NMR Spectra of Key Compounds

Platinum Catalyzed Aromatization of enediynes via a C-H Bond Insertion of Tethered Alkanes.

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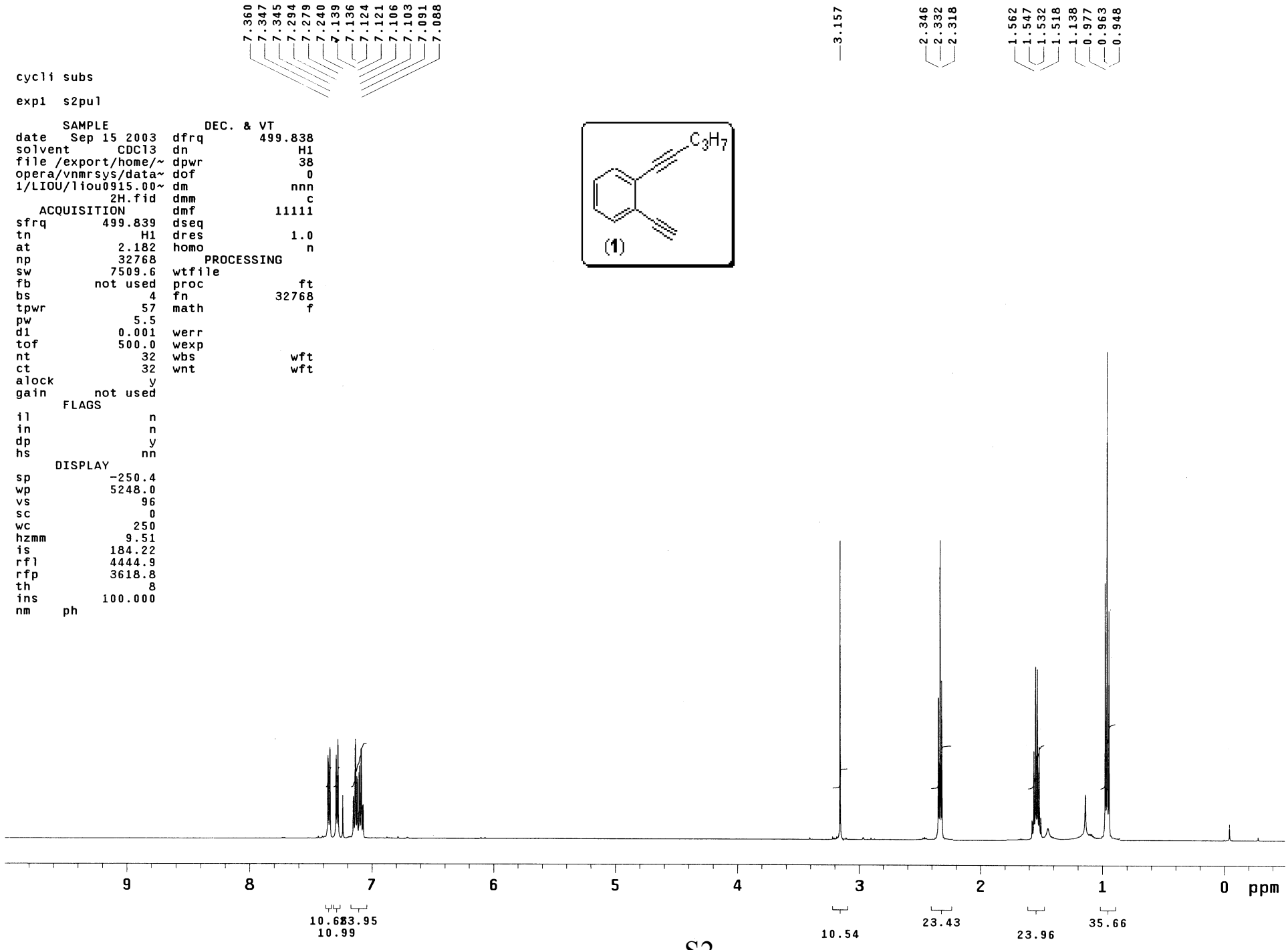
Contents:

(I) ^{1}H and ^{13}C NMR Spectra of the compounds **1-57** ---------- S2-S121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7.106
7.103
7.091
7.088
3.157
2.346
2.332
2.318
1.562
1.547
1.532
1.518
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0.963
0.948
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gain not used
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dseq
dres 1.0
homo n
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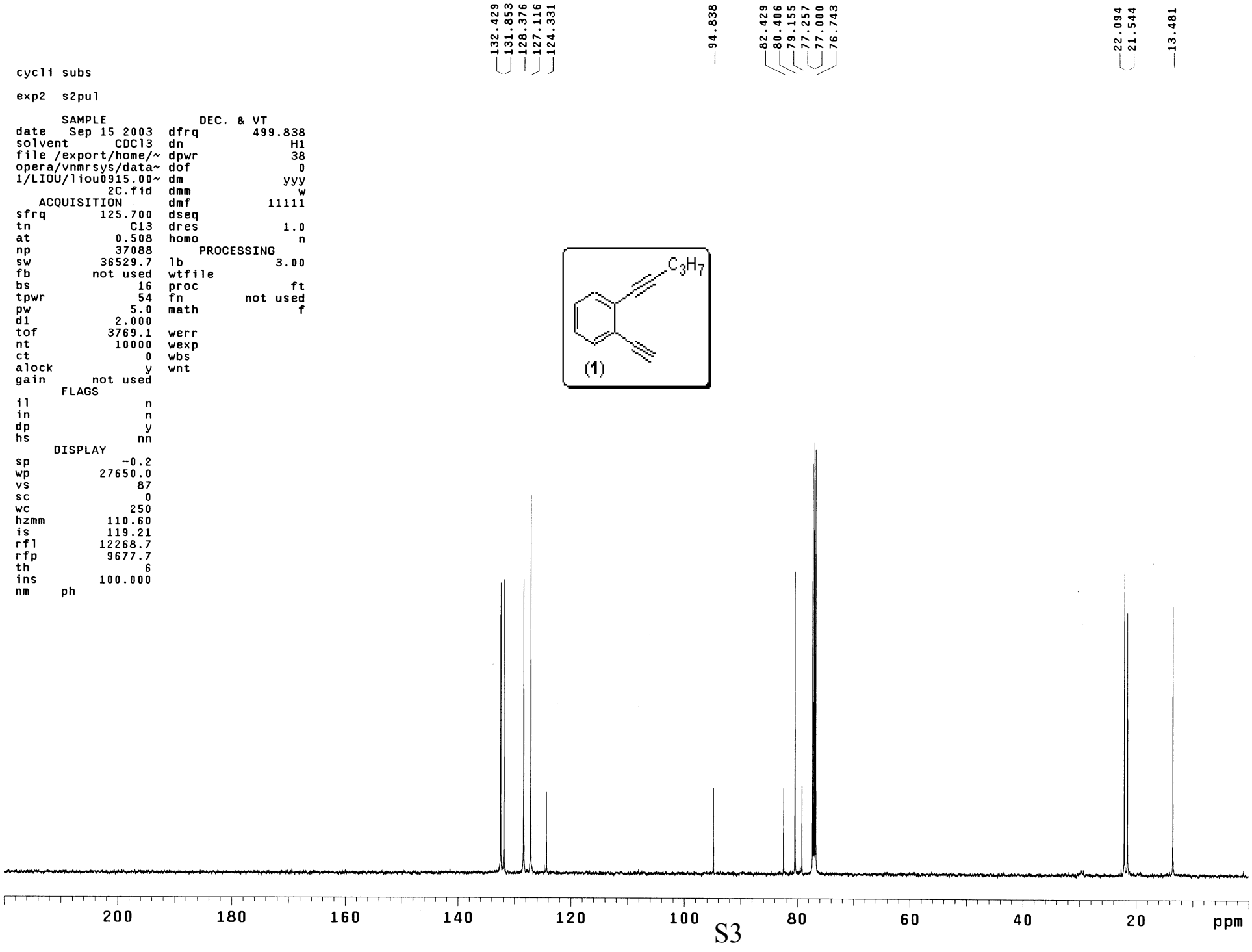
math f
werr
wexp
wbs wft
wnt wft
C3H7
(1)
9
8
7
6
5
4
3
2
1
0 ppm
10.66
10.99
3.95
10.54
23.43
23.96
35.66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21.544
13.481
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tof 3769.1
nt 10000
ct 0
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gain not used
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in n
dp y
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homo n
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math f
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wnt
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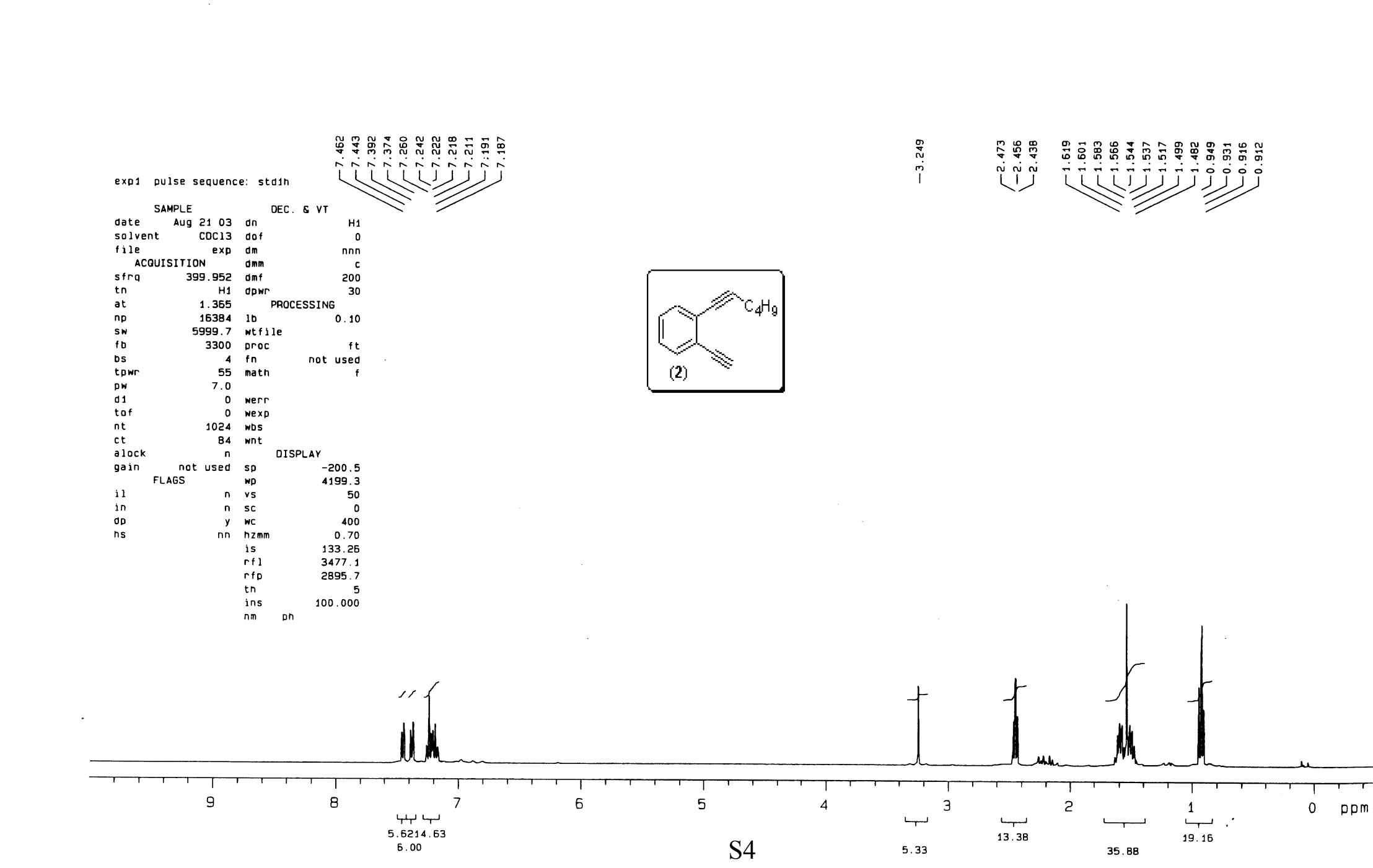
80
60
40
20
ppm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7.218
7.211
7.191
7.187
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2.456
2.438
1.619
1.601
1.583
1.566
1.544
1.537
1.517
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1.482
0.949
0.931
0.916
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tof 0
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gain not used
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in n
dp y
hs nn
DEC. & VT
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dm nnn
dmm c
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wbs
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rfp 2895.7
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C4H9
(2)
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8
7
6
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2
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13.38
35.88
19.16

cyclisub1

exp2 std13c

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tn	C13	dmm	w
at	0.635	dmf	11100
np	32000	PROCESSING	
sw	25188.9	lb	3.00
fb	13800	wtfile	
bs	4	proc	ft
tpwr	59	fn	not used
pw	6.5		
d1	2.000	werr	
tof	2000.0	wexp	
nt	10000	wbs	wft
ct	384	wnt	
alock	n		
gain	not used		
FLAGS			
il	n		
in	n		
dp	y		
DISPLAY			
sp	-0.1		
wp	20138.2		
vs	40		
sc	0		
wc	250		
hzmm	80.56		
is	500.00		
rfl	8846.8		
rfp	7753.5		
th	4		
ins	100.000		
nm no ph			

132.441
131.846
128.395
127.112
124.364
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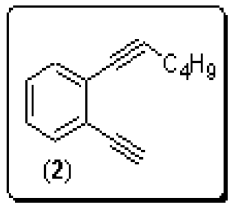
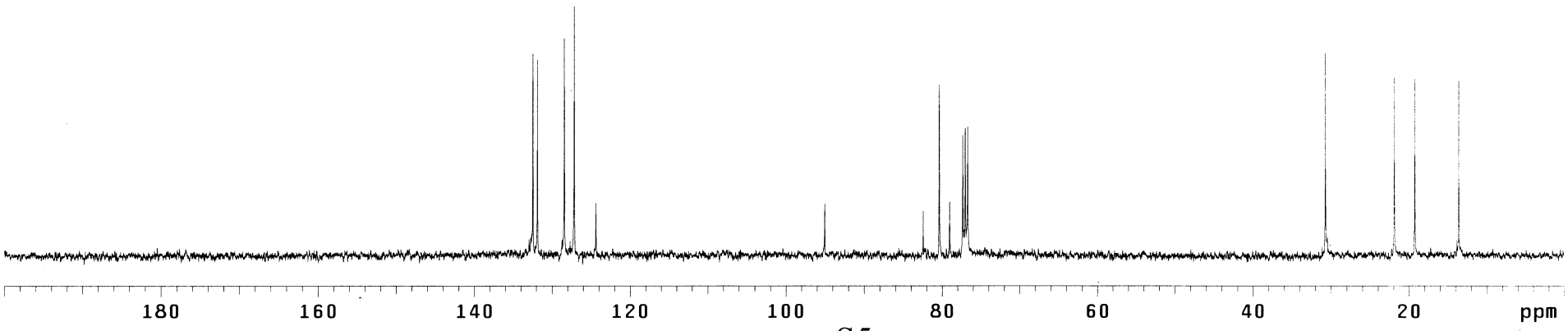


(2)



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file	exp
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at	2.664
np	32016
sw	6009.6
fb	3400
bs	4
tpwr	59
pw	6.0
d1	1.000
tof	500.0
nt	100
ct	0
alock	n
gain	not used
FLAGS	
il	n
in	n
dp	y
DISPLAY	
sp	-200.3
wp	4204.5
vs	60
sc	0
wc	250
hzmm	1.15
is	51.20
rfl	518.0
rfp	0
th	4
ins	100.000
nm	ph

DEC. & VT	
dfrq	400.460
dn	H1
dpwr	43
dof	0
dm	nnn
dmm	c
dmf	11100
PROCESSING	
lb	0.10
wtfile	
proc	ft
fn	not used
werr	
wexp	
wbs	wft aph
wnt	

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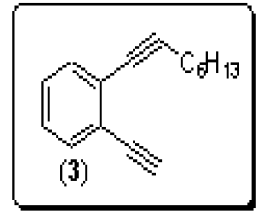
3.256 2.470 2.454 2.436 1.651 1.633 1.616 1.596 1.578 1.522 1.505 1.488 1.467 1.450 1.325 1.318 1.308 1.298 1.289 1.267 0.910 0.893 0.883 0.876



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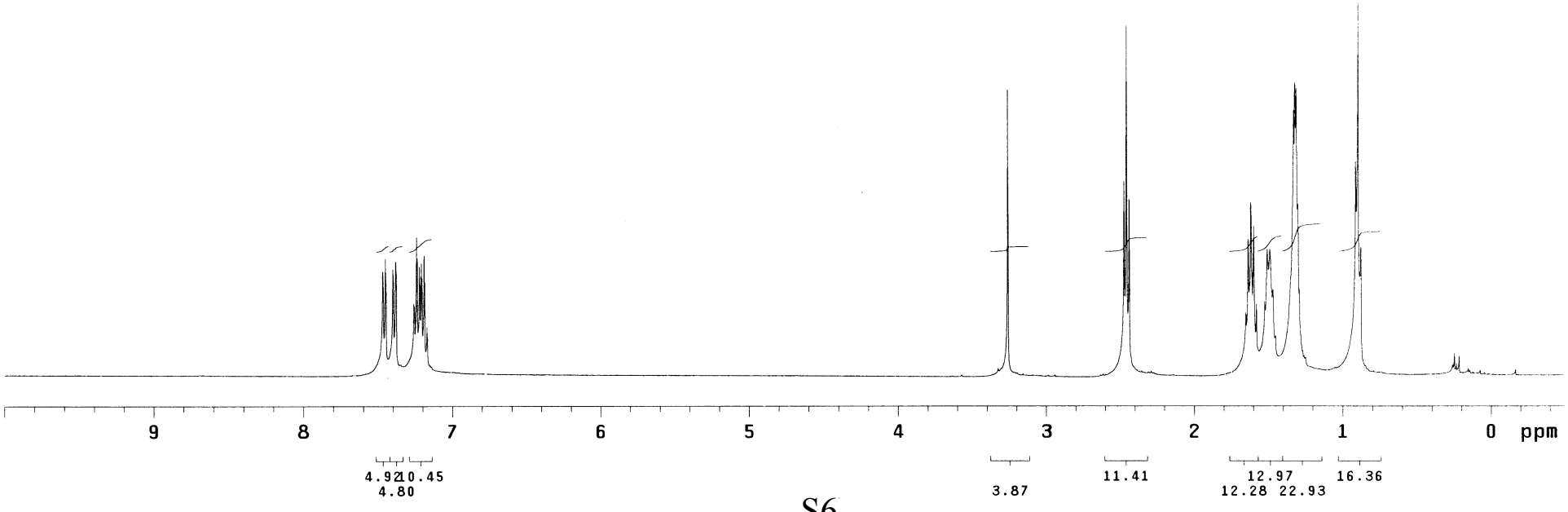

cyclisub2

exp2 std13c

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solvent	CDCl3	dn	H1
file	exp	dpwr	43
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sfrq	100.707	dm	yyy
tn	C13	dmm	w
at	0.635	dmf	11100
np	32000	PROCESSING	
sw	25188.9	lb	3.00
fb	13800	wtfile	
bs	4	proc	ft
tpwr	59	fn	not used
pw	6.5		
d1	2.000	werr	
tof	2000.0	wexp	
nt	20000	wbs	wft
ct	0	wnt	
alock	n		
gain	not used		
FLAGS			
il	n		
in	n		
dp	y		
DISPLAY			
sp	-0.1		
wp	22152.3		
vs	40		
sc	0		
wc	250		
hzmm	6.40		
is	500.00		
rfl	8848.3		
rfp	7753.5		
th	6		
ins	100.000		
nm no ph			

132.441
131.846
128.364
127.082
124.364
95.048
82.466
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79.046
77.321
77.000
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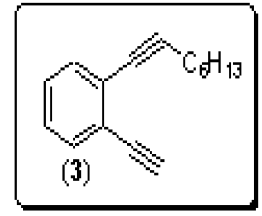

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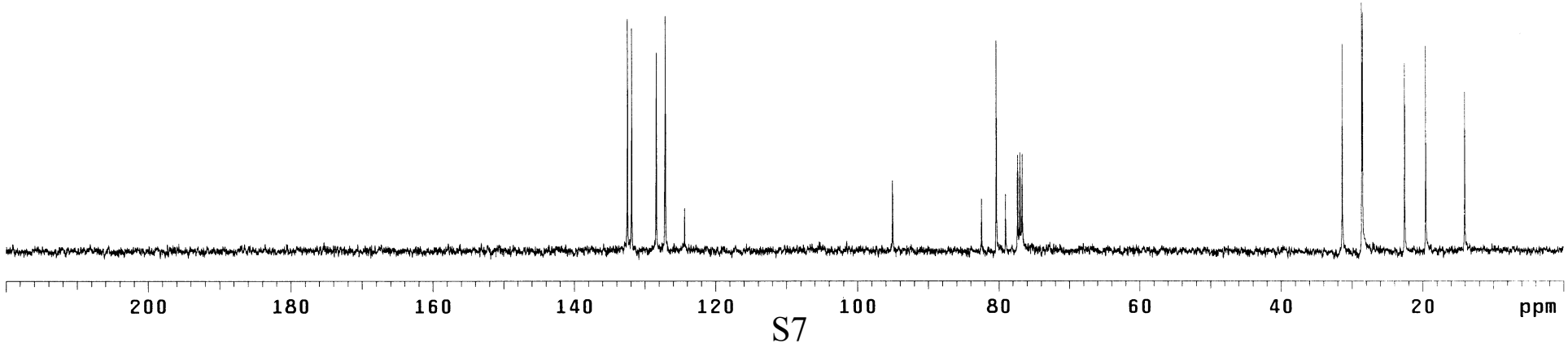

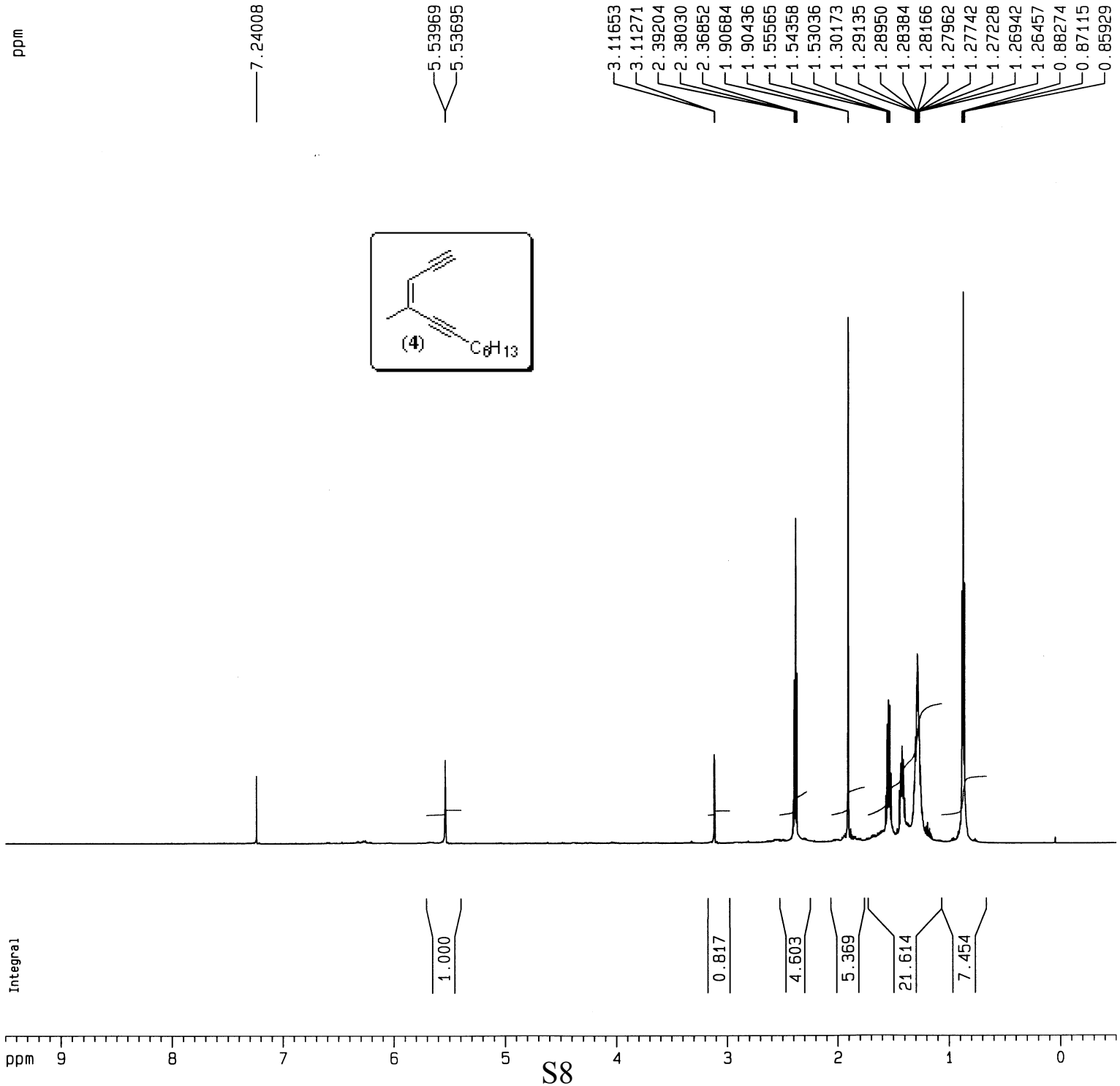

Current Data Parameters
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PROCNO 1

F2 - Acquisition Parameters
Date_ 20031023
Time 9.26
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zg
TD 32768
SOLVENT CDCl3
NS 16
DS 0
SWH 8389.262 Hz
FIDRES 0.256020 Hz
AQ 1.9530228 sec
RG 256
DW 59.600 usec
DE 6.50 usec
TE 0.0 K
D1 2.00000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 1H
P1 13.00 usec
PL1 -2.00 dB
SFO1 599.8029990 MHz

F2 - Processing parameters
SI 32768
SF 599.8000282 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 1.00

1D NMR plot parameters
CX 20.00 cm
CY 10.00 cm
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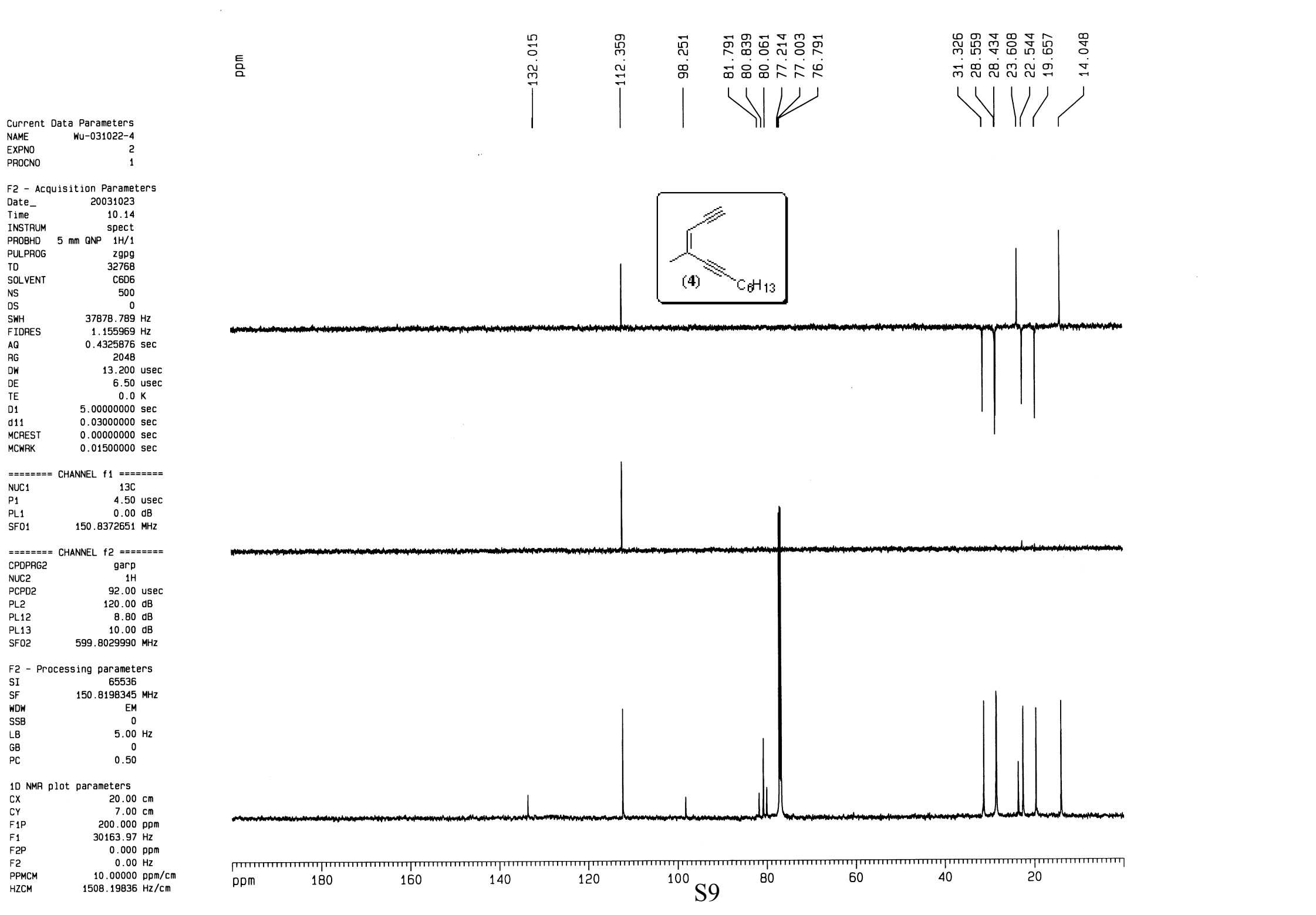
F1 5698.10 Hz
F2P -0.500 ppm
F2 -299.90 Hz
PPMCM 0.50000 ppm/cm
HZCM 299.90002 Hz/cm



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EXPNO 2
PROCNO 1

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PULPROG zgpg
TD 32768
SOLVENT C6D6
NS 500
DS 0
SWH 37878.789 Hz
FIDRES 1.155969 Hz
AQ 0.4325876 sec
RG 2048
DW 13.200 usec
DE 6.50 usec
TE 0.0 K
D1 5.00000000 sec
d11 0.03000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 13C
P1 4.50 usec
PL1 0.00 dB
SFO1 150.8372651 MHz

======== CHANNEL f2 ========
CPDPRG2 garp
NUC2 1H
PCPD2 92.00 usec
PL2 120.00 dB
PL12 8.80 dB
PL13 10.00 dB
SFO2 599.8029990 MHz

F2 - Processing parameters
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LB 5.00 Hz
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1D NMR plot parameters
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F2 0.00 Hz
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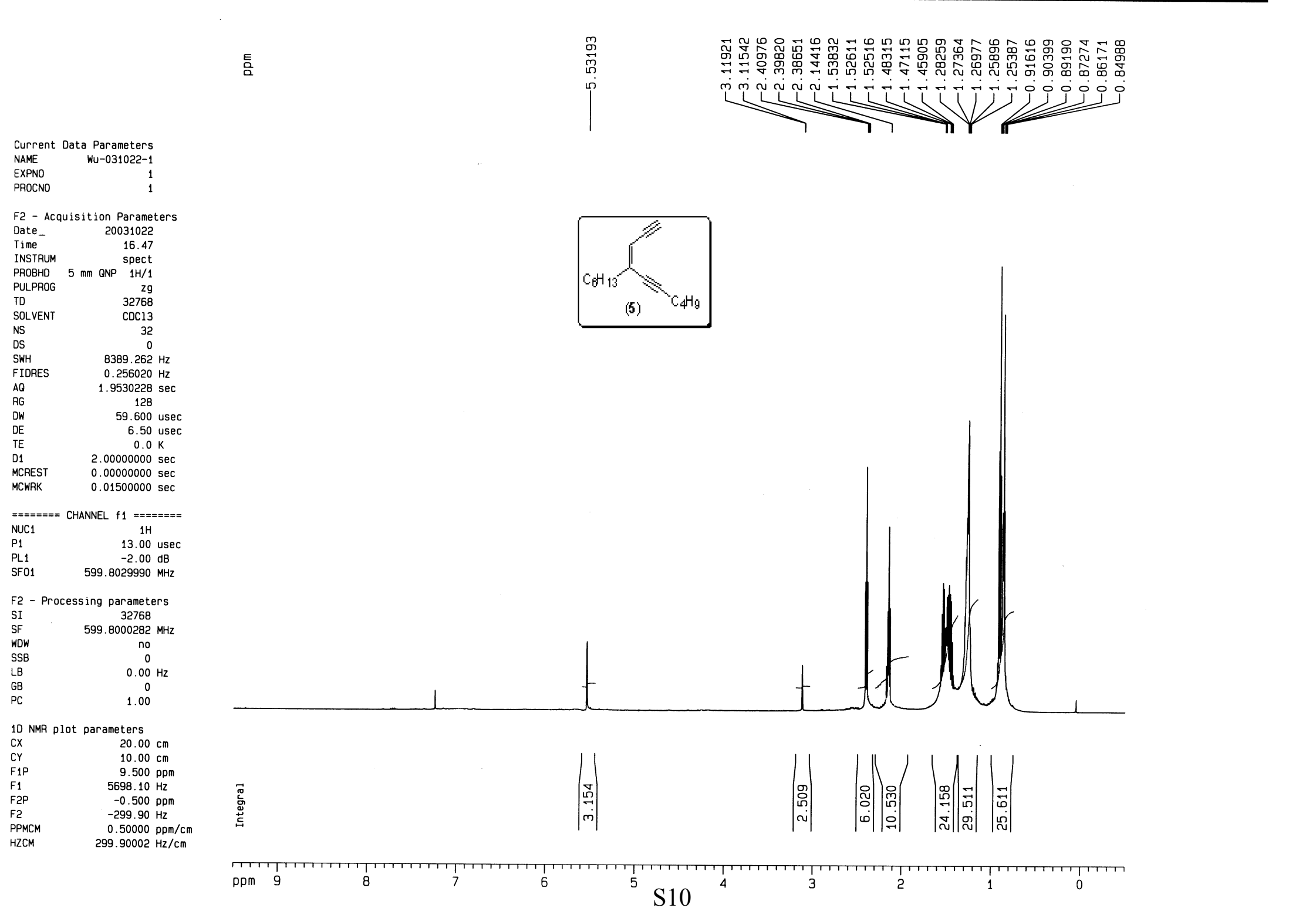

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PULPROG zg
TD 32768
SOLVENT CDCl3
NS 32
DS 0
SWH 8389.262 Hz
FIDRES 0.256020 Hz
AQ 1.9530228 sec
RG 128
DW 59.600 usec
DE 6.50 usec
TE 0.0 K
D1 2.00000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
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P1 13.00 usec
PL1 -2.00 dB
SFO1 599.8029990 MHz

F2 - Processing parameters
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SF 599.8000282 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 1.00

1D NMR plot parameters
CX 20.00 cm
CY 10.00 cm
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F1 5698.10 Hz
F2P -0.500 ppm
F2 -299.90 Hz
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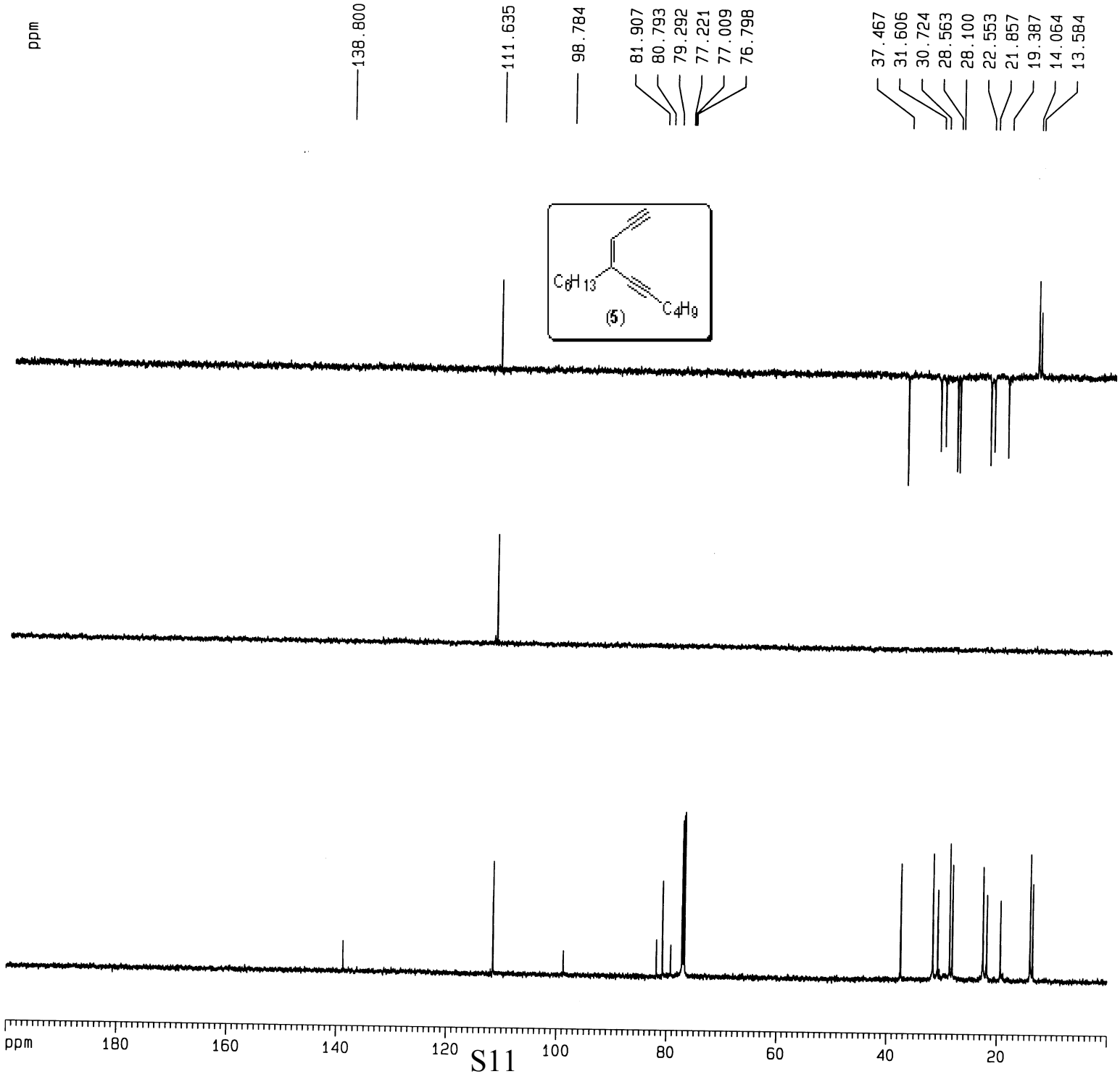
HZCM 299.90002 Hz/cm



