

Room-Temperature Highly Efficient Suzuki-Miyaura Reactions in Water in the
Presence of Stilbazo

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Supporting Information

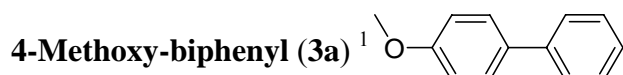
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1. Typical experimental procedure for the palladium-catalyzed Suzuki-Miyaura cross-coupling reaction in H₂O.	

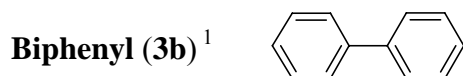
Stilbazo (5 mol %) was added to a mixture of ArX (0.2 mmol) and arylboronic acid (0.22 mmol), K₂CO₃ (0.4 mmol) and H₂O (1 mL) in a 5-mL round-bottom flask filled with N₂. The reaction mixture was stirred at room temperature for an appropriate time until complete conversion of aryl halide took place (monitored by TLC). After

completion, the mixture was extracted with CH_2Cl_2 (3×3 mL) and the combined organic extracts were dried over anhydrous sodium sulfate and evaporated under vacuum, leaving the crude product, which was purified by column chromatography to afford the corresponding products.

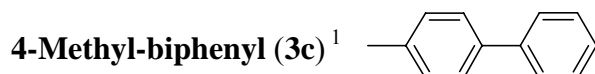
2. Analytical data for 3a-3k and 4a-4j



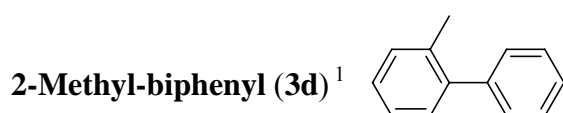
White solid; mp 88–90°C; ¹H NMR (400 MHz, CDCl_3) δ 7.56–7.52 (m, 4H), 7.41 (t, $J = 7.2$ Hz, 2H), 7.30 (t, $J = 7.2$, 1H), 6.99 (d, $J = 8.4$ Hz, 2H), 3.85 (s, 3H); ¹³C NMR (100 MHz, CDCl_3) δ 159.1, 140.8, 133.8, 128.7, 128.2, 126.8, 126.7, 114.2, 55.4.



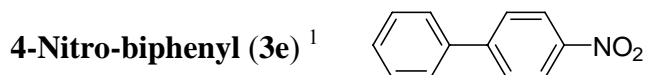
White solid; mp 68–70 °C; ¹H NMR (400 MHz, CDCl_3) δ 7.61 (d, $J = 8.0$ Hz, 4H), 7.46 (t, $J = 7.6$ Hz, 4H), 7.37 (t, $J = 7.6$ Hz, 2H); ¹³C NMR (100 MHz, CDCl_3) δ 141.2, 128.7, 127.2, 127.1.



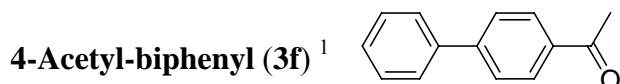
White solid; mp 44– 46 °C; ¹H NMR (400 MHz, CDCl_3) δ 7.58 (t, $J = 7.6$ Hz, 2H), 7.49 (d, $J = 8.0$ Hz, 2H), 7.43–7.39 (m, 2H), 7.33 (t, $J = 7.6$ Hz, 1H), 7.25 (t, $J = 8.0$ Hz, 2H), 2.38 (s, 3H).



Colorless liquid; ¹H NMR (400 MHz, CDCl_3) δ 2.27 (s, 3H), 7.24–7.26 (m, 4H), 7.31–7.36 (m, 3H), 7.39–7.46 (m, 2H).



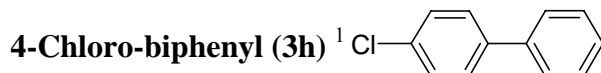
Yellow solid; mp 112–114°C; ¹H NMR (400 MHz, CDCl₃) δ 8.31 (d, *J* = 8.8 Hz, 2H), 7.75 (d, *J* = 8.8 Hz, 2H), 7.64 (t, *J* = 8.8 Hz, 2H), 7.52-7.43 (m, 3H).



White solid; mp 116–118°C; ¹H NMR (400 MHz, CDCl₃) δ 8.04 (d, *J* = 8.0 Hz, 2H), 7.69 (d, *J* = 8.0 Hz, 2H), 7.64 (d, *J* = 8.0 Hz, 2H), 7.49-7.38 (m, 3H), 2.64 (s, 3H).



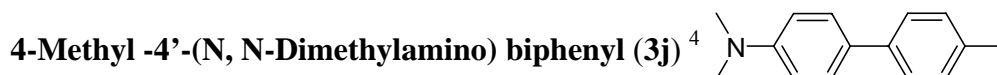
White solid; mp 121-123°C; ¹H NMR (400 MHz, CDCl₃) δ 7.56-7.49 (m, 4H), 7.41 (t, *J* = 7.6Hz, 2H), 7.27 (m, 1H), 6.82 (d, *J* = 8.8Hz, 2H), 2.99 (s, 6H).



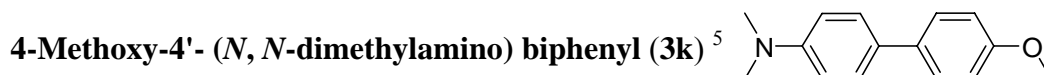
White solid; mp 77-79°C; ¹H NMR (400 MHz, CDCl₃) δ 7.56-7.48 (m, 4H), 7.46-7.34 (m, 5H).



White solid; mp 118-120°C; ¹H NMR (400 MHz, CDCl₃) δ 7.48 (d, *J* = 8.0 Hz, 4H), 7.24 (d, *J* = 8.0 Hz, 4H), 2.38 (s, 6H); ¹³C NMR (100 MHz, CDCl₃) δ 138.2, 136.7, 129.4, 129.1, 126.8, 21.1.

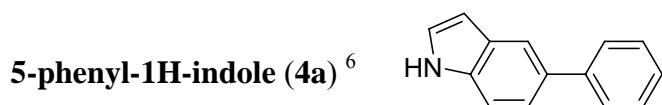


Gray solid; mp 132-133°C; ¹H NMR (400 MHz, CDCl₃) δ 7.49 (d, *J* = 8.8 Hz, 2H), 7.45 (d, *J* = 8.0 Hz, 2H), 7.21 (d, *J* = 8.0Hz, 2H), 6.81 (d, *J* = 8.8 Hz, 2H), 2.98 (s, 6H), 2.36 (s, 3H).

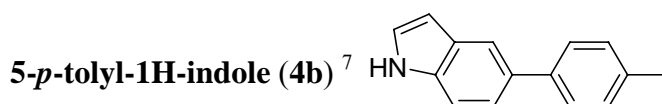


Gray solid; mp 156-157 °C; ¹H NMR (400 MHz, CDCl₃) δ 7.49 (d, *J* = 8.8 Hz,

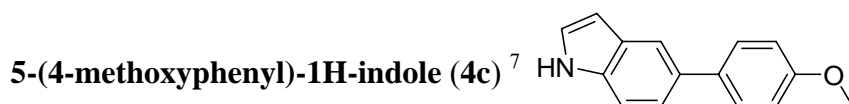
2H), 7.46 (d, $J = 9.2$ Hz, 2H), 6.95 (d, $J = 8.4$ Hz, 2H), 6.81 (d, $J = 8.4$ Hz, 2H), 3.09 (s, 3H), 2.98 (s, 6H).



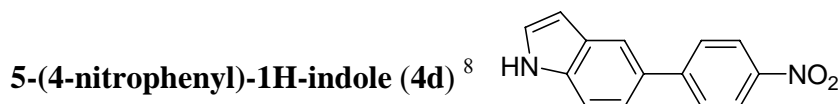
White solid; mp 68-70°C; ¹H NMR (400 MHz, CDCl₃) δ 8.15 (s, 1H), 7.86 (s, 1H), 7.66 (d, $J = 8.0$ Hz, 2H), 7.45-7.41 (m, 4H), 7.31 (t, $J = 6.8$ Hz, 1H), 7.24-7.23 (m, 1H), 6.61 (t, $J = 4.8$ Hz, 1H); ¹³C NMR (100 MHz, CDCl₃) δ 142.5, 135.3, 133.4, 128.7, 128.4, 127.3, 124.9, 122.0, 120.8, 119.3, 111.3, 103.1.



White solid; mp: 78-79°C ¹H NMR (400 MHz, CDCl₃) δ : 8.24 (br s, 1H), 7.83 (s, 1H), 7.66 (d, $J = 8.0$ Hz, 2H), 7.49 (s, 2H), 7.25-6.99 (m, 3H), 6.60 (s, 1H), 2.39 (s, 3H).

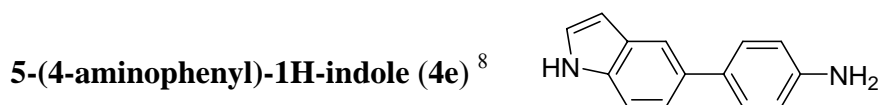


White solid; mp 109-110°C; ¹H NMR (400 MHz, CDCl₃) δ 8.14 (br s, 1H), 7.80 (s, 1H), 7.58-7.56 (m, 2H), 7.46-7.38 (m, 2H), 7.22 (t, $J = 2.4$ Hz, 1H), 6.99-6.96 (m, 2H), 6.59 (t, $J = 2.4$ Hz, 1H), 3.85 (s, 3H); ¹³C NMR (100 MHz, CDCl₃) δ 158.5, 135.2, 135.0, 133.1, 128.4, 128.2, 124.6, 121.8, 118.8, 118.7, 111.2, 103.0, 55.9.

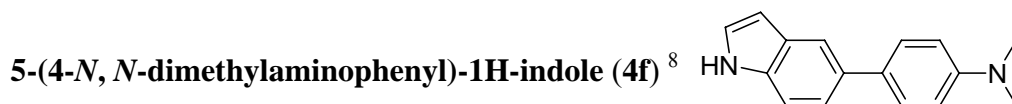


Yellow solid; mp 132-133°C; ¹H NMR (400 MHz, CDCl₃) δ 8.30-8.28 (m, 3H), 7.92 (d, $J = 0.8$ Hz, 1H), 7.80-7.78 (m, 2H), 7.52-7.46 (m, 2H), 7.30-7.23 (m, 1H),

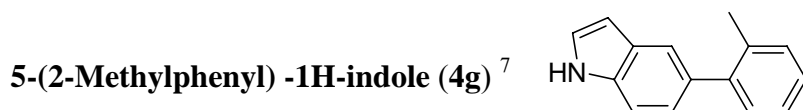
6.65 (t, $J = 2.0$ Hz, 1H); ^{13}C NMR (100 MHz, CDCl_3) δ 149.1, 146.3, 136.1, 130.8, 128.5, 127.6, 125.6, 124.1, 120.0, 111.8, 103.4.



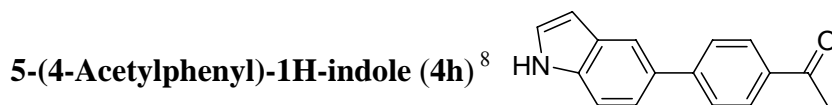
Gray solid; mp: 126-127°C; ^1H NMR (400 MHz, $\text{DMSO-}d_6$) δ 10.98 (br s, 1H), 7.64 (s, 1H), 7.39-25 (m, 5H), 6.64 (d, $J = 8.4$ Hz, 2H), 6.42 (t, $J = 2.0$ Hz, 1H), 5.04 (br s 2H); ^{13}C NMR (100 MHz, CDCl_3) δ 147.0, 134.6, 132.0, 129.6, 128.1, 127.2, 126.9, 125.6, 125.4, 119.8, 116.6, 114.6, 111.5, 101.2.



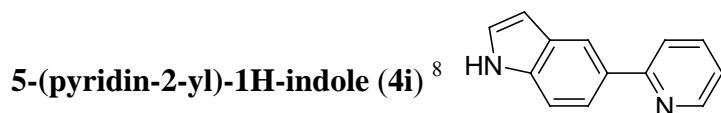
White solid; mp 138-140°C; ^1H NMR (400 MHz, CDCl_3) δ 8.14 (br s, 1H), 7.80 (s, 1H), 7.57 (d, $J = 8.8$ Hz, 2H), 7.42 (s, 2H), 7.22 (t, $J = 2.4$ Hz, 1H), 6.89 (d, $J = 6.8$ Hz, 2H), 6.58 (s, 1H), 2.99 (s, 6H).



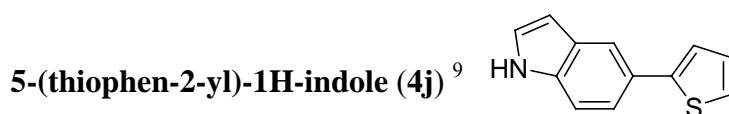
White solid; mp: 65-66°C ^1H NMR (400 MHz, CDCl_3) δ 8.12 (s, 1H), 7.64 (m, 1H), 7.41-7.37 (m, 1H), 7.31-7.10 (m, 6H), 6.55 (s, 1H), 2.30 (s, 1H).



White solid; mp 135-137°C; ^1H NMR (400 MHz, CDCl_3) δ 8.30 (br s, 1H), 8.04 (d, $J = 8.0$ Hz, 2H), 7.91 (d, $J = 8.0$ Hz, 1H), 7.76 (d, $J = 8.4$ Hz, 2H), 7.51-7.46 (m, 2H), 7.25 (t, $J = 8.4$ Hz, 1H), 6.63 (t, $J = 2.4$ Hz, 1H), 2.64 (s, 3H); ^{13}C NMR (100 MHz, CDCl_3) δ 169.0, 147.3, 135.8, 135.0, 131.9, 128.9, 128.4, 127.2, 125.3, 121.8, 119.7, 111.4, 103.1, 26.6.



White solid; mp: 122-124°C; ¹H NMR (400 MHz, CDCl₃) δ 8.69 (d, *J* = 4.8 Hz, 1H), 8.34 (br s, 1H), 8.27 (s, 1H), 7.89 (d, *J* = 8.8 Hz, 1H), 7.79-7.71 (m, 2H), 7.48 (d, *J* = 8.4 Hz, 1H), 7.25 (t, *J* = 3.2 Hz, 1H), 7.23-7.16 (m, 1H), 6.63 (s, 1H); ¹³C NMR (100 MHz, CDCl₃) δ 158.7, 149.44, 136.67, 136.4, 131.5, 128.3, 124.9, 121.4, 121.1, 120.4, 119.6, 111.2, 103.4.



White solid; mp 118-120°C; ¹H NMR (400 MHz, CDCl₃) δ 8.14 (br s, 1H), 7.88 (d, *J* = 8.8 Hz, 1H), 7.48-7.36 (m, 4H), 7.27-7.21 (m, 2H), 6.57(s, 1H).

