

SUPPLEMENTARY MATERIAL

An Asymmetric Variant of the Bischler-Möhlau Indole Synthesis

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^AInstitute of Fundamental Sciences, Massey University, Private Bag 11 222, Palmerston North, New Zealand.

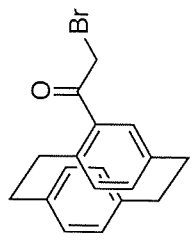
^BCorresponding Author E-mail: g.j.rowlands@massey.ac.nz

Mf. 110.9 - 11 1.5 °C

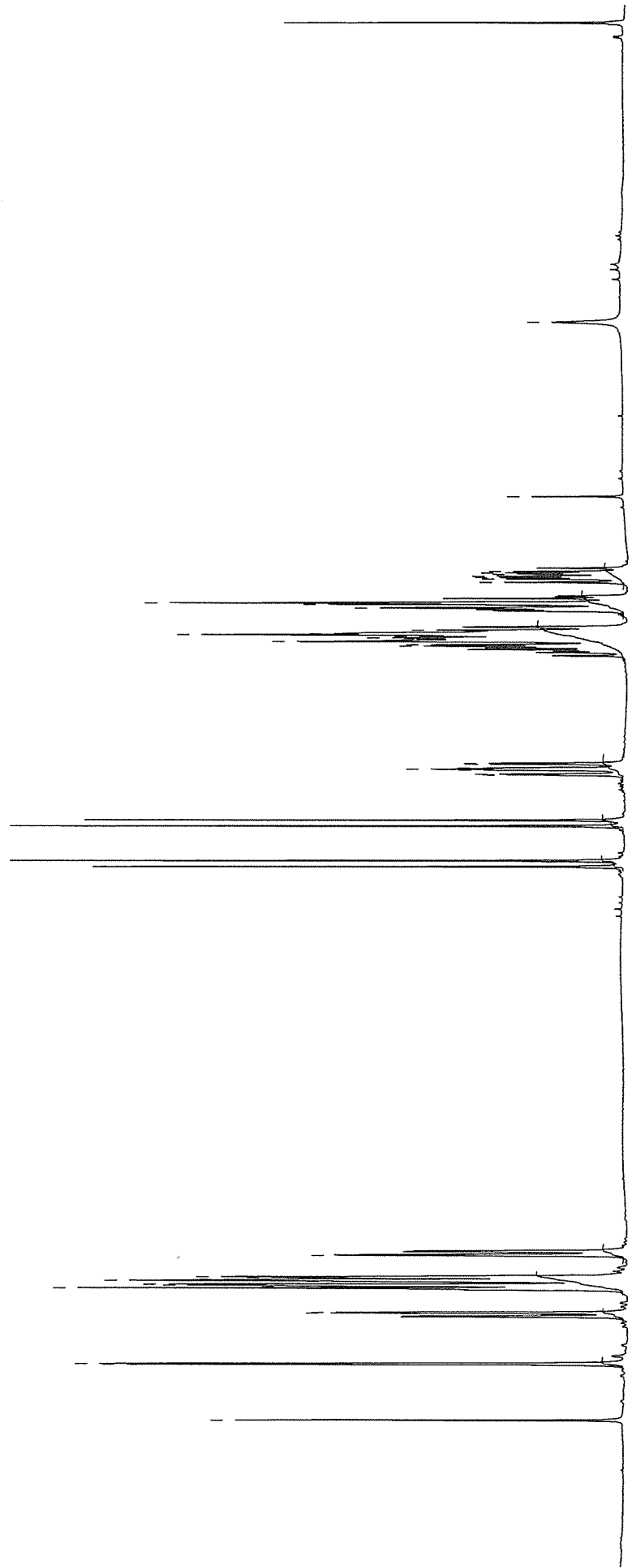
22pc-COCH3Br

22

15-1655 °C



- 1.574
- 2.480
- 2.869
- 2.877
- 2.884
- 2.894
- 2.901
- 2.908
- 2.925
- 3.033
- 3.040
- 3.059
- 3.174
- 3.191
- 3.197
- 3.204
- 3.212
- 3.221
- 3.232
- 3.248
- 3.256
- 3.863
- 3.868
- 3.888
- 3.893
- 3.899
- 3.920
- 3.923
- 6.412
- 6.415
- 6.527
- 6.531
- 6.541
- 6.546
- 6.551
- 6.565
- 6.570
- 6.574
- 6.585
- 6.710
- 6.714
- 6.977
- 6.981
- 7.272

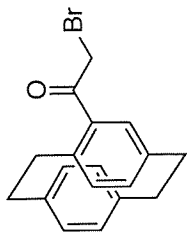


ppm 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5

- 1 1.476
- 2 2.407
- 4 4.847
- 1 1.491
- 1 1.498
- 1 2.08
- 1 1.90
- 4 4.859
- 1 1.92
- 1 2.00

22pc COC₄H₈Br

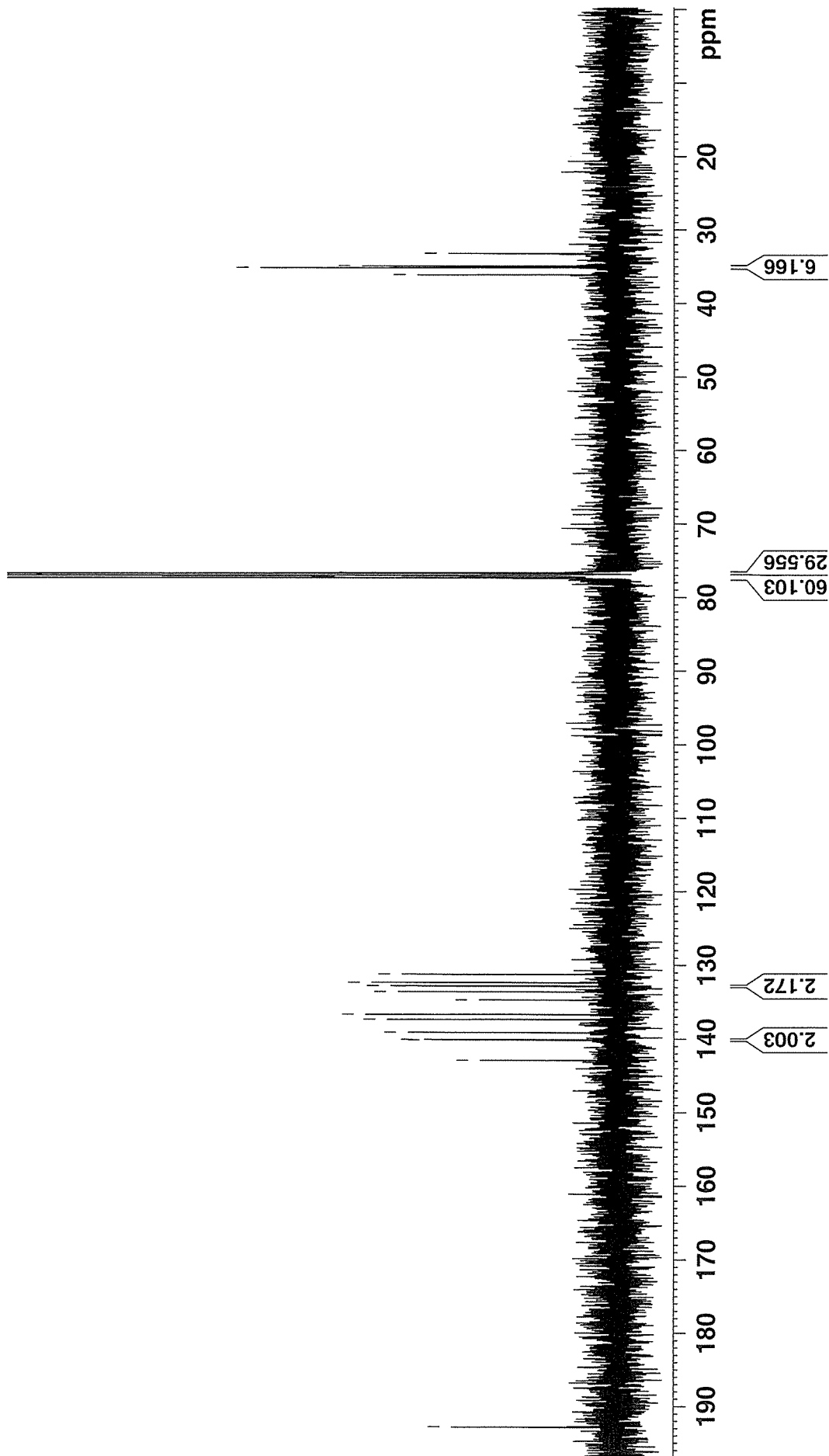
2024000142



¹³S:13
36.088
35.122
34.881
33.191

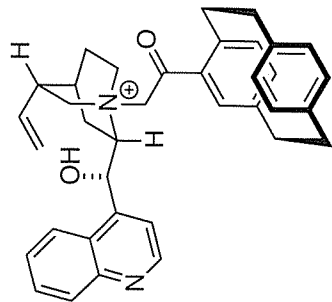
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140.182
140.103
139.150
137.391
136.699
134.733
133.627
132.884
132.823
132.383
131.253

192.816



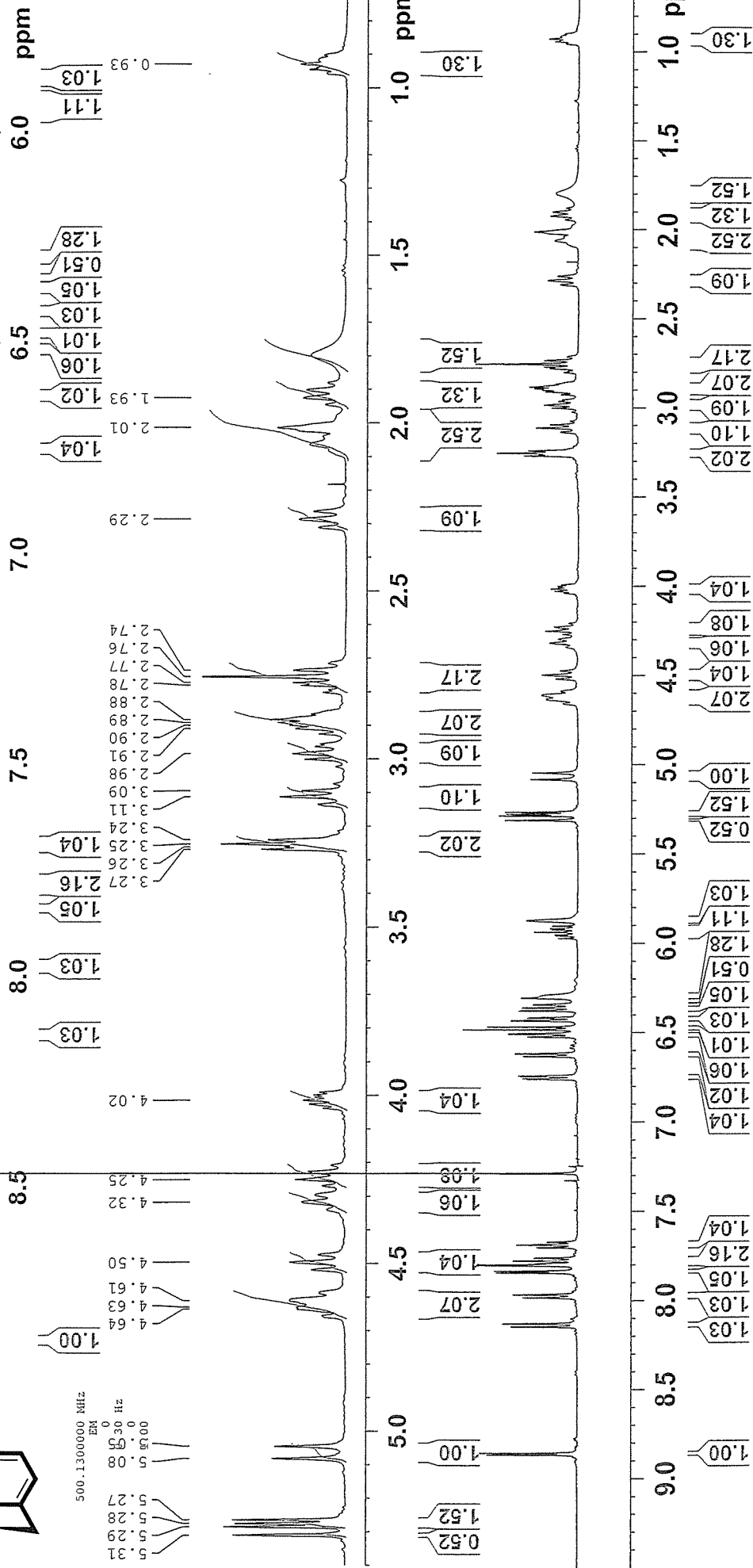
1-NT-5 Diastereomer 01

NAME 1-NT-5 Diastereomer 01



8.15
8.13
7.98
7.97
7.84
7.83
7.80
7.79
7.79
7.78
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6.34
6.31
5.94
5.92
5.87

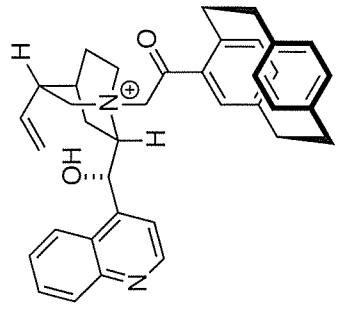
SF 500.1300000 MHz
PULPROG zgpg30
TD 655
F2 1024
AQ 0.30000000
RG 327.680
GB 0
PC 1024
EN 1



1-NT-5 Diastereomer 01

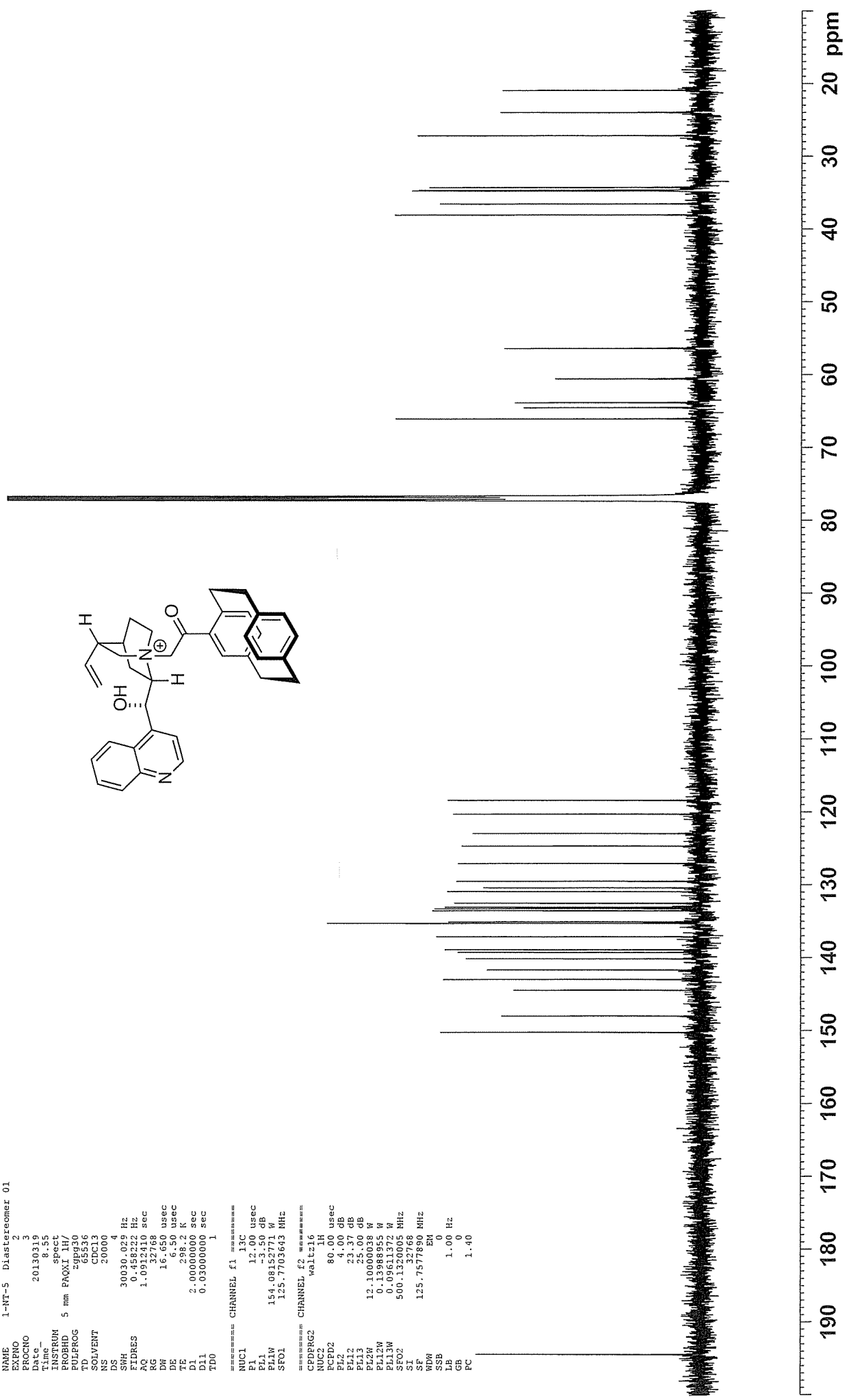
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NAME 1-NT-5 Diastereomer 01
EXPNO 3
PROCNO 3
Date_ 20130319
Time_ 8.55
INSTRUM spect
PROBHD 5 mm QNP1H/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
DS 20000
SF 30030.029 Hz
AQ 0.458222 Hz
RG 32768
DE 16.650 usec
TE 298.2 K
D1 2.0000000 sec
D11 0.03000000 sec
TD0 1
  
```



150.17
147.93
144.40
142.92
141.61
140.09
139.22
138.85
137.08
135.23
135.03
133.51
133.22
133.03
132.48
130.38
130.89
129.48
127.04
124.65
122.93
120.27
118.39

77.28
77.03
76.78
66.12
64.58
63.90
60.63
56.47
38.14
36.62
34.84
34.74
34.36
27.24
24.05
21.02



```

===== CHANNEL f1 =====
NUC1 13C
P1 12.00 usec
PL1 -3.50 dB
PL1W 154.08152771 W
SFO1 125.7703643 MHz

===== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 13C
PCPD2 80.00 usec
PL2 4.00 dB
PL12 23.37 dB
PL13 25.00 dB
PL1W 12.10000038 W
PL12W 0.13988955 W
PL13W 0.09611372 W
SFO2 500.1320005 MHz
SI 32768
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
  
```

1-NT-5 Diastereomer 01

NAME 1-NT-5 Diastereomer 01

EXPNO 2

PROCNO 3

Date_ 20130319

Time 8:55

INSTRUM spect

PROBHD 5 mm PROX1H1

PULPROG zgpg30

TD 65536

SOLVENT CDCl3

NS 20000

DS 4

SWH 30030.029 Hz

FIDRES 0.458222 Hz

AQ 1.0912410 sec

RG 32768

DE 16.650 usec

TE 298.2 K

TD 2.00000000 sec

D11 0.03000000 sec

TD0 1

===== CHANNEL f1 =====

NUC1 13C

PL1 12.00 usec

PL2 154.08153750 dB

PL4 125.7703643 MHz

SFO1

===== CHANNEL f2 =====

CPDPRG2 valtz16

NUC2 1H

PCPD2 80.00 usec

PL2 4.00 dB

PL12 23.37 dB

PL13 25.00 dB

PL2 W 12.1000038 W

PL3 W 0.0861372 W

PL13 W 0.0861372 W

SFO2 500.1320005 MHz

SI 32768

SF 125.7577890 MHz

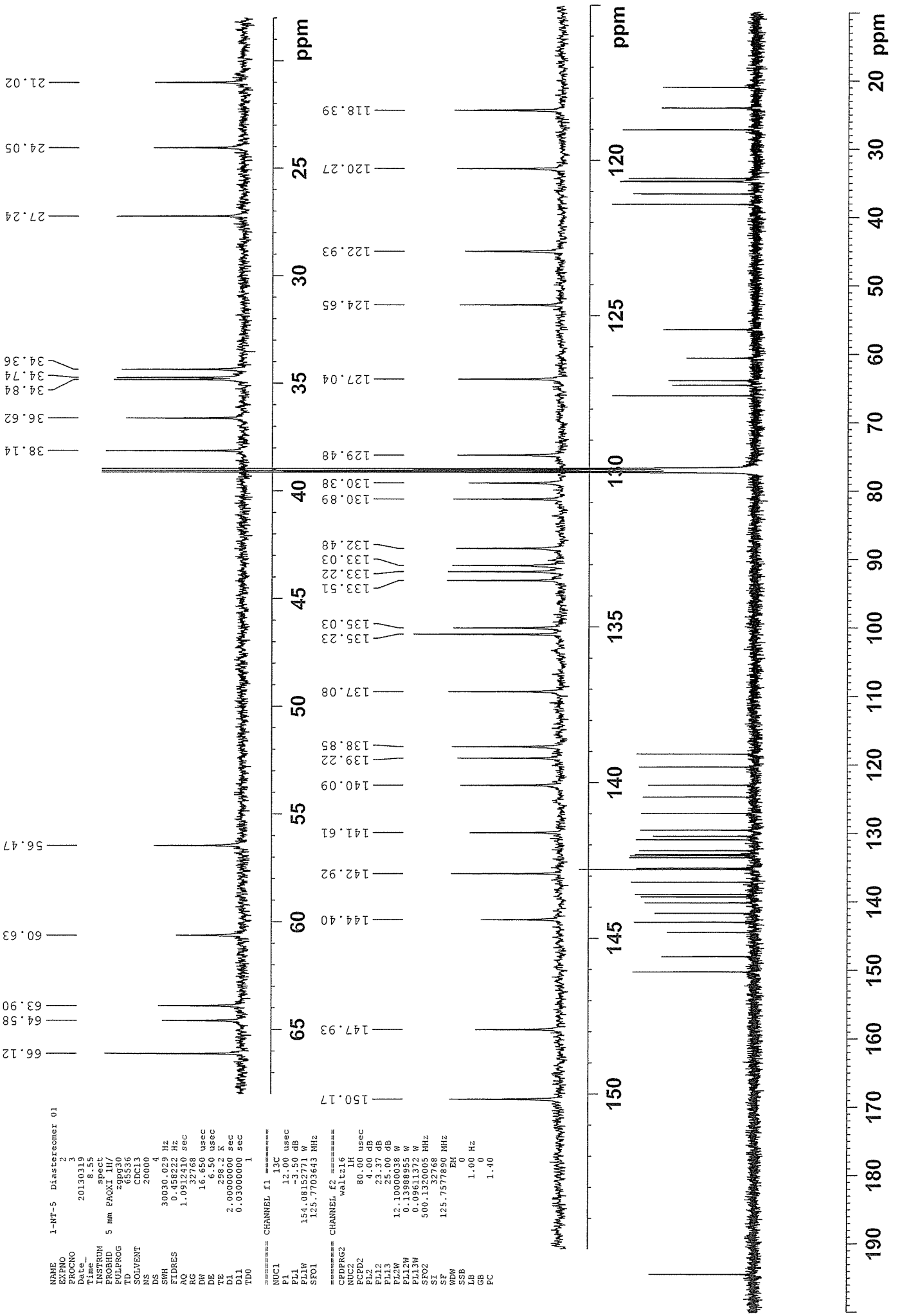
WDW EM

SSB 0

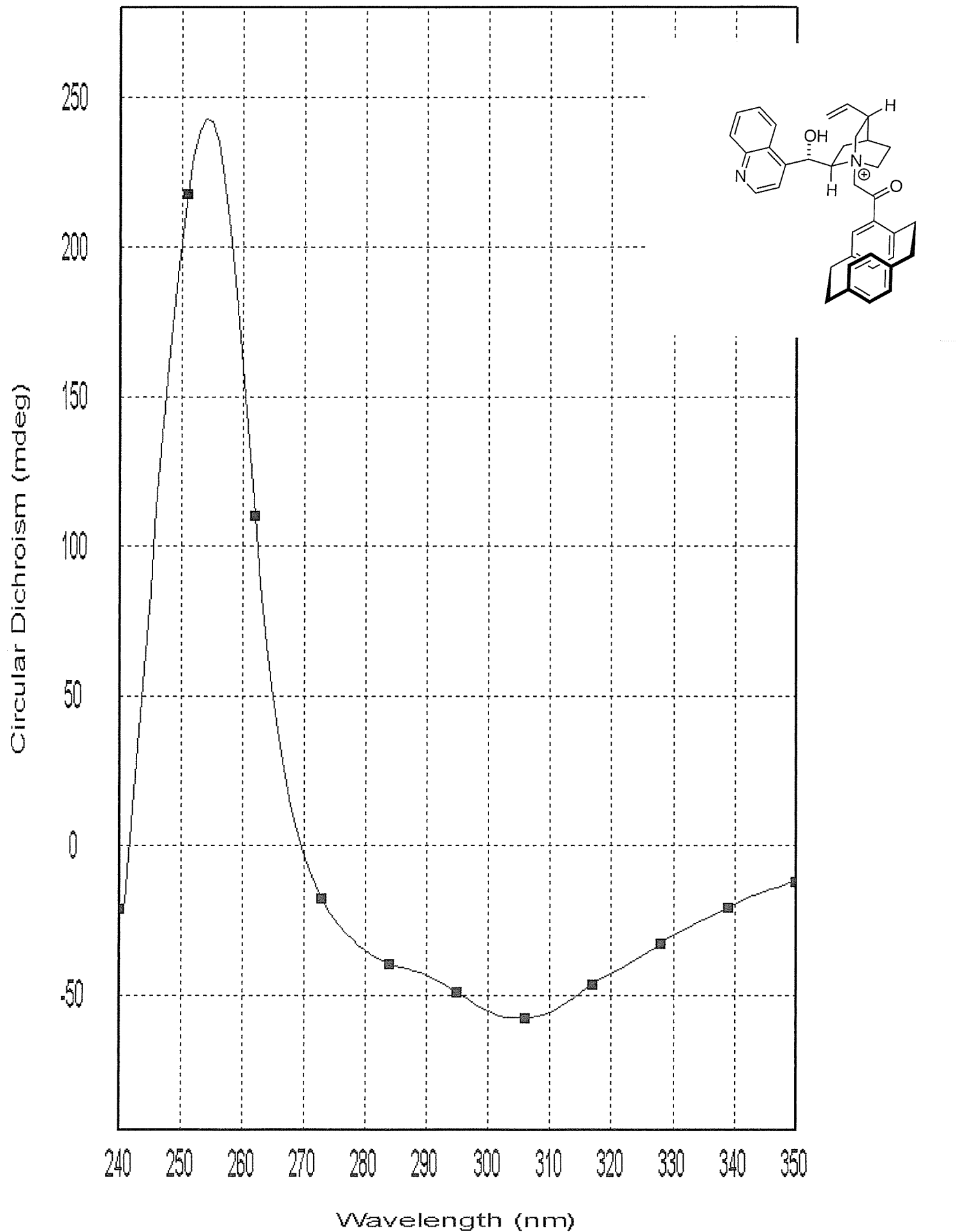
LB 1.00 Hz

GB 0

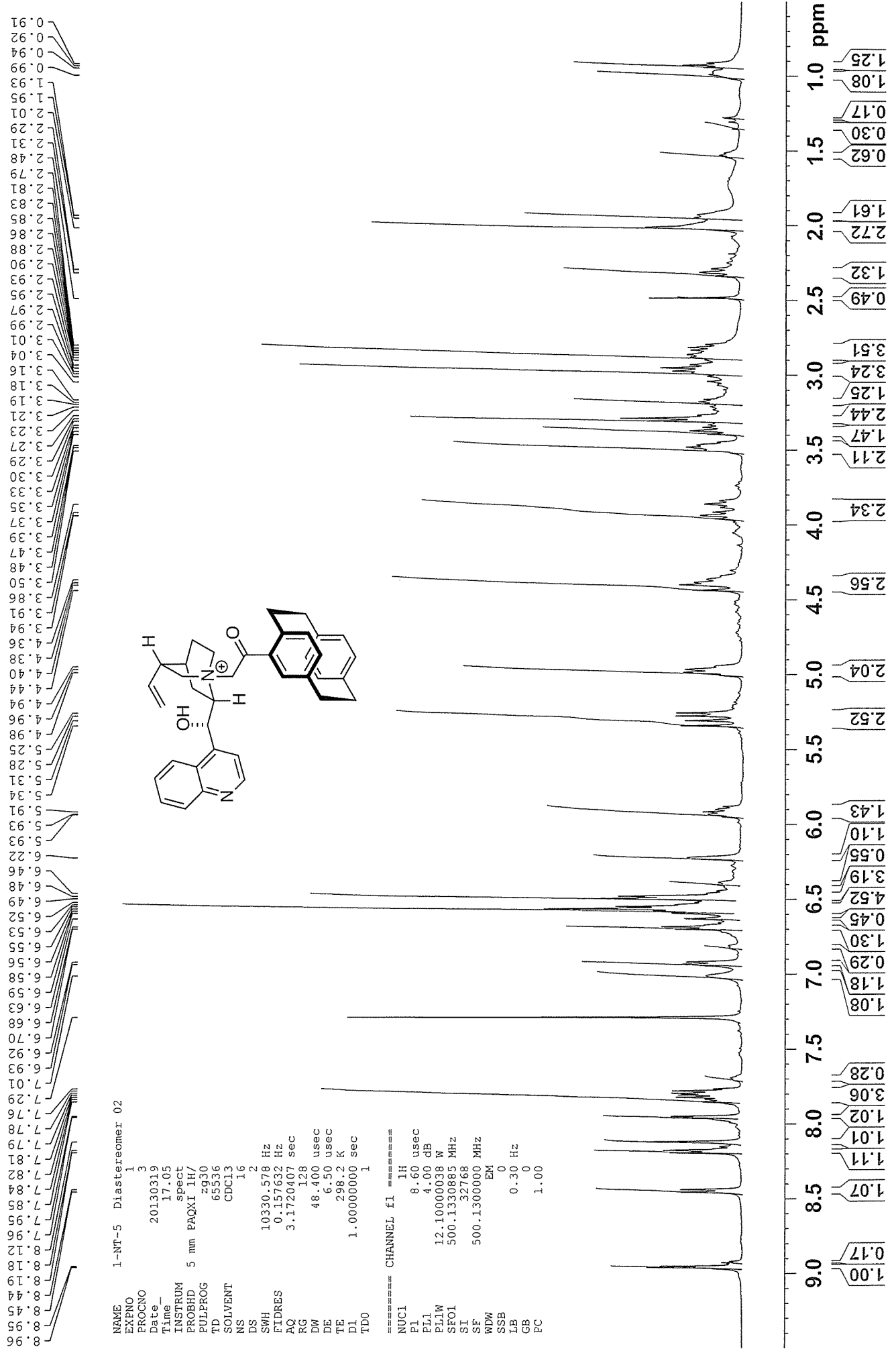
PC 1.40



Property : Circular Dichroism



1-NT-5 Diastereomer 02

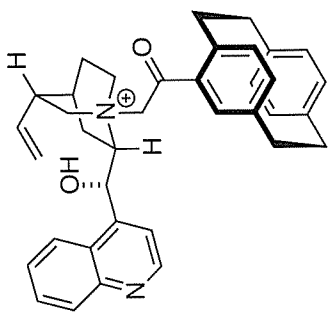


NAME 1-NT-5 Diastereomer 02

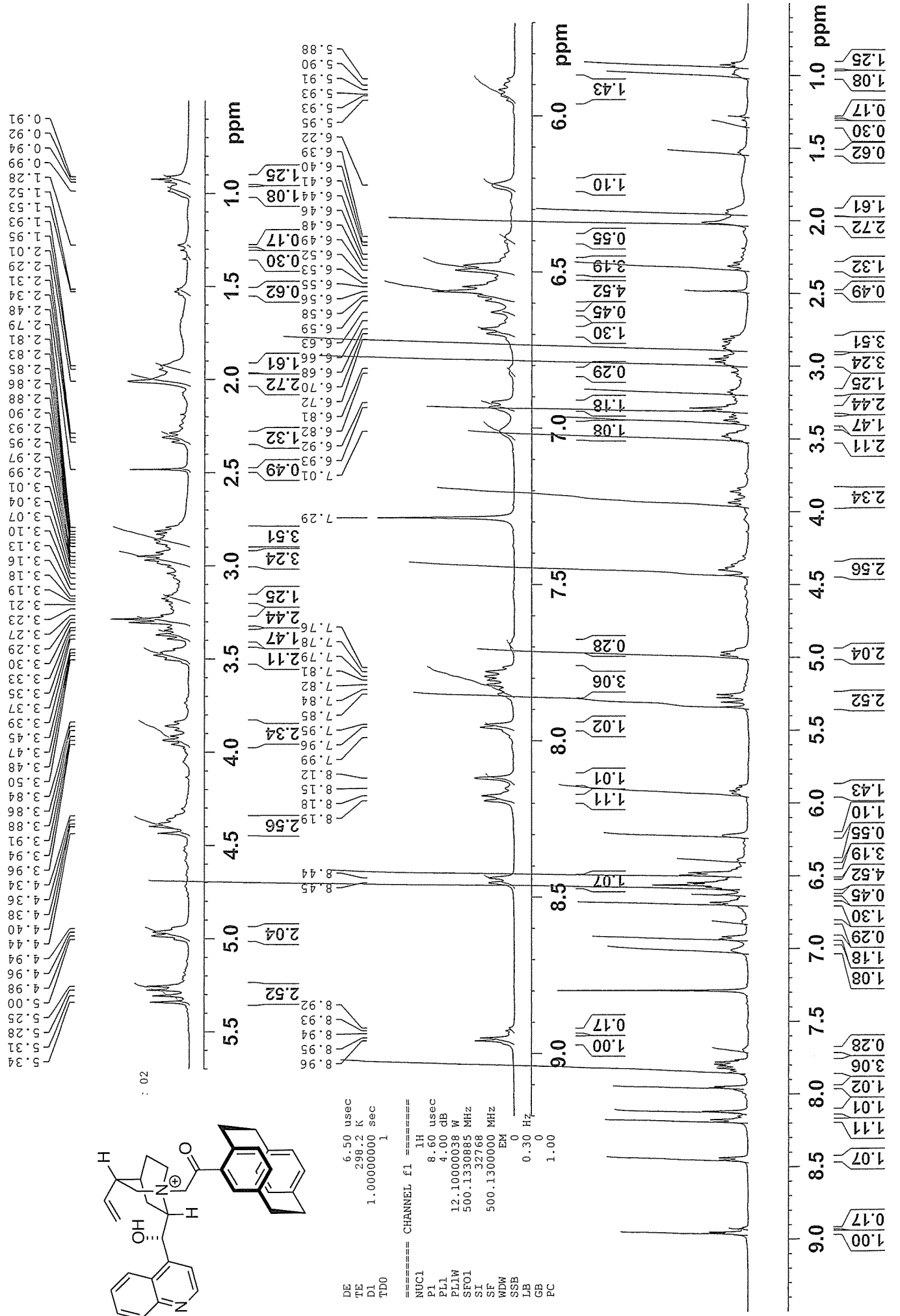
EXPNO 1
 PROCNO 3
 Date_ 20130319
 Time 17.05
 INSTRUM spect
 PROBHD 5 mm PAQXI 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDC13
 NS 16
 DS 2
 SWH 10330.578 Hz
 FIDRES 0.157632 Hz
 AQ 3.1720407 sec
 RG 128
 DW 48.400 usec
 DE 6.50 usec
 TE 298.2 K
 DL 1.00000000 sec
 TDO 1

===== CHANNEL f1 =====
 NUC1 1H
 P1 8.60 usec
 PL1 4.00 dB
 FLLW 12.10000038 W
 SF01 500.1330885 MHz
 SI 32768
 SF 500.1300000 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 FC 1.00

1-NT-5 Diastereomer 02



: 02



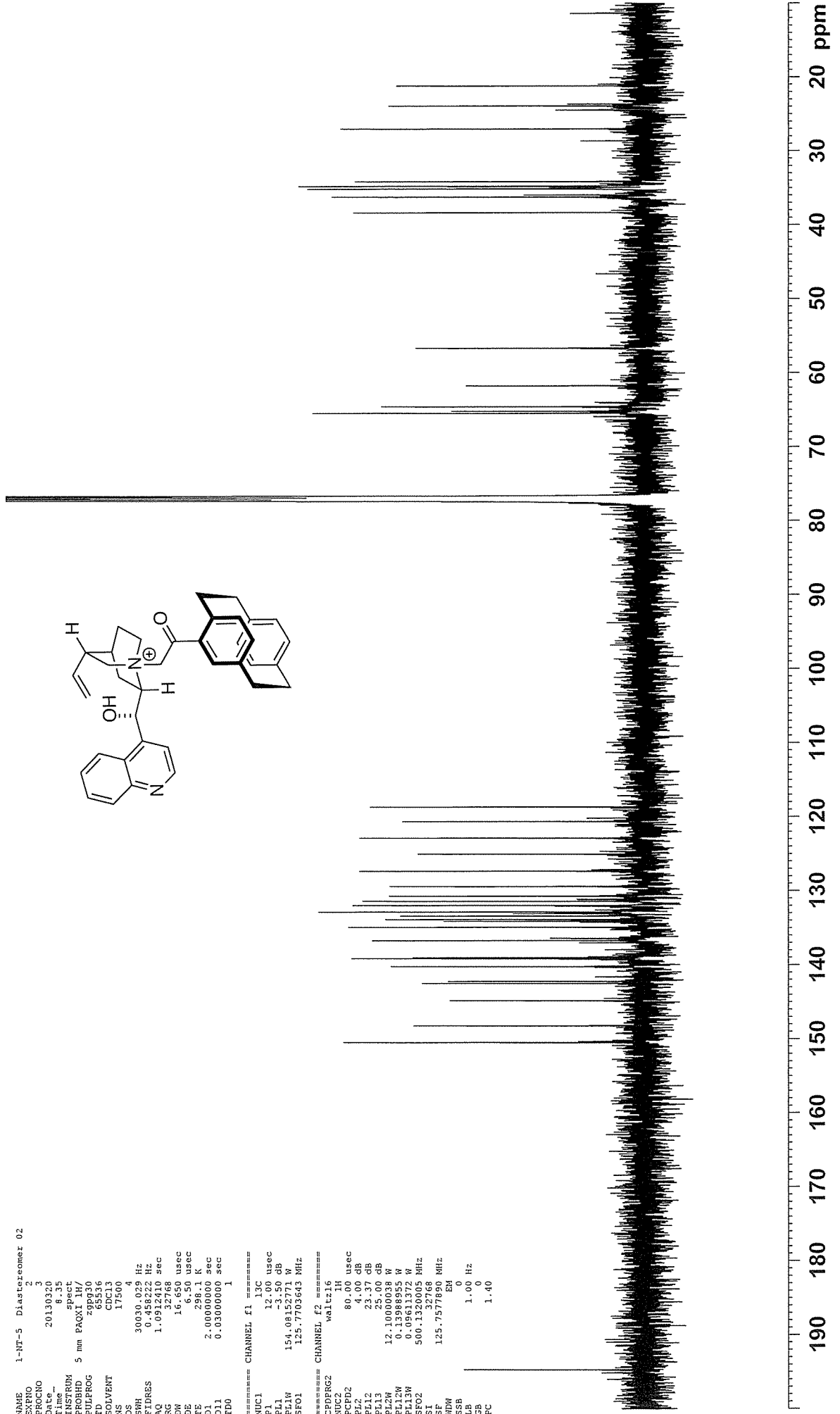
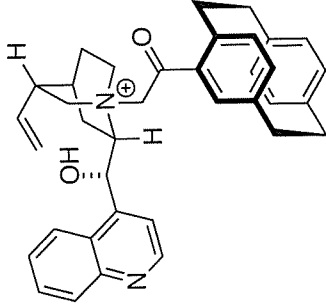
1-NT-5 Diastereomer 02

150.42
148.16
144.76
142.44
142.17
140.17
139.10
138.96
136.66
134.86
134.05
133.81
133.35
133.03
132.81
131.93
131.36
130.67
129.36
127.30
125.00
122.84
120.60
118.64

77.28
77.03
76.78
65.49
65.22
64.61
61.80
56.72
38.43
36.31
36.04
35.22
35.16
34.91
34.85
34.23
27.10
23.99
21.28

NAME 1-NT-5 Diastereomer 02
EXPNO 2
PROCNO 3
Date_ 20130320
Time_ 8.35
INSTRUM spect
PROBHD 5 mm PACXI LH/
PULPROG zgpg30
TD 65536
SOLVENT H₂O
NS 17500
DS 4
SWH 30030.029 Hz
FIDRES 0.458222 Hz
AQ 1.0912410 sec
RG 32768
DM 16.650 usec
DE 6.50 usec
TE 300.2 K
D1 2.00000000 sec
D11 0.03000000 sec
TDO 1

***** CHANNEL f1 *****
NUC1 13C
P1 12.00 usec
PL1 -3.50 dB
FLW 154.08152771 MHz
SFO1 125.7703643 MHz
***** CHANNEL f2 *****
CpOPRG2 waltz16
NUC2 1H
PCPD2 80.00 usec
PL2 4.00 dB
PL12 23.37 dB
PL13 25.00 dB
PL14 25.00 dB
PL15 25.00 dB
PL16 25.00 dB
PL17 0.13988955 W
PL18 0.09611372 W
PL19 0.09611372 W
SFO2 500.1320005 MHz
SI 32768
SF 125.7577890 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40



1-NT-5 Diastereomer 02

NAME 1-NT-5 Diastereomer 02

EXPNO 2

PROCNO 1

DATE_ 20180820

TIME 6.35

PROBHD 5 mm QNP1H/1

PULPROG zgpg30

PROBHD 5 mm QNP1H/1

SOLVENT CDCl3

NS 17500

DS 4

SWH 400.0432 Hz

FIDRES 0.458222 Hz

AQ 1.001210 sec

RG 327.50

CF 18.556 us/ac

CE 3.50 us/ac

DE 2.0000000 sec

TE 300.2 K

D3 0.02000000 sec

DELTA 1.00 sec

TD 65536

GB 0

PC 1

===== CHANNEL f1 =====

NUC1 13C

PC1 12.00 us/ac

PL1 15.00 dB

PL2 15.00 dB

PL3 23.37 dB

PL4 25.00 dB

PL5 25.00 dB

PL6 15.00 dB

PL7 15.00 dB

PL8 15.00 dB

PL9 15.00 dB

PL10 15.00 dB

PL11 15.00 dB

PL12 15.00 dB

PL13 15.00 dB

PL14 15.00 dB

PL15 15.00 dB

PL16 15.00 dB

PL17 15.00 dB

PL18 15.00 dB

PL19 15.00 dB

PL20 15.00 dB

PL21 15.00 dB

PL22 15.00 dB

PL23 15.00 dB

PL24 15.00 dB

PL25 15.00 dB

PL26 15.00 dB

PL27 15.00 dB

PL28 15.00 dB

PL29 15.00 dB

PL30 15.00 dB

PL31 15.00 dB

PL32 15.00 dB

PL33 15.00 dB

PL34 15.00 dB

PL35 15.00 dB

PL36 15.00 dB

PL37 15.00 dB

PL38 15.00 dB

PL39 15.00 dB

PL40 15.00 dB

PL41 15.00 dB

PL42 15.00 dB

PL43 15.00 dB

PL44 15.00 dB

PL45 15.00 dB

PL46 15.00 dB

PL47 15.00 dB

PL48 15.00 dB

PL49 15.00 dB

PL50 15.00 dB

PL51 15.00 dB

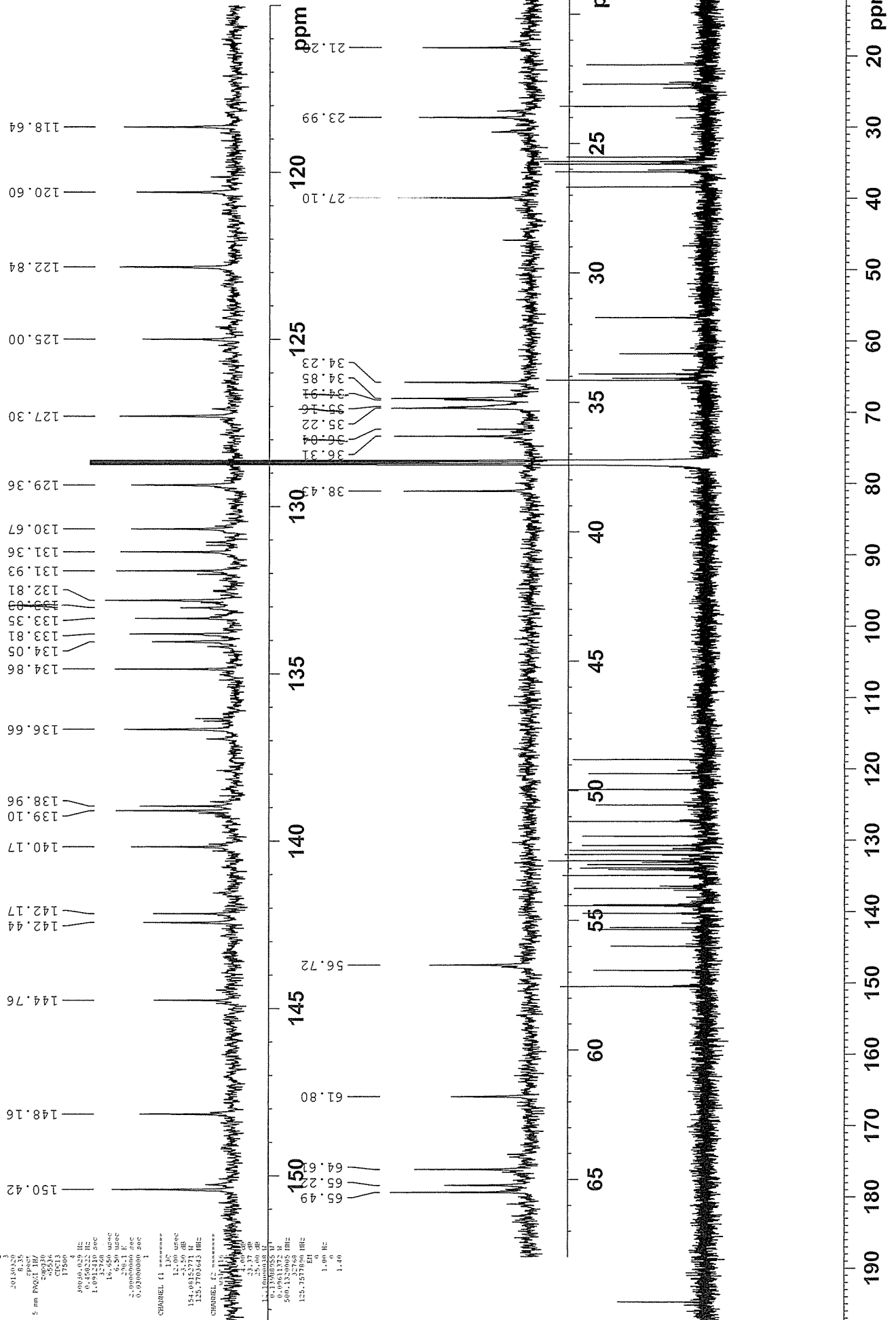
PL52 15.00 dB

PL53 15.00 dB

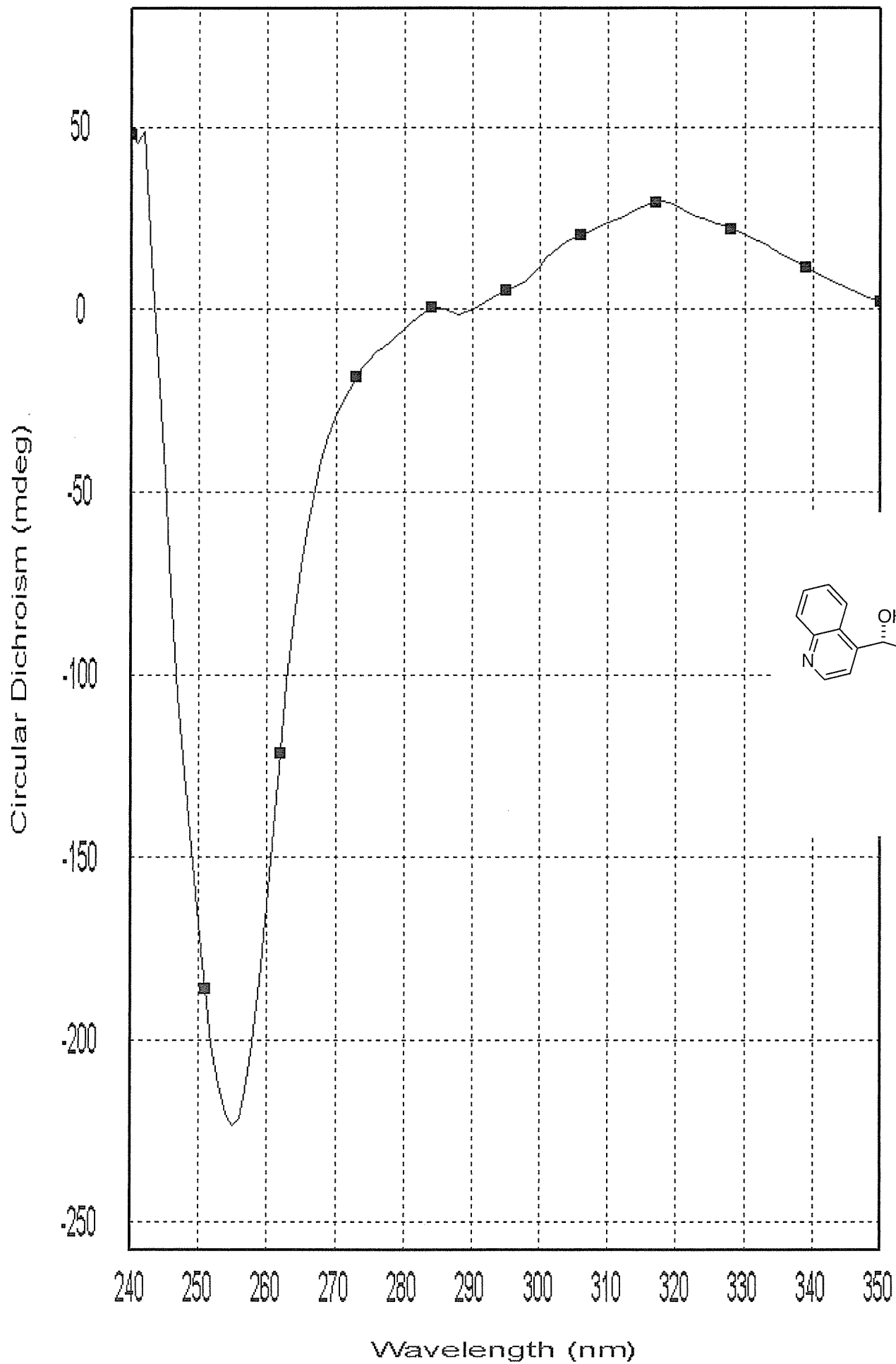
PL54 15.00 dB

PL55 15.00 dB

PL56 15.00 dB



Property : Circular Dichroism

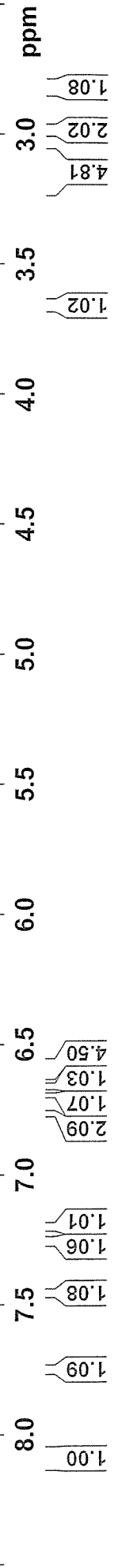
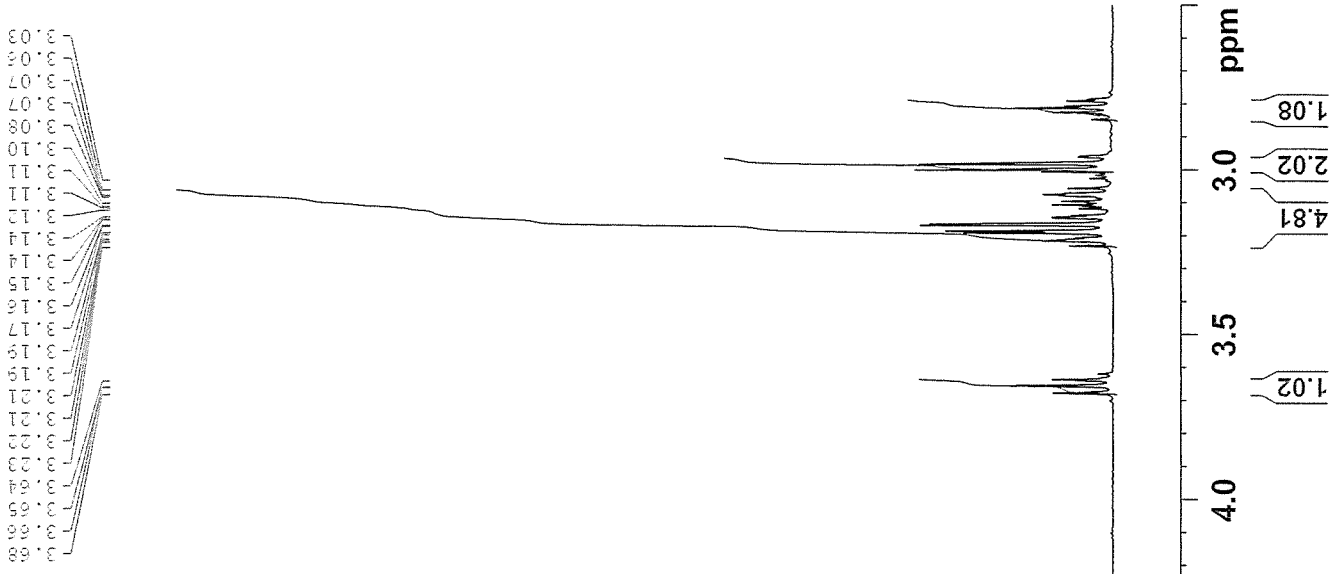
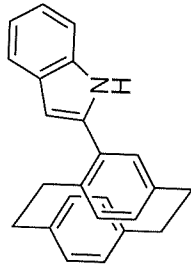


1-NT-9 2-[2,2]paracyclophan-4-ylindole

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7.02
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6.92
6.90
6.88
6.86
6.84
6.82
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6.76
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1.06
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1.02
1.00
0.98
0.96
0.94
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0.90
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0.02
0.00

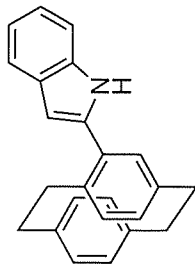
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PROCNO 3
Date_ 20130408
Time_ 15.55
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PROBHD 5 mm PAQXI 1H/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 128
DS 2
SWH 10330.578 Hz
FIDRES 0.157632 Hz
AQ 3.1720407 sec
RG 181
DW 48.400 usec
DE 6.50 usec
TE 298.2 K
D1 1.00000000 sec
TDO 1

==== CHANNEL f1 =====
NUC1 1H
P1 8.60 usec
PL1 4.00 dB
PL1W 12.10000038 W
SFO1 500.1330885 MHz
SI 32768
SF 500.1300000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



1-NT-9 2-[2,2]paracyclophan-4-ylindole

34.54
34.73
35.24
35.48



77.29
77.03
76.78

139.38
139.48
139.60
139.66
139.68
139.70
139.76
139.81
139.86
139.90
139.94
139.98
140.00
140.02
140.03
140.86
141.70

NAME 1-NT-9_Vinal
EXPNO 3
PROCNO 3
Date_ 20130409
Time_ 9.36
INSTRUM spect
PROBHD 5 mm PAKXI 1H/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 20000
DS 4
SWH 30030.029 Hz
FIDRES 0.458222 Hz
AQ 1.0912410 sec
RG 32768
DW 16.650 usec
DE 6.50 usec
TE 298.1 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1

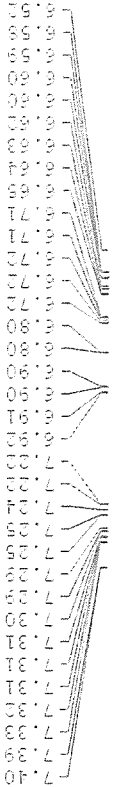
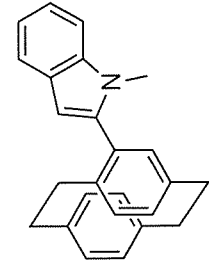
***** CHANNEL f1 *****
NUC1 13C
P1 12.00 usec
PL1 -3.50 dB
PL1W 154.08152771 W
SFO1 125.7703643 MHz

***** CHANNEL f2 *****
CPDPRG2 waltz16
NUC2 1H
PCPD2 80.00 usec
PL2 4.00 dB
PL12 23.37 dB
PL13 25.00 dB
PL2W 12.10000038 W
PL12W 0.13988955 W
PL13W 0.09611372 W
SFO2 500.1310005 MHz
SI 42768
SF 125.7577890 MHz
WDW EM
SSB C
LB 1.00 Hz
GB C
PC 1.40



140 130 120 110 100 90 80 70 60 50 40 30 ppm

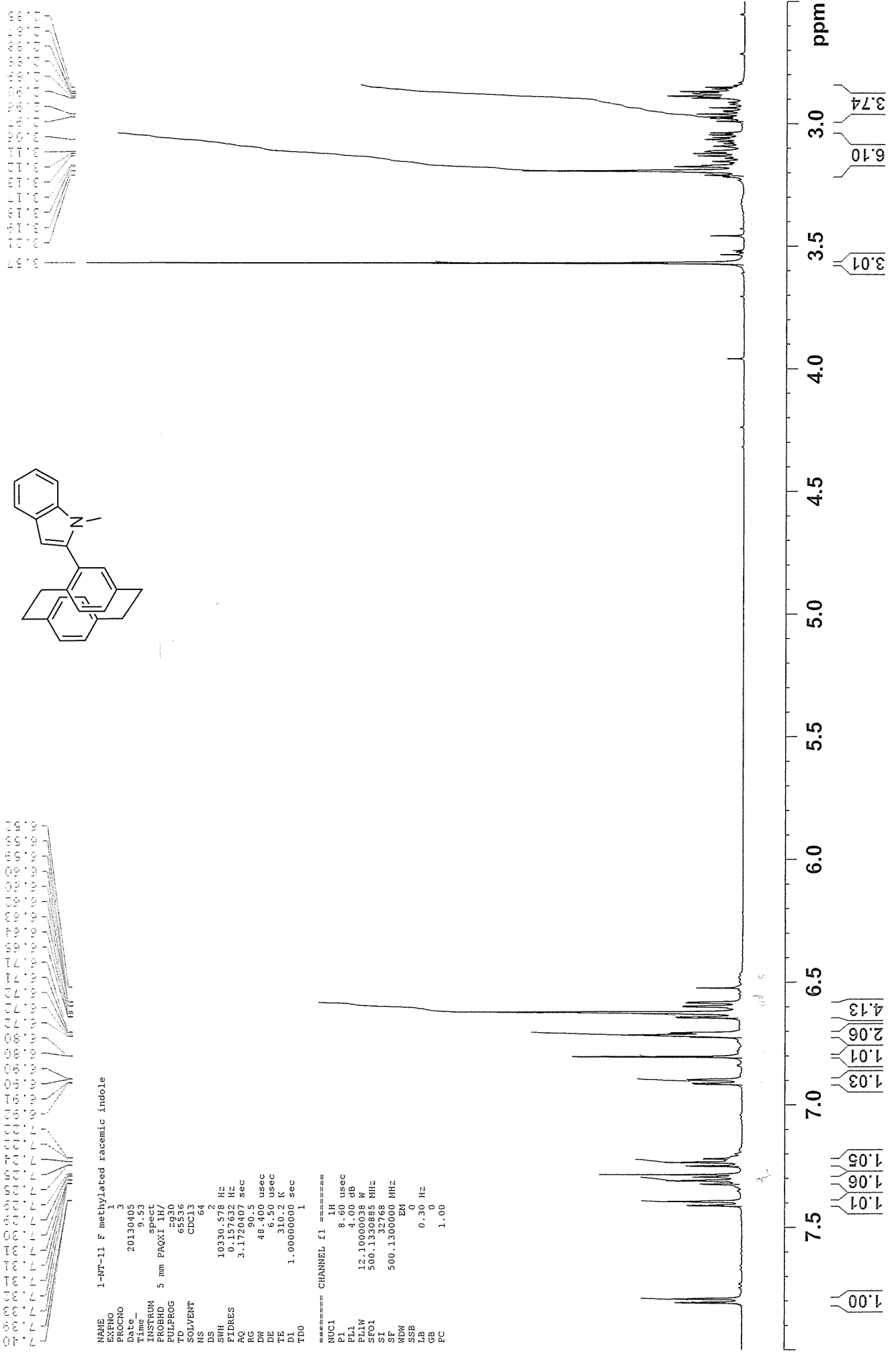
1-NT-11F methylated racemic indole (with aniline)



NAME 1-NT-11 F methylated racemic indole

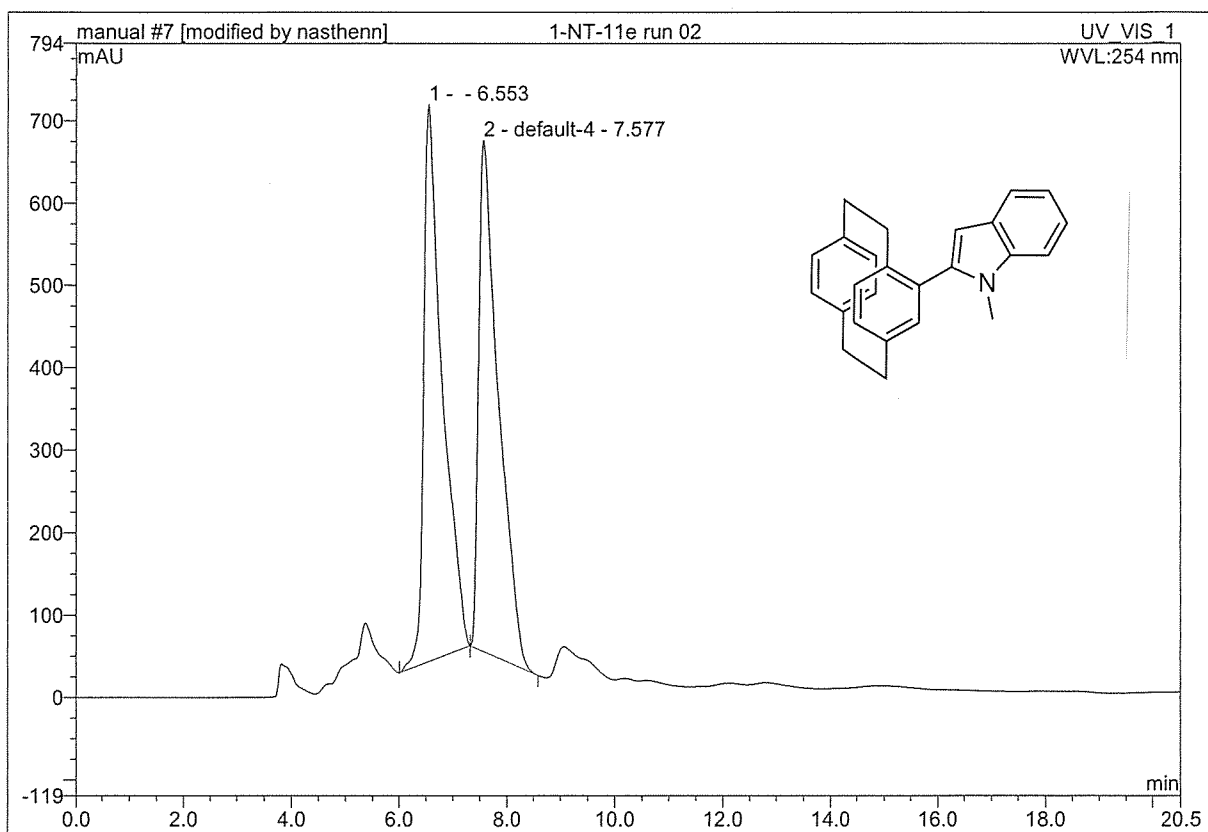
EXPRO 1
 EXPRO 3
 DATE 20130403
 TIME 9:52
 INSTRUM spect
 PROBRD 5 mm PAXTE 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 64
 DS 2
 SWH 10330.578 Hz
 FIDRES 0.157632 Hz