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PROCNO 1

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TD 32768
SOLVENT C6D6
NS 300
DS 0
SWH 37878.789 Hz
FIDRES 1.155969 Hz
AQ 0.4325876 sec
RG 2048
DW 13.200 usec
DE 6.50 usec
TE 0.0 K
D1 3.50000000 sec
d11 0.03000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 13C
P1 4.50 usec
PL1 0.00 dB
SFO1 150.8372651 MHz

======== CHANNEL f2 ========
CPDPRG2 garp
NUC2 1H
PCPD2 92.00 usec
PL2 120.00 dB
PL12 8.80 dB
PL13 10.00 dB
SFO2 599.8029990 MHz

F2 - Processing parameters
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SF 150.8198317 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
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1D NMR plot parameters
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CY 3.00 cm
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F2 0.00 Hz
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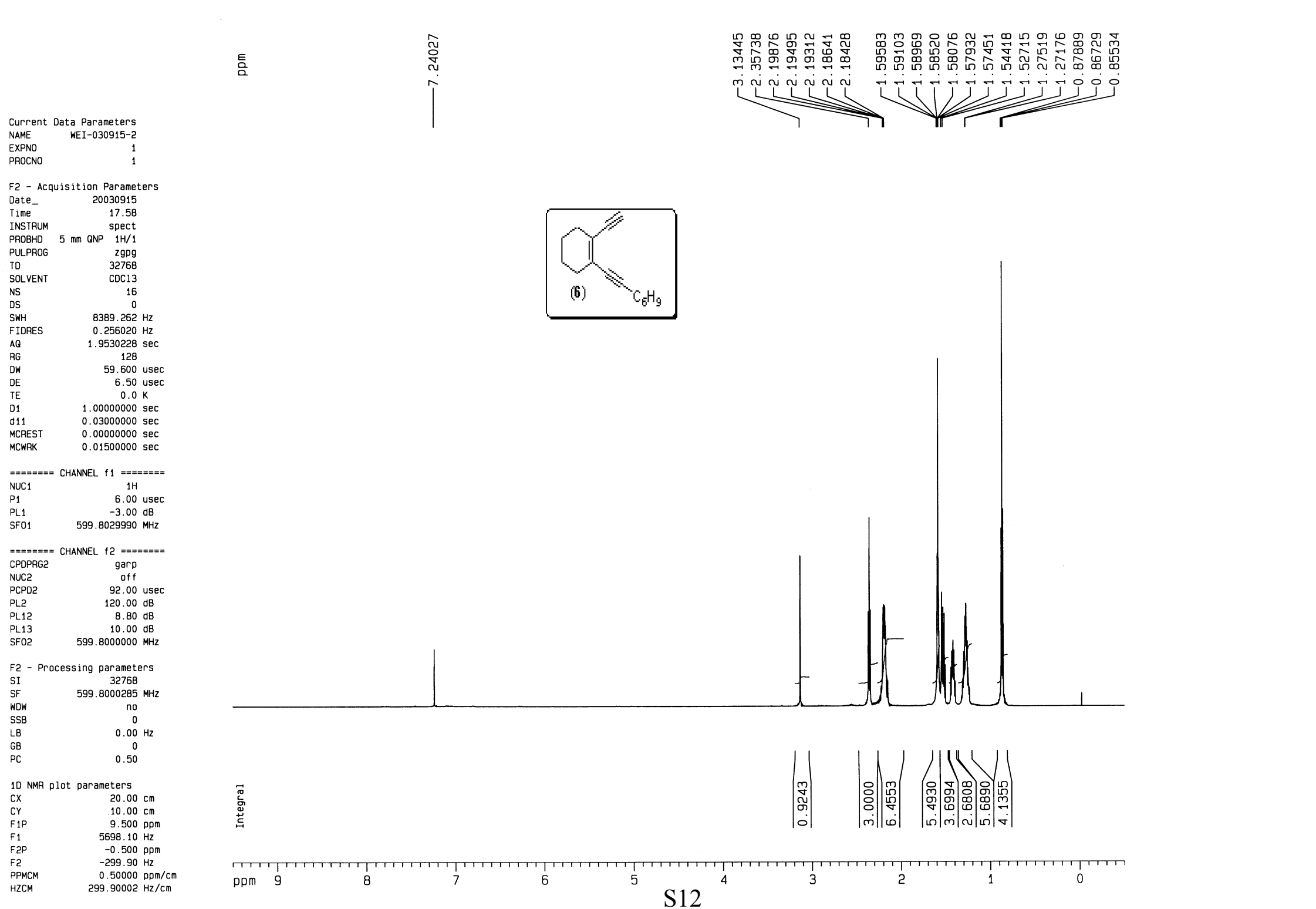
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PULPROG zgpg
TD 32768
SOLVENT CDCl3
NS 16
DS 0
SWH 8389.262 Hz
FIDRES 0.256020 Hz
AQ 1.9530228 sec
RG 128
DW 59.600 usec
DE 6.50 usec
TE 0.0 K
D1 1.00000000 sec
d11 0.03000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec
======== CHANNEL f1 ========
NUC1 1H
P1 6.00 usec
PL1 -3.00 dB
SFO1 599.8029990 MHz
======== CHANNEL f2 ========
CPDPRG2 garp
NUC2 off
PCPD2 92.00 usec
PL2 120.00 dB
PL12 8.80 dB
PL13 10.00 dB
SFO2 599.8000000 MHz
F2 - Processing parameters
SI 32768
SF 599.8000285 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 0.50
1D NMR plot parameters
CX 20.00 cm
CY 10.00 cm
F1P 9.500 ppm
F1 5698.10 Hz
F2P -0.500 ppm
F2 -299.90 Hz
PPMCM 0.50000 ppm/cm
HZCM 299.90002 Hz/cm
ppm
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3.13445
2.35738
2.19876
2.19495
2.19312
2.18641
2.18428
1.59583
1.59103
1.58969
1.58520
1.58076
1.57932
1.57451
1.54418
1.52715
1.27519
1.27176
0.87889
0.86729
0.85534
(6)
C6H9
Integral
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7
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4
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2
1
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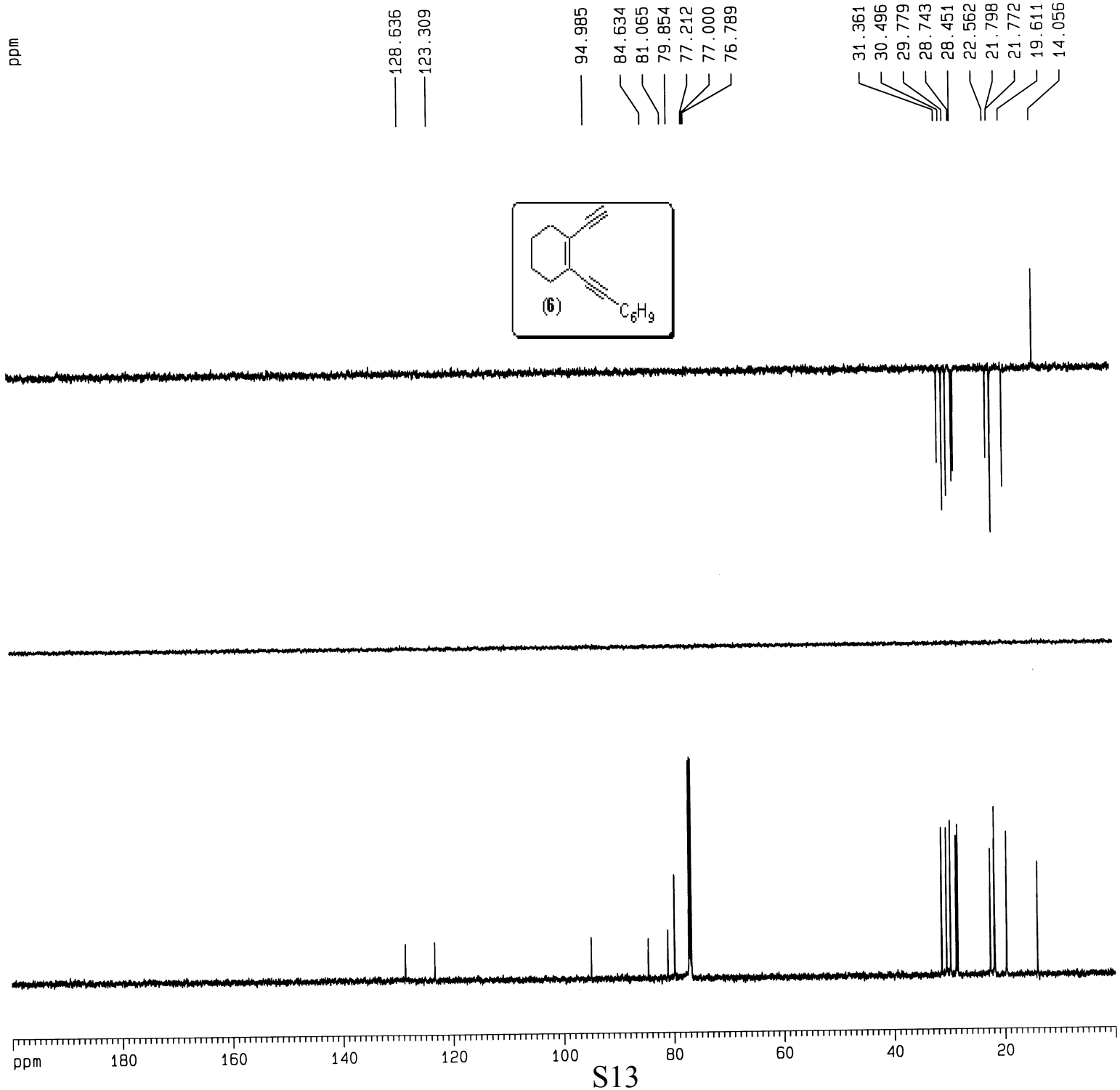

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PROCNO 1

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PULPROG zgpg
TD 32768
SOLVENT C6D6
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DS 0
SWH 37878.789 Hz
FIDRES 1.155969 Hz
AQ 0.4325876 sec
RG 2048
DW 13.200 usec
DE 6.50 usec
TE 0.0 K
D1 5.00000000 sec
d11 0.03000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 13C
P1 4.50 usec
PL1 0.00 dB
SFO1 150.8372651 MHz

======== CHANNEL f2 ========
CPDPRG2 garp
NUC2 1H
PCPD2 92.00 usec
PL2 120.00 dB
PL12 8.80 dB
PL13 10.00 dB
SFO2 599.8029990 MHz

F2 - Processing parameters
SI 65536
SF 150.8198340 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 0.50

1D NMR plot parameters
CX 20.00 cm
CY 4.00 cm
F1P 200.000 ppm
F1 30163.97 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPMCM 10.00000 ppm/cm
HZCM 1508.19836 Hz/cm

cycli3

exp1 stdlh

SAMPLE	
date	Sep 10 2003
solvent	CDCl3
file	exp
ACQUISITION	
sfrq	400.461
tn	H1
at	2.664
np	32016
sw	6009.6
fb	3400
bs	4
tpwr	59
pw	6.0
d1	1.000
tof	500.0
nt	100
ct	36
alock	n
gain	not used
FLAGS	
il	n
in	n
dp	y
DISPLAY	
sp	-202.1
wp	4204.5
vs	40
sc	0
wc	250
hzmm	1.66
is	24.38
rfl	3417.7
rfp	2899.3
th	9
ins	100.000
nm cdc ph	

DEC. & VT	
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dn	H1
dpwr	43
dof	0
dm	nnn
dmm	c
dmf	11100
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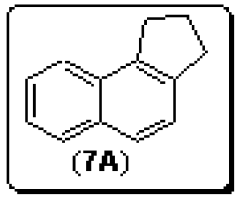
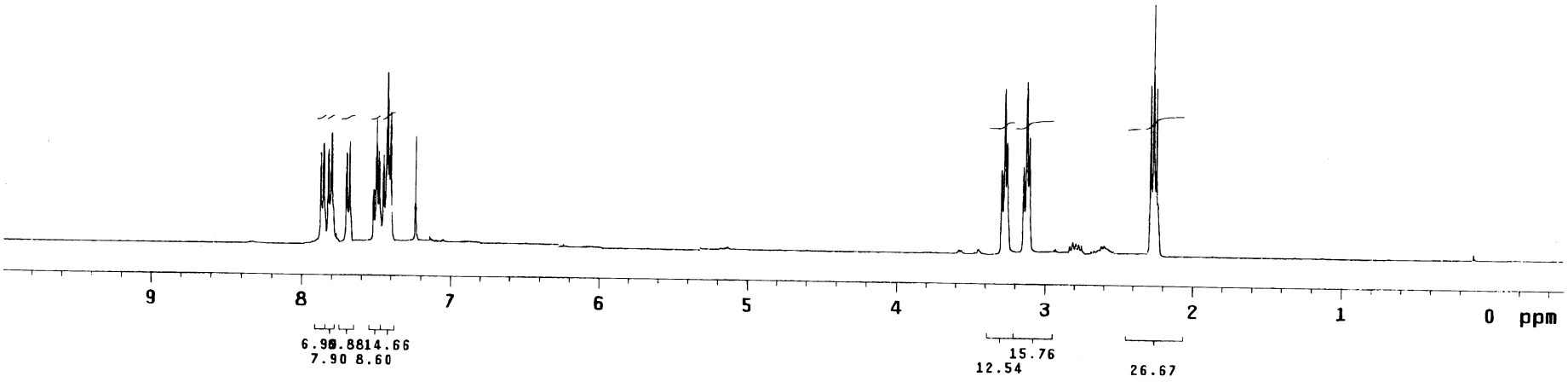
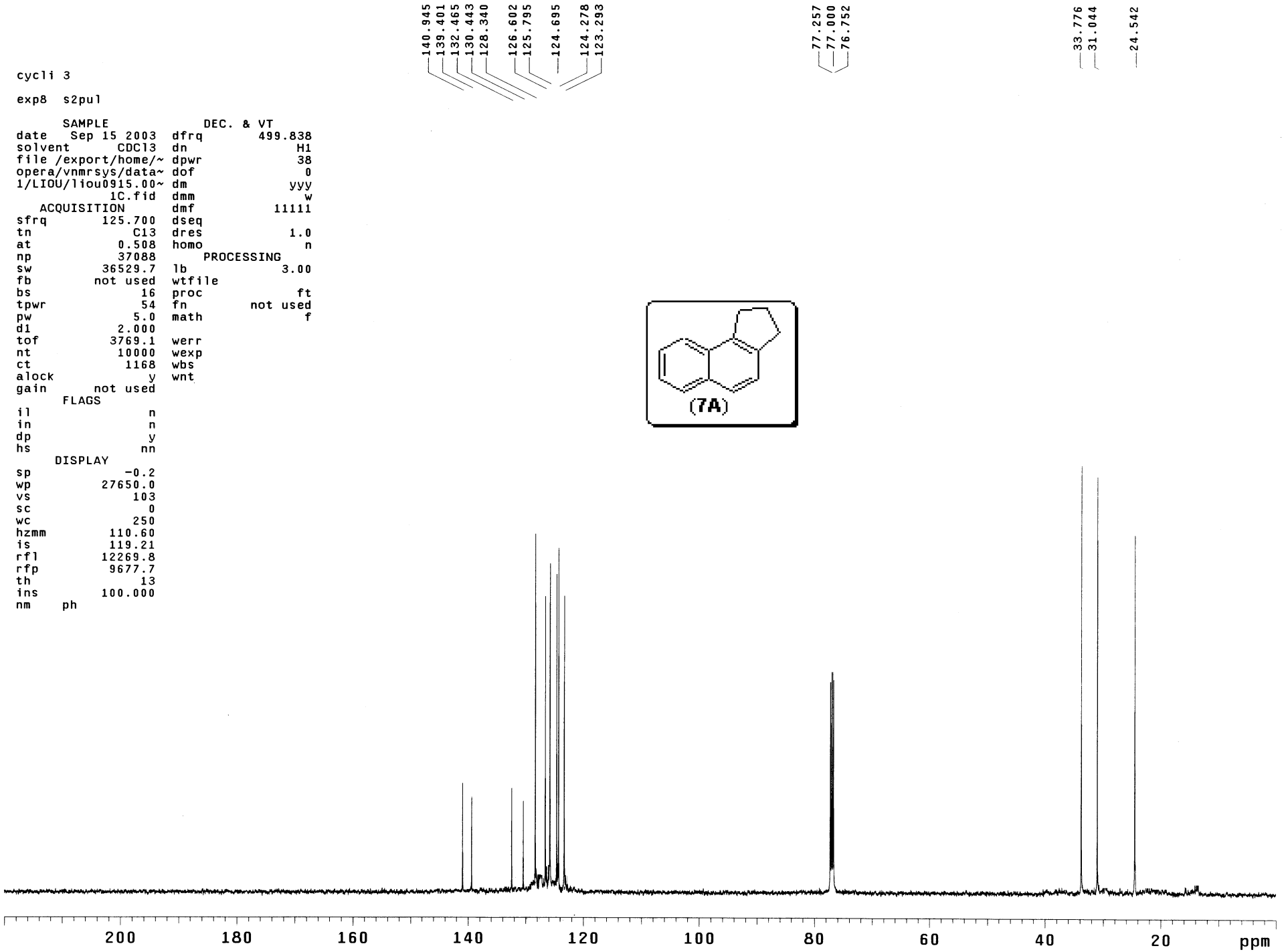
lb	0.10
wtfile	
proc	ft
fn	not used
werr	
wexp	
wbs	wft aph
wnt	

7.876, 7.874, 7.856, 7.823, 7.802, 7.703, 7.682, 7.505, 7.501, 7.497, 7.484, 7.480, 7.454, 7.451, 7.437, 7.433, 7.428, 7.417, 7.413, 7.407, 7.240

3.292, 3.274, 3.256, 3.145, 3.127, 3.110, 2.446, 2.306, 2.286, 2.279, 2.268, 2.259, 2.249, 2.219






140.945
139.401
132.465
130.443
128.340
126.602
125.795
124.695
124.278
123.293
77.257
77.000
76.752
33.776
31.044
24.542
cycli 3
exp8 s2pul
SAMPLE
date Sep 15 2003
solvent CDCl3
file /export/home/~
opera/vnmrsys/data~
1/LIOU/liou0915.00~
1C.fid
ACQUISITION
sfrq 125.700
tn C13
at 0.508
np 37088
sw 36529.7
fb not used
bs 16
tpwr 54
pw 5.0
d1 2.000
tof 3769.1
nt 10000
ct 1168
alock y
gain not used
FLAGS
il n
in n
dp y
hs nn
DISPLAY
sp -0.2
wp 27650.0
vs 103
sc 0
wc 250
hzmm 110.60
is 119.21
rfl 12269.8
rfp 9677.7
th 13
ins 100.000
nm ph
DEC. & VT
dfrq 499.838
dn H1
dpwr 38
dof 0
dm yyy
dmm w
dmf 11111
dseq
dres 1.0
homo n
PROCESSING
lb 3.00
wtfile
proc ft
fn not used
math f
werr
wexp
wbs
wnt
(7A)
200
180
160
140
120
100
80
60
40
20
ppm

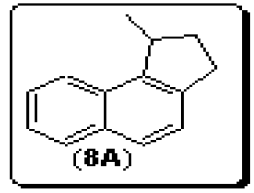
cycli1

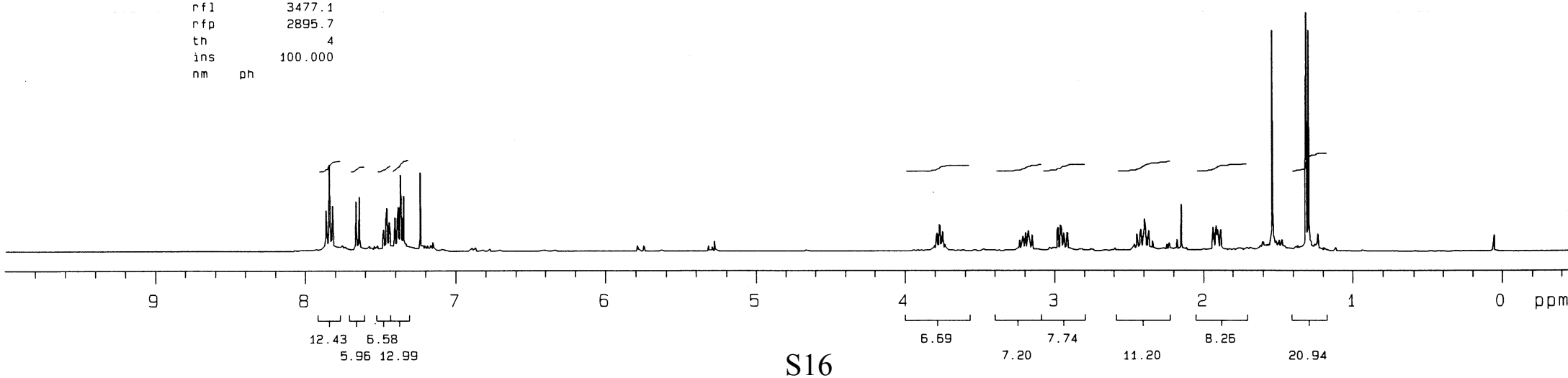
exp1 pulse sequence: std1h

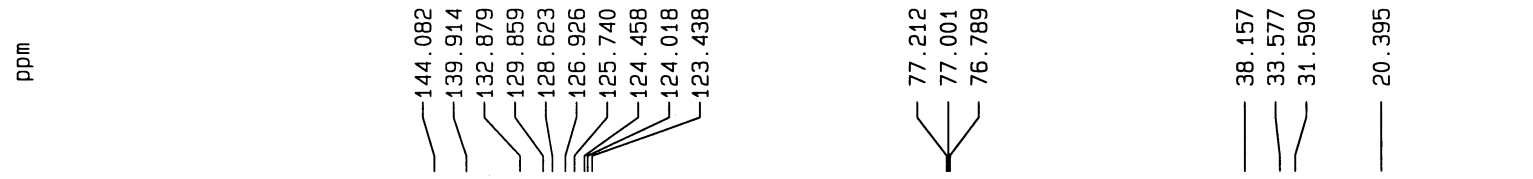
SAMPLE		DEC. & VT	
date	Aug 29 03	dn	H1
solvent	CDCl3	dof	0
file	exp	dm	nnn
ACQUISITION		dmm	c
sfrq	399.952	dmf	200
tn	H1	dpwr	30
at	1.365	PROCESSING	
np	16384	lb	0.10
sw	5999.7	wtfile	
fb	3300	proc	ft
bs	4	fn	not used
tpwr	55	math	f
pw	7.0		
d1	0	werr	
tof	0	wexp	
nt	1000	wbs	
ct	80	wnt	
alock	n	DISPLAY	
gain	not used	sp	-200.5
FLAGS		wp	4199.3
il	n	vs	60
in	n	sc	0
dp	y	wc	400
hs	nn	hzmm	1.22
		is	75.68
		rfl	3477.1
		rfp	2895.7
		th	4
		ins	100.000
		nm	ph

7.866 7.846 7.826 7.667 7.647 7.484 7.480 7.463 7.445 7.408 7.388 7.372 7.352 7.240

3.791 3.773 3.753 3.156 2.987 2.982 2.964 2.960 2.947 2.942 2.923 2.920 2.449 2.425 2.400 2.370 2.154 1.942 1.938 1.922 1.918 1.912 1.544 1.321 0.059







Current Data Parameters
NAME Cycl-1
EXPNO 2
PROCNO 1

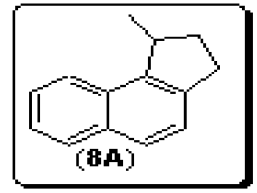
F2 - Acquisition Parameters
Date_ 20030901
Time 14.33
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zgpg
TD 32768
SOLVENT CDCl3
NS 200
DS 0
SWH 45454.547 Hz
FIDRES 1.387163 Hz
AQ 0.3604980 sec
RG 1024
DW 11.000 usec
DE 6.50 usec
TE 301.0 K
D1 3.50000000 sec
d11 0.03000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

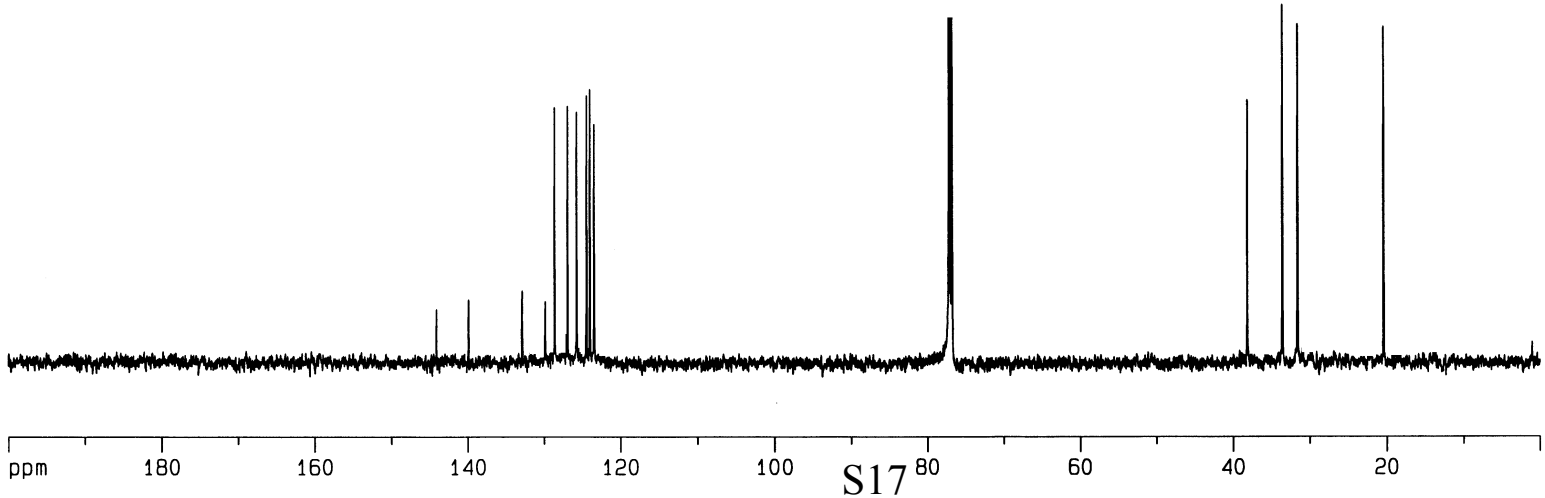
======== CHANNEL f1 ========
NUC1 13C
P1 4.00 usec
PL1 0.00 dB
SFO1 150.8363602 MHz

======== CHANNEL f2 ========
CPDPRG2 garp
NUC2 1H
PCPD2 92.00 usec
PL2 120.00 dB
PL12 10.00 dB
PL13 15.00 dB
SFO2 599.8023992 MHz

F2 - Processing parameters
SI 32768
SF 150.8198365 MHz
WDW EM
SSB 0
LB 5.00 Hz
GB 0
PC 0.50

1D NMR plot parameters
CX 20.00 cm
CY 8.00 cm
F1P 200.000 ppm
F1 30163.97 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPMCM 10.00000 ppm/cm
HZCM 1508.19836 Hz/cm





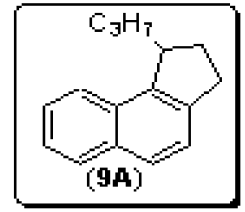
cycli2

exp1 std1h

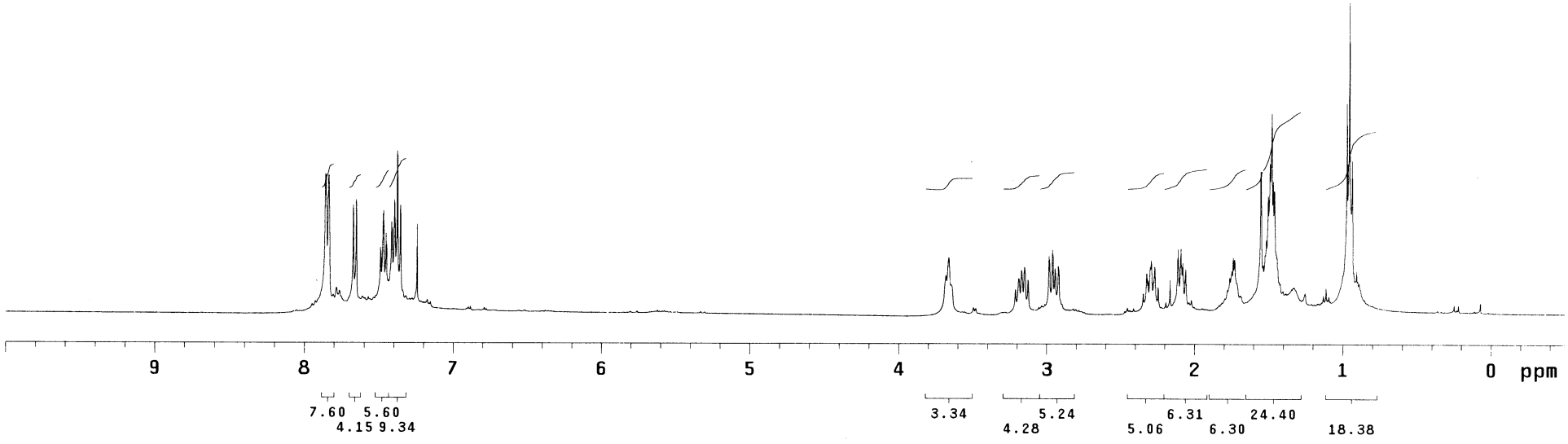
SAMPLE		DEC. & VT	
date	Sep 4 2003	dfrq	400.460
solvent	CDCl3	dn	H1
file	exp	dpwr	43
ACQUISITION		dof	0
sfrq	400.461	dm	nnn
tn	H1	dmm	c
at	2.664	dmf	11100
np	32016	PROCESSING	
sw	6009.6	lb	0.10
fb	3400	wtfile	
bs	4	proc	ft
tpwr	59	fn	not used
pw	6.0		
d1	1.000	werr	
tof	500.0	wexp	
nt	400	wbs	wft aph
ct	120	wnt	
alock	n		
gain	not used		
FLAGS			
il	n		
in	n		
dp	y		
DISPLAY			
sp	-200.3		
wp	4204.5		
vs	50		
sc	0		
wc	250		
hzmm	1.50		
is	110.49		
rfl	515.8		
rfp	0		
th	4		
ins	100.000		
nm	ph		

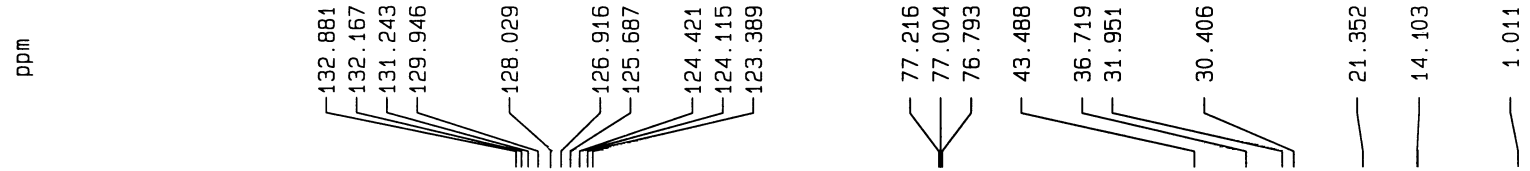
7.856 7.855 7.834 7.671 7.651 7.489 7.486 7.473 7.469 7.465 7.452 7.449 7.439 7.436 7.415 7.411 7.395 7.376 7.355 7.243

2.090 2.087 2.081 2.078 2.062 2.058 1.760 1.747 1.738 1.728 1.714 1.550 1.537 1.522 1.514 1.501 1.489 1.477 1.468 1.460 1.443 1.427 1.421 0.999 0.971 0.953 0.935 0.926 0.908 0.899



(9A)





Current Data Parameters
NAME CYCLIG
EXPNO 2
PROCNO 1

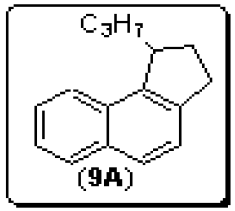
F2 - Acquisition Parameters
Date_ 20030919
Time 12.28
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zgpg
TD 32768
SOLVENT C6D6
NS 1024
DS 0
SWH 37593.984 Hz
FIDRES 1.147277 Hz
AQ 0.4358644 sec
RG 2048
DW 13.300 usec
DE 6.50 usec
TE 300.4 K
D1 4.00000000 sec
d11 0.03000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

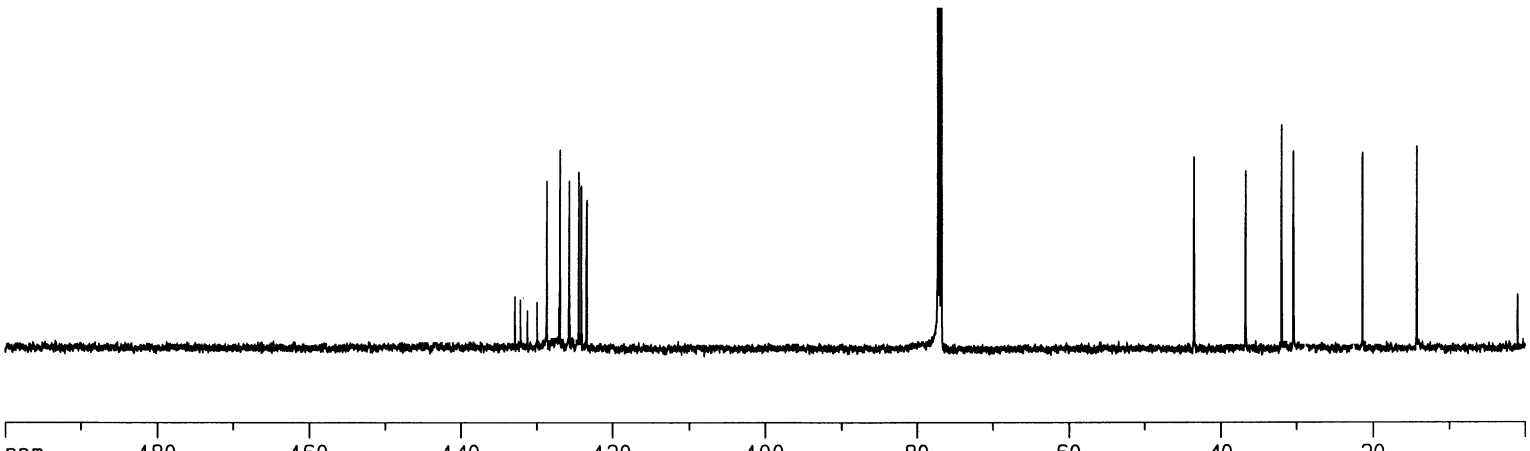
======== CHANNEL f1 ========
NUC1 13C
P1 4.50 usec
PL1 0.00 dB
SFO1 150.8361185 MHz

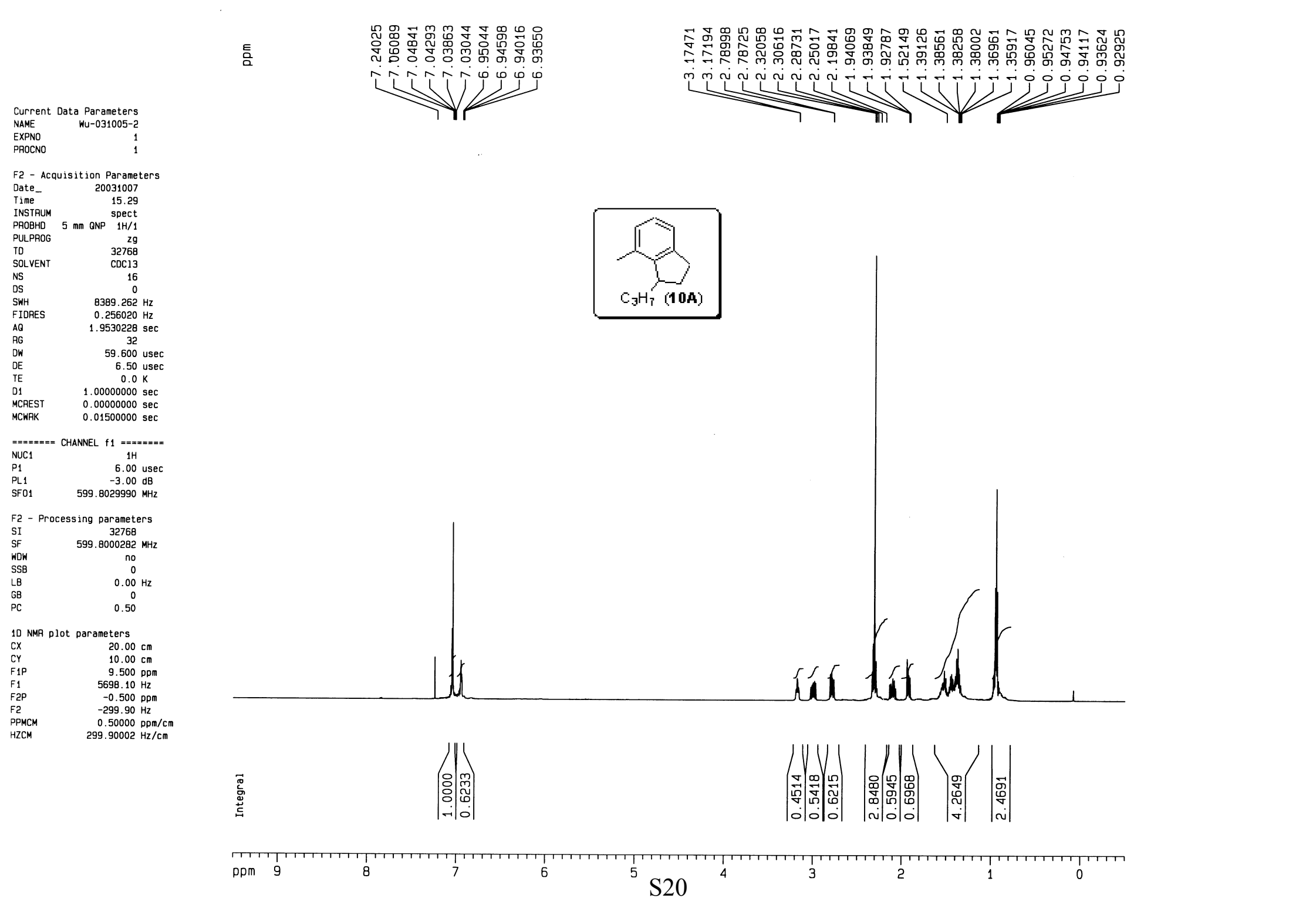
======== CHANNEL f2 ========
CPDPRG2 garp
NUC2 1H
PCPD2 92.00 usec
PL2 120.00 dB
PL12 8.80 dB
PL13 10.00 dB
SFO2 599.8029990 MHz

