Electronic Supplementary Information

An efficient $ZnBr_2$-catalyzed reactions of allylic alcohols with indoles, sulfamides and anilines under high-speed vibration milling conditions

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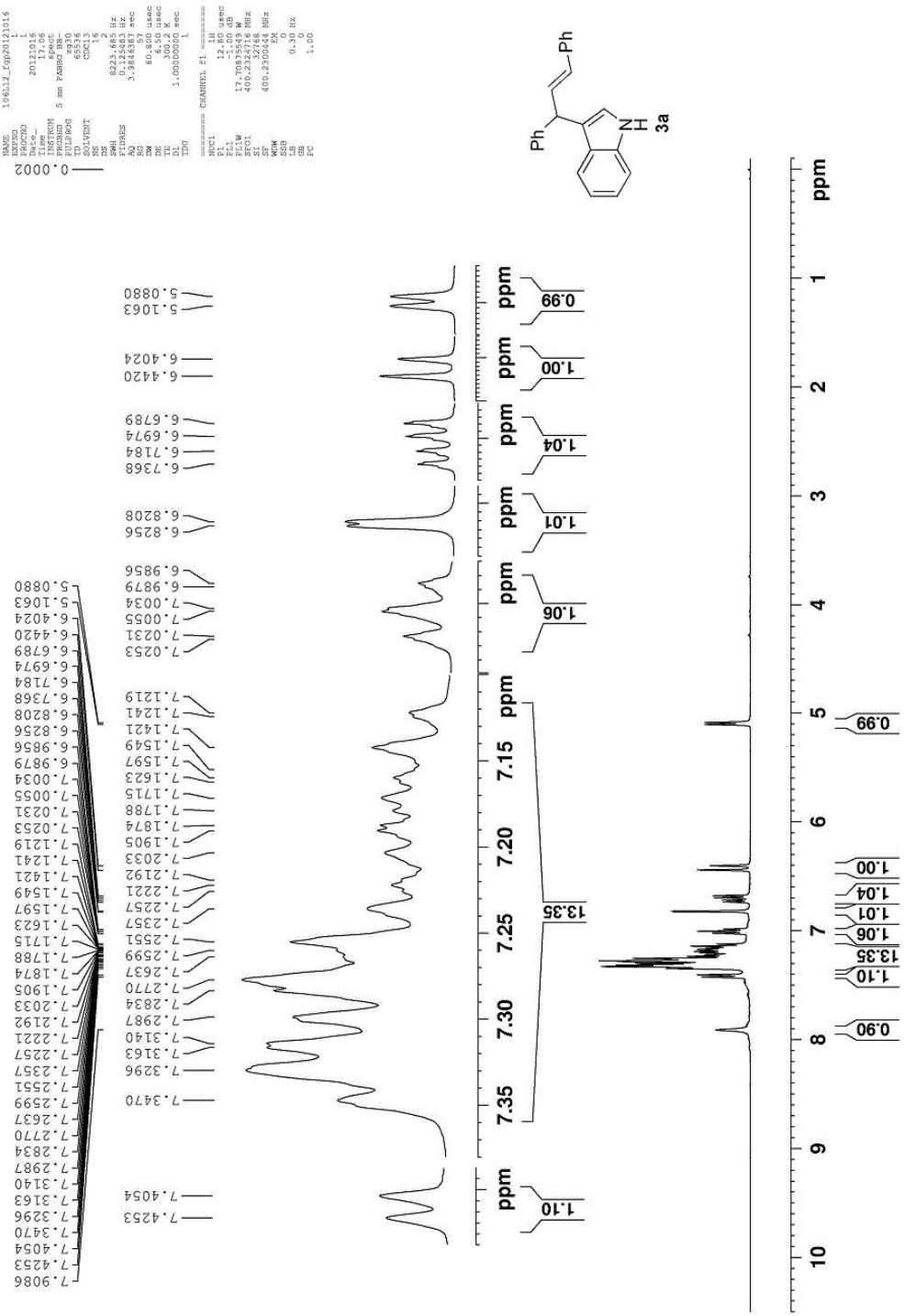
NMR-spectra of compounds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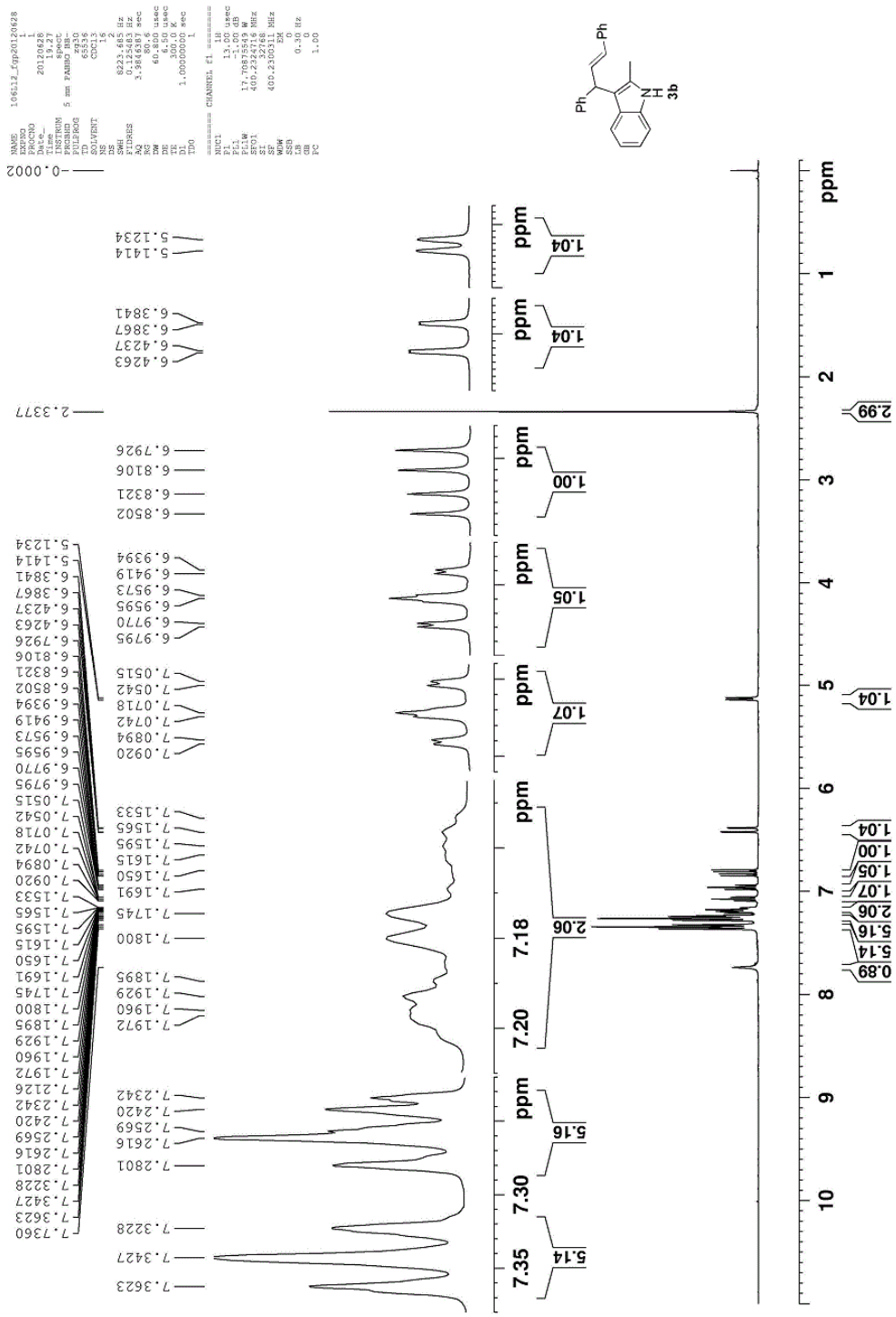
Ph
N
H
3a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Ph
N
H
3b
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2.06
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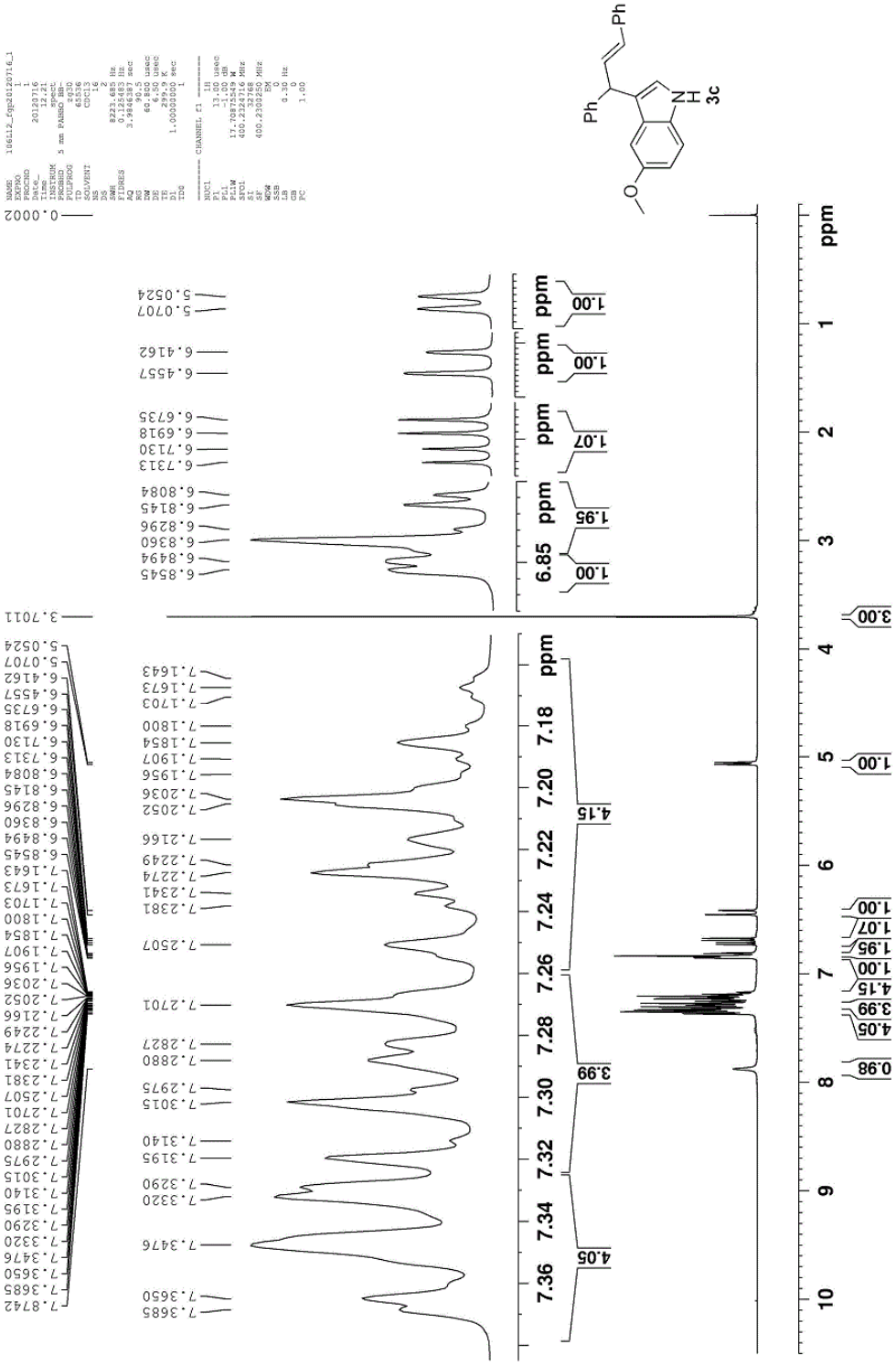
0.89
7.35
7.30
7.20
7.18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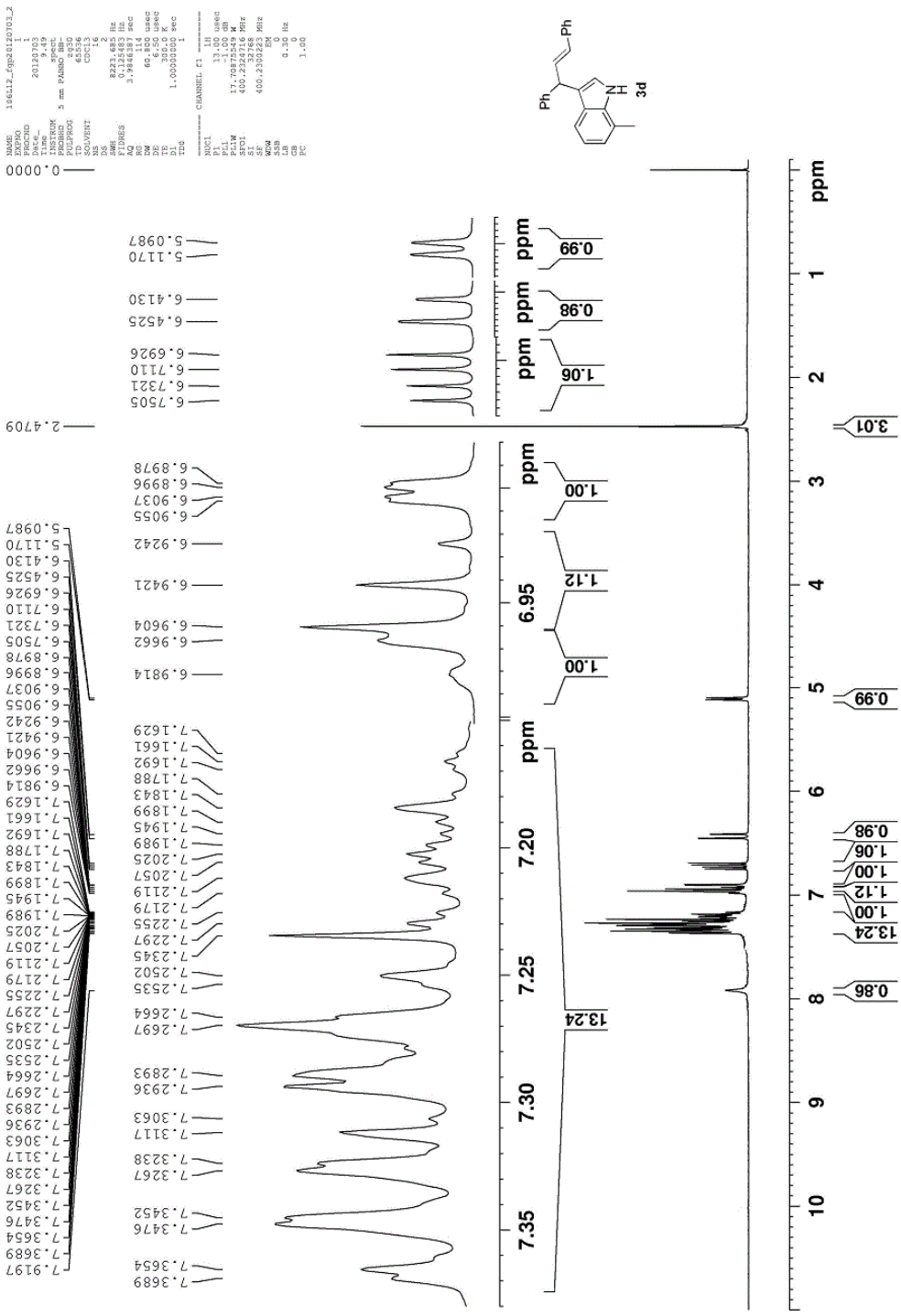
Ph
N
H
O
3c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Ph
