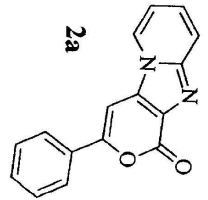


Supplementary Information

^1H NMR and ^{13}C NMR spectra of compounds **2a-m**

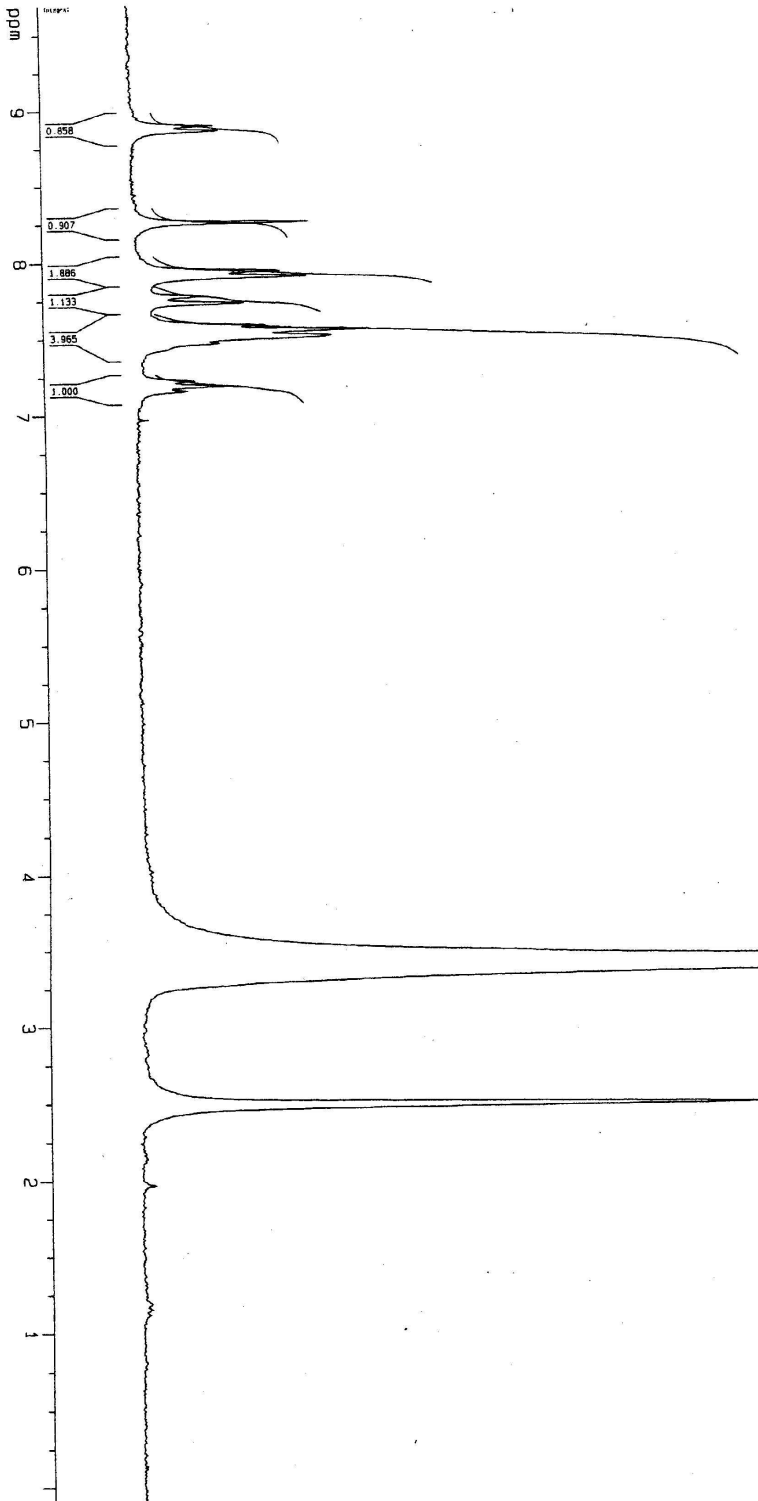
ppm

8.8976
8.8641
8.2599
7.9416
7.9046
7.7793
7.7327
7.5847
7.5524
7.5128
7.2232
7.1900



3.4031

2.4921



Current Data Parameters
NAME -2bmlatz-ppm
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters

Date_ 20090406
Time 11.29
INSTRUM spect
PROBHD 5 mm Dui1 13
PULPROG zg30
TD 32768
SOLVENT DMSO
NS 32
DS 0
SWH 2997.602 Hz
FIDRES 0.091480 Hz
AQ 5.463266 sec
RG 655
DD 168.600 use
DE 17.0
TE 300.0 K
D1 1.00000000 sec

***** CHANNEL f1 ****

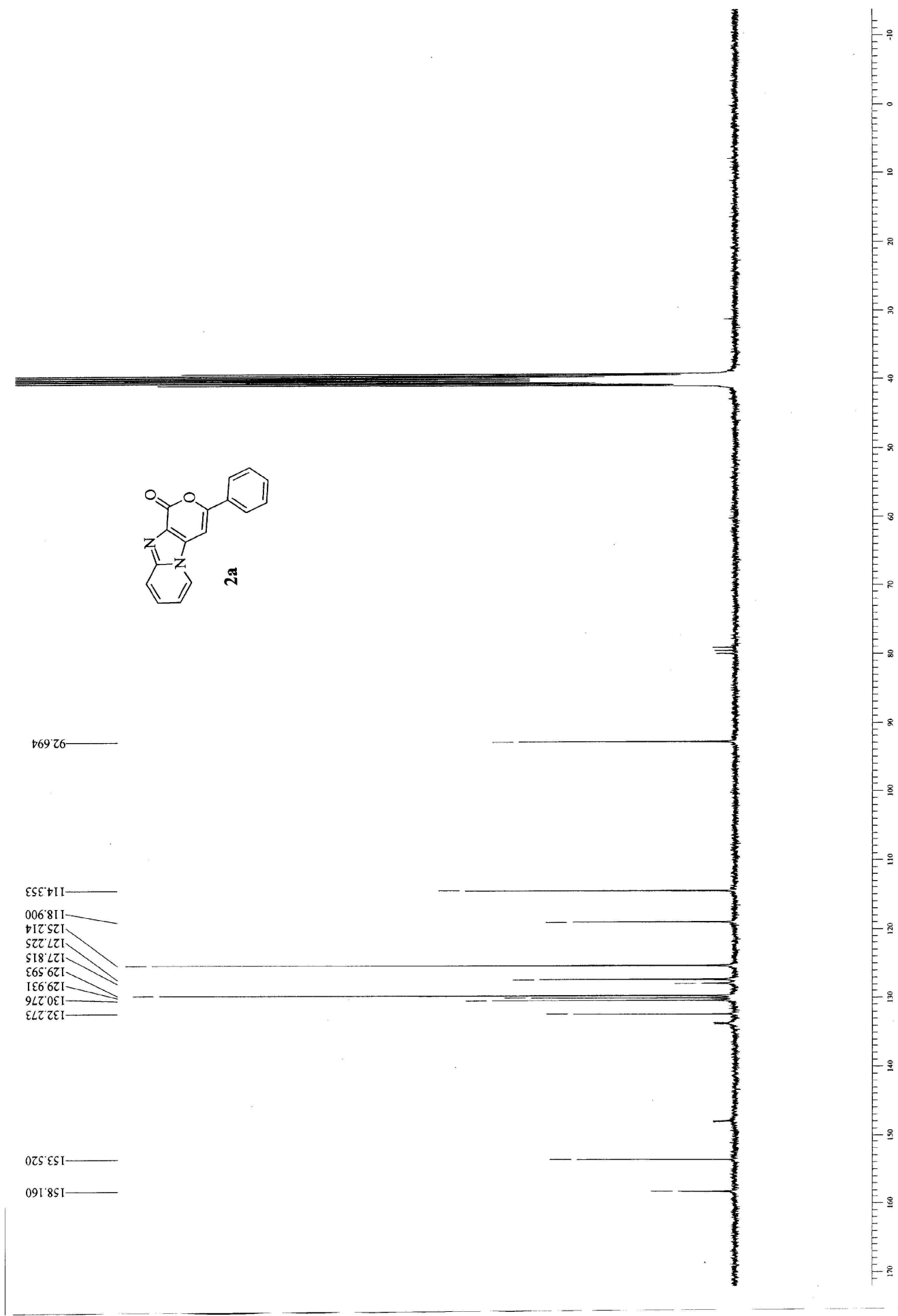
NUC1 1H
P1 10.00 use
PL1 -6.00 dB
SF01 200.1314003 MHz