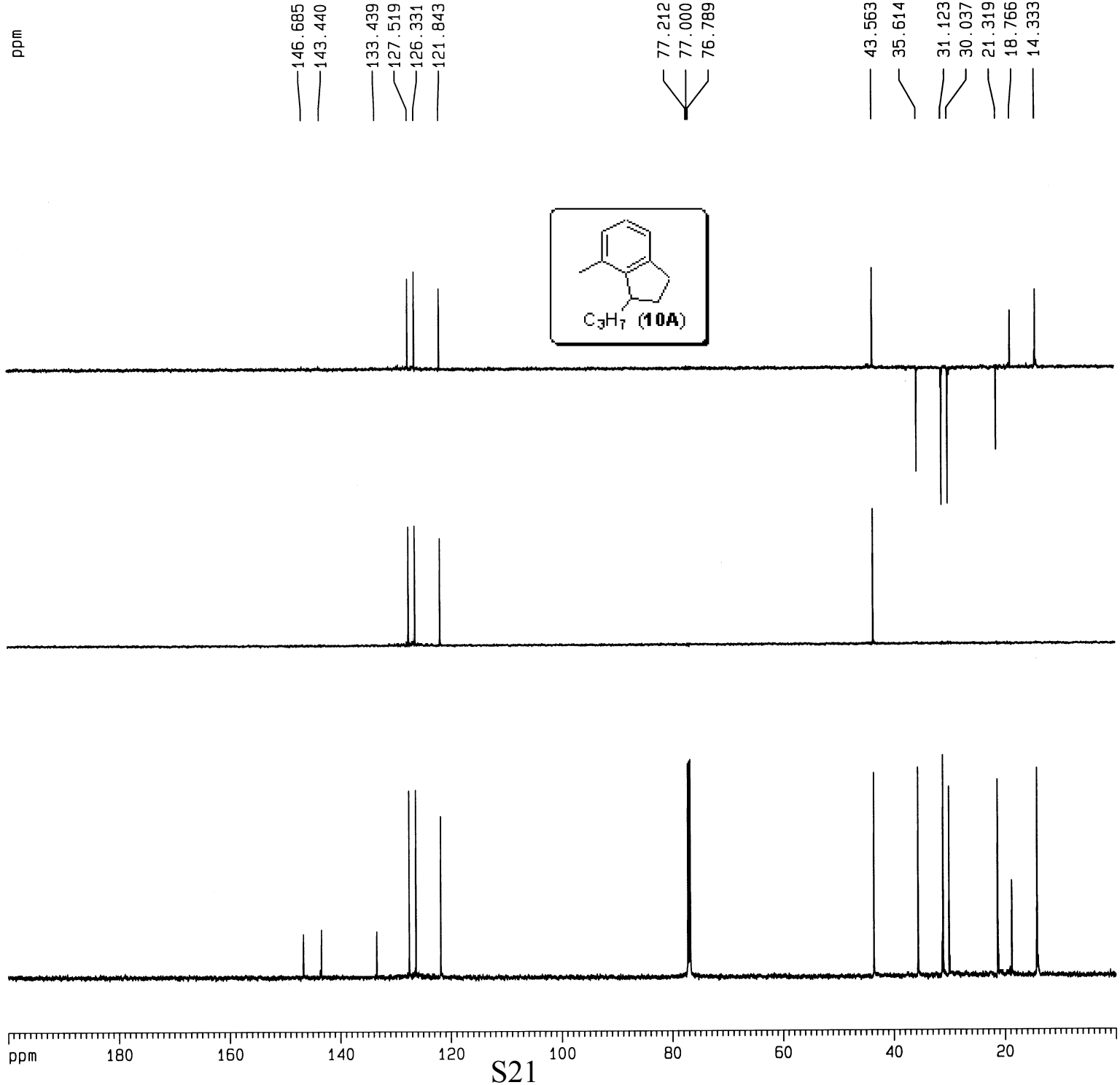
F2 - Processing parameters
SI 65536
SF 150.8198343 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 0.50

1D NMR plot parameters
CX 20.00 cm
CY 10.00 cm
F1P 200.000 ppm
F1 30163.97 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPMCM 10.00000 ppm/cm
HZCM 1508.19836 Hz/cm






Current Data Parameters
NAME Wu-031005-2
EXPNO 1
PROCNO 1
F2 - Acquisition Parameters
Date_ 20031007
Time 15.29
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zg
TD 32768
SOLVENT CDCl3
NS 16
DS 0
SWH 8389.262 Hz
FIDRES 0.256020 Hz
AQ 1.9530228 sec
RG 32
DW 59.600 usec
DE 6.50 usec
TE 0.0 K
D1 1.00000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec
======== CHANNEL f1 ========
NUC1 1H
P1 6.00 usec
PL1 -3.00 dB
SFO1 599.8029990 MHz
F2 - Processing parameters
SI 32768
SF 599.8000282 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 0.50
1D NMR plot parameters
CX 20.00 cm
CY 10.00 cm
F1P 9.500 ppm
F1 5698.10 Hz
F2P -0.500 ppm
F2 -299.90 Hz
PPMCM 0.50000 ppm/cm
HZCM 299.90002 Hz/cm
ppm
7.24025
7.06089
7.04841
7.04293
7.03863
7.03044
6.95044
6.94598
6.94016
6.93650
3.17471
3.17194
2.78998
2.78725
2.32058
2.30616
2.28731
2.25017
2.19841
1.94069
1.93849
1.92787
1.52149
1.39126
1.38561
1.38258
1.38002
1.36961
1.35917
0.96045
0.95272
0.94753
0.94117
0.93624
0.92925
C3H7 (10A)
Integral
1.0000
0.6233
0.4514
0.5418
0.6215
2.8480
0.5945
0.6968
4.2649
2.4691
ppm 9 8 7 6 5 4 3 2 1 0



Current Data Parameters
NAME Wu-031005-2
EXPNO 2
PROCNO 1

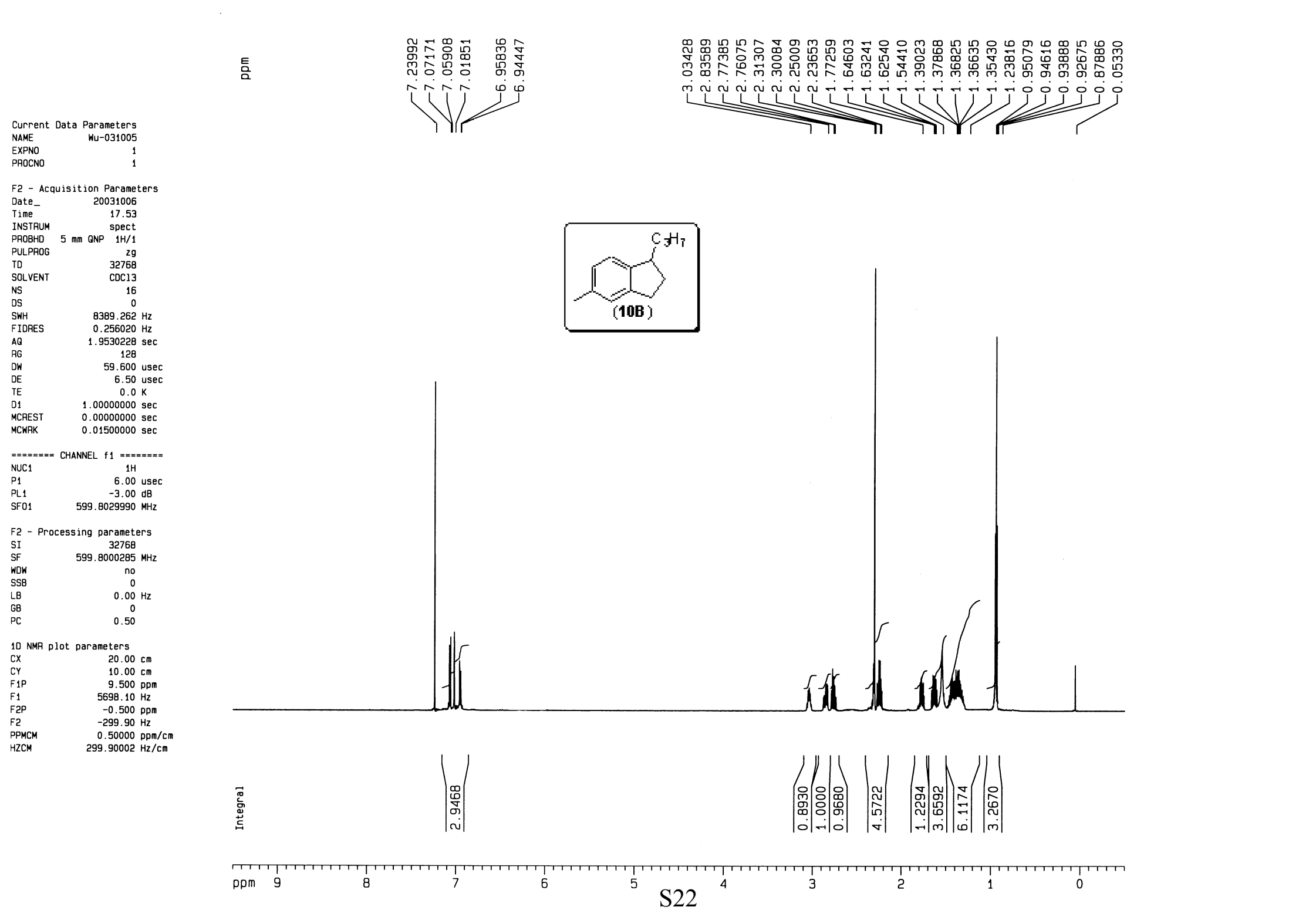
F2 - Acquisition Parameters
Date_ 20031007
Time 15.39
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zgpg
TD 32768
SOLVENT C6D6
NS 268
DS 0
SWH 37878.789 Hz
FIDRES 1.155969 Hz
AQ 0.4325876 sec
RG 2048
DW 13.200 usec
DE 6.50 usec
TE 0.0 K
D1 5.00000000 sec
d11 0.03000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

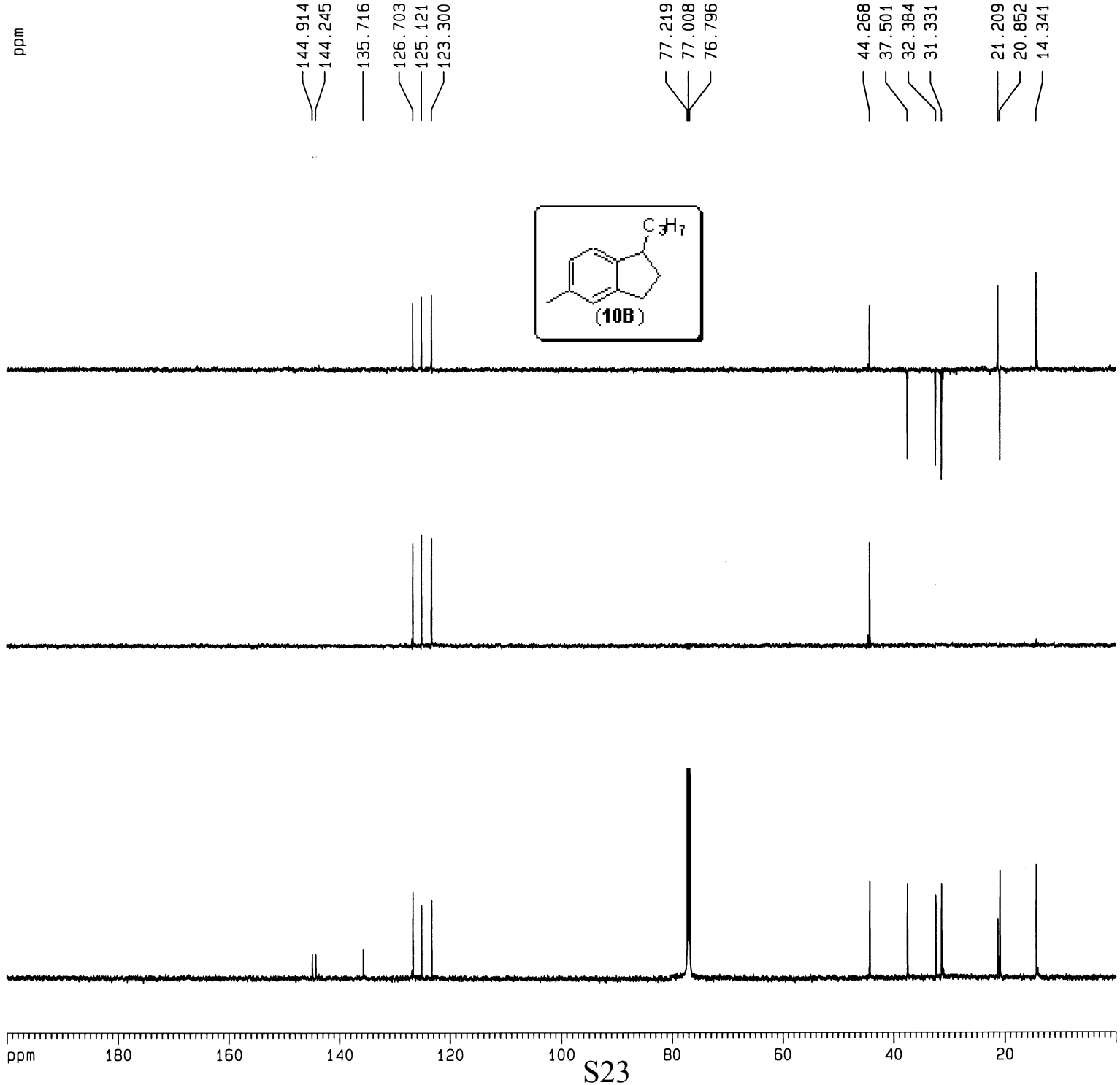
======== CHANNEL f1 ========
NUC1 13C
P1 4.50 usec
PL1 0.00 dB
SFO1 150.8372651 MHz

======== CHANNEL f2 ========
CPDPRG2 garp
NUC2 1H
PCPD2 92.00 usec
PL2 120.00 dB
PL12 8.80 dB
PL13 10.00 dB
SFO2 599.8029990 MHz

F2 - Processing parameters
SI 65536
SF 150.8198357 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 0.50

1D NMR plot parameters
CX 20.00 cm
CY 4.00 cm
F1P 200.000 ppm
F1 30163.97 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPMCM 10.00000 ppm/cm
HZCM 1508.19836 Hz/cm


Current Data Parameters
NAME Wu-031005
EXPNO 1
PROCNO 1
F2 - Acquisition Parameters
Date_ 20031006
Time 17.53
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zg
TD 32768
SOLVENT CDCl3
NS 16
DS 0
SWH 8389.262 Hz
FIDRES 0.256020 Hz
AQ 1.9530228 sec
RG 128
DW 59.600 usec
DE 6.50 usec
TE 0.0 K
D1 1.00000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec
======== CHANNEL f1 ========
NUC1 1H
P1 6.00 usec
PL1 -3.00 dB
SFO1 599.8029990 MHz
F2 - Processing parameters
SI 32768
SF 599.8000285 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 0.50
1D NMR plot parameters
CX 20.00 cm
CY 10.00 cm
F1P 9.500 ppm
F1 5698.10 Hz
F2P -0.500 ppm
F2 -299.90 Hz
PPMCM 0.50000 ppm/cm
HZCM 299.90002 Hz/cm
ppm
7.23992
7.07171
7.05908
7.01851
6.95836
6.94447
3.03428
2.83589
2.77385
2.76075
2.31307
2.30084
2.25009
2.23653
1.77259
1.64603
1.63241
1.62540
1.54410
1.39023
1.37868
1.36825
1.36635
1.35430
1.23816
0.95079
0.94616
0.93888
0.92675
0.87886
0.05330
C3H7
(10B)
Integral
2.9468
0.8930
1.0000
0.9680
4.5722
1.2294
3.6592
6.1174
3.2670
ppm 9 8 7 6 5 4 3 2 1 0



Current Data Parameters
NAME Wu-031005
EXPNO 2
PROCNO 1

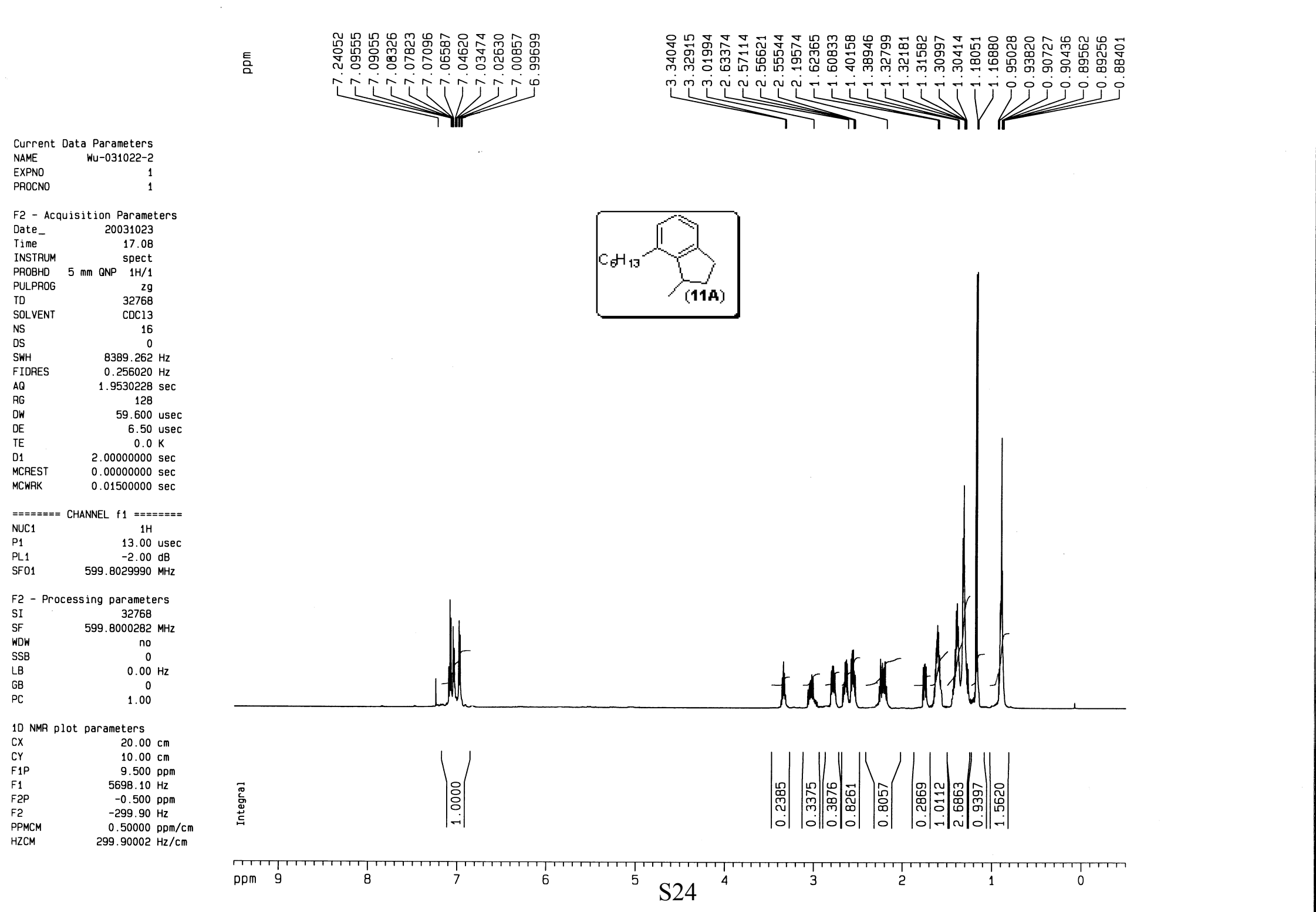
F2 - Acquisition Parameters
Date_ 20031006
Time 17.56
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zgpg
TD 32768
SOLVENT C6D6
NS 1024
DS 0
SWH 37878.789 Hz
FIDRES 1.155969 Hz
AQ 0.4325876 sec
RG 2048
DW 13.200 usec
DE 6.50 usec
TE 0.0 K
D1 5.00000000 sec
d11 0.03000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 13C
P1 4.50 usec
PL1 0.00 dB
SFO1 150.8372651 MHz

======== CHANNEL f2 ========
CPDPRG2 garp
NUC2 1H
PCPD2 92.00 usec
PL2 120.00 dB
PL12 8.80 dB
PL13 10.00 dB
SFO2 599.8029990 MHz

F2 - Processing parameters
SI 65536
SF 150.8198322 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 0.50

1D NMR plot parameters
CX 20.00 cm
CY 10.00 cm
F1P 200.000 ppm
F1 30163.97 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPMCM 10.00000 ppm/cm
HZCM 1508.19836 Hz/cm



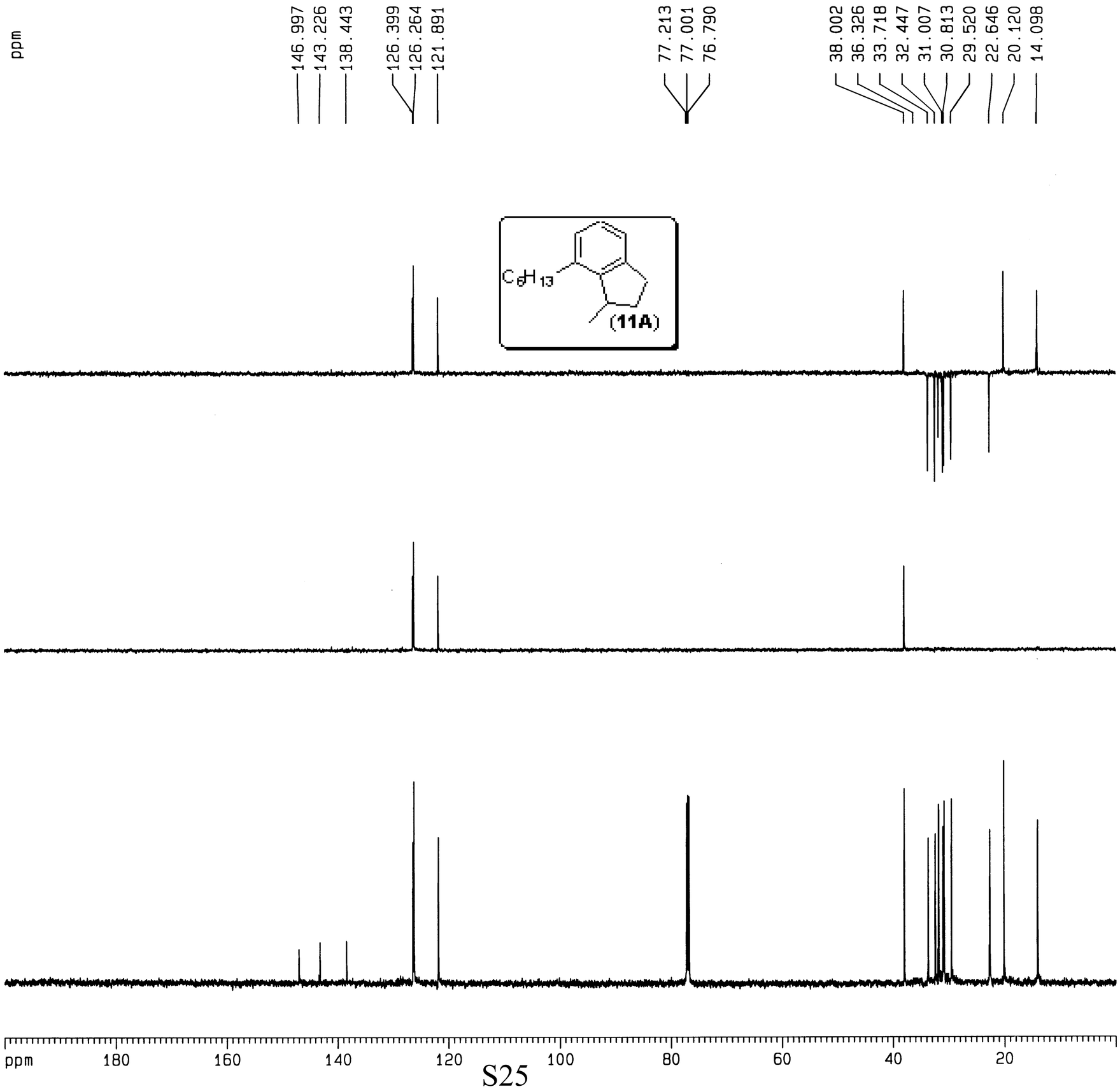
Current Data Parameters
NAME Wu-031022-2
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20031023
Time 17.08
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zg
TD 32768
SOLVENT CDCl3
NS 16
DS 0
SWH 8389.262 Hz
FIDRES 0.256020 Hz
AQ 1.9530228 sec
RG 128
DW 59.600 usec
DE 6.50 usec
TE 0.0 K
D1 2.00000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 1H
P1 13.00 usec
PL1 -2.00 dB
SFO1 599.8029990 MHz

F2 - Processing parameters
SI 32768
SF 599.8000282 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 1.00

1D NMR plot parameters
CX 20.00 cm
CY 10.00 cm
F1P 9.500 ppm
F1 5698.10 Hz
F2P -0.500 ppm
F2 -299.90 Hz
PPMCM 0.50000 ppm/cm
HZCM 299.90002 Hz/cm




```
Current Data Parameters
NAME         Wu-031022-2
EXPNO                  2
PROCNO                 1

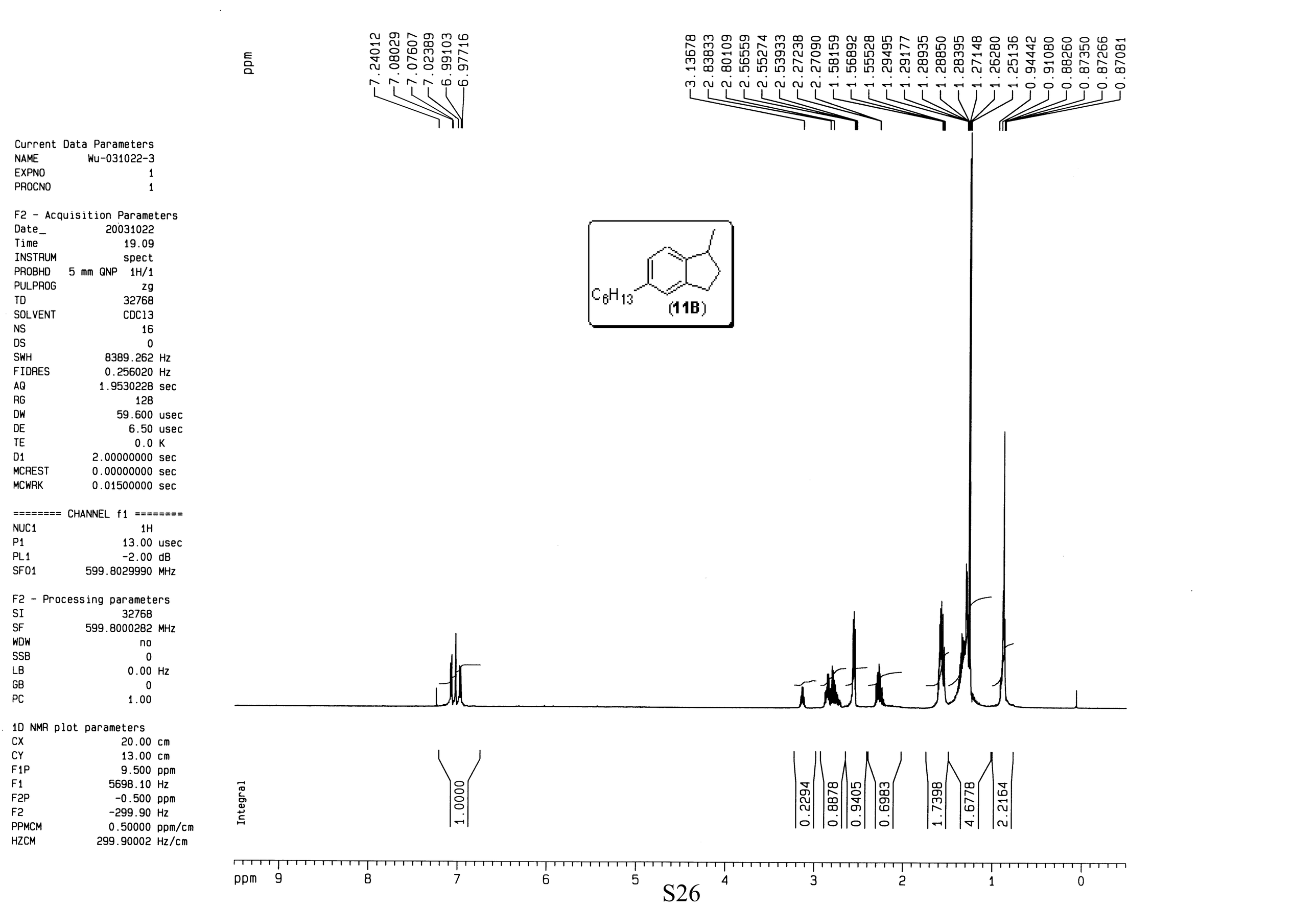
F2 - Acquisition Parameters
Date_           20031022
Time               17.51
INSTRUM            spect
PROBHD   5 mm QNP  1H/1
PULPROG            zgpg
TD                32768
SOLVENT            C6D6
NS                  200
DS                    0
SWH           37878.789 Hz
FIDRES         1.155969 Hz
AQ            0.4325876 sec
RG                 2048
DW               13.200 usec
DE                6.50 usec
TE                 0.0 K
D1           3.50000000 sec
d11          0.03000000 sec
MCREST       0.00000000 sec
MCWRK        0.01500000 sec

======== CHANNEL f1 ========
NUC1               13C
P1                4.50 usec
PL1               0.00 dB
SFO1        150.8372651 MHz

======== CHANNEL f2 ========
CPDPRG2           garp
NUC2                1H
PCPD2           92.00 usec
PL2             120.00 dB
PL12              8.80 dB
PL13             10.00 dB
SFO2        599.8029990 MHz

F2 - Processing parameters
SI                65536
SF          150.8198357 MHz
WDW                  EM
SSB                   0
LB                 3.00 Hz
GB                    0
PC                 0.50

1D NMR plot parameters
CX                20.00 cm
CY                 4.00 cm
F1P             200.000 ppm
F1             30163.97 Hz
F2P               0.000 ppm
F2                0.00 Hz
PPMCM         10.00000 ppm/cm
HZCM        1508.19836 Hz/cm
```



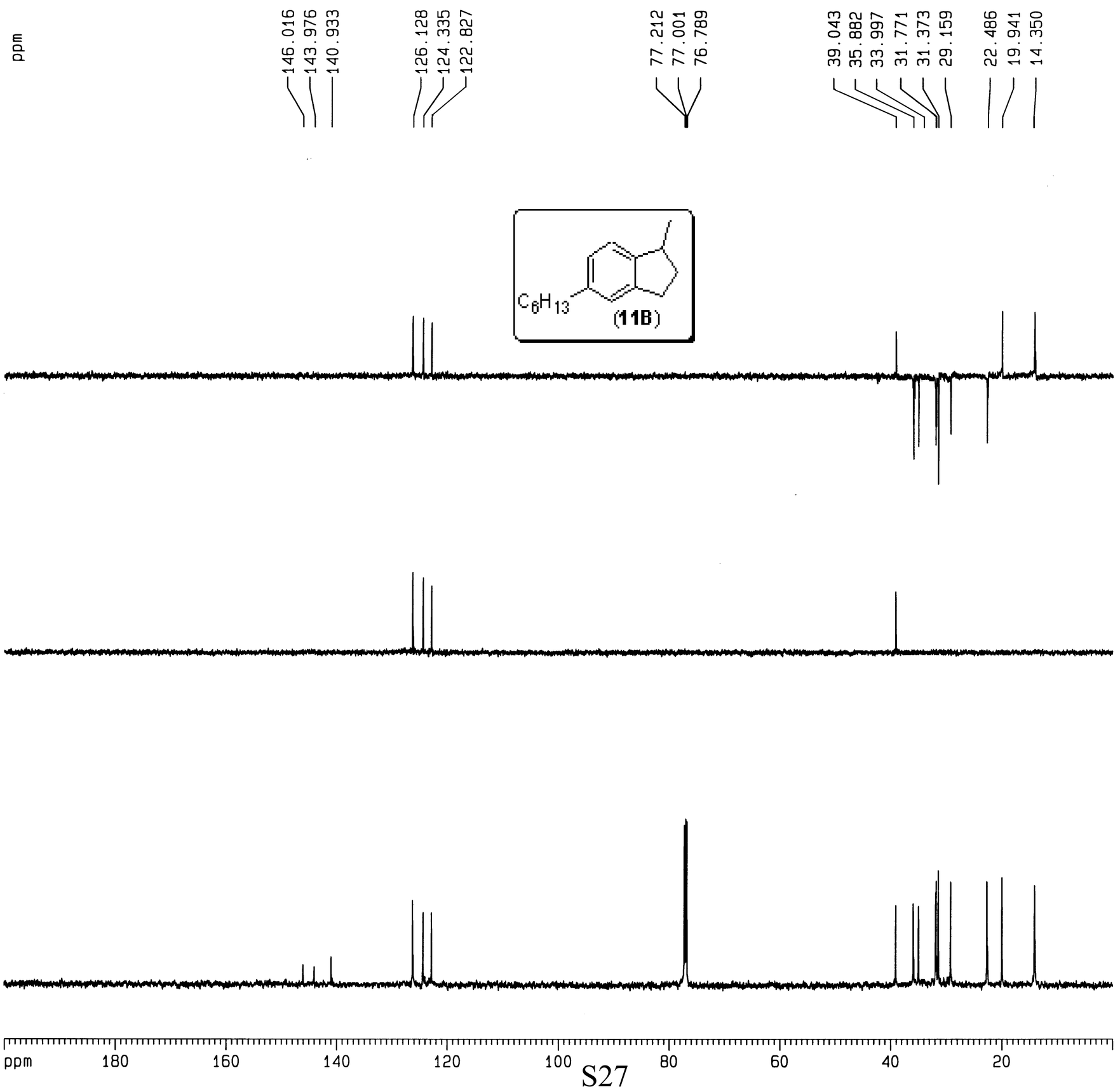
Current Data Parameters
NAME Wu-031022-3
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20031022
Time 19.09
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zg
TD 32768
SOLVENT CDCl3
NS 16
DS 0
SWH 8389.262 Hz
FIDRES 0.256020 Hz
AQ 1.9530228 sec
RG 128
DW 59.600 usec
DE 6.50 usec
TE 0.0 K
D1 2.00000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 1H
P1 13.00 usec
PL1 -2.00 dB
SFO1 599.8029990 MHz

F2 - Processing parameters
SI 32768
SF 599.8000282 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 1.00

1D NMR plot parameters
CX 20.00 cm
CY 13.00 cm
F1P 9.500 ppm
F1 5698.10 Hz
F2P -0.500 ppm
F2 -299.90 Hz
PPMCM 0.50000 ppm/cm
HZCM 299.90002 Hz/cm