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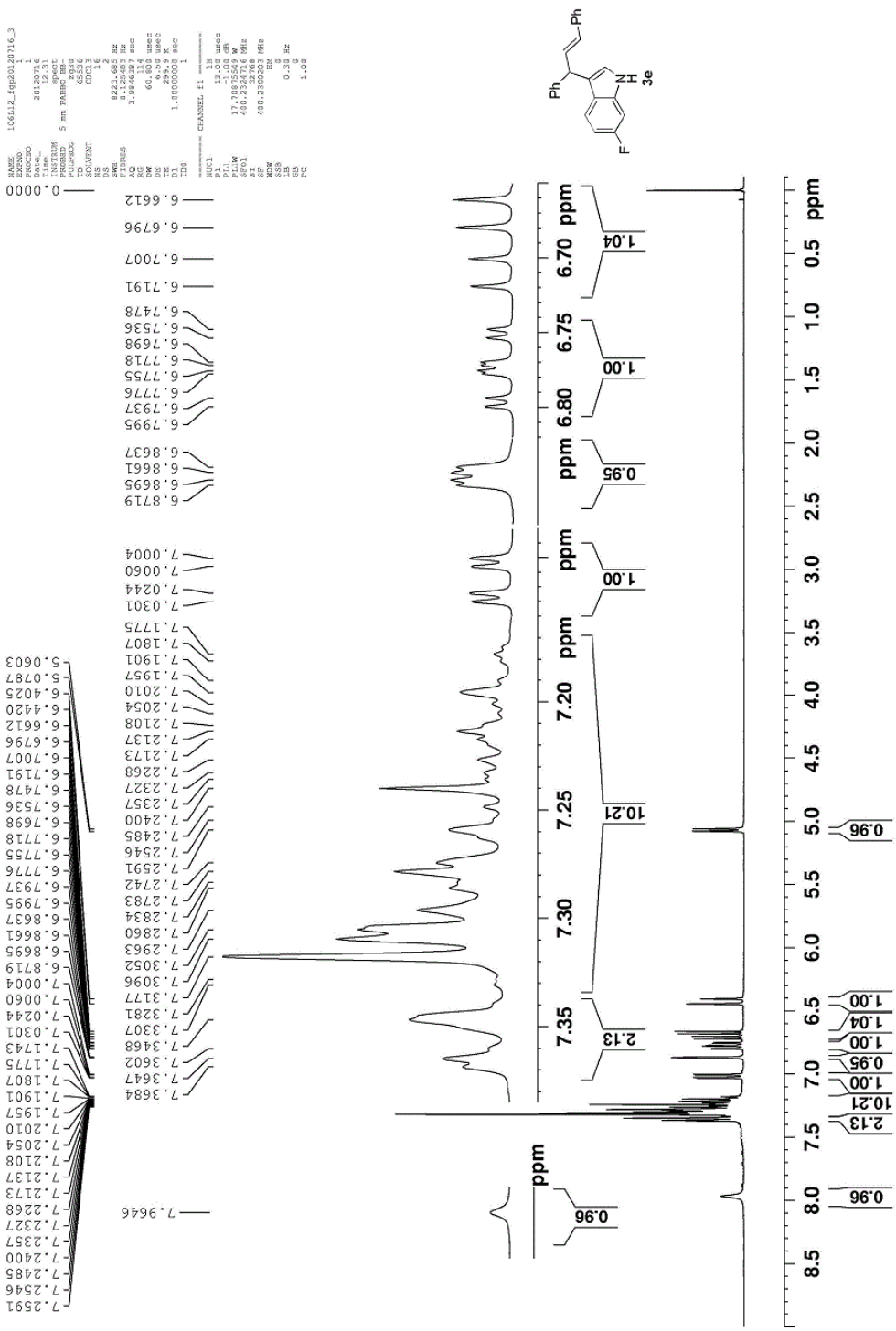
ppm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Ph
F
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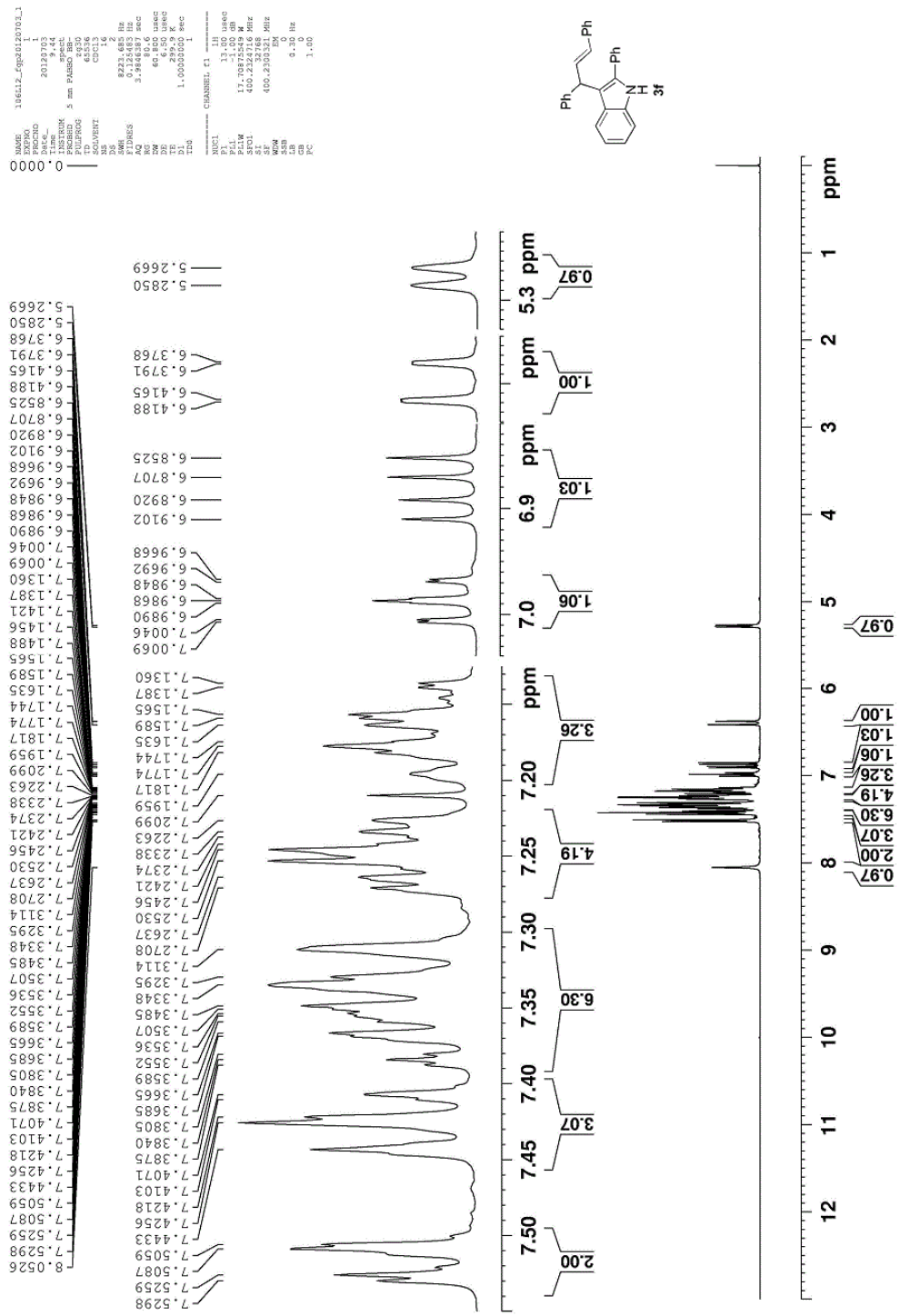
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Ph
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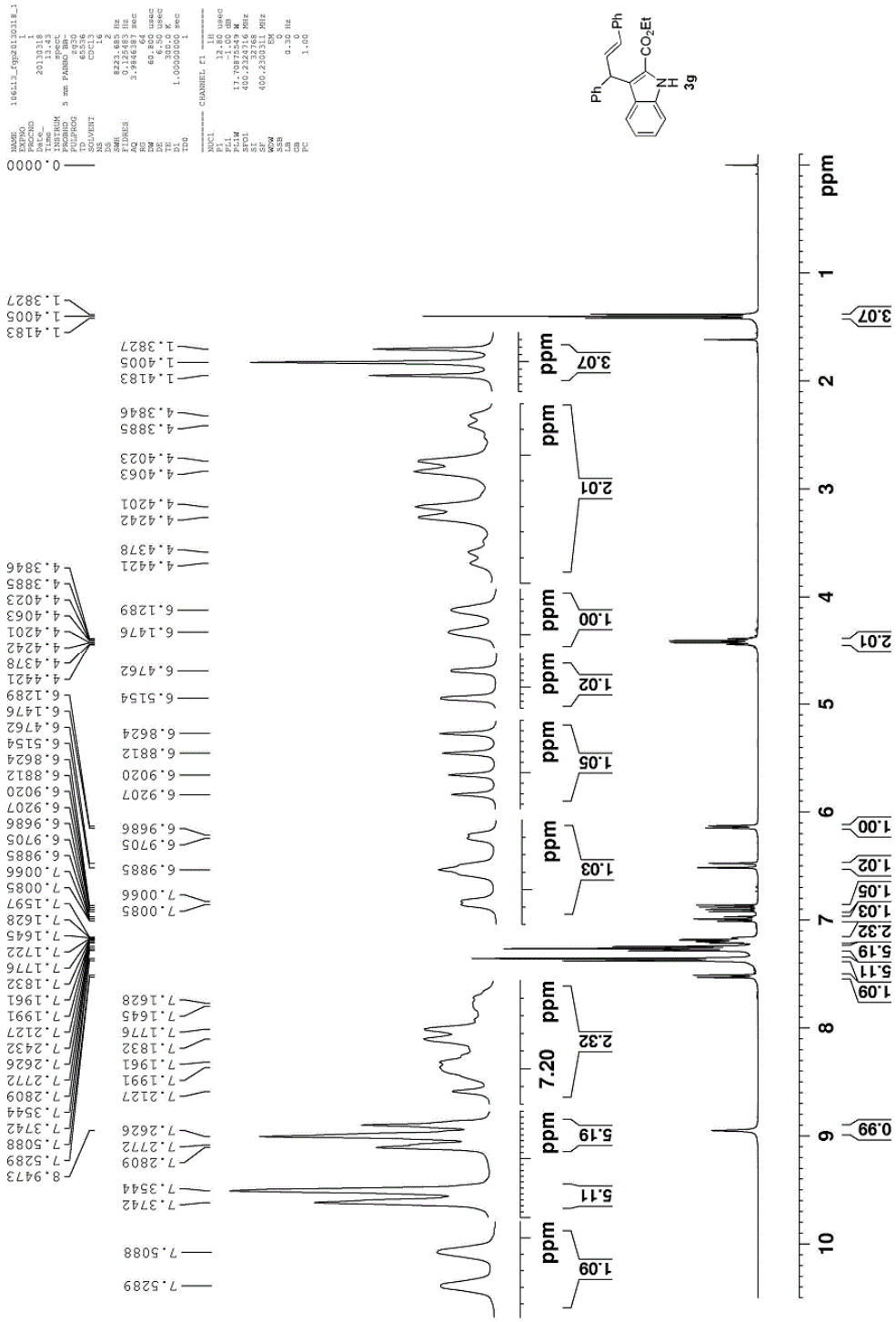
1.06
3.26
4.19
6.30
3.07
2.00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Ph
CO2Et
N
H
3g
ppm
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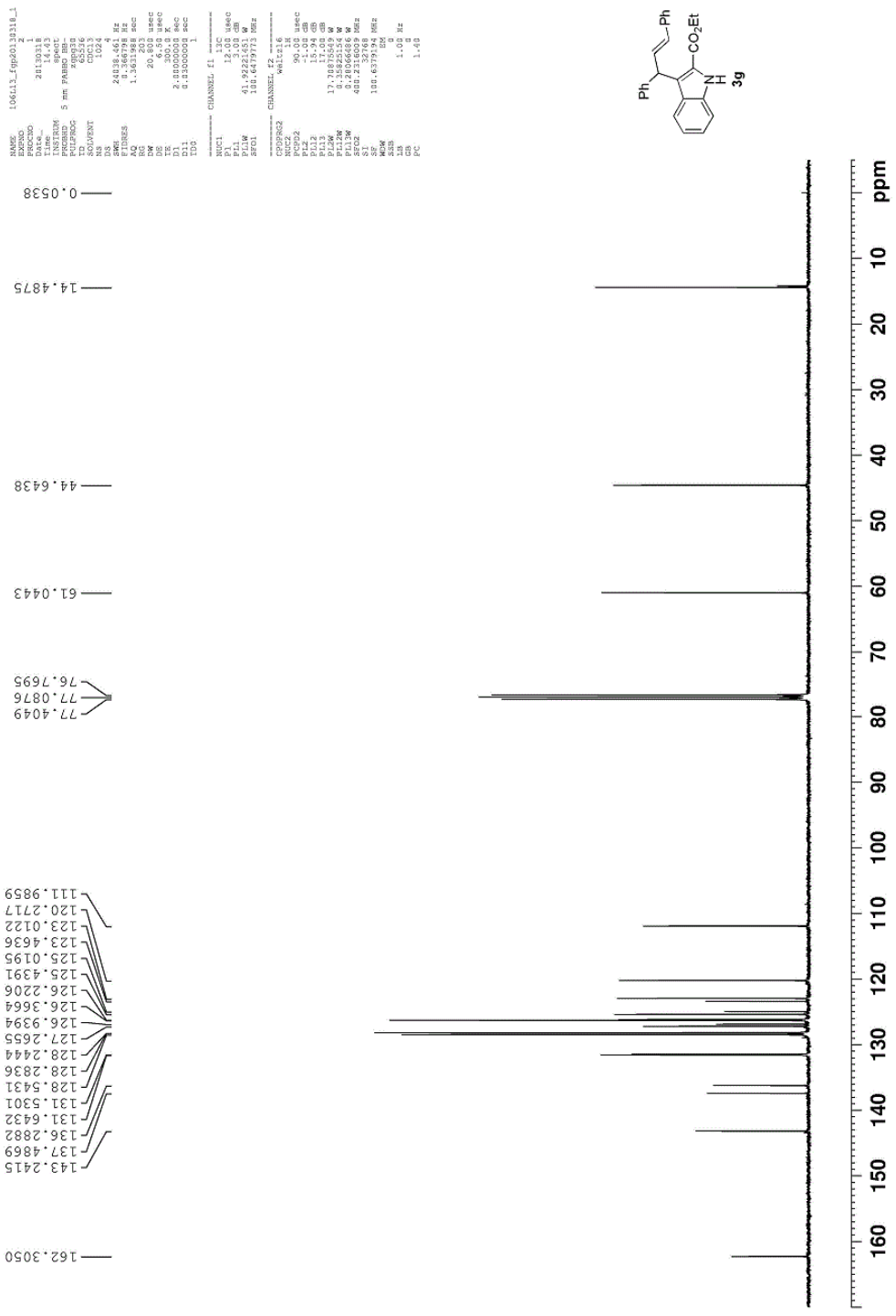
1.03
2.32
5.19
5.11
1.09
0.99
7.20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CO2Et
N
H
Ph
3g
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44.6438