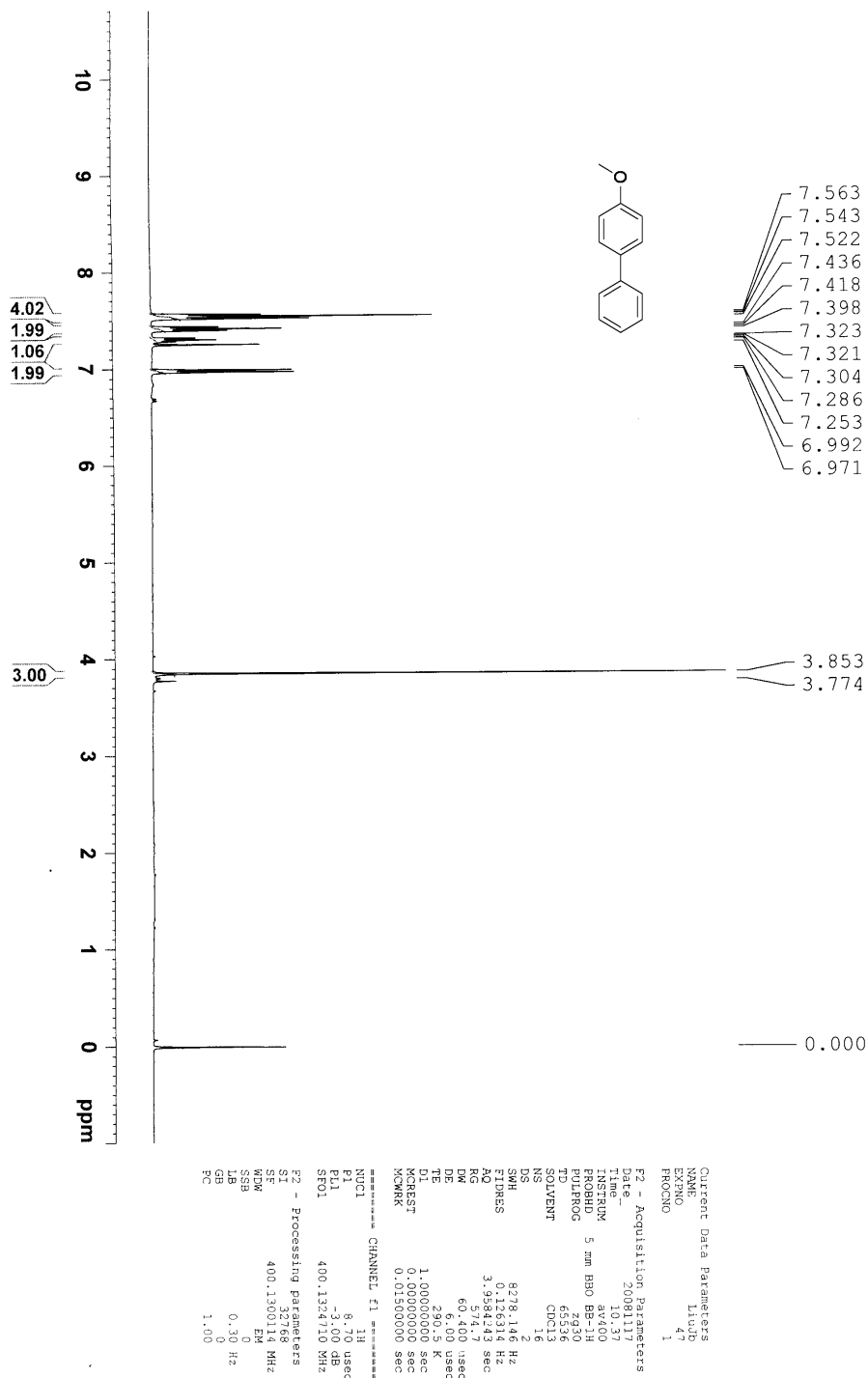
3. References

1. (a) H. J. Li, W. J. Liu and Y. X. Xie, *J. Org. Chem.* 2005, **70**, 5409. (b) J. H. Li and W. J. Liu, *Org. Lett.* 2004, **6**, 2809.
2. A. G. Molander and B. Biolatto, *J. Org. Chem.* 2003, **68**, 4302.
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4. K. Inada and N. Miyaura, *Tetrahedron*, 2000, **56**, 8657.
5. E. Tatsuki, F. Keigo, E. Mayuko, K. Masayuki and K. Masanori, *Adv. Syn. & Cata.*; 2004, **346**, 1685.
6. S. W. Michael and D. Philip, *J. Org. Chem.* 2004, **69**, 1137.
7. M. Guobin, P. Ye, L. B. Yu and B. M. Carmen *J. Org. Chem.* 2005, **70**, 2332
8. PCT *Int. Appl.* 2006, 292.

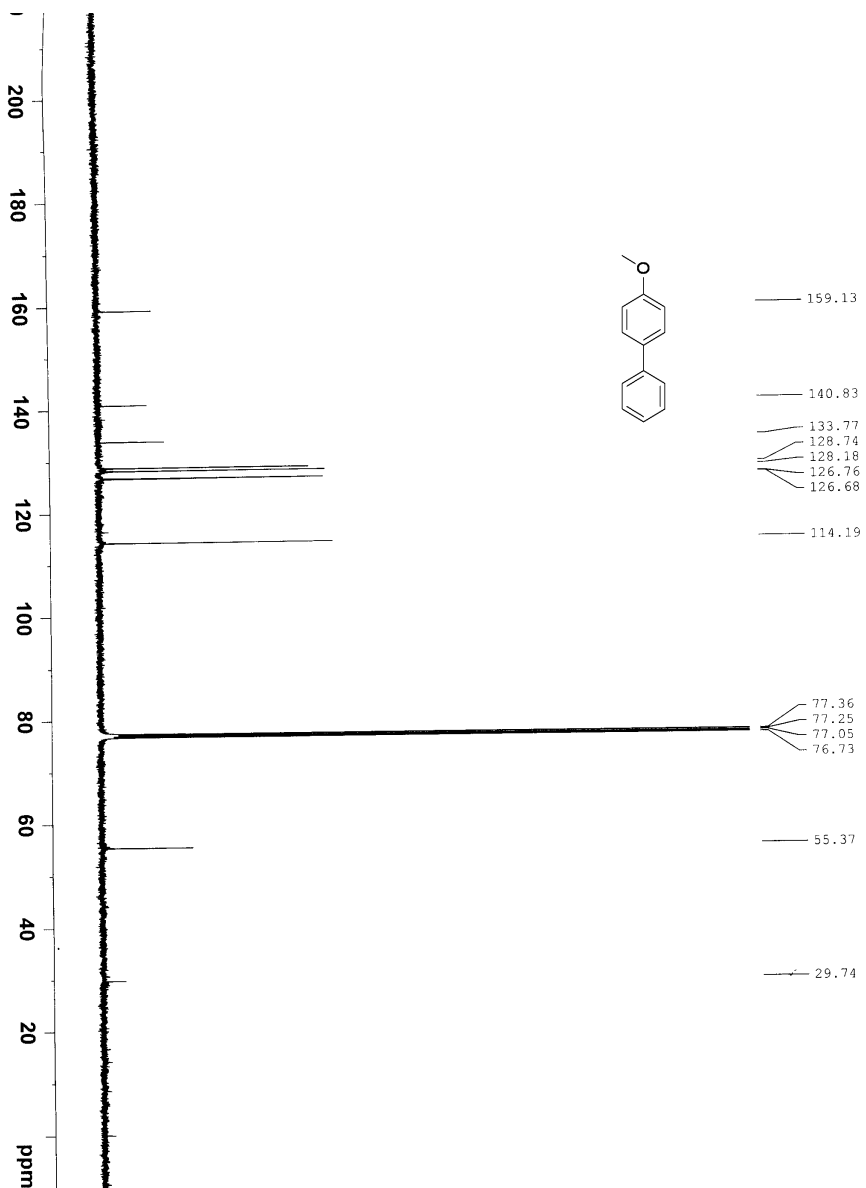
9. A. S. Sarac, S. O. Sarioglan, T. Dziomba and E. Sezer, *European Polymer Journal* 2007, **43**, 3392.

4. NMR spectra

4-Methoxy-biphenyl (3a)



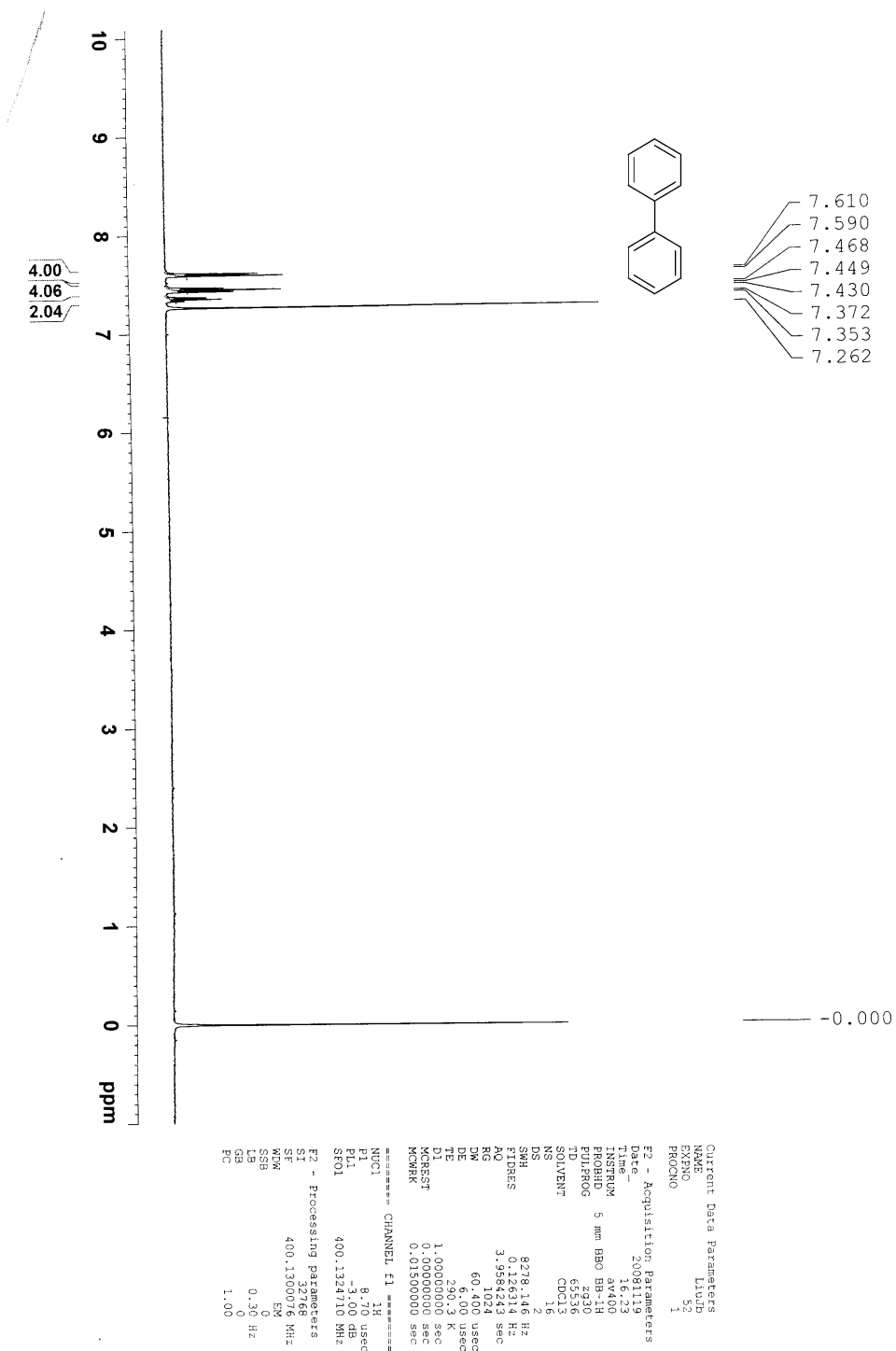
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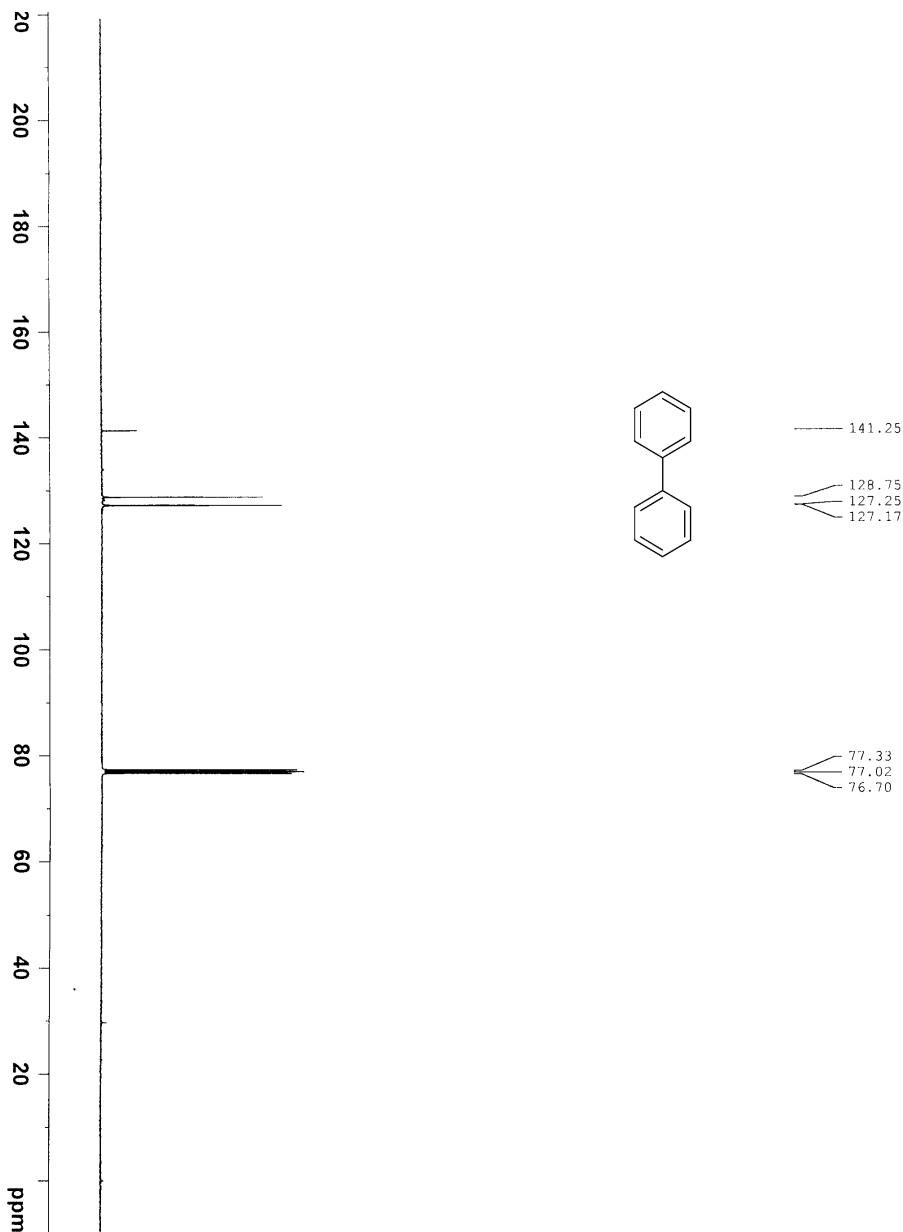
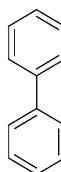
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Biphenyl (3b)



Biphenyl (3b)



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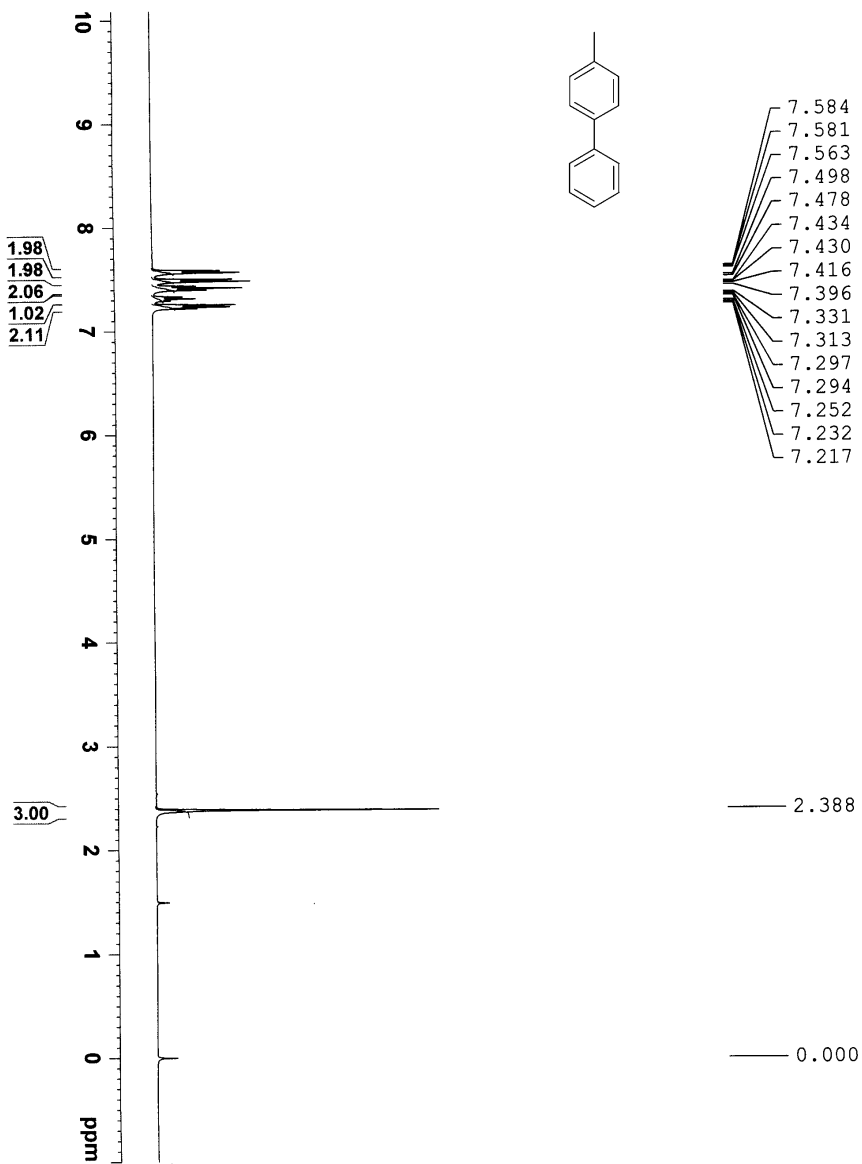
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4-Methyl-biphenyl (3c)



- 7.584
- 7.581
- 7.563
- 7.498
- 7.478
- 7.434
- 7.430
- 7.416
- 7.396
- 7.331
- 7.313
- 7.297
- 7.294
- 7.252
- 7.232
- 7.217