Current Data Parameters
NAME Wu-031022-3
EXPNO 2
PROCNO 1

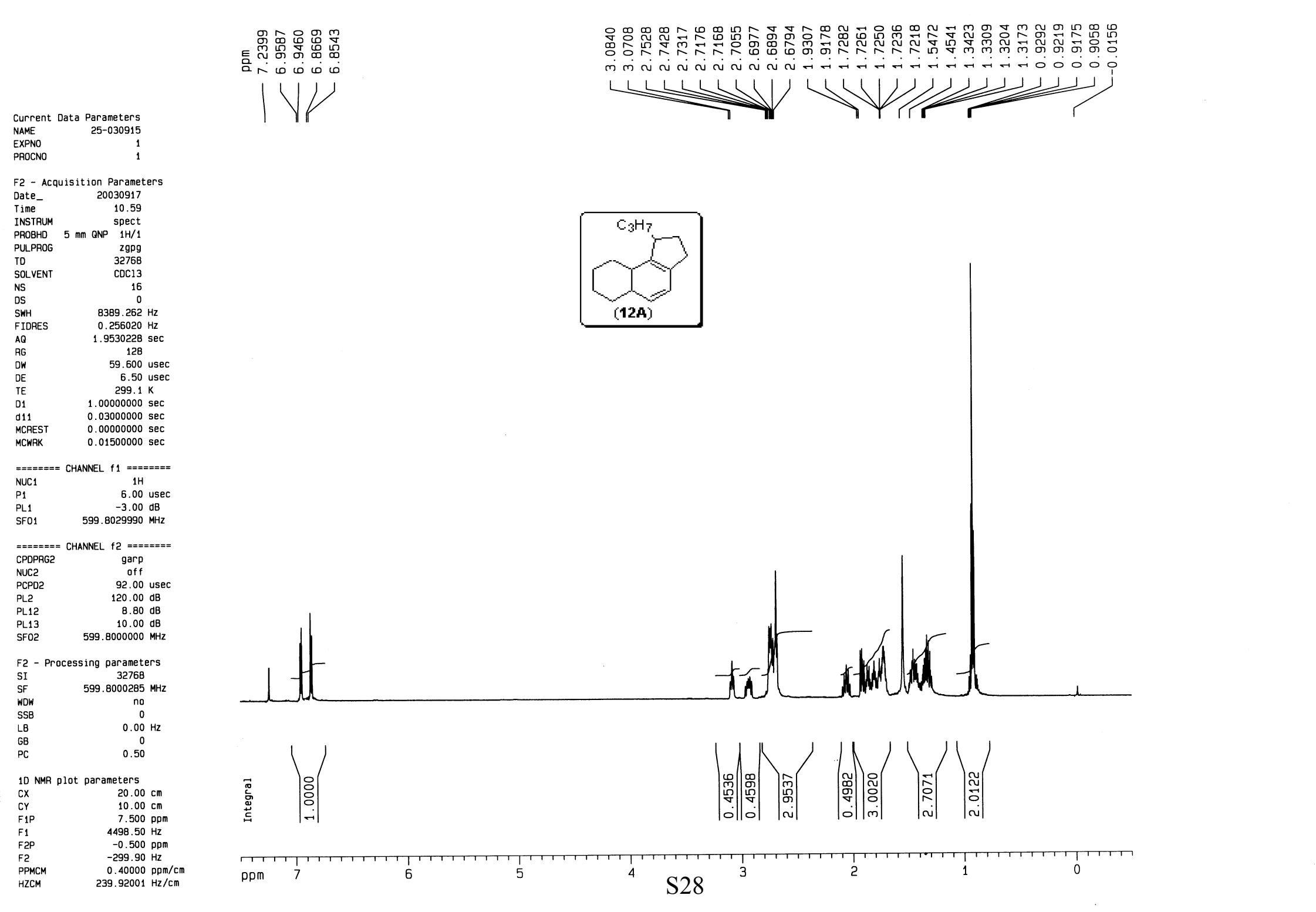
F2 - Acquisition Parameters
Date_ 20031022
Time 18.37
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zgpg
TD 32768
SOLVENT C6D6
NS 300
DS 0
SWH 37878.789 Hz
FIDRES 1.155969 Hz
AQ 0.4325876 sec
RG 2048
DW 13.200 usec
DE 6.50 usec
TE 0.0 K
D1 3.50000000 sec
d11 0.03000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 13C
P1 4.50 usec
PL1 0.00 dB
SFO1 150.8372651 MHz

======== CHANNEL f2 ========
CPDPRG2 garp
NUC2 1H
PCPD2 92.00 usec
PL2 120.00 dB
PL12 8.80 dB
PL13 10.00 dB
SFO2 599.8029990 MHz

F2 - Processing parameters
SI 65536
SF 150.8198328 MHz
WDW EM
SSB 0
LB 5.00 Hz
GB 0
PC 0.50

1D NMR plot parameters
CX 20.00 cm
CY 3.00 cm
F1P 200.000 ppm
F1 30163.97 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPMCM 10.00000 ppm/cm
HZCM 1508.19836 Hz/cm



Current Data Parameters
NAME 25-030915
EXPNO 1
PROCNO 1

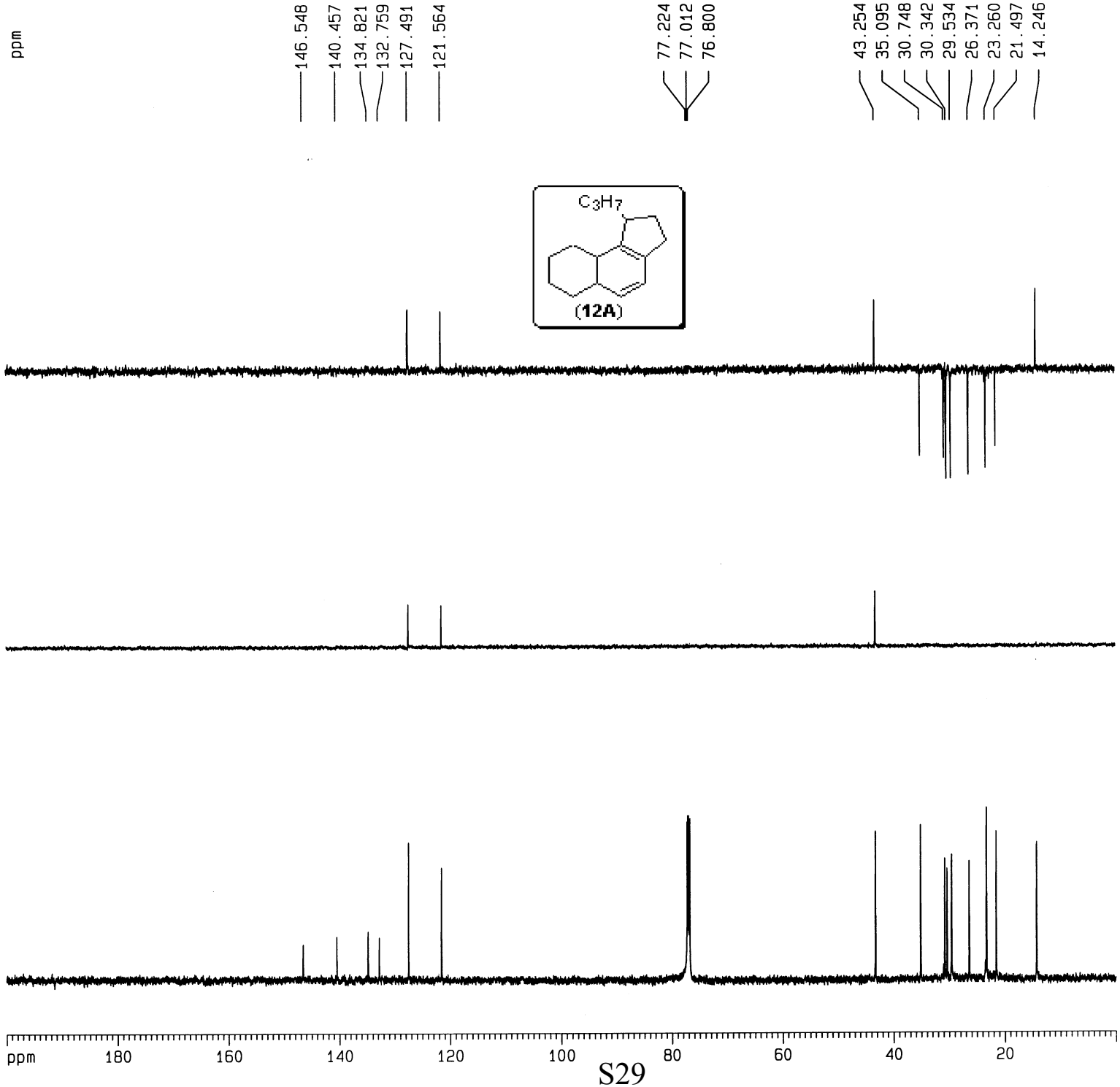
F2 - Acquisition Parameters
Date_ 20030917
Time 10.59
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zgpg
TD 32768
SOLVENT CDCl3
NS 16
DS 0
SWH 8389.262 Hz
FIDRES 0.256020 Hz
AQ 1.9530228 sec
RG 128
DW 59.600 usec
DE 6.50 usec
TE 299.1 K
D1 1.00000000 sec
d11 0.03000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 1H
P1 6.00 usec
PL1 -3.00 dB
SFO1 599.8029990 MHz

======== CHANNEL f2 ========
CPDPRG2 garp
NUC2 off
PCPD2 92.00 usec
PL2 120.00 dB
PL12 8.80 dB
PL13 10.00 dB
SFO2 599.8000000 MHz

F2 - Processing parameters
SI 32768
SF 599.8000285 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 0.50

1D NMR plot parameters
CX 20.00 cm
CY 10.00 cm
F1P 7.500 ppm
F1 4498.50 Hz
F2P -0.500 ppm
F2 -299.90 Hz
PPMCM 0.40000 ppm/cm
HZCM 239.92001 Hz/cm



Current Data Parameters
NAME 25-030915
EXPNO 2
PROCNO 1

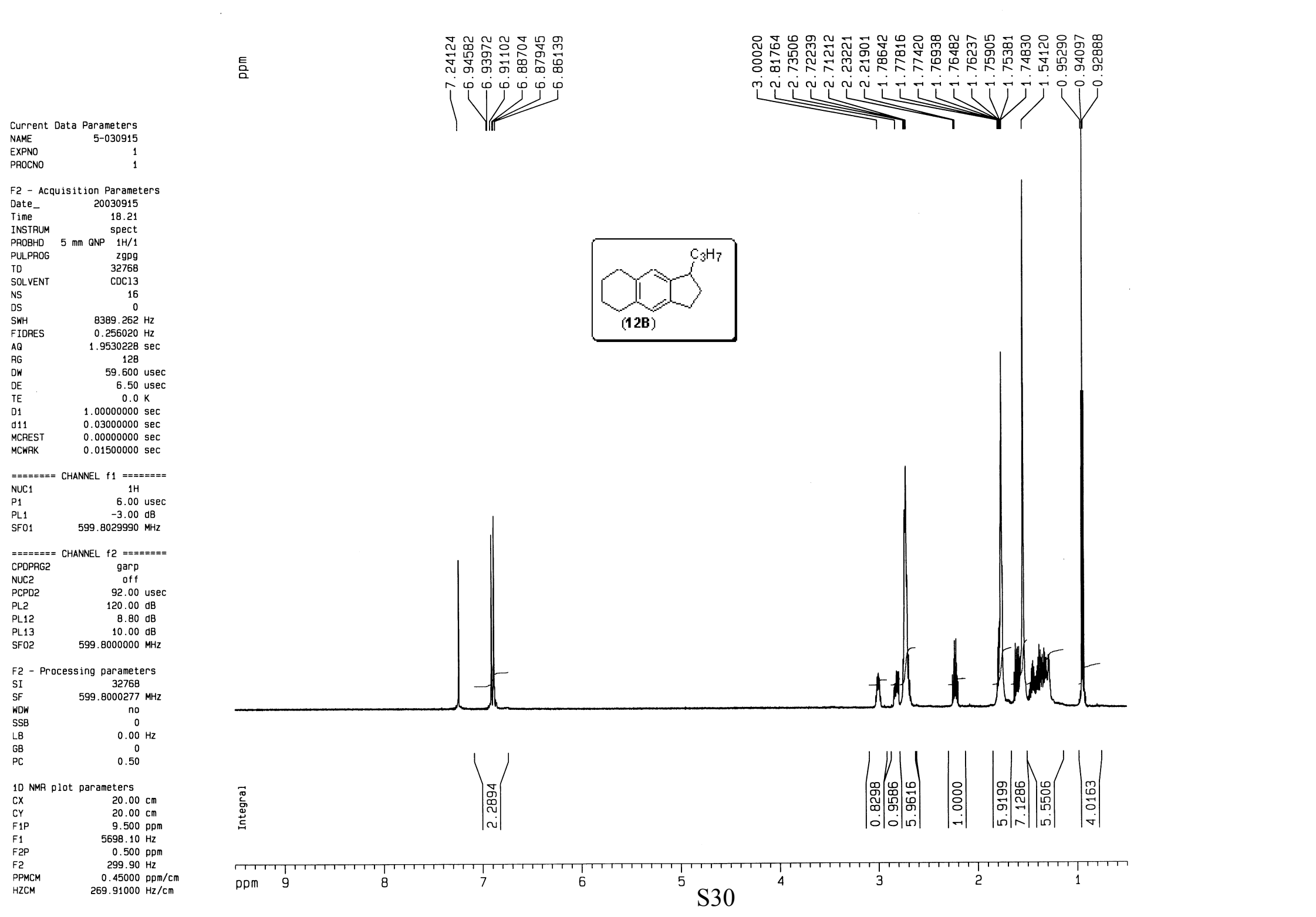
F2 - Acquisition Parameters
Date_ 20030917
Time 11.01
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zgpg
TD 32768
SOLVENT C6D6
NS 619
DS 0
SWH 37878.789 Hz
FIDRES 1.155969 Hz
AQ 0.4325876 sec
RG 2048
DW 13.200 usec
DE 6.50 usec
TE 299.1 K
D1 5.00000000 sec
d11 0.03000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

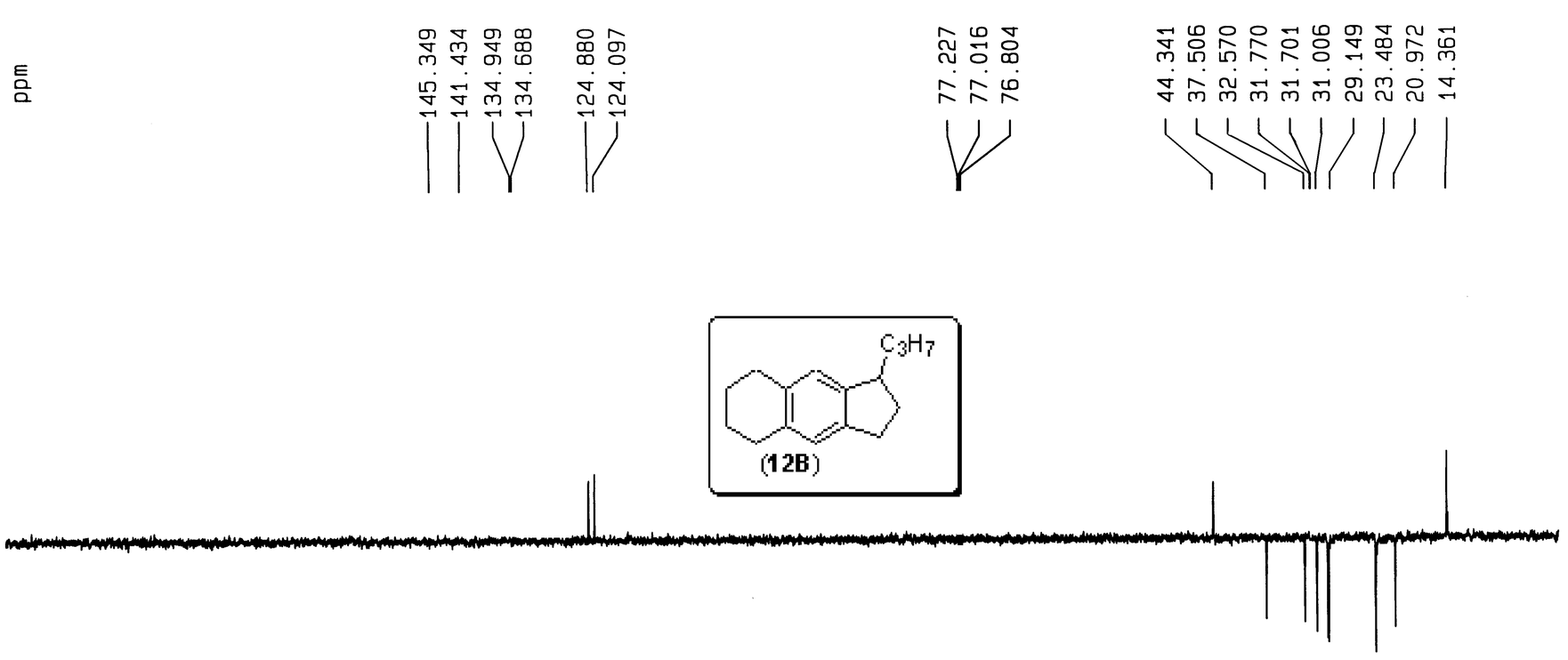
======== CHANNEL f1 ========
NUC1 13C
P1 4.50 usec
PL1 0.00 dB
SFO1 150.8372651 MHz

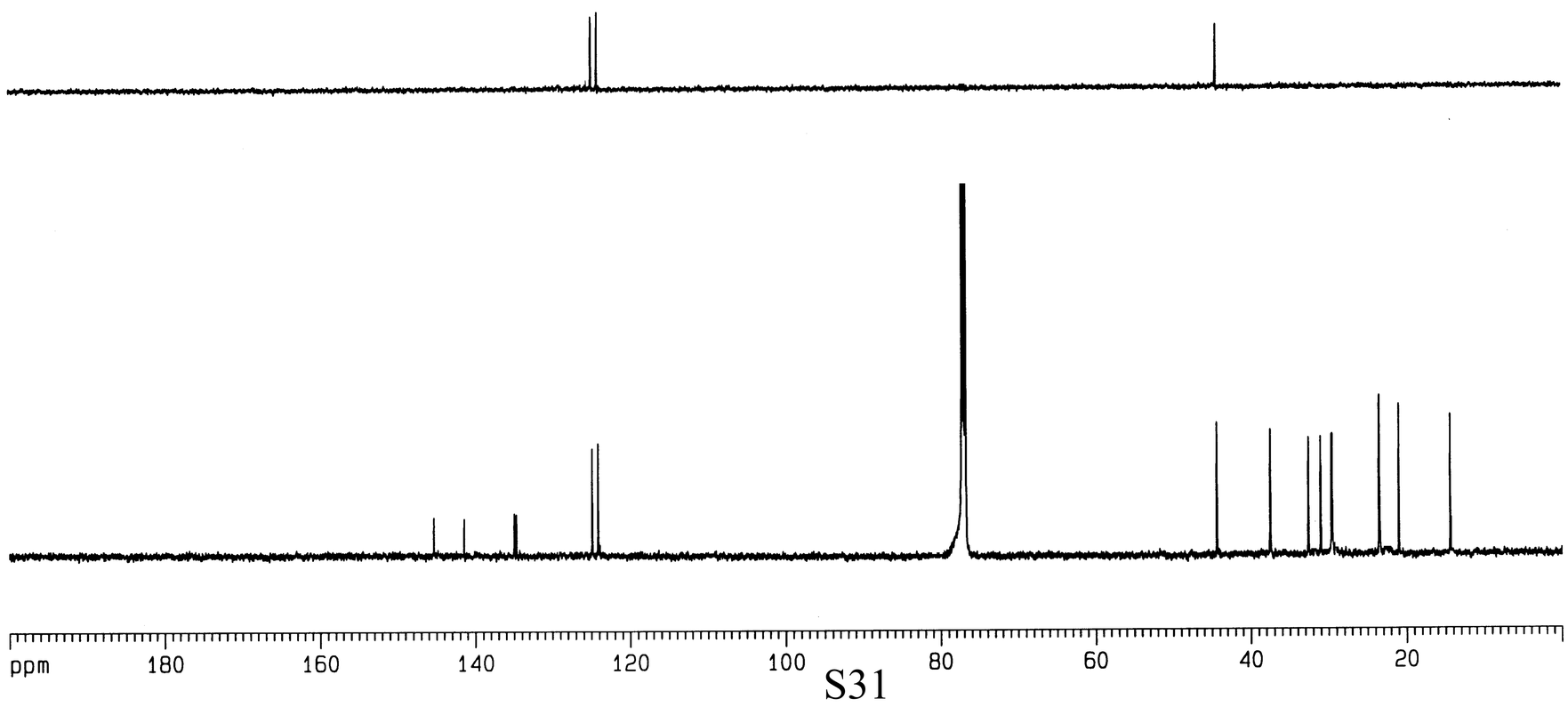
======== CHANNEL f2 ========
CPDPRG2 garp
NUC2 1H
PCPD2 92.00 usec
PL2 120.00 dB
PL12 8.80 dB
PL13 10.00 dB
SFO2 599.8029990 MHz

F2 - Processing parameters
SI 65536
SF 150.8198334 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 0.50

1D NMR plot parameters
CX 20.00 cm
CY 12.69 cm
F1P 200.000 ppm
F1 30163.97 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPMCM 10.00000 ppm/cm
HZCM 1508.19836 Hz/cm


Current Data Parameters
NAME 5-030915
EXPNO 1
PROCNO 1
F2 - Acquisition Parameters
Date_ 20030915
Time 18.21
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zgpg
TD 32768
SOLVENT CDCl3
NS 16
DS 0
SWH 8389.262 Hz
FIDRES 0.256020 Hz
AQ 1.9530228 sec
RG 128
DW 59.600 usec
DE 6.50 usec
TE 0.0 K
D1 1.00000000 sec
d11 0.03000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec
======== CHANNEL f1 ========
NUC1 1H
P1 6.00 usec
PL1 -3.00 dB
SFO1 599.8029990 MHz
======== CHANNEL f2 ========
CPDPRG2 garp
NUC2 off
PCPD2 92.00 usec
PL2 120.00 dB
PL12 8.80 dB
PL13 10.00 dB
SFO2 599.8000000 MHz
F2 - Processing parameters
SI 32768
SF 599.8000277 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 0.50
1D NMR plot parameters
CX 20.00 cm
CY 20.00 cm
F1P 9.500 ppm
F1 5698.10 Hz
F2P 0.500 ppm
F2 299.90 Hz
PPMCM 0.45000 ppm/cm
HZCM 269.91000 Hz/cm
ppm
7.24124
6.94582
6.93972
6.91102
6.88704
6.87945
6.86139
3.00020
2.81764
2.73506
2.72239
2.71212
2.23221
2.21901
1.78642
1.77816
1.77420
1.76938
1.76482
1.76237
1.75905
1.75381
1.74830
1.54120
0.95290
0.94097
0.92888
C3H7
(12B)
Integral
2.2894
0.8298
0.9586
5.9616
1.0000
5.9199
7.1286
5.5506
4.0163
ppm 9 8 7 6 5 4 3 2 1





Current Data Parameters
NAME 5-030915
EXPNO 2
PROCNO 1

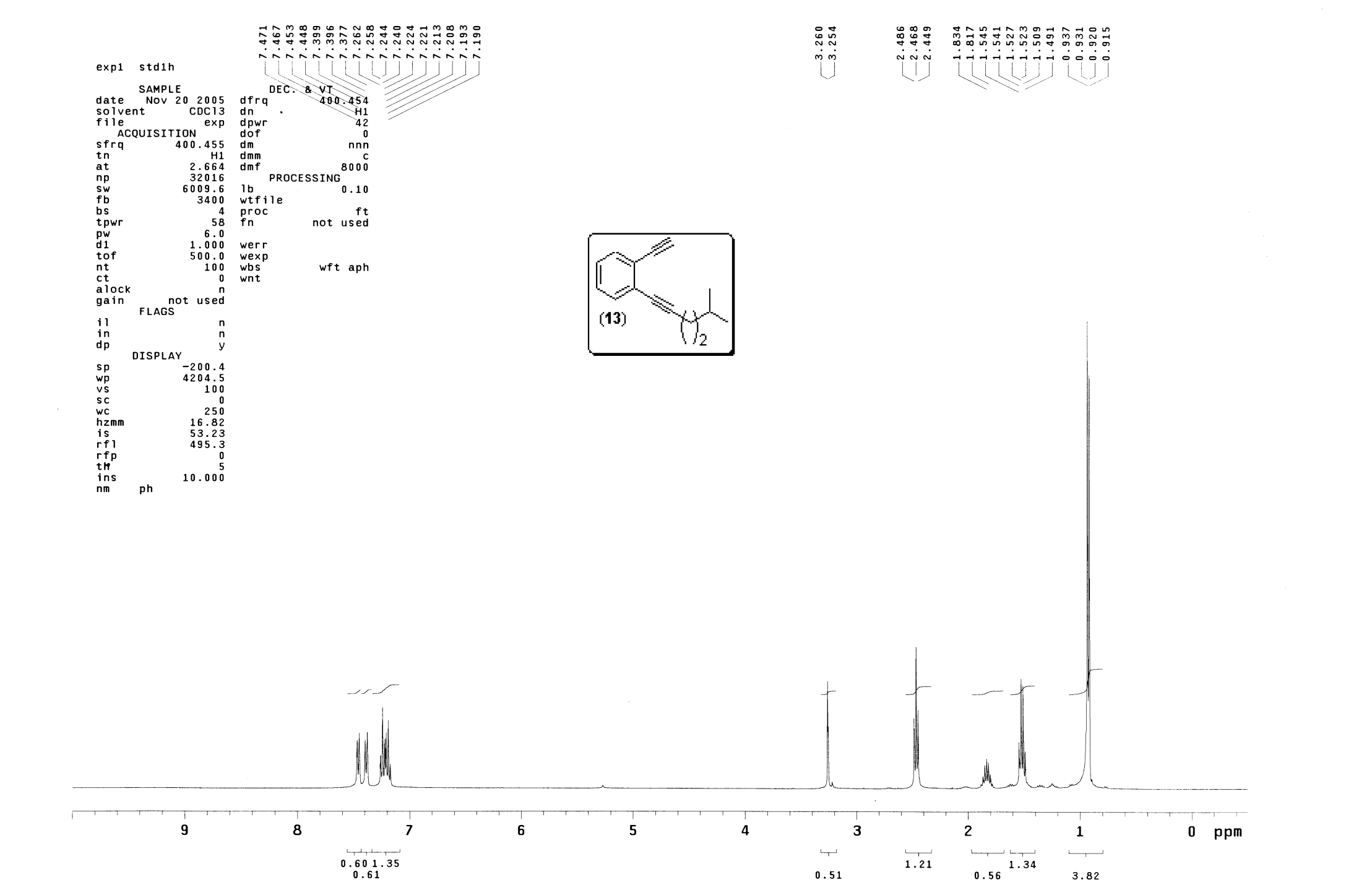
F2 - Acquisition Parameters
Date_ 20030915
Time 18.24
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zgpg
TD 32768
SOLVENT C6D6
NS 6144
DS 0
SWH 37878.789 Hz
FIDRES 1.155969 Hz
AQ 0.4325876 sec
RG 2048
DW 13.200 usec
DE 6.50 usec
TE 0.0 K
D1 5.00000000 sec
d11 0.03000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 13C
P1 4.50 usec
PL1 0.00 dB
SFO1 150.8372651 MHz

======== CHANNEL f2 ========
CPDPRG2 garp
NUC2 1H
PCPD2 92.00 usec
PL2 120.00 dB
PL12 8.80 dB
PL13 10.00 dB
SFO2 599.8029990 MHz

F2 - Processing parameters
SI 65536
SF 150.8198311 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 0.50

1D NMR plot parameters
CX 20.00 cm
CY 22.41 cm
F1P 200.000 ppm
F1 30163.96 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPMCM 10.00000 ppm/cm
HZCM 1508.19824 Hz/cm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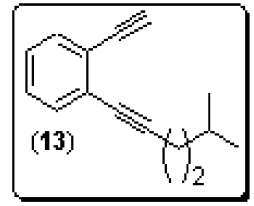
7.467
7.453
7.448
7.399
7.396
7.377
7.262
7.258
7.244
7.240
7.224
7.221
7.213
7.208
7.193
7.190
3.260
3.254
2.486
2.468
2.449
1.834
1.817
1.545
1.541
1.527
1.523
1.509
1.491
0.937
0.931
0.920
0.915
exp1 std1h
SAMPLE
date Nov 20 2005
solvent CDCl3
file exp
ACQUISITION
sfrq 400.455
tn H1
at 2.664
np 32016
sw 6009.6
fb 3400
bs 4
tpwr 58
pw 6.0
d1 1.000
tof 500.0
nt 100
ct 0
alock n
gain not used
FLAGS
il n
in n
dp y
DISPLAY
sp -200.4
wp 4204.5
vs 100
sc 0
wc 250
hzmm 16.82
is 53.23
rfl 495.3
rfp 0
th 5
ins 10.000
nm ph
DEC. & VT
dfrq 400.454
dn H1
dpwr 42
dof 0
dm nnn
dmm c
dmf 8000
PROCESSING
lb 0.10
wtfile
proc ft
fn not used
werr
wexp
wbs wft aph
wnt
(13)
2
9
8
7
6
5
4
3
2
1
0 ppm
0.60 1.35
0.61
0.51
1.21
0.56
1.34
3.82

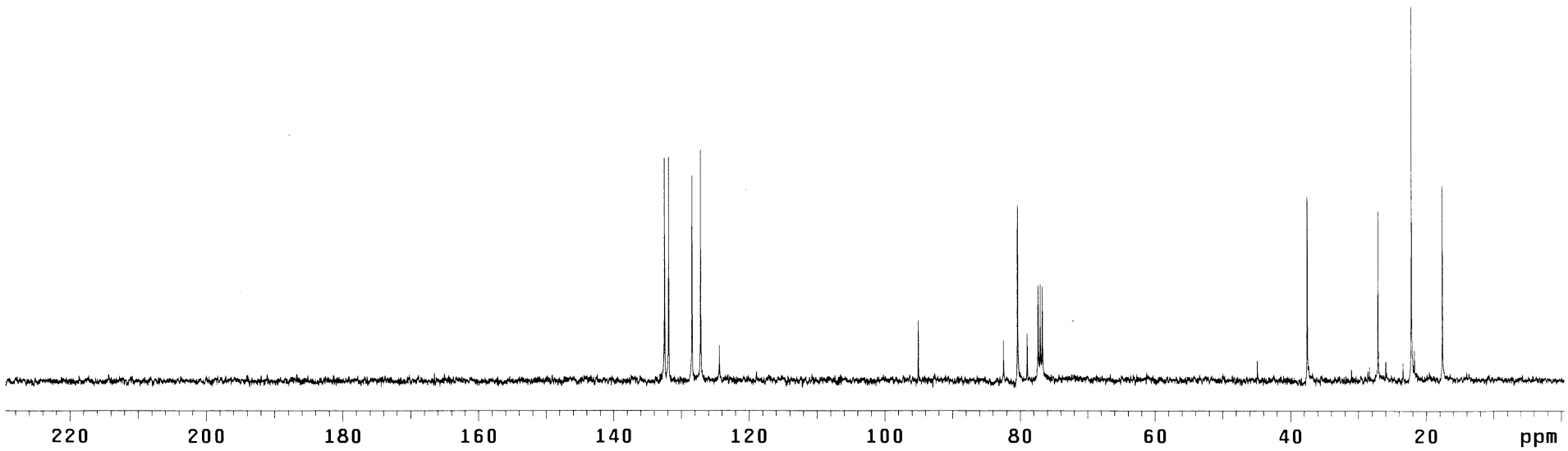
13C OBSERVE

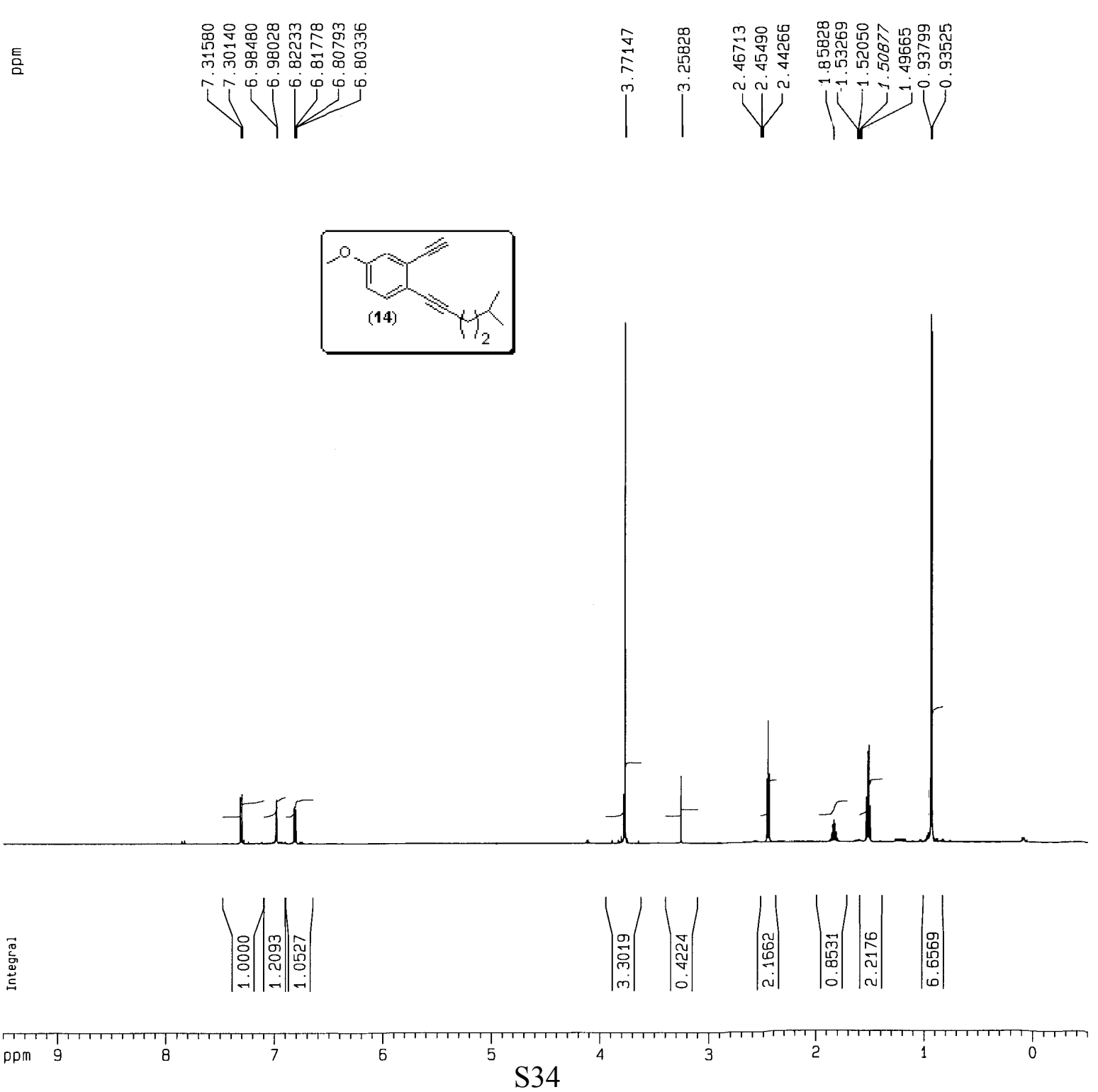
exp2 std13c

SAMPLE		DEC. & VT	
date	Nov 20 2005	dfrq	400.454
solvent	CDCl3	dn	H1
file	exp	dpwr	42
ACQUISITION		dof	0
sfrq	100.705	dm	yyy
tn	C13	dmm	w
at	0.635	dmf	8000
np	32000	PROCESSING	
sw	25188.9	lb	3.00
fb	13800	wtfile	
bs	4	proc	ft
tpwr	58	fn	not used
pw	6.5		
d1	2.000	werr	
tof	2000.0	wexp	
nt	30000	wbs	wft
ct	0	wnt	
alock	n		
gain	not used		
FLAGS			
il	n		
in	n		
dp	y		
DISPLAY			
sp	-50.9		
wp	23159.4		
vs	60		
sc	0		
wc	250		
hzmm	92.64		
is	500.00		
rfl	1087.2		
rfp	0		
th	4		
ins	100.000		
nm no ph			

132.457
131.847
128.396
127.113
124.365
95.048
82.451
80.374
78.954
77.336
77.015
76.695
37.529
27.101
22.184
21.741
17.603







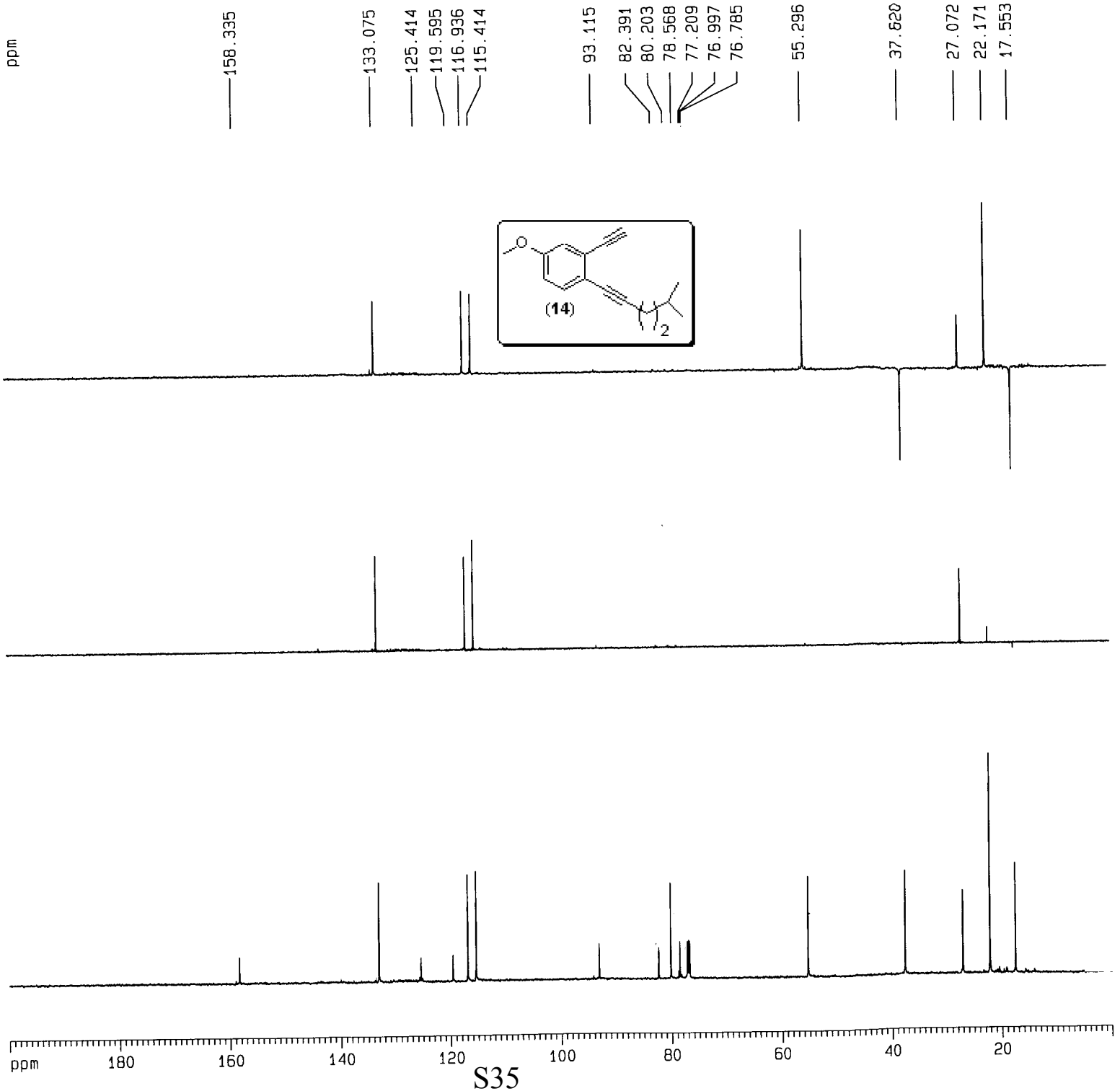
Current Data Parameters
NAME Wei-031030-1
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20031031
Time 9.34
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zg
TD 32768
SOLVENT CDCl3
NS 16
DS 0
SWH 8389.262 Hz
FIDRES 0.256020 Hz
AQ 1.9530228 sec
RG 32
DW 59.600 usec
DE 6.50 usec
TE 0.0 K
D1 2.00000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 1H
P1 13.00 usec
PL1 -2.00 dB
SFO1 599.8029990 MHz