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77.4049
111.9859
120.2717
123.0122
123.4636
125.0195
125.4391
126.2206
126.3664
126.9394
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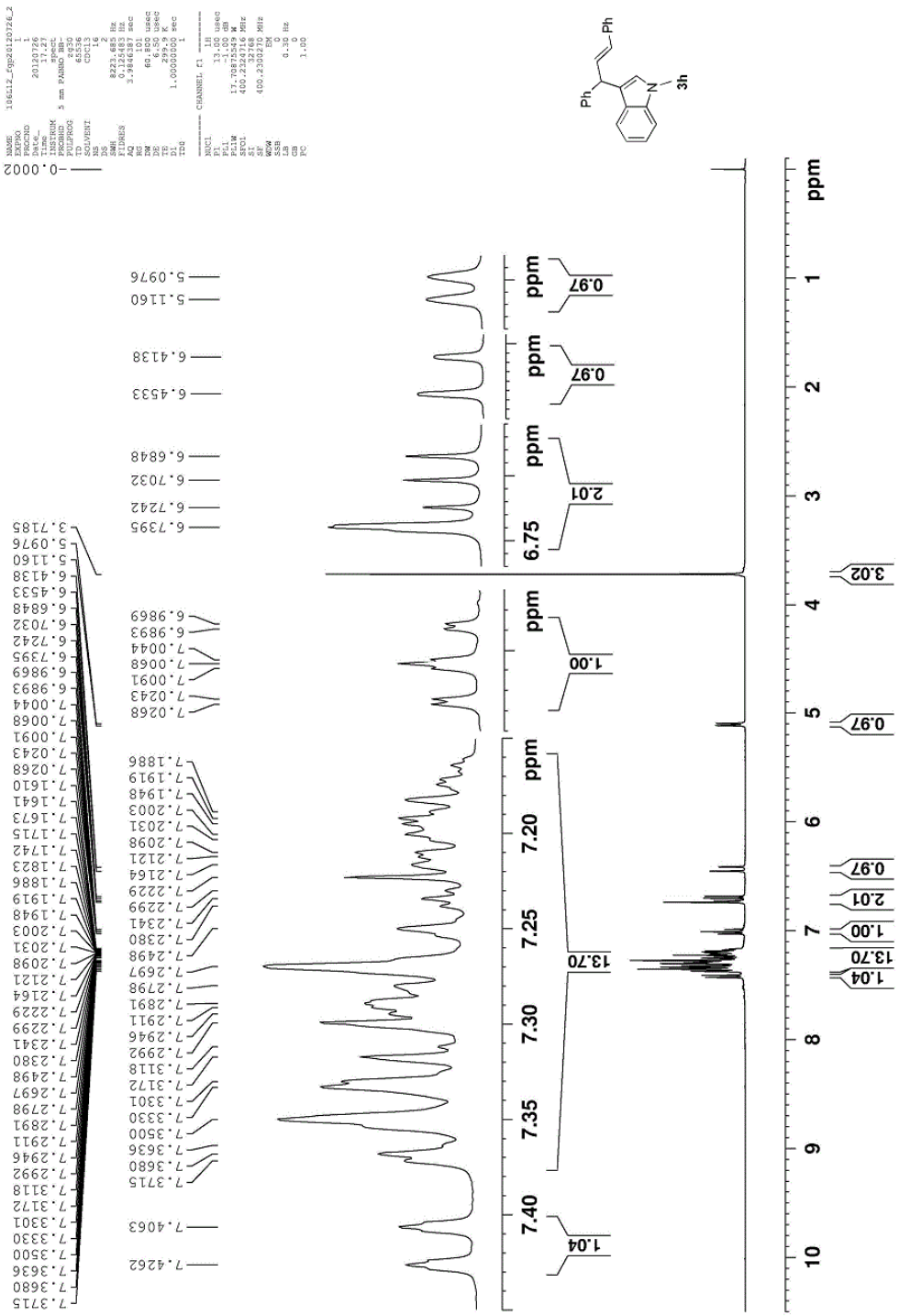
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Ph
Ph
ppm
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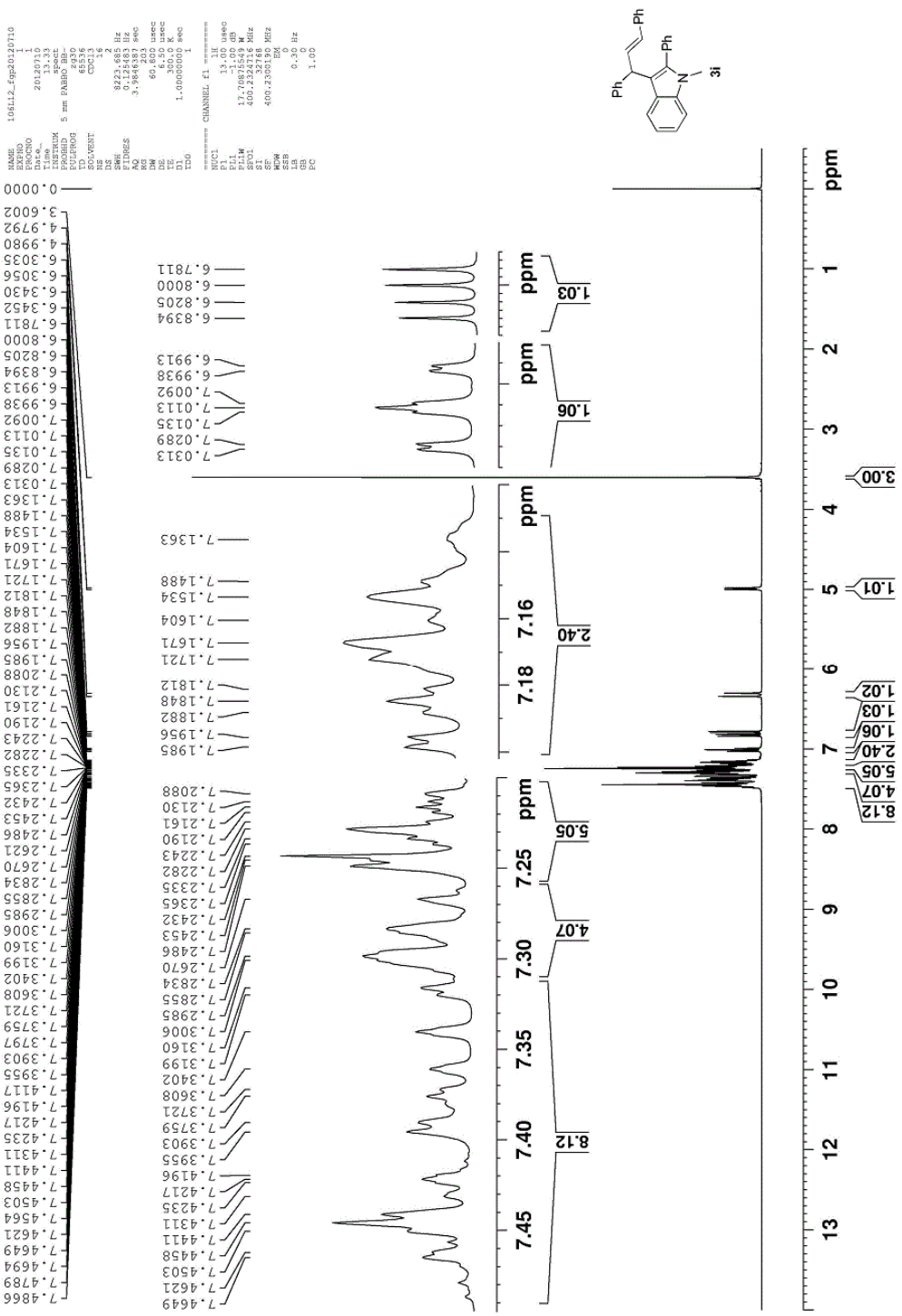
1.00
13.70
1.04
3.02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Ph
Ph
Ph
ppm
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1.02
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5.05
4.07
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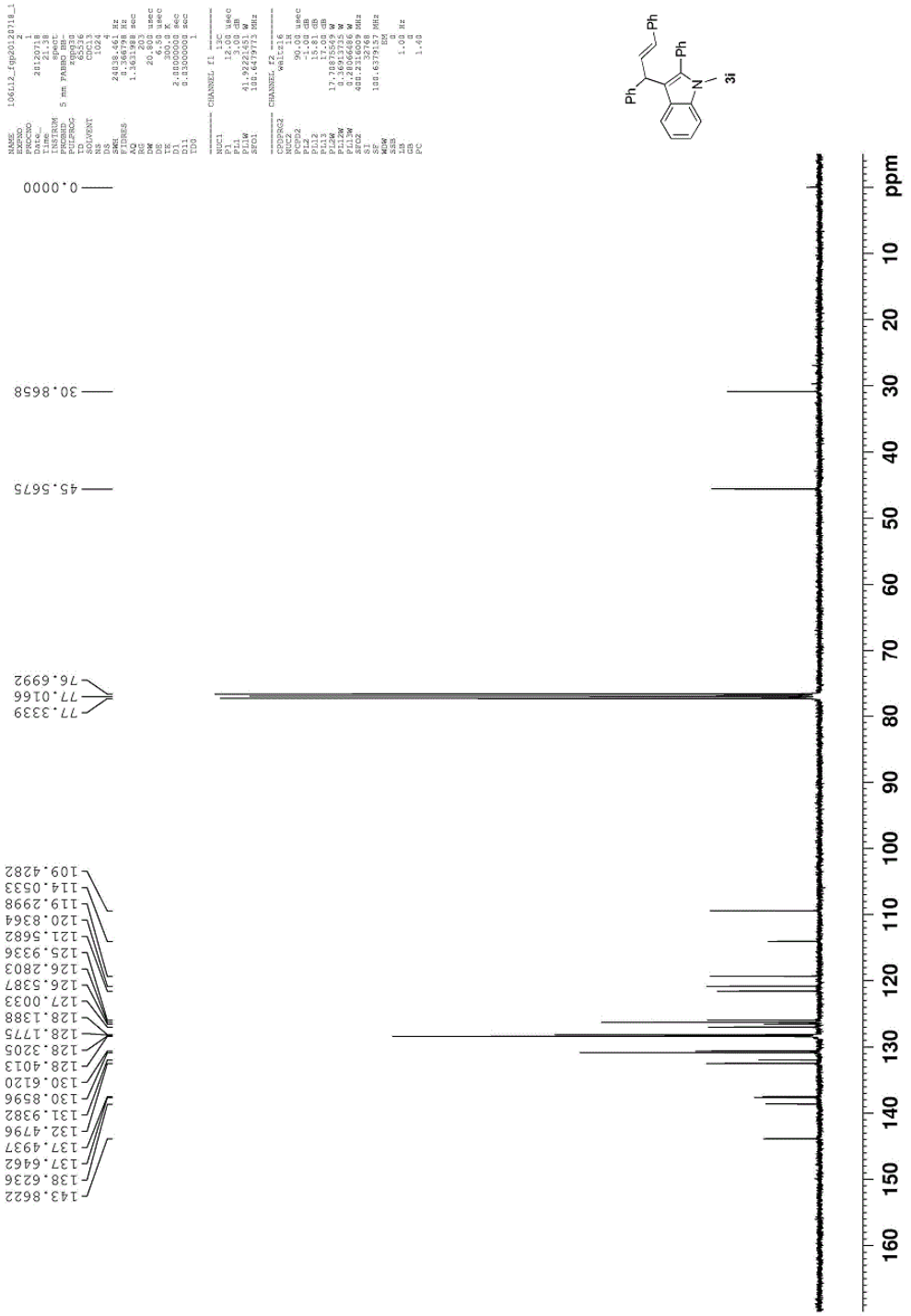
1.03
1.06
2.40
5.05
4.07
8.12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Ph
Ph
N
3i