 AQ 3.1720407 sec
 RG 90.5
 DW 48.400 usec
 DE 6.50 usec
 TE 310.2 K
 D1 1.00000000 sec
 TD0 1

===== CHANNEL f1 =====
 NUC1 1H
 P1 8.60 usec
 PL1 4.00 dB
 PL1W 12.10000038 W
 SFO1 500.1330885 MHz
 SI 32768
 SF 500.13300000 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 EC 1.00



7 1-NT-11e run 02

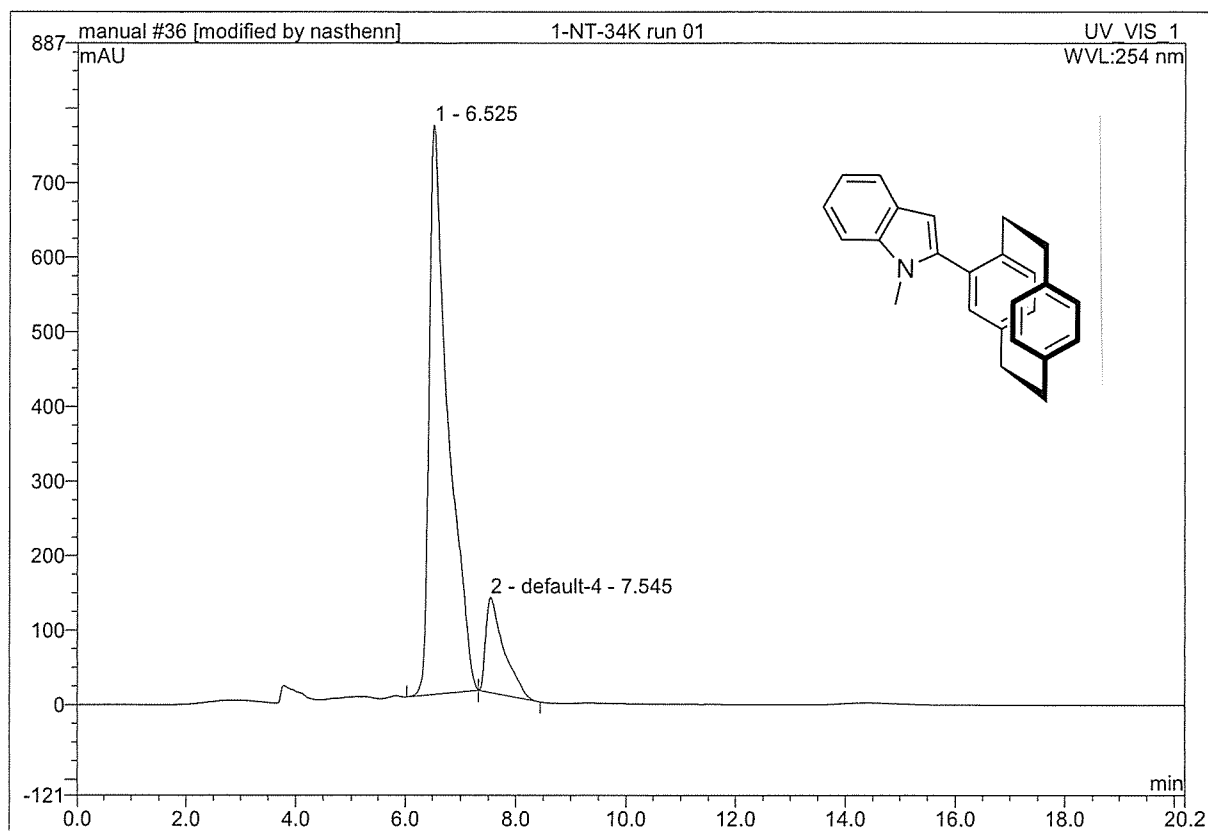
Sample Name:	1-NT-11e run 02	Injection Volume:	50.0
Vial Number:	10	Channel:	UV_VIS_1
Sample Type:	unknown	Wavelength:	254
Control Program:	Nishani iso v2	Bandwidth:	n.a.
Quantif. Method:	default	Dilution Factor:	1.0000
Recording Time:	24/10/2012 14:17	Sample Weight:	1.0000
Run Time (min):	40.00	Sample Amount:	1.0000



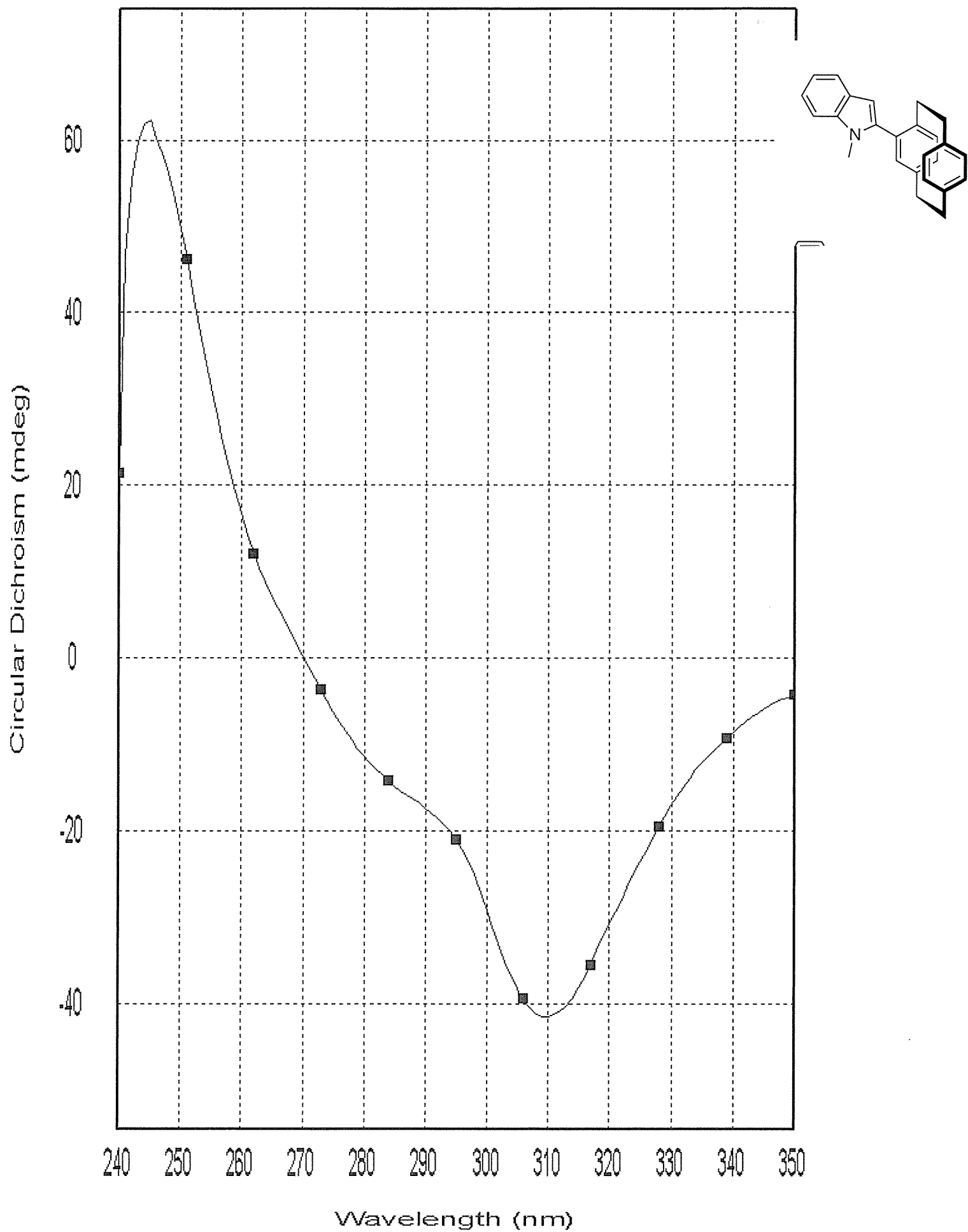
No.	Ret.Time min	Peak Name	Height mAU	Area mAU*min	Rel.Area %	Amount	Type
1	6.55		676.235	271.054	50.90	n.a.	BMb
2	7.58	default-4	620.627	261.490	49.10	n.a.	bMB
Total:			1296.862	532.544	100.00	0.000	

36 1-NT-34K run 01

Sample Name:	1-NT-34K run 01	Injection Volume:	50.0
Vial Number:	43	Channel:	UV_VIS_1
Sample Type:	unknown	Wavelength:	254
Control Program:	Nishani iso v2	Bandwidth:	n.a.
Quantif. Method:	default	Dilution Factor:	1.0000
Recording Time:	15/3/2013 13:47	Sample Weight:	1.0000
Run Time (min):	30.01	Sample Amount:	1.0000

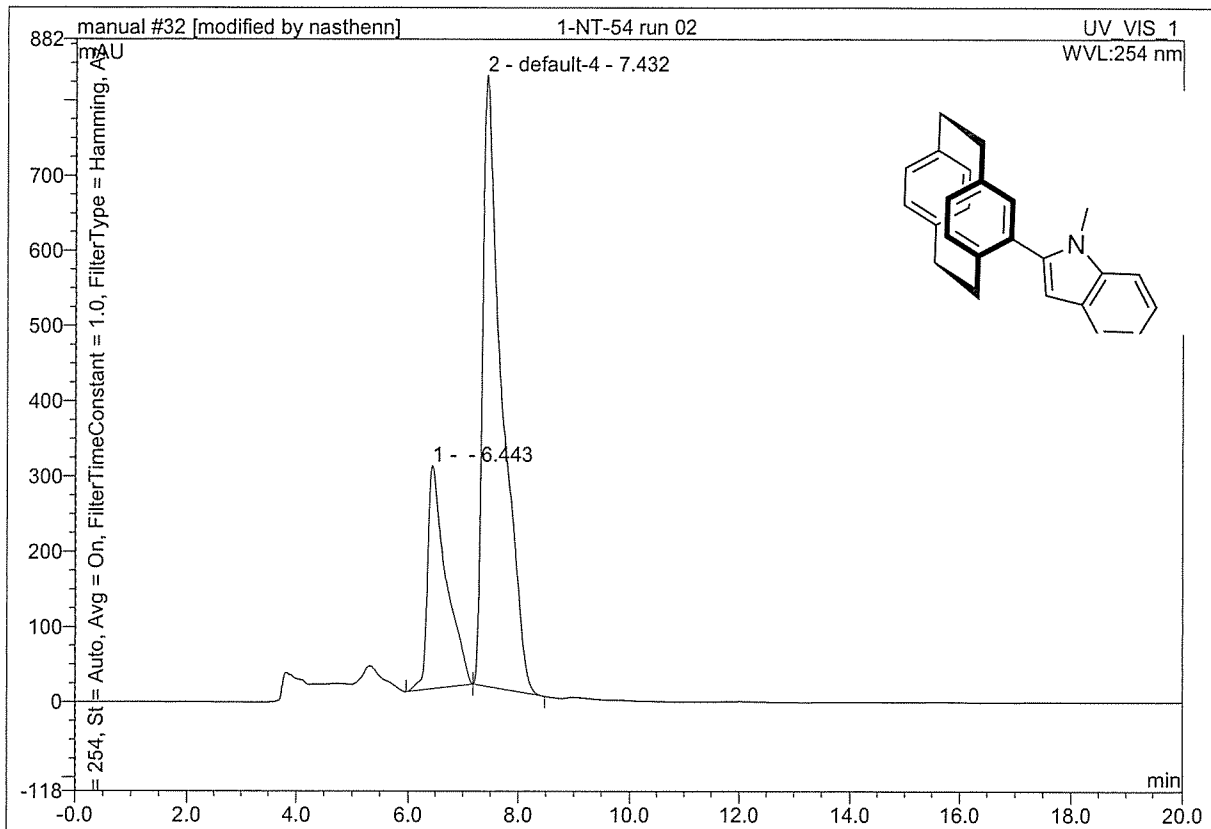


No.	Ret.Time min	Peak Name	Height mAU	Area mAU*min	Rel.Area %	Amount	Type
1	6.52		763.854	304.061	86.12	n.a.	BMb
2	7.54	default-4	128.017	49.004	13.88	n.a.	bMB
Total:			891.871	353.066	100.00	0.000	

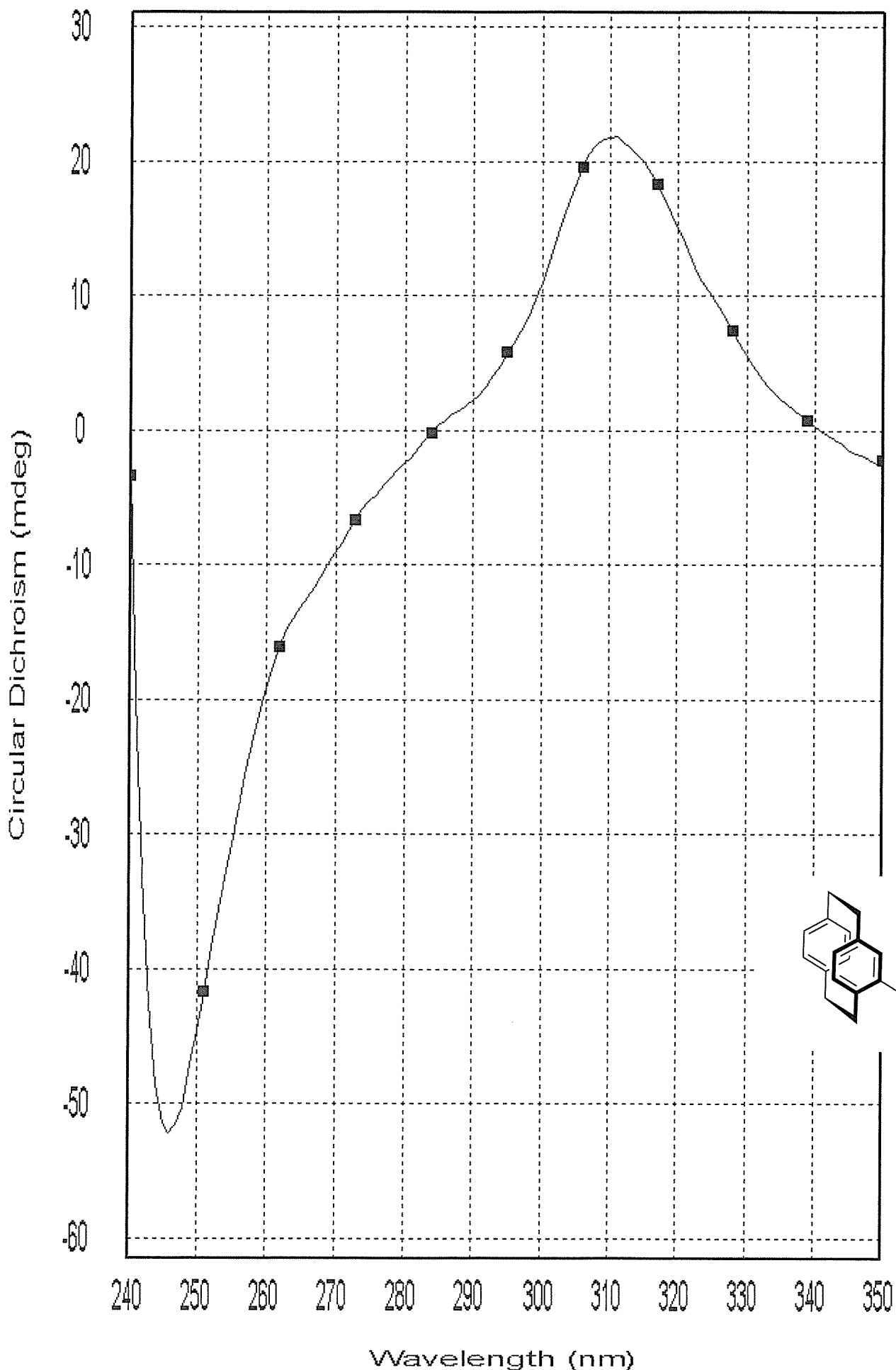


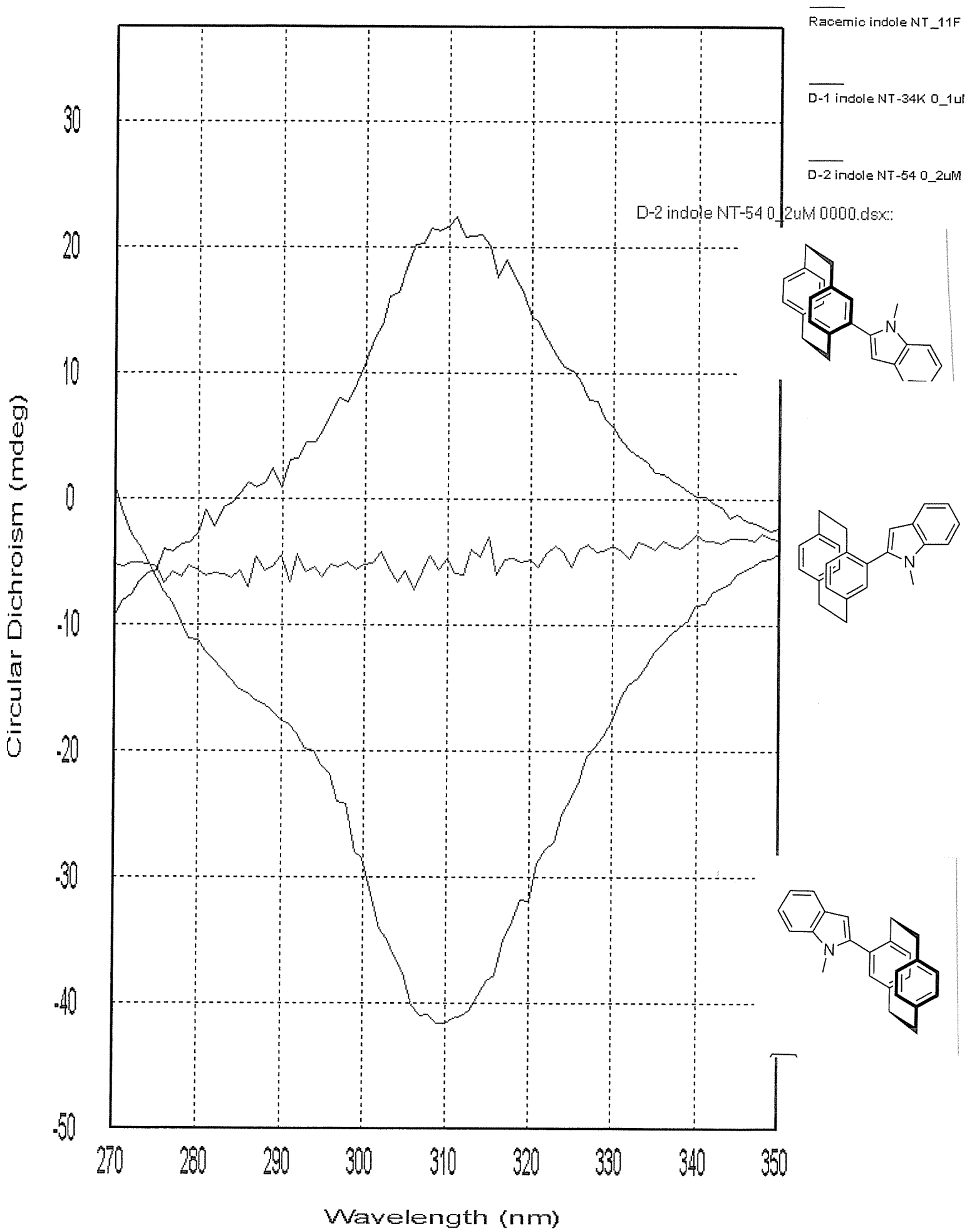
32 1-NT-54 run 02

Sample Name:	1-NT-54 run 02	Injection Volume:	50.0
Vial Number:	39	Channel:	UV_VIS_1
Sample Type:	unknown	Wavelength:	254
Control Program:	Nishani iso v2	Bandwidth:	n.a.
Quantif. Method:	default	Dilution Factor:	1.0000
Recording Time:	15/3/2013 12:19	Sample Weight:	1.0000
Run Time (min):	36.41	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height mAU	Area mAU*min	Rel.Area %	Amount	Type
1	6.44		296.624	116.339	25.78	n.a.	BmB
2	7.43	default-4	812.572	334.894	74.22	n.a.	bMB
Total:			1109.196	451.233	100.00	0.000	



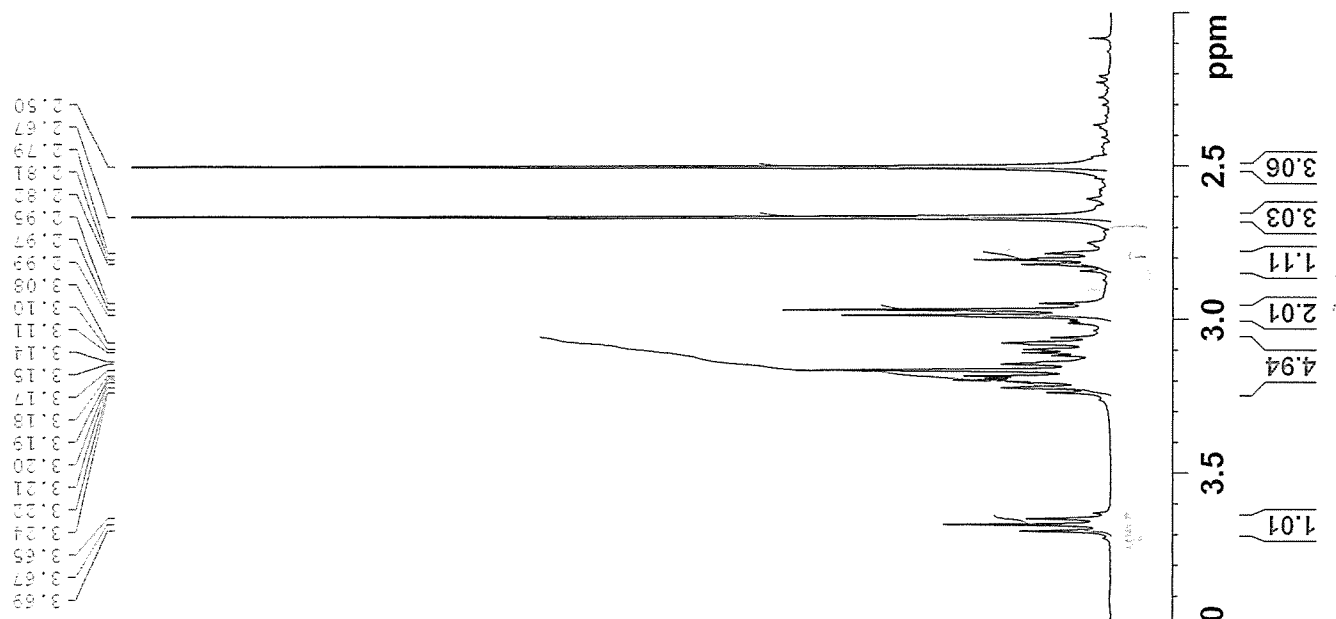
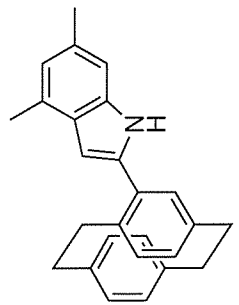


1-NT-56 dimethyl indole (Racemic)

7.9
7.8
7.7
7.6
7.5
7.4
7.3
7.2
7.1
7.0
6.9
6.8
6.7
6.6
6.5
6.4
6.3
6.2
6.1
6.0
5.9
5.8
5.7
5.6
5.5
5.4
5.3
5.2
5.1
5.0
4.9
4.8
4.7
4.6
4.5
4.4
4.3
4.2
4.1
4.0
3.9
3.8
3.7
3.6
3.5
3.4
3.3
3.2
3.1
3.0
2.9
2.8
2.7
2.6
2.5
2.4
2.3
2.2
2.1
2.0
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1

1-NT-56 pf final
 EXPNO 1
 PROCNO 3
 Date_ 20130411
 Time_ 16.11
 INSTRUM spect
 PROBHD 5 mm PAQXI 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 64
 DS 2
 SWH 10330.578 Hz
 FIDRES 0.157632 Hz
 AQC 3.1720407 sec
 RG 114
 DW 48.400 usec
 DE 6.50 usec
 TE 298.1 K
 D1 1.00000000 sec
 TD0 1

==== CHANNEL f1 =====
 NUC1 1H
 P1 8.60 usec
 PL1 4.00 dB
 PL1W 12.10000038 W
 SF01 500.1330885 MHz
 SI 32768
 SF 500.1300000 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



1-NT-56 dimethyl indole (Racemic)

140.00
139.45
138.90
138.35
137.80
137.25
136.70
136.15
135.60
135.05
134.50
133.95
133.40
132.85
132.30
131.75
131.20
130.65
130.10
129.55
129.00
128.45
127.90
127.35
126.80
126.25
125.70
125.15
124.60
124.05
123.50
122.95
122.40
121.85
121.30
120.75
120.20
119.65
119.10
118.55
118.00
117.45
116.90
116.35
115.80
115.25
114.70
114.15
113.60
113.05
112.50
111.95
111.40
110.85
110.30
109.75
109.20
108.65
108.10
107.55
107.00
106.45
105.90
105.35
104.80
104.25
103.70
103.15
102.60
102.05
101.50
100.95
100.40
99.85
99.30
98.75
98.20
97.65
97.10
96.55
96.00
95.45
94.90
94.35
93.80
93.25
92.70
92.15
91.60
91.05
90.50
89.95
89.40
88.85
88.30
87.75
87.20
86.65
86.10
85.55
85.00
84.45
83.90
83.35
82.80
82.25
81.70
81.15
80.60
80.05
79.50
78.95
78.40
77.85
77.30
76.75
76.20
75.65
75.10
74.55
74.00
73.45
72.90
72.35
71.80
71.25
70.70
70.15
69.60
69.05
68.50
67.95
67.40
66.85
66.30
65.75
65.20
64.65
64.10
63.55
63.00
62.45
61.90
61.35
60.80
60.25
59.70
59.15
58.60
58.05
57.50
56.95
56.40
55.85
55.30
54.75
54.20
53.65
53.10
52.55
52.00
51.45
50.90
50.35
49.80
49.25
48.70
48.15
47.60
47.05
46.50
45.95
45.40
44.85
44.30
43.75
43.20
42.65
42.10
41.55
41.00
40.45
39.90
39.35
38.80
38.25
37.70
37.15
36.60
36.05
35.50
34.95
34.40
33.85
33.30
32.75
32.20
31.65
31.10
30.55
30.00
29.45
28.90
28.35
27.80
27.25
26.70
26.15
25.60
25.05
24.50
23.95
23.40
22.85
22.30
21.75
21.20
20.65
20.10
19.55
19.00
18.45
17.90
17.35
16.80
16.25
15.70
15.15
14.60
14.05
13.50
12.95
12.40
11.85
11.30
10.75
10.20
9.65
9.10
8.55
8.00
7.45
6.90
6.35
5.80
5.25
4.70
4.15
3.60
3.05
2.50
1.95
1.40
0.85
0.30
-0.25
-0.80
-1.35
-1.90
-2.45
-3.00
-3.55
-4.10
-4.65
-5.20
-5.75
-6.30
-6.85
-7.40
-7.95
-8.50
-9.05
-9.60
-10.15
-10.70
-11.25
-11.80
-12.35
-12.90
-13.45
-14.00
-14.55
-15.10
-15.65
-16.20
-16.75
-17.30
-17.85
-18.40
-18.95
-19.50
-20.05
-20.60
-21.15
-21.70
-22.25
-22.80
-23.35
-23.90
-24.45
-25.00
-25.55
-26.10
-26.65
-27.20
-27.75
-28.30
-28.85
-29.40
-29.95
-30.50
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-32.15
-32.70
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-33.80
-34.35
-34.90
-35.45
-36.00
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-37.10
-37.65
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-38.75
-39.30
-39.85
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-40.95
-41.50
-42.05
-42.60
-43.15
-43.70
-44.25
-44.80
-45.35
-45.90
-46.45
-47.00
-47.55
-48.10
-48.65
-49.20
-49.75
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-50.85
-51.40
-51.95
-52.50
-53.05
-53.60
-54.15
-54.70
-55.25
-55.80
-56.35
-56.90
-57.45
-58.00
-58.55
-59.10
-59.65
-60.20
-60.75
-61.30
-61.85
-62.40
-62.95
-63.50
-64.05
-64.60
-65.15
-65.70
-66.25
-66.80
-67.35
-67.90
-68.45
-69.00
-69.55
-70.10
-70.65
-71.20
-71.75
-72.30
-72.85
-73.40
-73.95
-74.50
-75.05
-75.60
-76.15
-76.70
-77.25
-77.80
-78.35
-78.90
-79.45
-80.00
-80.55
-81.10
-81.65
-82.20
-82.75
-83.30
-83.85
-84.40
-84.95
-85.50
-86.05
-86.60
-87.15
-87.70
-88.25
-88.80
-89.35
-89.90
-90.45
-91.00
-91.55
-92.10
-92.65
-93.20
-93.75
-94.30
-94.85
-95.40
-95.95
-96.50
-97.05
-97.60
-98.15
-98.70
-99.25
-99.80
-100.35
-100.90
-101.45
-102.00
-102.55
-103.10
-103.65
-104.20
-104.75
-105.30
-105.85
-106.40
-106.95
-107.50
-108.05
-108.60
-109.15
-109.70
-110.25
-110.80
-111.35
-111.90
-112.45
-113.00
-113.55
-114.10
-114.65
-115.20
-115.75
-116.30
-116.85
-117.40
-117.95
-118.50
-119.05
-119.60
-120.15
-120.70
-121.25
-121.80
-122.35
-122.90
-123.45
-124.00
-124.55
-125.10
-125.65
-126.20
-126.75
-127.30
-127.85
-128.40
-128.95
-129.50
-130.05
-130.60
-131.15
-131.70
-132.25
-132.80
-133.35
-133.90
-134.45
-135.00
-135.55
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-136.65
-137.20
-137.75
-138.30
-138.85
-139.40
-140.00