F2 - Processing parameters
SI 32768
SF 599.8000279 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 1.00

1D NMR plot parameters
CX 20.00 cm
CY 10.00 cm
F1P 9.500 ppm
F1 5698.10 Hz
F2P -0.500 ppm
F2 -299.90 Hz
PPMCM 0.50000 ppm/cm
HZCM 299.90002 Hz/cm



Current Data Parameters
NAME Wei-031030-1
EXPNO 2
PROCNO 1

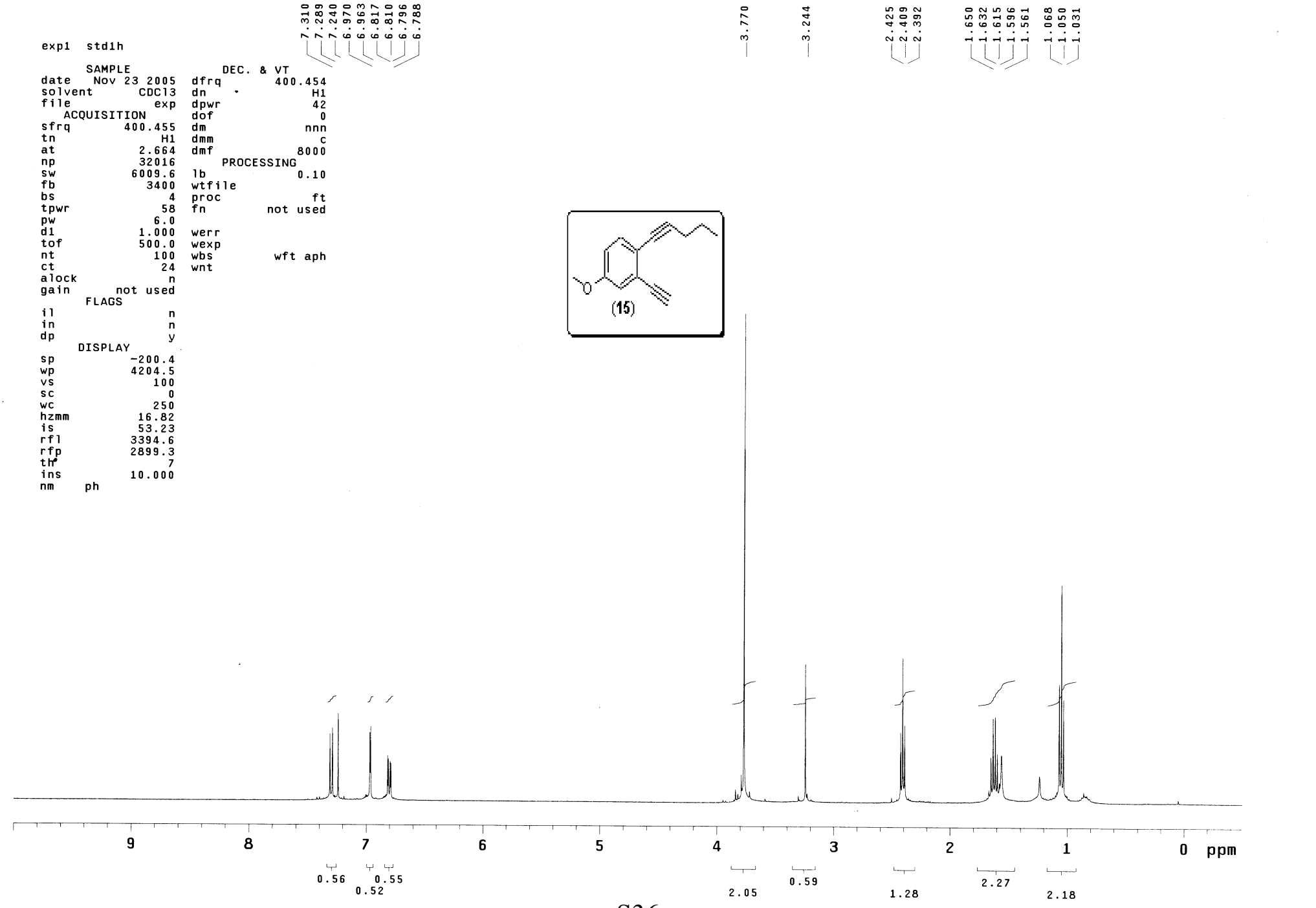
F2 - Acquisition Parameters
Date_ 20031031
Time 9.37
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zgpg
TD 32768
SOLVENT C6D6
NS 54
DS 0
SWH 37878.789 Hz
FIDRES 1.155969 Hz
AQ 0.4325876 sec
RG 2048
DW 13.200 usec
DE 6.50 usec
TE 0.0 K
D1 5.00000000 sec
d11 0.03000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 13C
P1 4.50 usec
PL1 0.00 dB
SFO1 150.8372651 MHz

======== CHANNEL f2 ========
CPDPRG2 garp
NUC2 1H
PCPD2 92.00 usec
PL2 120.00 dB
PL12 8.80 dB
PL13 10.00 dB
SFO2 599.8029990 MHz

F2 - Processing parameters
SI 65536
SF 150.8198421 MHz
WDW EM
SSB 0
LB 5.00 Hz
GB 0
PC 0.50

1D NMR plot parameters
CX 20.00 cm
CY 4.00 cm
F1P 200.000 ppm
F1 30163.97 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPMCM 10.00000 ppm/cm
HZCM 1508.19836 Hz/cm


exp1 std1h
SAMPLE
date Nov 23 2005
solvent CDCl3
file exp
ACQUISITION
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tn H1
at 2.664
np 32016
sw 6009.6
fb 3400
bs 4
tpwr 58
pw 6.0
d1 1.000
tof 500.0
nt 100
ct 24
alock n
gain not used
FLAGS
il n
in n
dp y
DISPLAY
sp -200.4
wp 4204.5
vs 100
sc 0
wc 250
hzmm 16.82
is 53.23
rfl 3394.6
rfp 2899.3
th 7
ins 10.000
nm ph
DEC. & VT
dfrq 400.454
dn H1
dpwr 42
dof 0
dm nnn
dmm c
dmf 8000
PROCESSING
lb 0.10
wtfile
proc ft
fn not used
werr
wexp
wbs wft aph
wnt
7.310
7.289
7.240
6.970
6.963
6.817
6.810
6.796
6.788
3.770
3.244
2.425
2.409
2.392
1.650
1.632
1.615
1.596
1.561
1.068
1.050
1.031
(15)
9
8
7
6
5
4
3
2
1
0 ppm
0.56
0.52
0.55
2.05
0.59
1.28
2.27
2.18

13C OBSERVE

exp2 std13c

SAMPLE		DEC. & VT	
date	Nov 24 2005	dfrq	400.454
solvent	CDCl3	dn	H1
file	exp	dpwr	42
ACQUISITION		dof	0
sfrq	100.705	dm	yyy
tn	C13	dmm	w
at	0.635	dmf	8000
np	32000	PROCESSING	
sw	25188.9	lb	3.00
fb	13800	wtfile	
bs	4	proc	ft
tpwr	58	fn	not used
pw	6.5		
d1	2.000	werr	
tof	2000.0	wexp	
nt	30000	wbs	wft
ct	152	wnt	
alock	n		
gain	not used		
FLAGS			
il	n		
in	n		
dp	y		
DISPLAY			
sp	-0.2		
wp	22152.3		
vs	45		
sc	0		
wc	250		
hzmm	88.61		
is	500.00		
rfl	1087.2		
rfp	0		
th	4		
ins	100.000		
nm no ph			

158.384
133.114
125.434
119.616
116.990
115.432
92.956
82.405
80.252
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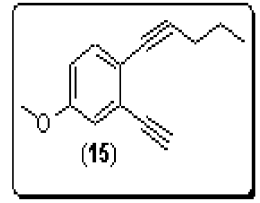
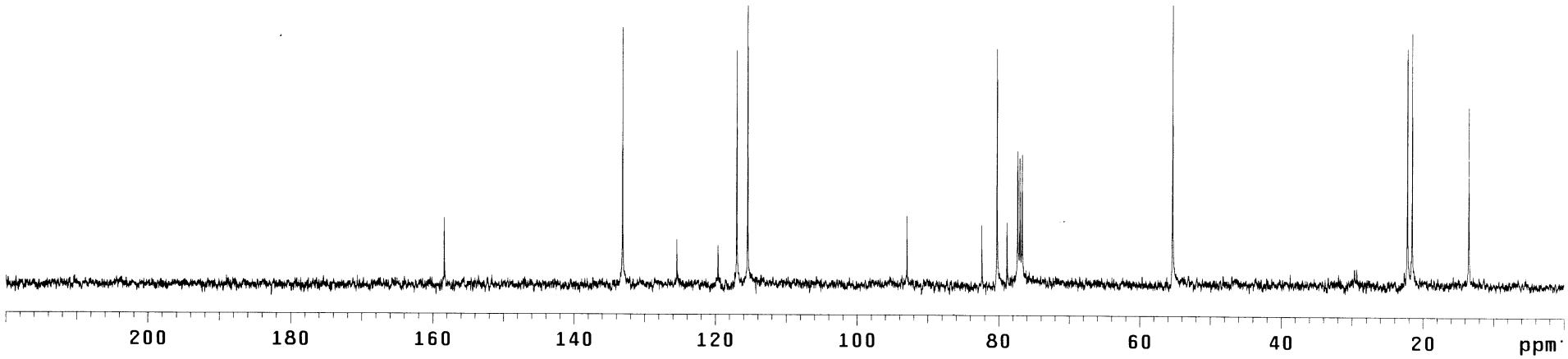
21.543
13.496





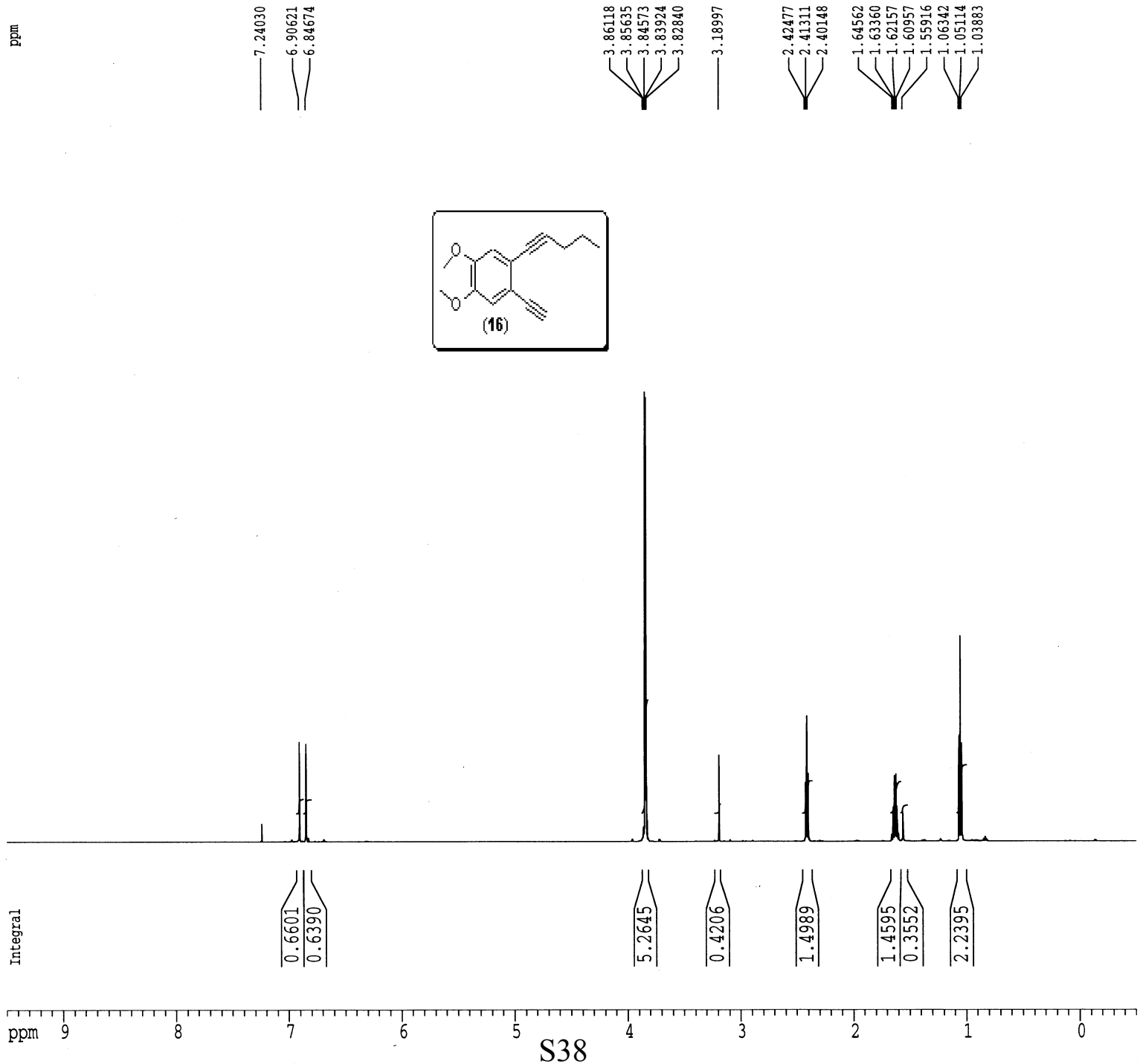
Current Data Parameters
NAME Pratap-051116
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20051115
Time 15.42
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zg
TD 32768
SOLVENT CDCl3
NS 16
DS 0
SWH 8389.262 Hz
FIDRES 0.256020 Hz
AQ 1.9530228 sec
RG 32
DW 59.600 usec
DE 6.50 usec
TE 297.2 K
D1 1.00000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 1H
P1 10.00 usec
PL1 0.00 dB
SFO1 599.5029975 MHz

F2 - Processing parameters
SI 32768
SF 599.5000273 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 1.00

1D NMR plot parameters
CX 20.00 cm
CY 8.00 cm
F1P 9.500 ppm
F1 5695.25 Hz
F2P -0.500 ppm
F2 -299.75 Hz
PPMCM 0.50000 ppm/cm
HZCM 299.75000 Hz/cm

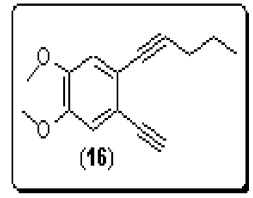


13C OBSERVE

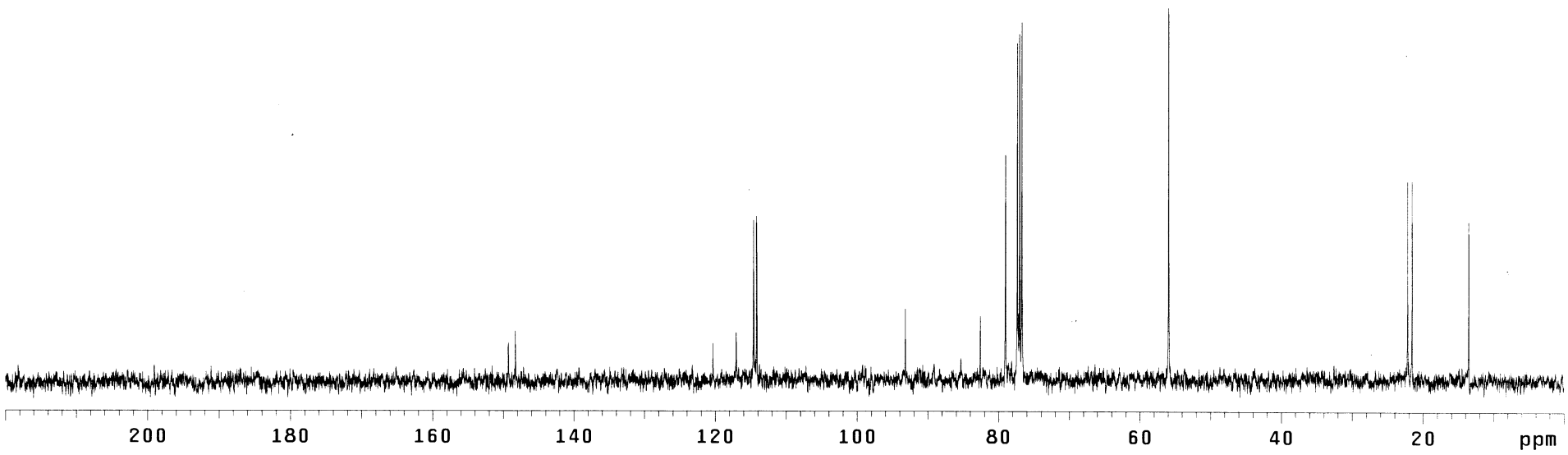
exp2 std13c

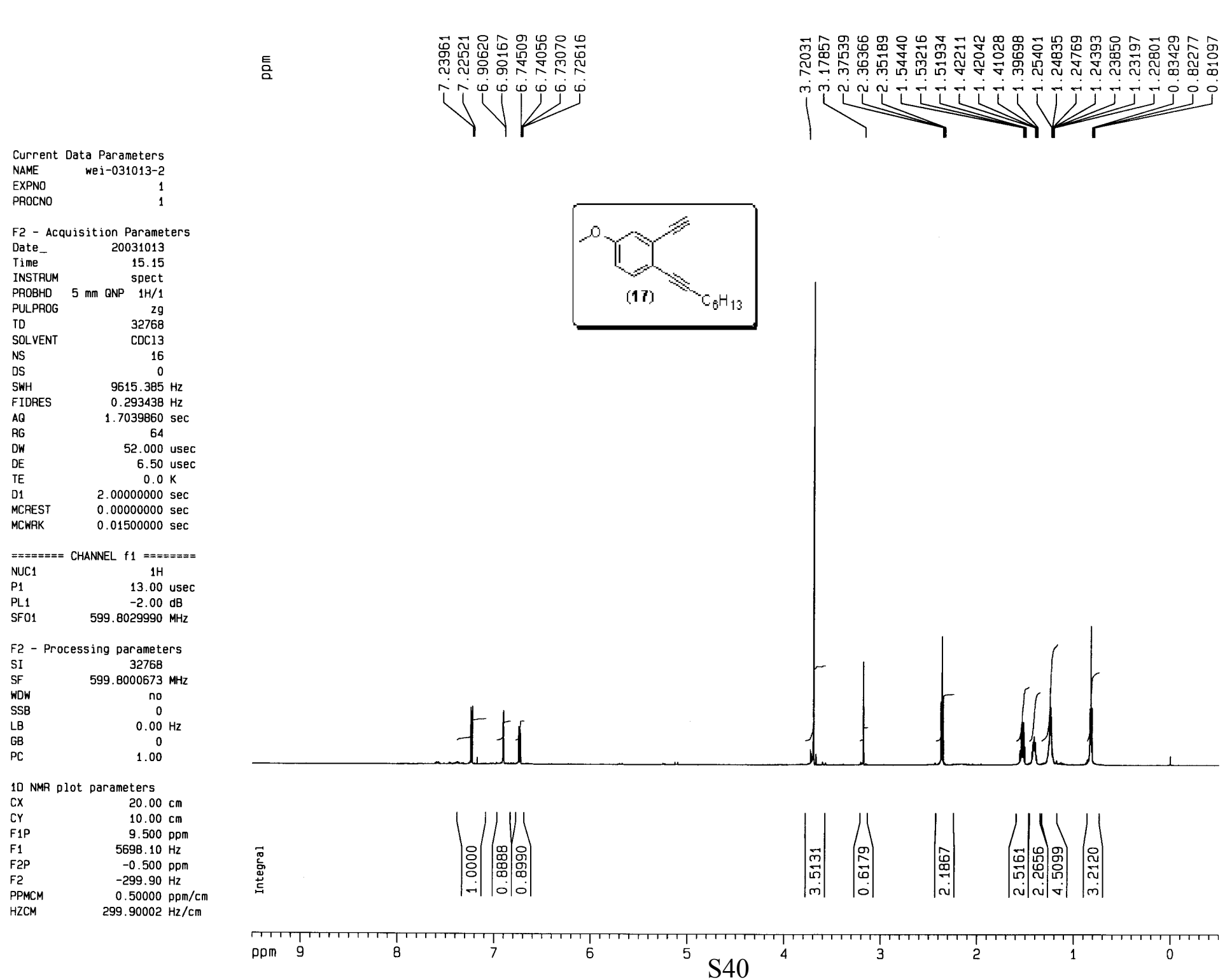
SAMPLE		DEC. & VT	
date	Nov 16 2005	dfrq	400.454
solvent	CDCl3	dn	H1
file	exp	dpwr	42
ACQUISITION		dof	0
sfrq	100.705	dm	yyy
tn	C13	dmm	w
at	0.635	dmf	8000
np	32000	PROCESSING	
sw	25188.9	lb	3.00
fb	13800	wtfile	
bs	4	proc	ft
tpwr	58	fn	not used
pw	6.5		
d1	2.000	werr	
tof	2000.0	wexp	
nt	30000	wbs	wft
ct	160	wnt	
alock	n		
gain	not used		
FLAGS			
il	n		
in	n		
dp	y		
DISPLAY			
sp	-0.2		
wp	22152.3		
vs	60		
sc	0		
wc	250		
hzmm	88.61		
is	500.00		
rfl	1087.2		
rfp	0		
th	5		
ins	100.000		
nm no ph			

149.269
148.276
120.318
117.036
114.593
114.165
93.201
82.588
79.000
77.321
77.000
76.679
55.913
22.169
21.543
13.526



(16)





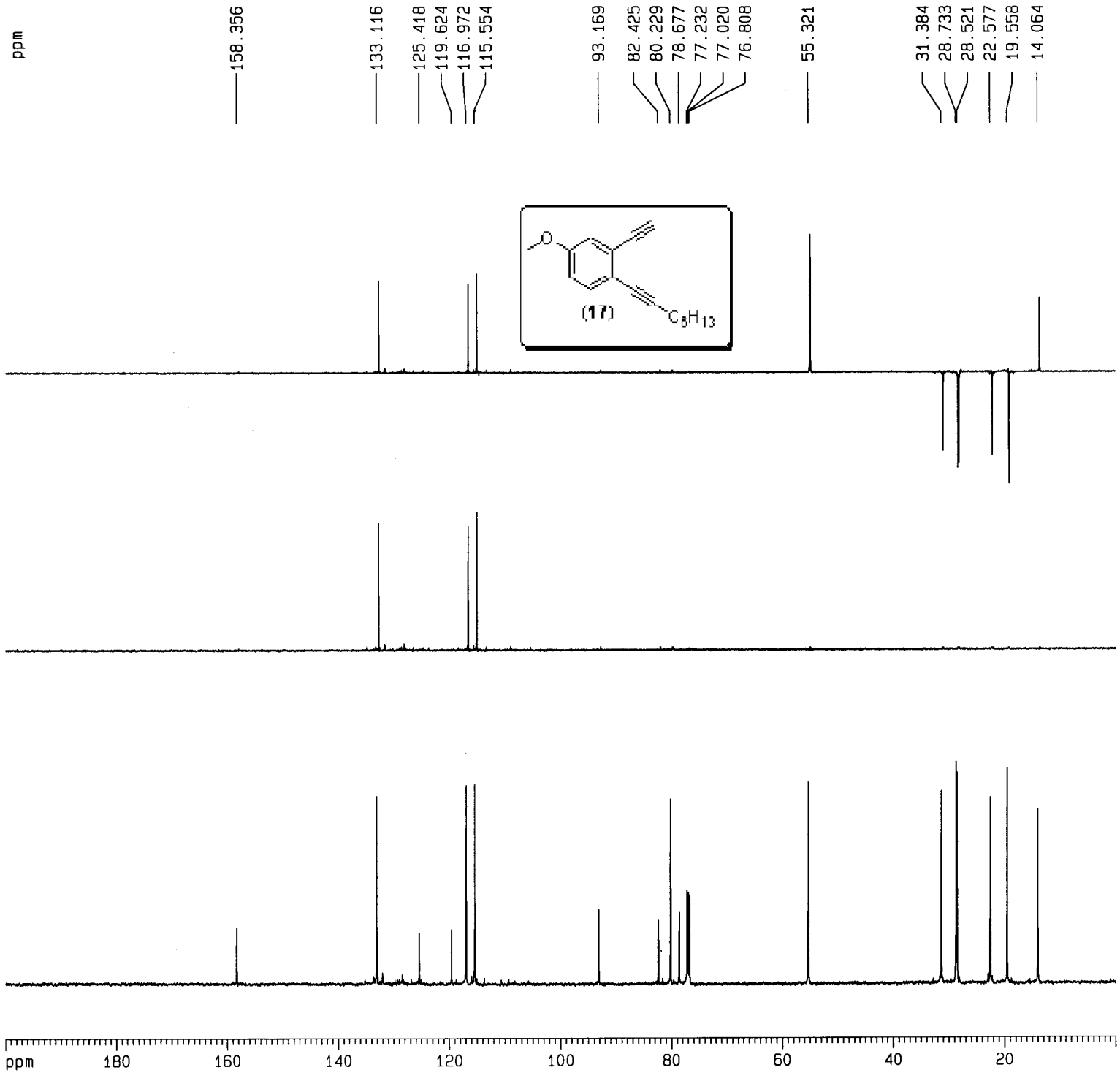
Current Data Parameters
NAME wei-031013-2
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20031013
Time 15.15
INSTRUM spect
PROBHD 5 mm GNP 1H/1
PULPROG zg
TD 32768
SOLVENT CDCl3
NS 16
DS 0
SWH 9615.385 Hz
FIDRES 0.293438 Hz
AQ 1.7039860 sec
RG 64
DW 52.000 usec
DE 6.50 usec
TE 0.0 K
D1 2.00000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 1H
P1 13.00 usec
PL1 -2.00 dB
SFO1 599.8029990 MHz

F2 - Processing parameters
SI 32768
SF 599.8000673 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 1.00

1D NMR plot parameters
CX 20.00 cm
CY 10.00 cm
F1P 9.500 ppm
F1 5698.10 Hz
F2P -0.500 ppm
F2 -299.90 Hz
PPMCM 0.50000 ppm/cm
HZCM 299.90002 Hz/cm



Current Data Parameters
NAME wei-031013-2
EXPNO 2
PROCNO 1

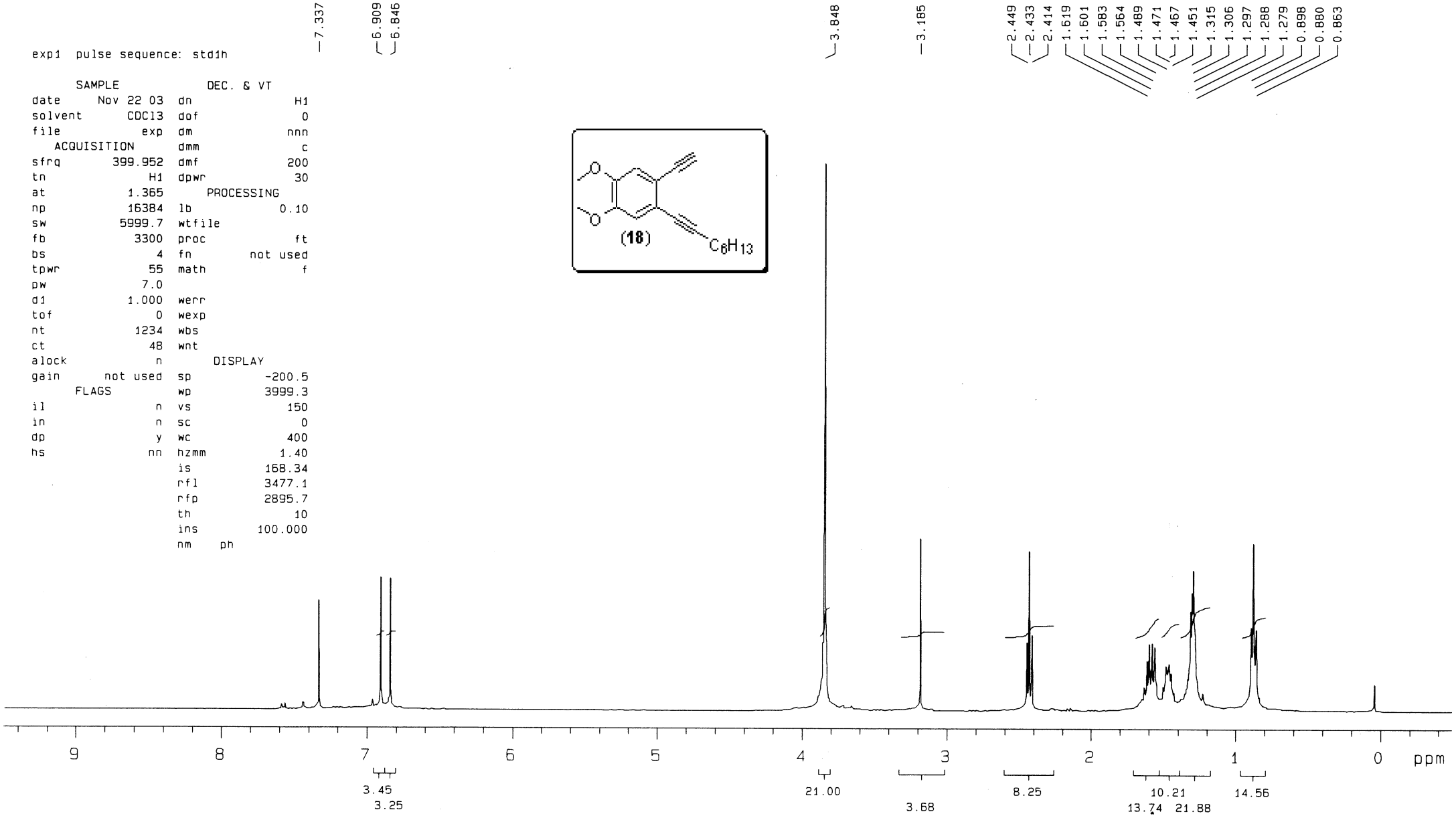
F2 - Acquisition Parameters
Date_ 20031013
Time 15.16
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zgpg
TD 32768
SOLVENT CDCl3
NS 87
DS 6
SWH 45454.547 Hz
FIDRES 1.387163 Hz
AQ 0.3604980 sec
RG 1024
DW 11.000 usec
DE 6.50 usec
TE 0.0 K
D1 5.00000000 sec
d11 0.03000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 13C
P1 4.00 usec
PL1 0.00 dB
SFO1 150.8363602 MHz

======== CHANNEL f2 ========
CPDPRG2 garp
NUC2 1H
PCPD2 92.00 usec
PL2 120.00 dB
PL12 10.00 dB
PL13 15.00 dB
SFO2 599.8023992 MHz

F2 - Processing parameters
SI 32768
SF 150.8198379 MHz
WDW EM
SSB 0
LB 5.00 Hz
GB 0
PC 0.50

1D NMR plot parameters
CX 20.00 cm
CY 4.00 cm
F1P 200.000 ppm
F1 30163.97 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPMCM 10.00000 ppm/cm
HZCM 1508.19836 Hz/cm

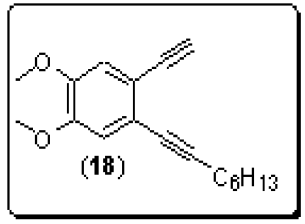

7.337
6.909
6.846
3.848
3.185
2.449
2.433
2.414
1.619
1.601
1.583
1.564
1.489
1.471
1.467
1.451
1.315
1.306
1.297
1.288
1.279
0.898
0.880
0.863
exp1 pulse sequence: std1h
SAMPLE
date Nov 22 03
solvent CDCl3
file exp
ACQUISITION
sfrq 399.952
tn H1
at 1.365
np 16384
sw 5999.7
fb 3300
bs 4
tpwr 55
pw 7.0
d1 1.000
tof 0
nt 1234
ct 48
alock n
gain not used
FLAGS
il n
in n
dp y
hs nn
DEC. & VT
dn H1
dof 0
dm nnn
dmm c
dmf 200
dpwr 30
PROCESSING
lb 0.10
wtfile
proc ft
fn not used
math f
werr
wexp
wbs
wnt
DISPLAY
sp -200.5
wp 3999.3
vs 150
sc 0
wc 400
hzmm 1.40
is 168.34
rfl 3477.1
rfp 2895.7
th 10
ins 100.000
nm ph
(18)
C6H13
9
8
7
6
5
4
3
2
1
0
ppm
3.45
3.25
21.00
3.68
8.25
10.21
13.74
21.88
14.56

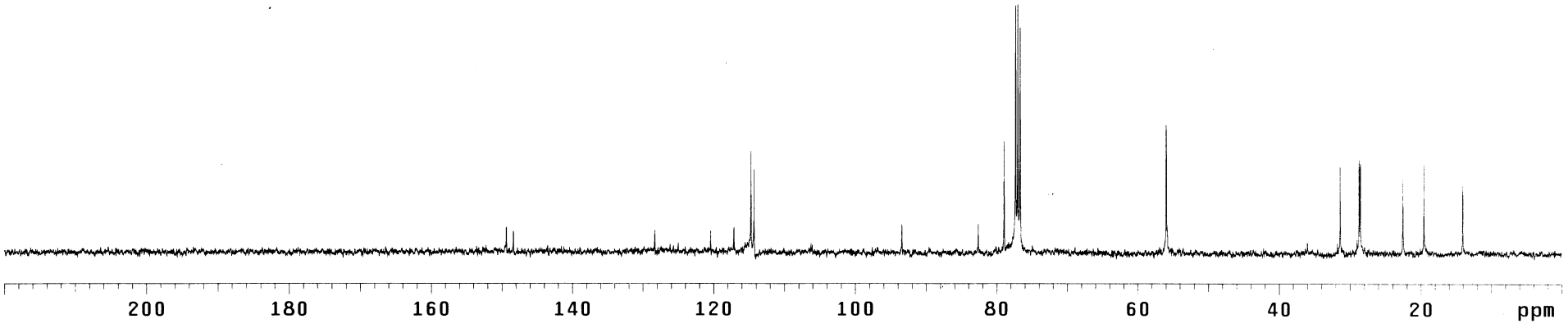
13C OBSERVE

exp2 std13c

SAMPLE		DEC. & VT	
date	Nov 22 2003	dfrq	400.454
solvent	CDCl3	dn	H1
file	exp	dpwr	42
ACQUISITION		dof	0
sfrq	100.705	dm	yyy
tn	C13	dmm	w
at	0.635	dmf	8000
np	32000	PROCESSING	
sw	25188.9	lb	3.00
fb	13800	wtfile	
bs	4	proc	ft
tpwr	58	fn	not used
pw	6.5		
d1	2.000	werr	
tof	2000.0	wexp	
nt	10000	wbs	wft
ct	1804	wnt	
alock	n		
gain	not used		
FLAGS			
il	n		
in	n		
dp	y		
DISPLAY			
sp	-0.2		
wp	22152.3		
vs	40		
sc	0		
wc	250		
hzmm	9.08		
is	500.00		
rfl	8837.6		
rfp	7753.4		
th	3		
ins	100.000		
nm no ph			

149.345
148.352
128.319
120.410
117.097
114.699
114.257
93.445
82.650
78.970
77.321
77.000
76.679
55.944
31.376
28.719
28.536
22.566
19.573
14.046





Current Data Parameters

NAME	Wei-031102-3
EXPNO	1
PROCNO	1

F2 - Acquisition Parameters

Date_	20031102
Time	17.35
INSTRUM	spect
PROBHD	5 mm QNP 1H/1
PULPROG	zg
TD	32768
SOLVENT	DMSO
NS	16
DS	0
SWH	8389.262 Hz
FIDRES	0.256020 Hz
AQ	1.9530228 sec
RG	32
DW	59.600 usec
DE	6.50 usec
TE	0.0 K
D1	2.00000000 sec
MCREST	0.00000000 sec
MCWRK	0.01500000 sec

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

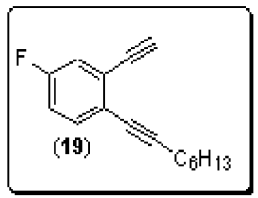
NUC1	1H
P1	13.00 usec
PL1	-2.00 dB
SFO1	599.8029990 MHz