- 2.388
- 0.000

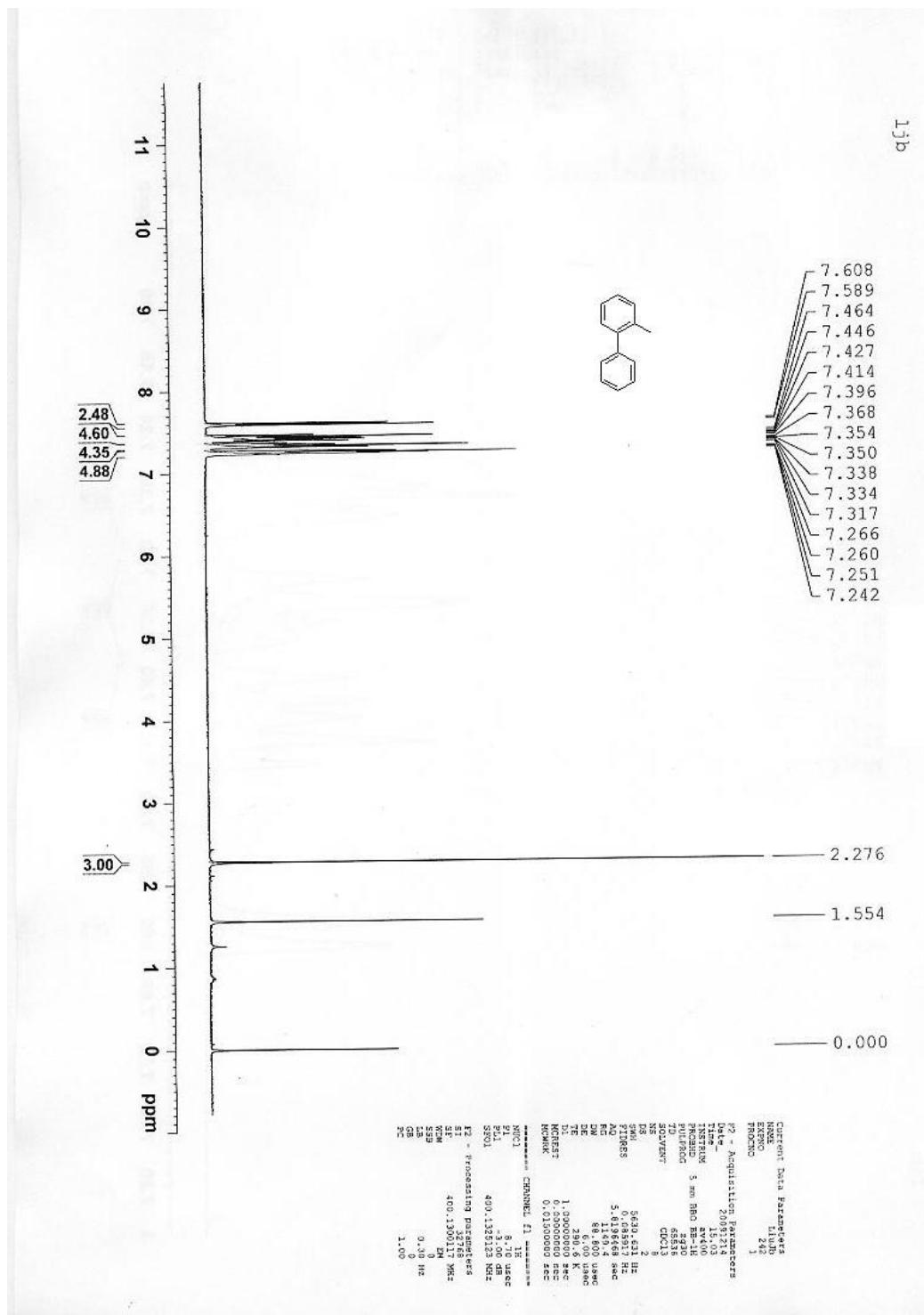
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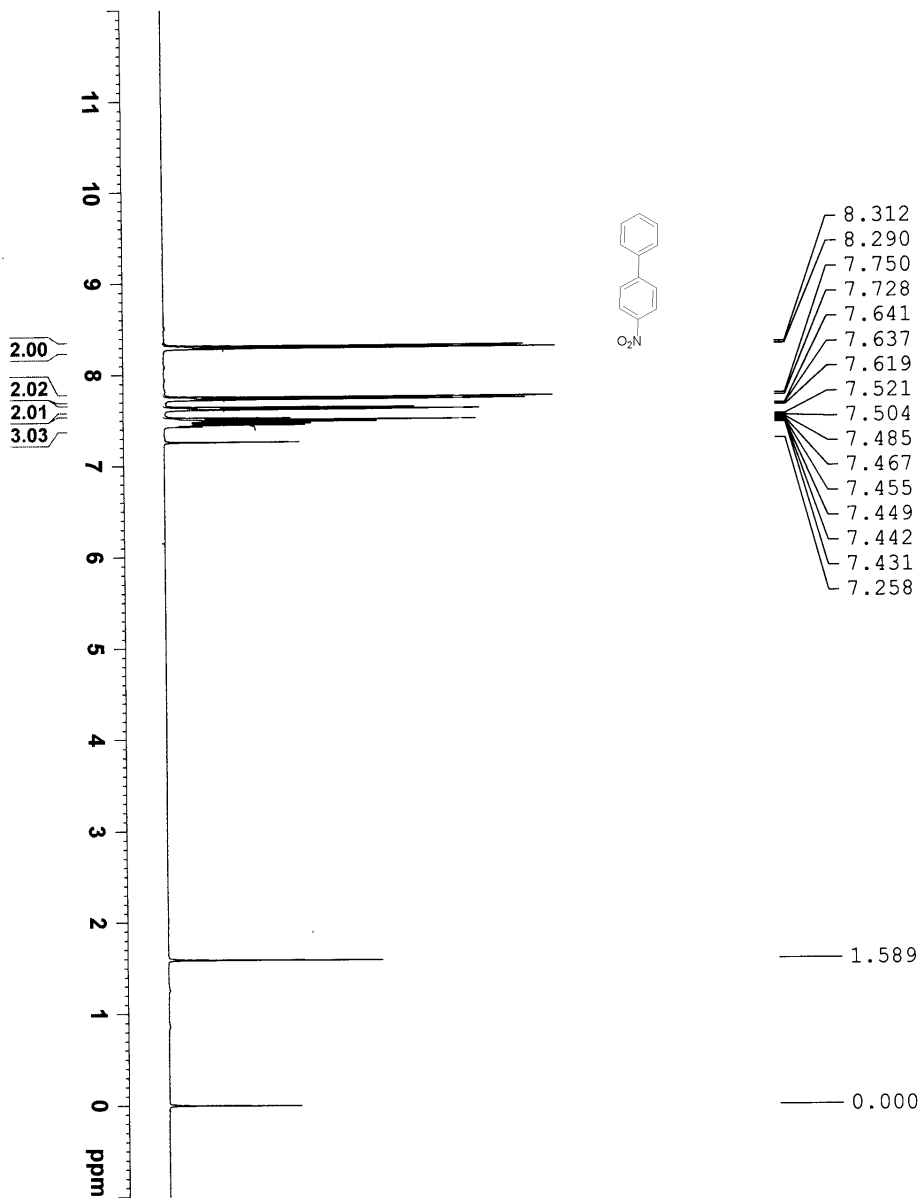
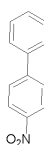
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2-Methyl-biphenyl (3d)



4-Nitro-biphenyl (3e)



- 8.312
- 8.290
- 7.750
- 7.728
- 7.641
- 7.637
- 7.619
- 7.521
- 7.504
- 7.485
- 7.467
- 7.455
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 PROCNO 1

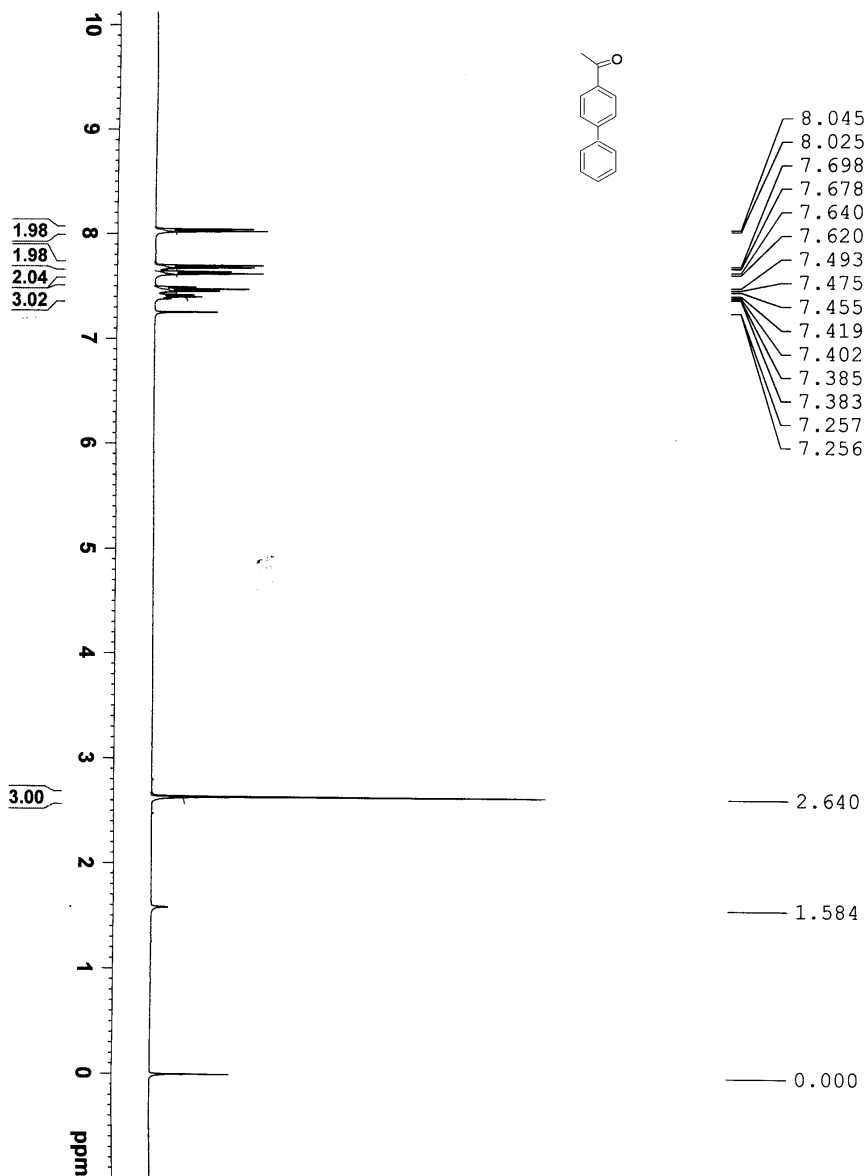
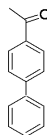
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21

4-Acetyl-biphenyl (3f)



8.045
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 7.678
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 7.620
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 7.455
 7.419
 7.402
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1.98
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 3.02

3.00

ppm

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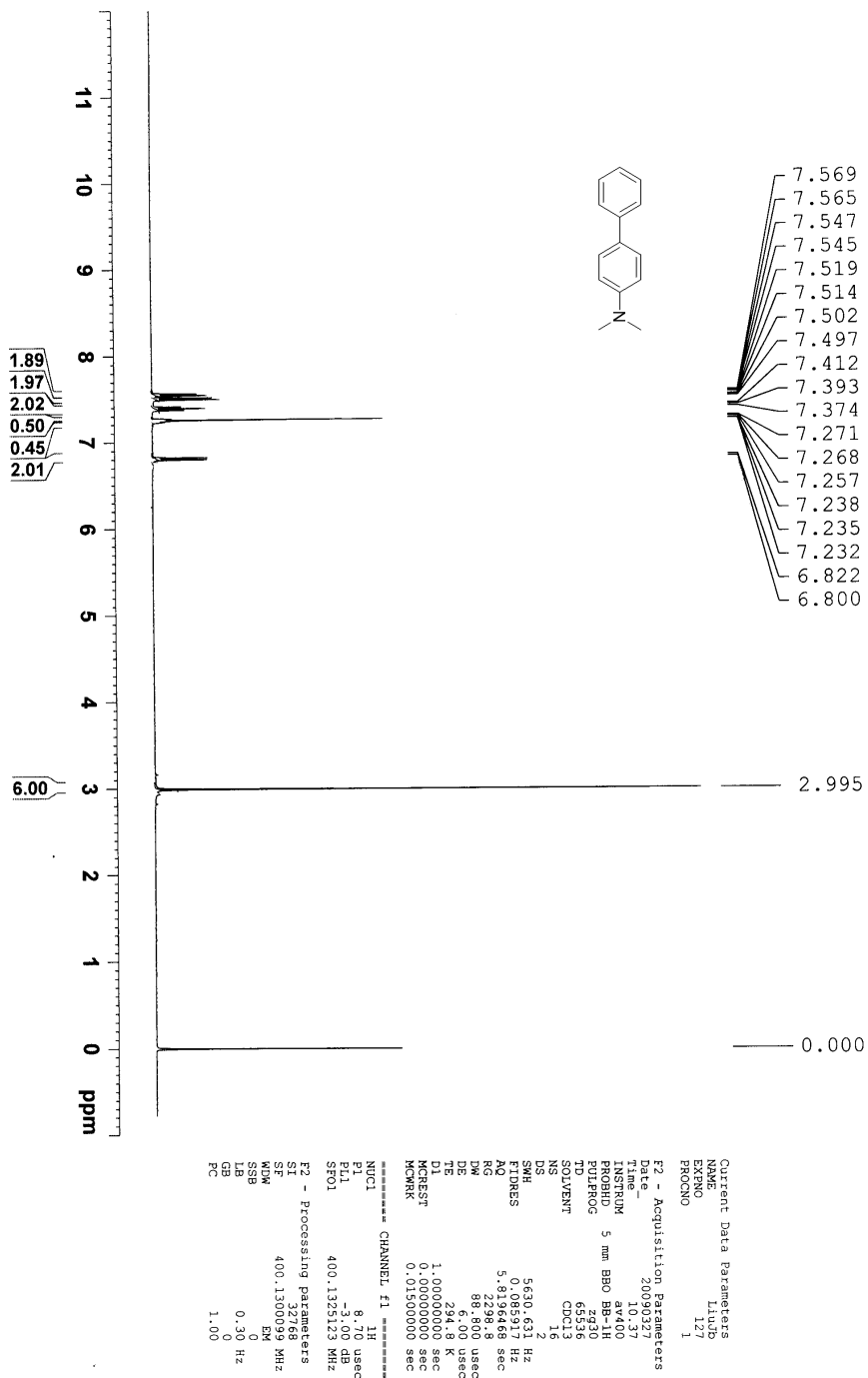
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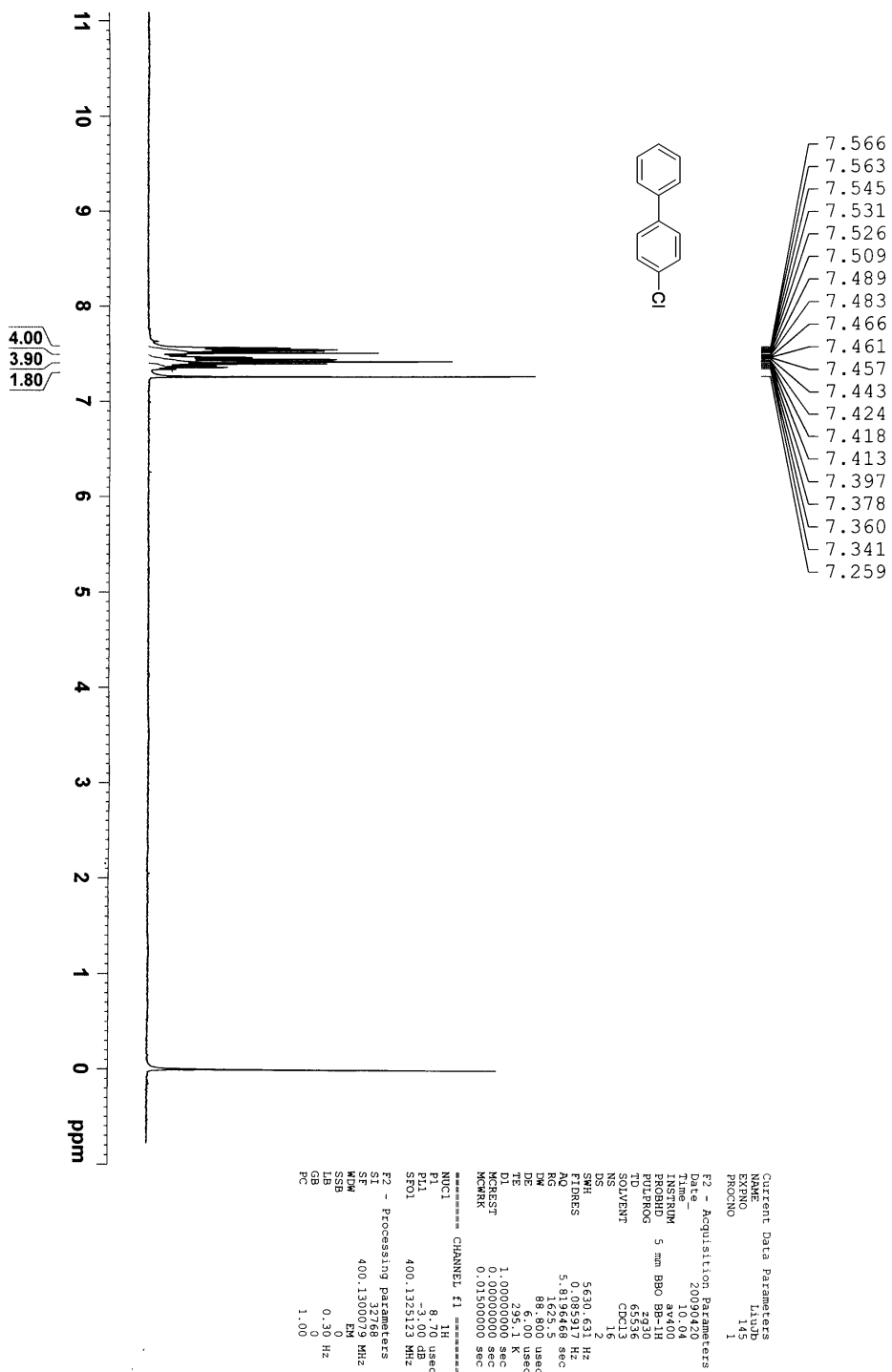
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P1            9.10 usec
PL1          -3.70 usec
SFO1         400.1324710 MHz

