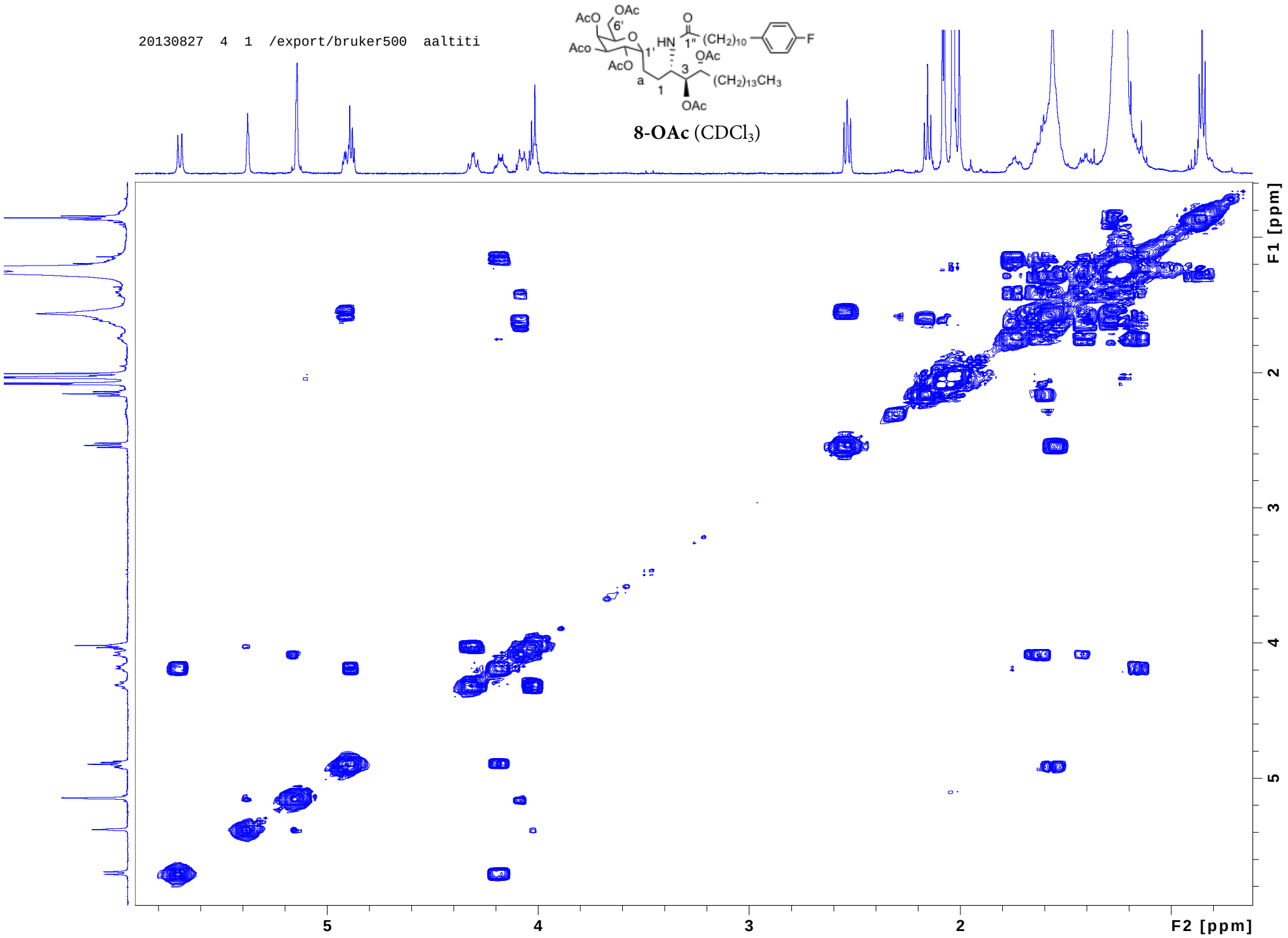


8 (C_5D_5N)