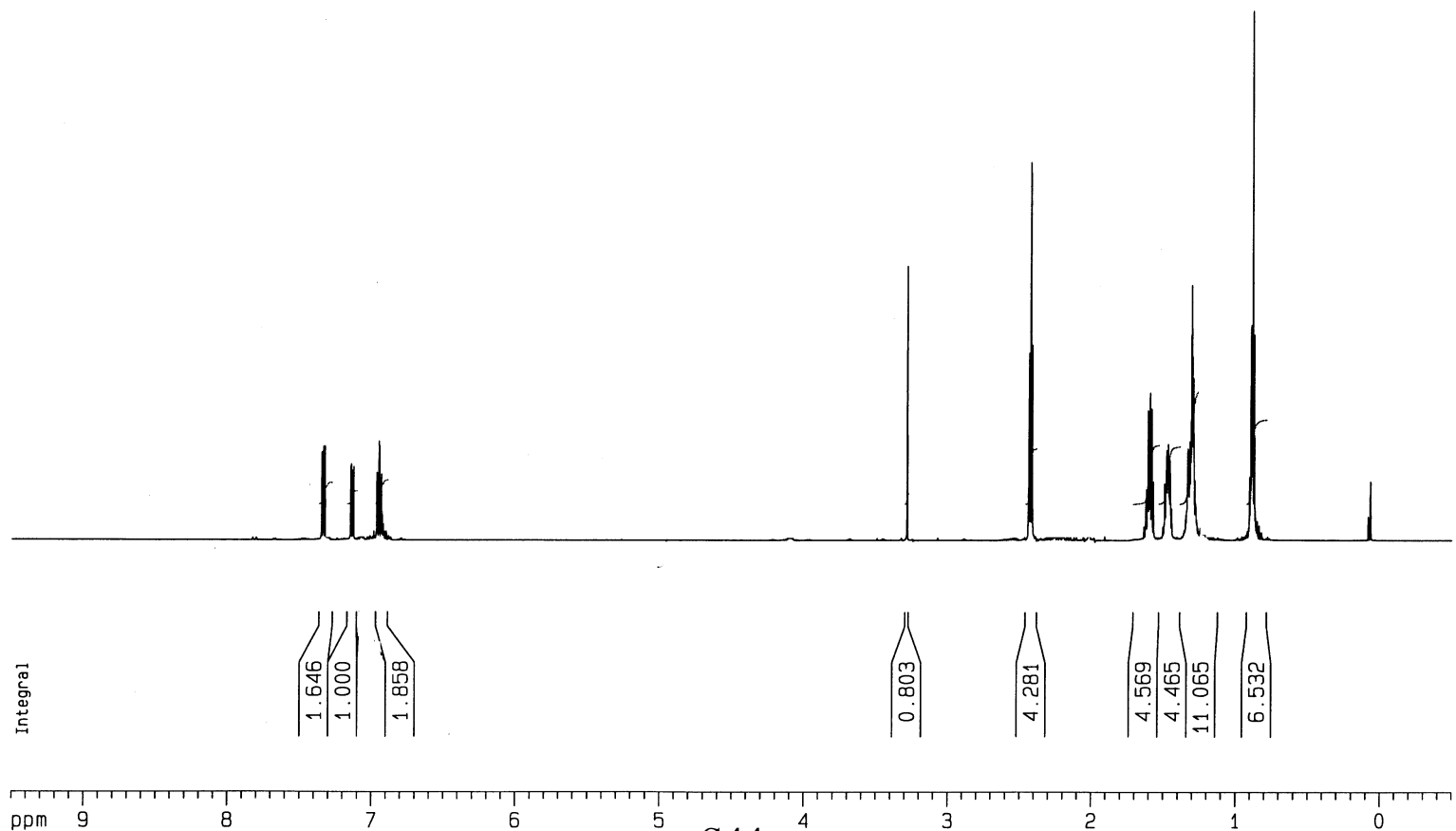
F2 - Processing parameters

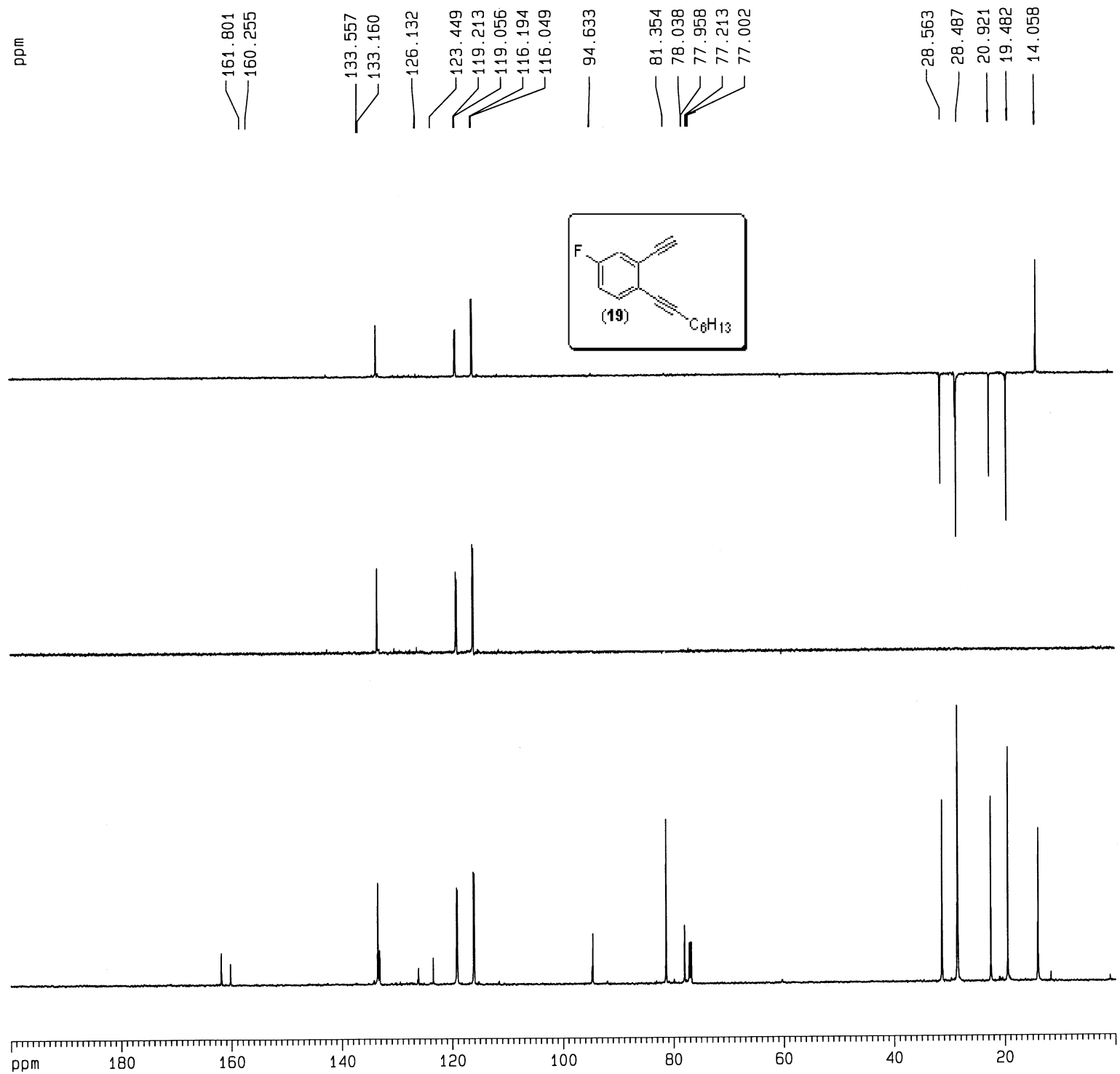
SI	32768
SF	599.8000282 MHz
WDW	no
SSB	0
LB	0.00 Hz
GB	0
PC	1.00

1D NMR plot parameters

CX	20.00 cm
CY	10.00 cm
F1P	9.500 ppm
F1	5698.10 Hz
F2P	-0.500 ppm
F2	-299.90 Hz
PPMCM	0.50000 ppm/cm
HZCM	299.90002 Hz/cm







Current Data Parameters
NAME Wei-031102-3
EXPNO 2
PROCNO 1

F2 - Acquisition Parameters
Date_ 20031102
Time 17.37
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zgpg
TD 32768
SOLVENT C6D6
NS 177
DS 0
SWH 37878.789 Hz
FIDRES 1.155969 Hz
AQ 0.4325876 sec
RG 2048
DW 13.200 usec
DE 6.50 usec
TE 0.0 K
D1 3.50000000 sec
d11 0.03000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 13C
P1 4.50 usec
PL1 0.00 dB
SFO1 150.8372651 MHz

======== CHANNEL f2 ========
CPDPRG2 garp
NUC2 1H
PCPD2 92.00 usec
PL2 120.00 dB
PL12 8.00 dB
PL13 10.00 dB
SFO2 599.8023992 MHz

F2 - Processing parameters
SI 65536
SF 150.8198380 MHz
WDW EM
SSB 0
LB 5.00 Hz
GB 0
PC 0.50

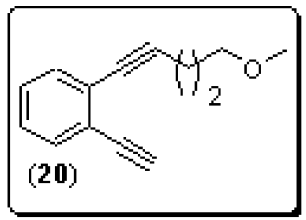
1D NMR plot parameters
CX 20.00 cm
CY 5.00 cm
F1P 200.000 ppm
F1 30163.97 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPMCM 10.00000 ppm/cm
HZCM 1508.19836 Hz/cm

substrate
exp1 std1h

7.463 7.461 7.459 7.444 7.440 7.390 7.387 7.368 7.240 7.238 7.236 7.220 7.217 7.215 7.211 7.208 7.190 7.166

3.558 3.543 3.527 3.341 3.256 2.559 2.542 2.524 1.881 1.866 1.848

SAMPLE		DEC. & VT	
date	Mar 6 2005	dfrq	400.454
solvent	CDCl3	dn	H1
file	exp	dpwr	42
ACQUISITION		dof	0
sfrq	400.455	dm	nnn
tn	H1	dmm	c
at	2.664	dmf	8000
np	32016	PROCESSING	
sw	6009.6	lb	0.10
fb	3400	wtfile	
bs	4	proc	ft
tpwr	58	fn	not used
pw	6.0		
d1	1.000	werr	
tof	500.0	wexp	
nt	100	wbs	wft aph
ct	0	wnt	
alock	n		
gain	not used		
FLAGS			
il	n		
in	n		
dp	y		
DISPLAY			
sp	-200.4		
wp	3804.3		
vs	100		
sc	0		
wc	250		
hzmm	3.58		
is	54.35		
rfl	494.5		
rfp	0		
th	7		
ins	10.000		
nm	ph		



(20)

8 7 6 5 4 3 2 1 0 ppm

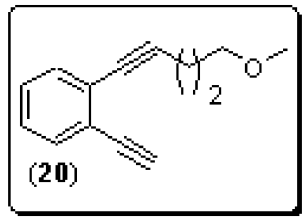
0.44 1.39 0.51 1.87 1.41 0.65 1.44 1.66

13C OBSERVE

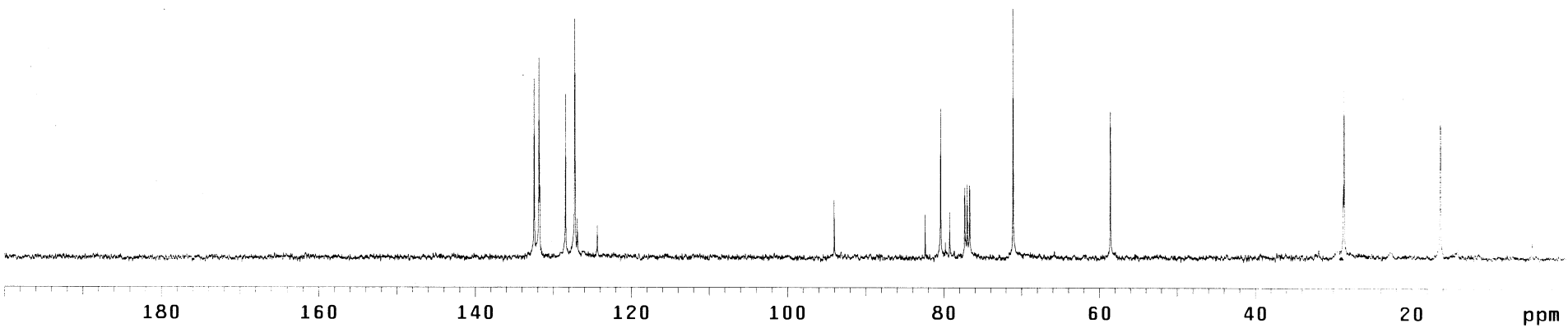
exp3 std13c

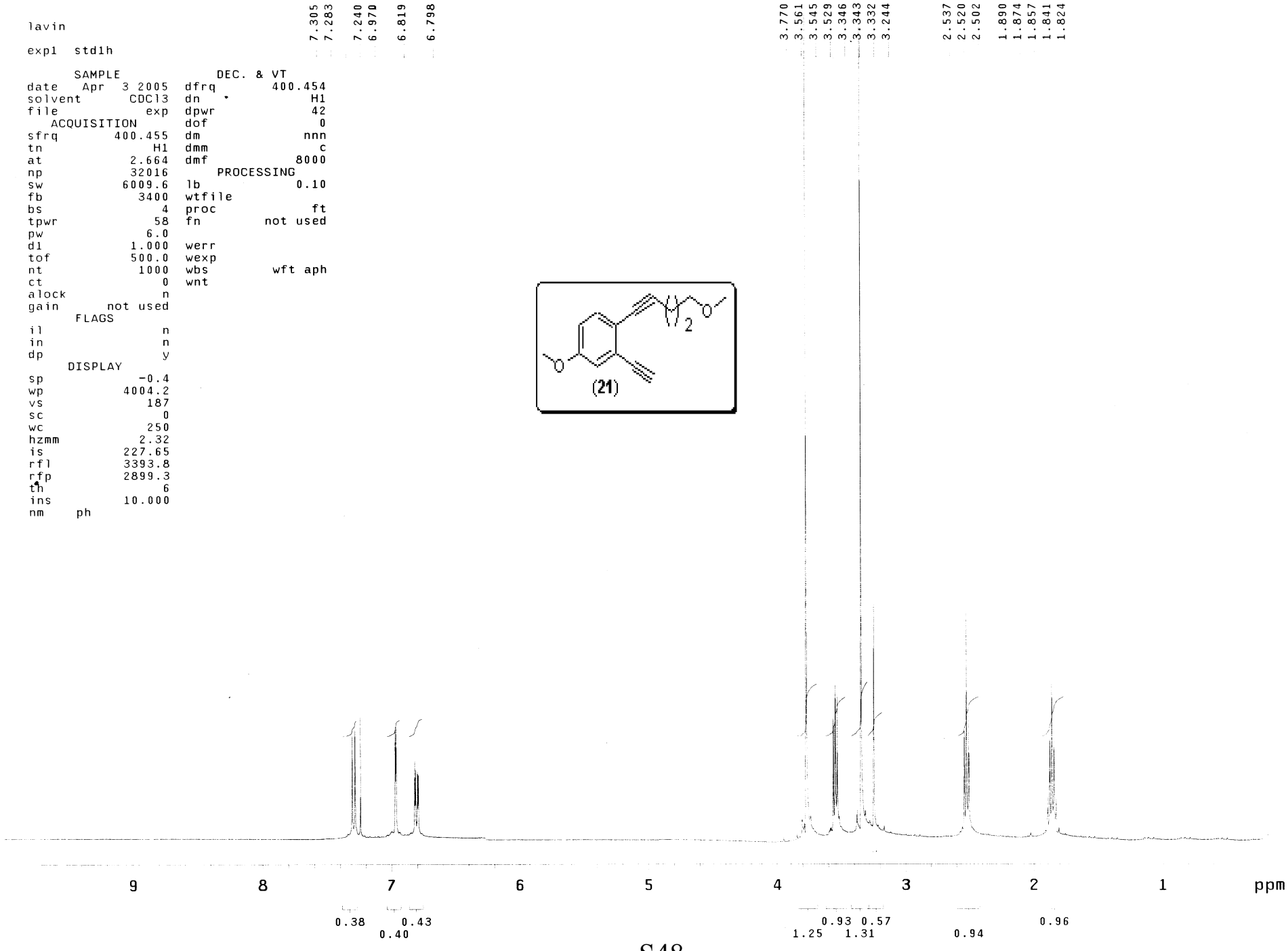
SAMPLE		DEC. & VT	
date	Mar 6 2005	dfrq	400.454
solvent	CDCl3	dn	H1
file	exp	dpwr	42
ACQUISITION		dof	0
sfrq	100.705	dm	yyy
tn	C13	dmm	w
at	0.635	dmf	8000
np	32000	PROCESSING	
sw	25188.9	lb	3.00
fb	13800	wtfile	
bs	4	proc	ft
tpwr	58	fn	not used
pw	6.5	werr	
d1	2.000	wexp	
tof	2000.0	wbs	wft
nt	30000	wnt	
ct	0		
alock	n		
gain	not used		
FLAGS			
il	n		
in	n		
dp	y		
DISPLAY			
sp	-0.2		
wp	20138.2		
vs	40		
sc	0		
wc	250		
hzmm	80.56		
is	500.00		
rfl	8845.3		
rfp	7753.4		
th	5		
ins	100.000		
nm no ph			

132.427
131.801
128.365
127.190
126.869
124.334
94.025
82.405
80.420
79.275
77.305
76.985
76.679
71.091
58.570
29.299
16.275



(**20**)



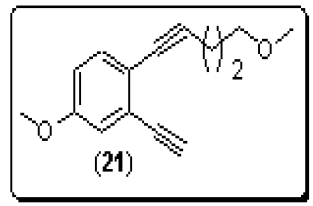

lavin
exp1 std1h
SAMPLE
date Apr 3 2005
solvent CDCl3
file exp
ACQUISITION
sfrq 400.455
tn H1
at 2.664
np 32016
sw 6009.6
fb 3400
bs 4
tpwr 58
pw 6.0
d1 1.000
tof 500.0
nt 1000
ct 0
alock n
gain not used
FLAGS
il n
in n
dp y
DISPLAY
sp -0.4
wp 4004.2
vs 187
sc 0
wc 250
hzmm 2.32
is 227.65
rfl 3393.8
rfp 2899.3
th 6
ins 10.000
nm ph
DEC. & VT
dfrq 400.454
dn H1
dpwr 42
dof 0
dm nnn
dmm c
dmf 8000
PROCESSING
lb 0.10
wtfile
proc ft
fn not used
werr
wexp
wbs wft aph
wnt
7.305
7.283
7.240
6.970
6.819
6.798
3.770
3.561
3.545
3.529
3.346
3.343
3.332
3.244
2.537
2.520
2.502
1.890
1.874
1.857
1.841
1.824
(21)
9
8
7
6
5
4
3
2
1
ppm
0.38
0.43
0.40
0.93
0.57
1.25
1.31
0.94
0.96

13C OBSERVE

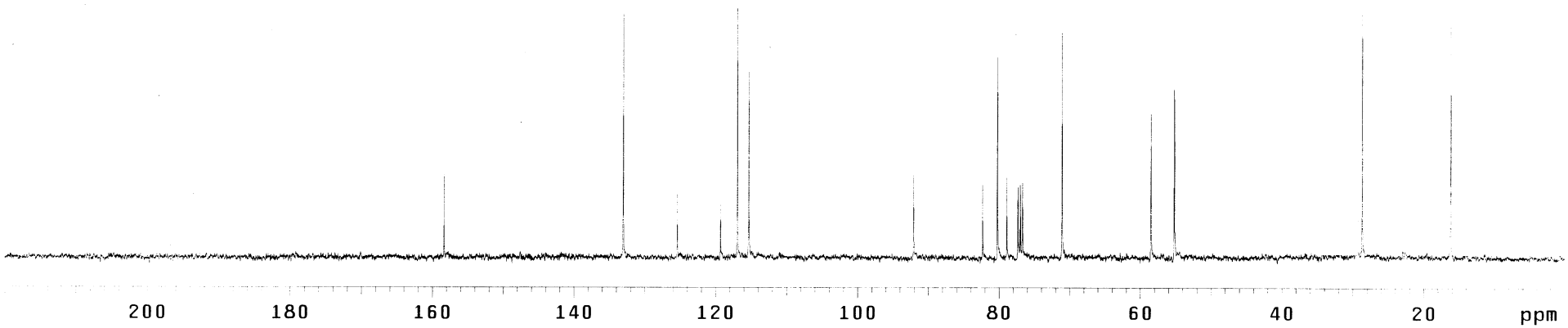
exp2 std13c

SAMPLE		DEC. & VT	
date	Apr 6 2005	dfrq	400.454
solvent	CDCl3	dn	H1
file	exp	dpwr	42
ACQUISITION		dof	0
sfrq	100.705	dm	yyy
tn	C13	dmm	w
at	0.635	dmf	8000
np	32000	PROCESSING	
sw	25188.9	lb	3.00
fb	13800	wtfile	
bs	4	proc	ft
tpwr	58	fn	not used
pw	6.5		
d1	2.000	werr	
tof	2000.0	wexp	
nt	20000	wbs	wft
ct	76	wnt	
alock	n		
gain	not used		
FLAGS			
il	n		
in	n		
dp	y		
DISPLAY			
sp	-0.2		
wp	22152.3		
vs	40		
sc	0		
wc	250		
hzmm	88.61		
is	500.00		
rfl	8848.3		
rfp	7753.4		
th	4		
ins	100.000		
nm no ph			

158.354 133.022 125.403 119.280 116.929 115.310 92.071 82.329 80.252 78.909 77.321 77.000 76.679 71.091 58.494 55.196 29.269 16.198



(21)

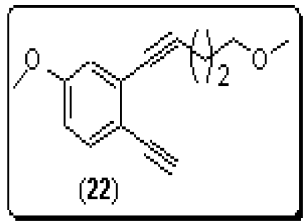


yellow

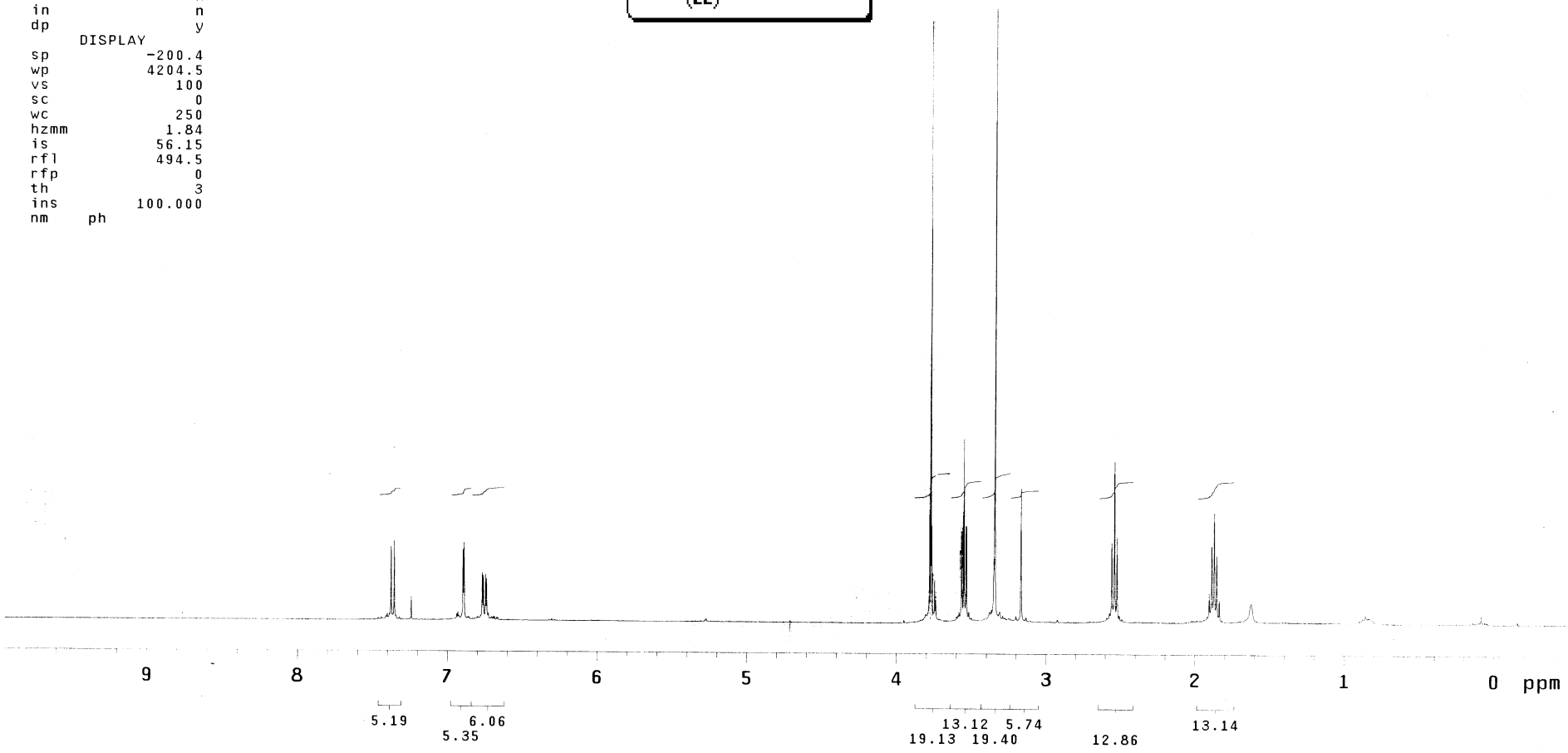
exp1 std1h

SAMPLE		DEC. & VT	
date	Apr 7 2005	dfrq	400.454
solvent	CDCl3	dn	H1
file	exp	dpwr	42
ACQUISITION		dof	0
sfrq	400.455	dm	nnn
tn	H1	dmm	c
at	2.664	dmf	8000
np	32016	PROCESSING	
sw	6009.6	lb	0.10
fb	3400	wtfile	
bs	4	proc	ft
tpwr	58	fn	not used
pw	6.0		
d1	1.000	werr	
tof	500.0	wexp	
nt	100	wbs	wft aph
ct	0	wnt	
alock	n		
gain	not used		
FLAGS			
il	n		
in	n		
dp	y		
DISPLAY			
sp	-200.4		
wp	4204.5		
vs	100		
sc	0		
wc	250		
hzmm	1.84		
is	56.15		
rfl	494.5		
rfp	0		
th	3		
ins	100.000		
nm	ph		

7.377 7.355 7.242 6.890 6.768 6.746 3.805 3.564 3.548 3.533 3.349 3.166 2.556 2.539 2.522 1.902 1.887 1.869 1.853 1.836 1.623



(22)

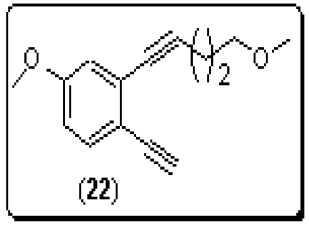


159.423
133.801
128.228
116.807
116.501
114.241
93.949
82.451
79.306
78.924
77.305
77.000
76.679
71.152
58.616
55.333
28.643
16.305

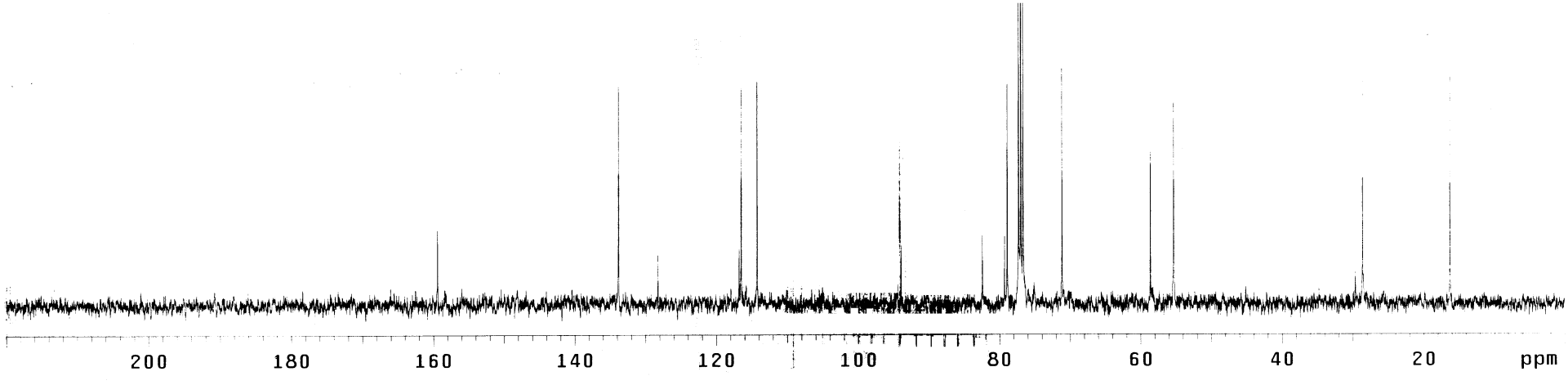
13C OBSERVE

exp2 std13c

SAMPLE		DEC. & VT	
date	Apr 7 2005	dfrq	400.454
solvent	CDCl3	dn	H1
file	exp	dpwr	42
ACQUISITION		dof	0
sfrq	100.705	dm	yyy
tn	C13	dmm	w
at	0.635	dmf	8000
np	32000	PROCESSING	
sw	25188.9	lb	3.00
fb	13800	wtfile	
bs	4	proc	ft
tpwr	58	fn	not used
pw	6.5		
d1	2.000	werr	
tof	2000.0	wexp	
nt	20000	wbs	wft
ct	0	wnt	
alock	n		
gain	not used		
FLAGS			
il	n		
in	n		
dp	y		
DISPLAY			
sp	-0.2		
wp	22152.3		
vs	60		
sc	0		
wc	250		
hzmm	9.66		
is	500.00		
rfl	8840.6		
rfp	7753.4		
th	6		
ins	100.000		
nm no ph			



(22)



Current Data Parameters
NAME Pratap-substrate-10
EXPNO 1
PROCNO 1
F2 - Acquisition Parameters
Date_ 20050307
Time 17.15
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zg
TD 32768
SOLVENT CDCl3
NS 16
DS 0
SWH 8389.262 Hz
FIDRES 0.256020 Hz
AQ 1.9530228 sec
RG 16
DW 59.600 usec
DE 6.50 usec
TE 292.1 K
D1 1.00000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec
======== CHANNEL f1 ========
NUC1 1H
P1 10.00 usec
PL1 0.00 dB
SFO1 599.6030165 MHz
F2 - Processing parameters
SI 32768
SF 599.6000297 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 0.50
1D NMR plot parameters
CX 20.00 cm
CY 12.00 cm
F1P 9.500 ppm
F1 5696.20 Hz
F2P -0.500 ppm
F2 -299.80 Hz
PPMCM 0.50000 ppm/cm
HZCM 299.80002 Hz/cm
ppm
7.24002
6.89363
6.83023
3.80618
3.54200
3.53154
3.52106
3.33323
3.18532
2.52599
2.51429
2.50263
1.87126
1.86009
1.84917
1.83804
1.82697
0.16436
(23)
Integral
1.0000
1.0749
8.1515
2.4217
3.3274
0.6696
2.5167
2.8575
ppm 9 8 7 6 5 4 3 2 1 0

```
Current Data Parameters
NAME      Pratap-substrate-11
EXPNO                  2
PROCNO                 1

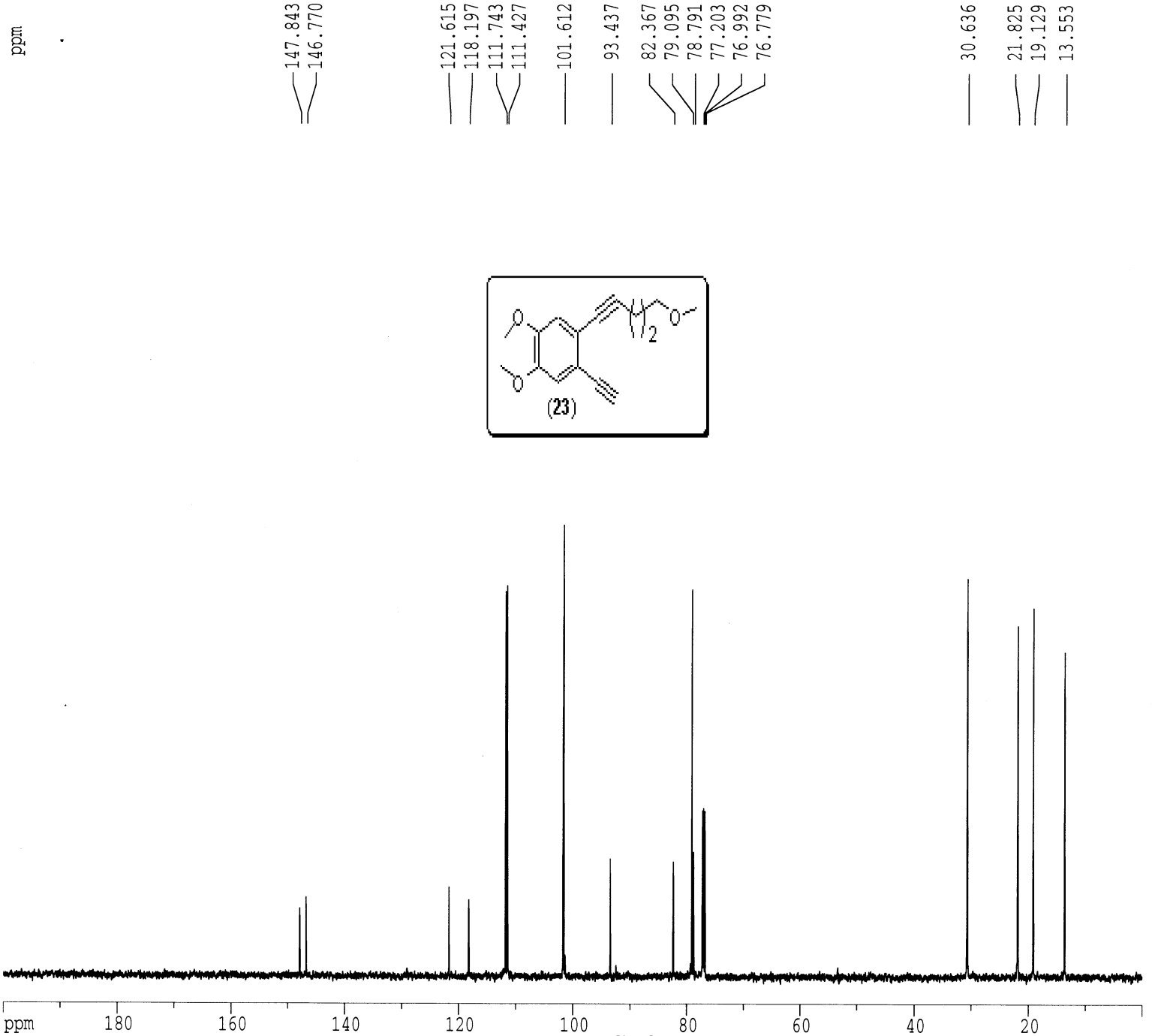
F2 - Acquisition Parameters
Date_           20050307
Time              17.27
INSTRUM           spect
PROBHD   5 mm QNP  1H/1
PULPROG           zgpg
TD               32768
SOLVENT           C6D6
NS                  11
DS                   0
SWH          37593.984 Hz
FIDRES        1.147277 Hz
AQ            0.4358644 sec
RG                2048
DW               13.300 usec
DE                6.50 usec
TE               292.1 K
D1           3.00000000 sec
d11          0.03000000 sec
DELTA        2.90000010 sec
MCREST       0.00000000 sec
MCWRK        0.01500000 sec

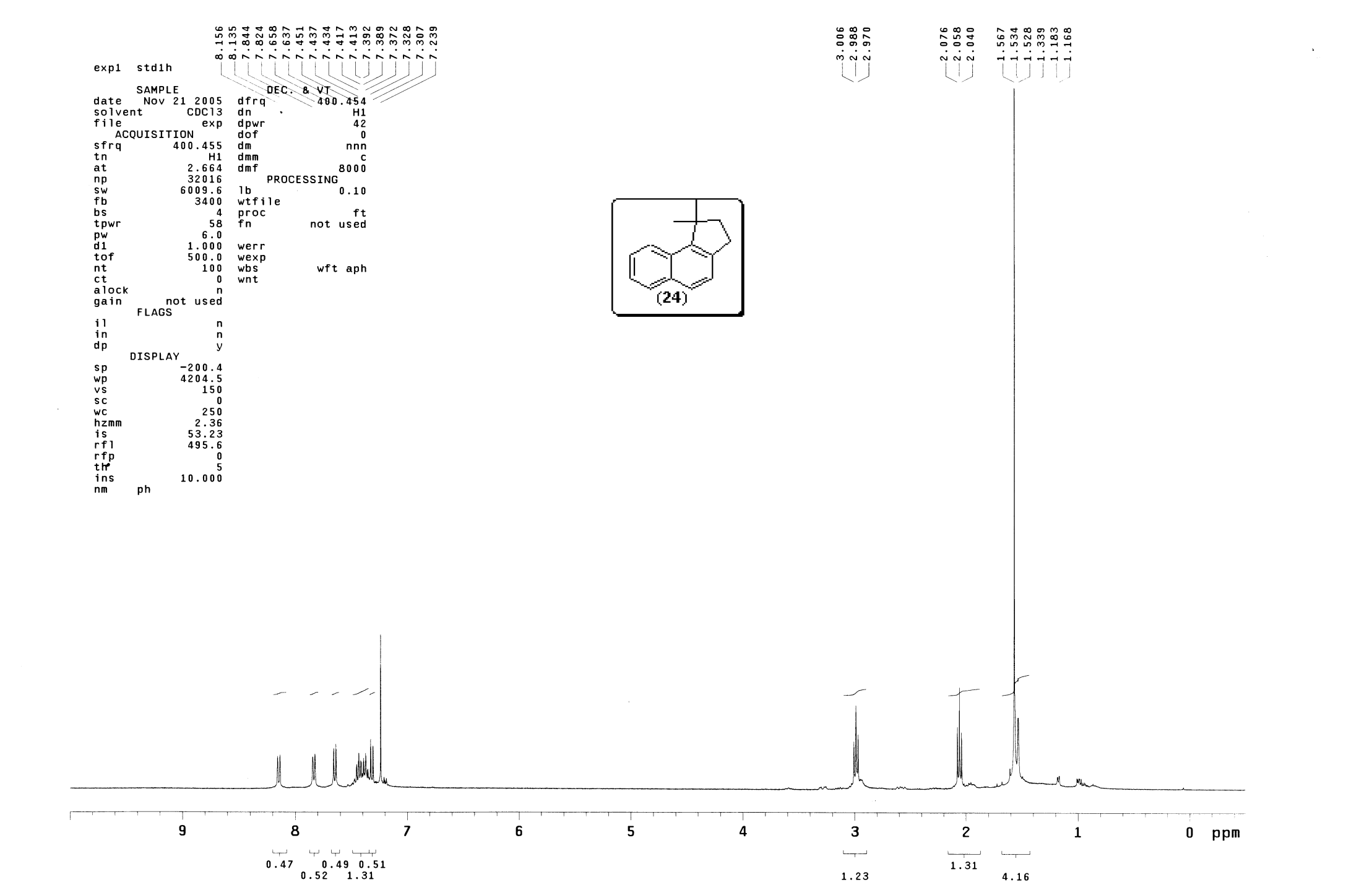
======== CHANNEL f1 ========
NUC1               13C
P1                4.30 usec
PL1               0.00 dB
SFO1       150.7861246 MHz

======== CHANNEL f2 ========
CPDPRG2         waltz16
NUC2               1H
PCPD2             92.00 usec
PL2              120.00 dB
PL12              11.30 dB
PL13              14.00 dB
SFO2       599.6029980 MHz

F2 - Processing parameters
SI                65536
SF         150.7695592 MHz
WDW                EM
SSB                 0
LB                3.00 Hz
GB                  0
PC                0.50

1D NMR plot parameters
CX               20.00 cm
CY                8.00 cm
F1P             200.000 ppm
F1             30153.91 Hz
F2P              0.000 ppm
F2               0.00 Hz
PPMCM         10.00000 ppm/cm
HZCM        1507.69556 Hz/cm
```