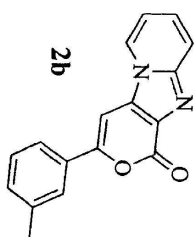
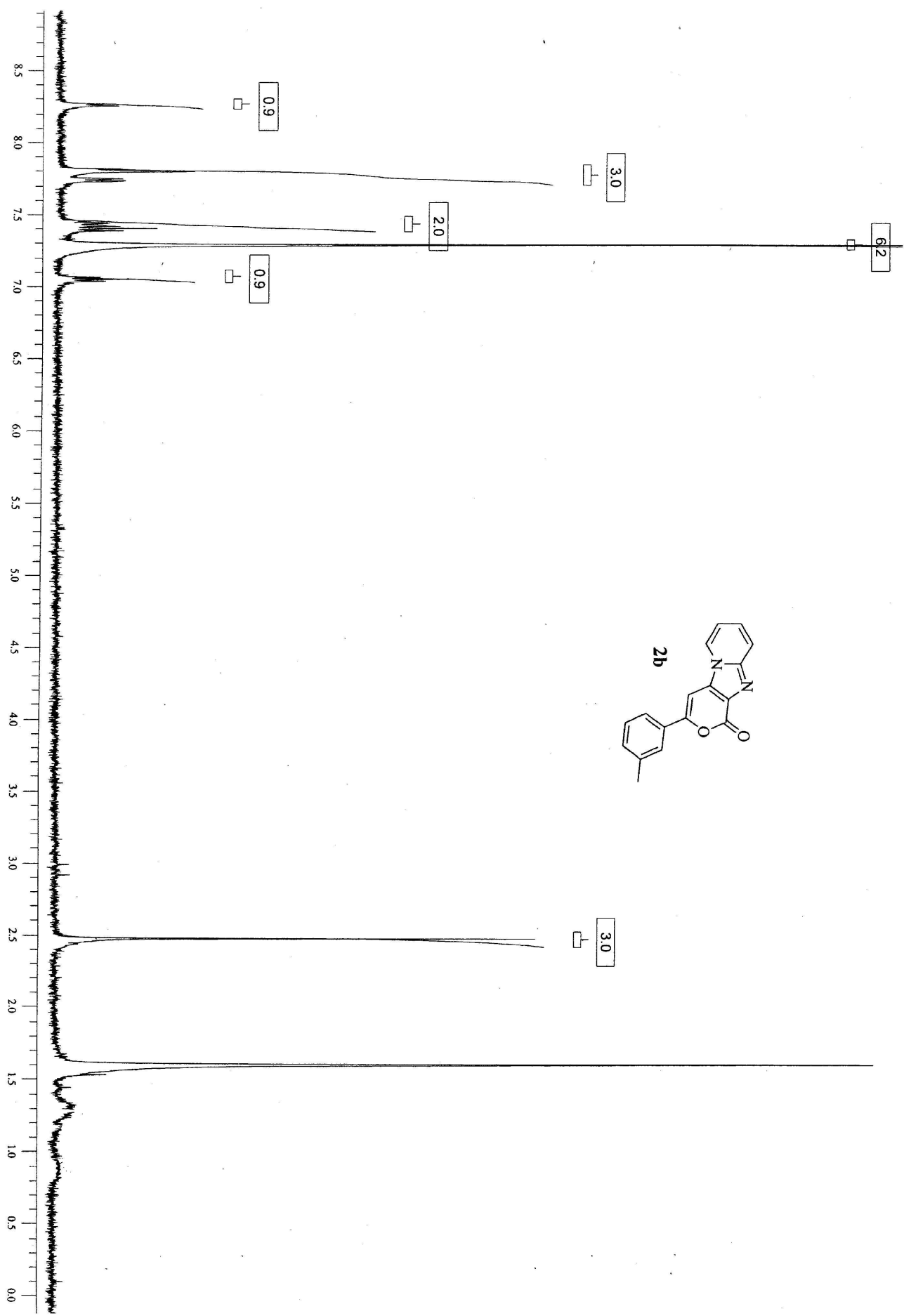
F2 - Processing parameters

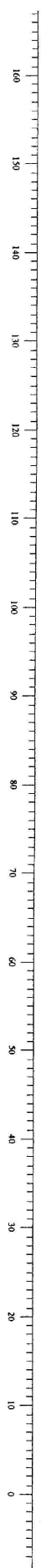
SI 32768
SF 200.130062 MHz
WDM 0
EN 0
SFR 1.00 Hz
LB 0
GB 0
PC 1.40

10 NMR plot parameters

SI 23.00 cm
F1P 9.697 ppm
F1 1940.67 Hz
F2P -0.090 ppm
F2 -18.02 Hz
PPHCH 0.42553 ppm
HZCM 85.16077 Hz/







163.025

158.727

143.334

136.976

135.484

134.163

133.874

131.754

130.460

127.211

123.559

118.795

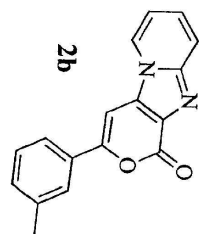
97.013

84.270

84.033

83.832

83.394



45.629

45.348

45.072

44.794

44.513

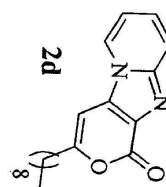
44.238

43.959

26.337

ppm

7.3339



3.3302

2.6149

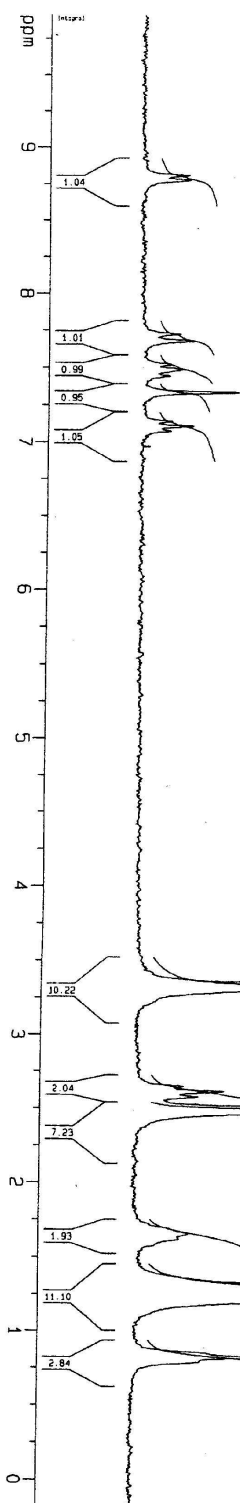
2.5789

2.4910

1.6581

1.2263

0.8245



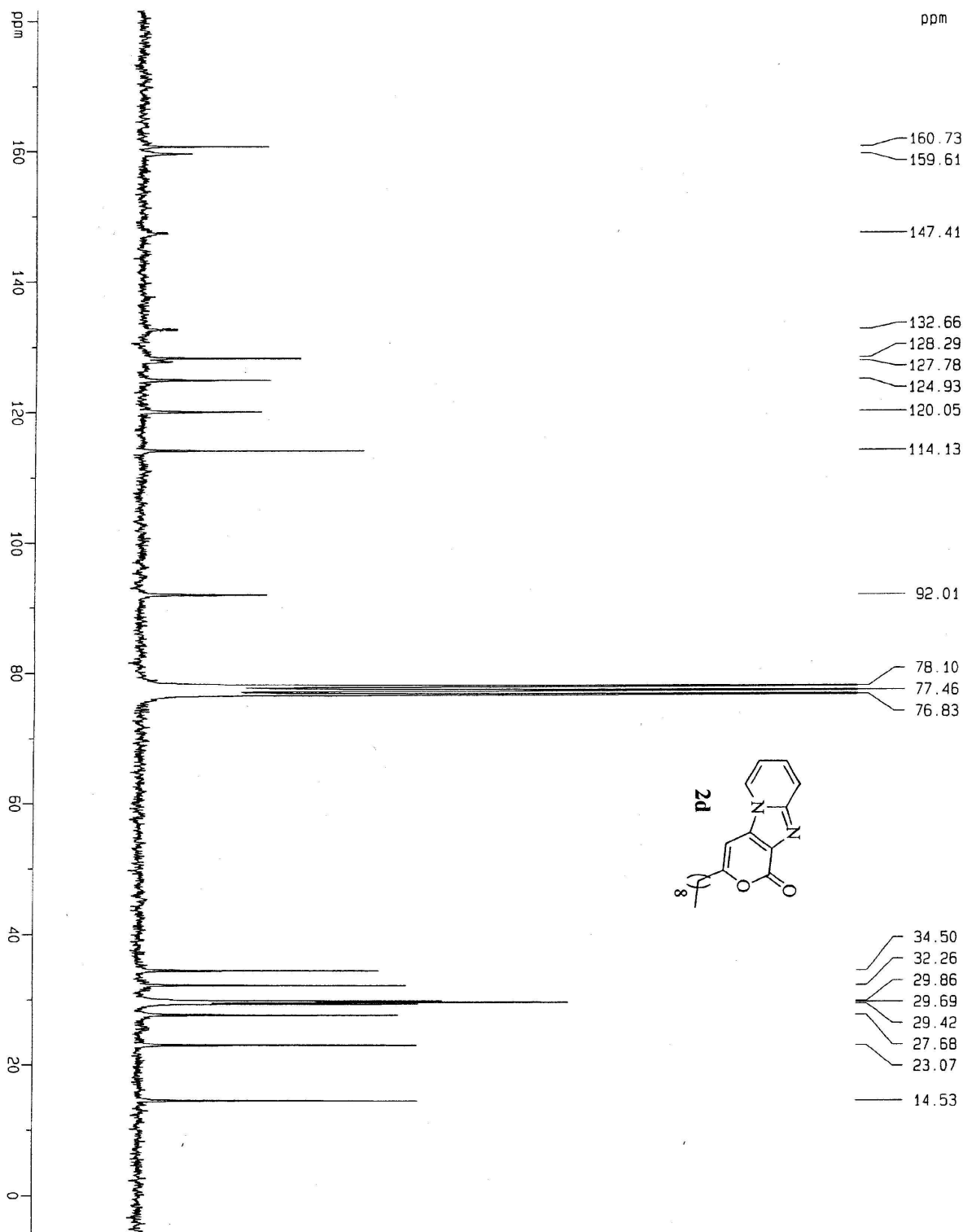
Current Data Parameters
 NAME 2b-95-2-ccs
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20081110
 Time 19:04
 INSTRUM spect
 PROBRN 5 mm Duj1 13
 PULPROG zgpg30
 TO 32768
 SOLVENT DMSO
 NS 8
 DS 0
 SWH 2997.602 Hz
 FIDRES 0.091460 Hz
 AQ 5.465756 sec
 RG 18390.4
 CW 166.800 use
 DE 4.50 use
 TE 300.0 K
 D1 1.0000000 sec

===== CHANNEL f1 =====
 NUC1 ¹H
 P1 10.00 use
 PL1 -6.00 dB
 SFO1 200.1314009 MHz

F2 - Processing parameters
 SI 32768
 SF 200.130062 MHz
 WDW EN
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

10 NMR plot parameters
 CX 23.00 cm
 FJP 9.912 ppm
 F1 1983.69 Hz
 F2P -0.189 ppm
 F2 -37.88 Hz
 PPM0M 0.43918 ppm
 HZCM 87.89397 Hz