F2 - Processing parameters
SI            32768
SF           400.1300000 MHz
WDW          EM
SSB          0
LB           0.30 Hz
GB           0
PC           1.00
    
```

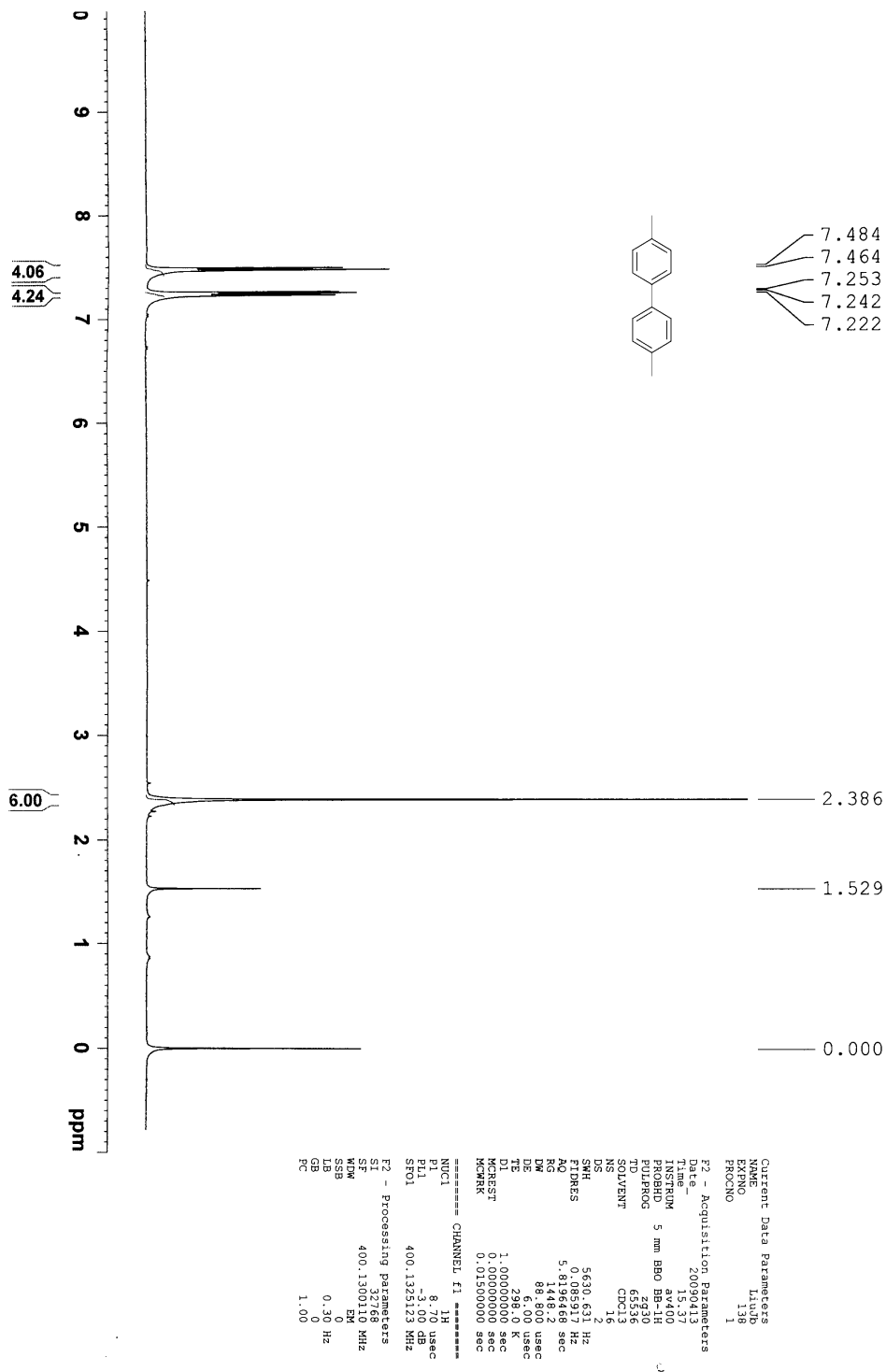
4- (N, N-dimethylamino) biphenyl (3g)



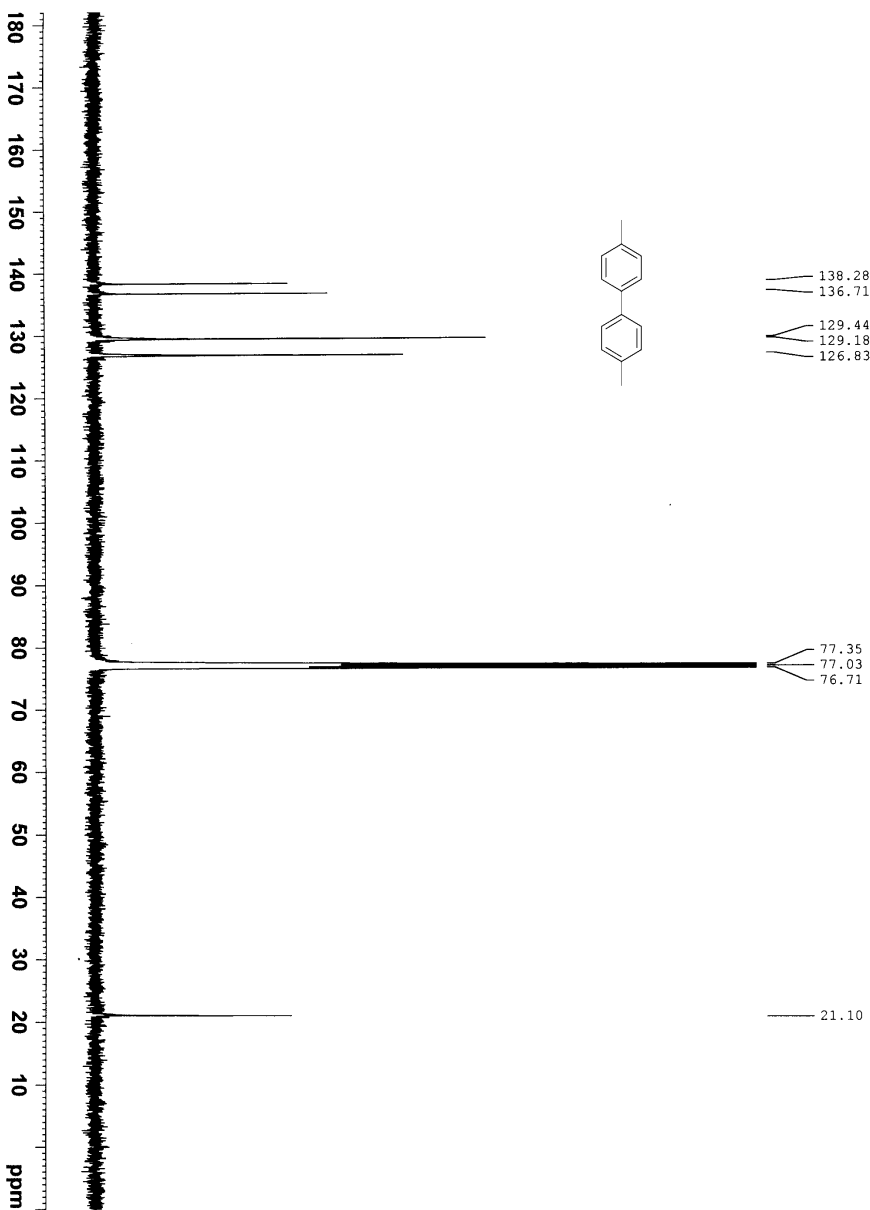
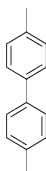
4-Chloro-biphenyl (3h)



4, 4'-Dimethyl-biphenyl (3i)



4, 4'-Dimethyl-biphenyl (3i)



138.28
 136.71
 129.44
 129.18
 126.83

77.35
 77.03
 76.71

21.10

```

Current Data Parameters
NAME      Liuid
EXPNO    144
PROCNO   1

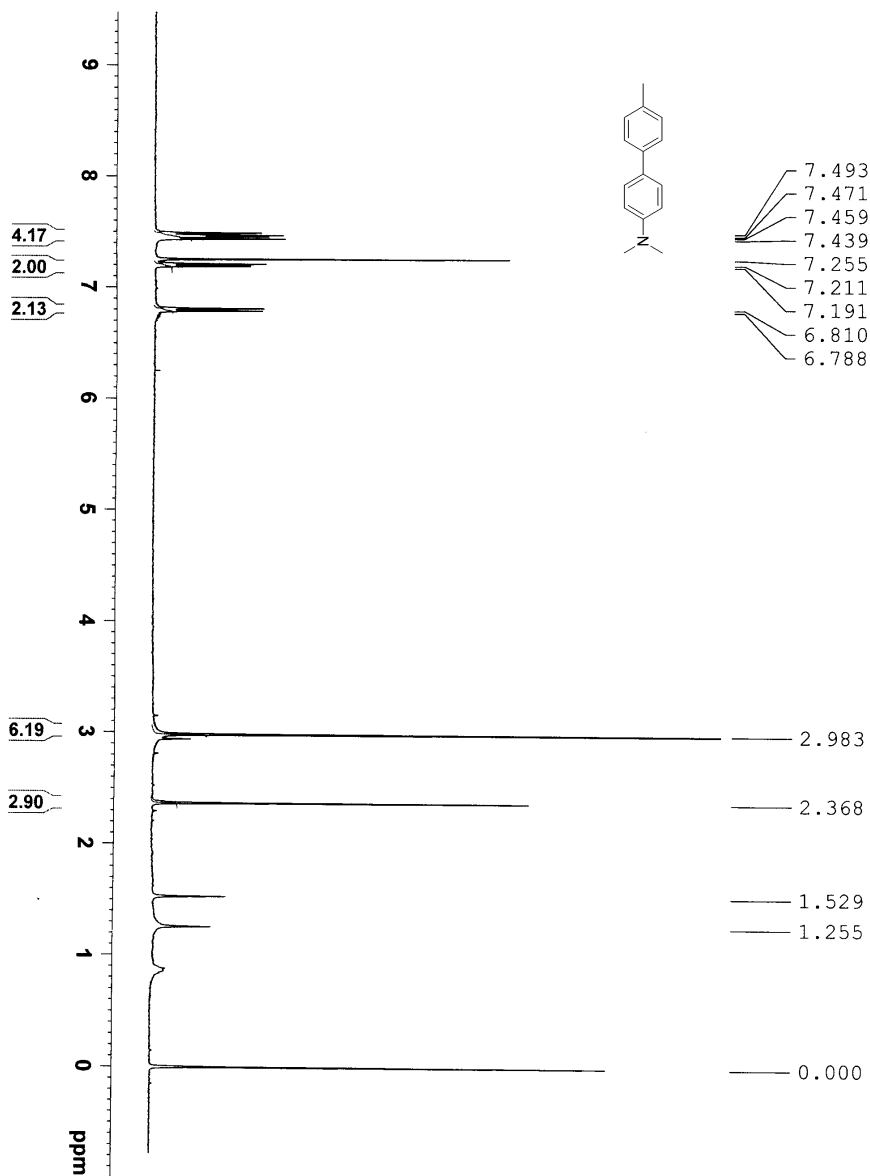
F2 - Acquisition Parameters
Date_    20090415
Time     23.17
INSTRUM  5 mm BBO BB-1H
PROBHD   5 mm BBO BB-1H
PULPROG  zgpg30
TD        65536
SOLVENT  CDCl3
NS        6144
DS        4
SWH       23980.814 Hz
FIDRES    0.365918 Hz
AQ         1.3664756 sec
RG         9195.2
DM         20.850 usec
DE         5.00 usec
PE         25.00 usec
D1         2.0000000 sec
d11        0.03000000 sec
MCREST    0.0000000 sec
MCWRK     0.01500000 sec

===== CHANNEL f1 =====
NUC1      13C
P1        8.50 usec
PL1       2.00 dB
SFO1     100.626299 MHz

===== CHANNEL f2 =====
COPPRG2   waltz16
NUC2       1H
PCPD2     80.00 usec
PL2       -3.00 dB
PL12      16.27 dB
PL13      20.00 dB
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
    