8.156
8.135
7.844
7.824
7.658
7.637
7.451
7.437
7.434
7.417
7.413
7.392
7.389
7.372
7.328
7.307
7.239
3.006
2.988
2.970
2.076
2.058
2.040
1.567
1.534
1.528
1.339
1.183
1.168
exp1 std1h
SAMPLE
date Nov 21 2005
solvent CDCl3
file exp
ACQUISITION
sfrq 400.455
tn H1
at 2.664
np 32016
sw 6009.6
fb 3400
bs 4
tpwr 58
pw 6.0
d1 1.000
tof 500.0
nt 100
ct 0
alock n
gain not used
FLAGS
il n
in n
dp y
DISPLAY
sp -200.4
wp 4204.5
vs 150
sc 0
wc 250
hzmm 2.36
is 53.23
rfl 495.6
rfp 0
th 5
ins 10.000
nm ph
DEC. & VT
dfrq 400.454
dn H1
dpwr 42
dof 0
dm nnn
dmm c
dmf 8000
PROCESSING
lb 0.10
wtfile
proc ft
fn not used
werr
wexp
wbs wft aph
wnt
(24)
9
8
7
6
5
4
3
2
1
0 ppm
0.47
0.52
0.49
1.31
0.51
1.23
1.31
4.16

13C OBSERVE

exp2 std13c

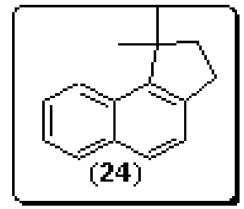
SAMPLE		DEC. & VT	
date	Nov 24 2005	dfrq	400.454
solvent	CDCl3	dn	H1
file	exp	dpwr	42
ACQUISITION		dof	0
sfrq	100.705	dm	yyy
tn	C13	dmm	w
at	0.635	dmf	8000
np	32000	PROCESSING	
sw	25188.9	lb	3.00
fb	13800	wtfile	
bs	4	proc	ft
tpwr	58	fn	not used
pw	6.5		
d1	2.000	werr	
tof	2000.0	wexp	
nt	30000	wbs	wft
ct	1376	wnt	
alock	n		
gain	not used		
FLAGS			
il	n		
in	n		
dp	y		
DISPLAY			
sp	-0.2		
wp	22152.3		
vs	60		
sc	0		
wc	250		
hzmm	88.61		
is	500.00		
rfl	8837.6		
rfp	7753.4		
th	4		
ins	100.000		
nm no ph			

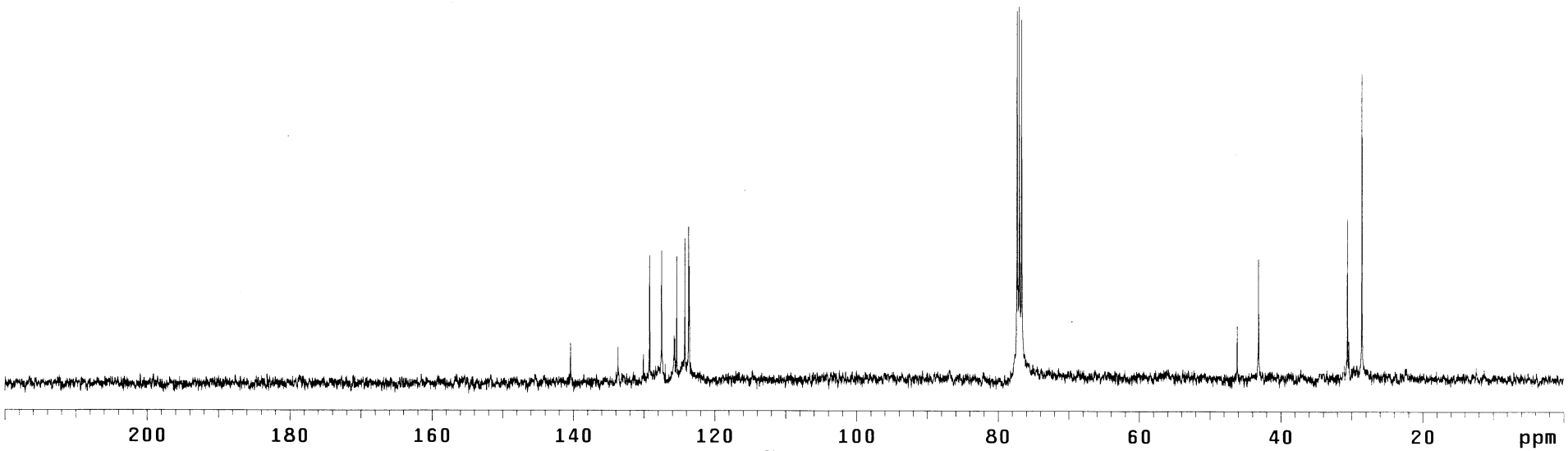
140.397
133.679
129.190
128.365
127.495
125.739
125.357
124.212
123.678
123.571

77.321
77.000
76.695

46.126
43.118

30.399
28.551





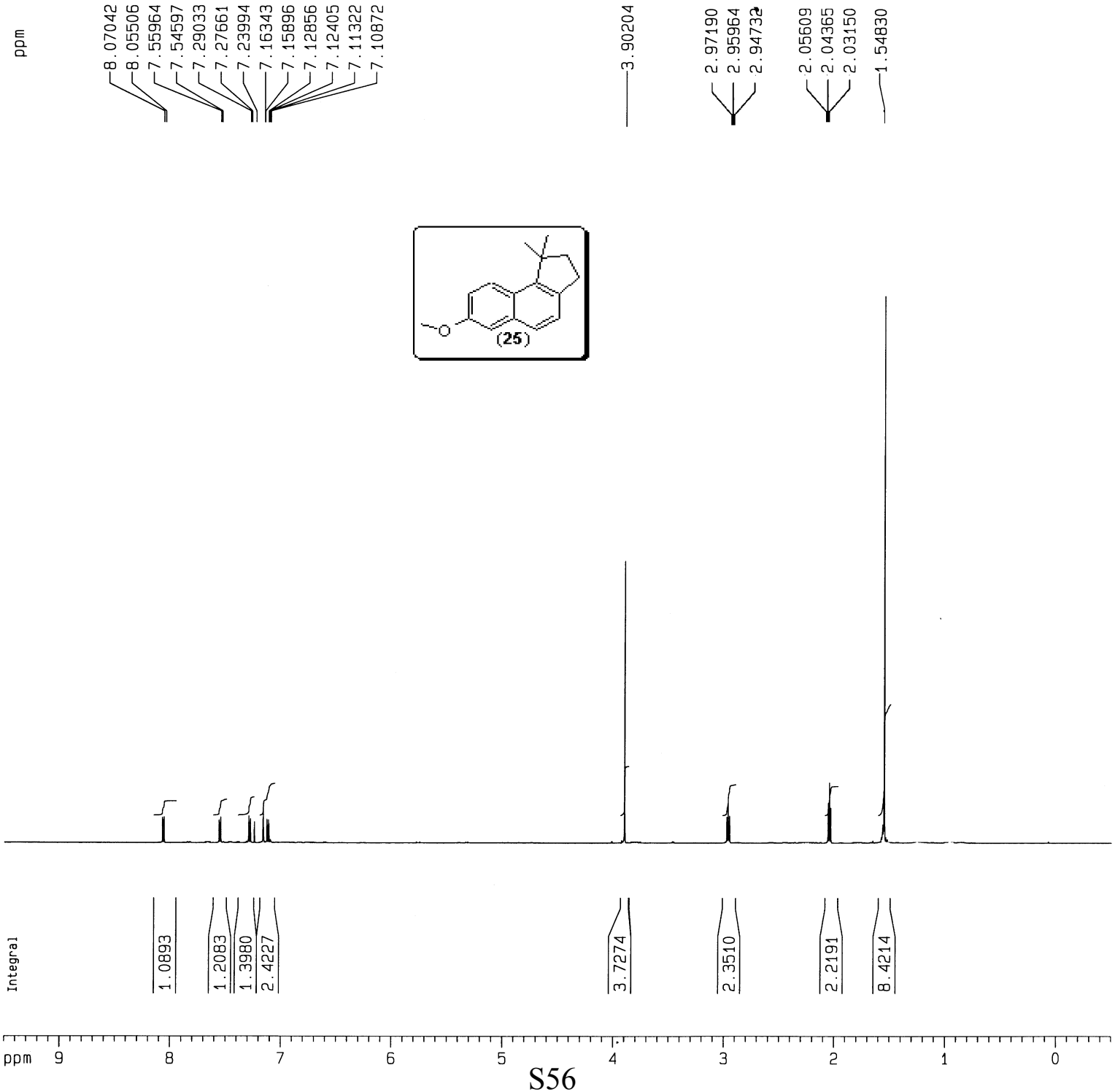
Current Data Parameters
NAME Wei-031103
EXPNO 1
PROCNO 1

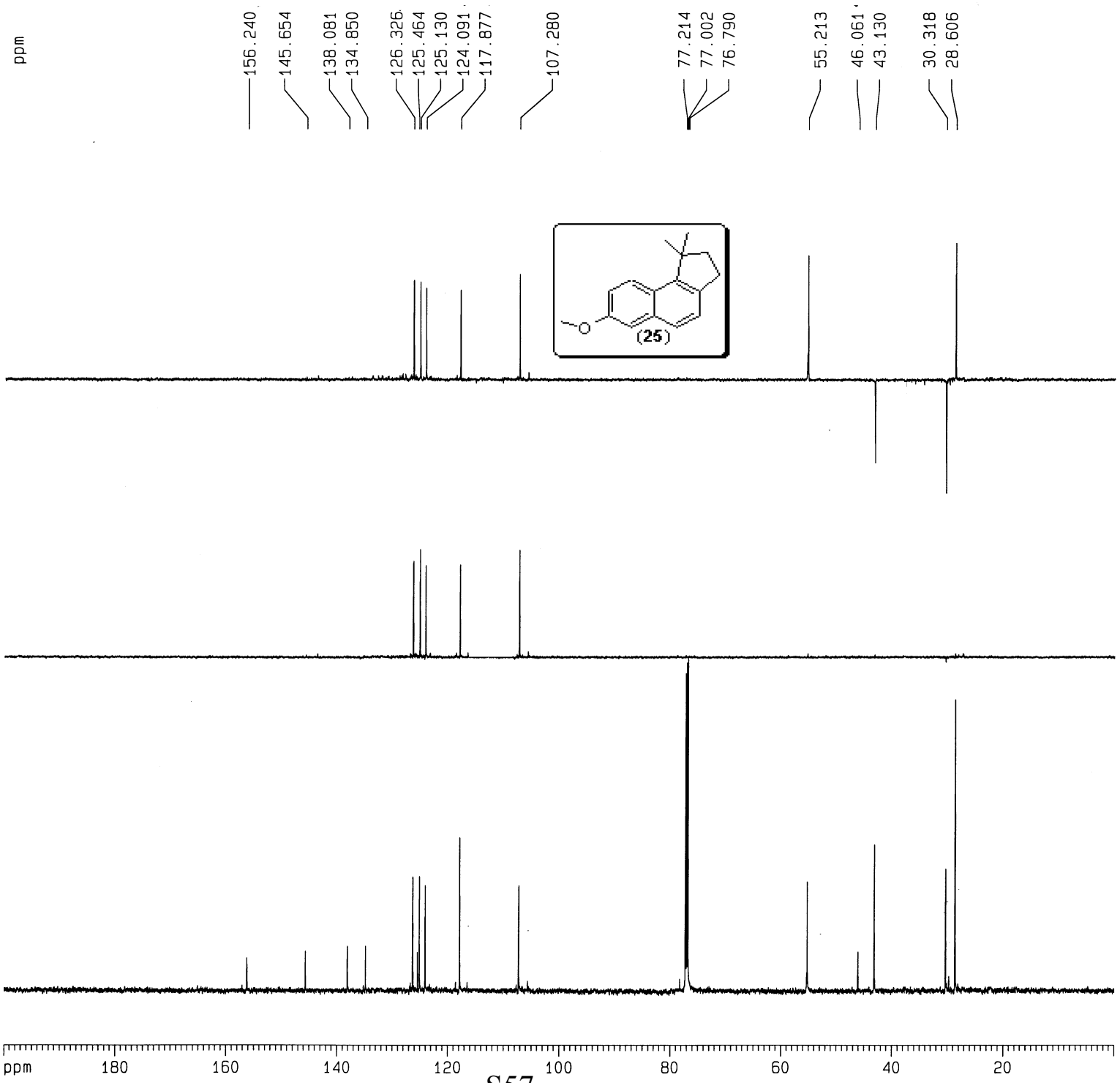
F2 - Acquisition Parameters
Date_ 20031107
Time 9.52
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zg
TD 32768
SOLVENT CDCl3
NS 16
DS 0
SWH 7183.908 Hz
FIDRES 0.219235 Hz
AQ 2.2807028 sec
RG 8
DW 69.600 usec
DE 6.50 usec
TE 0.0 K
D1 1.00000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 1H
P1 14.00 usec
PL1 -3.00 dB
SFO1 599.8029990 MHz

F2 - Processing parameters
SI 32768
SF 599.8000284 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 0.50

1D NMR plot parameters
CX 20.00 cm
CY 10.00 cm
F1P 9.500 ppm
F1 5698.10 Hz
F2P -0.500 ppm
F2 -299.90 Hz
PPMCM 0.50000 ppm/cm
HZCM 299.90002 Hz/cm





Current Data Parameters
NAME Wei-031103
EXPNO 2
PROCNO 1

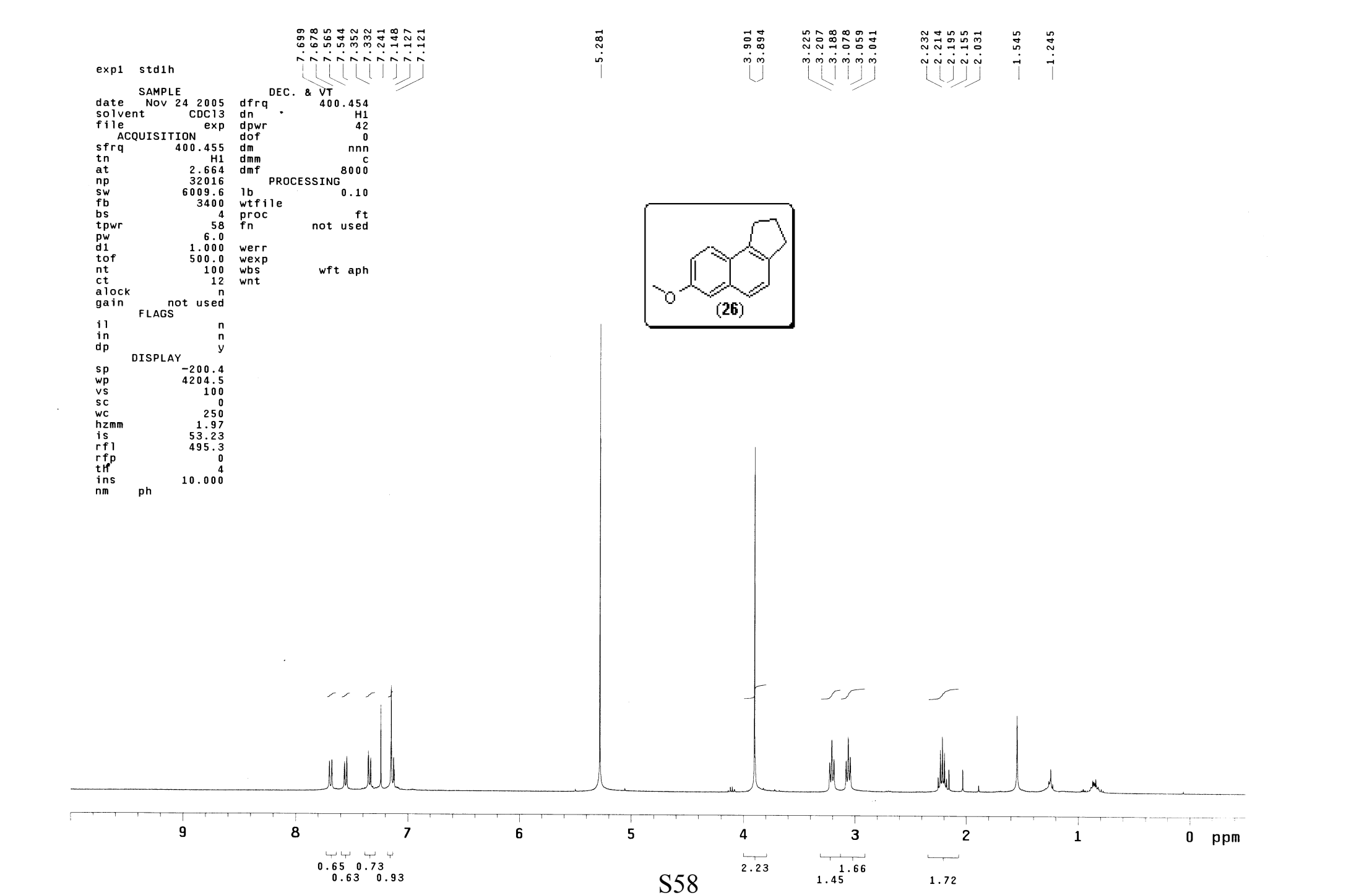
F2 - Acquisition Parameters
Date_ 20031107
Time 10.15
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zgpg
TD 32768
SOLVENT C6D6
NS 607
DS 0
SWH 37878.789 Hz
FIDRES 1.155969 Hz
AQ 0.4325876 sec
RG 2048
DW 13.200 usec
DE 6.50 usec
TE 0.0 K
D1 3.50000000 sec
d11 0.03000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 13C
P1 4.50 usec
PL1 0.00 dB
SFO1 150.8372651 MHz

======== CHANNEL f2 ========
CPDPRG2 garp
NUC2 1H
PCPD2 92.00 usec
PL2 120.00 dB
PL12 -5.00 dB
PL13 10.00 dB
SFO2 599.8023992 MHz

F2 - Processing parameters
SI 65536
SF 150.8198351 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 0.50

1D NMR plot parameters
CX 20.00 cm
CY 6.00 cm
F1P 200.000 ppm
F1 30163.97 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPMCM 10.00000 ppm/cm
HZCM 1508.19836 Hz/cm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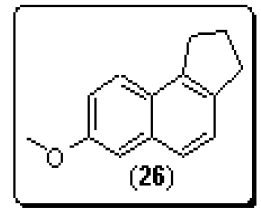
7.565
7.544
7.352
7.332
7.241
7.148
7.127
7.121
5.281
3.901
3.894
3.225
3.207
3.188
3.078
3.059
3.041
2.232
2.214
2.195
2.155
2.031
1.545
1.245
exp1 stdlh
SAMPLE
date Nov 24 2005
solvent CDCl3
file exp
ACQUISITION
sfrq 400.455
tn H1
at 2.664
np 32016
sw 6009.6
fb 3400
bs 4
tpwr 58
pw 6.0
d1 1.000
tof 500.0
nt 100
ct 12
alock n
gain not used
FLAGS
il n
in n
dp y
DISPLAY
sp -200.4
wp 4204.5
vs 100
sc 0
wc 250
hzmm 1.97
is 53.23
rfl 495.3
rfp 0
th 4
ins 10.000
nm ph
DEC. & VT
dfrq 400.454
dn H1
dpwr 42
dof 0
dm nnn
dmm c
dmf 8000
PROCESSING
lb 0.10
wtfile
proc ft
fn not used
werr
wexp
wbs wft aph
wnt
O
(26)
9
8
7
6
5
4
3
2
1
0 ppm
0.65 0.73
0.63 0.93
2.23
1.45 1.66
1.72

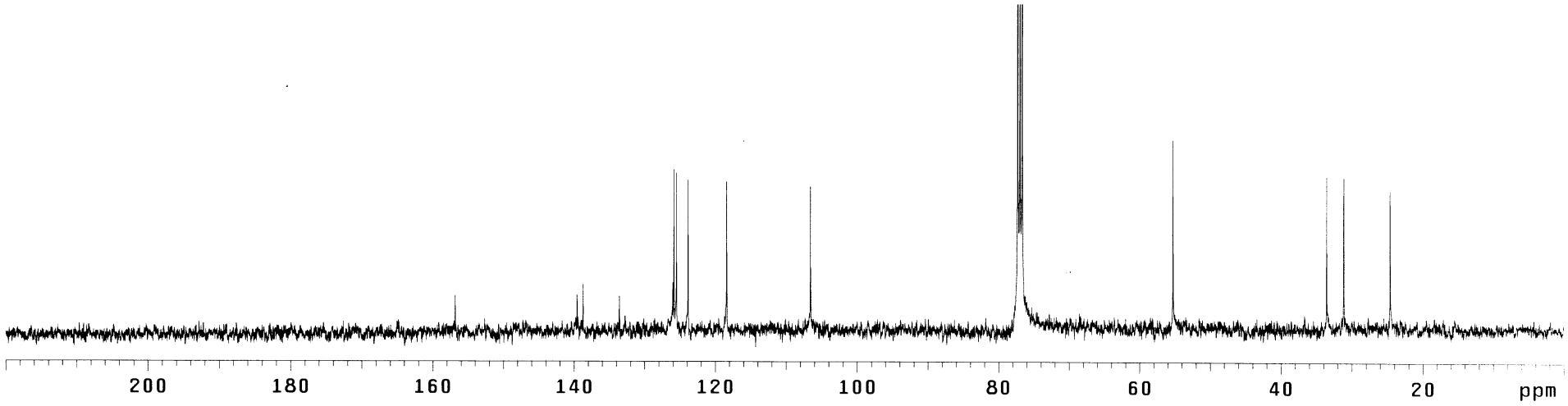
13C OBSERVE

exp2 std13c

SAMPLE		DEC. & VT	
date	Nov 25 2005	dfrq	400.454
solvent	CDCl3	dn	H1
file	exp	dpwr	42
ACQUISITION		dof	0
sfrq	100.705	dm	yyy
tn	C13	dmm	w
at	0.635	dmf	8000
np	32000	PROCESSING	
sw	25188.9	lb	3.00
fb	13800	wtfile	
bs	4	proc	ft
tpwr	58	fn	not used
pw	6.5		
d1	2.000	werr	
tof	2000.0	wexp	
nt	30000	wbs	wft
ct	1692	wnt	
alock	n		
gain	not used		
FLAGS			
il	n		
in	n		
dp	y		
DISPLAY			
sp	-0.2		
wp	22152.3		
vs	100		
sc	0		
wc	250		
hzmm	11.41		
is	500.00		
rfl	1084.1		
rfp	0		
th	4		
ins	100.000		
nm no ph			

156.812
139.557
138.702
133.572
126.014
125.846
125.479
123.846
118.379
106.576
77.321
77.000
76.679
55.272
33.544
31.132
24.627

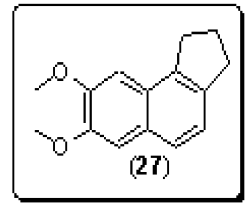


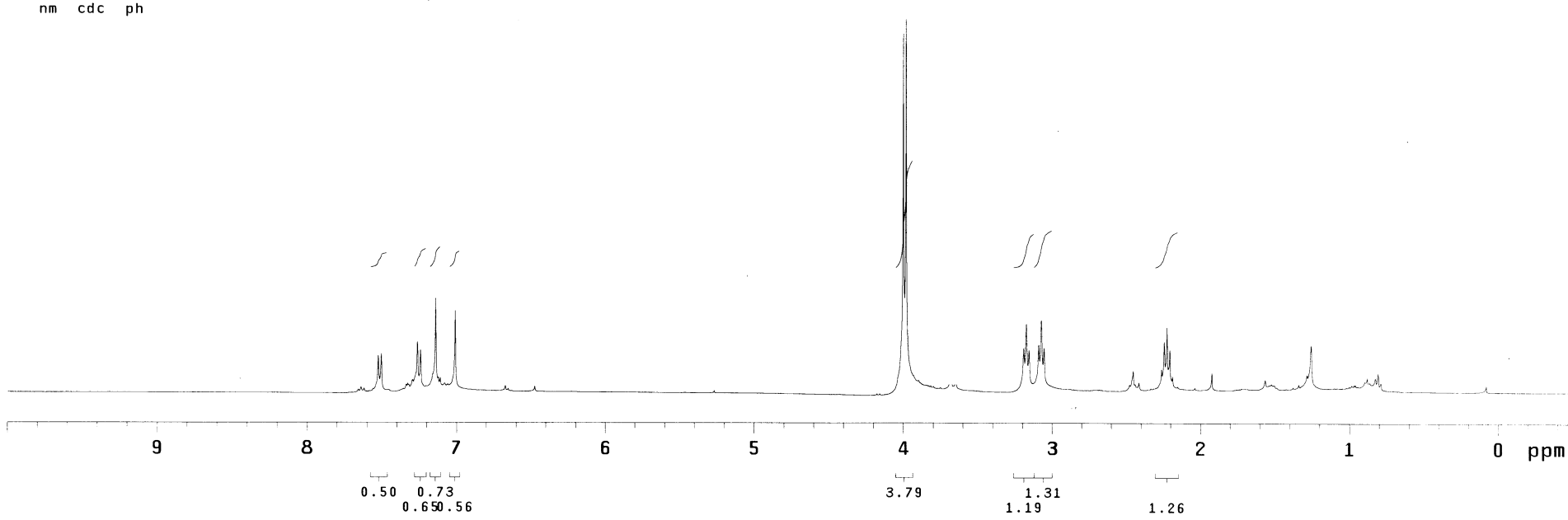


STANDARD 1H OBSERVE

exp8 std1h

SAMPLE		DEC. & VT	
date	Nov 16 2005	dfrq	400.454
solvent	CDCl3	dn	H1
file	exp	dpwr	42
ACQUISITION		dof	0
sfrq	400.455	dm	nnn
tn	H1	dmm	c
at	2.664	dmf	8000
np	32016	PROCESSING	
sw	6009.6	lb	0.10
fb	3400	wtfile	
bs	4	proc	ft
tpwr	58	fn	not used
pw	6.0		
d1	1.000	werr	
tof	500.0	wexp	
nt	100	wbs	wft aph
ct	52	wnt	
alock	n		
gain	not used		
FLAGS			
il	n		
in	n		
dp	y		
DISPLAY			
sp	-200.3		
wp	4204.5		
vs	60		
sc	0		
wc	250		
hzmm	16.82		
is	132.02		
rfl	3396.0		
rfp	2899.3		
th	4		
ins	10.000		
nm cdc ph			



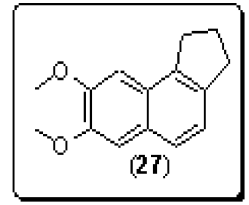


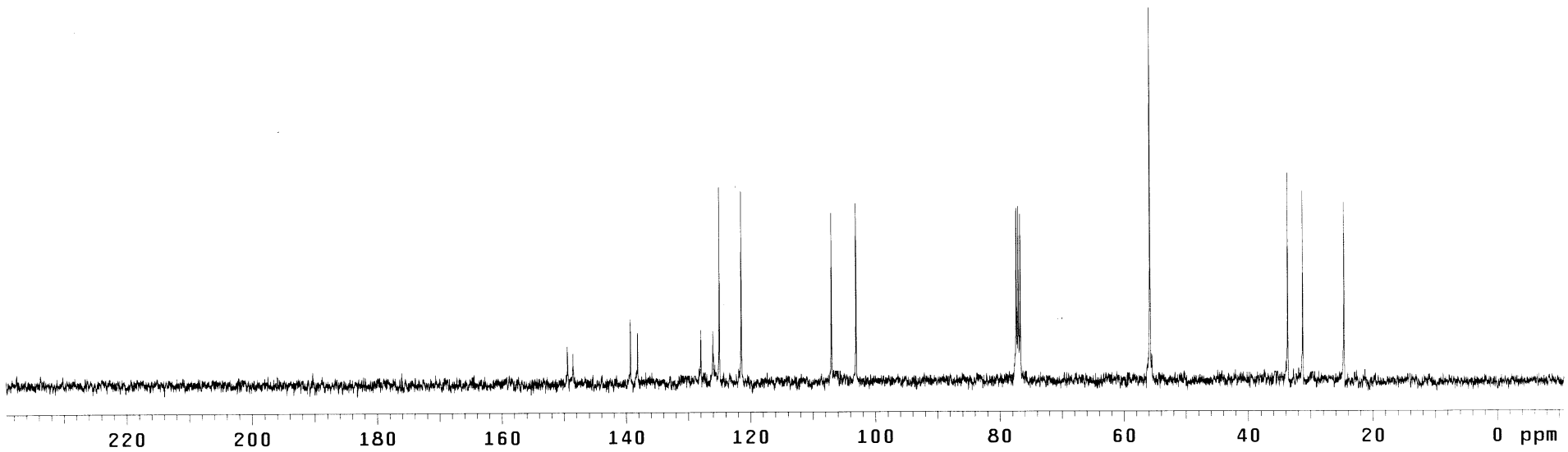
13C OBSERVE

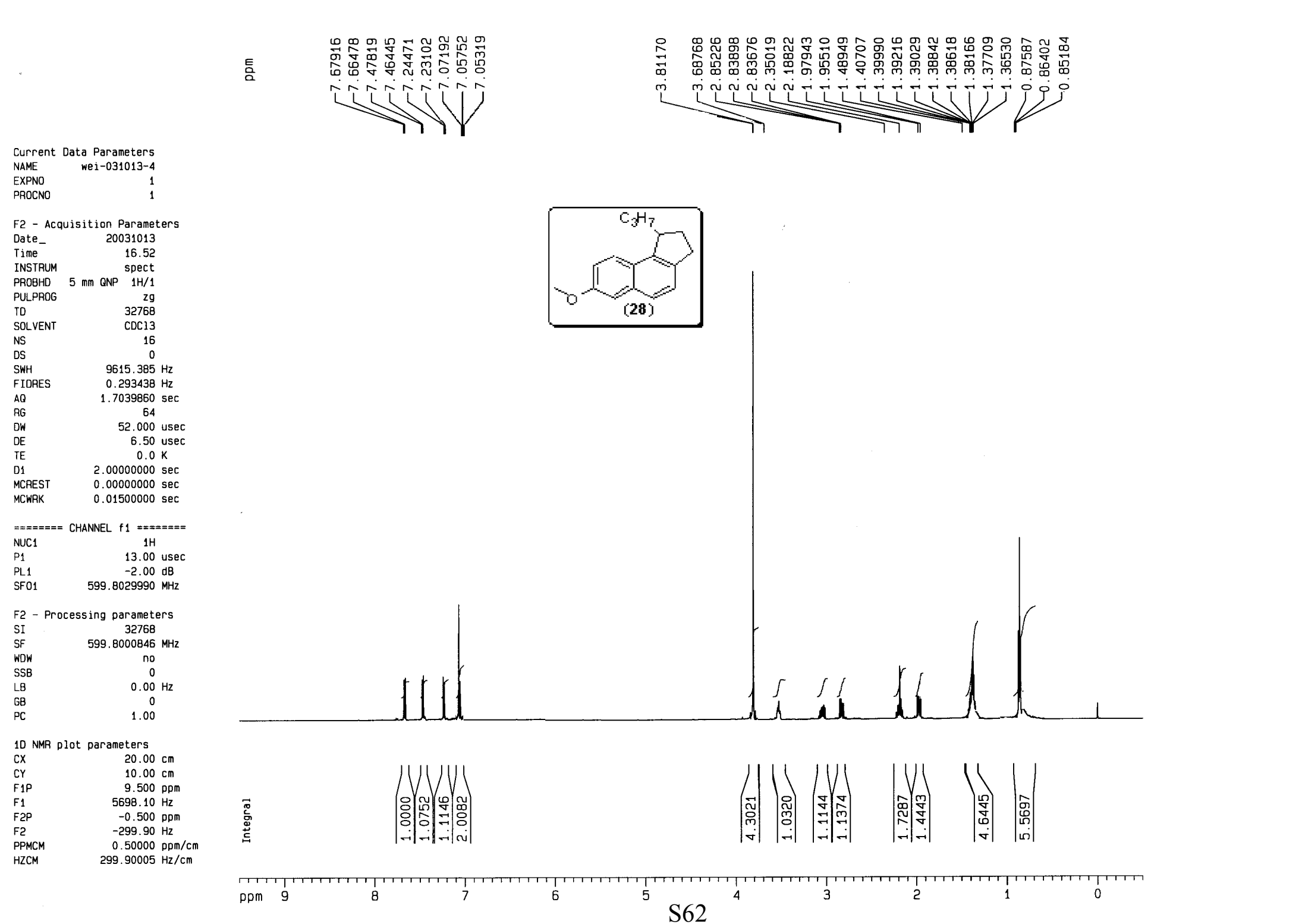
exp8 std13c

SAMPLE		DEC. & VT	
date	Nov 16 2005	dfrq	400.454
solvent	CDCl3	dn	H1
file	exp	dpwr	42
ACQUISITION		dof	0
sfrq	100.705	dm	yyy
tn	C13	dmm	w
at	0.635	dmf	8000
np	32000	PROCESSING	
sw	25188.9	lb	3.00
fb	13800	wtfile	
bs	4	proc	ft
tpwr	58	fn	not used
pw	6.5		
d1	2.000	werr	
tof	2000.0	wexp	
nt	1000	wbs	wft
ct	216	wnt	
alock	n		
gain	not used		
FLAGS			
il	n		
in	n		
dp	y		
DISPLAY			
sp	-1091.8		
wp	25188.9		
vs	60		
sc	0		
wc	250		
hzmm	2.75		
is	500.00		
rfl	8845.3		
rfp	7753.4		
th	4		
ins	100.000		
nm no ph			

149.452
148.536
139.283
138.122
127.953
126.044
124.960
121.448
107.004
103.064
77.305
77.000
76.679
55.761
33.620
31.208
24.581







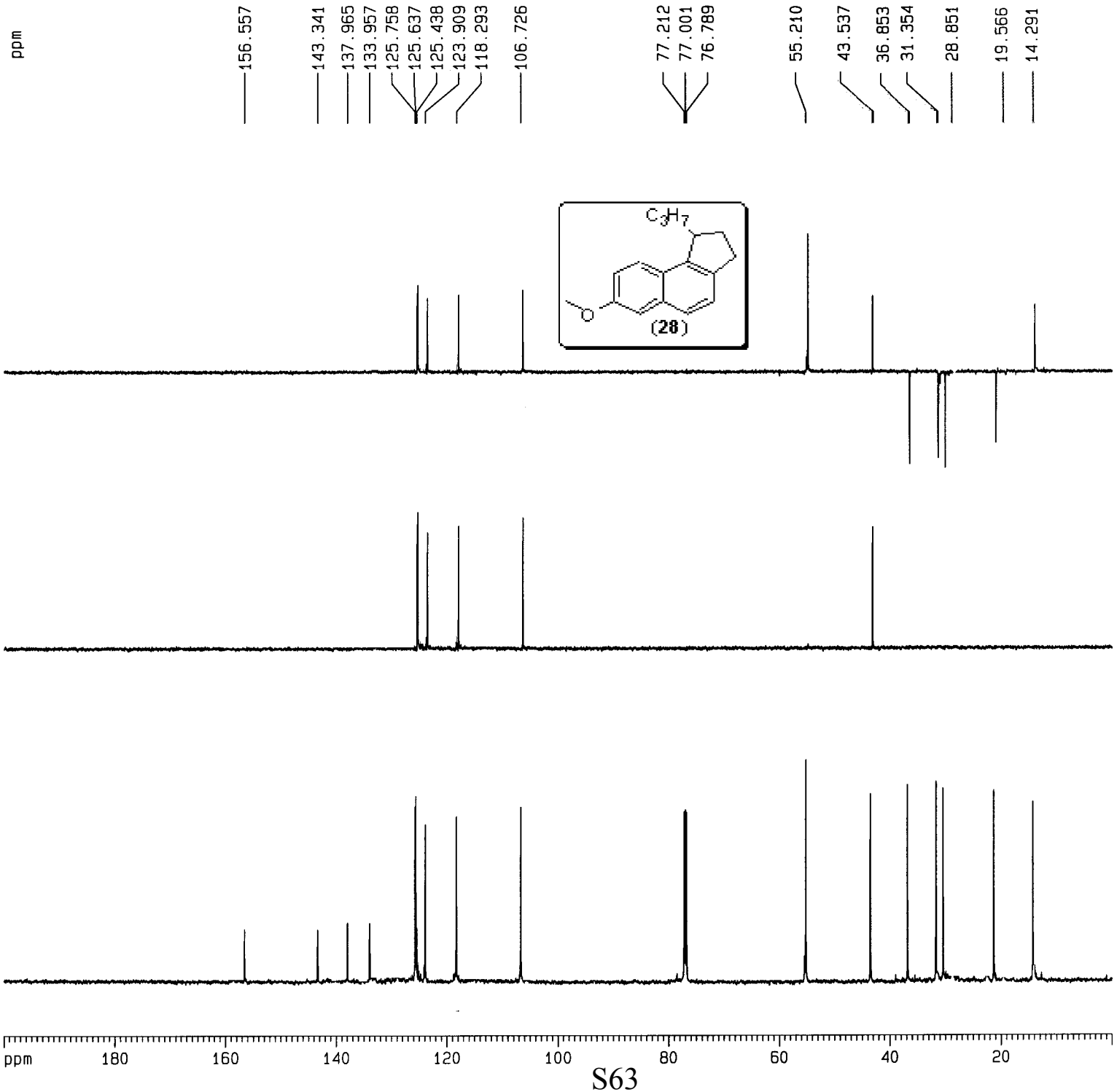
Current Data Parameters
NAME wei-031013-4
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20031013
Time 16.52
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zg
TD 32768
SOLVENT CDCl3
NS 16
DS 0
SWH 9615.385 Hz
FIDRES 0.293438 Hz
AQ 1.7039860 sec
RG 64
DW 52.000 usec
DE 6.50 usec
TE 0.0 K
D1 2.00000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 1H
P1 13.00 usec
PL1 -2.00 dB
SFO1 599.8029990 MHz