Current Data Parameters
 NAME bz-055-c13
 EXPNO 1
 PROCNO 1
 F2 - Acquisition Parameters
 Date_ 20081102
 Time 9:01
 INSTRUM spect
 PROBHD 5 mm BBO1 13
 PULPROG zgpg30
 TO 325500
 SOLVENT CDCl3
 NS 11193
 DS 1
 SWH 12562.814 Hz
 FIDRES 0.363397 Hz
 AQ 1.3042164 sec
 RG 2048
 DM 39.800 usec
 DE 8.00 usec
 TE 300.0 K
 O1 3.00000000 sec
 O11 0.03000000 sec
 O12 0.0002000 sec

===== CHANNEL f1 =====
 NUC1 13C
 P1 5.80 usec
 PL1 -6.00 dB
 SF01 50.3282440 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 105.00 usec
 PL2 -6.00 dB
 PL12 18.00 dB
 PL13 18.00 dB
 SF02 200.1308000 MHz

F2 - Processing parameters
 SI 32768
 SF 50.327090 MHz
 WDW EN
 SSB 0
 LB 3.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters
 CX 23.00 cm
 F1P 181.632 ppm
 F1 9140.23 Hz
 F2P -288.81 Hz
 F2 14559 ppm/cm
 PRNCH 409.95940 Hz/cm

Current Data Parameters
NAME 2b-4f.pur
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20080514
Time 15:13
INSTRUM spect
PROBHD 5 mm Dual 13
PULPROG zgpg30
TD 32768
SOLVENT CDCl3
NS 8
DS 2
SWH 2957.503 Hz
FIDRES 0.091486 Hz
AQ 5.469726 sec
RG 812.7
DM 166.800 use
DE 4.50 use
TE 300.0 K
D1 1.00000000 sec

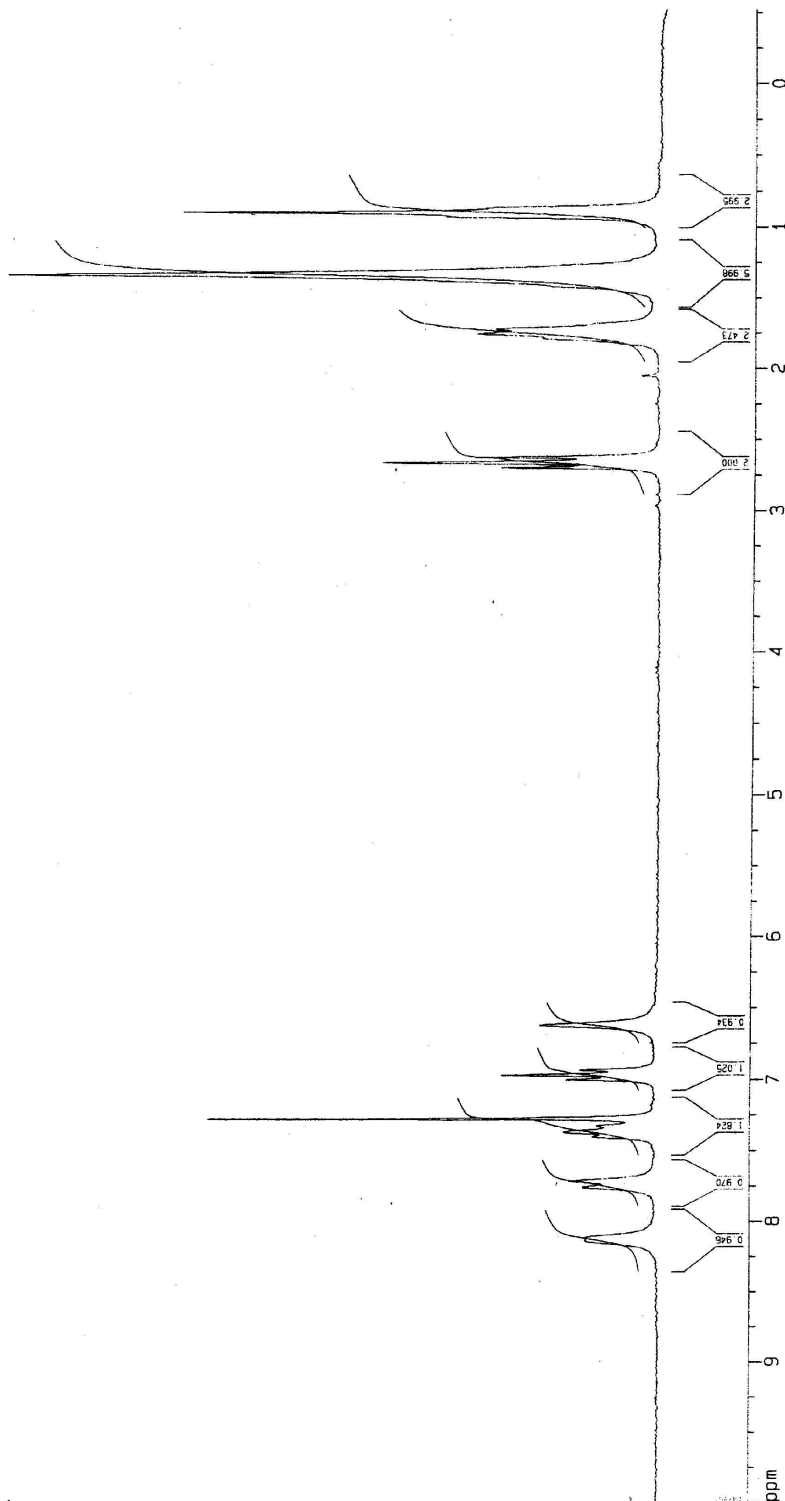
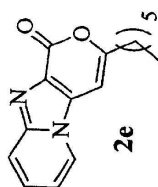
***** CHANNEL f1 ***
NUC1 1H
P1 10.00 use
PL1 -6.00 dB
SFO1 200.1314009 MHz

F2 - Processing parameters
SI 32768
SF 200.130062 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

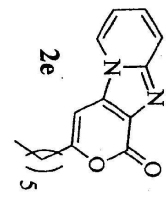
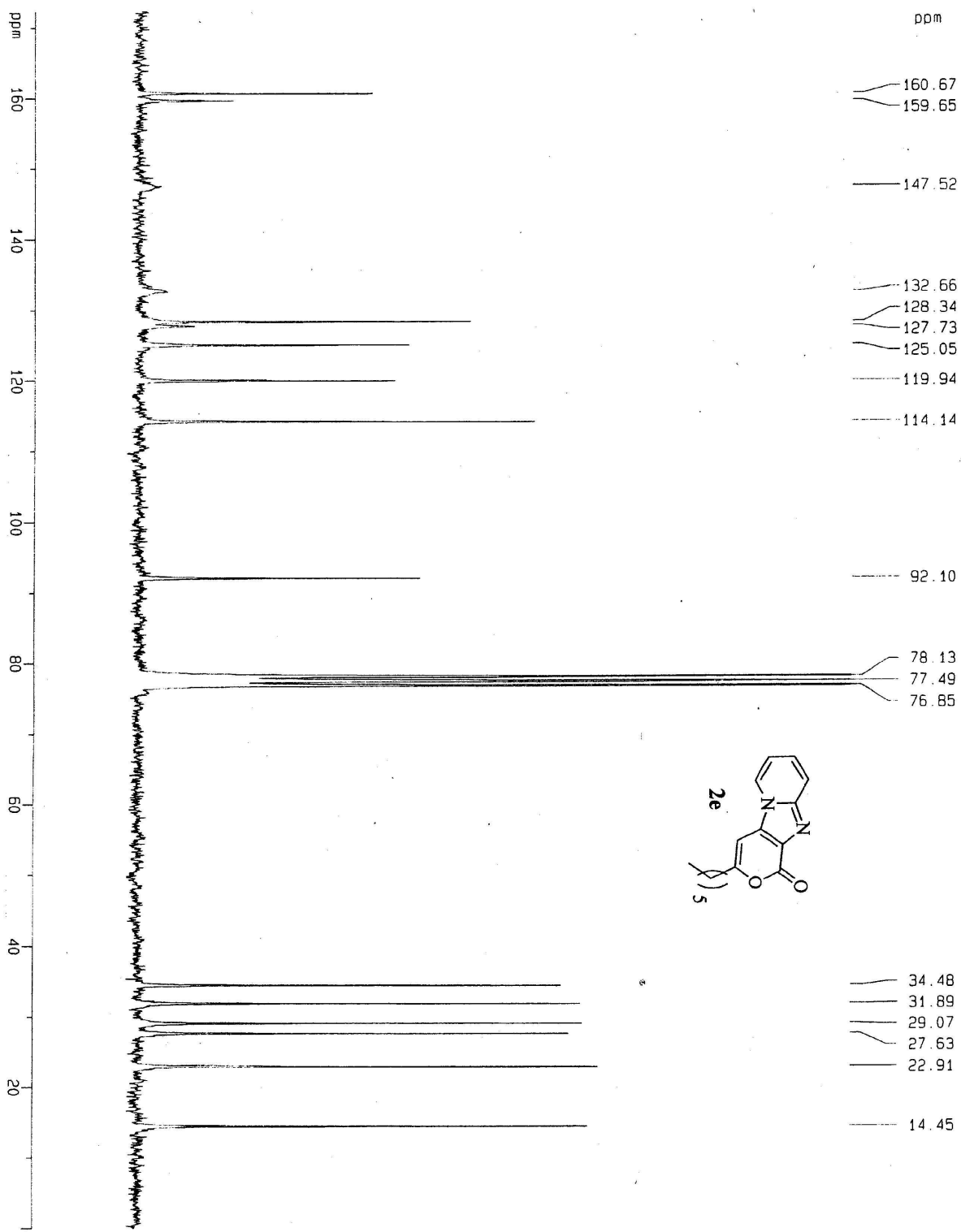
13 NMR D10L parameters
CX 23.00 cm
F1P 10.000 ppm
F1 2001.30 Hz
F2P -0.520 ppm
F2 -104.05 Hz
PPHM 0.45735 ppm
HZCM 81.53668 Hz