```

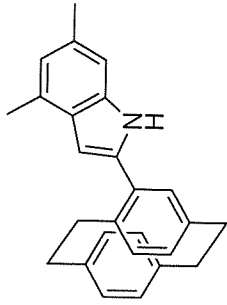
NAME 1-NT-56 pf final
EXPNO 3
PROCNO 2
Date_ 20130412
Time_ 8.31
INSTRUM spect
PROBHD 5 mm PAXXI 1H/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 18500
DS 4
SWH 30030.029 Hz
FIDRES 0.458222 Hz
AQ 1.0912410 sec
RG 32768
DW 16.650 usec
DE 298.1 K
TE 2.00000000 sec
D1 0.03000000 sec
D11 0.03000000 sec
TDO 1
  
```

```

===== CHANNEL f1 =====
NUC1 13C
P1 12.00 usec
PL1 -3.50 dB
PL1W 154.08152771 W
SF01 125.7703643 MHz
  
```

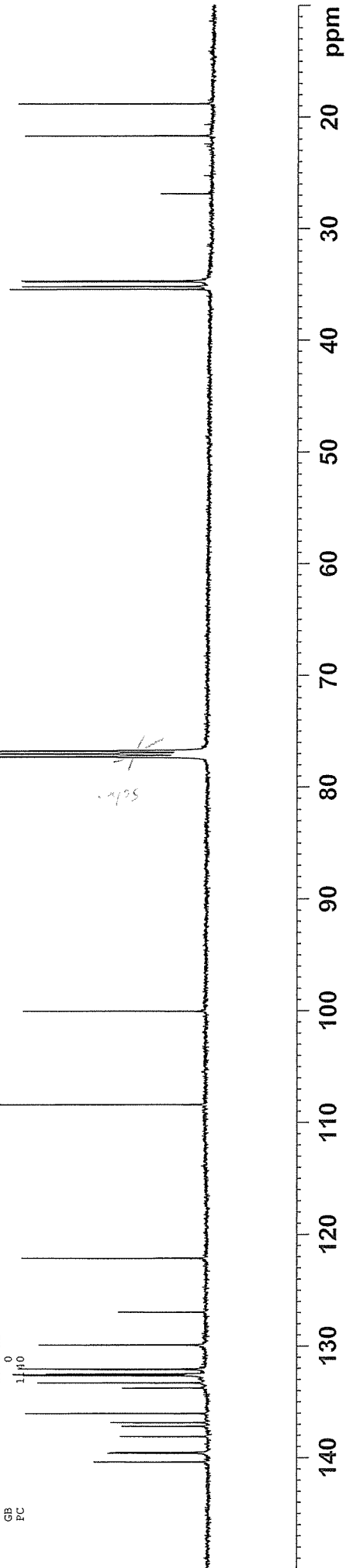
```

===== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
PCPD2 80.00 usec
PL2 4.00 dB
PL12 23.37 dB
PL13 25.00 dB
PL2W 12.10000038 W
PL12W 0.13988955 W
PL13W 0.09611372 W
SF02 500.1320005 MHz
SI 32768
SF 125.7577890 MHz
EK 0
WDW 0
SSB 0
LB 0
GB 0
PC 1
  
```



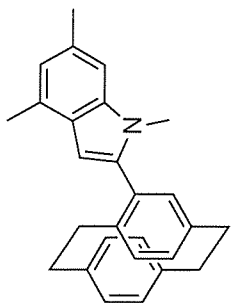
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34.83
34.74
22.94
21.75
18.88

77.29
77.04
76.78



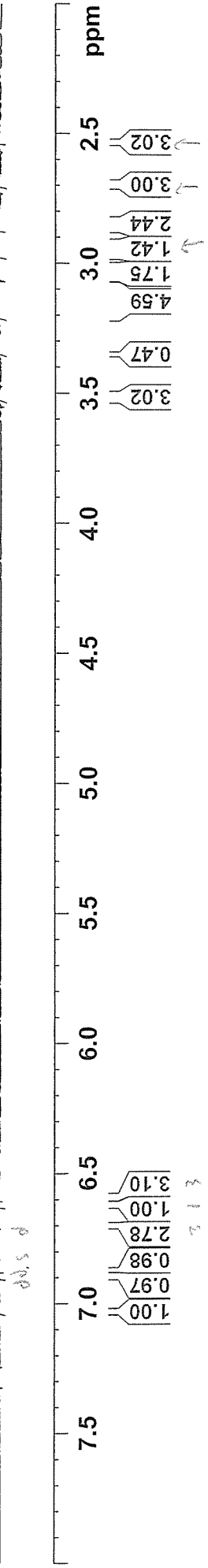
1-NT-56B dimethyl indole (Racemic/methylated)

NAME 1-NT-56B final
 EXPNO 1
 PROCNO 3
 Date_ 20130514
 Time_ 16.27
 INSTRUM Spect
 PROBHD 5 mm PAQXI 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 64
 DS 2
 SWH 10330.578 Hz
 FIDRES 0.157632 Hz
 AQ 3.1720407 sec
 RG 256
 DW 48.400 usec
 DE 6.50 usec
 TE 298.4 K
 D1 1.00000000 sec
 TD0 1



7.50
7.48
7.46
7.44
7.42
7.40
7.38
7.36
7.34
7.32
7.30
7.28
7.26
7.24
7.22
7.20
7.18
7.16
7.14
7.12
7.10
7.08
7.06
7.04
7.02
7.00
6.98
6.96
6.94
6.92
6.90
6.88
6.86
6.84
6.82
6.80
6.78
6.76
6.74
6.72
6.70
6.68
6.66
6.64
6.62
6.60
6.58
6.56
6.54
6.52
6.50
6.48
6.46
6.44
6.42
6.40
6.38
6.36
6.34
6.32
6.30
6.28
6.26
6.24
6.22
6.20
6.18
6.16
6.14
6.12
6.10
6.08
6.06
6.04
6.02
6.00
5.98
5.96
5.94
5.92
5.90
5.88
5.86
5.84
5.82
5.80
5.78
5.76
5.74
5.72
5.70
5.68
5.66
5.64
5.62
5.60
5.58
5.56
5.54
5.52
5.50
5.48
5.46
5.44
5.42
5.40
5.38
5.36
5.34
5.32
5.30
5.28
5.26
5.24
5.22
5.20
5.18
5.16
5.14
5.12
5.10
5.08
5.06
5.04
5.02
5.00
4.98
4.96
4.94
4.92
4.90
4.88
4.86
4.84
4.82
4.80
4.78
4.76
4.74
4.72
4.70
4.68
4.66
4.64
4.62
4.60
4.58
4.56
4.54
4.52
4.50
4.48
4.46
4.44
4.42
4.40
4.38
4.36
4.34
4.32
4.30
4.28
4.26
4.24
4.22
4.20
4.18
4.16
4.14
4.12
4.10
4.08
4.06
4.04
4.02
4.00
3.98
3.96
3.94
3.92
3.90
3.88
3.86
3.84
3.82
3.80
3.78
3.76
3.74
3.72
3.70
3.68
3.66
3.64
3.62
3.60
3.58
3.56
3.54
3.52
3.50
3.48
3.46
3.44
3.42
3.40
3.38
3.36
3.34
3.32
3.30
3.28
3.26
3.24
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3.18
3.16
3.14
3.12
3.10
3.08
3.06
3.04
3.02
3.00
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2.96
2.94
2.92
2.90
2.88
2.86
2.84
2.82
2.80
2.78
2.76
2.74
2.72
2.70
2.68
2.66
2.64
2.62
2.60
2.58
2.56
2.54
2.52
2.50
2.48
2.46
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2.16
2.14
2.12
2.10
2.08
2.06
2.04
2.02
2.00
1.98
1.96
1.94
1.92
1.90
1.88
1.86
1.84
1.82
1.80
1.78
1.76
1.74
1.72
1.70
1.68
1.66
1.64
1.62
1.60
1.58
1.56
1.54
1.52
1.50
1.48
1.46
1.44
1.42
1.40
1.38
1.36
1.34
1.32
1.30
1.28
1.26
1.24
1.22
1.20
1.18
1.16
1.14
1.12
1.10
1.08
1.06
1.04
1.02
1.00
0.98
0.96
0.94
0.92
0.90
0.88
0.86
0.84
0.82
0.80
0.78
0.76
0.74
0.72
0.70
0.68
0.66
0.64
0.62
0.60
0.58
0.56
0.54
0.52
0.50
0.48
0.46
0.44
0.42
0.40
0.38
0.36
0.34
0.32
0.30
0.28
0.26
0.24
0.22
0.20
0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00

===== CHANNEL f1 =====
 NUC1 1H
 P1 8.160 usec
 PL1 4.00 dB
 PL1W 12.10000038 W
 SF01 500.1330885 MHz
 SI 32768
 SF 500.13300000 MHz
 FEM
 SSB 0
 LB 0.130 Hz
 GB 0
 PC 1.00



1-NT-56B dimethyl indole (Racemic/methylated)



```

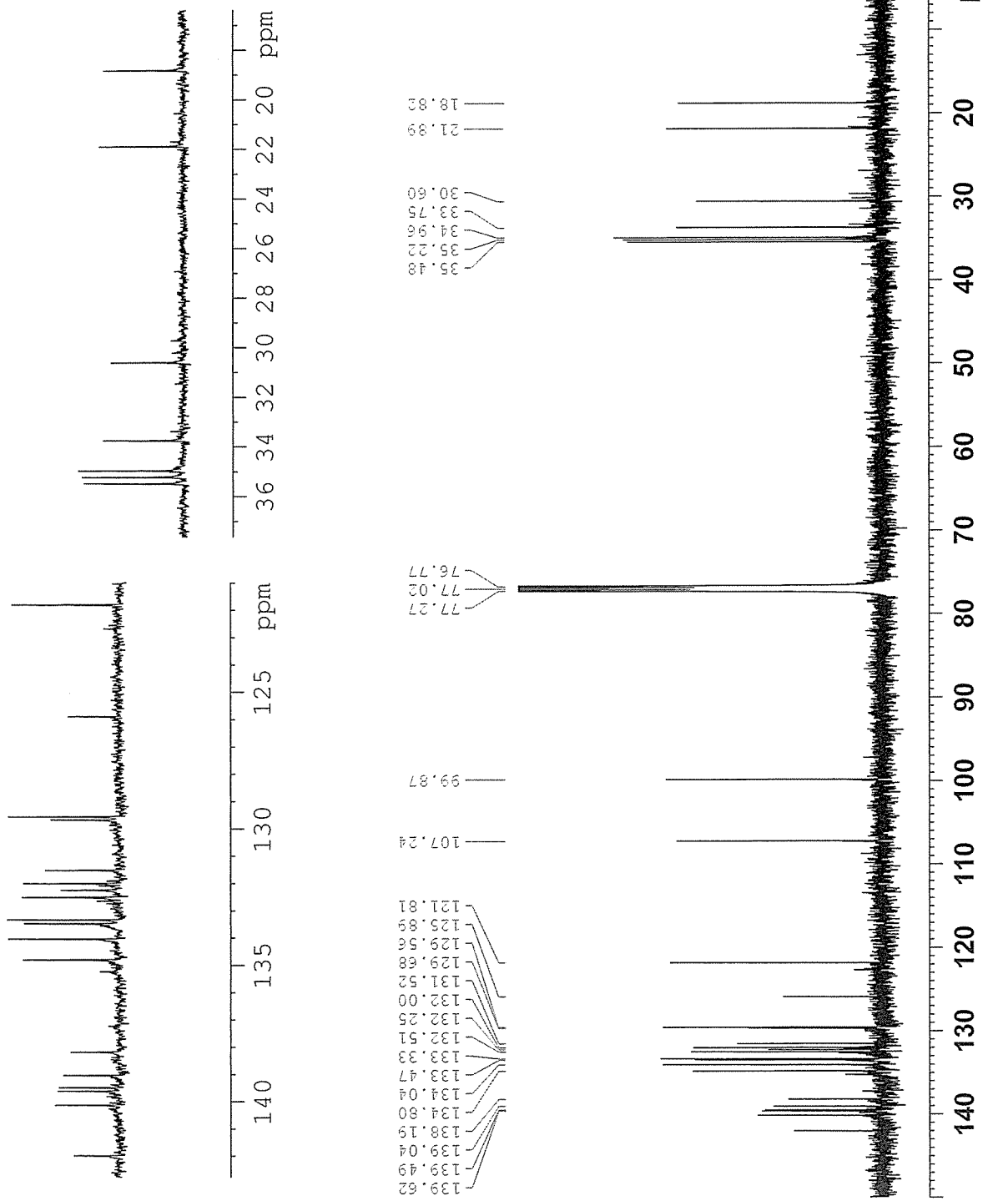
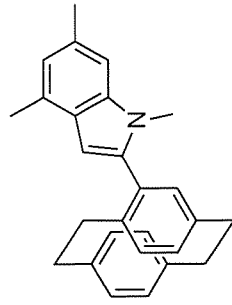
NAME 1-NT-56B final
EXPNO 2
PROCNO 3
Date_ 20130515
Time_ 9.36
INSTRUM spect
PROBHD 5 mm PAQXI IH/
PULPROG zgpg30
TD 65536
SOLVENT CDC13
NS 19500
DS 4
SWH 30030.029 Hz
FIDRES 0.458222 Hz
AQ 1.0912410 sec
RG 32768
DW 16.650 usec
DE 6.50 usec
TE 297.4 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
    
```

```

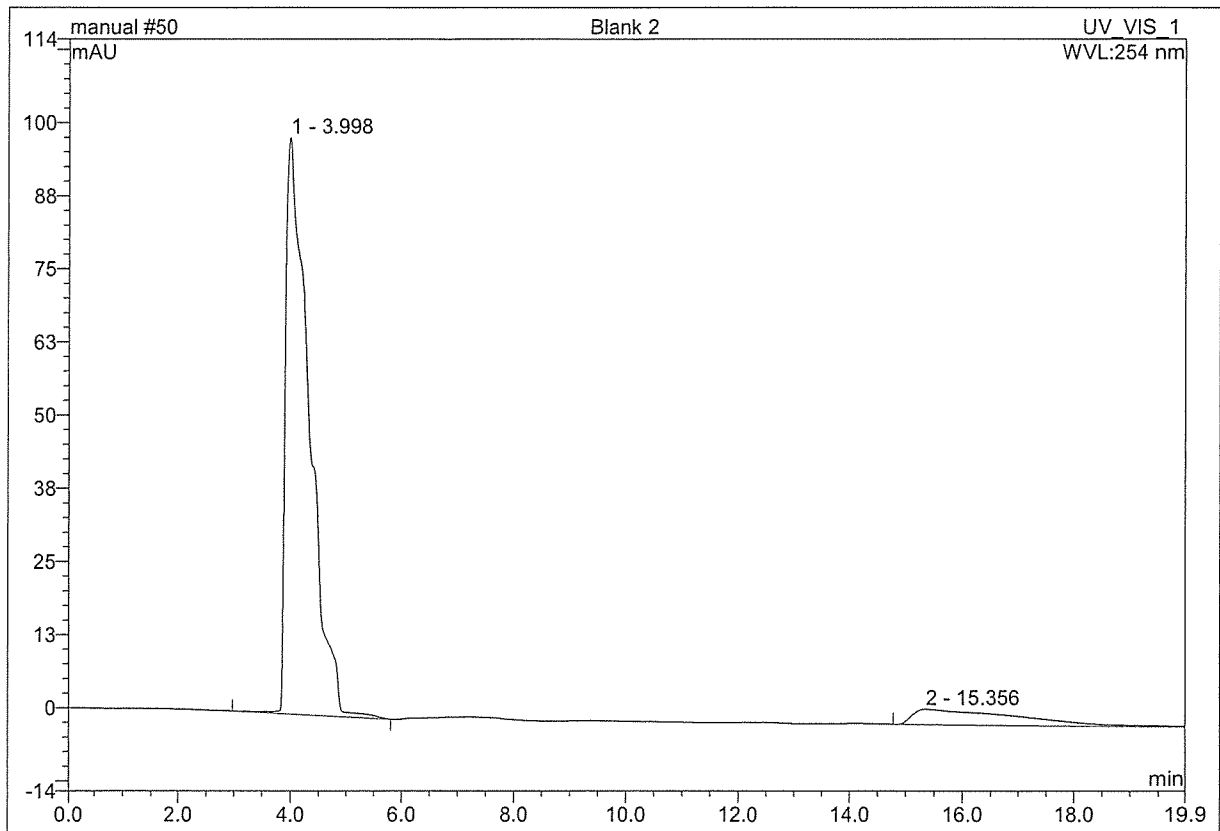
===== CHANNEL f1 =====
NUC1 13C
P1 12.00 usec
PL1 -3.50 dB
PL1W 154.08152771 W
SF01 125.7703643 MHz
    
```

```

===== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
PCPD2 80.00 usec
PL2 4.00 dB
PL12 23.37 dB
PL13 25.00 dB
PL12W 12.10000038 W
PL13W 0.13988955 W
    