```

4-Methyl -4'-(N, N-Dimethylamino) biphenyl (3j)



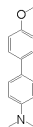
Current Data Parameters
 Name: Fluid
 Run: 124
 PRCNO: 1

F2 - Acquisition Parameters
 Date_: 20090323
 Time: 11:28
 TimeOff: 84400
 INSTRUM: spect
 PUSHD: 5 mm BBO 2430
 PULPROG: zgpg30
 TD: 65536
 SOLVENT: CDCl3
 NS: 16
 DS: 2
 SMH: 5630.631 Hz
 FIDRES: 0.085917 Hz
 AQ: 5.8196468 sec
 RG: 1625.5
 DM: 88.800 usec
 DE: 29.00 usec
 TE: 29.00 K
 D1: 1.00000000 sec
 MCREST: 0.00000000 sec
 KCMRK: 0.01500000 sec

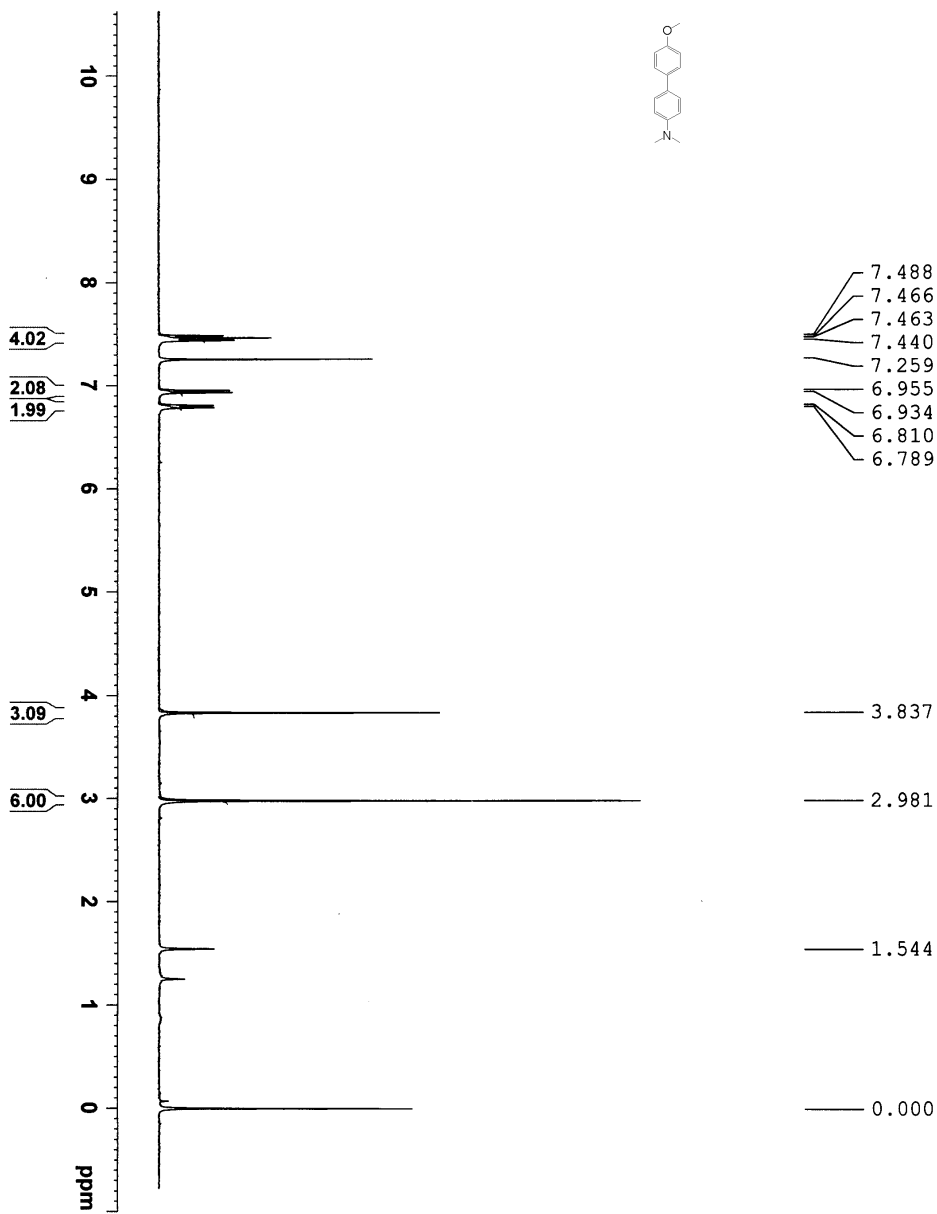
===== CHANNEL f1 =====
 NUC1: 1H
 P1: 8.70 usec
 PL1: -3.00 dB
 SFO1: 400.1325123 MHz

F2 - Processing parameters
 SI: 32768
 SF: 400.1300106 MHz
 MBW: EM
 SSB: 0
 LB: 0.30 Hz
 GB: 0
 PC: 1.00

4-Methoxy-4'- (N, N-dimethylamino) biphenyl (3k)



1j1b4



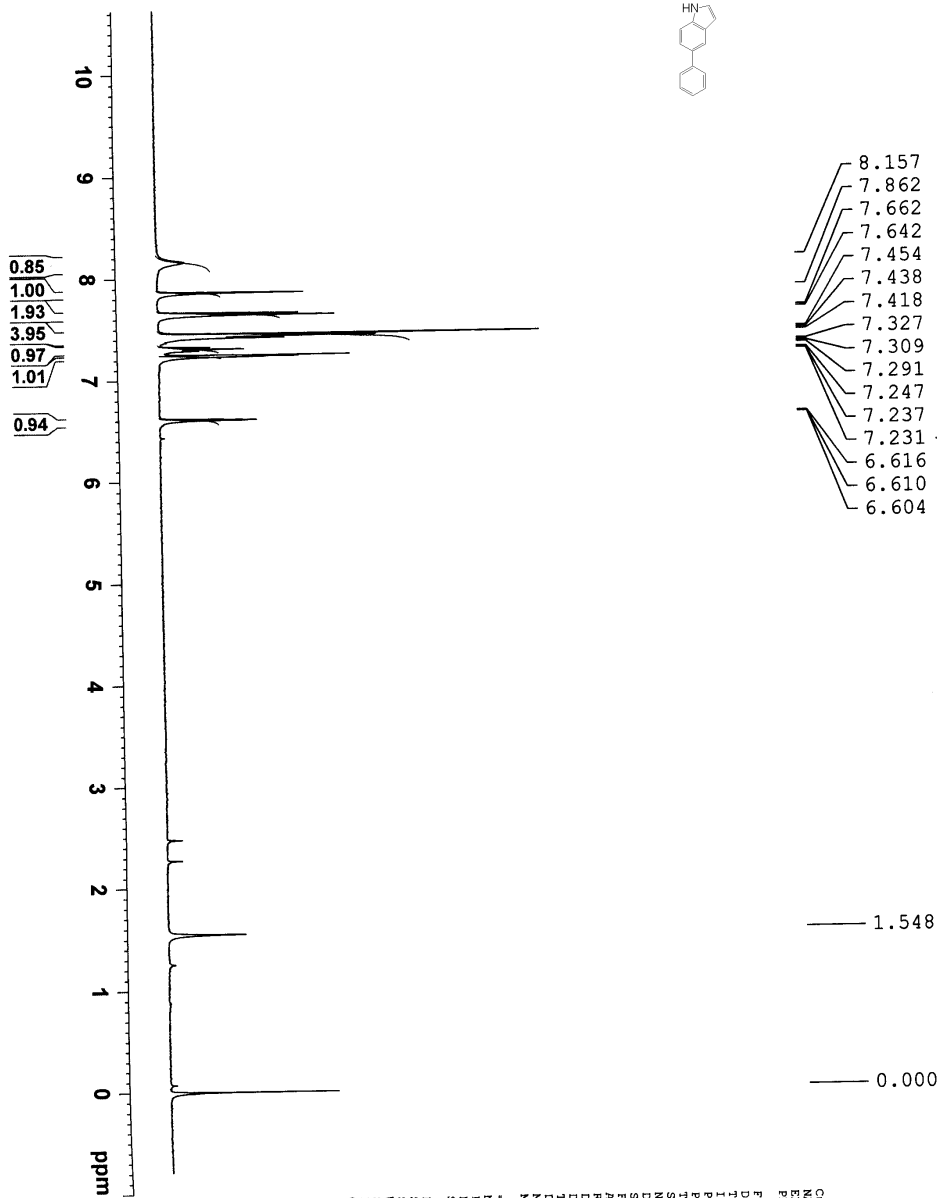
```

Current Data Parameters
NAME          1j1b4
EXPNO        231
PROCNO       1
===== Acquisition Parameters =====
Date_         20091106
Time         11:29
INSTRUM      av400
PROBHD       5 mm BBO BB-1H
PULPROG      zg30
SOLVENT      CDCl3
NS           8
DS           2
SF           5638.631 Hz
AQ           0.00000000 sec
RG           1824.6
DM           88.800 usec
DE           2.00 usec
TE           29.99
D1           1.00000000 sec
MKREST      0.00000000 sec
MKWRRK      0.01500000 sec
===== CHANNEL f1 =====
NUC1         1H
P1           8.70 usec
PL1         -1.00 dB
SFO1        400.1325123 MHz
===== Processing parameters =====
SI           32768
SF           400.130025 MHz
WDW          EM
SSB          0
LB           0.30 Hz
GB           0
PC           1.00
    
```

5-phenyl-1H-indole (4a)



1j1b1



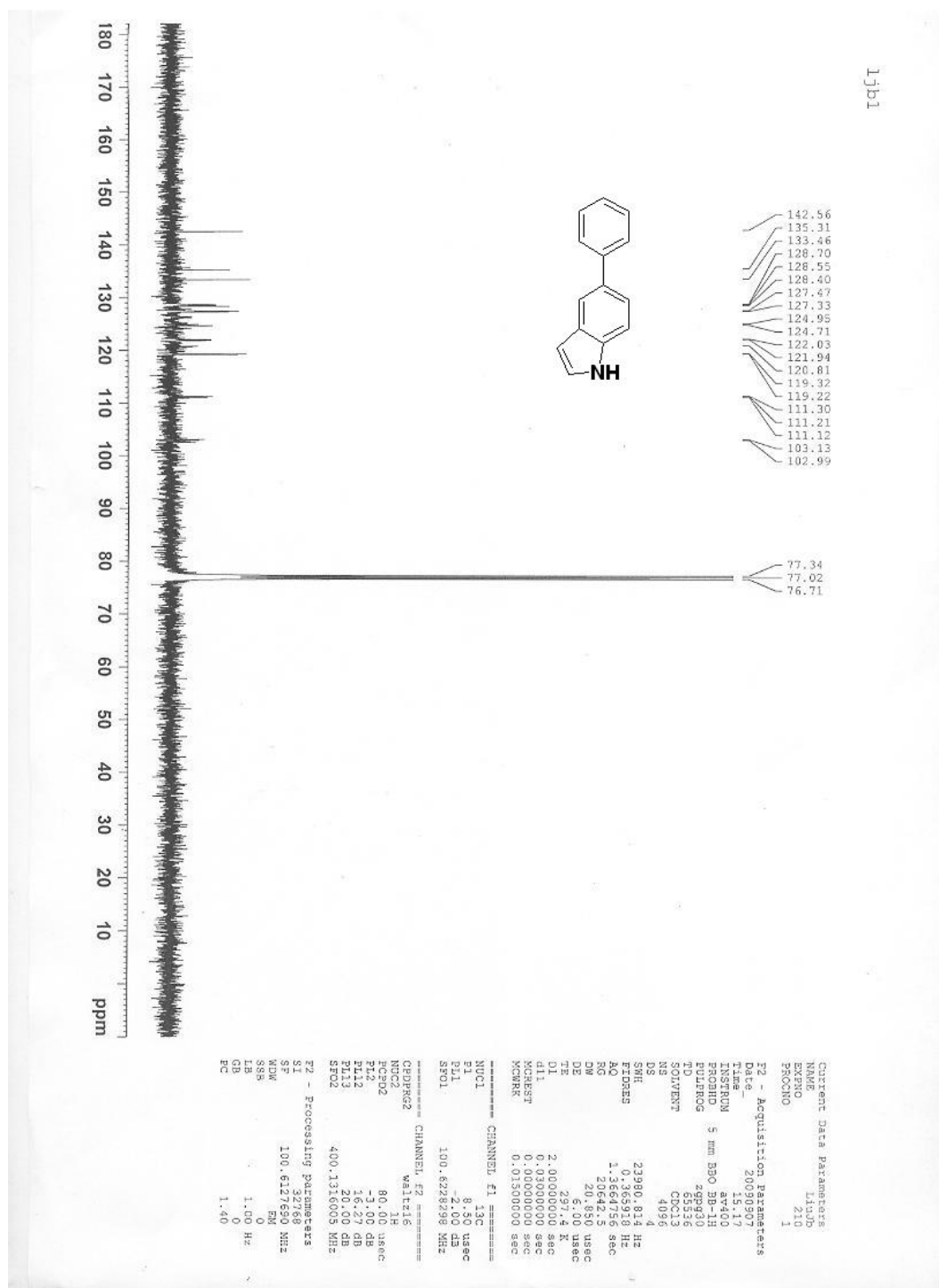
Current Data Parameters
 Name: 1j1b1
 ExpNo: 227
 ProcNo: 1

F2 - Acquisition Parameters
 Date_ : 20091106
 Time : 11:18
 Instrument: 5 mm BBO BB-4H
 PULPROG : zg30
 TD : 65536
 SOLVENT : CDCl3
 NS : 2
 DS : 2
 SWH : 5630.631 Hz
 FIDRES : 0.085910 Hz
 AQ : 5.231170 sec
 RG : 1149.4
 DW : 88.800 usec
 DE : 6.000 usec
 TE : 300.2 K
 TR : 1.00000000 sec
 MCREST : 0.00000000 sec
 MCRRK : 0.01500000 sec

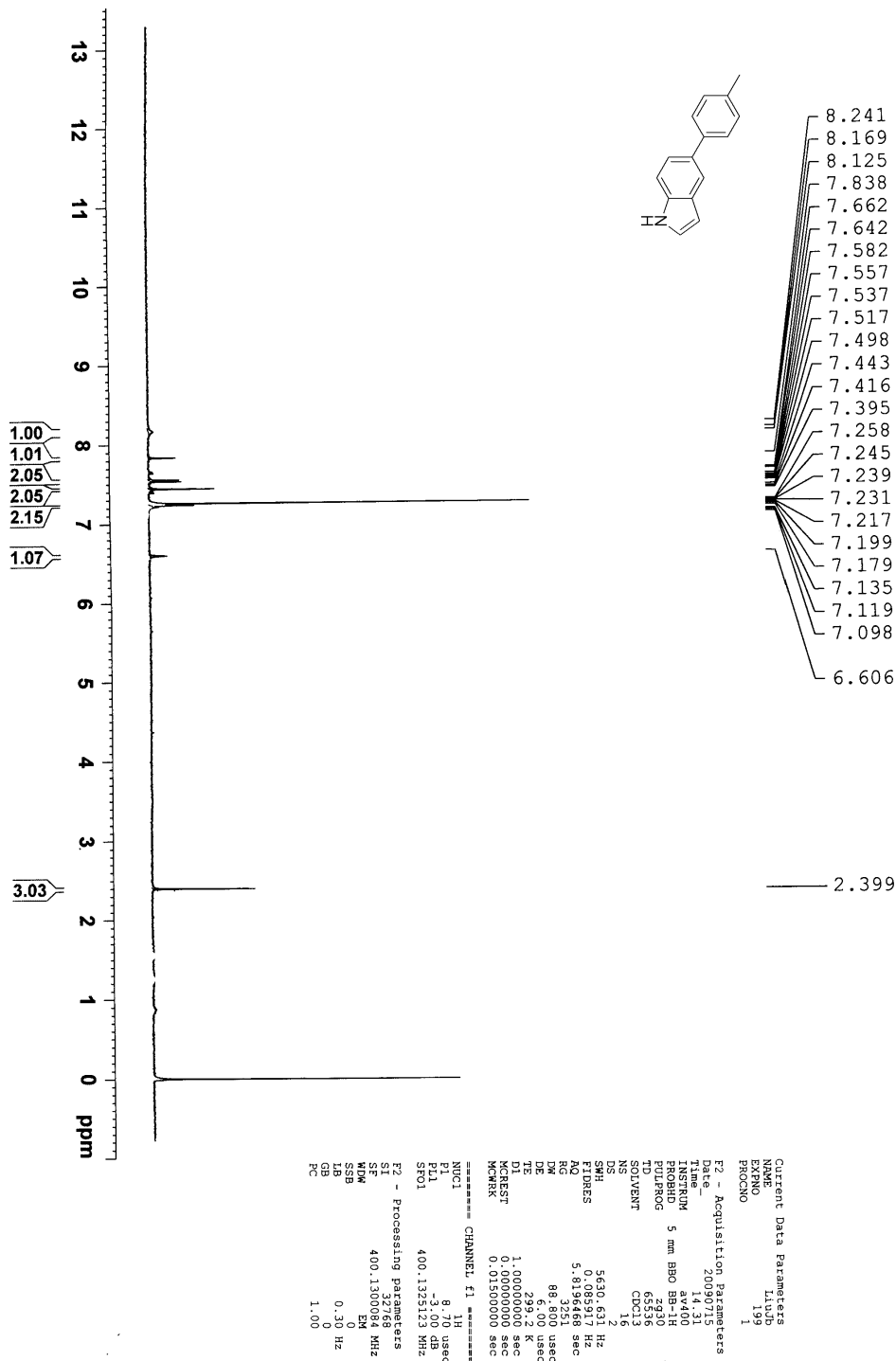
----- CHANNEL f1 -----
 NUC1 : 1H
 P1 : 8.70 usec
 PL1 : -3.00 dB
 SFO1 : 400.132320 MHz

F2 - Processing parameters
 SI : 32768
 SF : 400.1300126 MHz
 WF : 0
 SSB : 0
 LB : 0.30 Hz
 GB : 0
 PC : 1.00

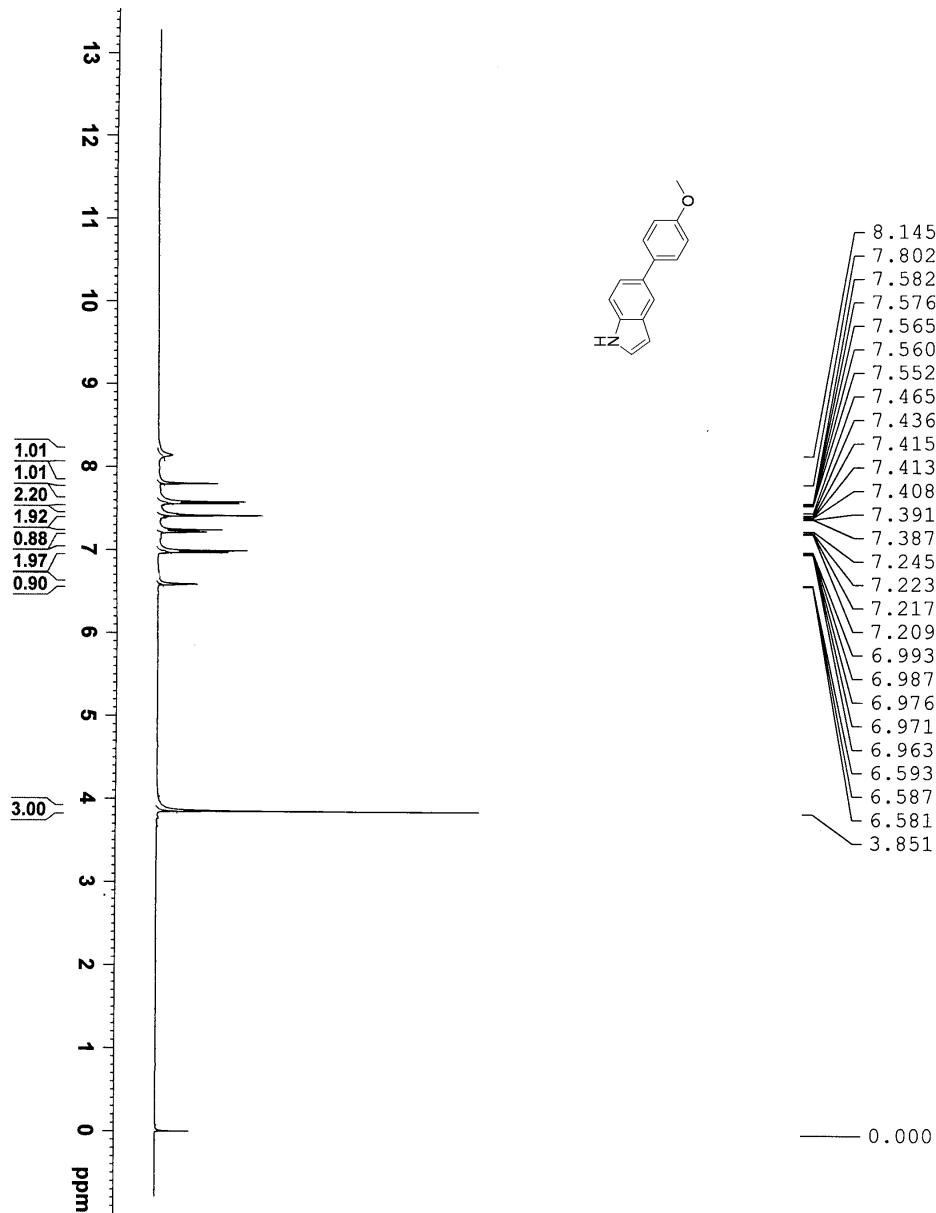
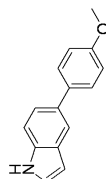
5-phenyl-1H-indole (4a)



5-*p*-tolyl-1H-indole (4b)



5-(4-methoxyphenyl)-1H-indole (4c)