0.8965
1.3380
1.7191
1.7538
2.6218
2.6599
2.6967

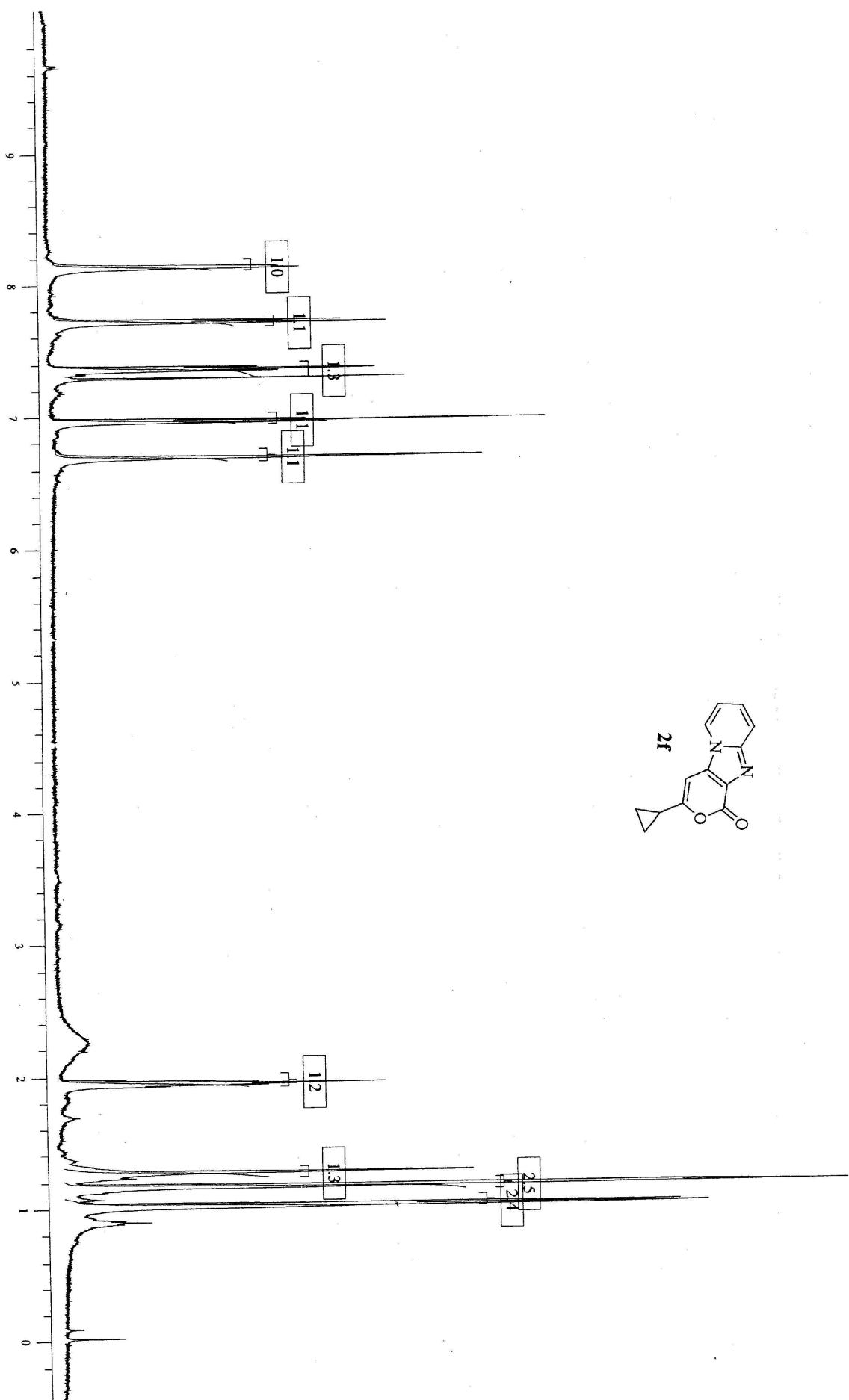
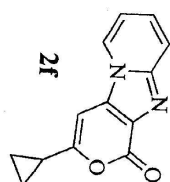
6.6166
6.9309
6.9642
6.9978
7.2708
7.3652
7.7081
7.7533
8.1152