```

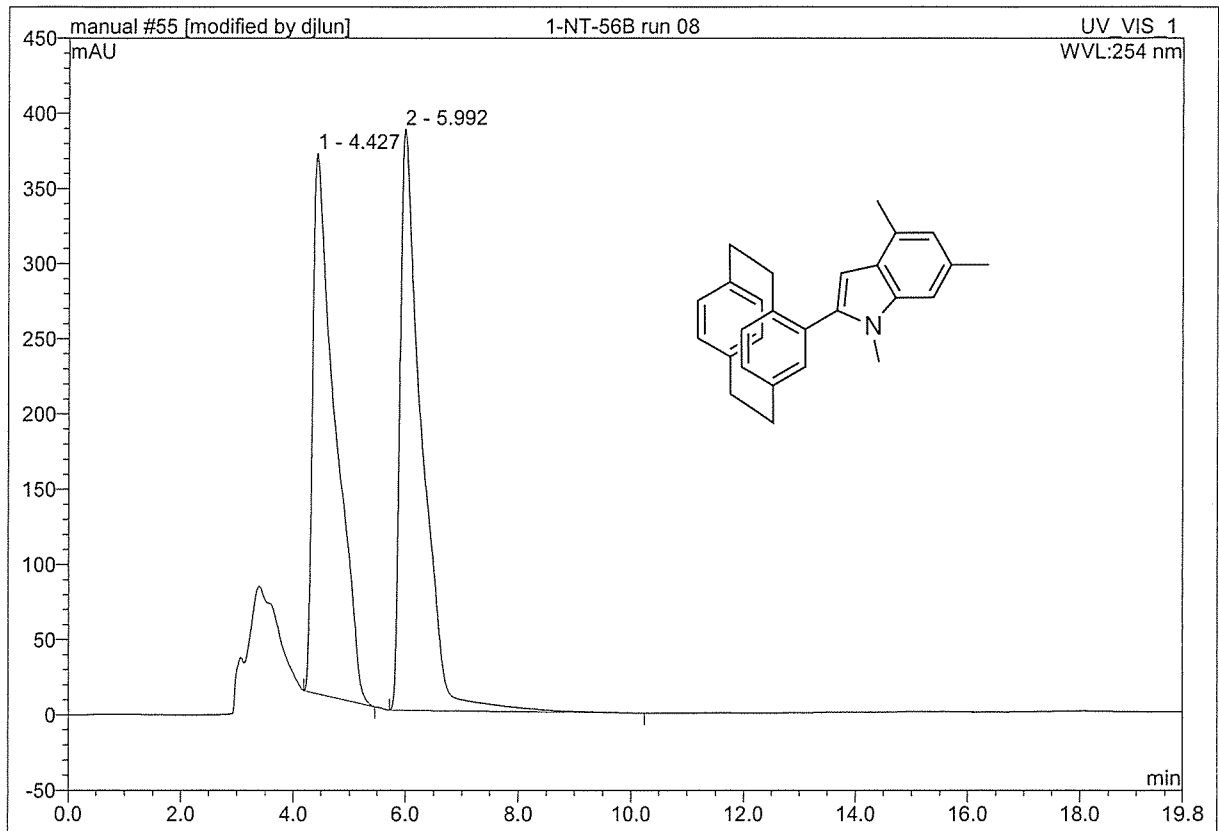


50 Blank 2			
Sample Name:	Blank 2	Injection Volume:	50.0
Vial Number:	57	Channel:	UV_VIS_1
Sample Type:	unknown	Wavelength:	254
Control Program:	Nishani iso v2	Bandwidth:	n.a.
Quantif. Method:	default	Dilution Factor:	1.0000
Recording Time:	12/4/2013 9:55	Sample Weight:	1.0000
Run Time (min):	40.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height mAU	Area mAU*min	Rel.Area %	Amount	Type
1	4.00	n.a.	98.514	48.260	88.95	n.a.	BMB
2	15.36	n.a.	2.636	5.995	11.05	n.a.	BMB
Total:			101.150	54.255	100.00	0.000	

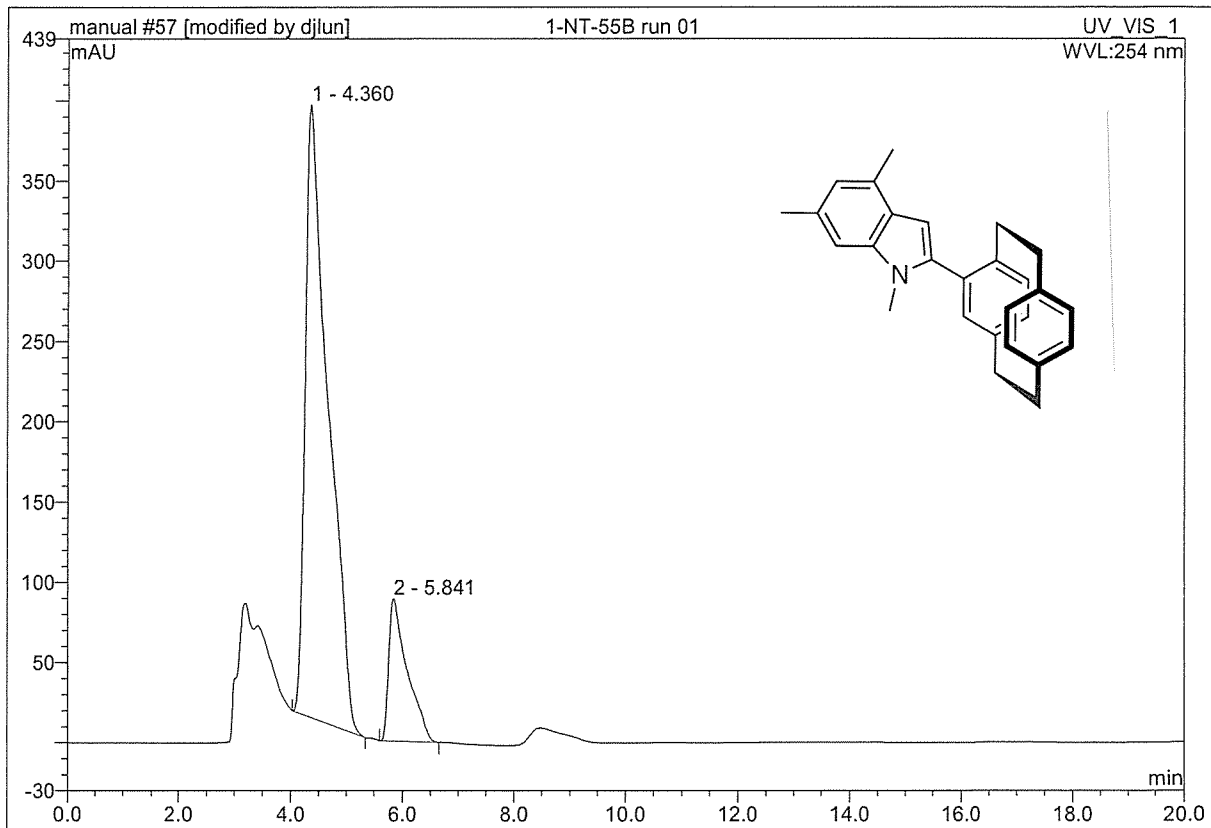
55 1-NT-56B run 08			
Sample Name:	1-NT-56B run 08	Injection Volume:	50.0
Vial Number:	62	Channel:	UV_VIS_1
Sample Type:	unknown	Wavelength:	254
Control Program:	Nishani iso v3	Bandwidth:	n.a.
Quantif. Method:	default	Dilution Factor:	1.0000
Recording Time:	12/4/2013 14:19	Sample Weight:	1.0000
Run Time (min):	19.79	Sample Amount:	1.0000



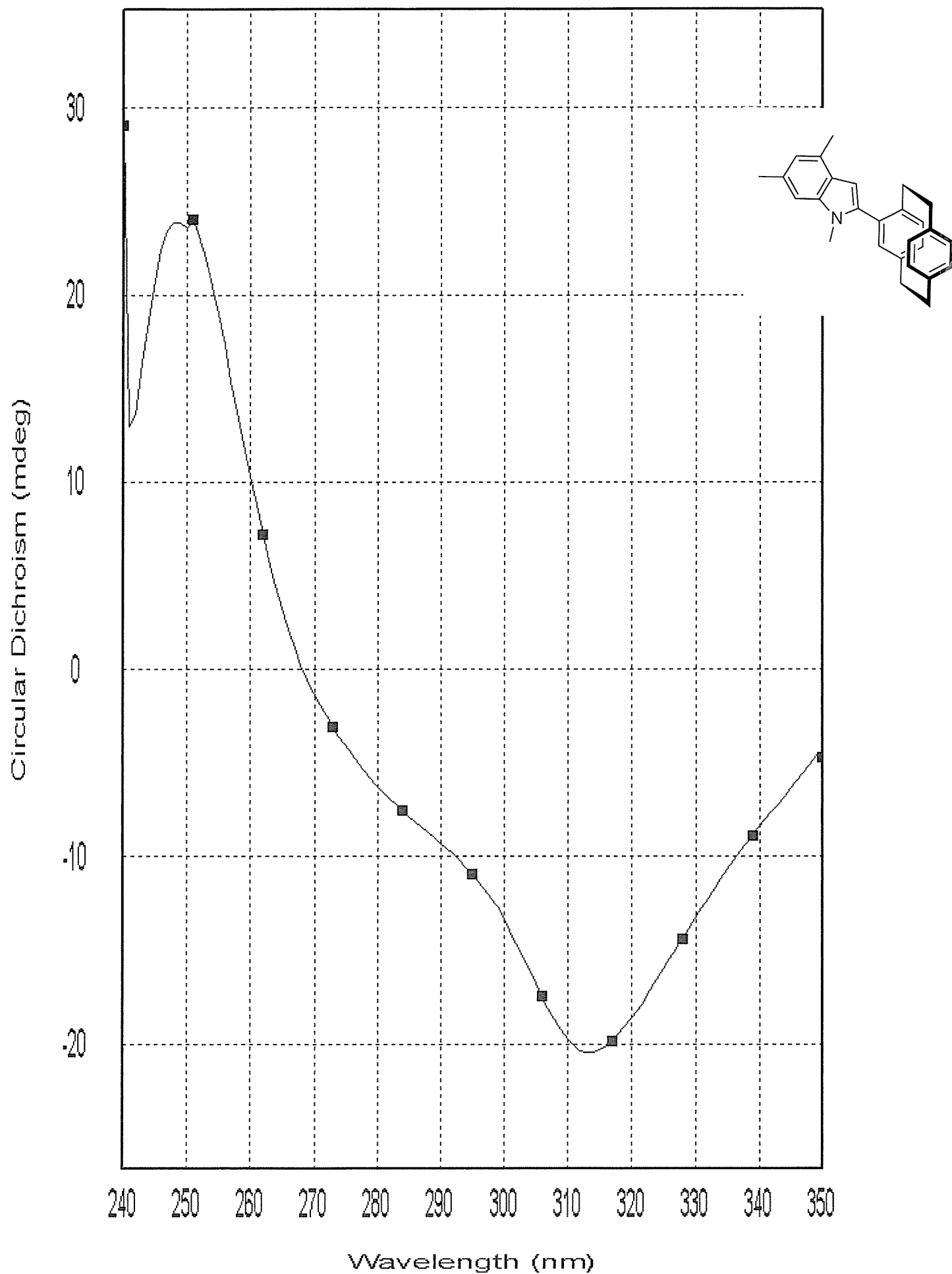
No.	Ret.Time min	Peak Name	Height mAU	Area mAU*min	Rel.Area %	Amount	Type
1	4.43	n.a.	359.340	166.455	49.12	n.a.	BMB
2	5.99	n.a.	386.730	172.402	50.88	n.a.	BMB
Total:			746.070	338.857	100.00	0.000	

57 1-NT-55B run 01

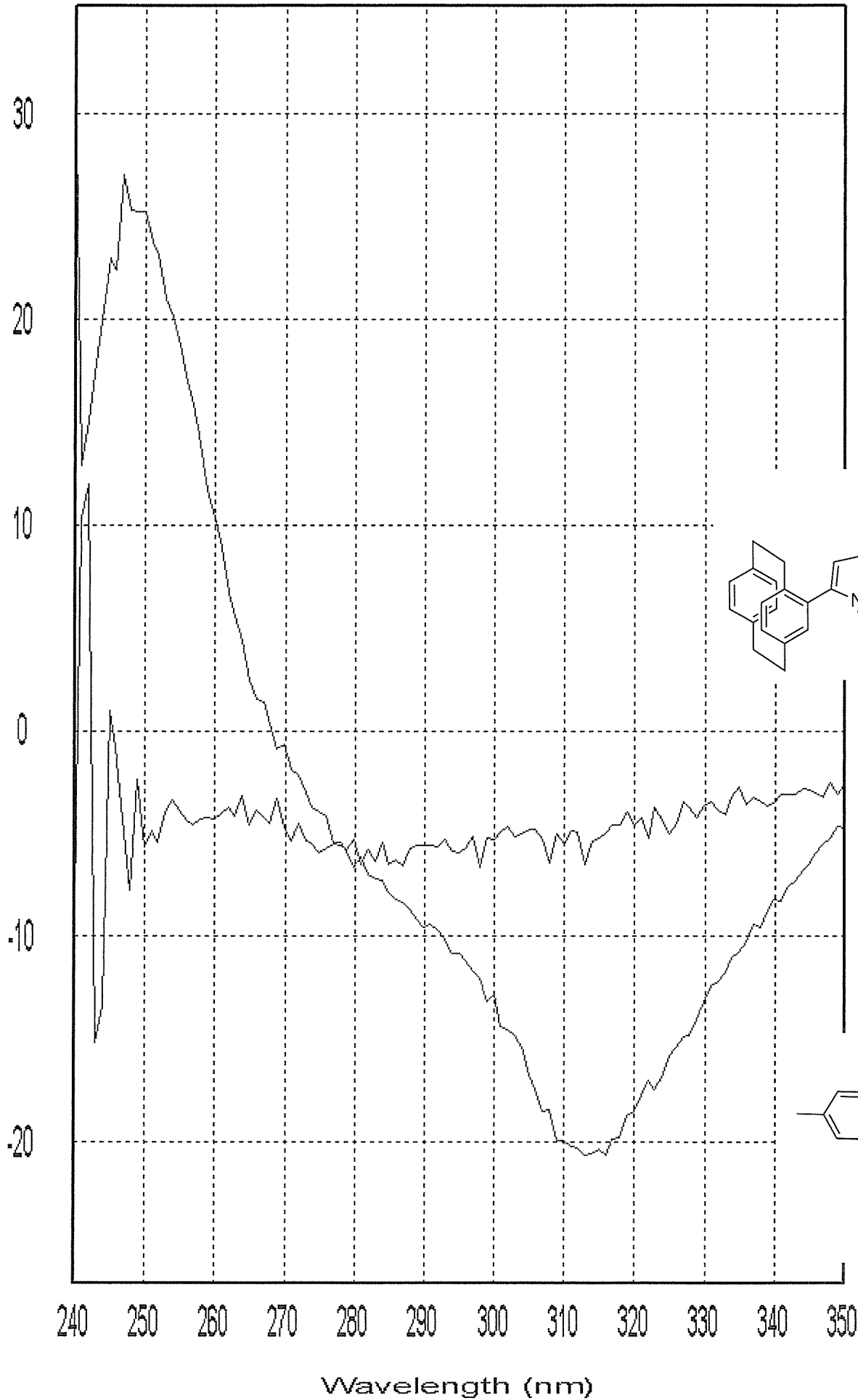
Sample Name:	1-NT-55B run 01	Injection Volume:	50.0
Vial Number:	64	Channel:	UV_VIS_1
Sample Type:	unknown	Wavelength:	254
Control Program:	Nishani iso v3	Bandwidth:	n.a.
Quantif. Method:	default	Dilution Factor:	1.0000
Recording Time:	12/4/2013 15:08	Sample Weight:	1.0000
Run Time (min):	27.05	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height mAU	Area mAU*min	Rel.Area %	Amount	Type
1	4.36	n.a.	381.890	180.814	84.14	n.a.	BMB
2	5.84	n.a.	88.752	34.086	15.86	n.a.	BMB
Total:			470.642	214.900	100.00	0.000	

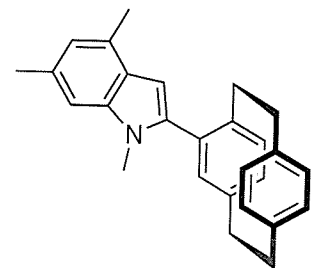
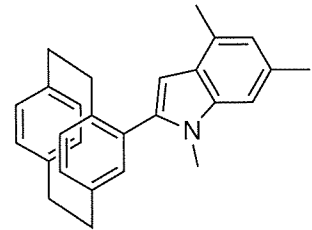


Circular Dichroism (mdeg)



1-NT-55 0-04uM 0000.ds

1-NT-56 0-04uM 0000.ds

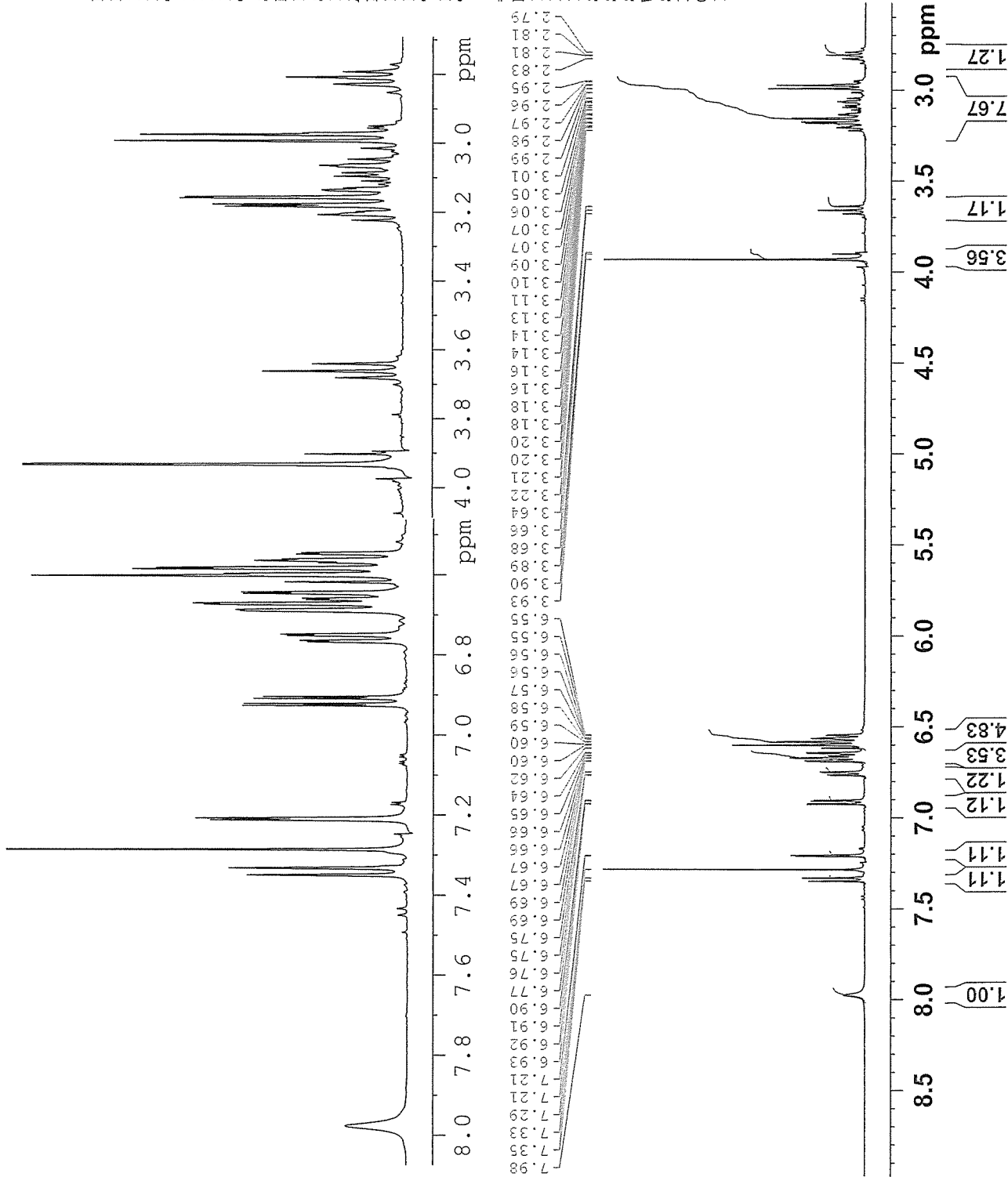
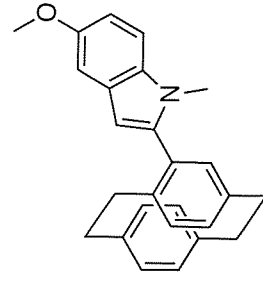


1-NT-58 (Methoxy indole/Racemic)



1-NT-58 pf final
 NAME 1
 EXPNO 1
 PROCNO 3
 Date 20130410
 Time 16.16
 INSTRUM spect
 PROBHD 5 mm PAQXI LH/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 64
 DS 2
 SWH 10330.578 Hz
 FIDRES 0.157632 Hz
 AQ 3.1720407 sec
 RG 181
 DW 48.400 usec
 DE 6.50 usec
 TE 298.2 K
 D1 1.00000000 sec
 TD0 1

==== CHANNEL f1 =====
 NUC1 1H
 P1 8.60 usec
 PL1 4.00 dB
 PL1W 12.10000038 W
 SFO1 500.1330885 MHz
 SI 32768
 SF 500.1300000 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 2.00



1-NT-58 (Methoxy indole/Racemic)

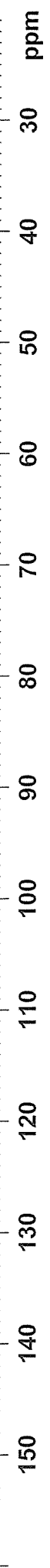
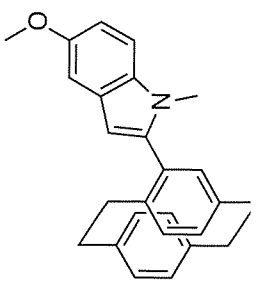
15.45 15.41 15.38 15.35 15.32 15.29 15.26 15.23 15.20 15.17 15.14 15.11 15.08 15.05 15.02 14.99 14.96 14.93 14.90 14.87 14.84 14.81 14.78 14.75 14.72 14.69 14.66 14.63 14.60 14.57 14.54 14.51 14.48 14.45 14.42 14.39 14.36 14.33 14.30 14.27 14.24 14.21 14.18 14.15 14.12 14.09 14.06 14.03 14.00 13.97 13.94 13.91 13.88 13.85 13.82 13.79 13.76 13.73 13.70 13.67 13.64 13.61 13.58 13.55 13.52 13.49 13.46 13.43 13.40 13.37 13.34 13.31 13.28 13.25 13.22 13.19 13.16 13.13 13.10 13.07 13.04 13.01 12.98 12.95 12.92 12.89 12.86 12.83 12.80 12.77 12.74 12.71 12.68 12.65 12.62 12.59 12.56 12.53 12.50 12.47 12.44 12.41 12.38 12.35 12.32 12.29 12.26 12.23 12.20 12.17 12.14 12.11 12.08 12.05 12.02 11.99 11.96 11.93 11.90 11.87 11.84 11.81 11.78 11.75 11.72 11.69 11.66 11.63 11.60 11.57 11.54 11.51 11.48 11.45 11.42 11.39 11.36 11.33 11.30 11.27 11.24 11.21 11.18 11.15 11.12 11.09 11.06 11.03 11.00 10.97 10.94 10.91 10.88 10.85 10.82 10.79 10.76 10.73 10.70 10.67 10.64 10.61 10.58 10.55 10.52 10.49 10.46 10.43 10.40 10.37 10.34 10.31 10.28 10.25 10.22 10.19 10.16 10.13 10.10 10.07 10.04 10.01 9.98 9.95 9.92 9.89 9.86 9.83 9.80 9.77 9.74 9.71 9.68 9.65 9.62 9.59 9.56 9.53 9.50 9.47 9.44 9.41 9.38 9.35 9.32 9.29 9.26 9.23 9.20 9.17 9.14 9.11 9.08 9.05 9.02 8.99 8.96 8.93 8.90 8.87 8.84 8.81 8.78 8.75 8.72 8.69 8.66 8.63 8.60 8.57 8.54 8.51 8.48 8.45 8.42 8.39 8.36 8.33 8.30 8.27 8.24 8.21 8.18 8.15 8.12 8.09 8.06 8.03 8.00 7.97 7.94 7.91 7.88 7.85 7.82 7.79 7.76 7.73 7.70 7.67 7.64 7.61 7.58 7.55 7.52 7.49 7.46 7.43 7.40 7.37 7.34 7.31 7.28 7.25 7.22 7.19 7.16 7.13 7.10 7.07 7.04 7.01 6.98 6.95 6.92 6.89 6.86 6.83 6.80 6.77 6.74 6.71 6.68 6.65 6.62 6.59 6.56 6.53 6.50 6.47 6.44 6.41 6.38 6.35 6.32 6.29 6.26 6.23 6.20 6.17 6.14 6.11 6.08 6.05 6.02 5.99 5.96 5.93 5.90 5.87 5.84 5.81 5.78 5.75 5.72 5.69 5.66 5.63 5.60 5.57 5.54 5.51 5.48 5.45 5.42 5.39 5.36 5.33 5.30 5.27 5.24 5.21 5.18 5.15 5.12 5.09 5.06 5.03 5.00 4.97 4.94 4.91 4.88 4.85 4.82 4.79 4.76 4.73 4.70 4.67 4.64 4.61 4.58 4.55 4.52 4.49 4.46 4.43 4.40 4.37 4.34 4.31 4.28 4.25 4.22 4.19 4.16 4.13 4.10 4.07 4.04 4.01 3.98 3.95 3.92 3.89 3.86 3.83 3.80 3.77 3.74 3.71 3.68 3.65 3.62 3.59 3.56 3.53 3.50 3.47 3.44 3.41 3.38 3.35 3.32 3.29 3.26 3.23 3.20 3.17 3.14 3.11 3.08 3.05 3.02 2.99 2.96 2.93 2.90 2.87 2.84 2.81 2.78 2.75 2.72 2.69 2.66 2.63 2.60 2.57 2.54 2.51 2.48 2.45 2.42 2.39 2.36 2.33 2.30 2.27 2.24 2.21 2.18 2.15 2.12 2.09 2.06 2.03 2.00 1.97 1.94 1.91 1.88 1.85 1.82 1.79 1.76 1.73 1.70 1.67 1.64 1.61 1.58 1.55 1.52 1.49 1.46 1.43 1.40 1.37 1.34 1.31 1.28 1.25 1.22 1.19 1.16 1.13 1.10 1.07 1.04 1.01 0.98 0.95 0.92 0.89 0.86 0.83 0.80 0.77 0.74 0.71 0.68 0.65 0.62 0.59 0.56 0.53 0.50 0.47 0.44 0.41 0.38 0.35 0.32 0.29 0.26 0.23 0.20 0.17 0.14 0.11 0.08 0.05 0.02 0.00