```

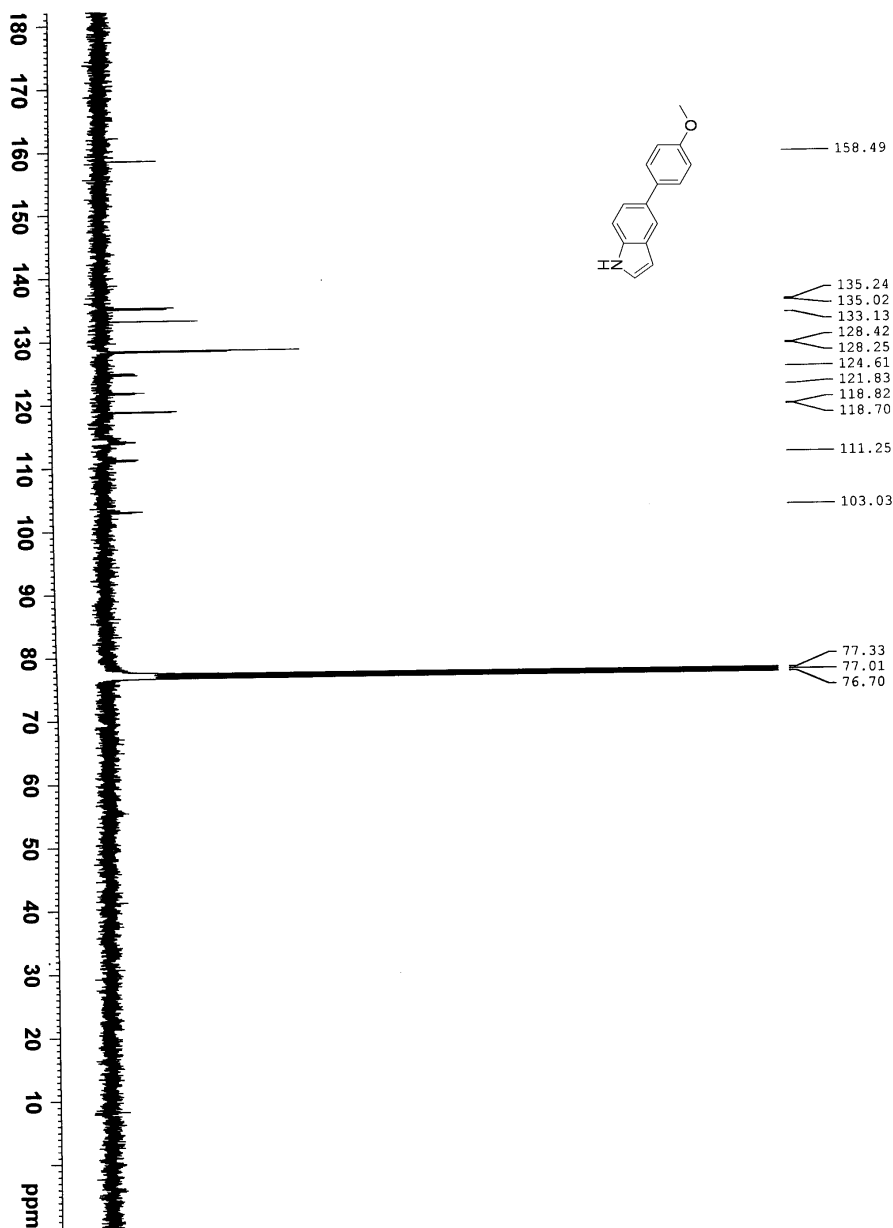
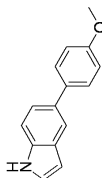
Current Data Parameters
NAME          Liubt
EXPNO        189
PROCNO       1

F2 - Acquisition Parameters
Date_         20090712
Time          10.08
INSTRUM      spect
PROBHD       5 mm BBO
PULPROG      zgpg30
TD           65536
SOLVENT      CDCl3
DS           19
AQ           1.000000 sec
FIDRES       0.089917 Hz
AQ           5.8196468 sec
DE           88.500 usec
TE           299.0 K
MCRSTRT      1.000000 sec
MCRMRK       0.01500000 sec

===== CHANNEL f1 =====
NUC1          13
P1            8.70 usec
PL1          -3.00 dB
SFO1         400.1325123 MHz

F2 - Processing parameters
SI           32768
SF           400.1300125 MHz
MDM          EX
GB           0
PC           1.00
    
```

5-(4-methoxyphenyl)-1H-indole (4c)



```

Current Data Parameters
NAME          LIND
EXPNO         195
PROCNO        1

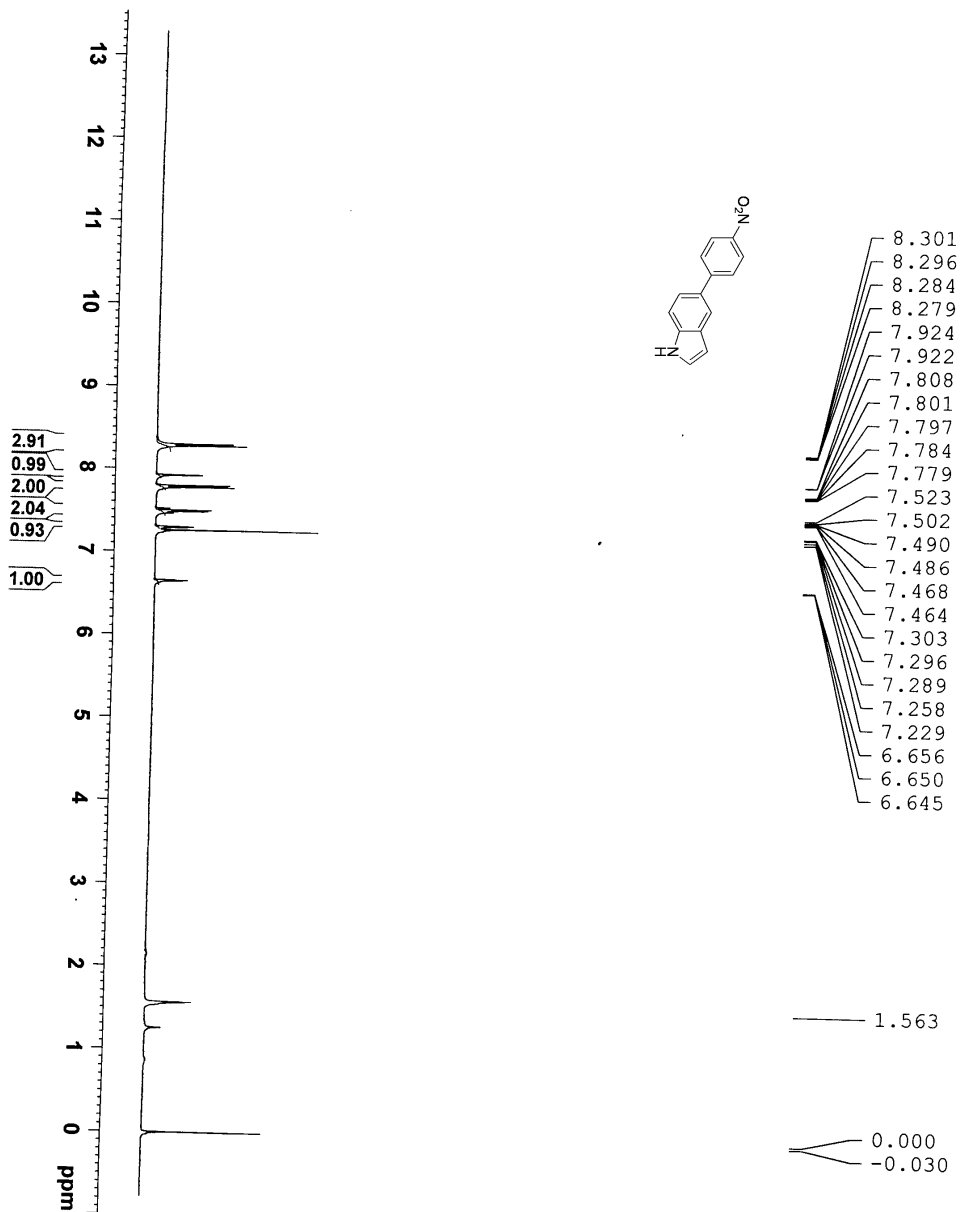
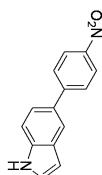
F2 - Acquisition Parameters
Date_         20090714
Time_         11.49
INSTRUM      av400
PROBHD       5 mm BBO BB-1H
PULPROG      zgpg30
TD            65536
SOLVENT      CDCl3
NS            3072
DS            4
SWH           23980.814 Hz
FIDRES        0.363918 Hz
AQ            1.369278 sec
RG            329
SFO1          20.850 usec
DE            6.40 usec
TE            299.2 K
D1            2.00000000 sec
d11           0.03000000 sec
MCREST       0.00000000 sec
MCWRK        0.01500000 sec

===== CHANNEL f1 =====
NUC1          13C
P1            130 usec
PL1           -4.00 dB
SFO1         100.6228298 MHz

===== CHANNEL f2 =====
CPDPRG2      waltz16
NUC2          1H
PCPD2        80.00 usec
PL2           -3.00 dB
PL12         16.27 dB
PL13         20.00 dB
SFO2         400.1316005 MHz

F2 - Processing parameters
SF           100.6127690 MHz
SF2          32768
WDW          EM
SSB          0
LB           1.00 Hz
GB           0
PC           1.40
    
```

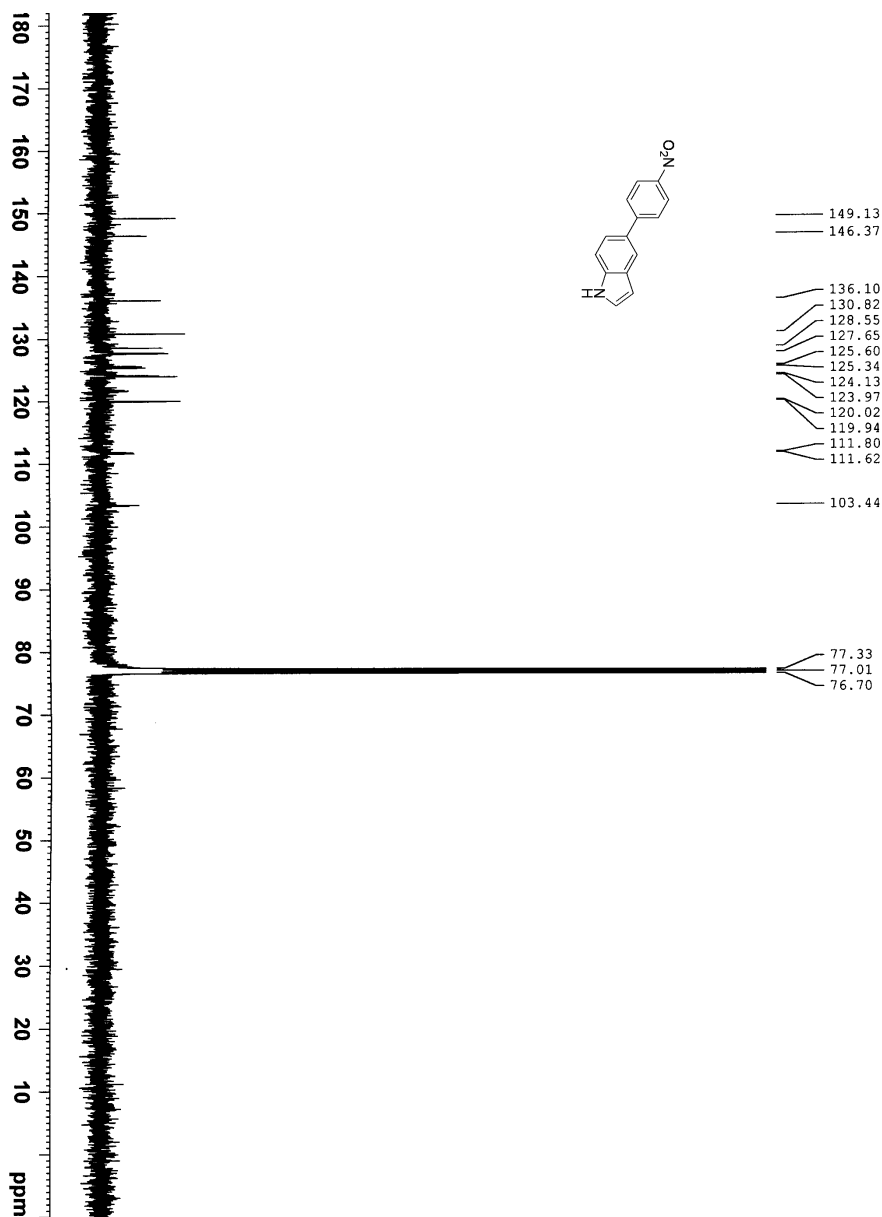
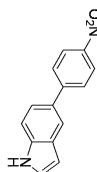
5-(4-nitrophenyl)-1H-indole (4d)



```

Current Data Parameters
NAME          1a
EXPNO        191
PROCNO       1
F2 - Acquisition Parameters
Date_         20090520
Time          20.16
INSTRUM      5 mm BBO BB-1H
PROBHD       5 mm BBO BB-1H
PULPROG      zgpg30
TD            65536
SOLVENT      CDCl3
NS            16
DS            4
SWH           5630.631 Hz
AQ            0.085911 Hz
RG            3251
DE            88.800 usec
TE            298.6 K usec
D1            1.00000000 sec
MKRGST       0.00000000 sec
MKRMN        0.01500000 sec
===== CHANNEL f1 =====
NUC1          1H
P1            8.70 usec
PL1           -2.00 dB
SFO1          400.1325123 MHz
F2 - Processing parameters
SI            32768
SF            400.1300000 MHz
WDW           EM
SSB           0
GB            0
PC            1.00
  
```

5-(4-nitrophenyl)-1H-indole (4d)



149.13
146.37
136.10
130.82
128.55
127.65
125.60
125.34
124.13
123.97
120.02
119.94
111.80
111.62
103.44

77.33
77.01
76.70