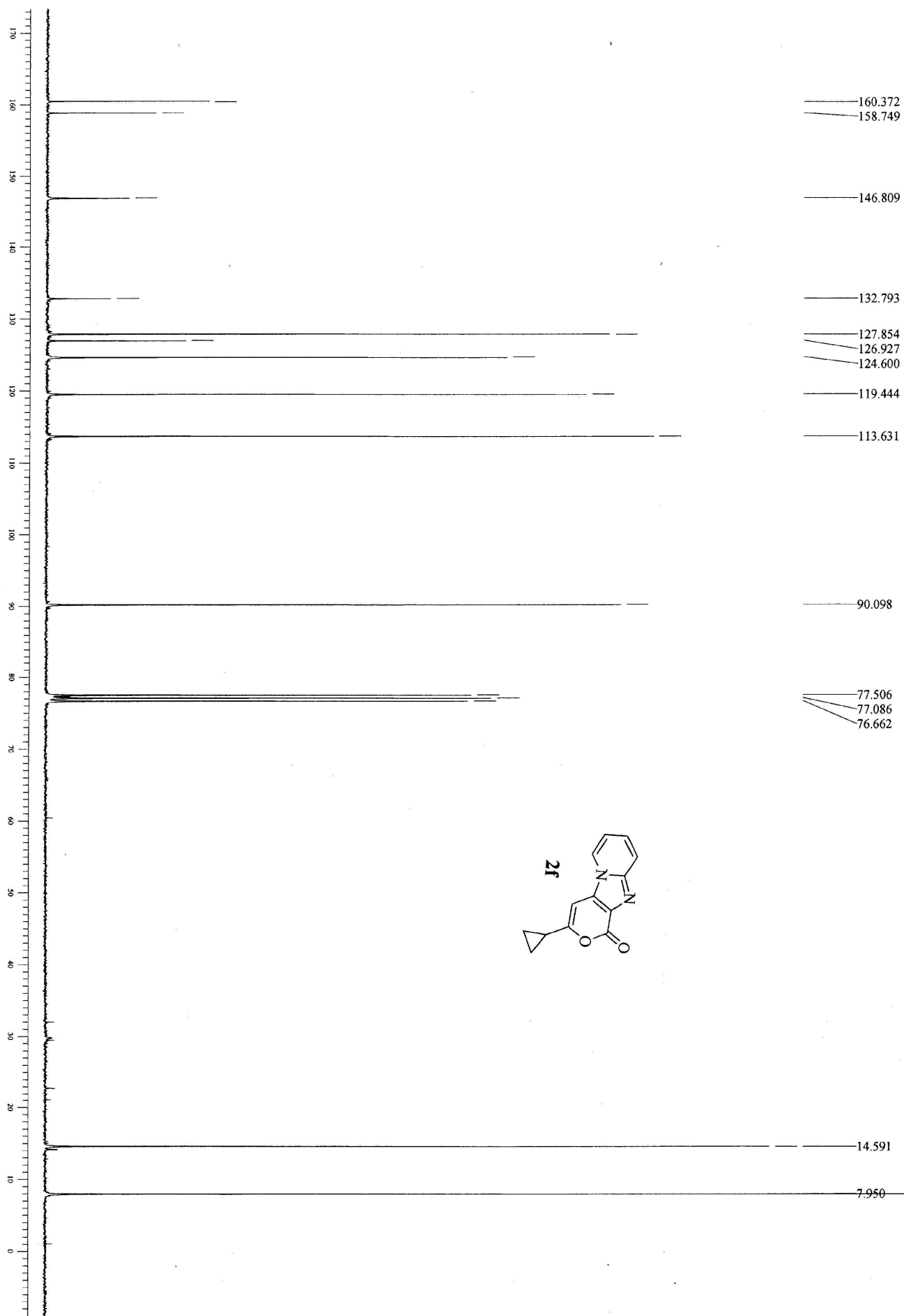


ppm

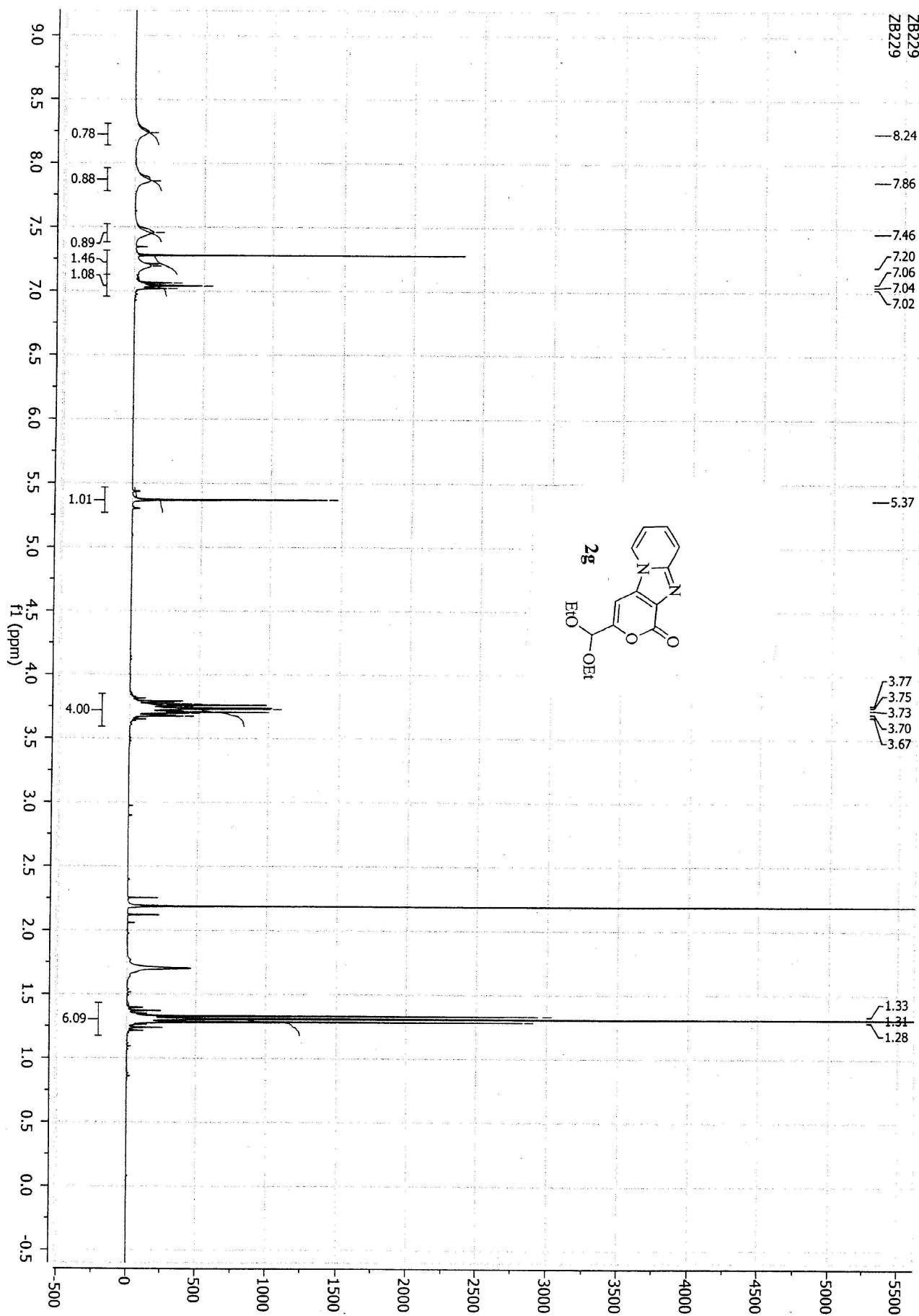


Current Data Parameters
 NAME bz-42-pur-cl3
 EXPNO 1
 PROCNO 1
 F2 - Acquisition Parameters
 Date_ 20080519
 Time 10.50
 INSTRUM spect
 P1 5 mm QNP 13
 PRBHD 20030
 QULPRD6 32768
 TQ 30.00
 SFO 125.628
 NS 0
 DS 0
 SWH 12562.84 Hz
 FIDRES 0.38387 Hz
 AQ 1.3042164 sec
 RG 2048
 CW 39.800 usec
 DE 8.00 usec
 TE 300.0 K
 O1 3.00000000 sec
 O11 0.03000000 sec
 O12 0.0002000 sec
 CHANNEL F1
 NUC1 13C
 P1 5.80 usec
 PL1 -6.00 dB
 SFO1 50.3282440 MHz
 CHANNEL F2
 CPDPRG2 waltz16
 NUC2 1H
 P2 105.00 usec
 PL2 -6.00 dB
 PL12 18.00 dB
 PL13 18.00 dB
 SFO2 200.1308005 MHz
 F2 - Processing parameters
 SI 32768
 SF 50.327090 MHz
 KW 0
 MSB 0
 EM 0
 L9 3.00 Hz
 G9 0
 PC 1.40
 1D NMR parameters
 CX 23.00 cm
 F1P 172.402 DPM
 F1 8675.71 Hz
 F2P 0.000 DPM
 F2 0.00 Hz
 PPMCM 7.45972 DPM/cm
 hZCM 377.20483 Hz/cm

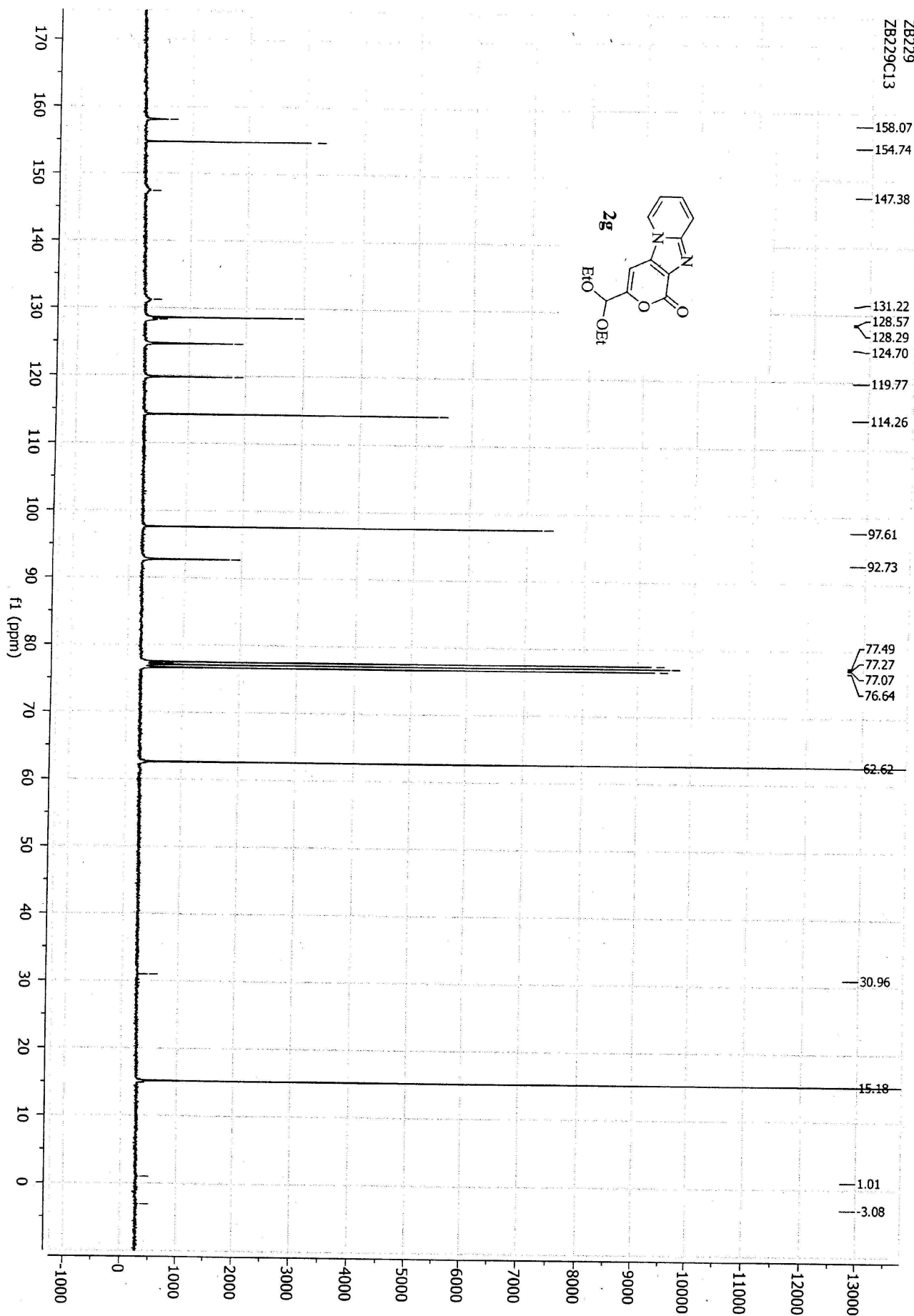
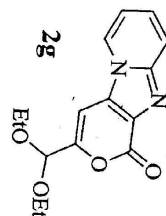




ZB229
ZB229



ZB229
ZB229C13



ppm

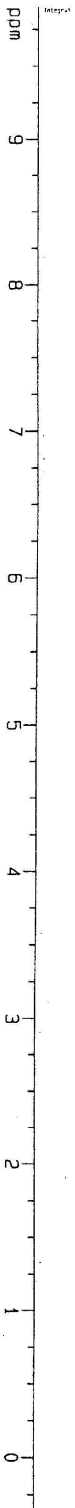
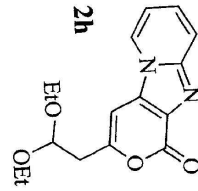
8.1403
8.1058
7.7754
7.7288
7.3850
7.2706
7.0181
6.9836
6.7554