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114.0533
119.2998
120.8364
121.5682
125.9336
126.2803
126.5387
127.0033
128.1388
128.1775
128.3205
128.4013
130.6120
130.8596
131.9382
132.4796
137.4937
137.6462
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20
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60
70
80
90
100
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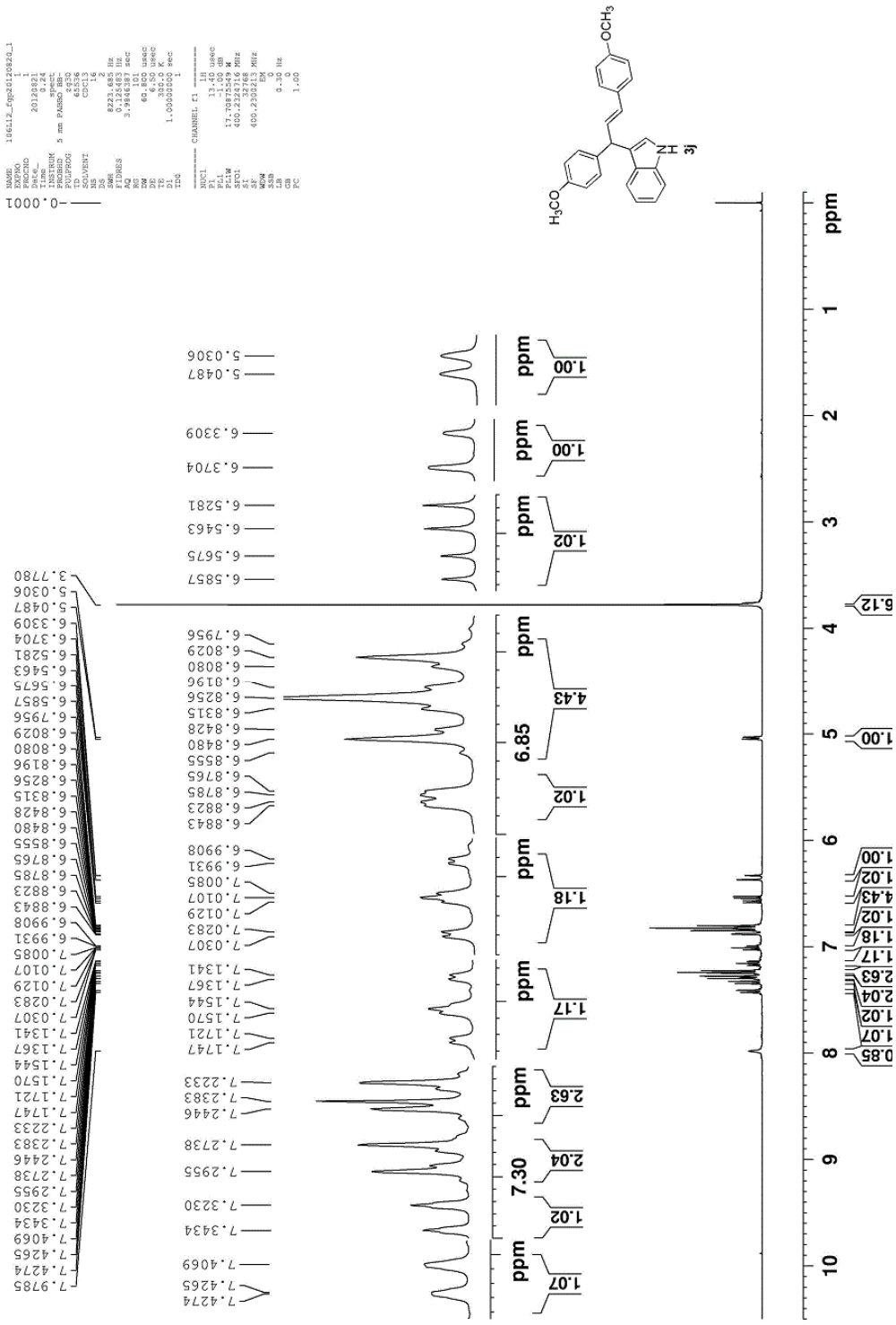
120
130
140
150
160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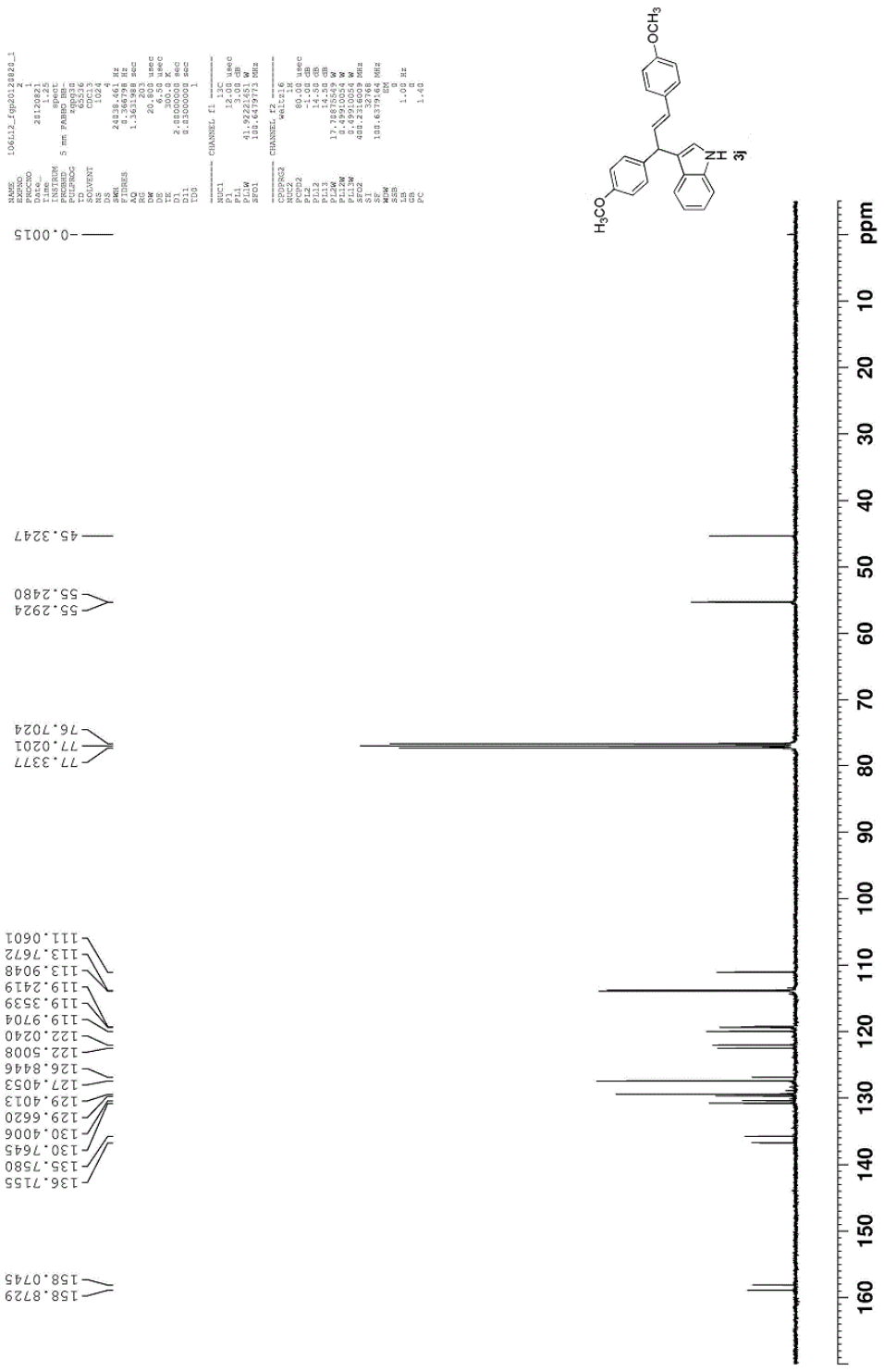
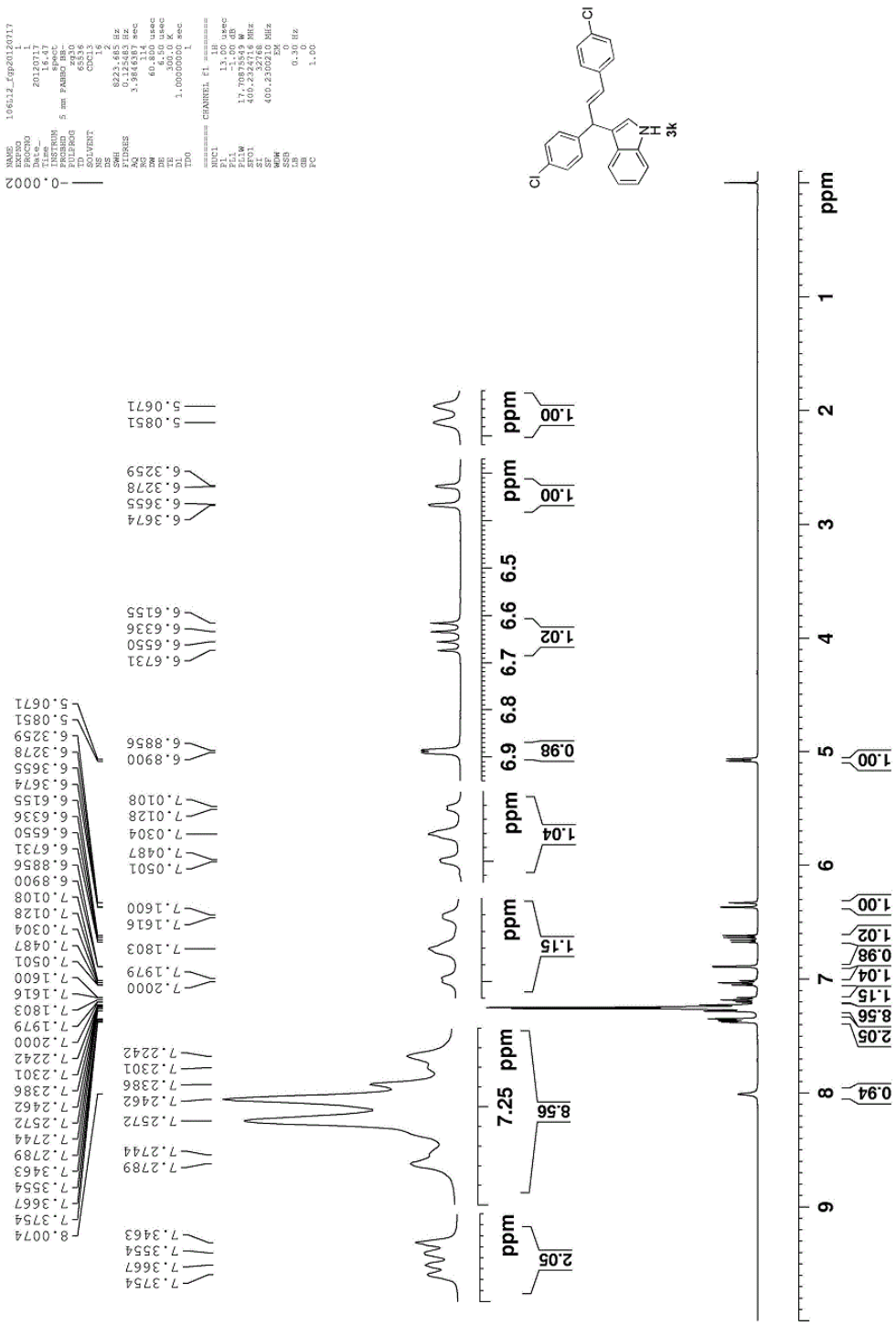
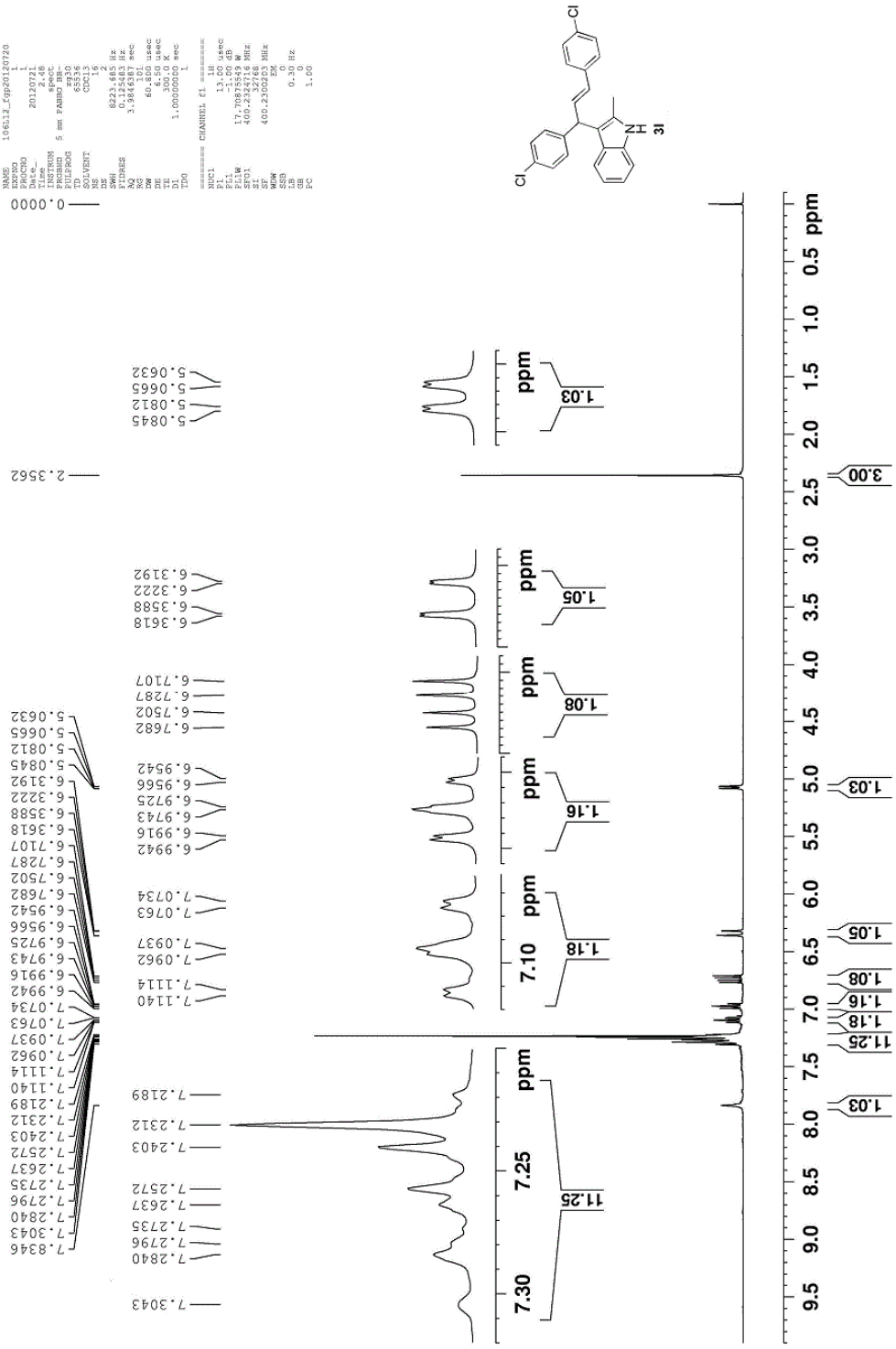
H_3CO
OCH_3
NH
ppm


OCH3
H3CO
NH
3j
ppm


3k
Cl
Cl
ppm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N
H
31
Cl
ppm
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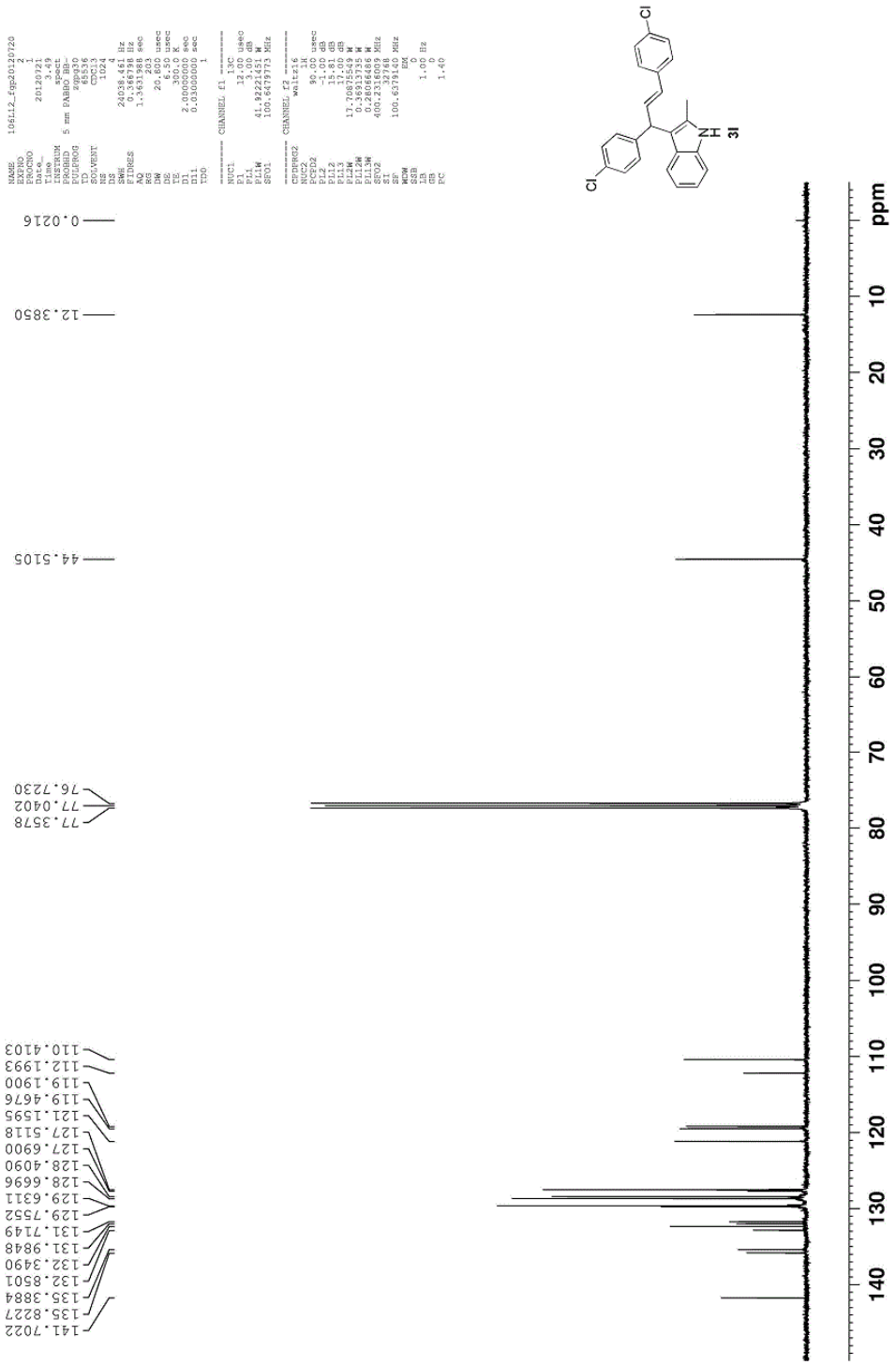