```

Current Data Parameters
NAME          L1udb
EXPNO         192
PROCNO        1

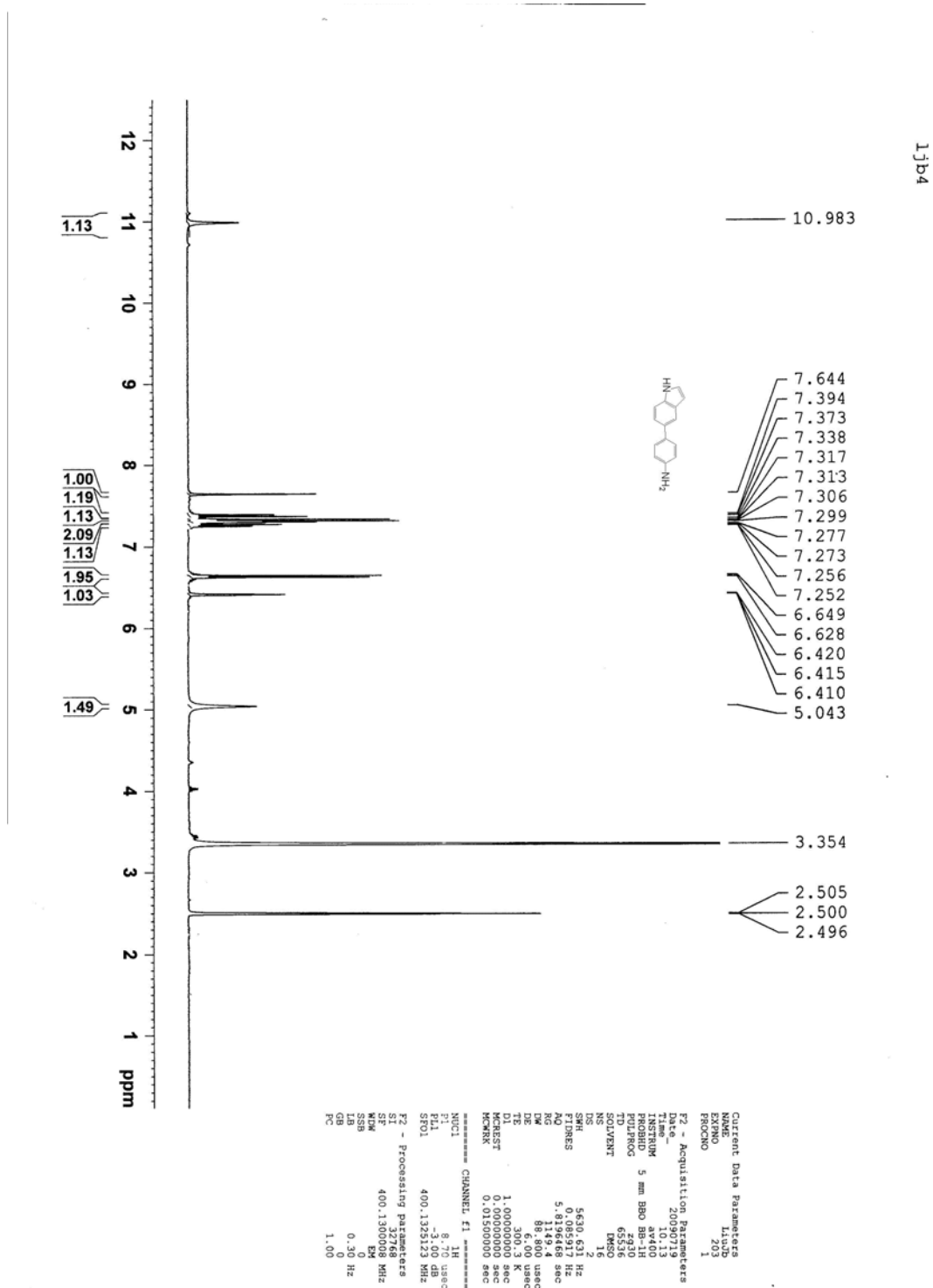
F2 - Acquisition Parameters
Date_         20090713
Time         20:12
INSTRUM      spect
PROBHD       5 mm BBO BB-1H
PULPROG      zgpg30
TD            65536
SOLVENT      CDCl3
NS            3072
DS            4
SWH           23980.814 Hz
FIDRES        0.365918 Hz
AQ            1.3664756 sec
RG            919.72
NG            20.850 usec
DM            640
DE            28.6 K
TE            2.00000000 sec
d11           0.03000000 sec
MCREST        0.00000000 sec
MCWRK         0.01500000 sec

===== CHANNEL f1 =====
NUC1          13C
P1            8.50 usec
PL1           2.00 dB
SFO1          100.6228238 MHz

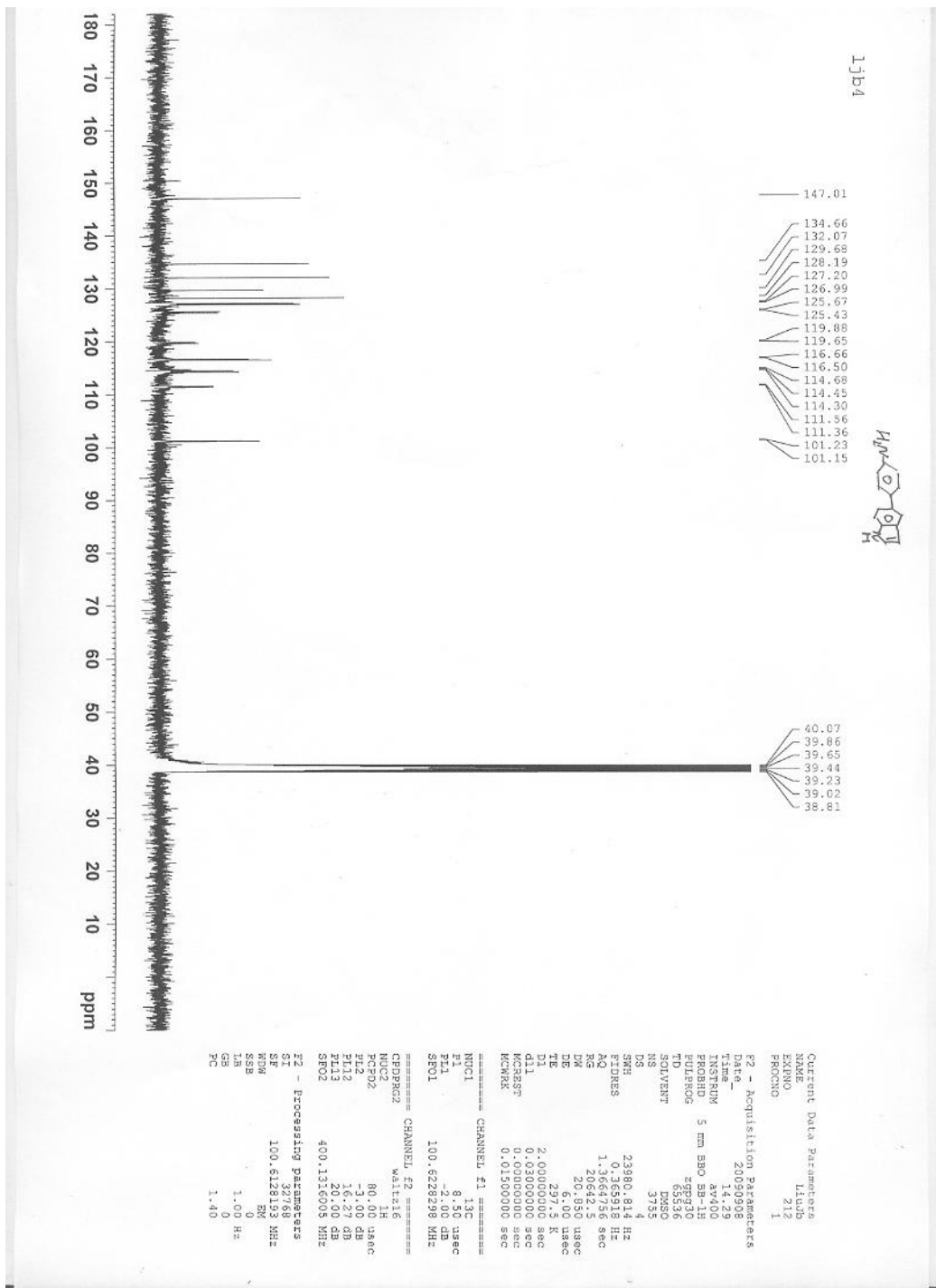
===== CHANNEL f2 =====
CPDPRG2      waltz16
NUC2          1H
PCPD2        80.00 usec
PL2          -3.00 dB
PL12         16.27 dB
PL13         20.00 dB
SFO2          400.1316005 MHz

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

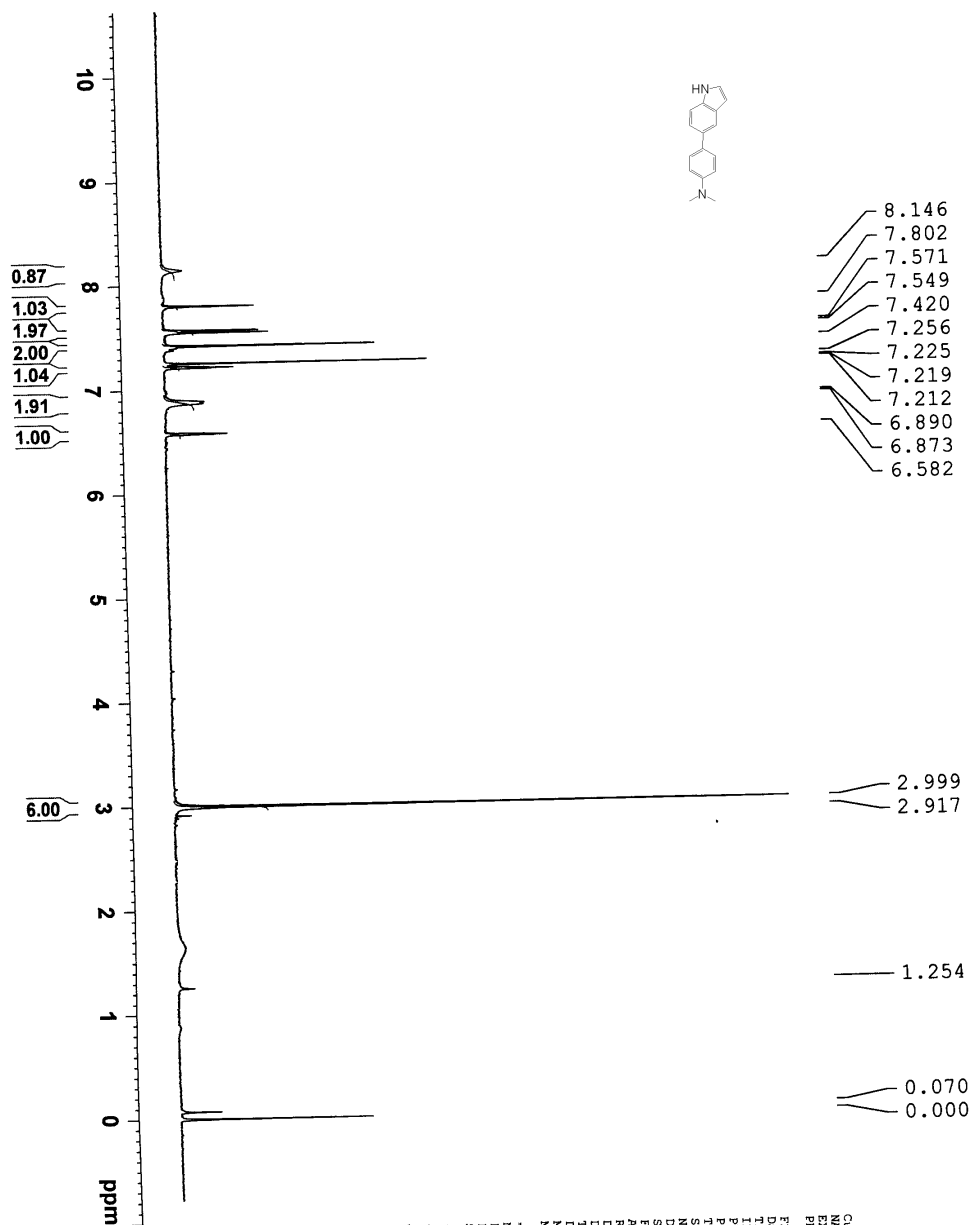
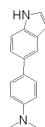
5-(4-aminophenyl)-1H-indole (4e)



5-(4-aminophenyl)-1H-indole (4e)



5-(4-*N,N*-dimethylaminophenyl)-1H-indole (4f)



Current Data Parameters
 NAME: 4fjdb
 EXPNO: 228
 PROCNO: 1

F2 - Acquisition Parameters
 Date_ Time: 20091106 11:23
 INSTRUM: spect
 PULPROG: zgpg30
 TD: 65536
 SOLVENT: CDCl3
 NS: 2
 DS: 2
 SWH: 5630.631 Hz
 FIDRES: 0.085917 Hz
 AQ: 5.8159468 sec
 RG: 327.5
 DE: 88.600 usec
 TE: 294.3 K
 D1: 1.00000000 sec
 MCPRST: 0.10500000 sec
 HZMRK: 0.01500000 sec

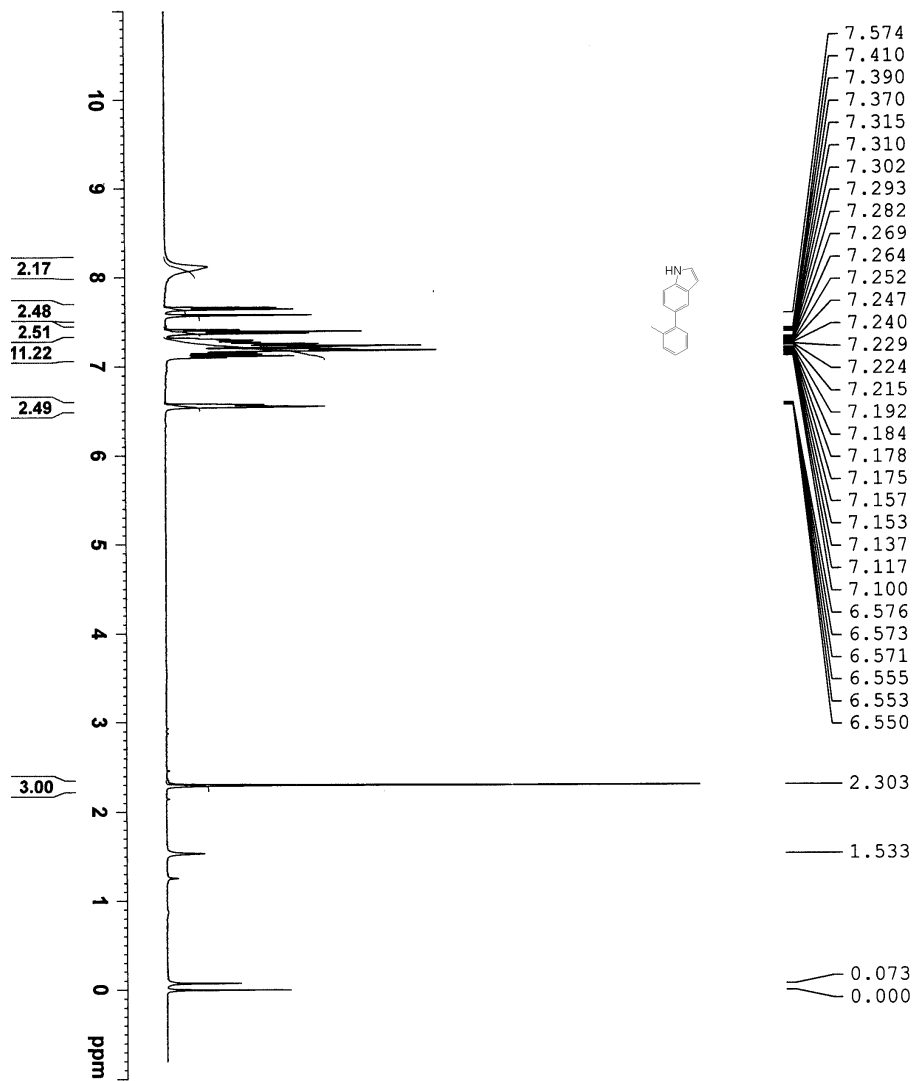
===== CHANNEL f1 =====
 NUC1: 13C
 P1: 8.70 usec
 PL1: -3.00 dB
 SFO1: 400.1325123 MHz

F2 - Processing parameters
 SF: 400.1300998 MHz
 WDW: EM
 SSB: 0 Hz
 LB: 0 Hz
 GB: 0 Hz
 PC: 1.00