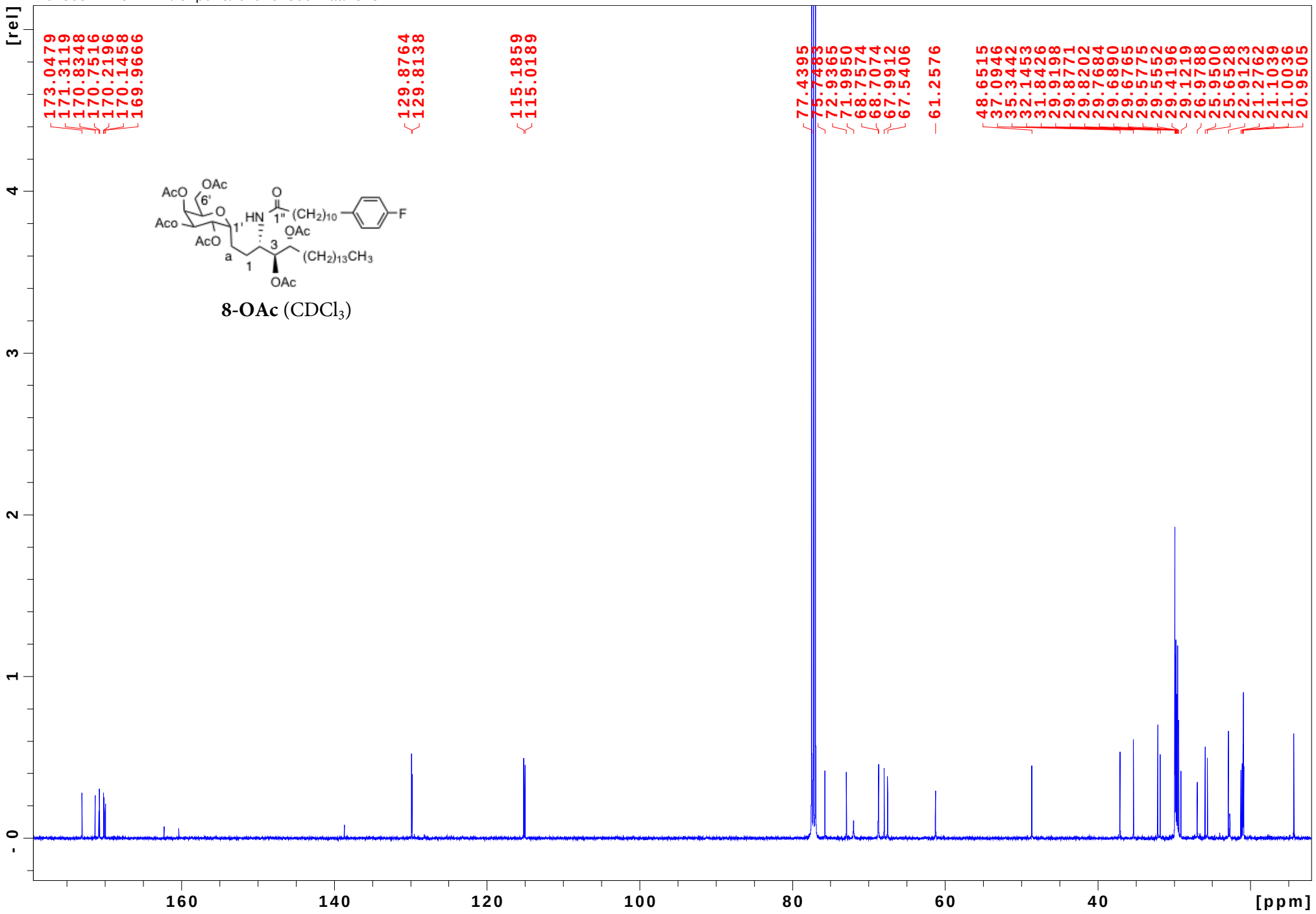
BRUKER

NAME	20130904
EXPNO	9
PROCNO	1
Date_	20130904
Time	22.48
INSTRUM	spect
PROBHD	5 mm CPDCH 13C
PULPROG	hsqcetgp
TD	1024
SOLVENT	Pyr
NS	12
DS	16
SWH	6666.667 Hz
FIDRES	6.510417 Hz
AQ	0.0769250 sec
RG	29193
DW	75.000 usec
DE	6.00 usec
TE	298.0 K
CNST2	145.0000000
d0	0.00000300 sec
D1	1.20000005 sec
d4	0.00172414 sec
d11	0.03000000 sec
d13	0.00000400 sec
D16	0.00020000 sec
DELTA	0.00122424 sec
DELTA1	0.00071614 sec
IN0	0.00001990 sec
ST1CNT	0
ZGOPTNS	
======== CHANNEL f1 ========	
NUC1	1H
P1	9.12 usec
p2	18.24 usec
P28	2000.00 usec
PL1	-0.50 dB
SFO1	500.1330069 MHz
======== CHANNEL f2 ========	
CPDPRG2	garp
NUC2	13C
P3	11.40 usec
p4	22.80 usec
PCPD2	70.00 usec
PL2	3.50 dB
PL12	19.26 dB
SFO2	125.7678496 MHz
====== GRADIENT CHANNEL =====	
GPNAM1	SINE.100
GPNAM2	SINE.100
GPZ1	80.00 %
GPZ2	20.10 %
P16	1000.00 usec
ND0	2
TD	116
SFO1	125.7678 MHz
FIDRES	216.600235 Hz
SW	199.778 ppm
FnMODE	Echo-Antiecho
SI	1024
SF	500.1299824 MHz
WDW	QSINE
SSB	2
LB	0.00 Hz
GB	0
PC	1.40
SI	1024
MC2	echo-antiecho
SF	125.7576947 MHz
WDW	QSINE
SSB	2
LB	0.00 Hz
GB	0


20130827 2 2 /export/bruker500 aaltiti
[rel]
7.1018
7.0906
7.0848
7.0780
7.0737
6.9399
6.9224
6.9150
5.7083
5.6890
5.3774
5.1424
4.9267
4.9180
4.9116
4.8988
4.8932
4.8807
4.8718
4.3315
4.3131
4.3055
4.2867
4.2071
4.2008
4.1879
4.1817
4.1754
4.1687
4.1558
4.1494
4.1041
4.0893
4.0660
4.0421
4.0315
4.0217
4.0158
4.0094
3.9986
2.5510
2.5356
2.5200
2.1699
2.1545
2.1392
2.0841
2.0754
2.0390
2.0352
2.0293
2.0048
1.7487
1.7385
1.5619
1.4089
1.4001
1.2173
0.8671
0.8536
0.8394
AcO
OAc
6'
O
Aco
AcO
1'
HN
O
1"
(CH2)10
F
OAc
3
a
1
(CH2)13CH3
OAc
8-OAc (CDCl3)
(CH2-a, CH2-1
(CH2) x 21
Ac x 6
CH3
ArH
NH
H4'
H2',3'
H3,4
H6'
H2
H1'
H5',6'
CH2-11"
CH2-2"
2.0332
1.9867
0.9718
1.0000
1.9577
2.0552
1.0163
1.0529
1.1375
2.0894
2.0887
2.2367
3.3012
1.3344
13.8248
1.7326
43.5176
4.4084
[ppm]

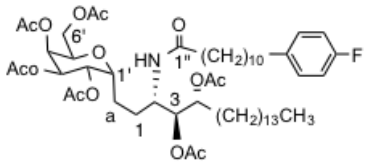

20130827 4 1 /export/bruker500 aaltiti
AcO
OAc
6'
O
Aco
HN
1'
1"
(CH2)10
F
AcO
OAc
3
a
1
(CH2)13CH3
OAc
8-OAc (CDCl3)
F1 [ppm]
F2 [ppm]
5
4
3
2

20130827 5 2 /export/bruker500 aaltiti



8-OAc ($CDCl_3$)

20130827 6 1 /export/bruker500 aaltiti



8-OAc ($CDCl_3$)

F1 [ppm]