4.9632

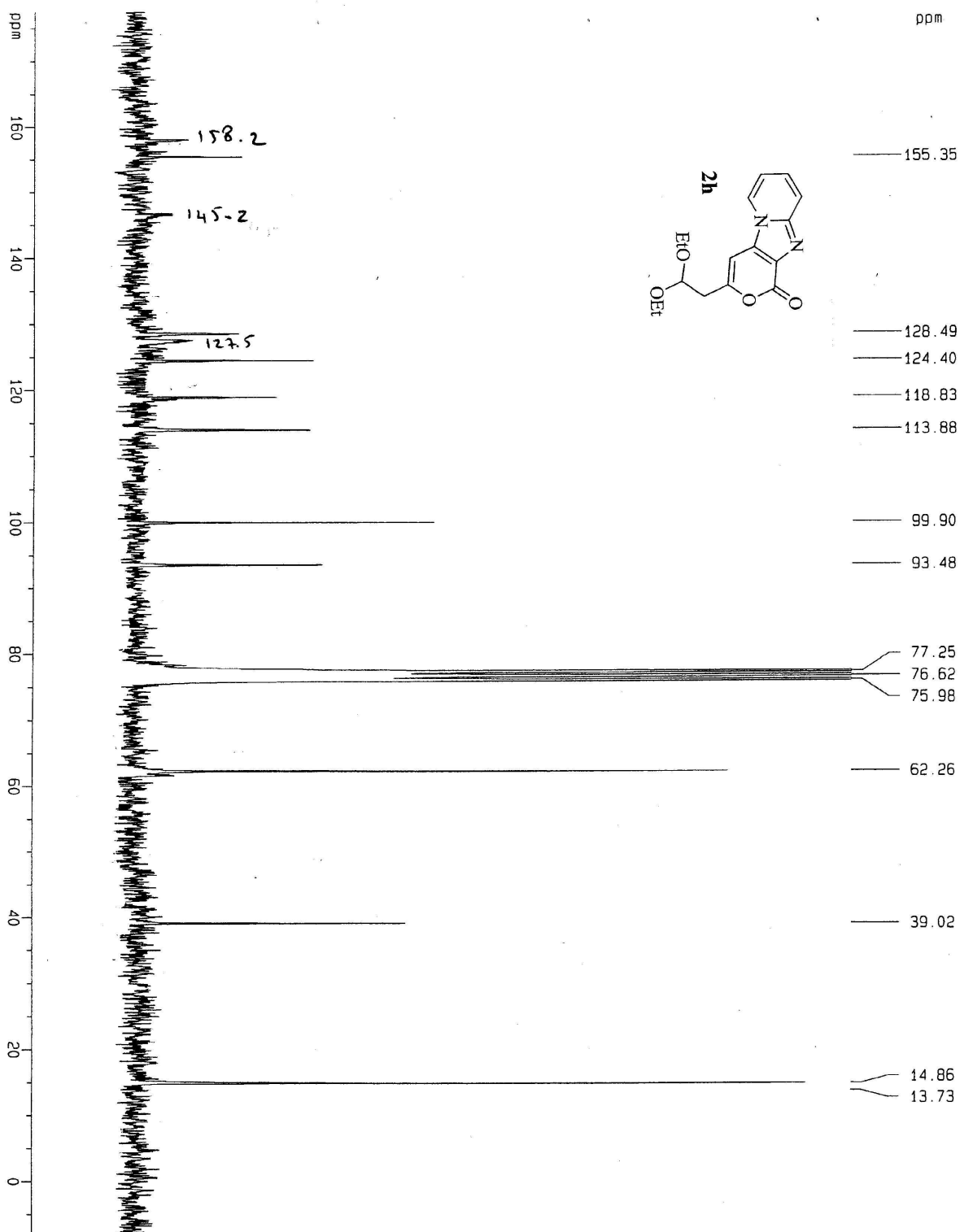
3.7797
3.7442
3.7329
3.6976
3.6623
3.6363
3.6012
3.5660
3.5547
3.5193
2.9894
2.9614

2.0506

1.2614
1.2328
1.1976
1.1624



Current Data Parameters
NAME b2-45-2-nur
EXPNO 1
PROCNO 1
F2 - Acquisition Parameters
Date_ 20060523
Time 13.41
INSTRUM spect
PROBHD 5 mm Dual 13
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 8
DS 0
SWH 2397.602 Hz
FIDRES 0.001448 Hz
AQ 5.467536 sec
RG 512
DM 166.800 use
DE 4.50 use
TE 300.0 K
D1 1.00000000 sec
===== CHANNEL f1 =====
NUC1 1H
P1 10.00 use
PL1 -6.00 dB
SFO1 200.1314009 MHz
F2 - Processing parameters
SI 32768
SF 200.1300062 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
1D NMR plot parameters
CX 512.00 cm
F1P 9.904 ppm
F1 1982.08 Hz
F2P -0.343 ppm
F2 -68.74 Hz
PPMCH 0.44554 ppm
HZCH 89.16617 Hz



Current Data Parameters

NAME	--2b-19-c13
EXPNO	1
PROCNO	1

F2 - Acquisition Parameters

Date_	20081004
Time	10.32
INSTRUM	5 mm Dual 13
PROBHD	5 mm Dual 13
PULPROG	zgpg30
TD	32768
SOLVENT	CDCl3
NS	1298
DS	0
SWH	12962.814 Hz
FIDRES	0.383387 Hz
AQ	1.3042164 sec
RG	2298.8
DM	39.800 usec
DE	8.00 usec
TE	300.0 K
D1	3.0000000 sec
D11	0.0300000 sec
D12	0.0000000 sec

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

NUC1	13C
PL1	5.80 usec
PL1	-6.00 dB
SFO1	50.3262440 MHz

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

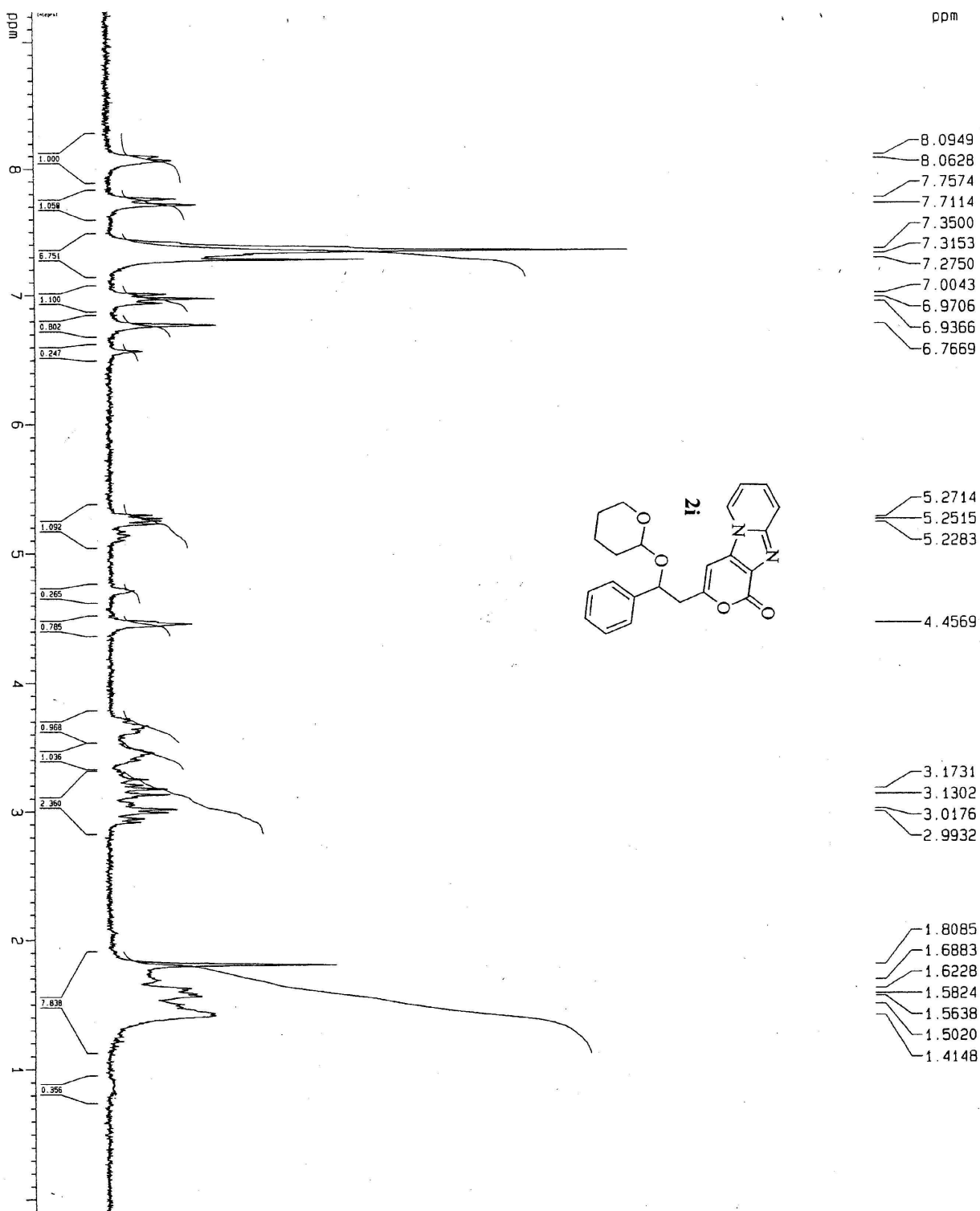
PROBHD	5 mm Dual 13
NUC2	1H
PCPD2	105.00 usec
PL2	-6.00 dB
PL12	18.00 dB
PL13	18.00 dB
SFO2	200.1308005 MHz

F2 - Processing parameters

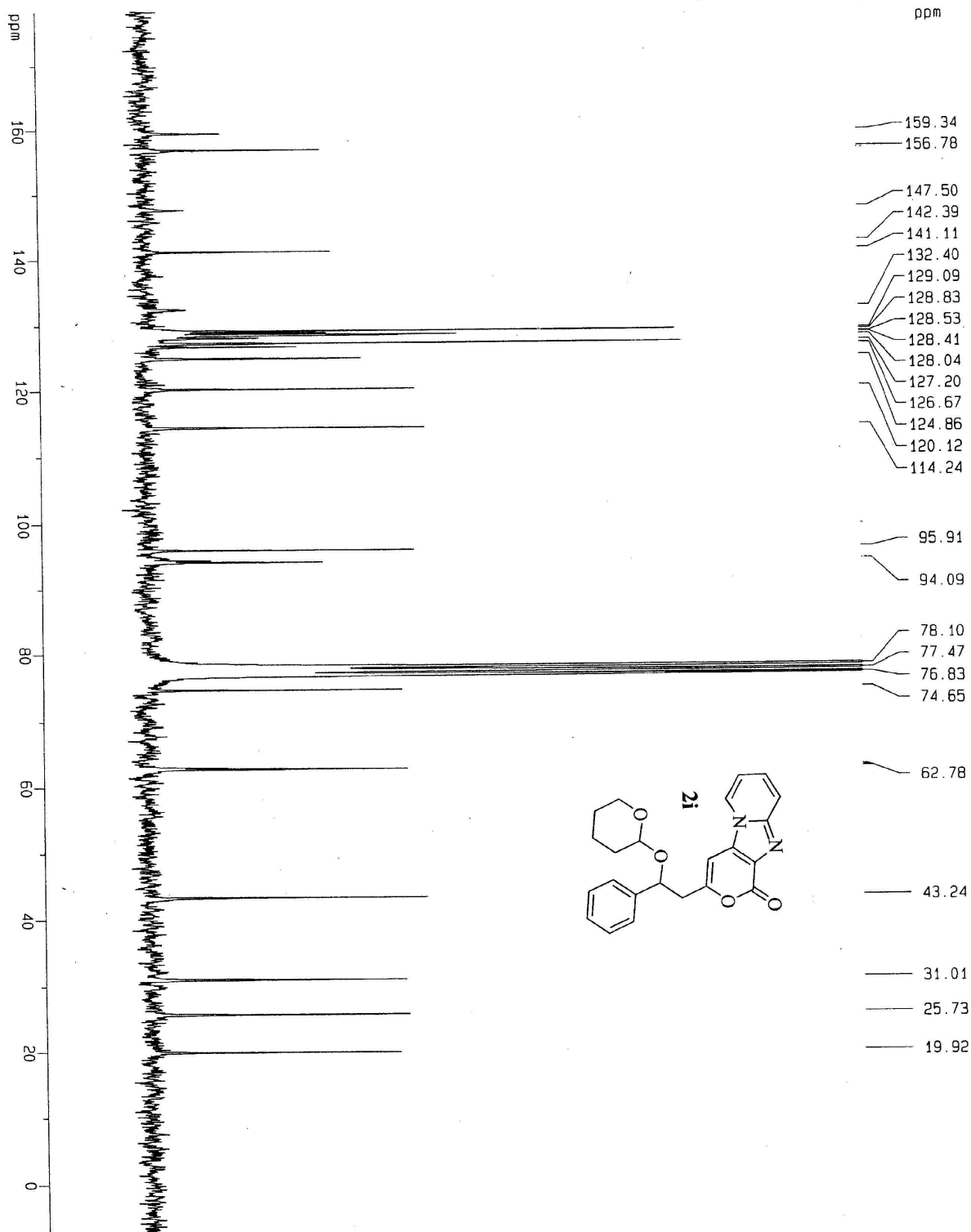
SF	50.32627513 MHz
WDW	EM
SSB	0
LB	3.00 Hz
GB	0
PC	1.60