NAME 1-NT-58 pf final
 EXPNO 2
 PROCNO 3
 Date_ 20130411
 Time_ 8.21
 INSTRUM spect
 PROBHD 5 mm PAOXI 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 18200
 DS 4
 SWH 30030.029 Hz
 FIDRES 0.458222 Hz
 AQ 1.0912410 sec
 RG 32768
 DW 16.650 usec
 DE 6.50 usec
 TE 298.1 K
 D1 2.0000000 sec
 D11 0.0300000 sec
 TDO 1

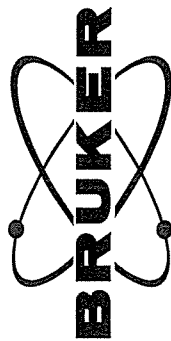
===== CHANNEL f1 =====
 NUC1 13C
 P1 12.00 usec
 PL1 -3.50 dB
 PL1W 154.08152771 W
 SFO1 125.7703643 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 80.00 usec
 PL2 4.00 dB
 PL12 23.27 dB
 PL13 25.00 dB
 PL14 25.00 dB
 PL15 25.00 dB
 PL16 12.10000038 W
 PL17W 0.133988955 W
 PL18W 0.09611372 W
 SFO2 500.1320005 MHz
 SI 32768
 SF 125.7577890 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

77.28 77.16 77.03 76.77 76.55 76.43 76.30 76.17 76.03 75.90 75.77 75.64 75.51 75.38 75.25 75.12 75.00 74.87 74.74 74.61 74.48 74.35 74.22 74.09 73.96 73.83 73.70 73.57 73.44 73.31 73.18 73.05 72.92 72.79 72.66 72.53 72.40 72.27 72.14 72.01 71.88 71.75 71.62 71.49 71.36 71.23 71.10 70.97 70.84 70.71 70.58 70.45 70.32 70.19 70.06 69.93 69.80 69.67 69.54 69.41 69.28 69.15 69.02 68.89 68.76 68.63 68.50 68.37 68.24 68.11 67.98 67.85 67.72 67.59 67.46 67.33 67.20 67.07 66.94 66.81 66.68 66.55 66.42 66.29 66.16 66.03 65.90 65.77 65.64 65.51 65.38 65.25 65.12 65.00 64.87 64.74 64.61 64.48 64.35 64.22 64.09 63.96 63.83 63.70 63.57 63.44 63.31 63.18 63.05 62.92 62.79 62.66 62.53 62.40 62.27 62.14 62.01 61.88 61.75 61.62 61.49 61.36 61.23 61.10 60.97 60.84 60.71 60.58 60.45 60.32 60.19 60.06 59.93 59.80 59.67 59.54 59.41 59.28 59.15 59.02 58.89 58.76 58.63 58.50 58.37 58.24 58.11 57.98 57.85 57.72 57.59 57.46 57.33 57.20 57.07 56.94 56.81 56.68 56.55 56.42 56.29 56.16 56.03 55.90 55.77 55.64 55.51 55.38 55.25 55.12 55.00 54.87 54.74 54.61 54.48 54.35 54.22 54.09 53.96 53.83 53.70 53.57 53.44 53.31 53.18 53.05 52.92 52.79 52.66 52.53 52.40 52.27 52.14 52.01 51.88 51.75 51.62 51.49 51.36 51.23 51.10 50.97 50.84 50.71 50.58 50.45 50.32 50.19 50.06 49.93 49.80 49.67 49.54 49.41 49.28 49.15 49.02 48.89 48.76 48.63 48.50 48.37 48.24 48.11 47.98 47.85 47.72 47.59 47.46 47.33 47.20 47.07 46.94 46.81 46.68 46.55 46.42 46.29 46.16 46.03 45.90 45.77 45.64 45.51 45.38 45.25 45.12 45.00 44.87 44.74 44.61 44.48 44.35 44.22 44.09 43.96 43.83 43.70 43.57 43.44 43.31 43.18 43.05 42.92 42.79 42.66 42.53 42.40 42.27 42.14 42.01 41.88 41.75 41.62 41.49 41.36 41.23 41.10 40.97 40.84 40.71 40.58 40.45 40.32 40.19 40.06 39.93 39.80 39.67 39.54 39.41 39.28 39.15 39.02 38.89 38.76 38.63 38.50 38.37 38.24 38.11 37.98 37.85 37.72 37.59 37.46 37.33 37.20 37.07 36.94 36.81 36.68 36.55 36.42 36.29 36.16 36.03 35.90 35.77 35.64 35.51 35.38 35.25 35.12 35.00 34.87 34.74 34.61 34.48 34.35 34.22 34.09 33.96 33.83 33.70 33.57 33.44 33.31 33.18 33.05 32.92 32.79 32.66 32.53 32.40 32.27 32.14 32.01 31.88 31.75 31.62 31.49 31.36 31.23 31.10 30.97 30.84 30.71 30.58 30.45 30.32 30.19 30.06 29.93 29.80 29.67 29.54 29.41 29.28 29.15 29.02 28.89 28.76 28.63 28.50 28.37 28.24 28.11 27.98 27.85 27.72 27.59 27.46 27.33 27.20 27.07 26.94 26.81 26.68 26.55 26.42 26.29 26.16 26.03 25.90 25.77 25.64 25.51 25.38 25.25 25.12 25.00 24.87 24.74 24.61 24.48 24.35 24.22 24.09 23.96 23.83 23.70 23.57 23.44 23.31 23.18 23.05 22.92 22.79 22.66 22.53 22.40 22.27 22.14 22.01 21.88 21.75 21.62 21.49 21.36 21.23 21.10 20.97 20.84 20.71 20.58 20.45 20.32 20.19 20.06 19.93 19.80 19.67 19.54 19.41 19.28 19.15 19.02 18.89 18.76 18.63 18.50 18.37 18.24 18.11 17.98 17.85 17.72 17.59 17.46 17.33 17.20 17.07 16.94 16.81 16.68 16.55 16.42 16.29 16.16 16.03 15.90 15.77 15.64 15.51 15.38 15.25 15.12 15.00 14.87 14.74 14.61 14.48 14.35 14.22 14.09 13.96 13.83 13.70 13.57 13.44 13.31 13.18 13.05 12.92 12.79 12.66 12.53 12.40 12.27 12.14 12.01 11.88 11.75 11.62 11.49 11.36 11.23 11.10 10.97 10.84 10.71 10.58 10.45 10.32 10.19 10.06 9.93 9.80 9.67 9.54 9.41 9.28 9.15 9.02 8.89 8.76 8.63 8.50 8.37 8.24 8.11 7.98 7.85 7.72 7.59 7.46 7.33 7.20 7.07 6.94 6.81 6.68 6.55 6.42 6.29 6.16 6.03 5.90 5.77 5.64 5.51 5.38 5.25 5.12 5.00 4.87 4.74 4.61 4.48 4.35 4.22 4.09 3.96 3.83 3.70 3.57 3.44 3.31 3.18 3.05 2.92 2.79 2.66 2.53 2.40 2.27 2.14 2.01 1.88 1.75 1.62 1.49 1.36 1.23 1.10 1.00 0.87 0.74 0.61 0.48 0.35 0.22 0.09 0.00

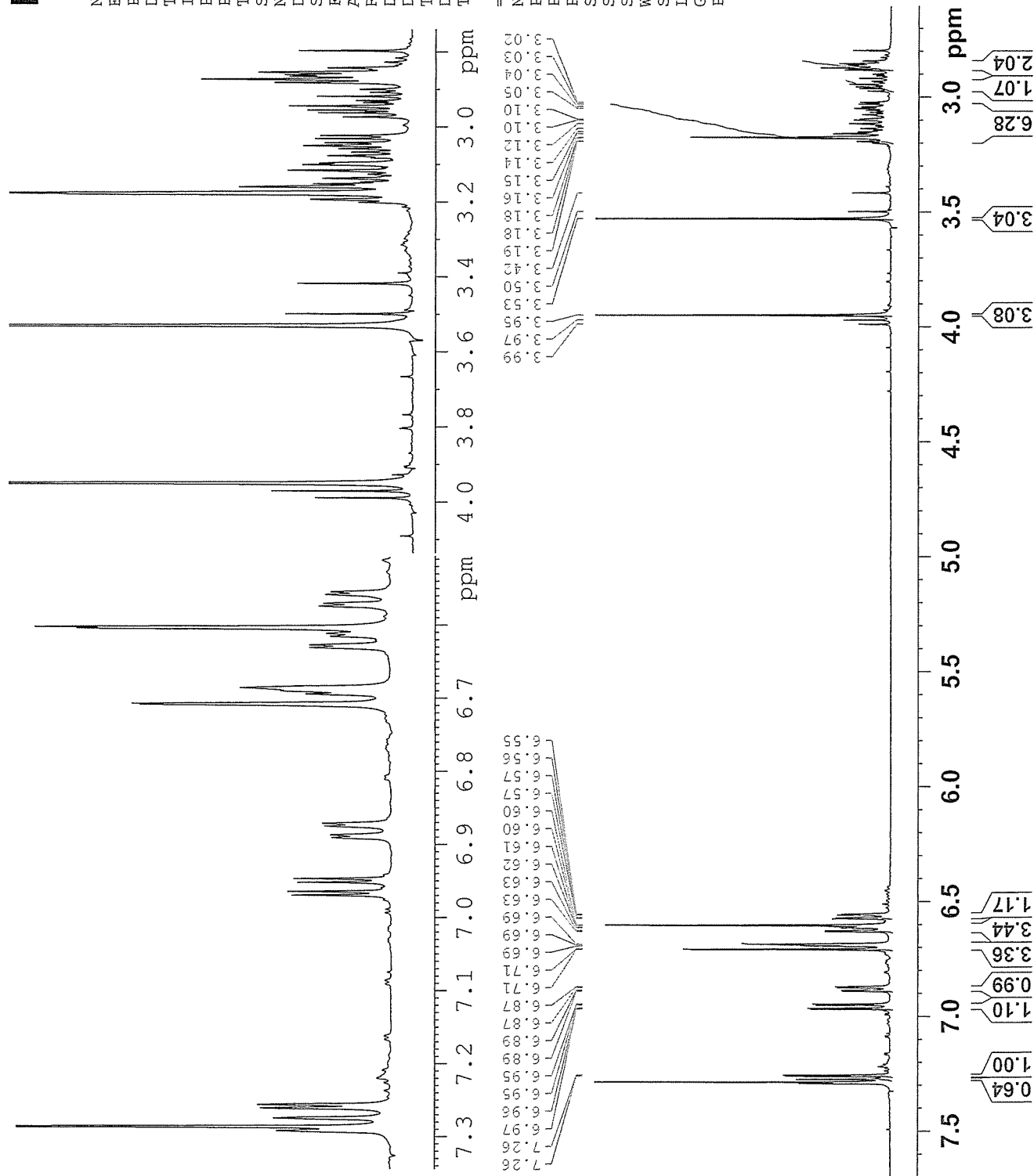
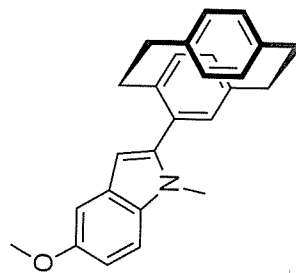


1-NT-59B (D-1/methylated)



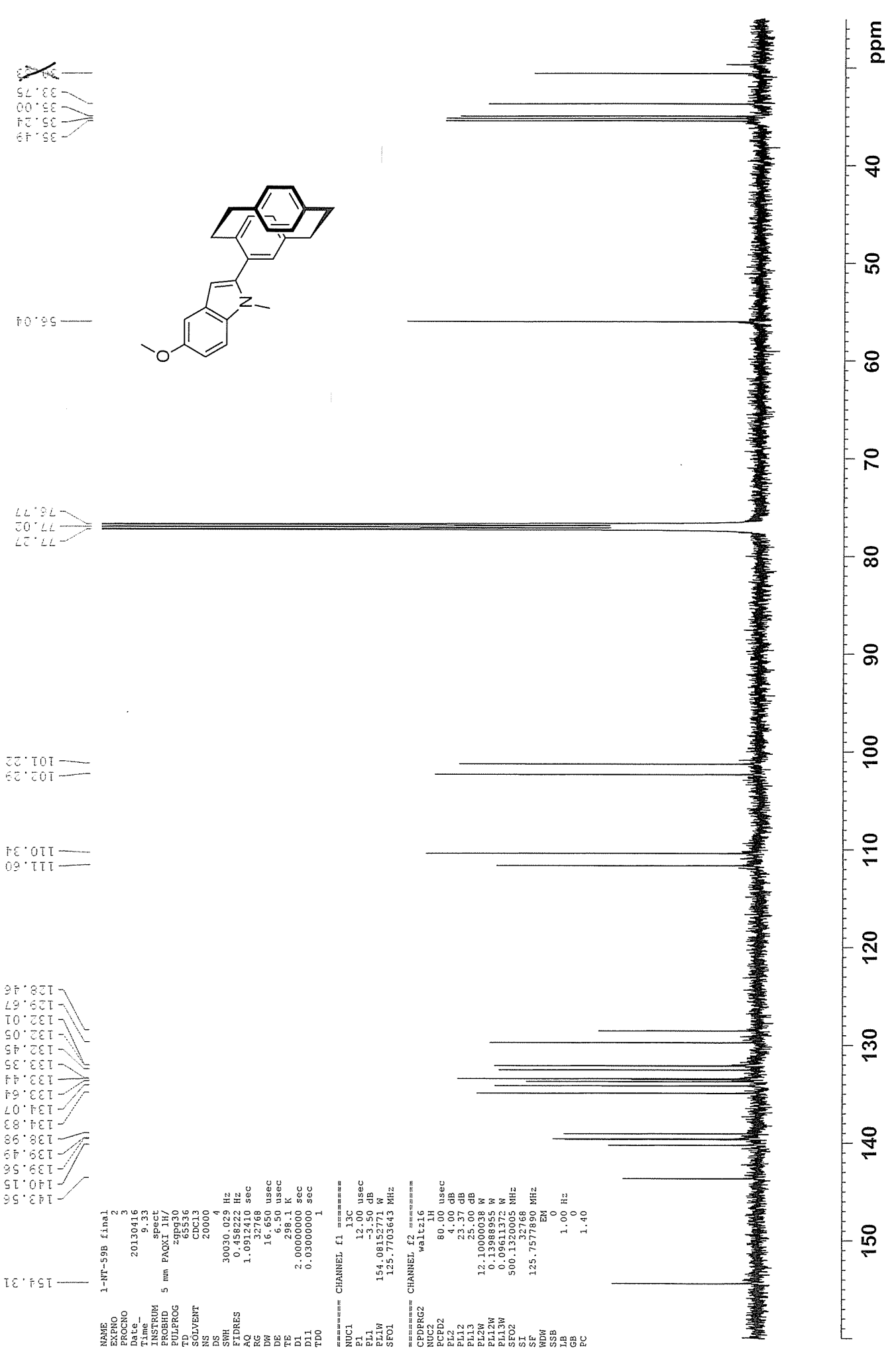
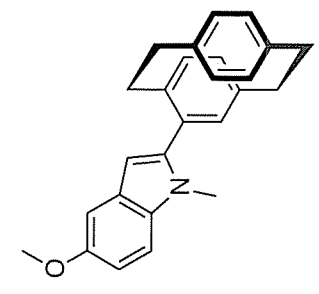
1-NT-59B final
 NAME 1
 EXPNO 3
 PROCNO 3
 Date 20130415
 Time 15.55
 INSTRUM spect
 PROBHD 5 mm PAQXI LH/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 64
 DS 2
 SWH 10330.578 Hz
 FIDRES 0.157632 Hz
 AQ 3.1720407 sec
 RG 181
 DW 48.400 usec
 DE 6.50 usec
 TE 298.1 K
 D1 1.00000000 sec
 TD0 1

==== CHANNEL f1 =====
 NUC1 1H
 P1 8.60 usec
 PL1 4.00 dB
 PL1W 12.10000038 W
 SF01 500.1330885 MHz
 SI 32768
 SF 500.1300000 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



1-NT-59B (D-1/methylated)

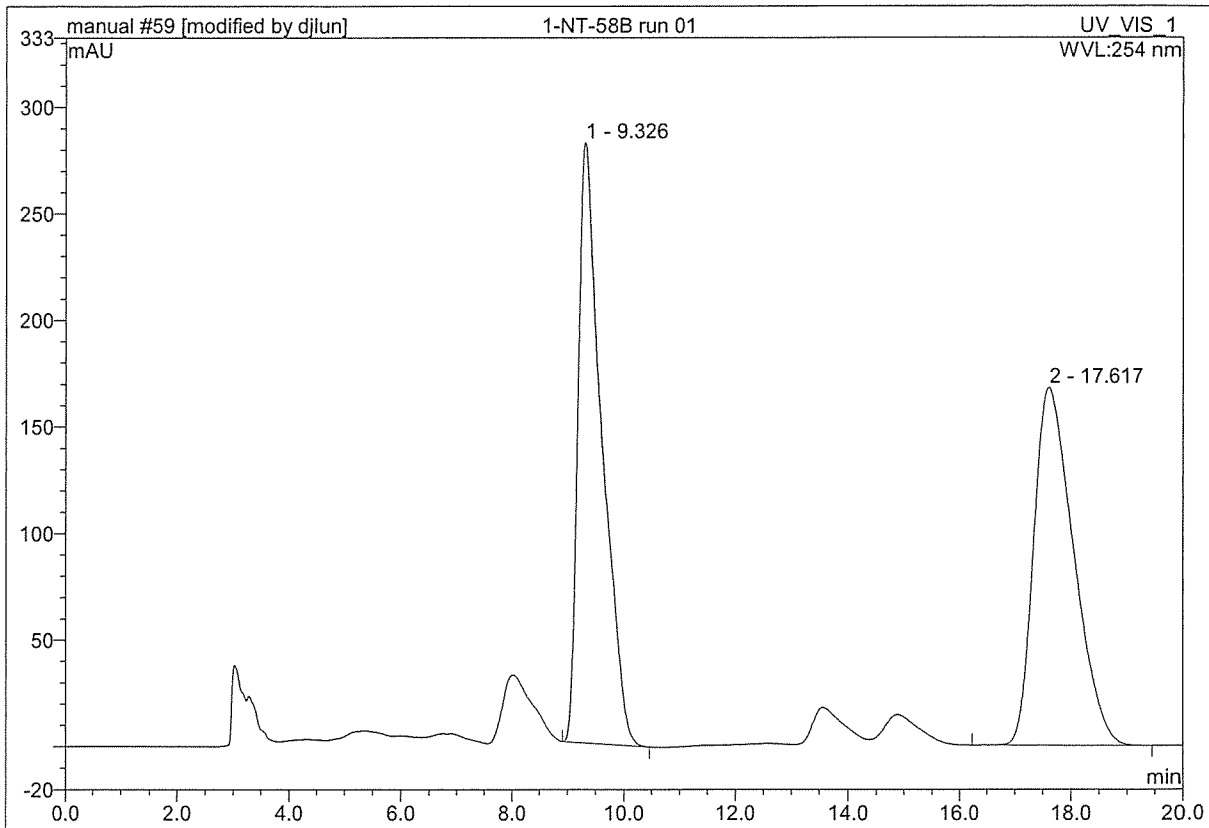
NAME 1-NT-59B final
 EXPNO 2
 PROCNO 3
 Date_ 20130416
 Time_ 9.33
 INSTRUM spect
 PROBHD 5 mm PAXI 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDC13
 NS 20000
 DS 4
 SWH 30030.029 Hz
 FIDRES 0.458222 Hz
 AQ 1.0912410 sec
 RG 32768
 DW 16.650 usec