40

60

80

100

120

7

6

5

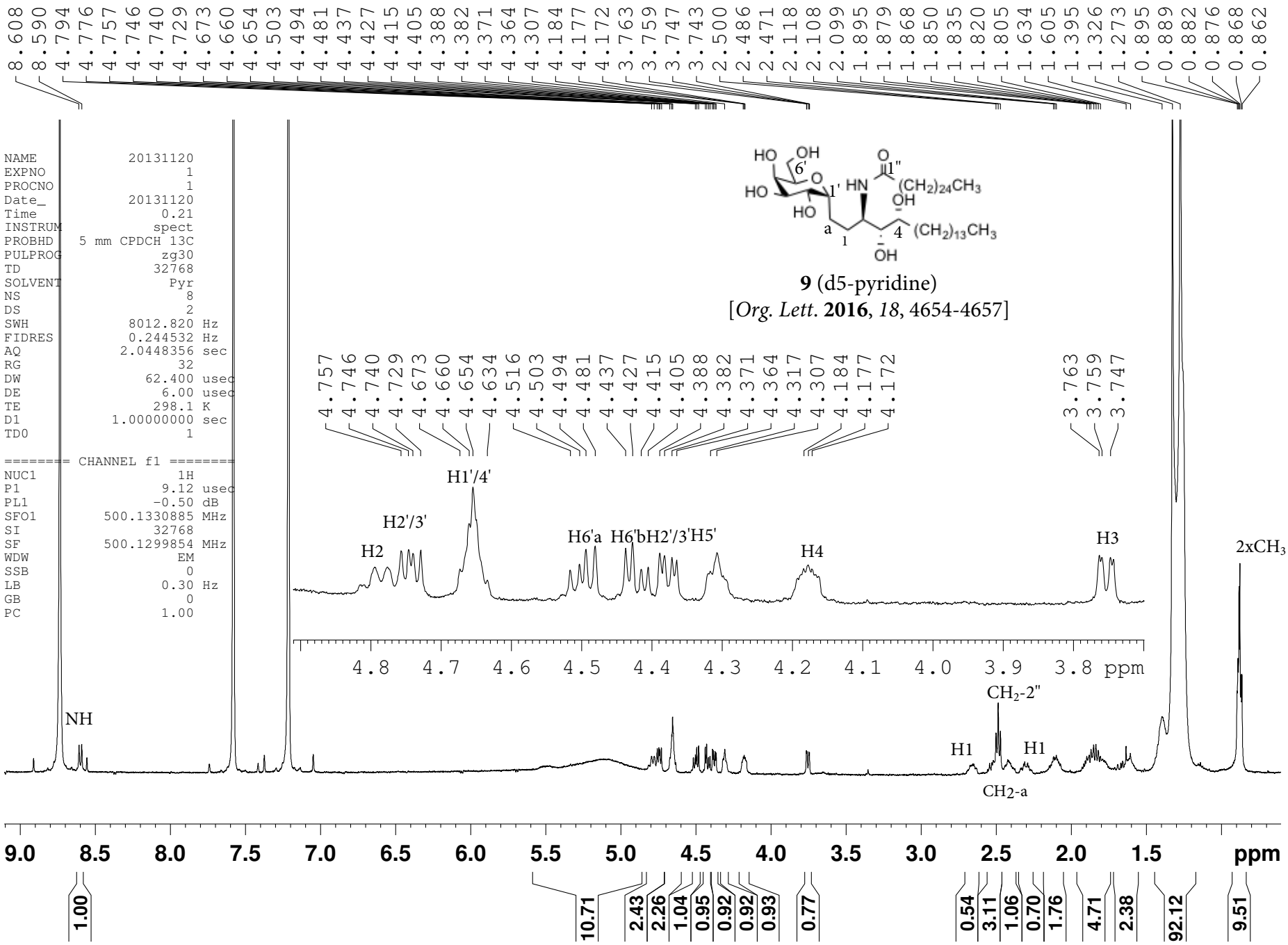
4

3

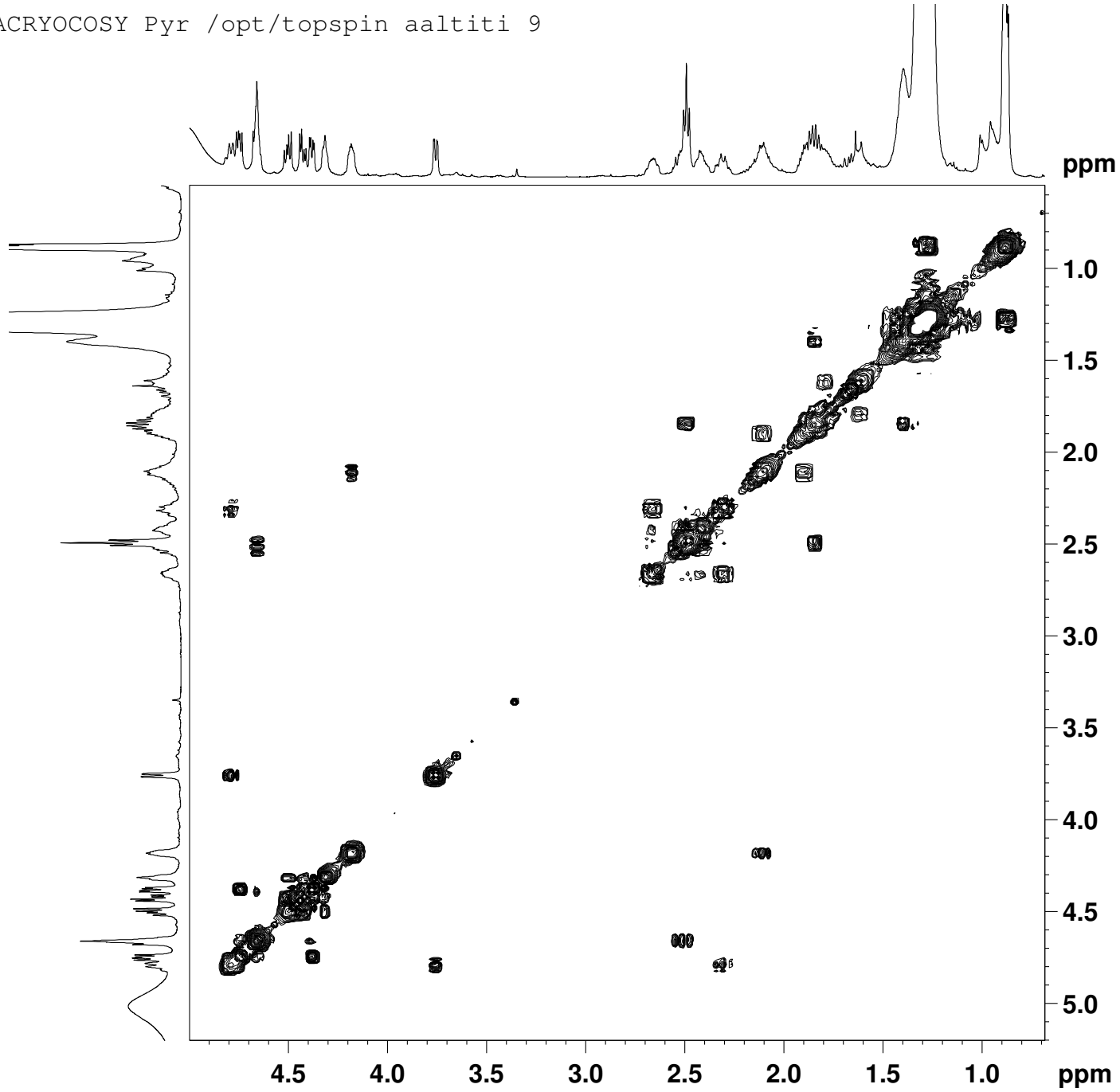
2

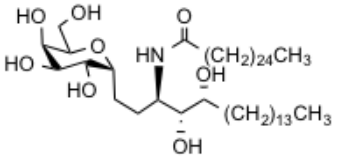
F2 [ppm]

AAACRYOPROTON Pyr /opt/topspin aaltiti 9



AAACRYOCOSY Pyr /opt/topspin aaltiti 9

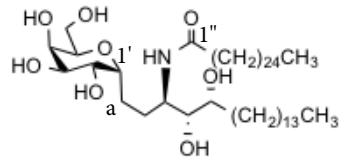




9 (d5-pyridine)

NAME	20131120	
EXPNO	2	
PROCNO	1	
Date_	20131120	
Time	0.22	
INSTRUM	spect	
PROBHD	5 mm CPDCH 13C	
PULPROG	cosygpqf	
TD	2048	
SOLVENT	Pyr	
NS	2	
DS	8	
SWH	6666.667	Hz
FIDRES	3.255208	Hz
AQ	0.1537250	sec
RG	18	
DW	75.000	usec
DE	6.00	usec
TE	298.1	K
d0	0.00000300	sec
D1	1.48689198	sec
d13	0.00000400	sec
D16	0.00020000	sec
IN0	0.00015000	sec
======== CHANNEL f1 ========		
NUC1	1H	
P0	9.12	usec
P1	9.12	usec
PL1	-0.50	dB
SFO1	500.1330069	MHz
====== GRADIENT CHANNEL =====		
GPNAM1	SINE.100	
GPZ1	10.00	%
P16	1000.00	usec
ND0	1	
TD	128	
SFO1	500.133	MHz
FIDRES	52.083332	Hz
SW	13.330	ppm
FnMODE	QF	
SI	1024	
SF	500.1299812	MHz
WDW	SINE	
SSB	0	
LB	0.00	Hz
GB	0	
PC	1.40	
SI	1024	
MC2	QF	
SF	500.1299795	MHz
WDW	SINE	
SSB	0	