10 NMR plot parameters

CX	23.00 cm
FLP	177.512 DPM
F1	8932.89 Hz
F2P	-7.523 DPM
F2	-388.69 Hz
PRNCH	8.06238 DPM/cm
H2CH	405.72089 Hz/cm



Current Data Parameters
 NAME 2i-097-CCS
 EXPNO 1
 PROCNO 1
 F2 - Acquisition Parameters
 Date_ 20081208
 Time 19:18
 INSTRUM spect
 PROBO 5 mm Dual 13
 PULPROG zg30
 TO 32768
 SOLVENT CDCl3
 NS 8
 DS 0
 SWH 2957.602 Hz
 FIDRES 0.091480 Hz
 AQ 5.455266 sec
 RG 6564.3
 DW 160.500 usec
 DE 1.500 usec
 TE 300.2 K
 VC 300.0 K
 D1 1.00000000 sec
 ===== CHANNEL f1 =====
 NUC1 13
 P1 10.00 usec
 PL1 -6.00 dB
 SFO1 200.1314009 MHz
 F2 - Processing parameters
 SI 32768
 SF 200.130053 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.40
 1D NMR Plot Parameters
 CX 23.00 cm
 F1P 9.428 Hz
 F1 104.65 Hz
 F2P -20.51 Hz
 F2 -20.51 Hz
 BRWCH 0.40612 Hz
 HZCH 81.27676 Hz



Current Data Parameters

NAME	20-97-c13
EXPNO	1
PROCNO	1

F2 - Acquisition Parameters

Date_	20081209
Time	9.50
INSTRUM	spect
PROBHD	5 mm QNP 13
PULPROG	zgpg30
TD	32768
SOLVENT	CDCl3
NS	12033
DS	0
SWH	12562.914 Hz
FIDRES	0.38397 Hz
AQ	1.30442164 sec
RG	3648.1
DM	39.600 usec
DE	8.00 usec
TE	300.2 K
D1	3.0000000 sec
D11	0.0200000 sec
D12	0.0002000 sec

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

NUC1	¹³ C
P1	5.00 usec
PL1	-6.00 dB
SFO1	50.3282440 MHz

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

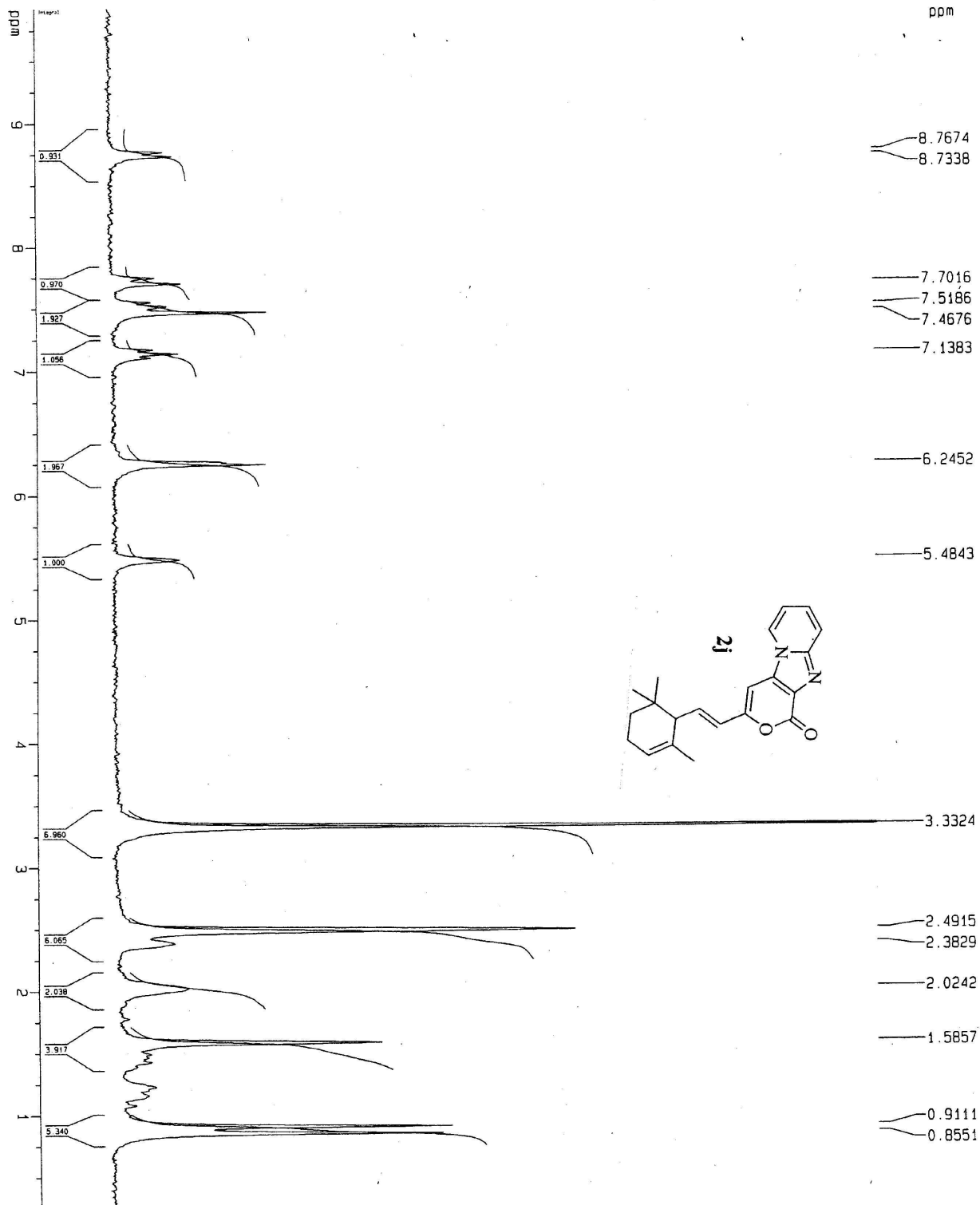
CPDPRG2	waltz16
NUC2	¹ H
PCPD2	105.00 usec
PL2	-6.00 dB
PL12	19.00 dB
PL13	19.00 dB
SFO2	200.1308005 MHz

F2 - Processing parameters

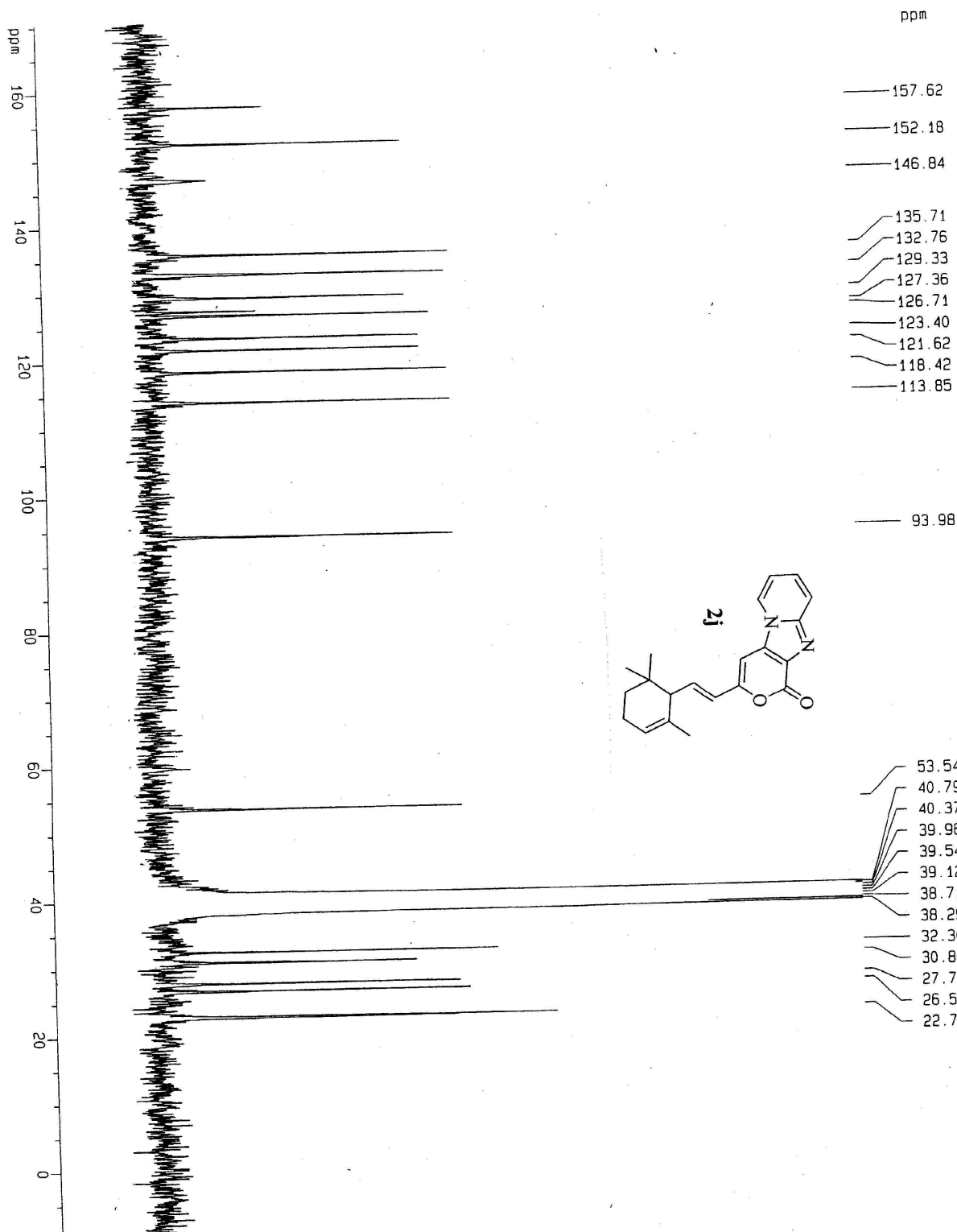
SI	32768
SF	50.3282440 MHz
WDW	EM
SSB	0
LB	3.00 Hz
GB	0
PC	1.40