1.05
1.08
1.16
1.18
7.10
11.25
7.25
7.30
3.00
1.03
1.05
1.08
1.16
1.18
11.25
1.03
9.5 9.0 8.5 8.0 7.5 7.0 6.5 6.0 5.5 5.0 4.5 4.0 3.5 3.0 2.5 2.0 1.5 1.0 0.5 ppm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1
20120719
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spect
5 mm PABBO BB-
zg30
65536
CDCl3
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4
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0.367488 Hz
1.3631888 sec
203
20.650 usec
300.0 K
2.00000000 sec
0.01000000 sec
1
CHANNEL f1
13C
12.00 usec
0.00 dB
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100.6479773 MHz
CHANNEL f2
waltz16
1H
90.10 usec
-1.00 dB
15.81 dB
0.00 dB
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100.6379140 MHz
0
1.00 Hz
0
1.40
0.0216
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76.7230
77.0402
77.3578
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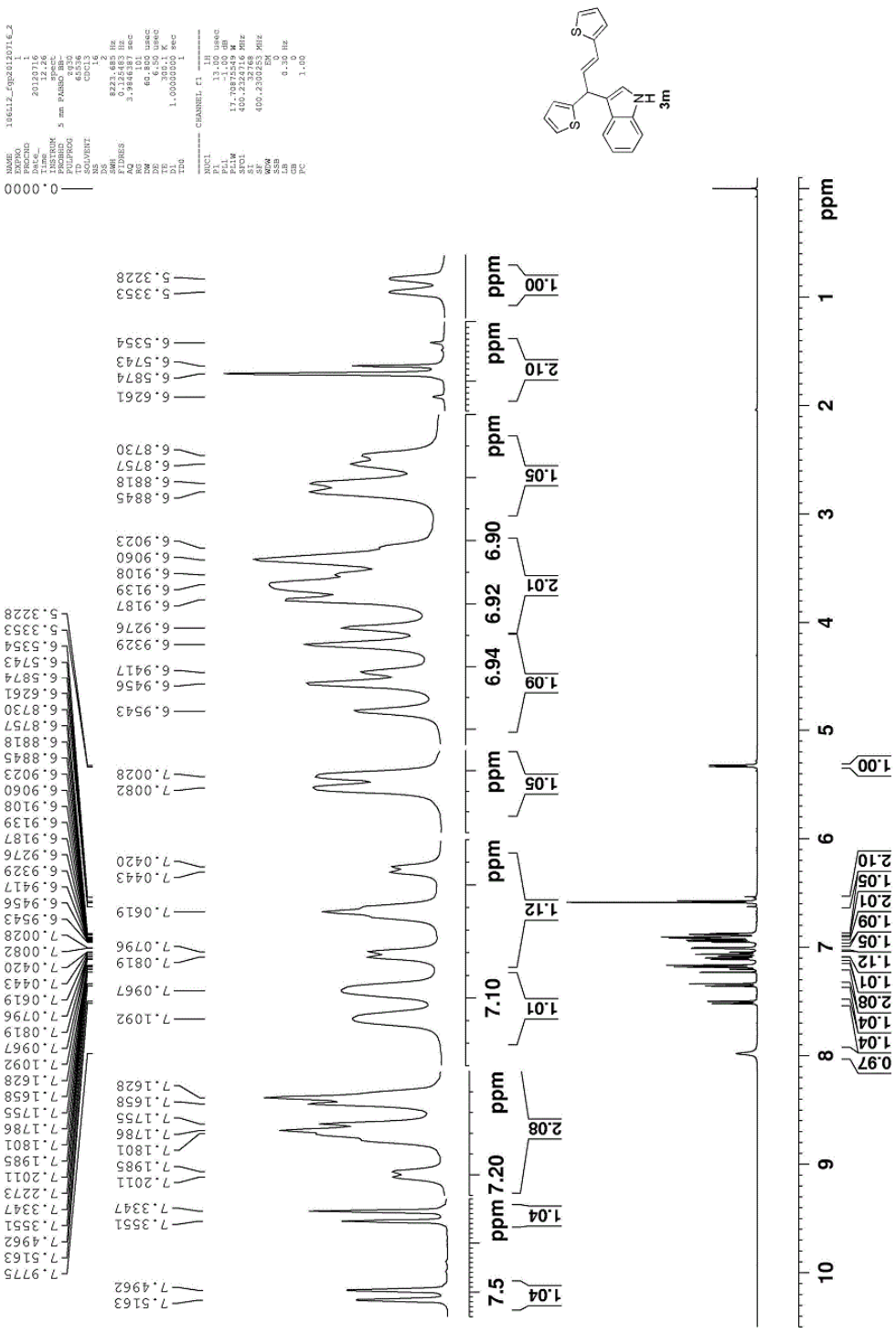
ppm
Cl
Cl
NH
3l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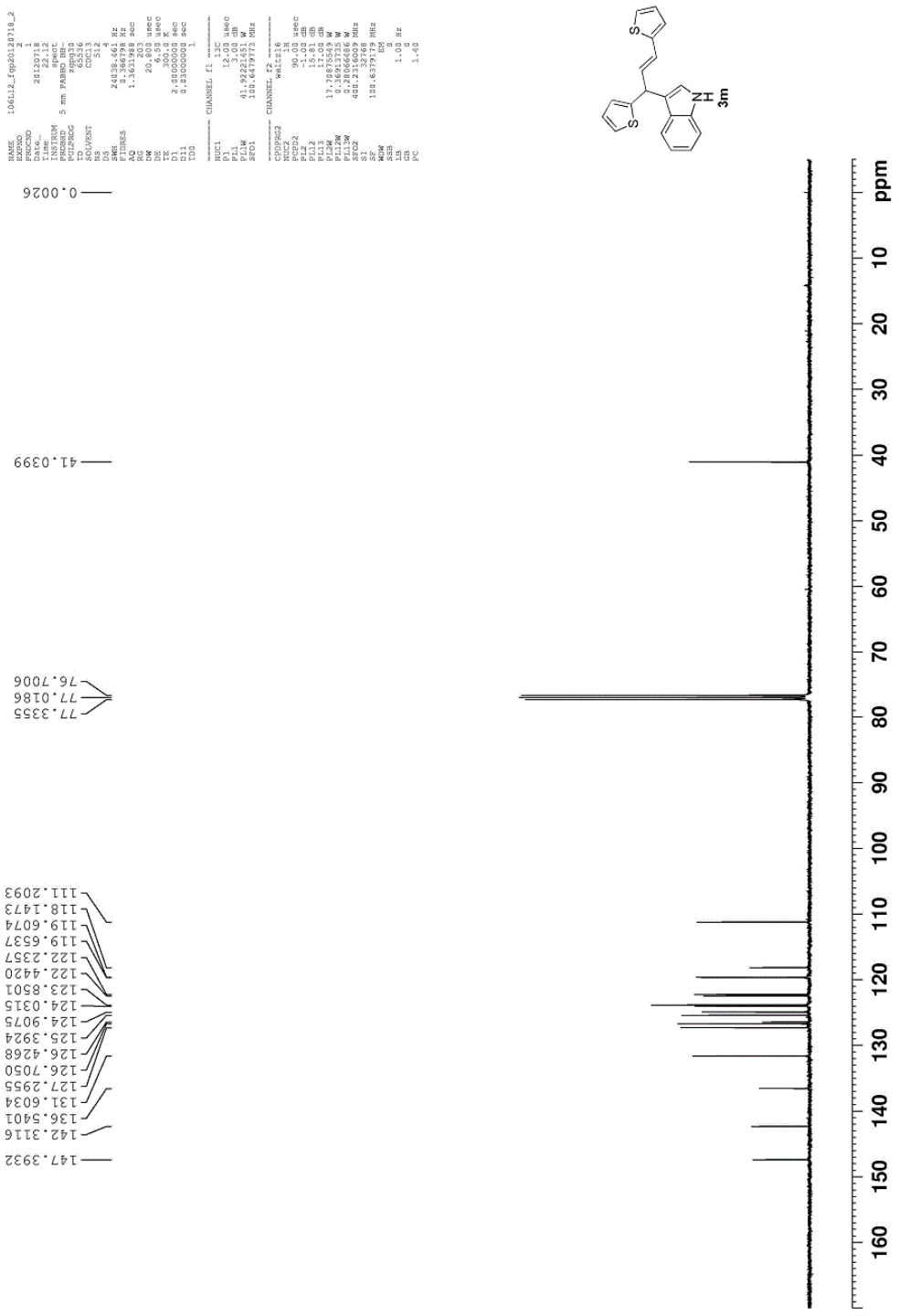
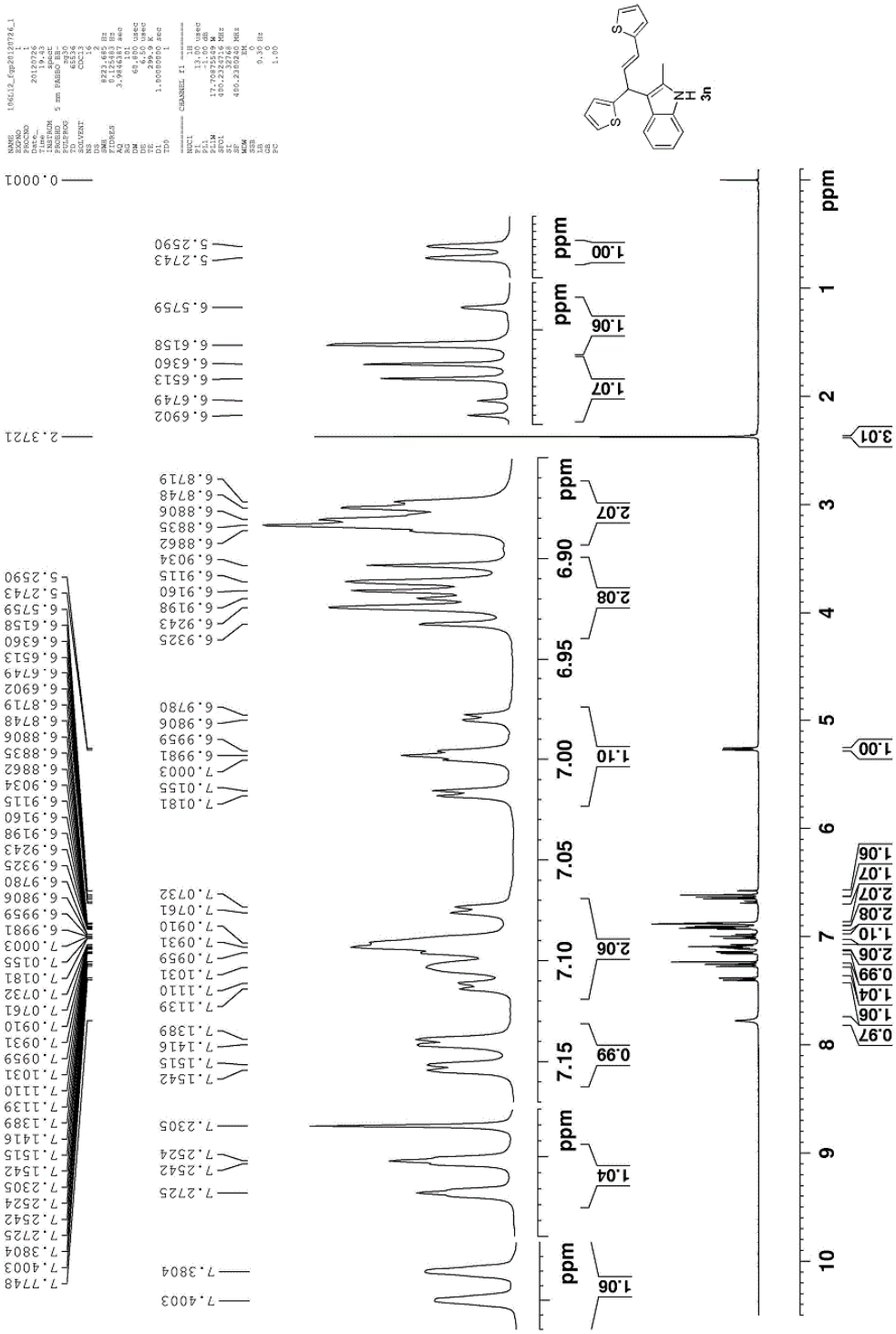

3m
ppm


S
S
Ni
Sn
ppm
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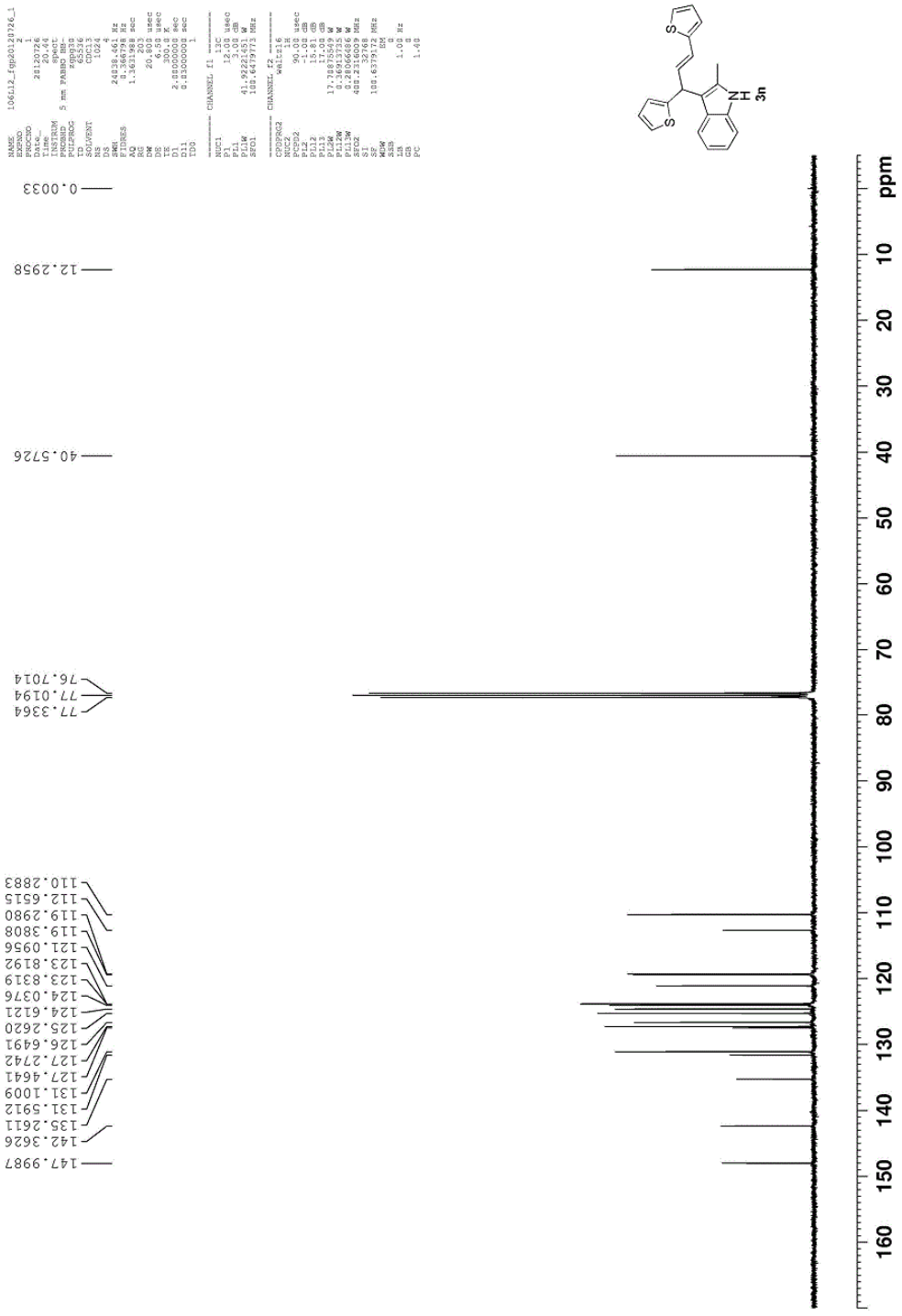
2.07
2.08
1.10
0.99
1.04
1.06
3.01
1.00
1.06
1.07
2.07
2.08
1.10
2.06
0.99
1.04
1.06
0.97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123.8319
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124.6121
125.2620
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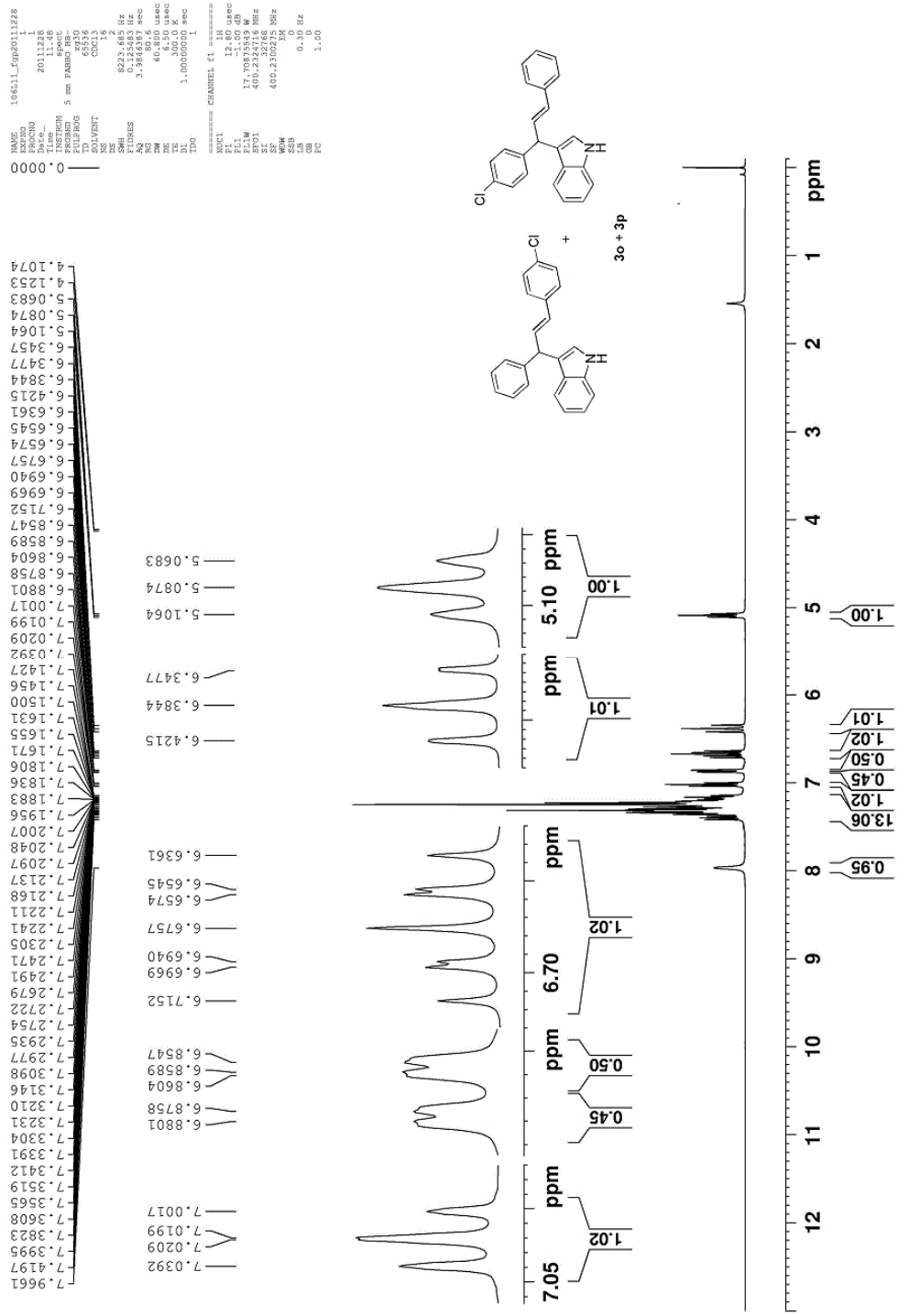
S
NH
3n
ppm


3o + 3p
Cl
NH
ppm