LB	0.00	Hz
GB	0	

AAACRYOCARBON Pyr /opt/topspin aaltiti 9



9 (d5-pyridine)

175.26

77.40 75.94 74.60 72.80 71.50 70.96 70.83 62.90 52.75 37.21 34.69 32.59 32.58 30.76 30.62 30.48 30.41 30.38 30.27 30.21 30.09 30.07 28.65 27.33 26.97 23.40 23.31 14.75 0.43

NAME	20131120
EXPNO	4
PROCNO	1
Date_	20131120
Time	2.22
INSTRUM	spect
PROBHD	5 mm CPDCH 13C
PULPROG	zgpg
TD	65374
SOLVENT	Pyr
NS	2000
DS	4
SWH	30030.029 Hz
FIDRES	0.459357 Hz
AQ	1.0885438 sec
RG	1724.1
DW	16.650 usec
DE	20.00 usec
TE	298.1 K
D1	2.00000000 sec
d11	0.03000000 sec
DELTA	1.89999998 sec
TD0	1
======== CHANNEL f1 ========	
NUC1	13C
P1	11.40 usec
PL1	3.50 dB
SFO1	125.7703643 MHz
======== CHANNEL f2 ========	
CPDPRG2	waltz16
NUC2	1H
PCPD2	80.00 usec
PL2	-0.50 dB
PL12	18.36 dB
PL13	18.36 dB
SFO2	500.1320005 MHz
SI	32768
SF	125.7577018 MHz
WDW	EM
SSB	0
LB	1.00 Hz
GB	0
PC	0.20

77.397 75.940 74.596 72.802 71.501 70.960 70.826 62.896 52.747

3 1'/4' 5' 2'/3' 4 2'/3' 1'/4' 6' 2

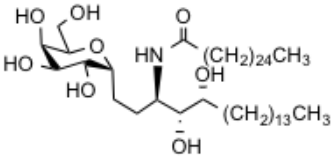
80 78 76 74 72 70 68 66 64 62 60 58 56 54 ppm