1D NMR plot parameters

CX	23.00 cm
F1P	178.356 ppm
F1	8973.84 Hz
F2P	-7.117 ppm
F2	-356.14 Hz
PPMCH	8.06273 ppm/cm
HZCM	405.73825 Hz/cm



Current Data Parameters
 NAME 2j-86-CCS
 EXPNO 1
 PROCNO 1
 F2 - Acquisition Parameters
 Date_ 20081110
 Time 15.12
 INSTRUM spect
 PROBO 5 mm Dual 13
 PULPROG zgpg30
 TO 32768
 SOLVENT DMSO
 NS 8
 DS 0
 SHW 2897.832 Hz
 FIDRES 0.091480 Hz
 AQ 5.4657265 sec
 RG 18390.4
 DB 165.800 usef
 DE 4.50 usef
 TE 300.0 K
 D1 1.00000000 sec
 ===== CHANNEL f1 =====
 NUC1 1H
 P1 10.00 usef
 PL1 -6.00 dB
 SFO1 200.1314009 MHz
 F2 - Processing parameters
 SI 32768
 SF 200.1300062 MHz
 KW 64
 SSB 0
 EB 0
 LB 1.00 Hz
 GB 0
 PC 1.40
 ID NMR plot parameters
 CX 23.00 cm
 F1P 9.929 DPM
 F1 1986.99 Hz
 F2P 0.274 DPM
 F2 54.77 Hz
 PUNCH 0.41978 DPM
 HZCN 84.00996 Hz/



Current Data Parameters

NAME	2b-63-2-c13
EXPNO	1
PROCNO	1

F2 - Acquisition Parameters

Date_	20081110
Time	11:21
INSTRUM	300K
PROBHD	5 mm BBO-13
PULPROG	zgpg30
TD	32768
SF	125.62
WDW	EM
SSB	0
DS	0
SC	12562.814
SH	0.383387
FIDRES	1.3042164
AQ	1.3042164
RG	2298.8
DW	33.800
DE	8.00
TE	300.0
D1	3.00000000
D11	0.03000000
D12	0.00020000

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

NUC1	13C
P1	5.00
PL1	-6.00
SC1	50.3282440

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

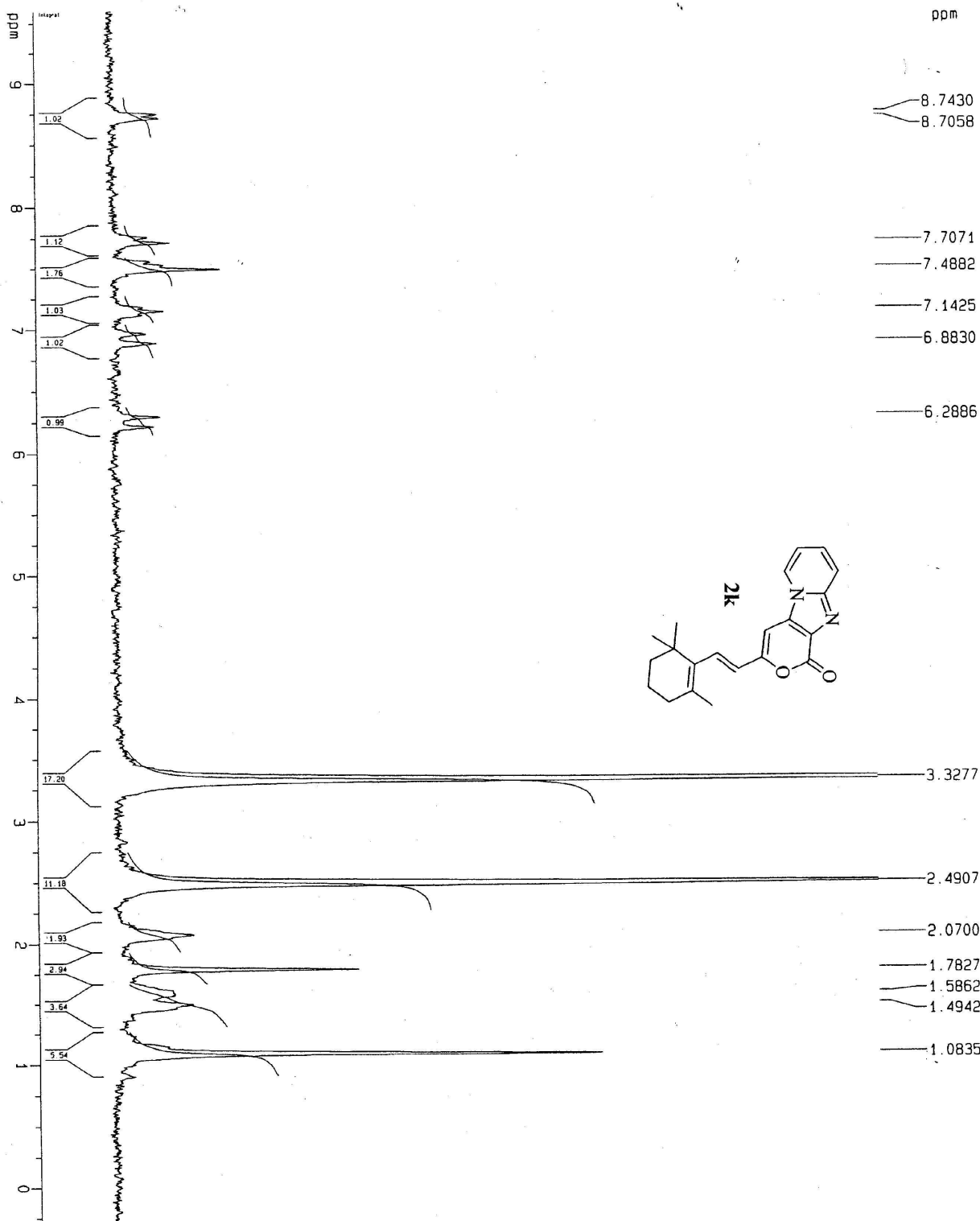
CPDPRG2	waltz16
NUC2 <td>1H</td>	1H
PCPD2 <td>105.00</td>	105.00
PL2 <td>-5.00</td>	-5.00
PL12 <td>18.00</td>	18.00
PL13 <td>18.00</td>	18.00
SF02 <td>200.1308005</td>	200.1308005

F2 - Processing parameters

SI	32768
SF <td>50.327513</td>	50.327513
WDW <td>EM</td>	EM
SSB <td>0</td>	0
LB <td>3.00</td>	3.00
GB <td>0</td>	0
PC <td>1.60</td>	1.60

10 NMR plot parameters

CV	23.00
F1P <td>170.348</td>	170.348
F1 <td>8572.37</td>	8572.37
F2P <td>-9.284</td>	-9.284
F2 <td>-467.20</td>	-467.20
PPMCM <td>7.81008</td>	7.81008
HZCM <td>393.02472</td>	393.02472



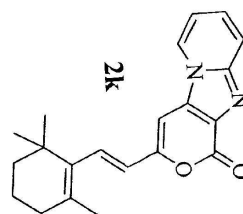
Current Data Parameters
NAME 2b-30-ccs
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20081110
Time 13.15
INSTRUM spect
PROBHD 5 mm Dual 13
PULPROG zgpg30
TD 32768
SOLVENT DMSO
NS 8
DS 0
SWH 2807.602 Hz
FIDRES 0.163140 Hz
AQ 5.1457326 sec
RG 18390.4
DM 166.800 use
DE 4.50 use
TE 300.0 K
D1 1.00000000 sec

===== CHANNEL f1 =====
NUC1 1H
P1 10.00 use
PL1 -6.00 dB
SFO1 200.131409 MHz

F2 - Processing parameters
SI 32768
SF 200.130062 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

1D NMR Plot Parameters
CX 23.00 cm
FIP 9.598 ppm
F1 13920.82 Hz
F2p -0.272 ppm
F2 -54.42 Hz
PNUC1 65.88004 Hz
HZCM



158.558
158.520
154.229
158.437
158.304
152.900

136.875
133.370
132.758
128.137
124.791
123.372
119.705
113.945

92.273

39.650

34.282
33.353

28.928

21.826

19.056