 DE 6.50 usec
 TE 298.1 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TDO 1



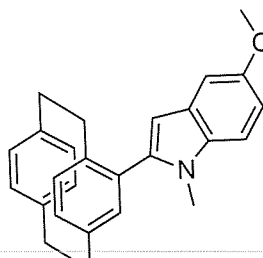
===== CHANNEL f1 =====
 NUC1 13C
 P1 12.00 usec
 PL1 23.50 dB
 PL1W 154.0815271 W
 SFO1 125.7703643 MHz
 ===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 13C
 PCPD2 80.00 usec
 PL2 4.00 dB
 PL12 23.37 dB
 PL13 25.00 dB
 PL2W 12.10000038 W
 PL12W 0.133888955 W
 PL13W 0.09611372 W
 SFO2 500.1320005 MHz
 SI 32768
 SF 125.7577890 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 EC 1.40

59 1-NT-58B run 01

Sample Name:	1-NT-58B run 01	Injection Volume:	50.0
Vial Number:	66	Channel:	UV_VIS_1
Sample Type:	unknown	Wavelength:	254
Control Program:	Nishani iso v3	Bandwidth:	n.a.
Quantif. Method:	default	Dilution Factor:	1.0000
Recording Time:	12/4/2013 16:17	Sample Weight:	1.0000
Run Time (min):	27.75	Sample Amount:	1.0000

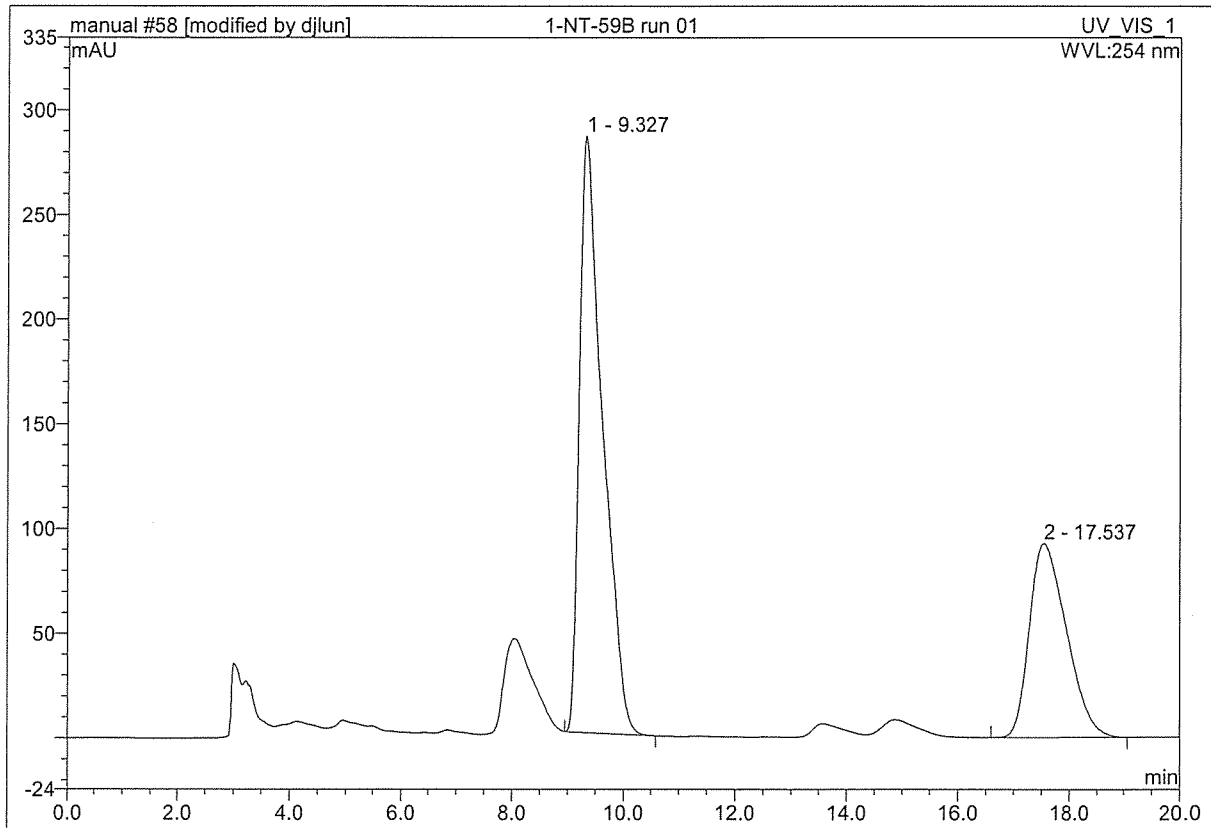


No.	Ret.Time min	Peak Name	Height mAU	Area mAU*min	Rel.Area %	Amount	Type
1	9.33	n.a.	281.898	136.227	49.73	n.a.	BMB*
2	17.62	n.a.	167.815	137.704	50.27	n.a.	BMB
Total:			449.713	273.931	100.00	0.000	

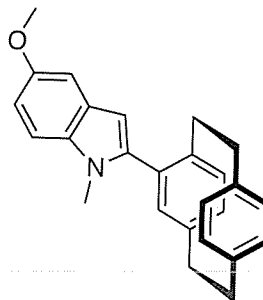


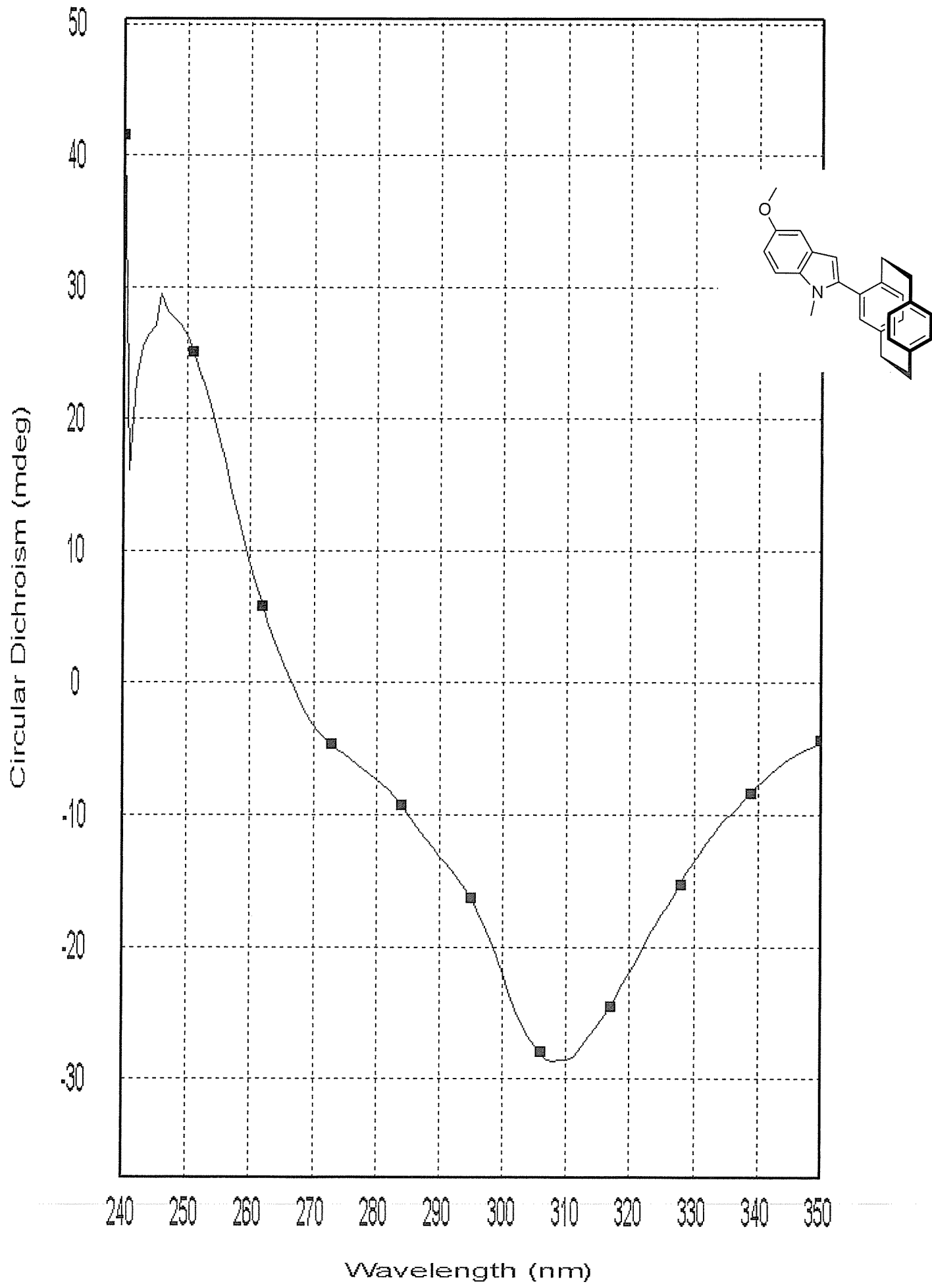
58 1-NT-59B run 01

Sample Name:	1-NT-59B run 01	Injection Volume:	50.0
Vial Number:	65	Channel:	UV_VIS_1
Sample Type:	unknown	Wavelength:	254
Control Program:	Nishani iso v3	Bandwidth:	n.a.
Quantif. Method:	default	Dilution Factor:	1.0000
Recording Time:	12/4/2013 15:51	Sample Weight:	1.0000
Run Time (min):	24.11	Sample Amount:	1.0000



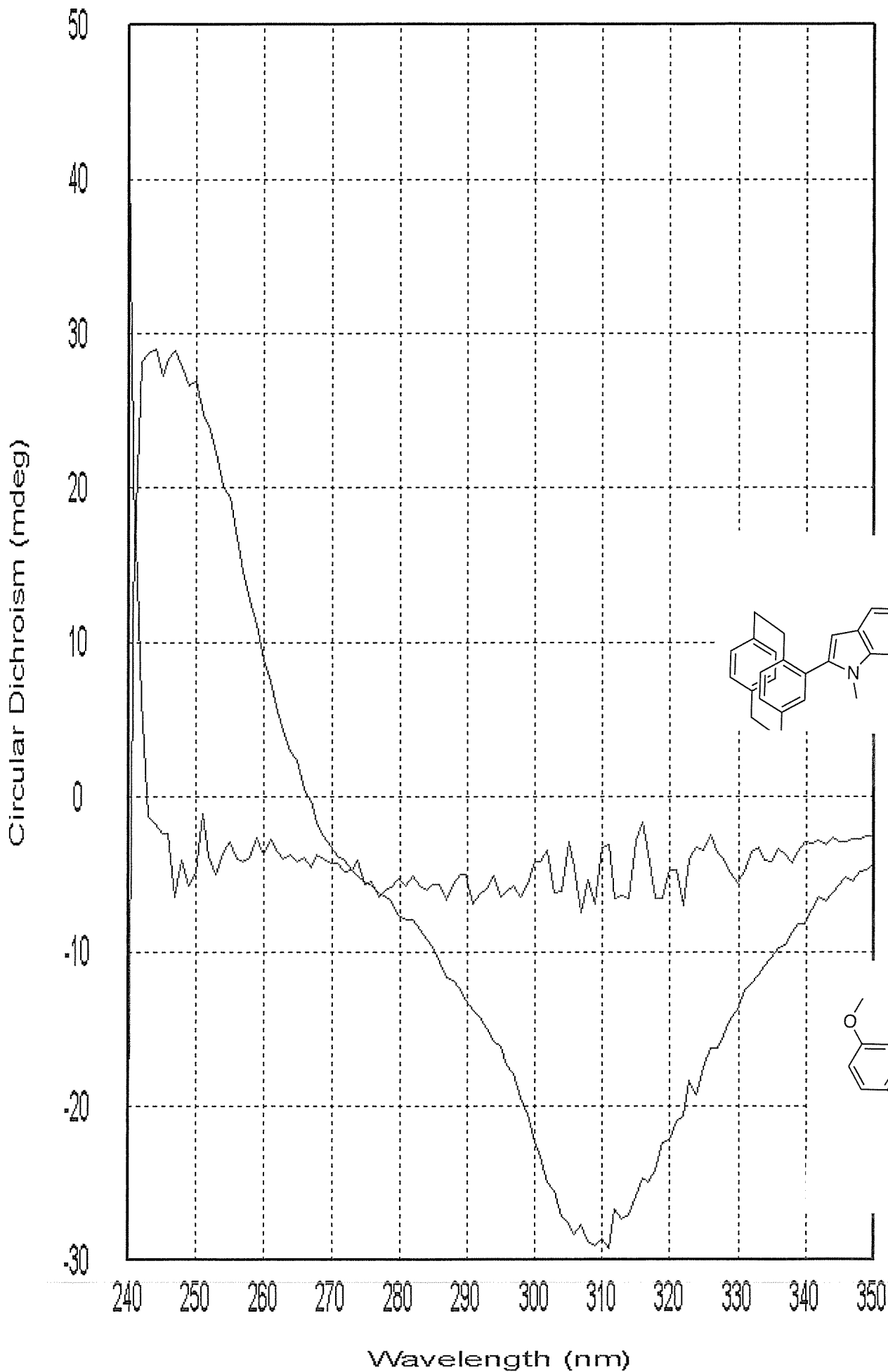
No.	Ret.Time min	Peak Name	Height mAU	Area mAU*min	Rel.Area %	Amount	Type
1	9.33	n.a.	284.973	137.770	65.62	n.a.	BMB
2	17.54	n.a.	92.682	72.188	34.38	n.a.	BMB
Total:			377.655	209.958	100.00	0.000	





1-NT-58 0-2uM 0000.dsx

1-NT-59 0-04uM run 200

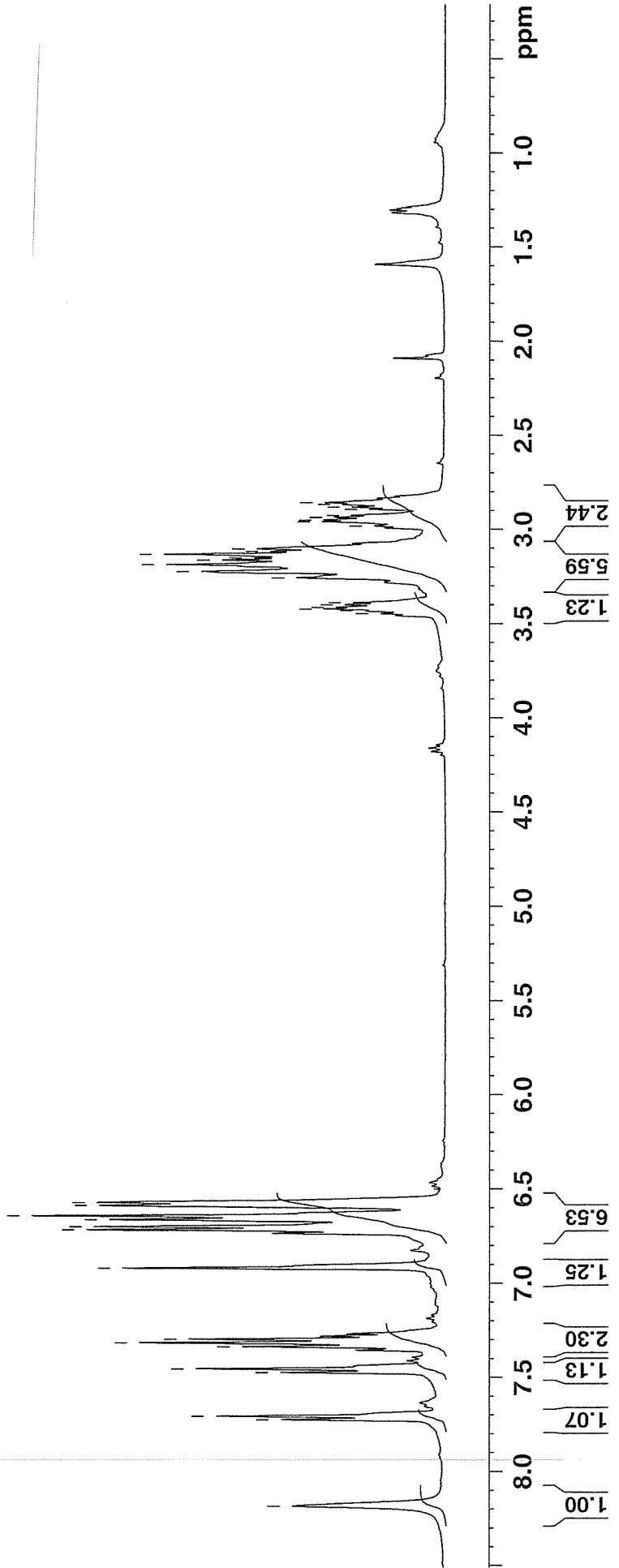
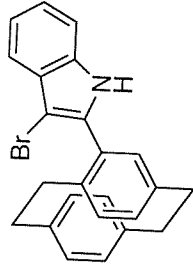


ppm, 111-114°C

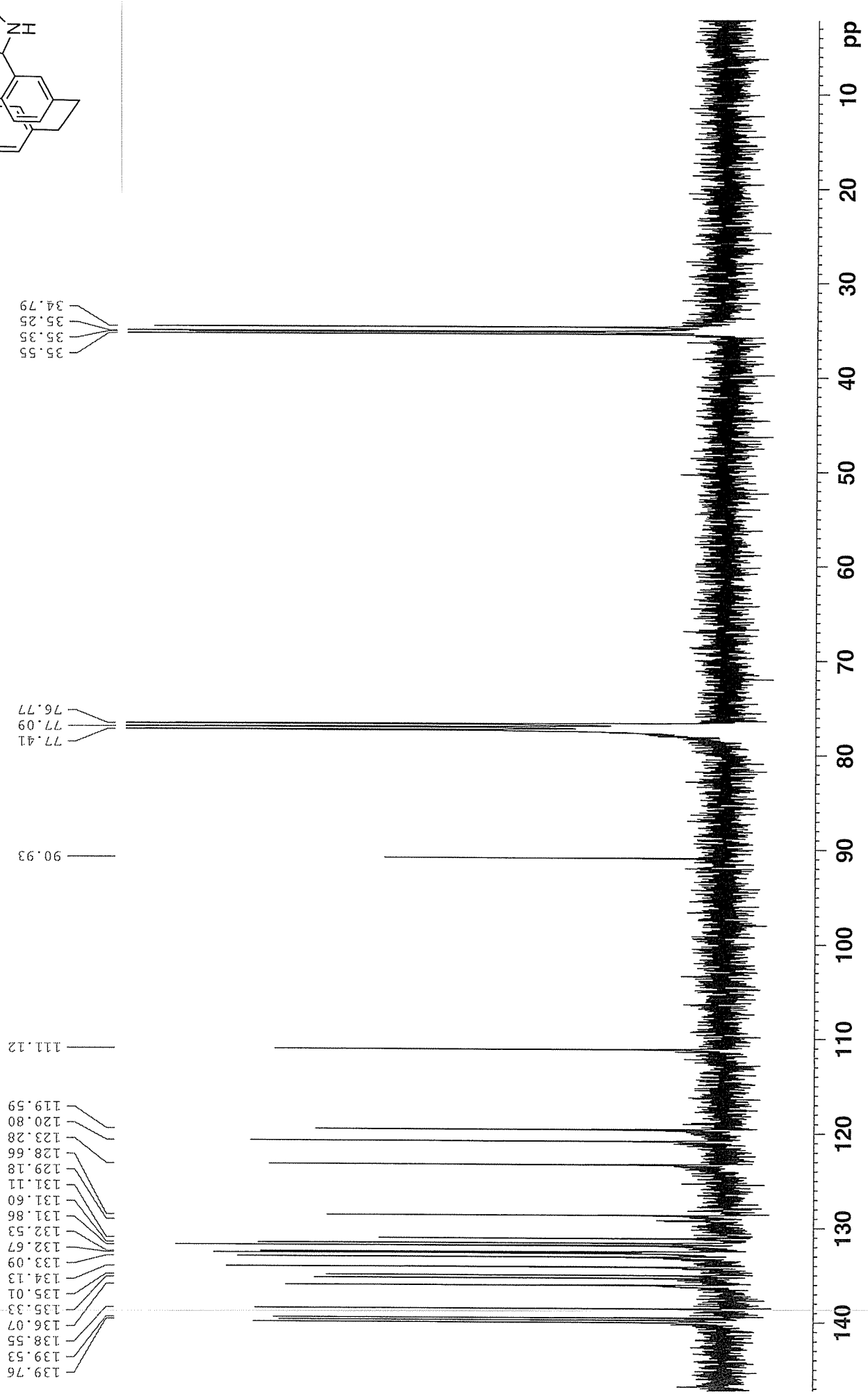
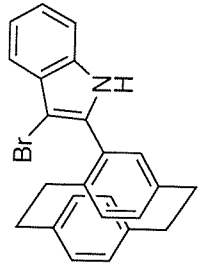
22pc-bromo indole

3.449
3.434
3.426
3.417
3.402
3.392
3.260
3.226
3.189
3.165
3.154
3.135
3.119
3.105
2.984
2.961
2.952
2.938
2.927
2.895
2.884
2.870
2.861

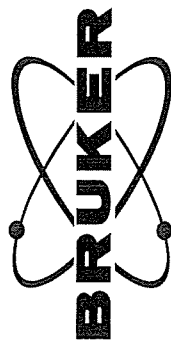
8.187
7.729
7.711
7.479
7.459
7.341
7.320
7.301
6.923
6.720
6.704
6.667
6.646
6.591
6.576



22pc-bromo indole



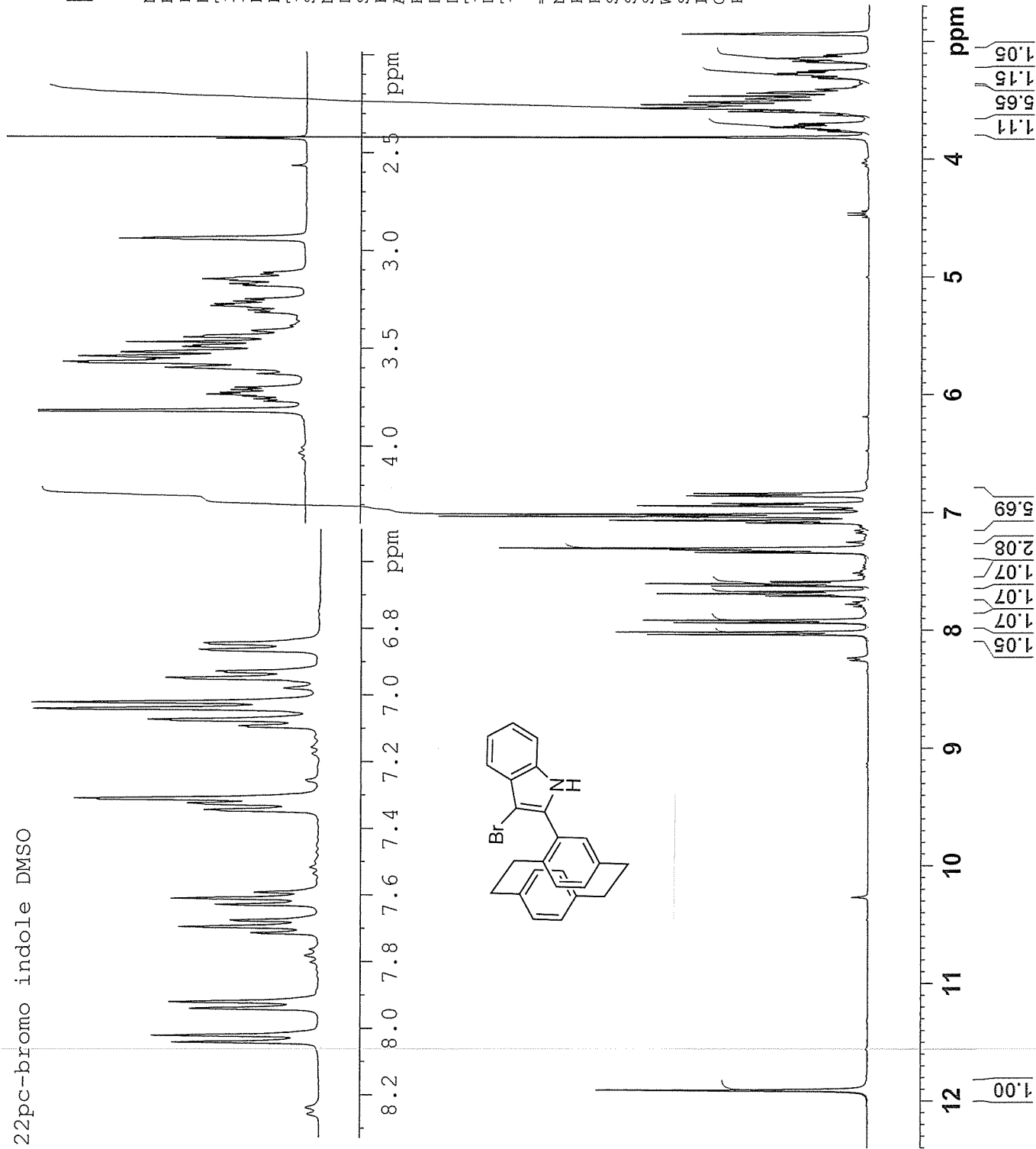
22pc-bromo indole DMSO



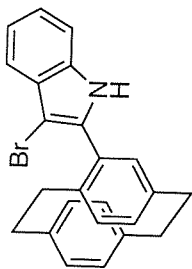
gka-17-a-col-4-DMSO

NAME
EXPNO 1
PROCNO 1
Date_ 20140827
Time_ 11.03
INSTRUM spect
PROBHD 5 mm Multinucl
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 16
DS 2
SWH 8278.146 Hz
FIDRES 0.126314 Hz
AQ 3.9584243 sec
RG 114
DW 60.400 usec
DE 6.00 usec
TE 298.2 K
D1 1.00000000 sec
TD0 1

==== CHANNEL f1 =====
NUC1 1H
P1 9.30 usec
PL1 4.00 dB
SFO1 400.1324710 MHz
SI 32768
SF 400.1300000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

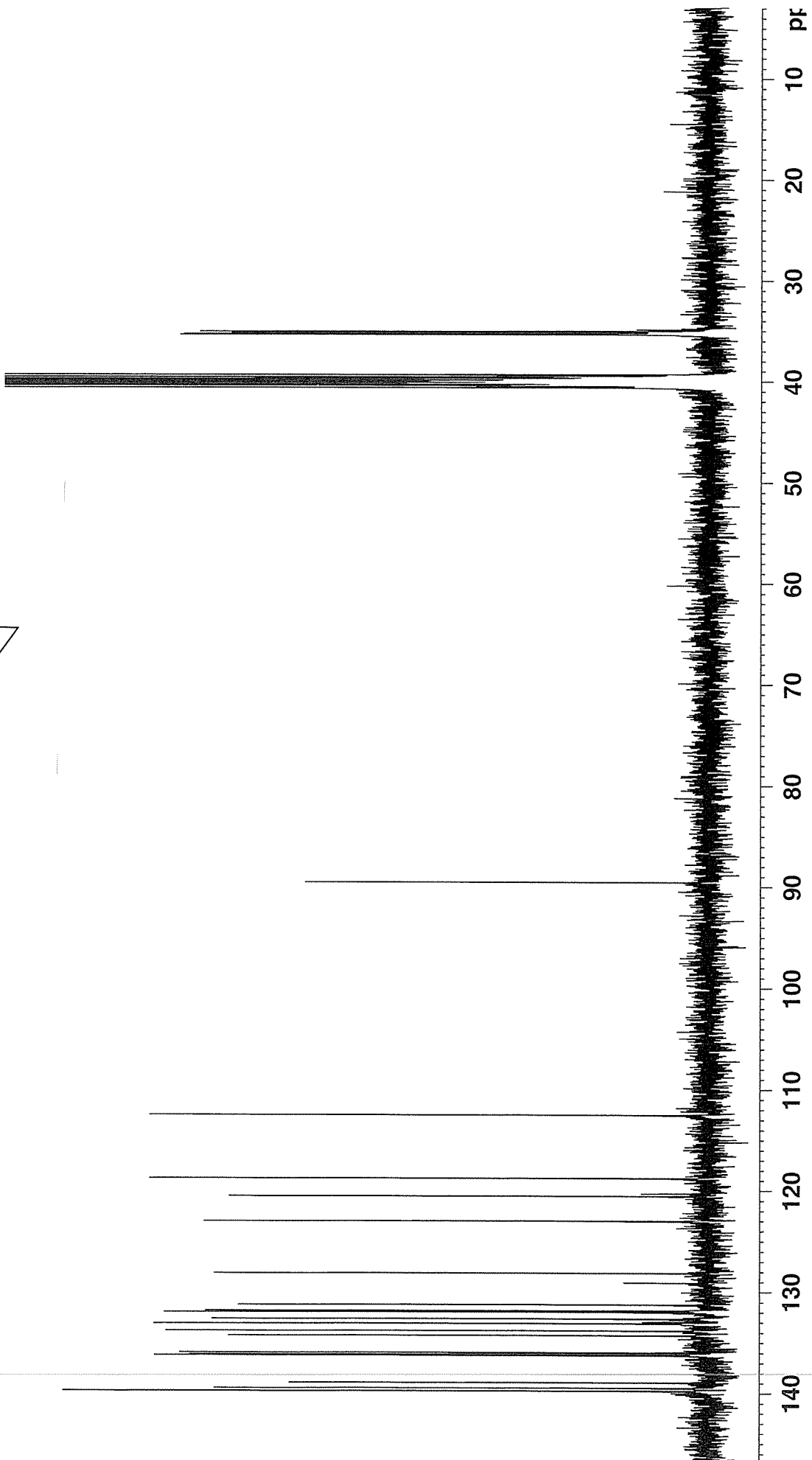


22pc-bromo indole DMSO

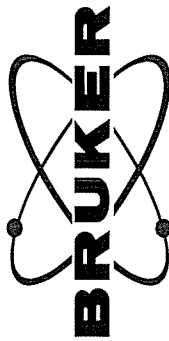
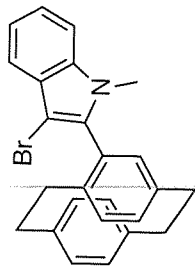


- 139.75
- 139.46
- 138.91
- 136.21
- 136.07
- 135.92
- 134.24
- 133.77
- 133.06
- 132.60
- 131.93
- 131.80
- 131.19
- 128.07
- 122.98
- 120.51
- 118.74
- 112.48
- 89.53

- 35.38
- 35.33
- 35.20
- 35.08

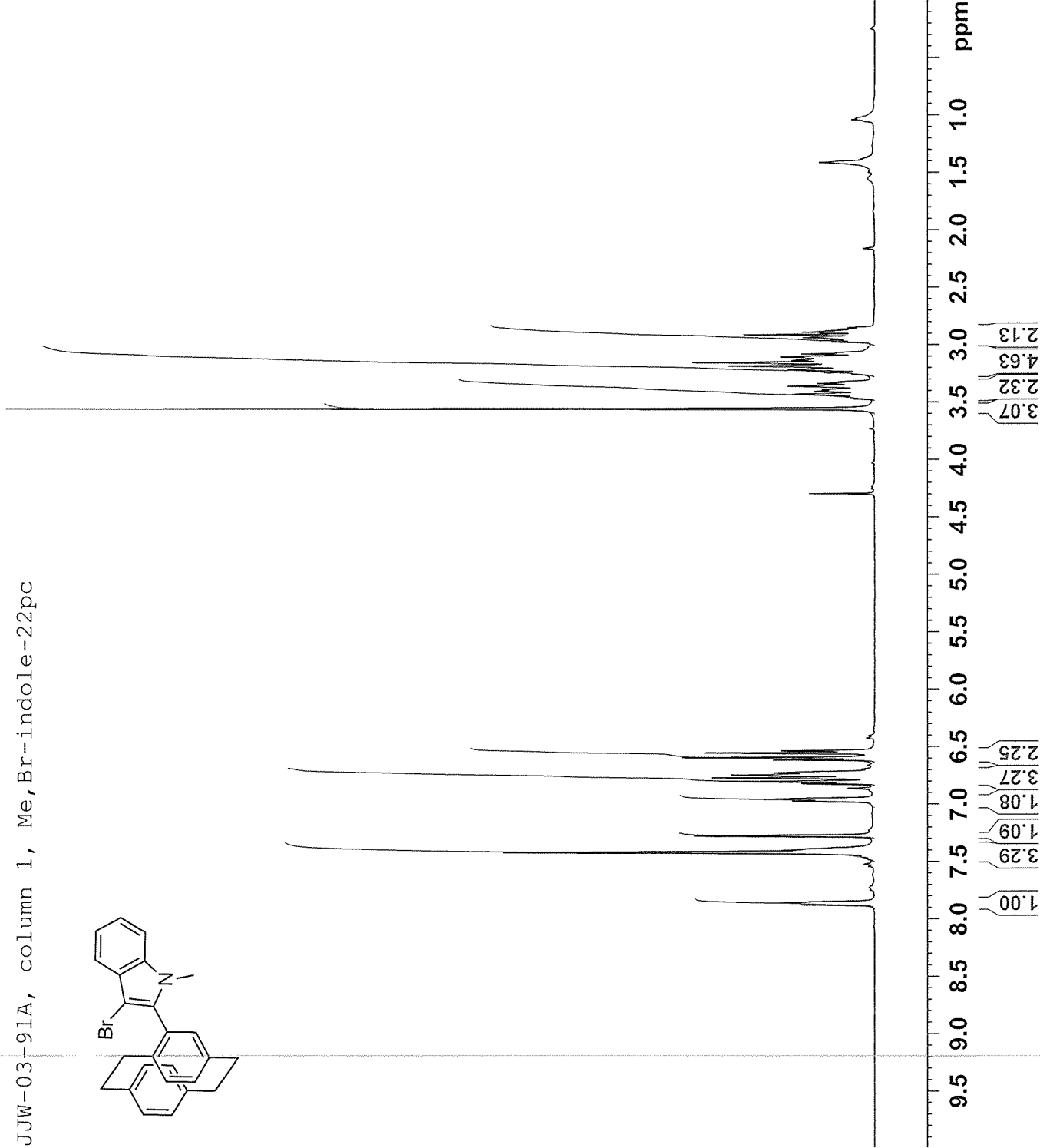


JJW-03-91A, column 1, Me, Br-indole-22pc

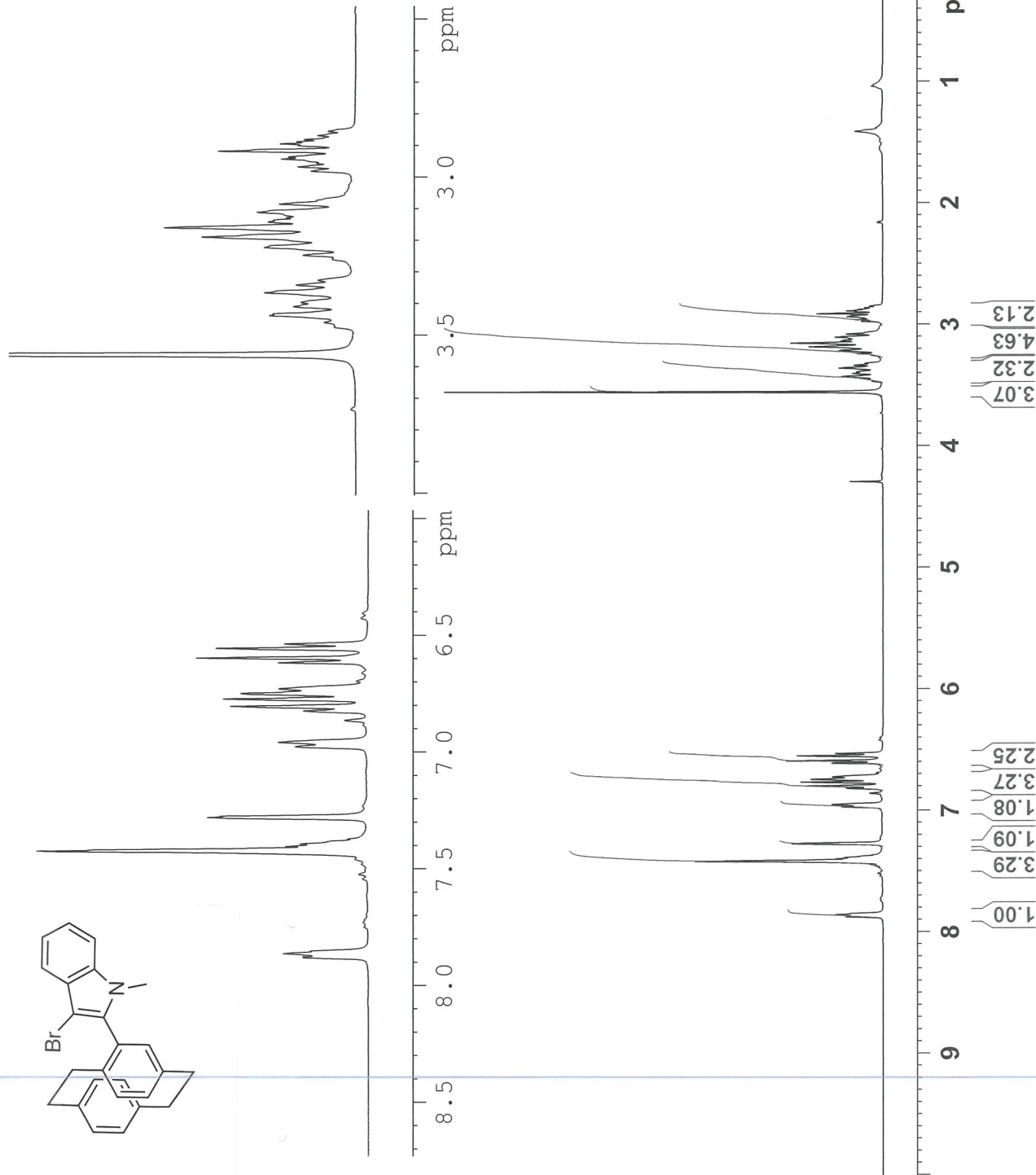
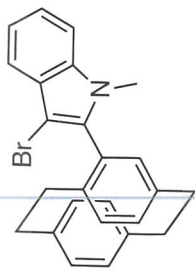


NAME JJW-03-91
EXPNO 2
PROCNO 1
Date_ 20110517
Time_ 12.00
INSTRUM spect
PROBHD 5 mm Multinucl
PULPROG zg30
TD 65536
SOLVENT CDC13
NS 16
DS 2
SWH 8278.146 Hz
FIDRES 0.126314 Hz
AQ 3.9584243 sec
RG 20.2
DW 60.400 usec
DE 6.00 usec
TE 298.2 K
D1 1.00000000 sec
TD0 1

==== CHANNEL f1 =====
NUC1 1H
P1 10.00 usec
PL1 4.00 dB
SFO1 400.1324710 MHz
ND0 2
TD 256
SFO1 100.6203 MHz
FIDRES 65.104164 Hz
SW 165.639 ppm
FnMODE Echo-Antiecho
SI 32768
SF 400.1300000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
SI 1024
MC2
SF echo-antiecho
WDW 100.6127690 MHz
SSB QSIINE
LB 2
GB 0.30 Hz
0.1



JJW-03-91A, column 1, Me,Br-indole-22pc



NAME JJW-03-91
EXPNO 2
PROCNO 1
Date_ 20110517
Time_ 12.00
INSTRUM spect
PROBHD 5 mm Multinucl
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 16
DS 2
SWH 8278.146 Hz
FIDRES 0.126314 Hz
AQ 3.9584243 sec
RG 20.2
DW 60.400 usec
DE 6.00 usec
TE 298.2 K
D1 1.00000000 sec
TD0 1

==== CHANNEL f1 =====
NUC1 1H
P1 10.00 usec
PL1 4.00 dB
SFO1 400.1324710 MHz
ND0 2
TD 256
SFO1 100.6203 MHz
FIDRES 65.104164 Hz
SW 165.639 ppm
FMODE Echo-Antiecho
SI 32768
SF 400.1300000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
SI 1024
MC2 echo-antiecho
SF 100.6127690 MHz
WDW QSI
SSB 2
LB 0.30 Hz
GB 0.1

JJW-03-91A, column 1, Me,Br-indole-22pc, 13C



NAME JJW-03-91

EXPNO 3

PROCNO 1

Date_ 20110517

Time 12.10

INSTRUM spect

PROBHD 5 mm Multinucl

PULPROG zgpg30

TD 65536

SOLVENT CDCl3

NS 965

DS 4

SWH 23980.814 Hz

FIDRES 0.365918 Hz

AQ 1.3664756 sec

RG 4597.6

DW 20.850 usec

DE 6.00 usec

TE 298.2 K

D1 2.0000000 sec

d11 0.0300000 sec

DELTA 1.89999998 sec

TDO 1

==== CHANNEL f1 =====

NUC1 13C

P1 12.75 usec

PL1 -6.00 dB

SFO1 100.6228298 MHz

==== CHANNEL f2 =====

CPDPRG2 waltz16

NUC2 1H

PCPD2 80.00 usec

PL2 4.00 dB

PL12 21.23 dB

PL13 25.00 dB

SFO2 400.1316005 MHz

SI 32768

SF 100.6127690 MHz

WDW EM

SSB 0

LB 1.00 Hz

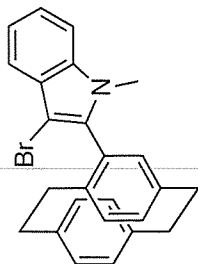
GB 0

PC 1.40

39.56
39.23