C=O

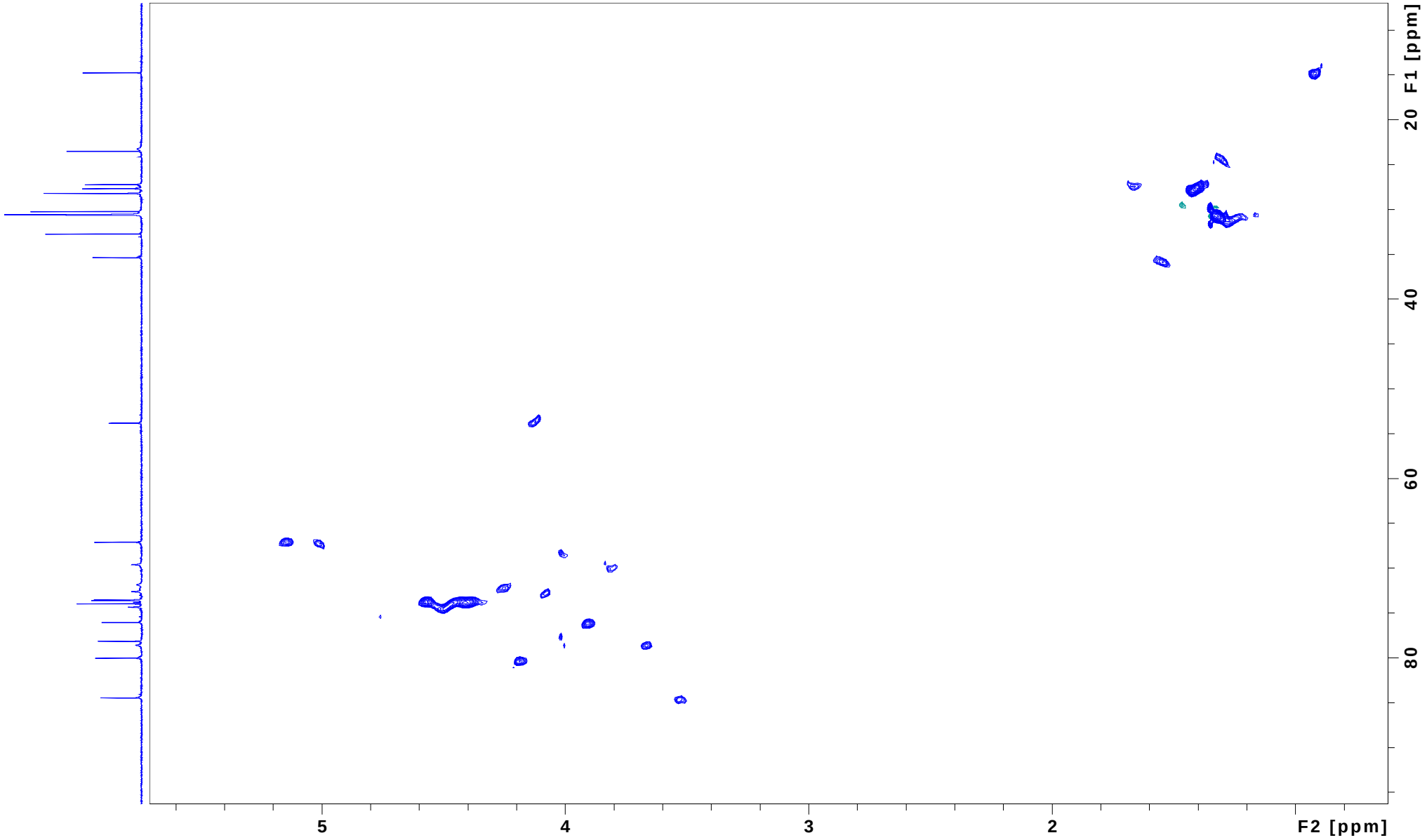
2" 5 1 2XCH$_3$

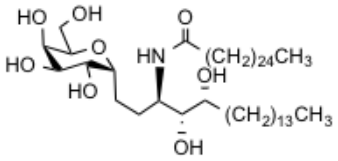
170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ppm

20130805 16 1 /export/bruker500 aaltiti



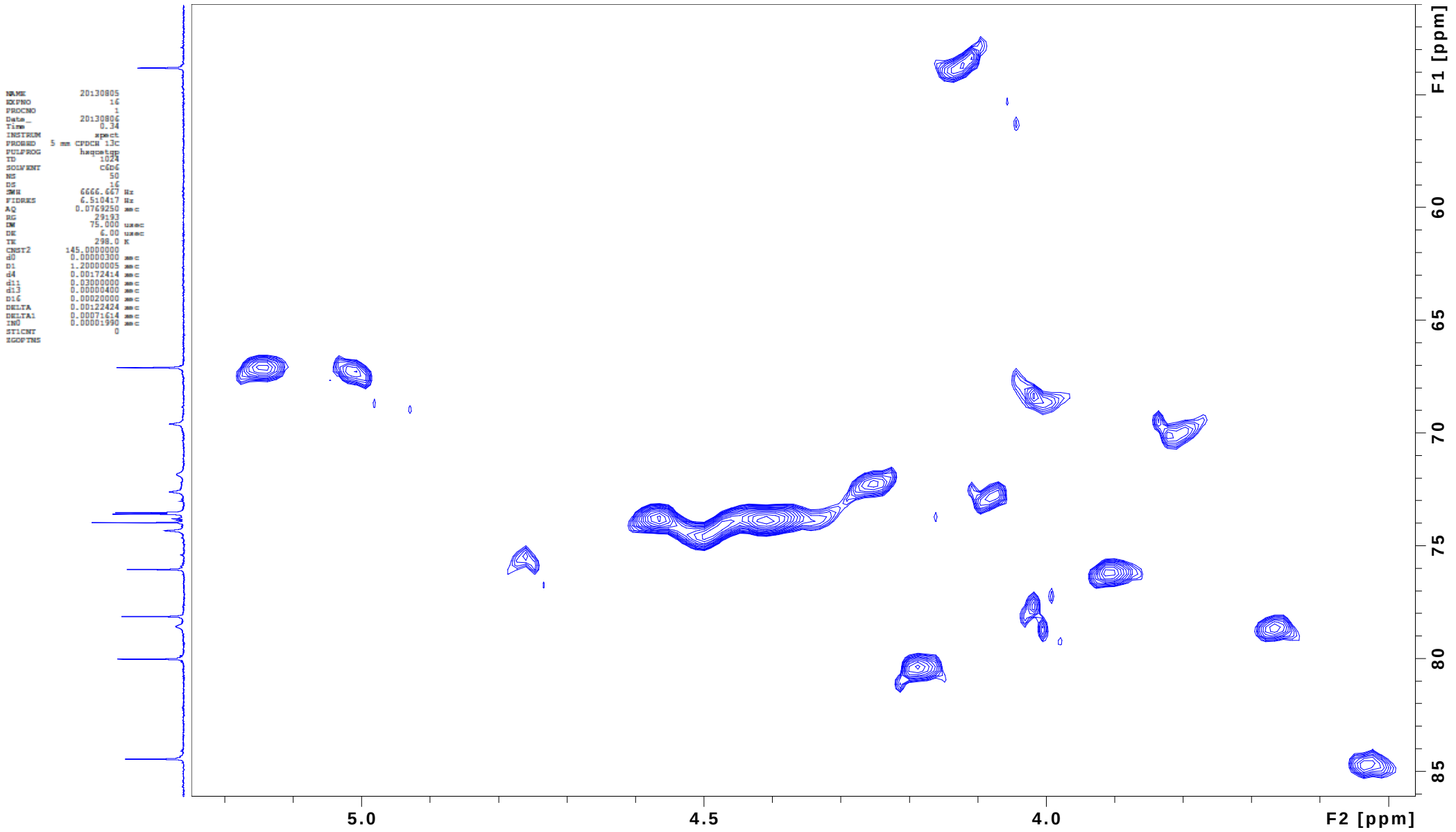
9 (d5-pyridine)