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1.02
0.50
0.45
1.02
0.95
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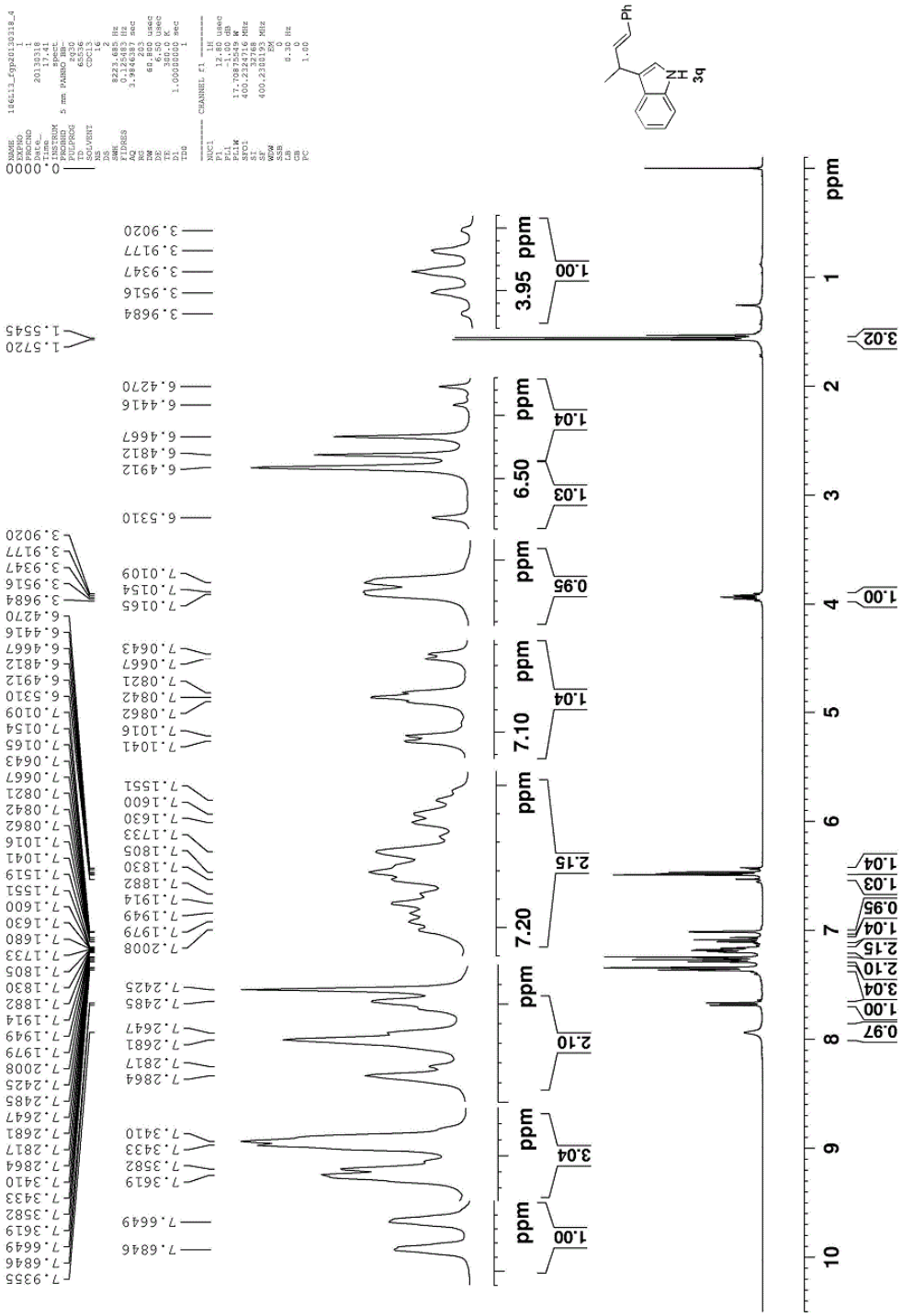
6.70
1.02
7.05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N
H
3q
ppm
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6.50
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7.20
2.15
2.10
3.04
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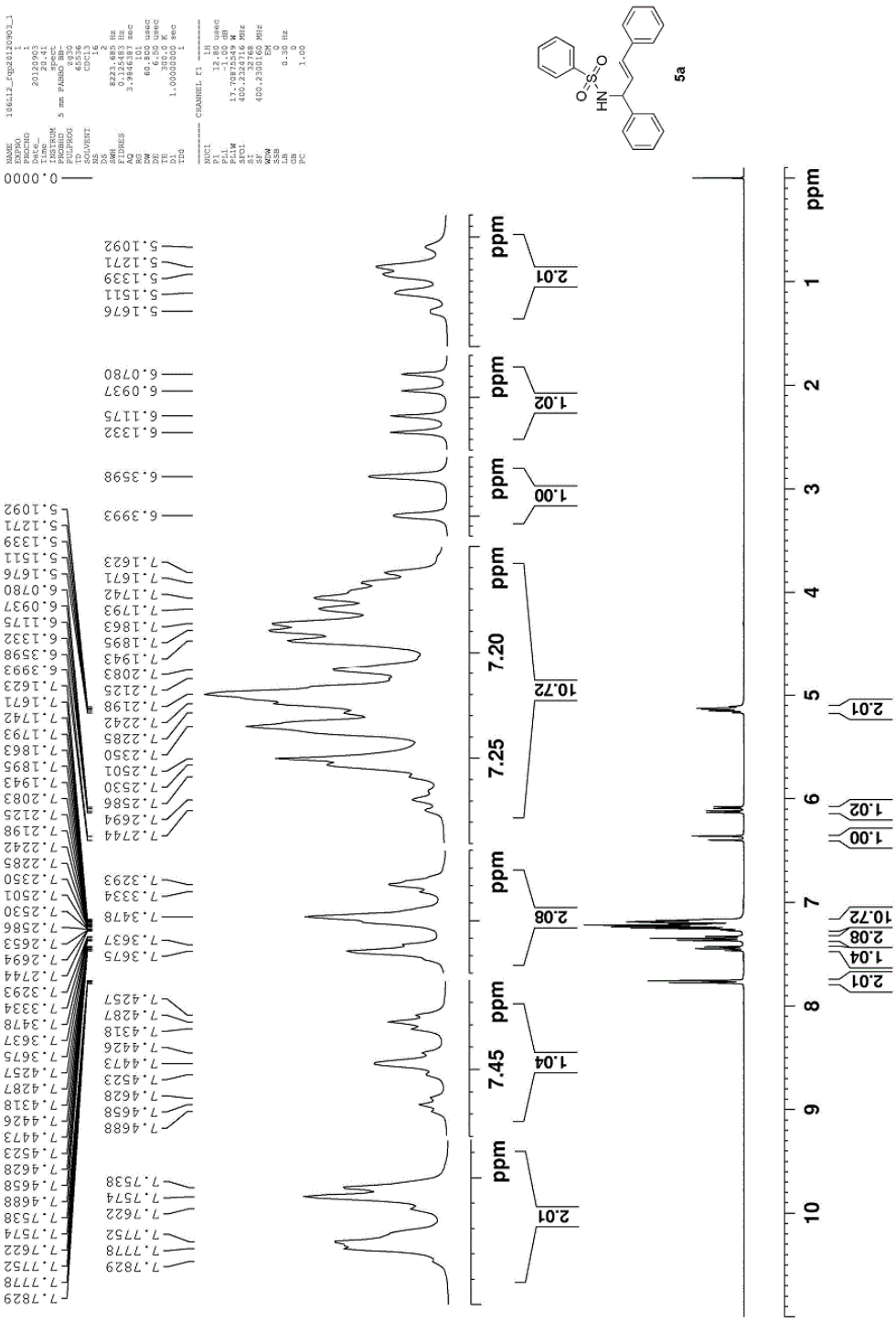
1.04
1.03
0.97
3.02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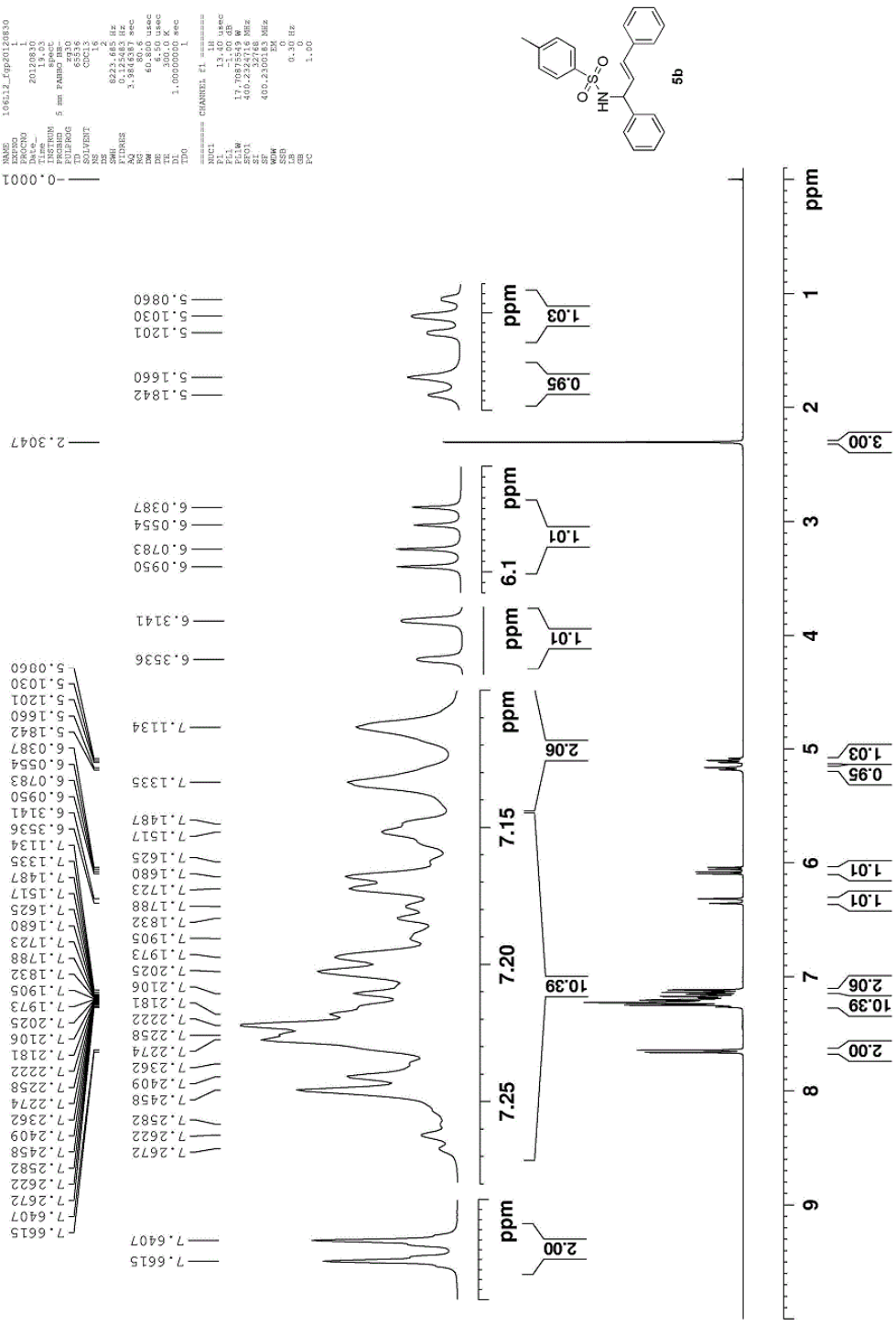
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S
O
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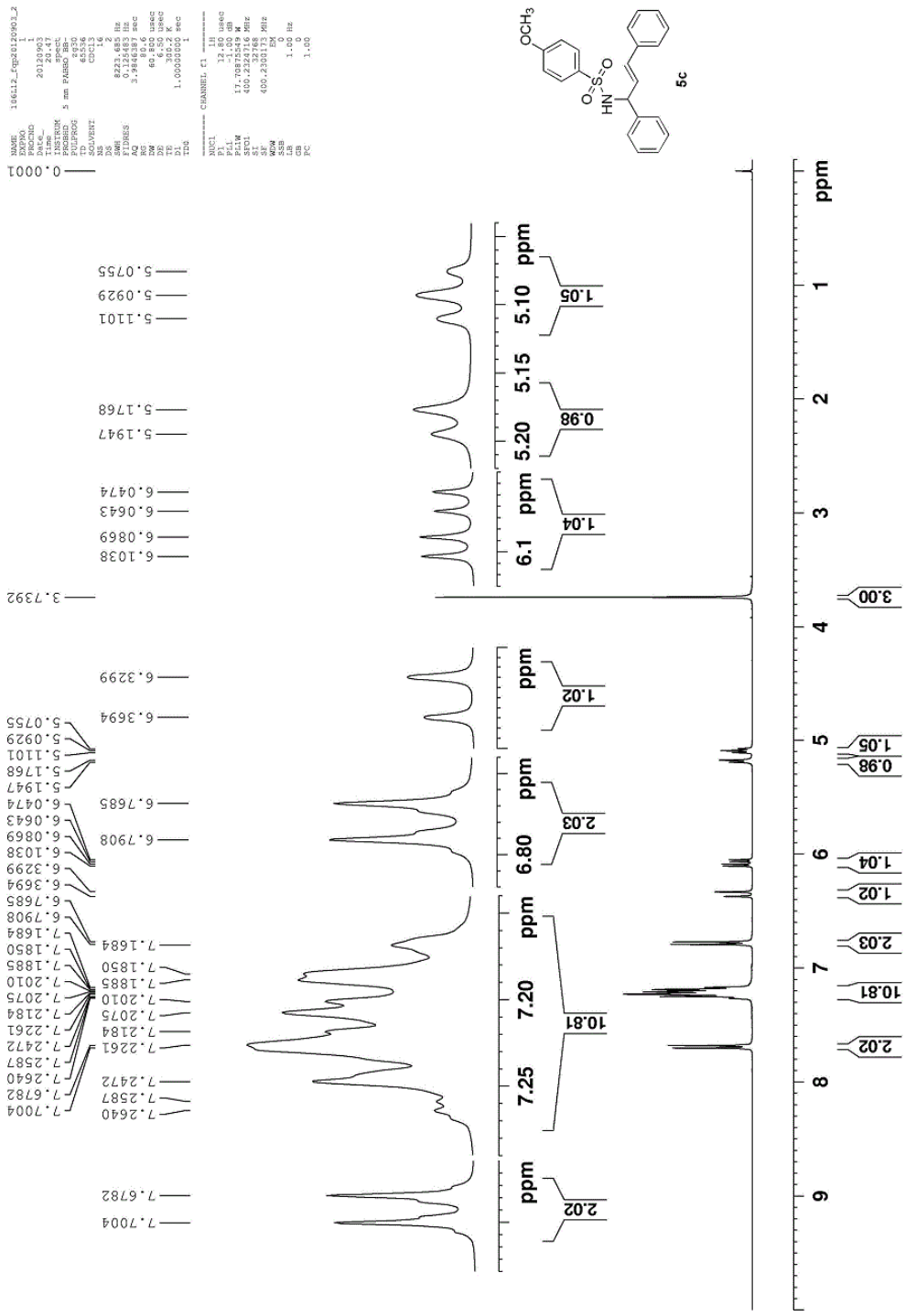
3.00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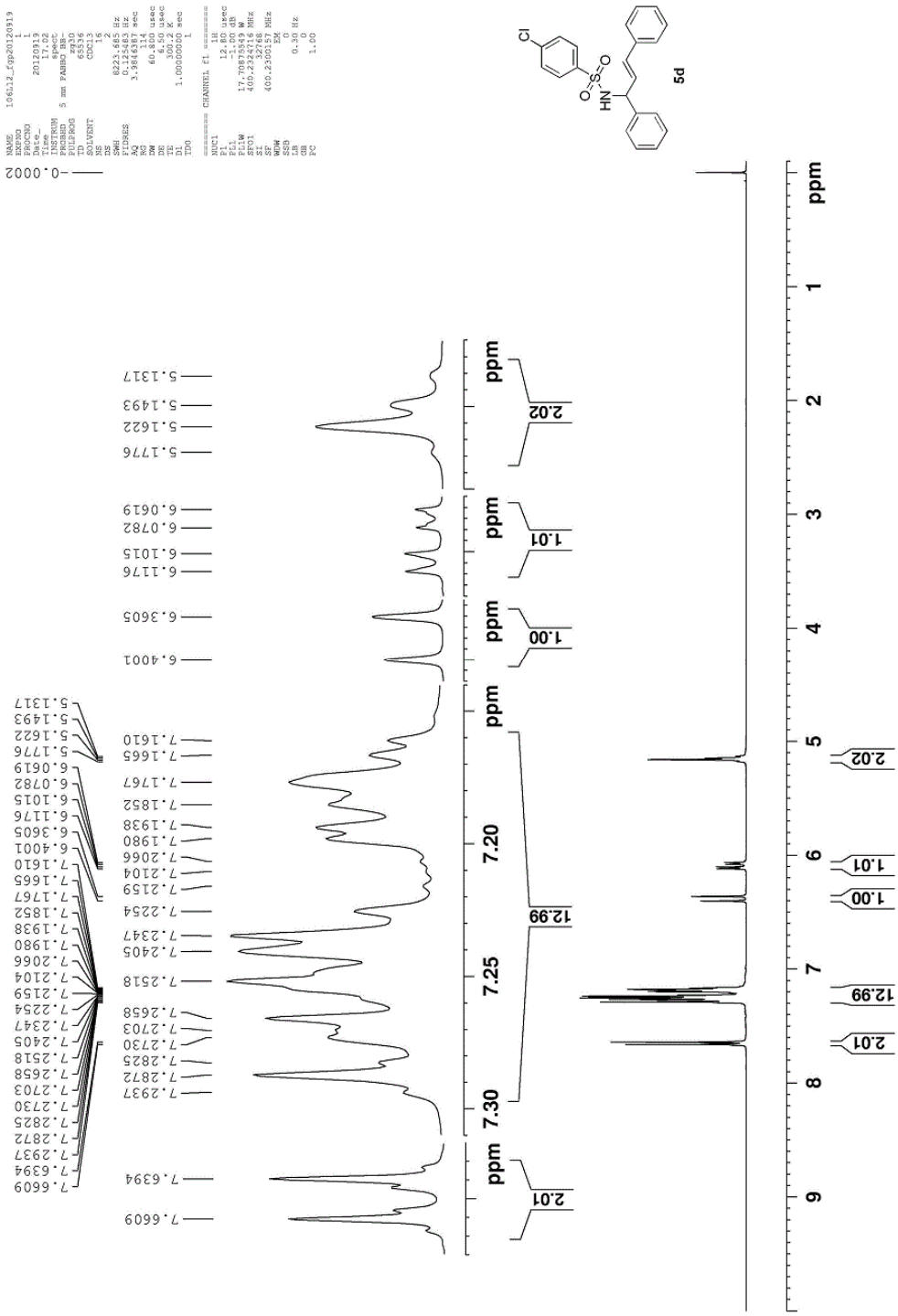