1jdb2

5-(2-Methylphenyl)-1H-indole (4g) ⁷

1j63



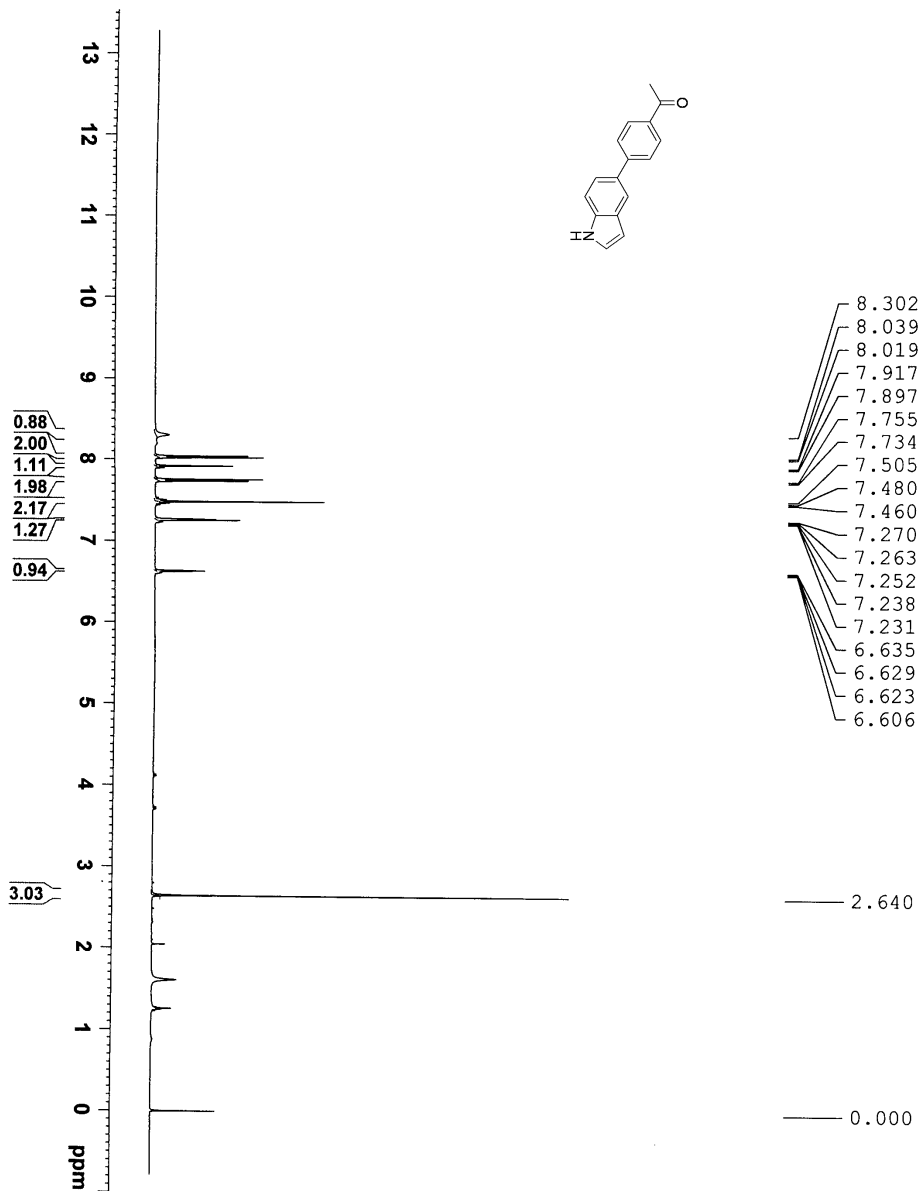
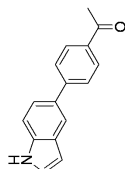
Current Data Parameters
 NAME: L1ub
 EXPNO: 229
 PROCNO: 1

F2 - Acquisition Parameters
 Date_: 20091106
 Time: 12.00
 INSTRUM: av400
 PROBHD: 5 mm BBO BB-1H
 PULPROG: zgpg30
 SOLVENT: CDCl3
 NS: 8
 DS: 2
 SWH: 5630.637 Hz
 FIDRES: 0.1085917 Hz
 AQ: 5.8196468 sec
 RG: 643.1
 DE: 86.50 usec
 TE: 294.7 K
 D1: 1.0000000 sec
 KICK: 0.01500000 sec

===== CHANNEL f1 =====
 NUC1: 13C
 P1: 8.70 usec
 PL1: -3.00 dB
 SFO1: 400.1325123 MHz

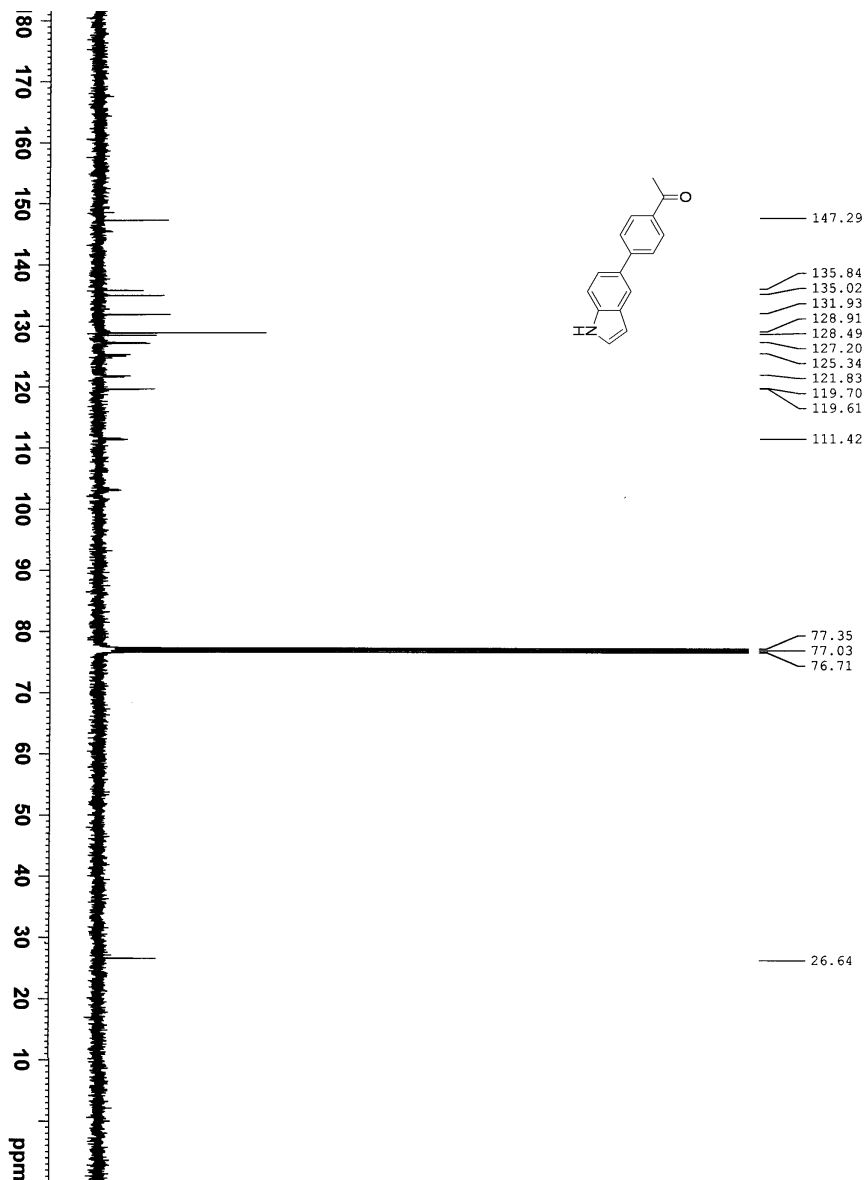
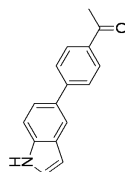
F2 - Processing parameters
 SI: 32768
 SF: 400.1300213 MHz
 Wd: 0
 SSB: 0
 LB: 0.30 Hz
 GB: 0
 PC: 1.00

5-(4-Acetylphenyl)-1H-indole (4h)



Current Data Parameters
NAME 4h
EXPNO 133
PROCNO 1
F2 - Acquisition Parameters
Date_ 20090909
Time 9.08
INSTRUM av400
PROBHD 5 mm BBO BB-1H
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 16
DS 4
SWH 5630.611 Hz
SF 500.136461 MHz
AQ 0.085917 Hz
RG 655.36
RG 1290.72
DE 8.00 usec
TE 298.9 K
D1 1.0000000 sec
DELTA 0.0150000 sec
MCWMT 0.0150000 sec
===== CHANNEL f1 =====
NUC1 1H
PUL1 8.19 usec
PL1 -3.00 dB
SFO1 400.136123 MHz
F2 - Processing parameters
SI 32768
SF 400.130017 MHz
WDW EM
SSB 0
GB 0
PC 1.00

5-(4-Acetylphenyl)-1H-indole (4h)



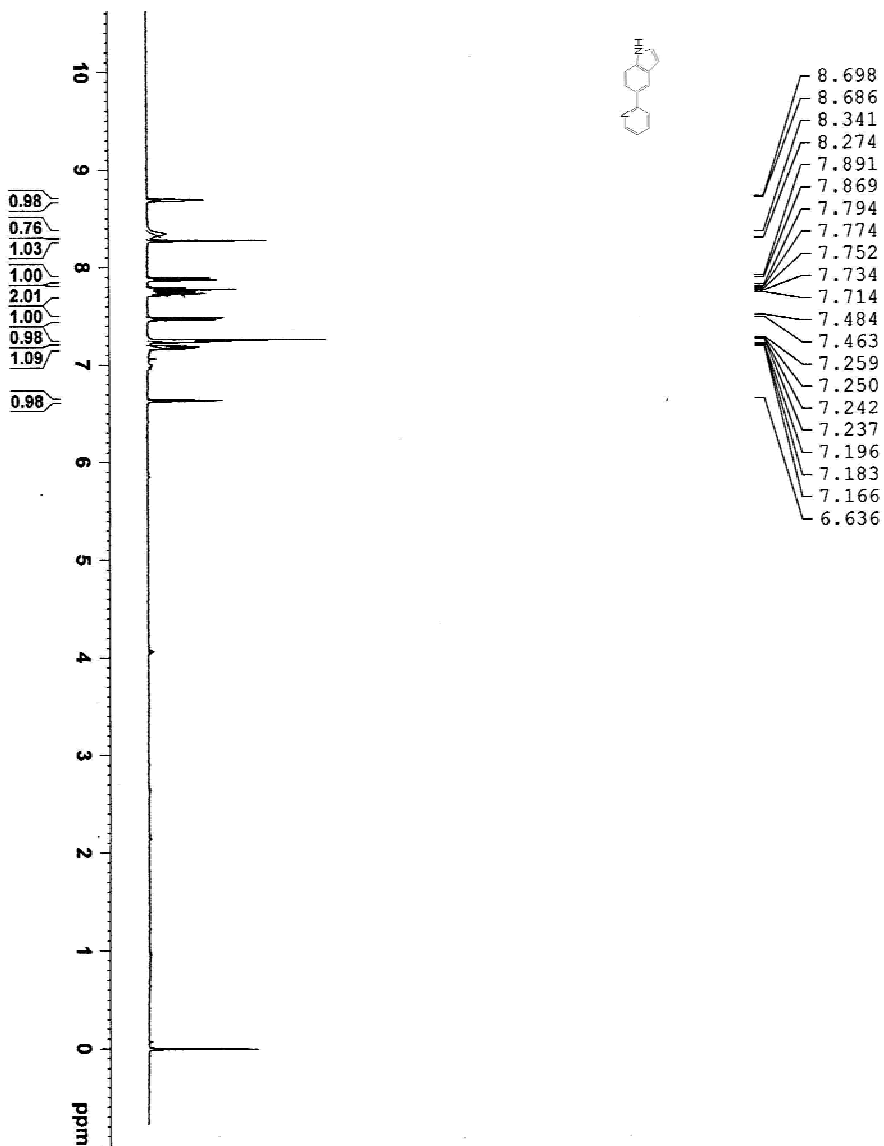
```

Current Data Parameters
NAME          1h13
EXPNO        1194
PROCNO       1
-----
F2 - Acquisition Parameters
Date_        20090714
Time         9.53
INSTRUM     aw400
PROBHD      5 mm BBO BB-1H
PULPROG     zgpg30
TD           65536
SOLVENT     CDCl3
NS           625
DS           4
SWH          23980.814 Hz
FIDRES       0.365918 Hz
AQ           1.3664756 sec
RG           6502
AQ           20.850 usec
DE           299.0 K
TE           2.00000000 sec
d11          0.03000000 sec
d12          0.00000000 sec
d13          0.00000000 sec
MCWRR       0.01500000 sec
-----
===== CHANNEL f1 =====
NUC1         13C
P1           8.50 usec
PL1         -2.00 dB
SFO1        100.6282298 MHz
===== CHANNEL f2 =====
CPDPRG2     waltz16
NUC2         1H
P2           80.00 usec
PL2         0.00 dB
PL12        16.27 dB
PL13        20.00 dB
SFO2        400.1316005 MHz
-----
F2 - Processing parameters
SI           32768
SF           100.6127690 MHz
RG           65536
WDW          EM
SSB          0
LB           1.00 Hz
GB           0
PC           1.40
  
```

5-(pyridin-2-yl)-1H-indole (4i)



1.jb

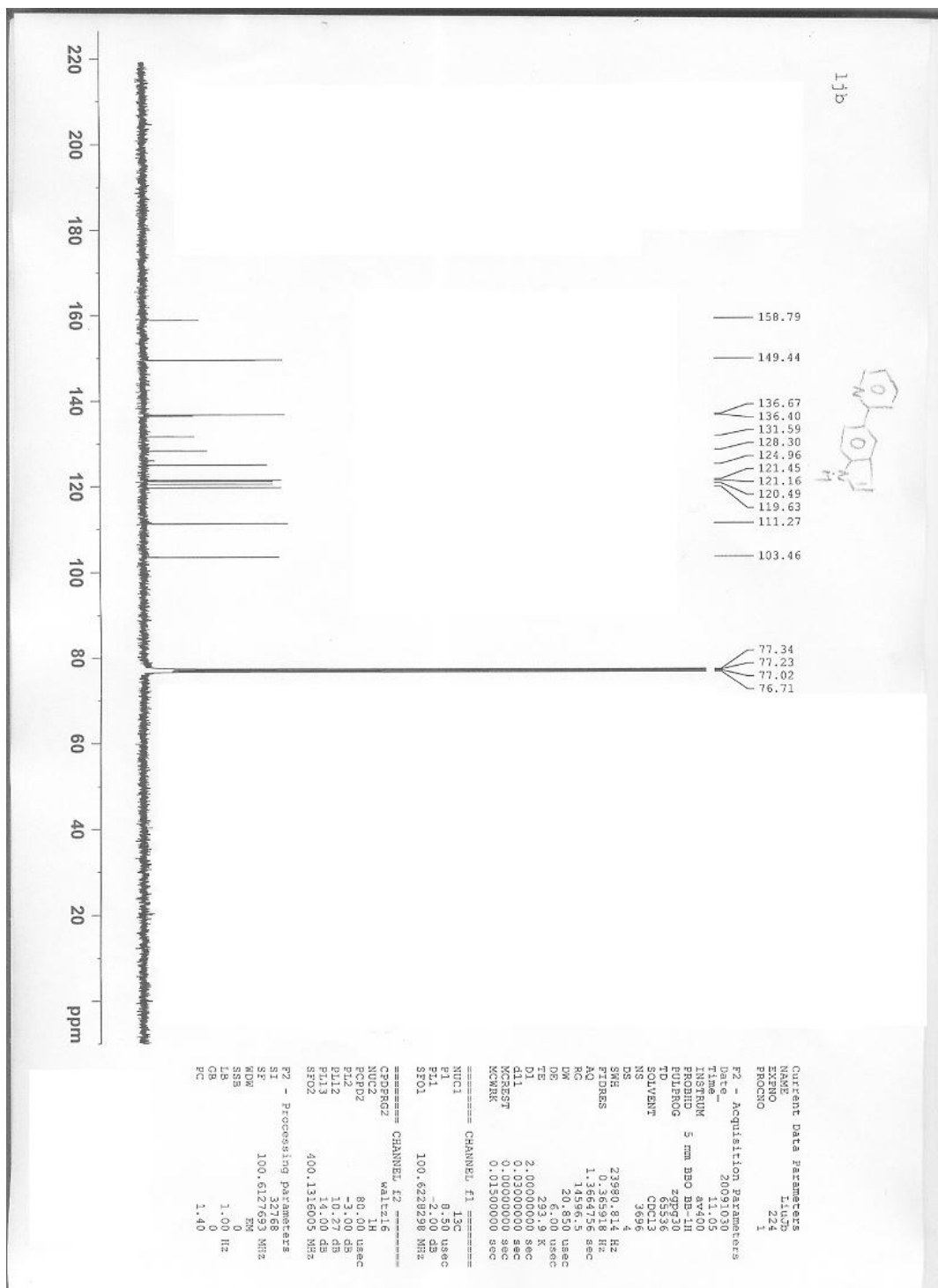


- 8.698
- 8.686
- 8.341
- 8.274
- 7.891
- 7.869
- 7.794
- 7.774
- 7.752
- 7.734
- 7.714
- 7.484
- 7.463
- 7.259
- 7.250
- 7.242
- 7.237
- 7.196
- 7.183
- 7.166
- 6.636

CHANNEL: F1
 P1 4.70 usec
 P2 1.00 usec
 SFO1 400.325123 MHz
 P2 - Processing parameters
 S 432668
 SF 400.300091 MHz
 WDM EN
 USB 0.30 Hz
 CB 0
 PC 1.00

Acquisition Parameters
 Date_ 20090909
 Time 9:00
 INSTRUM av400
 PULPROG zgpg30
 PROCNO 5
 F2 - Acquisition Parameters
 Date_ 20090909
 Time 9:00
 INSTRUM 5 mm BBO BB5-1H
 PULPROG zgpg30
 PROCNO 5
 F2 400.136269 MHz
 T2 65536
 TD 65536
 SOLVENT CDCl3
 DS 2
 DE 2.00
 AS 2
 SM 5636.631 Hz
 FIDRES 0.065917 Hz
 AQ 5.912546 sec
 NO 128
 SFO1 400.136269 MHz
 DF 88.800 usec
 DE 6.00 usec
 PE 2.00 usec
 DI 1.00000000 sec
 MEASUREMENT 0.07000000 sec
 MEASUREMENT 0.01500000 sec

5-(pyridin-2-yl)-1H-indole (4i)



5-(thiophen-2-yl)-1H-indole (4j)