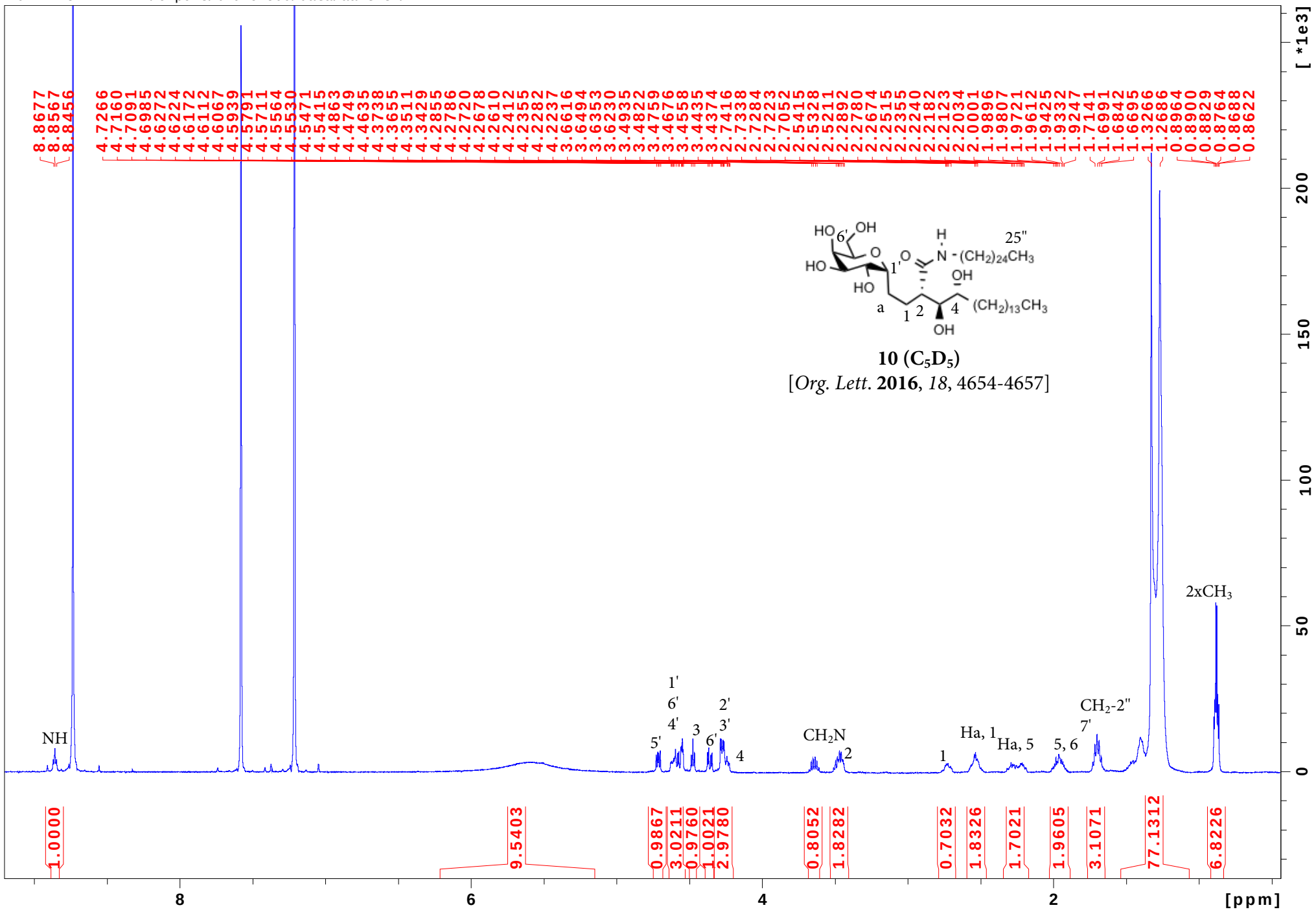


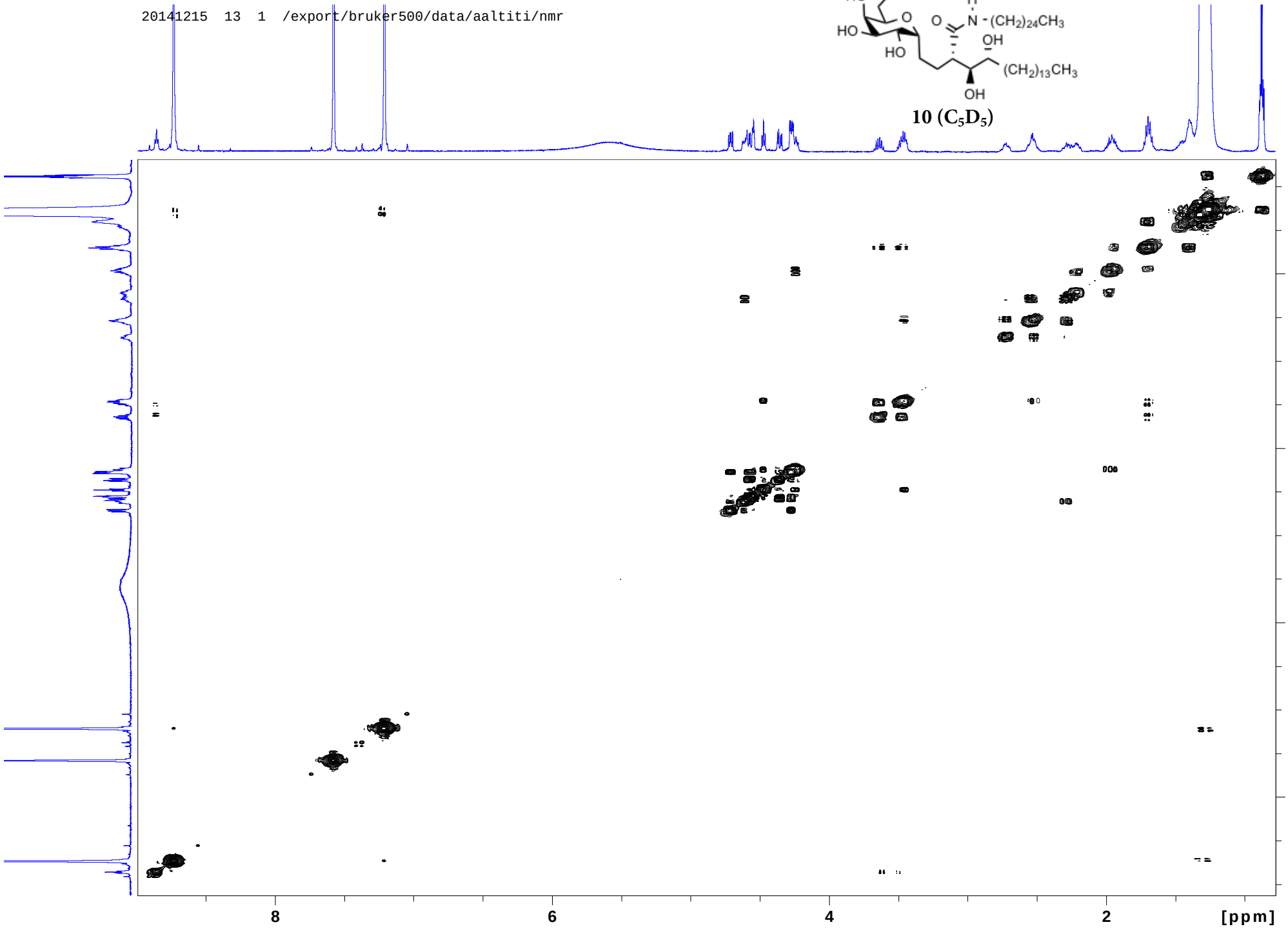
9 (d5-pyridine)