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Cl
O
S
O
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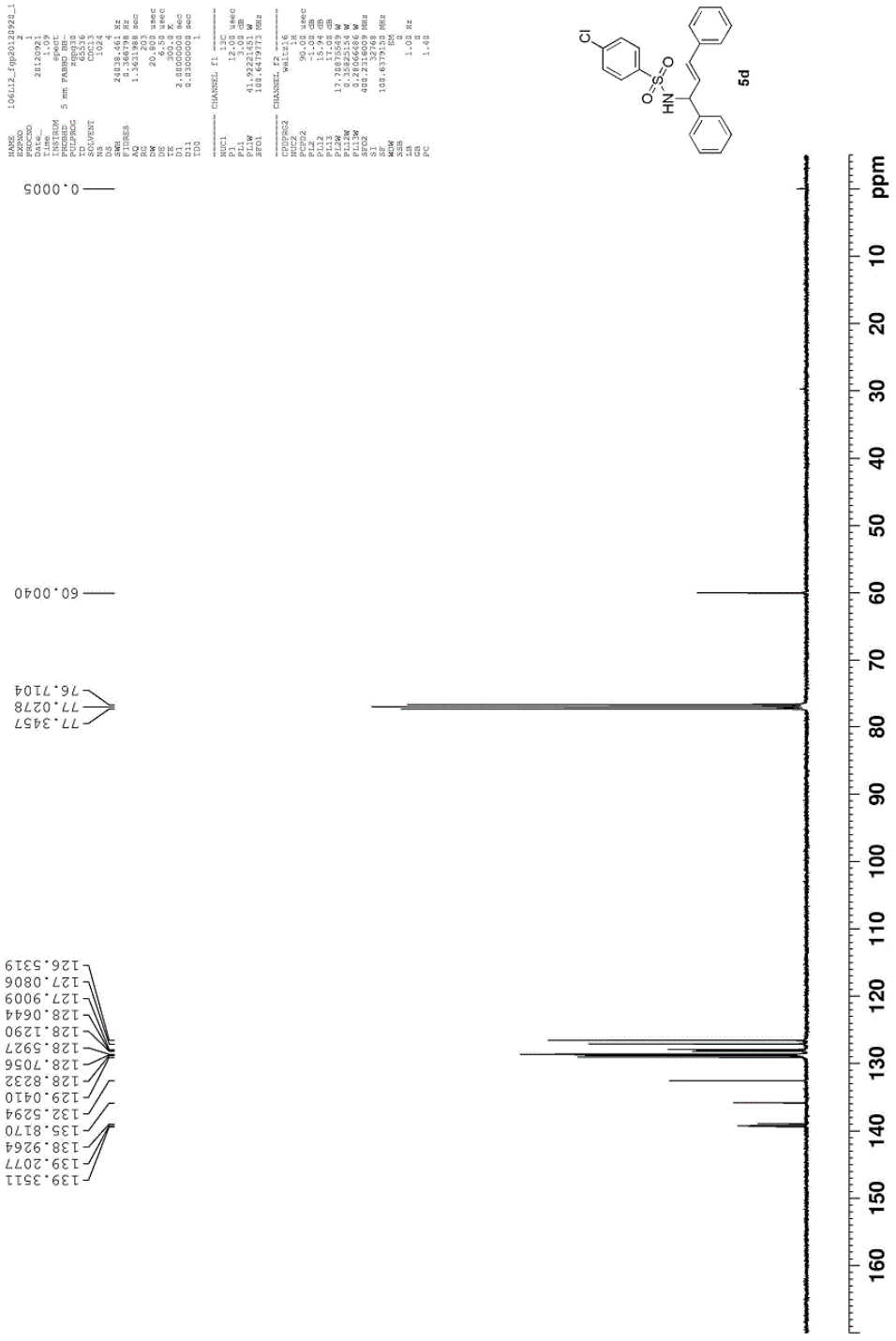
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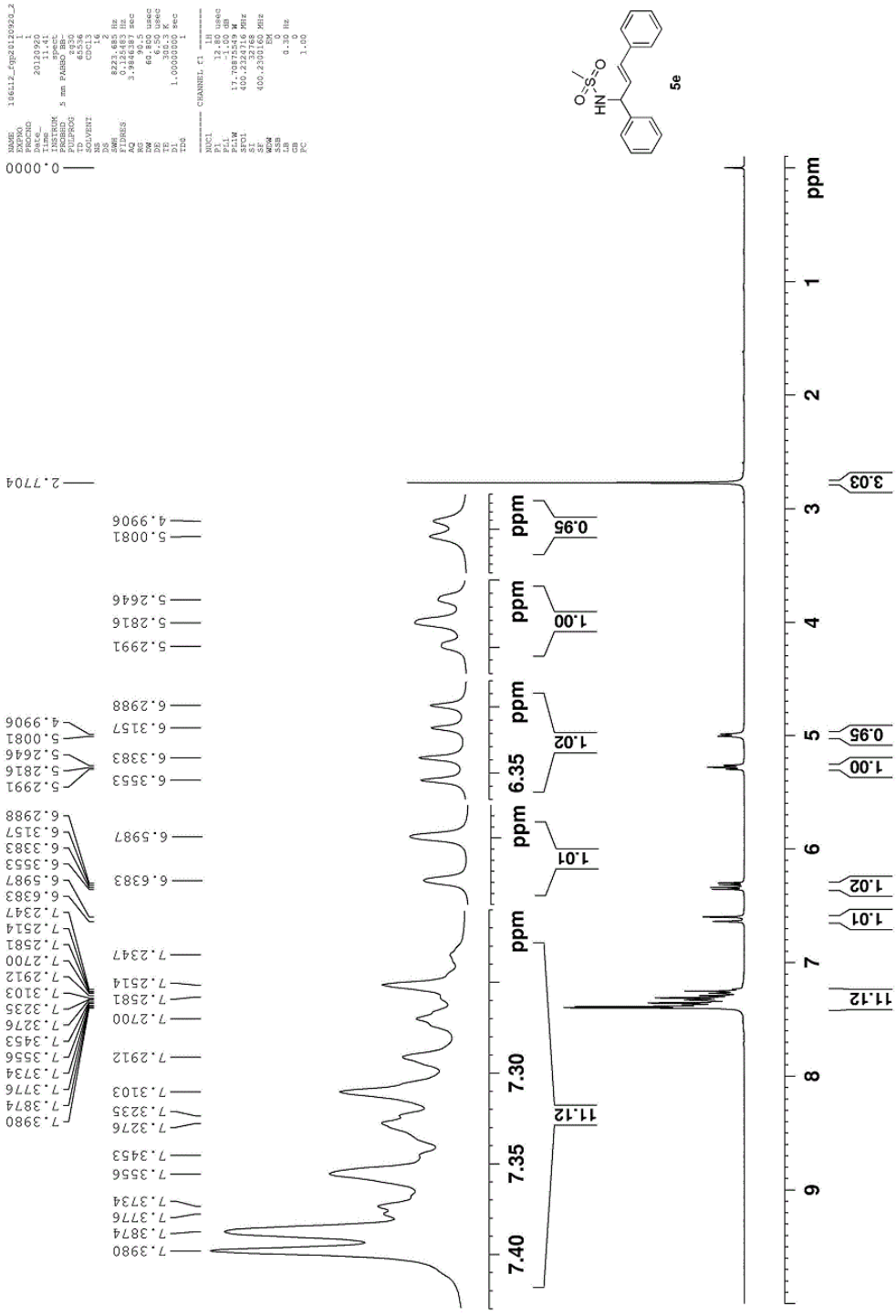
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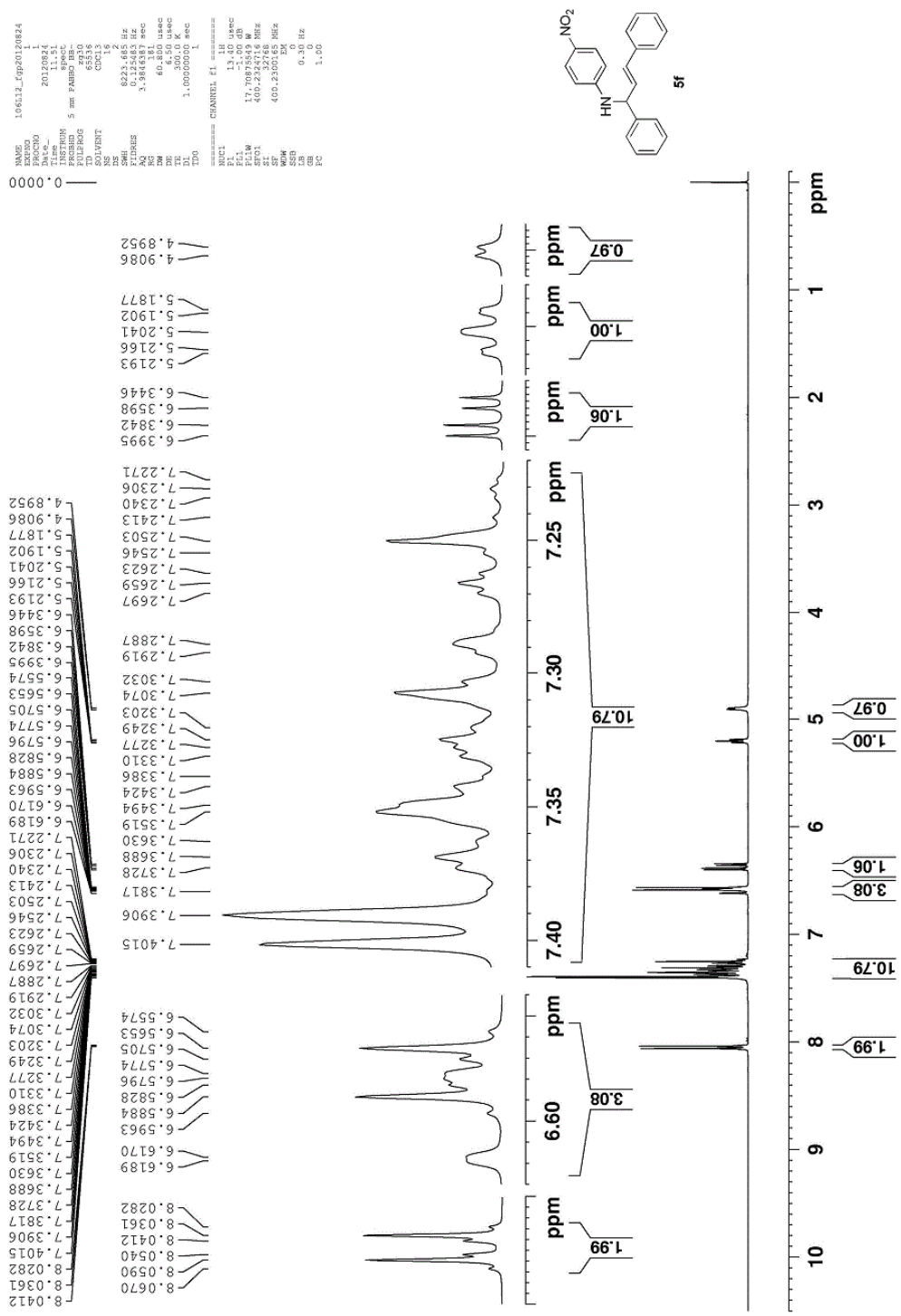
NO2
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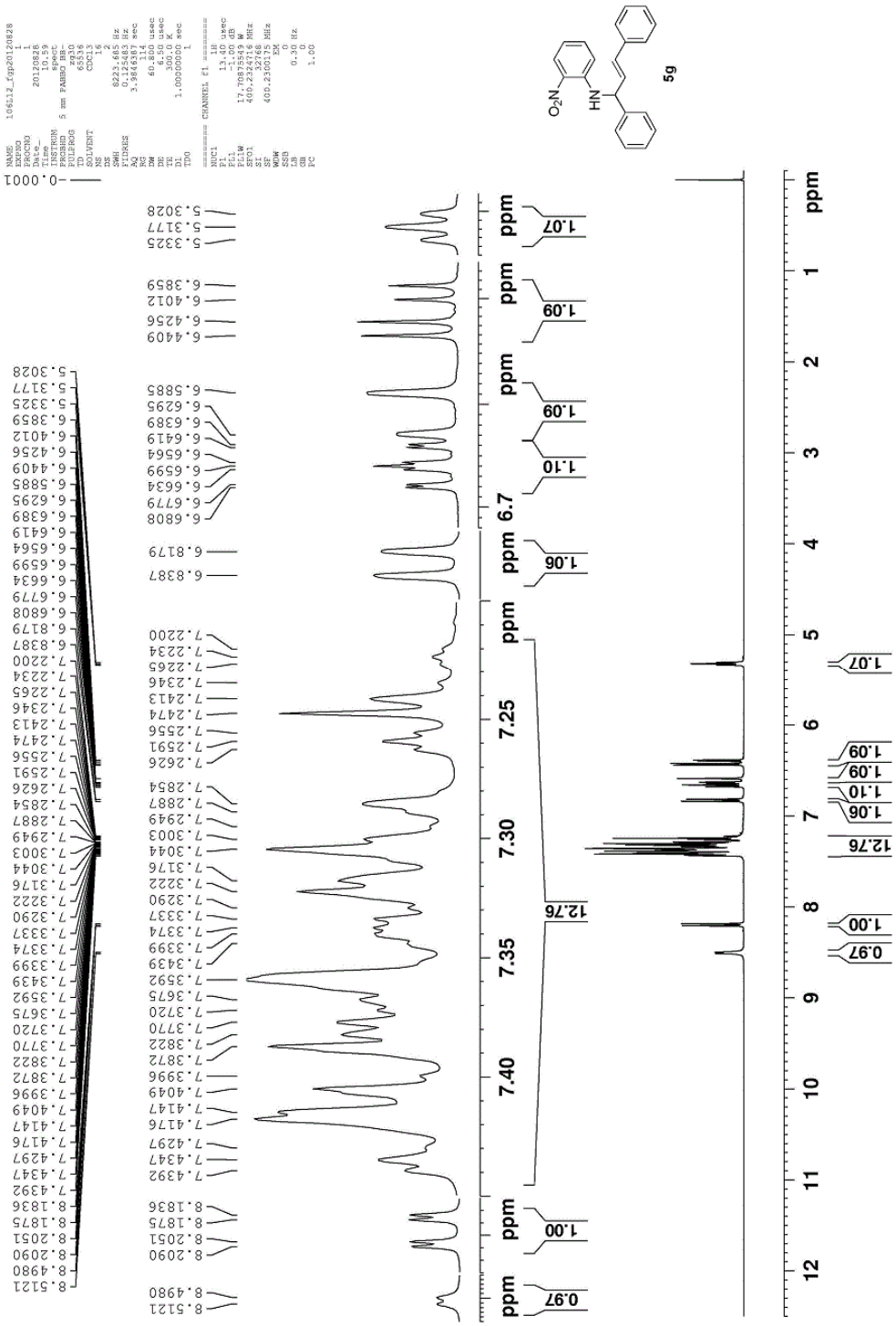
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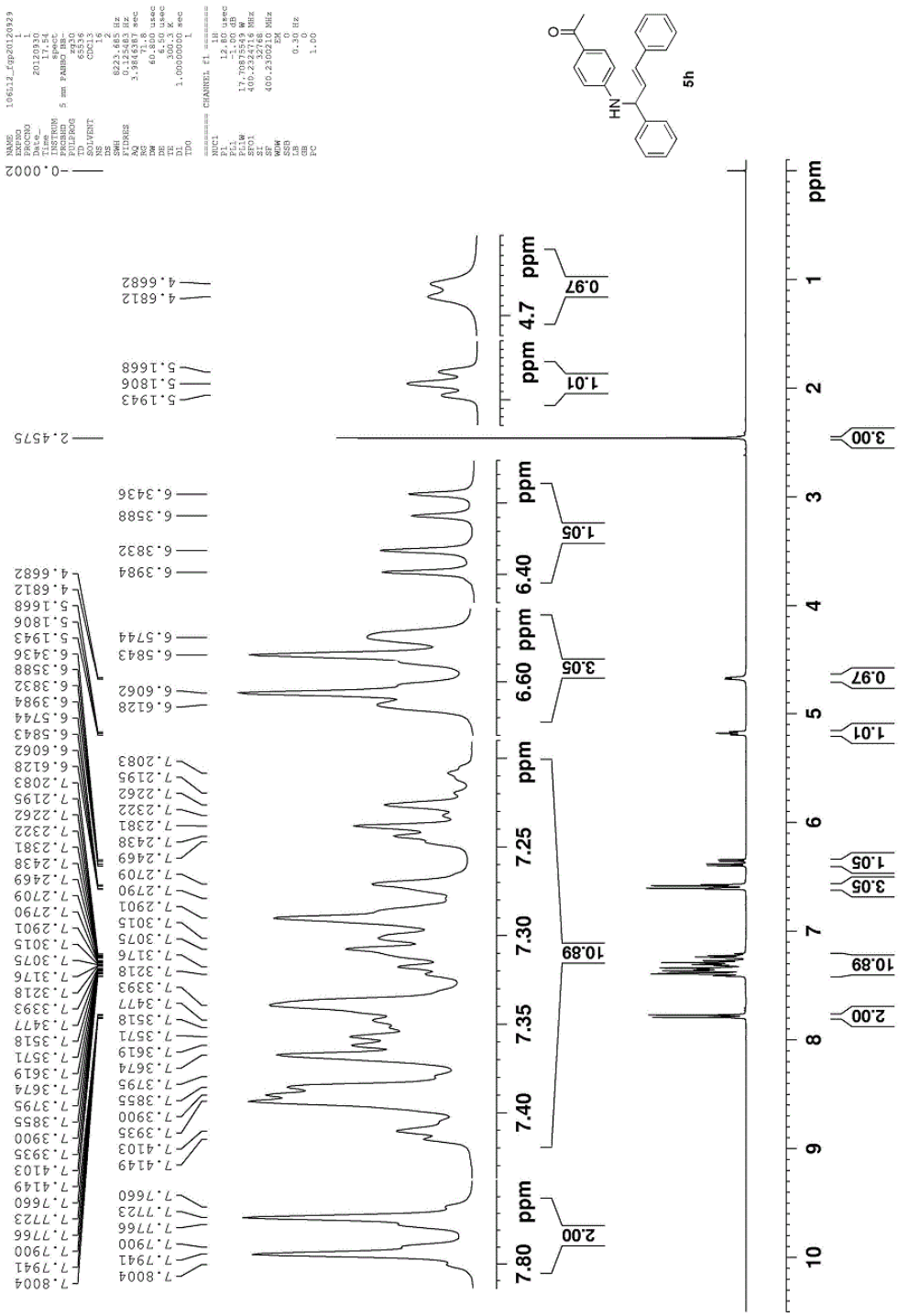
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3.05
1.05
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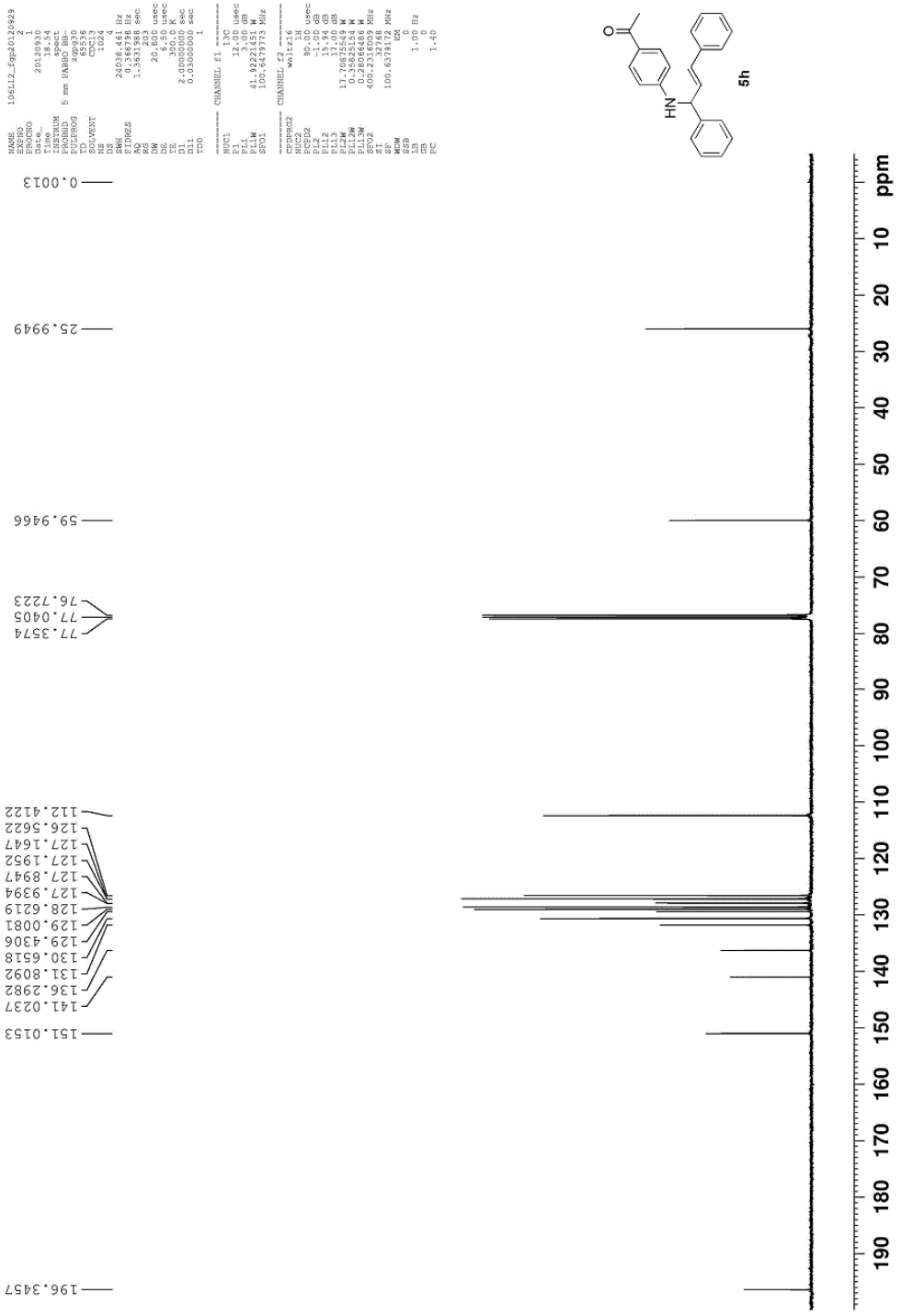
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