39.17
39.51
31.47

77.54
77.23
76.91

139.69
139.68
139.34
139.28
139.40
137.06
139.39
134.70
134.34
133.96
132.47
132.24
131.74
129.16
127.99
122.97
120.69
119.71
109.94



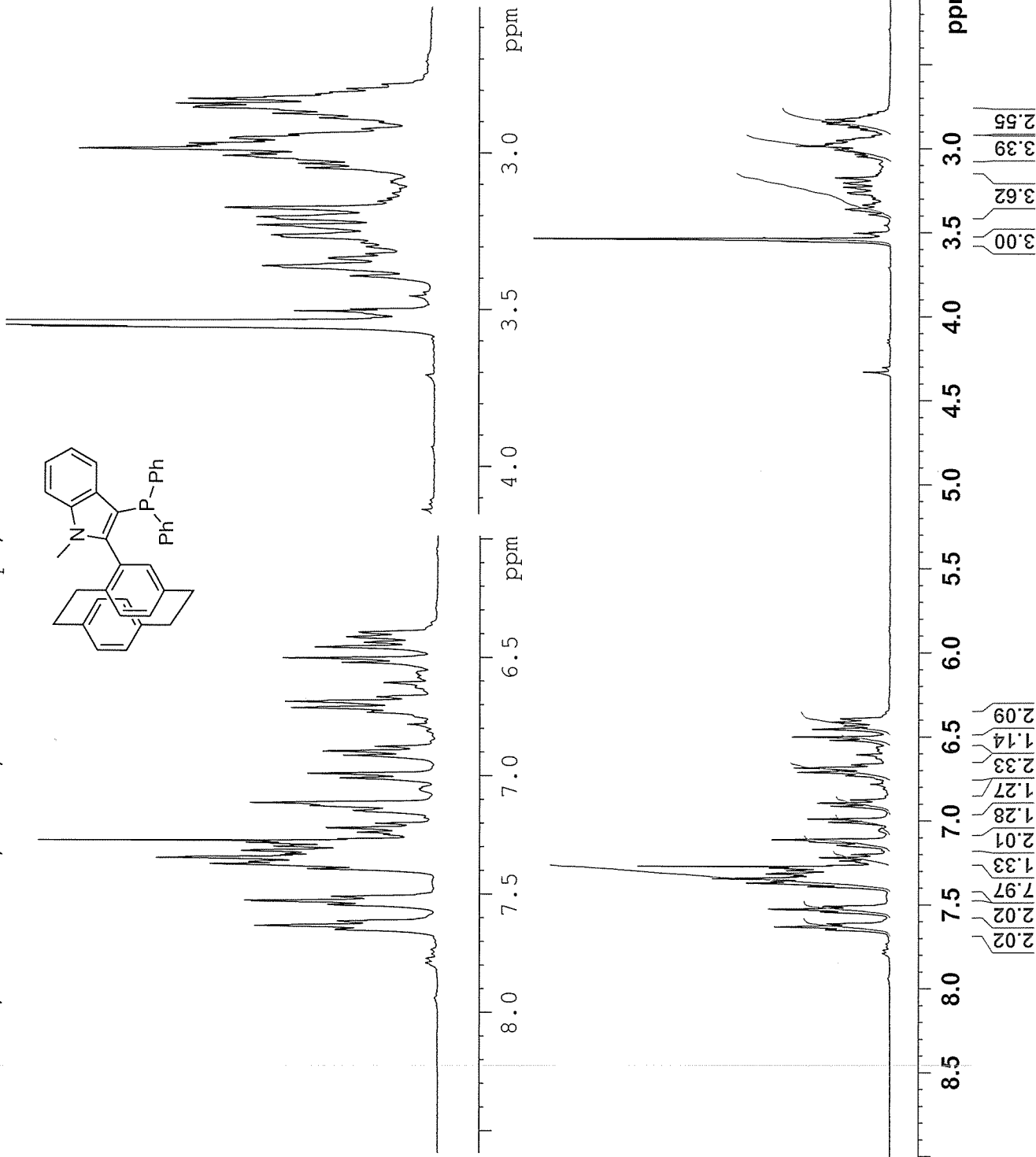
170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 ppm

JJW-04-06B, column1, PPh2, Me-indole-22pc,



JJW-04-06
 NAME
 EXPNO 2
 PROCNO 1
 Date_ 20110819
 Time_ 14.49
 INSTRUM spect
 PROBHD 5 mm Multinucl
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 8278.146 Hz
 FIDRES 0.126314 Hz
 AQ 3.9584243 sec
 RG 114
 DW 60.400 usec
 DE 6.00 usec
 TE 298.2 K
 D1 1.00000000 sec
 TD0 1

==== CHANNEL f1 =====
 NUC1 1H
 P1 10.00 usec
 PL1 4.00 dB
 SFO1 400.1324710 MHz
 ND0 2
 TD 256
 SFO1 100.6203 MHz
 FIDRES 65.104164 Hz
 SW 165.639 ppm
 FnmODE Echo-Antiecho
 SI 32768
 SF 400.1300000 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00
 SI 1024
 MC2
 SF echo-antiecho
 100.6127690 MHz
 WDW QSINE
 SSB 2
 LB 0.30 Hz
 GB 0.1



JJW-03-53A, column 1, 4-(Ph₂P-methylindole)-22pc, 13C

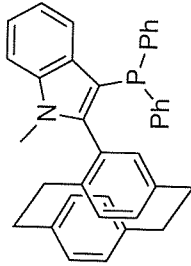


NAME JJW-03-53
 EXPNO 7
 PROCNO 2
 Date_ 20100923
 Time_ 15.02
 INSTRUM spect
 PROBHD 5 mm QNP 1H/13
 PULPROG zgpg30
 TD 65536
 SOLVENT CDC13
 NS 900
 DS 4
 SWH 23980.814 Hz
 FIDRES 0.365918 Hz
 AQ 1.3664756 sec
 RG 5160.6
 DW 20.850 usec
 DE 6.00 usec
 TE 298.2 K
 D1 2.0000000 sec
 d11 0.0300000 sec
 DELTA 1.89999998 sec
 TDO 1

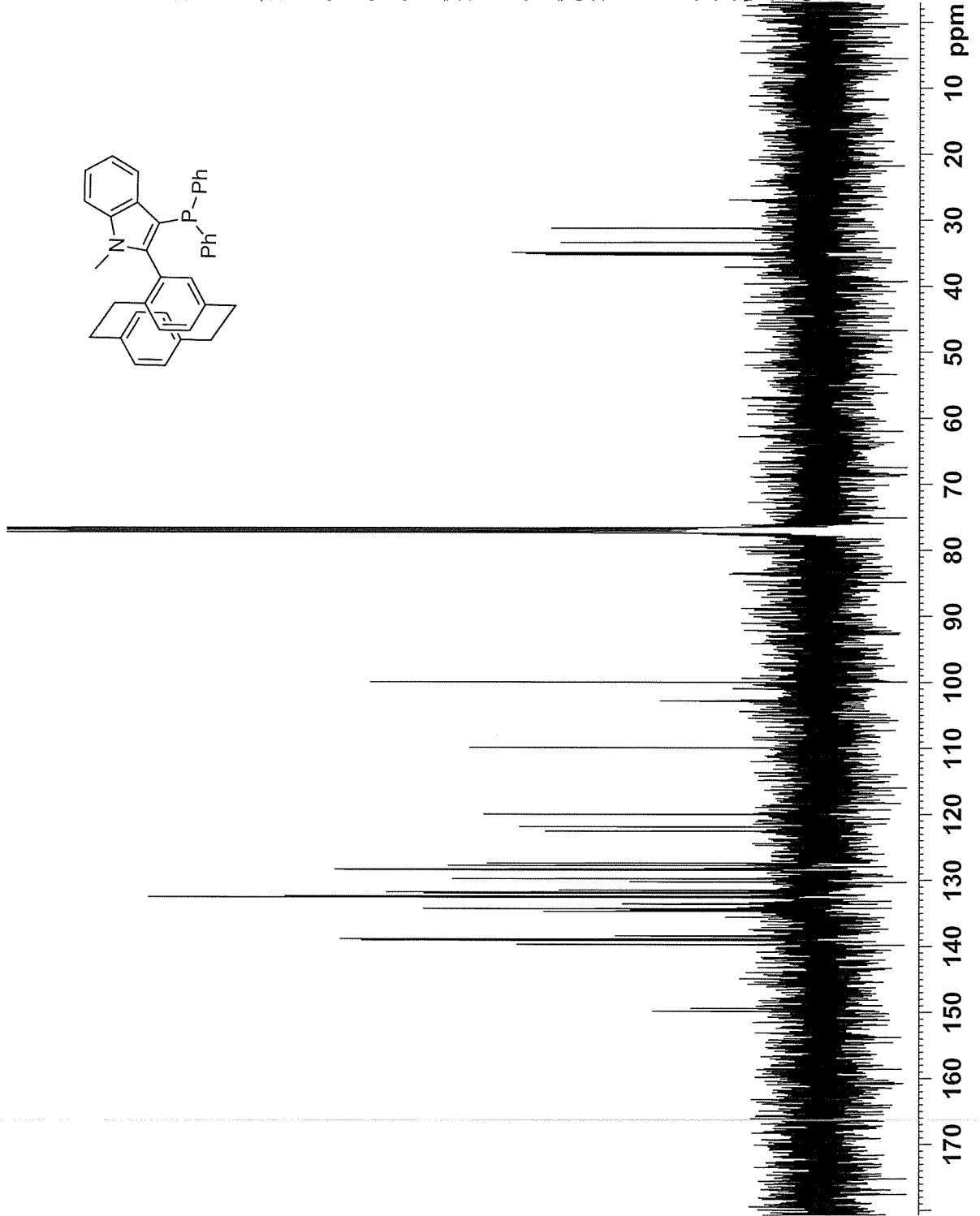
==== CHANNEL f1 =====
 NUC1 13C
 P1 9.30 usec
 PL1 0.00 dB
 SFO1 100.6228298 MHz

==== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 80.00 usec
 PL2 0.00 dB
 PL12 18.00 dB
 PL13 120.00 dB
 SFO2 400.1316005 MHz
 SI 32768
 SF 100.6127690 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

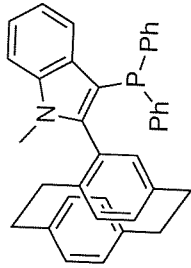
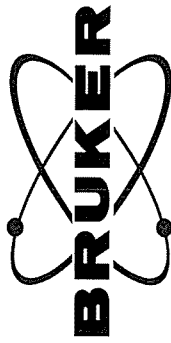
33.30
 33.47
 33.00
 33.18
 33.35



149.79
 149.87
 139.73
 139.10
 139.00
 138.90
 138.91
 138.41
 134.71
 134.63
 134.49
 134.32
 134.16
 133.96
 133.82
 133.69
 133.56
 133.40
 131.98
 131.81
 131.49
 130.26
 130.21
 129.77
 128.46
 128.40
 128.37
 128.31
 127.76
 127.40
 122.58
 121.90
 120.02
 109.91
 102.84
 100.00



JJW-03-53A, column 1, 4-(Ph2P-methylindole)-22pc, 31P

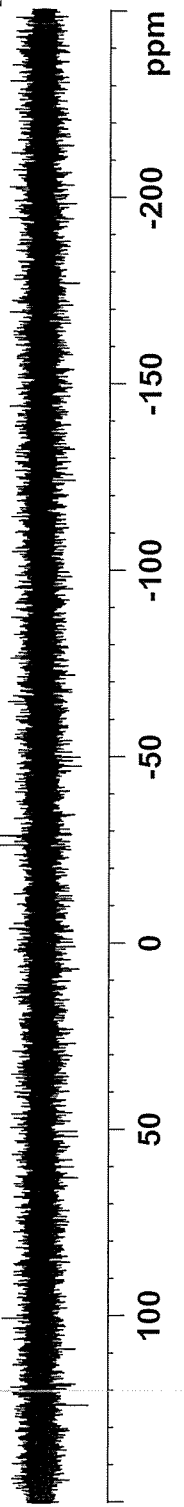


NAME JJW-03-53
EXPNO 6
PROCNO 1
Date_ 20100923
Time_ 14.17
INSTRUM spect
PROBHD 5 mm QNP 1H/13
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 16
DS 4
SWH 64935.066 Hz
FIDRES 0.990830 Hz
AQ 0.5046772 sec
RG 20642.5
DW 7.700 usec
DE 6.00 usec
TE 298.2 K
D1 2.0000000 sec
d11 0.0300000 sec
DELTA 1.89999998 sec
TDO 1

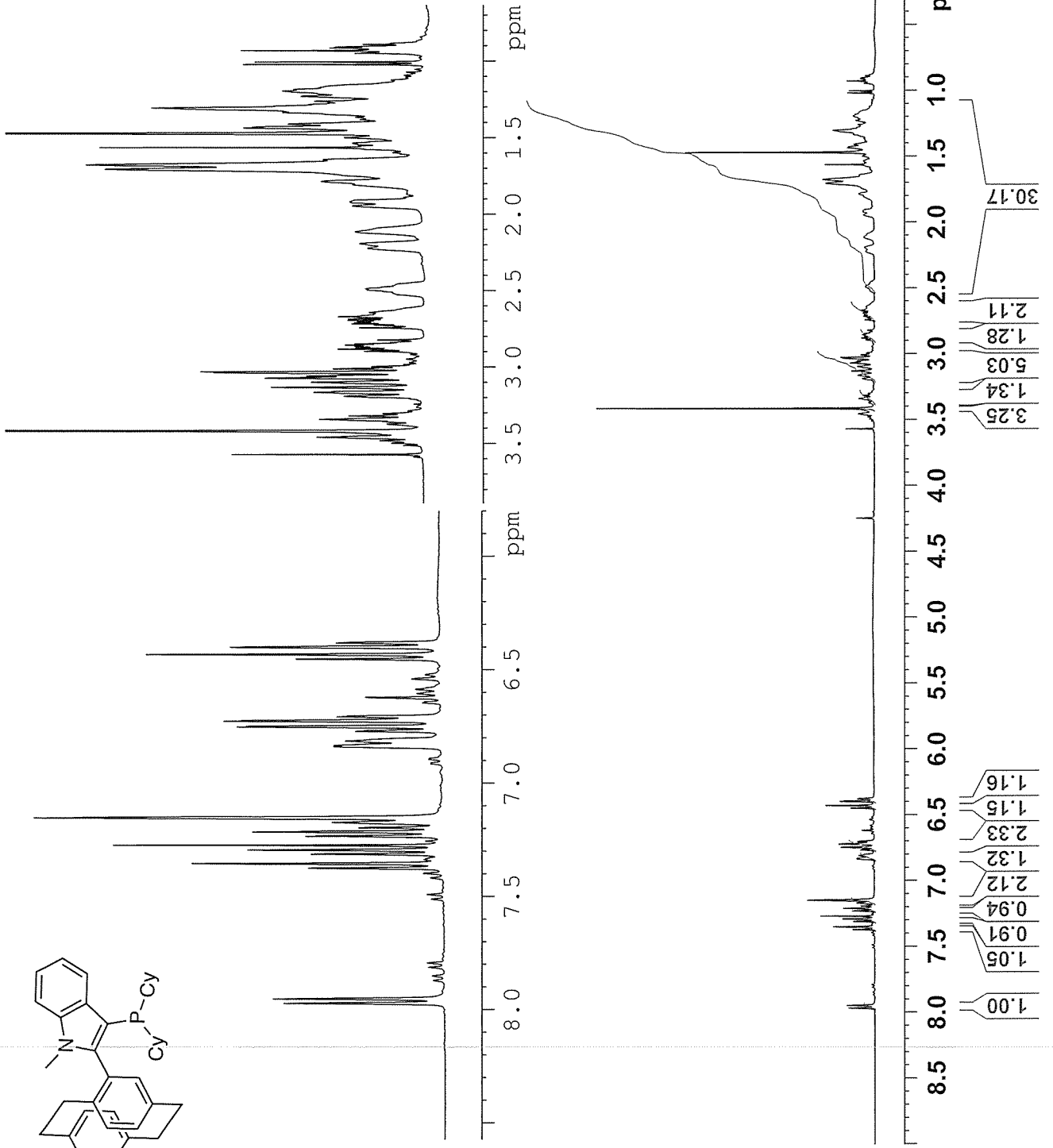
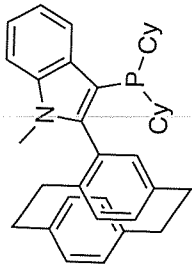
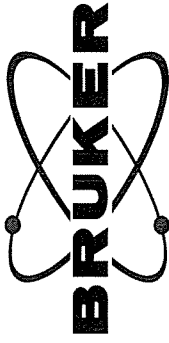
==== CHANNEL f1 =====
NUC1 31P
P1 9.20 usec
PL1 2.00 dB
SFO1 161.9674942 MHz

==== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
PCPD2 80.00 usec
PL2 0.00 dB
PL12 18.00 dB
PL13 120.00 dB
SFO2 400.1316005 MHz
SI 32768
SF 161.9755930 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

-28.78



JJW-03-63A, column 2, 4-(Me, PCy2-indole)-22pc



NAME JJW-03-63
EXPNO 6
PROCNO 1
Date_ 20101027
Time_ 12.56
INSTRUM spect
PROBHD 5 mm QNP 1H/13
PULPROG zg30
TD 65536
SOLVENT CDC13
NS 16
DS 2
SWH 8278.146 Hz
FIDRES 0.126314 Hz
AQ 3.9584243 sec
RG 64
DW 60.400 usec
DE 6.00 usec
TE 295.2 K
D1 1.00000000 sec
TDO 1

==== CHANNEL f1 =====
NUC1 1H
P1 10.00 usec
PL1 0.00 dB
SFO1 400.1324710 MHz
NDO 2
TD 256
SFO1 100.6203 MHz
FIDRES 65.104164 Hz
SW 165.639 ppm
FnmODE Echo-Antiecho
SI 32768
SF 400.1300000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
SI 1024
MC2 1024
SF echo-antiecho
100.6127690 MHz
QSI QSI
WDW 2
SSB 0.30 Hz
LB 0.1
GB 0.1

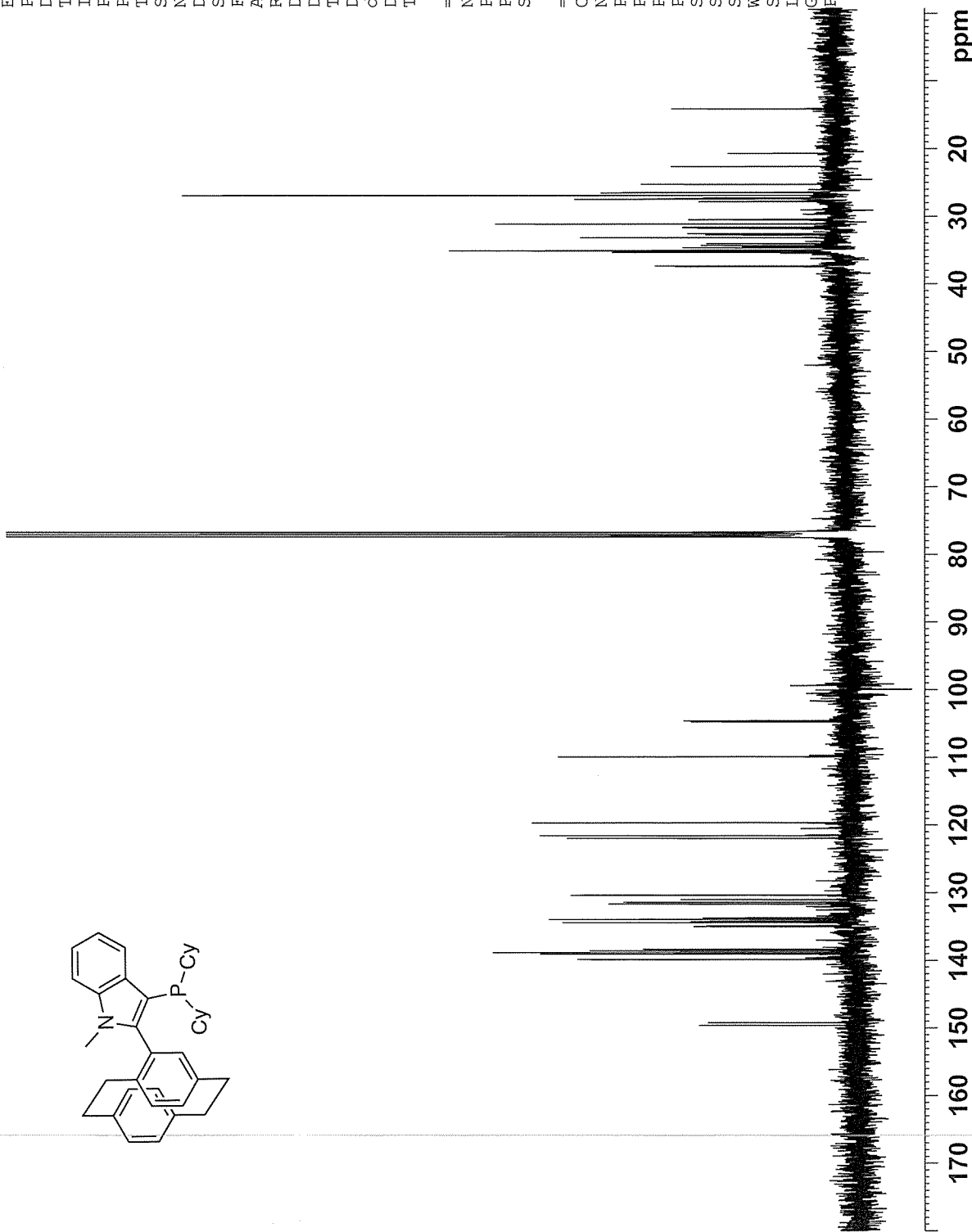
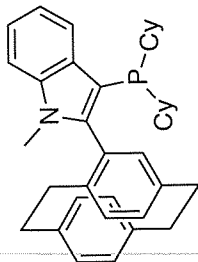
JJW-03-63A, column 2, 4-(Me, PCy2-indole)-22pc, 13C



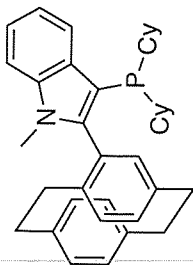
NAME JJW-03-63
EXPNO 8
PROCNO 1
Date_ 20101027
Time 13.26
INSTRUM spect
PROBHD 5 mm QNP 1H/13
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 1024
DS 4
SWH 23980.814 Hz
FIDRES 0.365918 Hz
AQ 1.3664756 sec
RG 2298.8
DW 20.850 usec
DE 6.00 usec
TE 295.2 K
d1 2.0000000 sec
d11 0.0300000 sec
DELTA 1.89999998 sec
TD0 1

==== CHANNEL f1 =====
NUC1 13C
P1 9.30 usec
PL1 0.00 dB
SFO1 100.6228298 MHz

==== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
PCPD2 80.00 usec
PL2 0.00 dB
PL12 18.00 dB
PL13 120.00 dB
SFO2 400.1316005 MHz
SI 32768
SF 100.6127690 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40



JJW-03-70A, column 1, PCy2, 31P



20.88



NAME JJW-03-70
 EXPNO 2
 PROCNO 1
 Date_ 20101119
 Time 11.38
 INSTRUM spect
 PROBD 5 mm PAQXI IH/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 4
 SWH 80645.164 Hz
 FIDRES 1.230548 Hz
 AQ 0.4063794 sec
 RG 20642.5
 DW 6.200 usec
 DE 6.50 usec
 TE 298.1 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 1

===== CHANNEL f1 =====
 NUC1 31P
 P1 20.00 usec
 PL1 -2.40 dB
 PL1W 131.39126587 W
 SF01 202.4462121 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 LH
 PCFD2 80.00 usec
 PL2 4.00 dB
 PL12 23.37 dB
 PL13 25.00 dB
 PL2W 12.10000038 W
 PL12W 0.13988955 W
 PL13W 0.09611372 W
 SF02 500.1320005 MHz

NDO 2
 TD 256
 ST01 100.6203 MHz
 FIDRES 65.104164 Hz
 SW 165.639 ppm
 FmMODE Echo-Antiecho
 SI 32768
 SF 202.4563350 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40
 SI 1024
 MC2 echo-antiecho
 SF 100.6127690 MHz
 WDW QSINE
 SSB 2
 LB 0.30 Hz
 GB 0.1