20130805 16 1 /export/bruker500 aaltiti

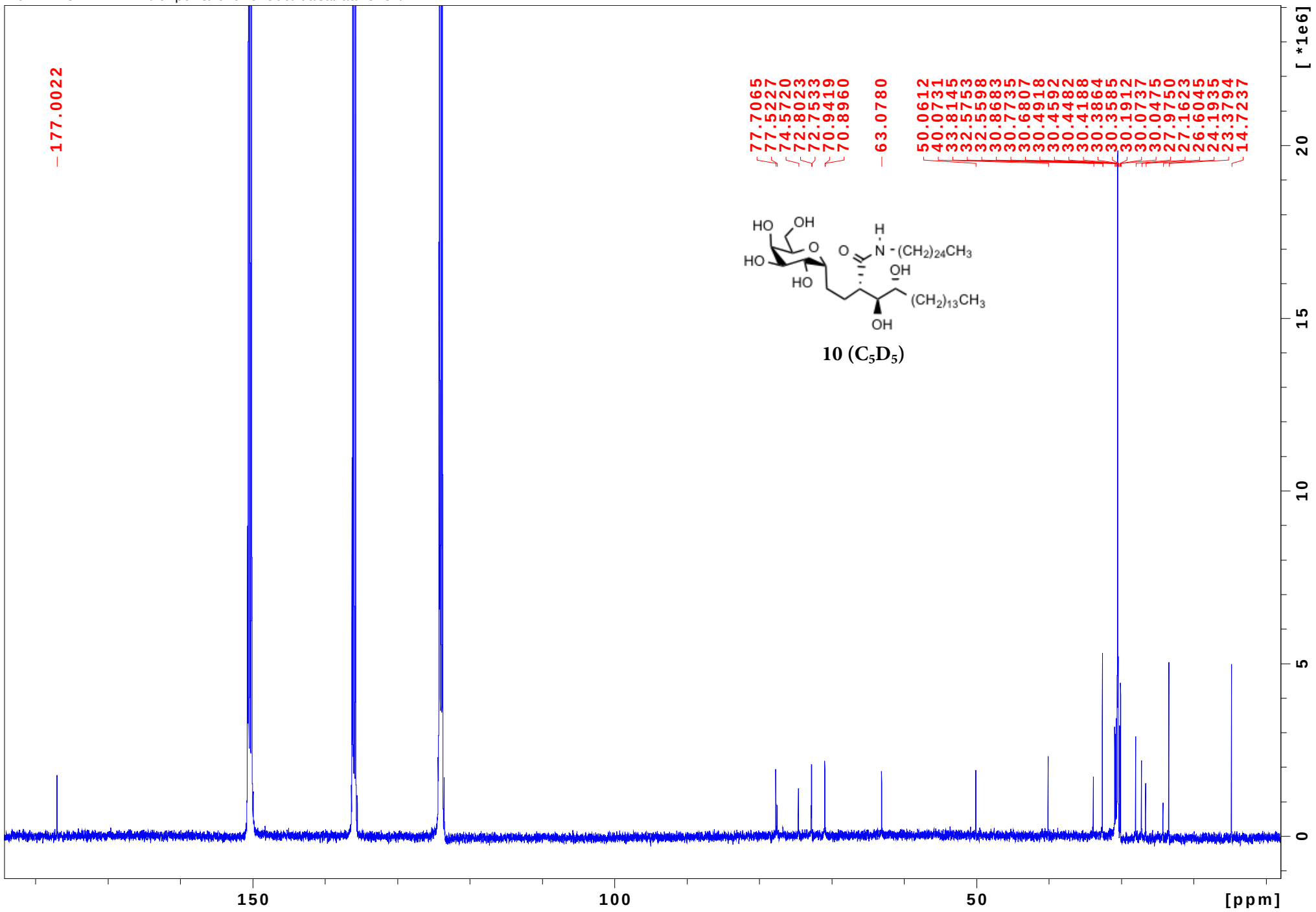


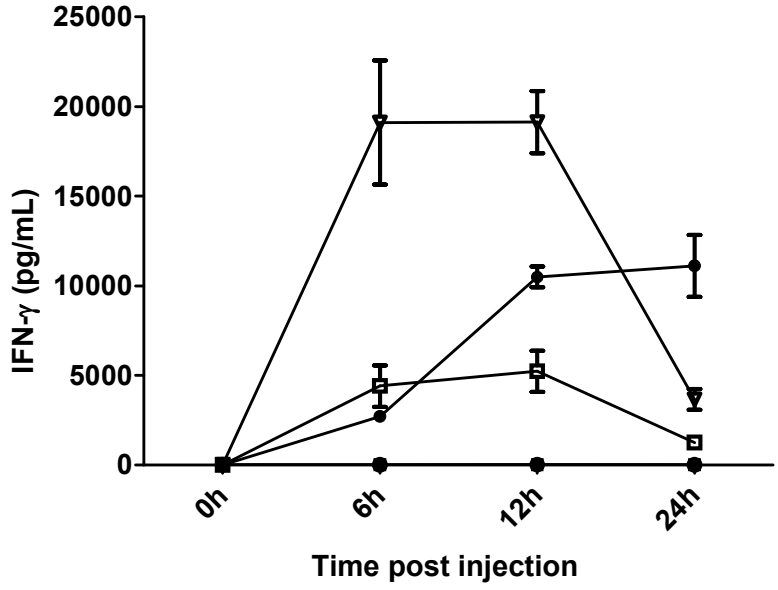
20141215 12 1 /export/bruker500/data/aaltiti/nmr

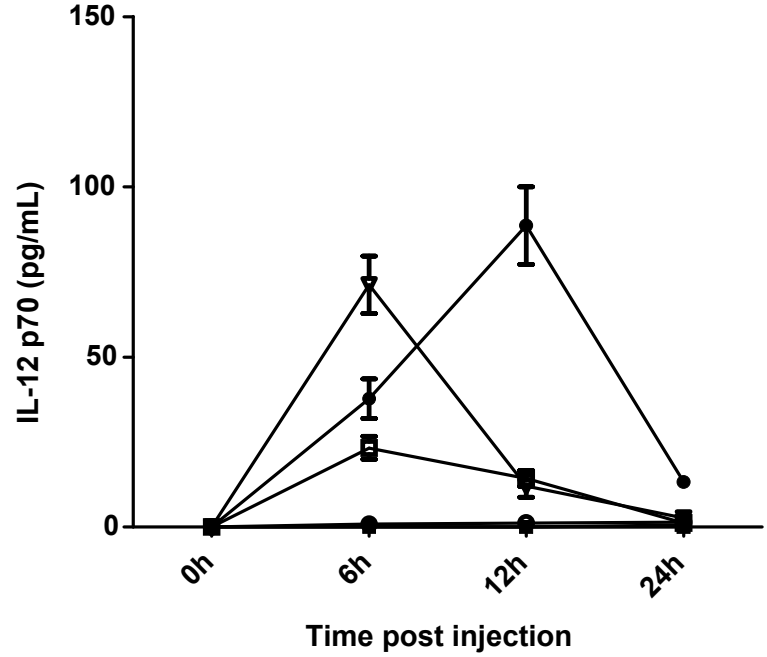


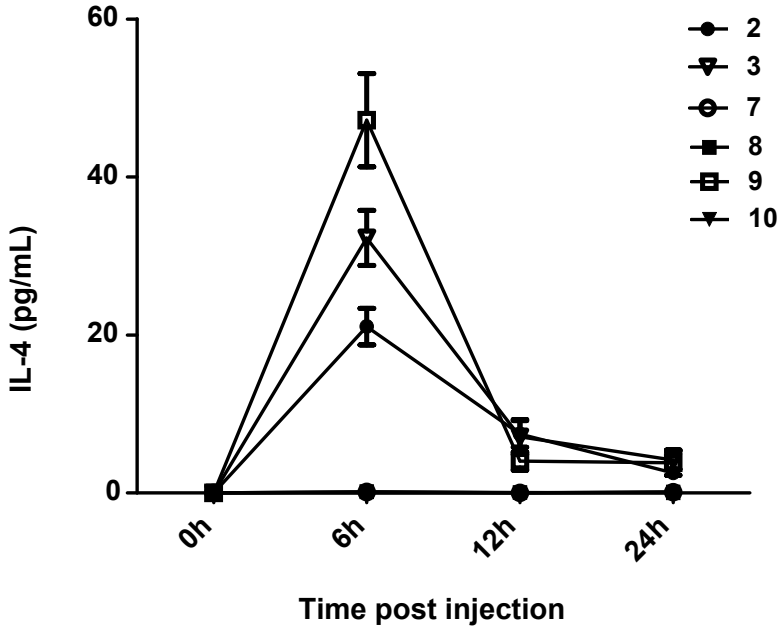

20141215 13 1 /export/bruker500/data/aaltiti/nmr
HO
OH
O
HO
HO
H
N
O
(CH2)24CH3
OH
(CH2)13CH3
OH
10 (C5D5)
[ppm]
2
4
6
8
8
6
4
2
[ppm]

20141215 14 1 /export/bruker500/data/aaltiti/nmr




25000
20000
15000
10000
5000
0
IFN-γ (pg/mL)
0h
6h
12h
24h
Time post injection


150
100
50
0
IL-12 p70 (pg/mL)
0h
6h
12h
24h
Time post injection


60
40
20
0
IL-4 (pg/mL)
0h
6h
12h
24h
Time post injection
2
3
7
8
9
10