F2 - Processing parameters
SI 32768
SF 599.8000846 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 1.00

1D NMR plot parameters
CX 20.00 cm
CY 10.00 cm
F1P 9.500 ppm
F1 5698.10 Hz
F2P -0.500 ppm
F2 -299.90 Hz
PPMCM 0.50000 ppm/cm
HZCM 299.90005 Hz/cm



Current Data Parameters
NAME wei-031013-4
EXPNO 2
PROCNO 1

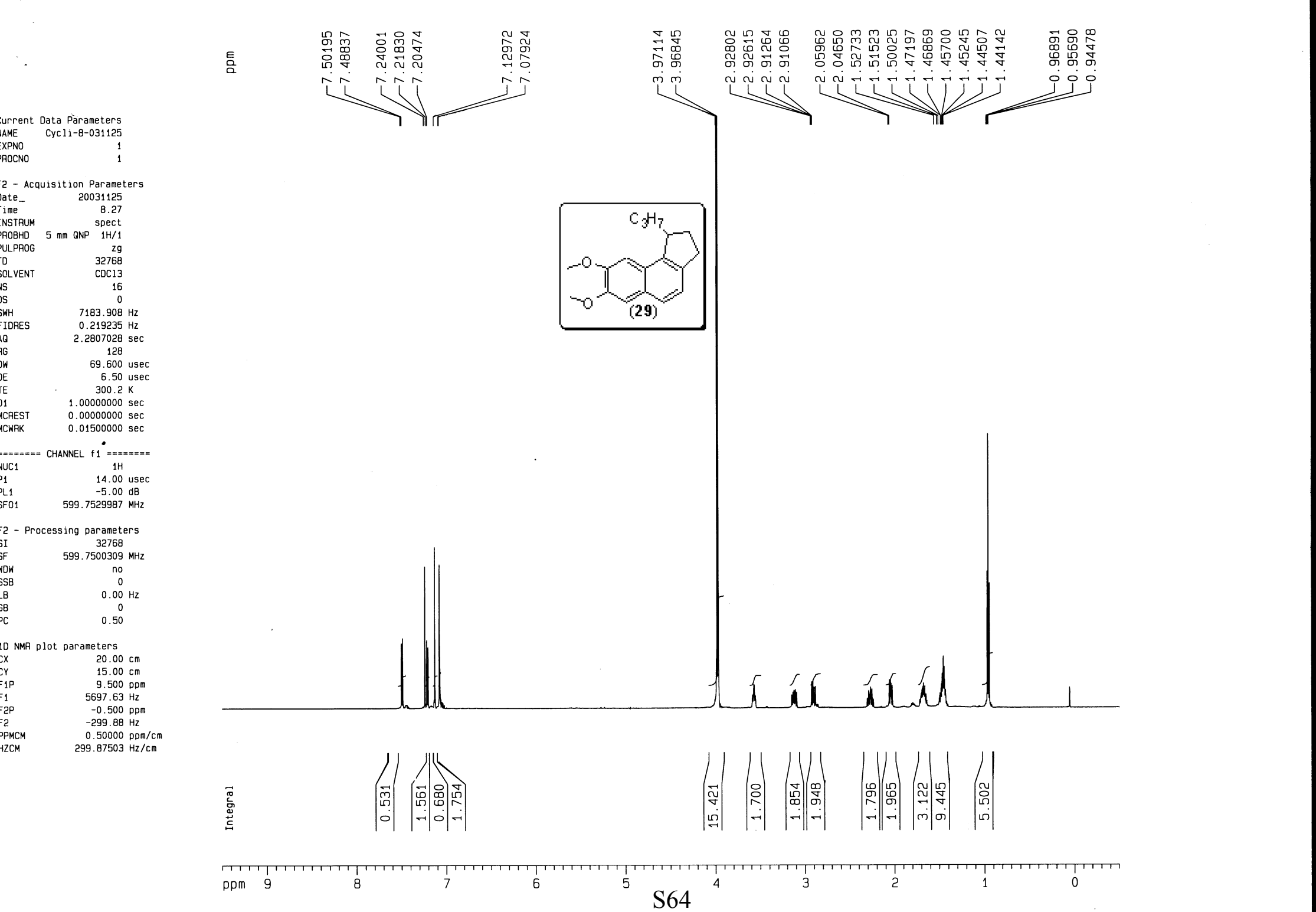
F2 - Acquisition Parameters
Date_ 20031013
Time 17.05
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zgpg
TD 32768
SOLVENT CDCl3
NS 200
DS 6
SWH 45454.547 Hz
FIDRES 1.387163 Hz
AQ 0.3604980 sec
RG 1024
DW 11.000 usec
DE 6.50 usec
TE 0.0 K
D1 5.00000000 sec
d11 0.03000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 13C
P1 4.00 usec
PL1 0.00 dB
SFO1 150.8363602 MHz

======== CHANNEL f2 ========
CPDPRG2 garp
NUC2 1H
PCPD2 92.00 usec
PL2 120.00 dB
PL12 10.00 dB
PL13 15.00 dB
SFO2 599.8023992 MHz

F2 - Processing parameters
SI 32768
SF 150.8198407 MHz
WDW EM
SSB 0
LB 5.00 Hz
GB 0
PC 0.50

1D NMR plot parameters
CX 20.00 cm
CY 4.00 cm
F1P 200.000 ppm
F1 30163.97 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPMCM 10.00000 ppm/cm
HZCM 1508.19836 Hz/cm

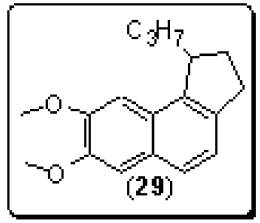

Current Data Parameters
NAME Cycli-8-031125
EXPNO 1
PROCNO 1
F2 - Acquisition Parameters
Date_ 20031125
Time 8.27
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zg
TD 32768
SOLVENT CDCl3
NS 16
DS 0
SWH 7183.908 Hz
FIDRES 0.219235 Hz
AQ 2.2807028 sec
RG 128
DW 69.600 usec
DE 6.50 usec
TE 300.2 K
D1 1.00000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec
======== CHANNEL f1 ========
NUC1 1H
P1 14.00 usec
PL1 -5.00 dB
SFO1 599.7529987 MHz
F2 - Processing parameters
SI 32768
SF 599.7500309 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 0.50
1D NMR plot parameters
CX 20.00 cm
CY 15.00 cm
F1P 9.500 ppm
F1 5697.63 Hz
F2P -0.500 ppm
F2 -299.88 Hz
PPMCM 0.50000 ppm/cm
HZCM 299.87503 Hz/cm
ppm
7.50195
7.48837
7.24001
7.21830
7.20474
7.12972
7.07924
3.97114
3.96845
2.92802
2.92615
2.91264
2.91066
2.05962
2.04650
1.52733
1.51523
1.50025
1.47197
1.46869
1.45700
1.45245
1.44507
1.44142
0.96891
0.95690
0.94478
C3H7
(29)
Integral
0.531
1.561
0.680
1.754
15.421
1.700
1.854
1.948
1.796
1.965
3.122
9.445
5.502
ppm 9 8 7 6 5 4 3 2 1 0

dibromohexane

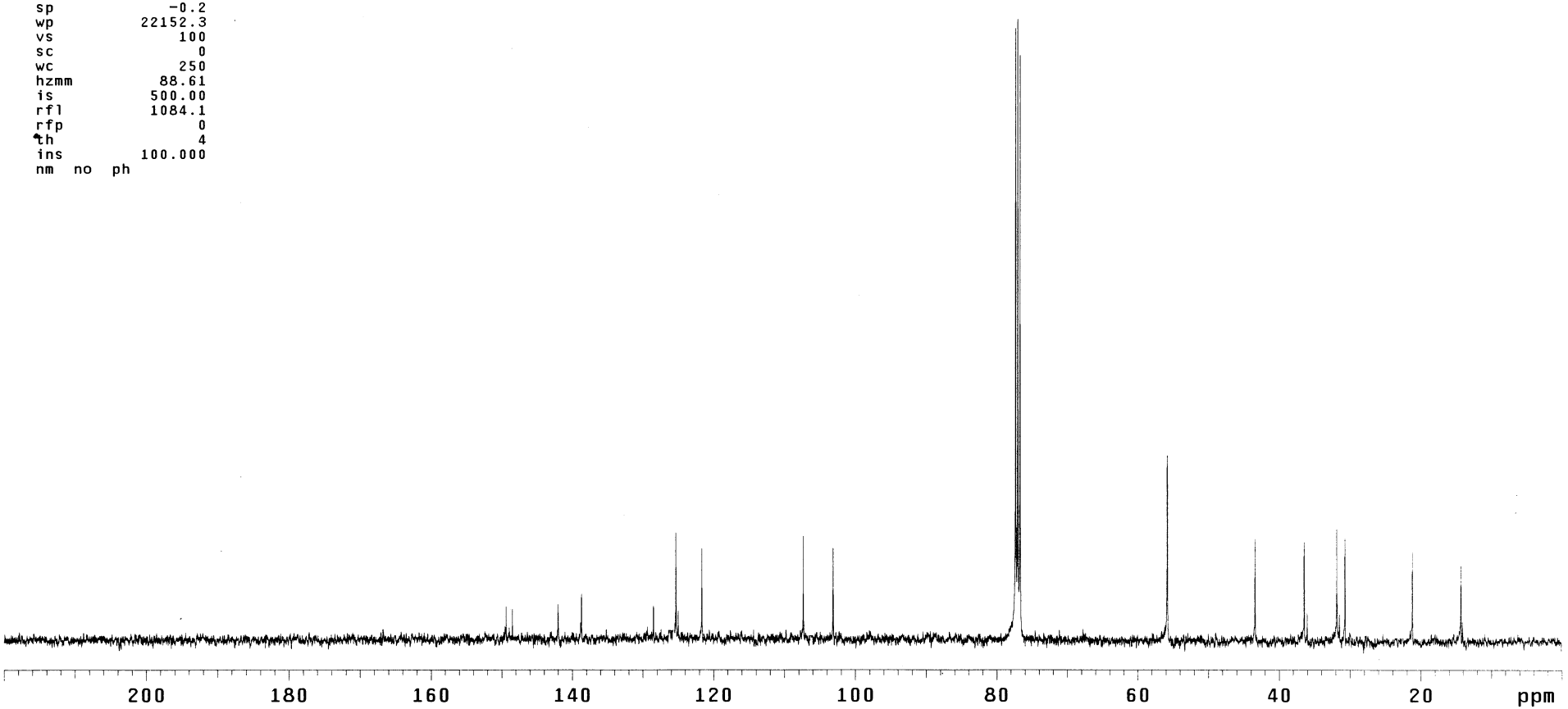
exp2 std13c

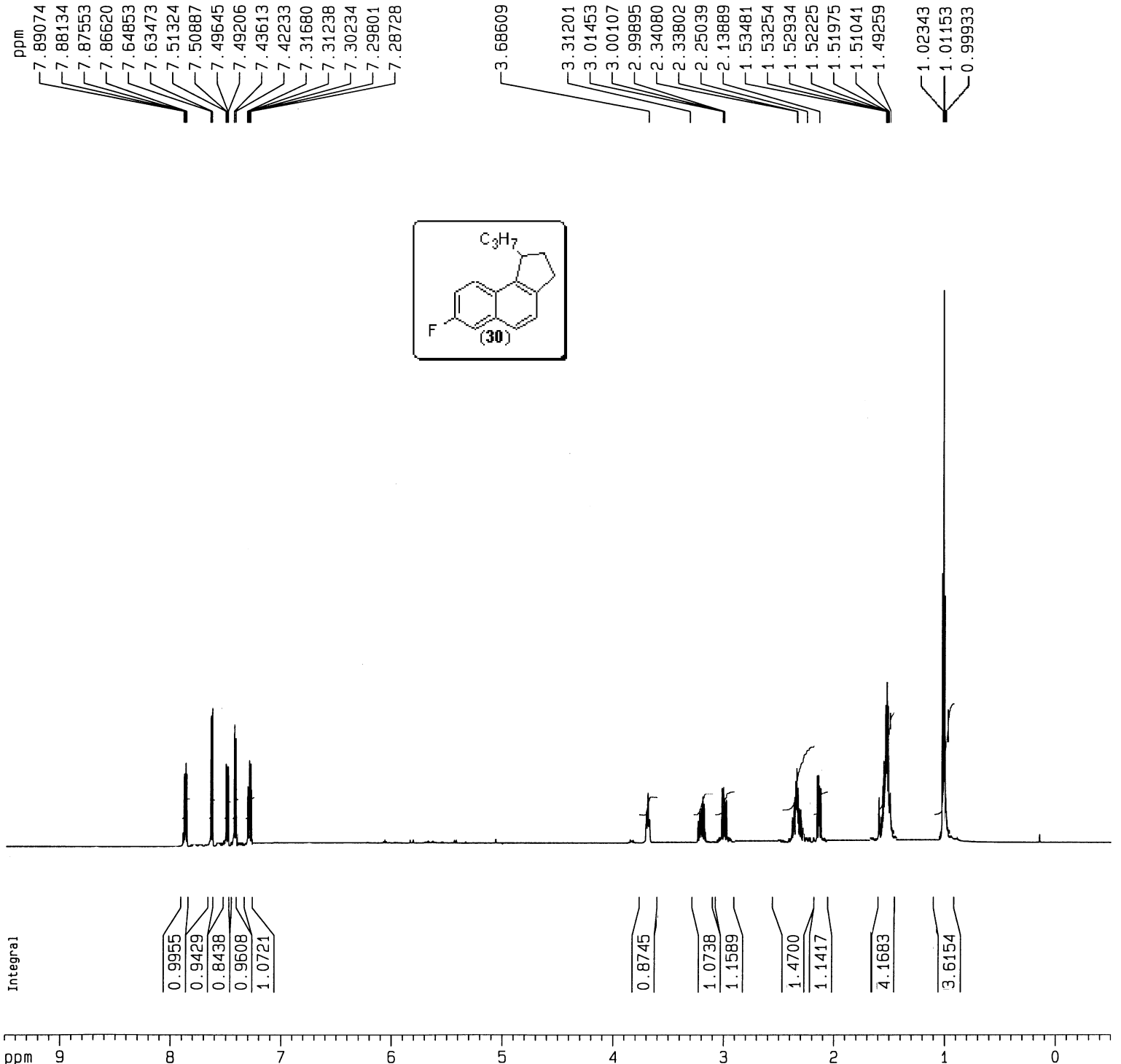
SAMPLE		DEC. & VT	
date	Nov 23 2003	dfrq	400.454
solvent	CDCl3	dn	H1
file	exp	dpwr	42
ACQUISITION		dof	0
sfrq	100.705	dm	yyy
tn	C13	dmm	w
at	0.635	dmf	8000
np	32000	PROCESSING	
sw	25188.9	lb	3.00
fb	13800	wtfile	
bs	4	proc	ft
tpwr	58	fn	not used
pw	6.5		
d1	2.000	werr	
tof	2000.0	wexp	
nt	10000	wbs	wft
ct	1824	wnt	
alock	n		
gain	not used		
FLAGS			
il	n		
in	n		
dp	y		
DISPLAY			
sp	-0.2		
wp	22152.3		
vs	100		
sc	0		
wc	250		
hzmm	88.61		
is	500.00		
rfl	1084.1		
rfp	0		
th	4		
ins	100.000		
nm no ph			

149.376 148.475 142.016 138.687 128.487 125.678 125.586 121.632 107.324 103.110 77.321 77.000 76.679 55.776 43.408 36.430 31.834 30.689 21.191 14.290



(29)





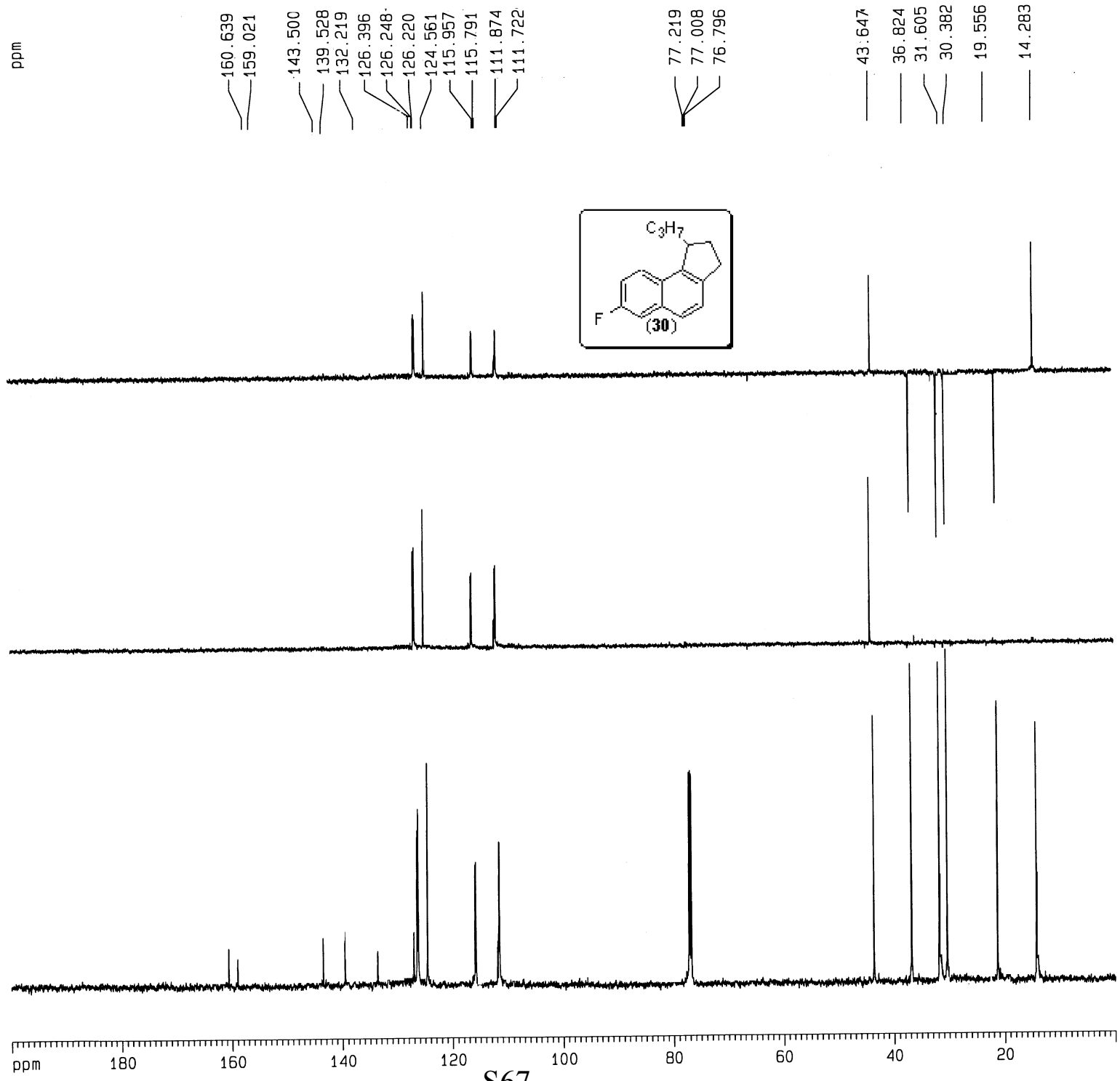
Current Data Parameters
NAME Wei-031102-4
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20031102
Time 22.07
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zg
TD 32768
SOLVENT DMSO
NS 16
DS 0
SWH 8389.262 Hz
FIDRES 0.256020 Hz
AQ 1.9530228 sec
RG 32
DW 59.600 usec
DE 6.50 usec
TE 0.0 K
D1 2.00000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 1H
P1 13.00 usec
PL1 -2.00 dB
SFO1 599.8029990 MHz

F2 - Processing parameters
SI 32768
SF 599.8000000 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 1.00

1D NMR plot parameters
CX 20.00 cm
CY 10.00 cm
F1P 9.500 ppm
F1 5698.10 Hz
F2P -0.500 ppm
F2 -299.90 Hz
PPMCM 0.50000 ppm/cm
HZCM 299.89999 Hz/cm



Current Data Parameters
NAME Wei-031102-4
EXPNO 2
PROCNO 1

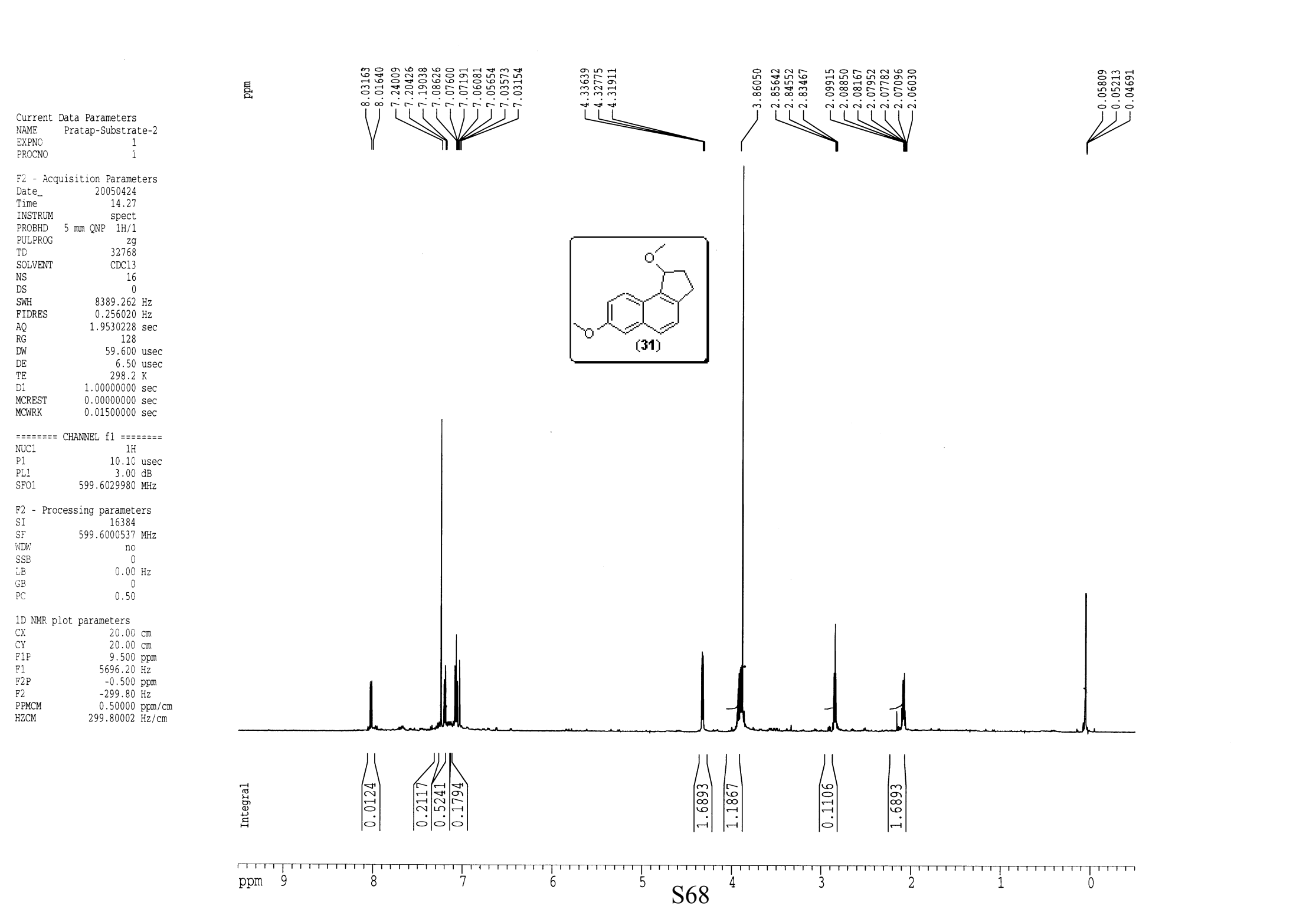
F2 - Acquisition Parameters
Date_ 20031102
Time 18.42
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zgpg
TD 32768
SOLVENT C6D6
NS 200
DS 0
SWH 37878.789 Hz
FIDRES 1.155969 Hz
AQ 0.4325876 sec
RG 2048
DW 13.200 usec
DE 6.50 usec
TE 0.0 K
D1 3.50000000 sec
d11 0.03000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 13C
P1 4.50 usec
PL1 0.00 dB
SFO1 150.8372651 MHz

======== CHANNEL f2 ========
CPDPRG2 garp
NUC2 1H
PCPD2 92.00 usec
PL2 120.00 dB
PL12 8.00 dB
PL13 10.00 dB
SFO2 599.8023992 MHz

F2 - Processing parameters
SI 65536
SF 150.8198380 MHz
WDW EM
SSB 0
LB 5.00 Hz
GB 0
PC 0.50

1D NMR plot parameters
CX 20.00 cm
CY 6.00 cm
F1P 200.000 ppm
F1 30163.97 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPMCM 10.00000 ppm/cm
HZCM 1508.19836 Hz/cm


Current Data Parameters
NAME Pratap-Substrate-2
EXPNO 1
PROCNO 1
F2 - Acquisition Parameters
Date_ 20050424
Time 14.27
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zg
TD 32768
SOLVENT CDCl3
NS 16
DS 0
SWH 8389.262 Hz
FIDRES 0.256020 Hz
AQ 1.9530228 sec
RG 128
DW 59.600 usec
DE 6.50 usec
TE 298.2 K
D1 1.00000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec
======== CHANNEL f1 ========
NUC1 1H
P1 10.10 usec
PL1 3.00 dB
SFO1 599.6029980 MHz
F2 - Processing parameters
SI 16384
SF 599.6000537 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 0.50
1D NMR plot parameters
CX 20.00 cm
CY 20.00 cm
F1P 9.500 ppm
F1 5696.20 Hz
F2P -0.500 ppm
F2 -299.80 Hz
PPMCM 0.50000 ppm/cm
HZCM 299.80002 Hz/cm
ppm
8.03163
8.01640
7.24009
7.20426
7.19038
7.08626
7.07600
7.07191
7.06081
7.05654
7.03573
7.03154
4.33639
4.32775
4.31911
3.86050
2.85642
2.84552
2.83467
2.09915
2.08850
2.08167
2.07952
2.07782
2.07096
2.06030
0.05809
0.05213
0.04691
(31)
Integral
0.0124
0.2117
0.5241
0.1794
1.6893
1.1867
0.1106
1.6893
ppm 9 8 7 6 5 4 3 2 1 0

```
Current Data Parameters
NAME      Pratap-Substrate-2
EXPNO                      2
PROCNO                     1

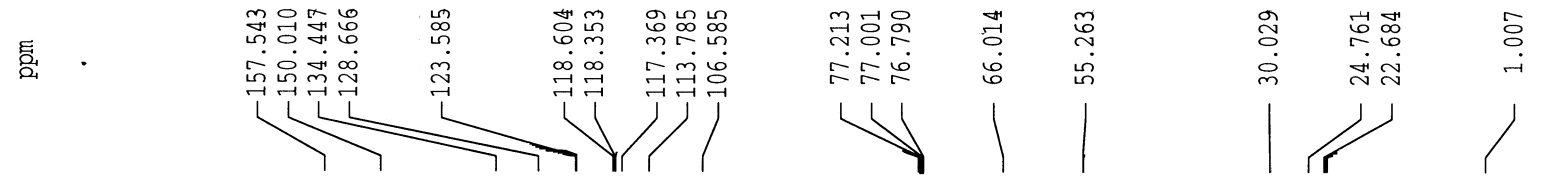
F2 - Acquisition Parameters
Date_               20050430
Time                    3.18
INSTRUM                spect
PROBHD   5 mm QNP  1H/1
PULPROG                 zgpg
TD                     32768
SOLVENT                 C6D6
NS                      6144
DS                         0
SWH                37593.984 Hz
FIDRES              1.147277 Hz
AQ                 0.4358644 sec
RG                      2048
DW                    13.300 usec
DE                     6.50 usec
TE                    300.3 K
D1                3.00000000 sec
d11               0.03000000 sec
DELTA             2.90000010 sec
MCREST            0.00000000 sec
MCWRK             0.01500000 sec

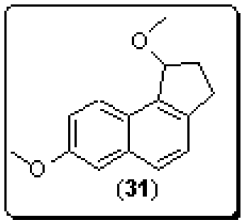
======== CHANNEL f1 ========
NUC1                      13C
P1                      4.30 usec
PL1                     0.00 dB
SFO1             150.7861246 MHz

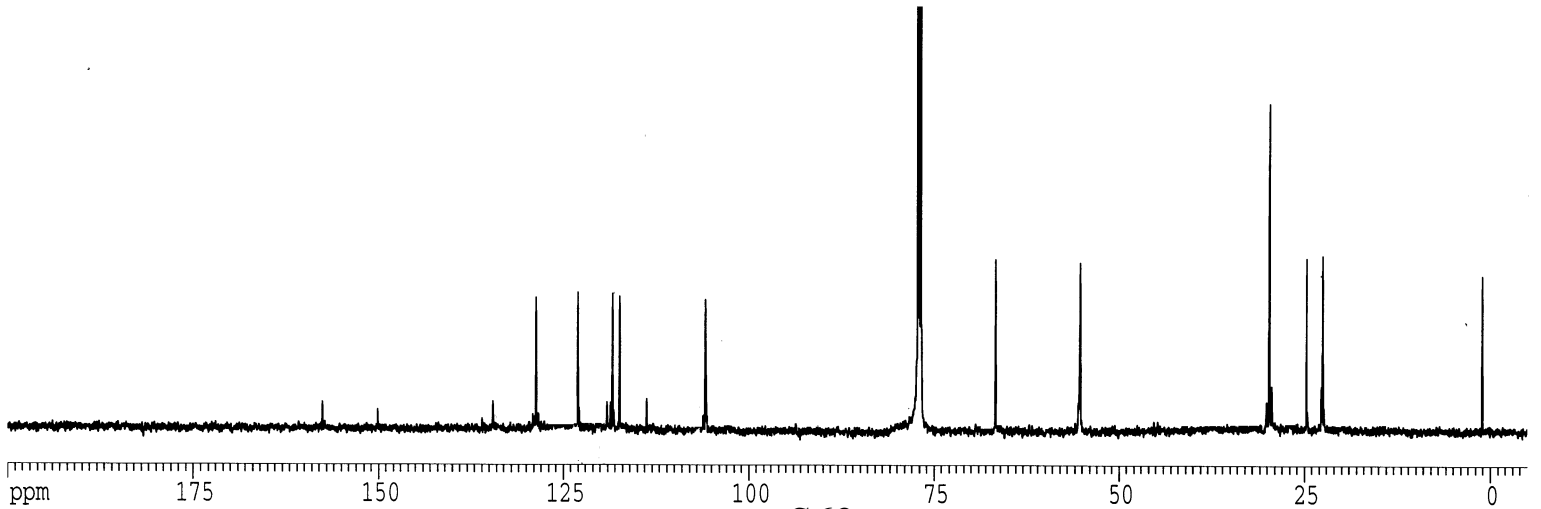
======== CHANNEL f2 ========
CPDPRG2              waltz16
NUC2                      1H
PCPD2                  92.00 usec
PL2                   120.00 dB
PL12                   11.30 dB
PL13                   14.00 dB
SFO2             599.6029980 MHz

F2 - Processing parameters
SI                        65536
SF               150.7695442 MHz
WDW                          EM
SSB                         0
LB                      3.00 Hz
GB                          0
PC                      0.50

1D NMR plot parameters
CX                     20.00 cm
CY                     20.00 cm
F1P                   200.000 ppm
F1                  30153.91 Hz
F2P                    -5.000 ppm
F2                   -753.85 Hz
PPMCM                10.25000 ppm/cm
HZCM              1545.38794 Hz/cm
```







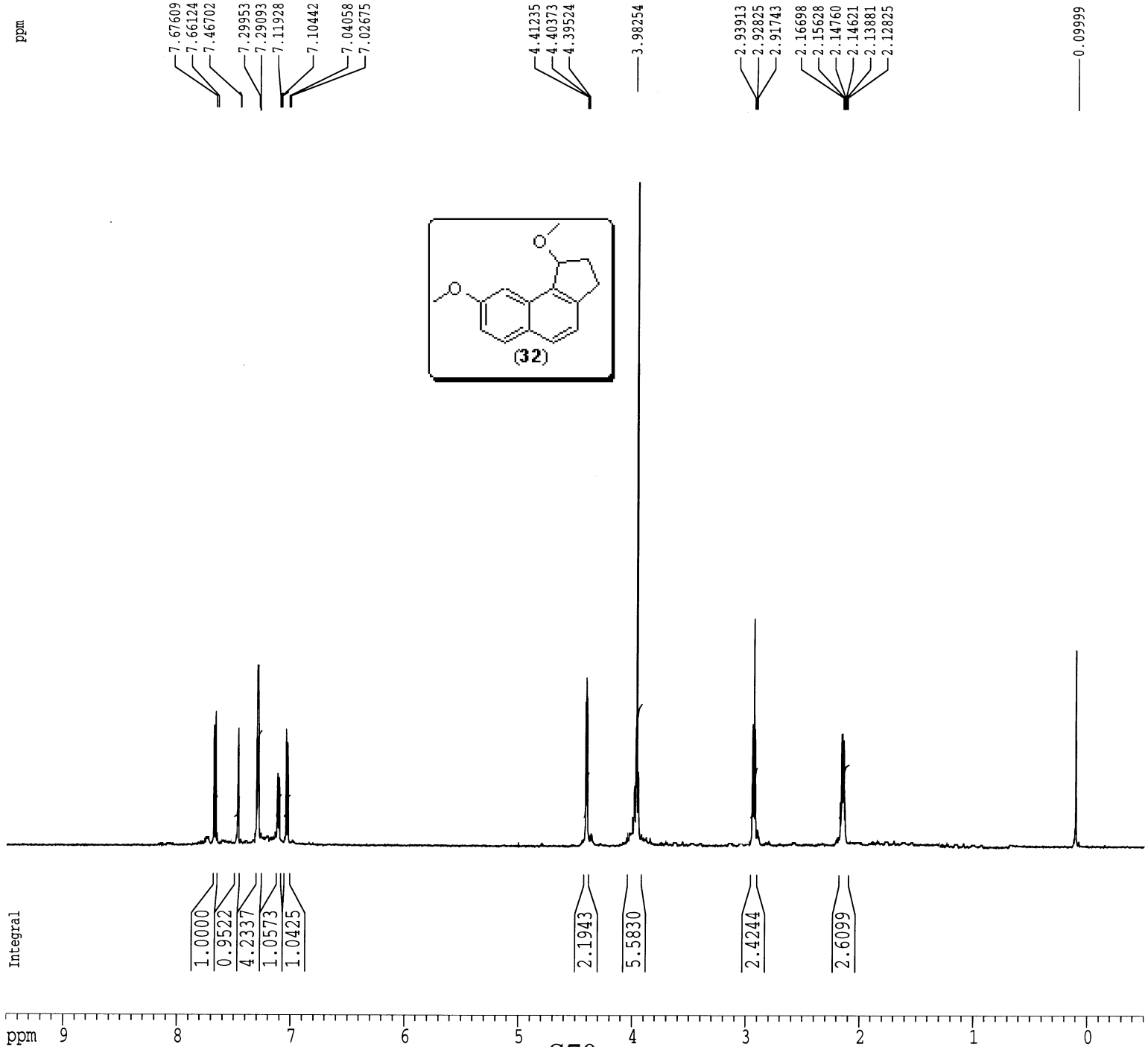
Current Data Parameters
NAME Pratap-Substrate
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20050423
Time 18.41
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zg
TD 32768
SOLVENT CDCl3
NS 16
DS 0
SWH 8389.262 Hz
FIDRES 0.256020 Hz
AQ 1.9530228 sec
RG 128
DW 59.600 usec
DE 6.50 usec
TE 297.5 K
D1 1.00000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 1H
P1 10.10 usec
PL1 3.00 dB
SFO1 599.6029980 MHz

F2 - Processing parameters
SI 16384
SF 599.6000000 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 0.50

1D NMR plot parameters
CX 20.00 cm
CY 20.00 cm
F1P 9.500 ppm
F1 5696.20 Hz
F2P -0.500 ppm
F2 -299.80 Hz
PPMCM 0.50000 ppm/cm
HZCM 299.79999 Hz/cm



```
Current Data Parameters
NAME      Pratap-Substrate
EXPNO                    2
PROCNO                   1

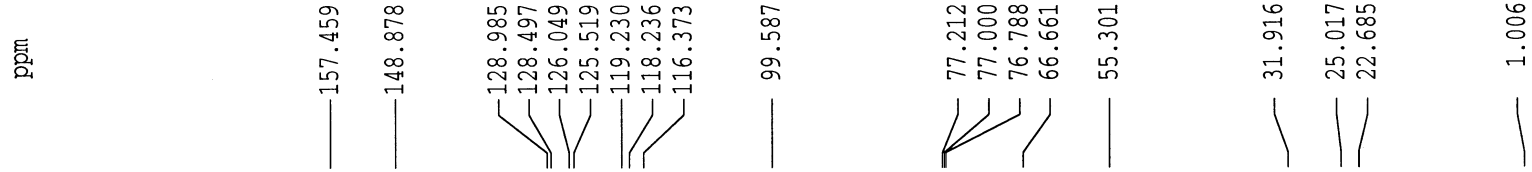
F2 - Acquisition Parameters
Date_           20050423
Time               18.44
INSTRUM            spect
PROBHD   5 mm QNP  1H/1
PULPROG             zgpg
TD                 32768
SOLVENT             C6D6
NS                  3072
DS                     0
SWH            45045.047 Hz
FIDRES          1.374666 Hz
AQ              0.3637748 sec
RG                  2048
DW                11.100 usec
DE                 6.50 usec
TE                297.5 K
D1            4.00000000 sec
d11           0.03000000 sec
DELTA         3.90000010 sec
MCREST        0.00000000 sec
MCWRK         0.01500000 sec

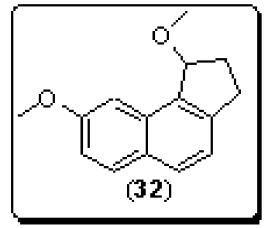
======== CHANNEL f1 ========
NUC1                 13C
P1                  4.30 usec
PL1                 0.00 dB
SFO1         150.7876323 MHz

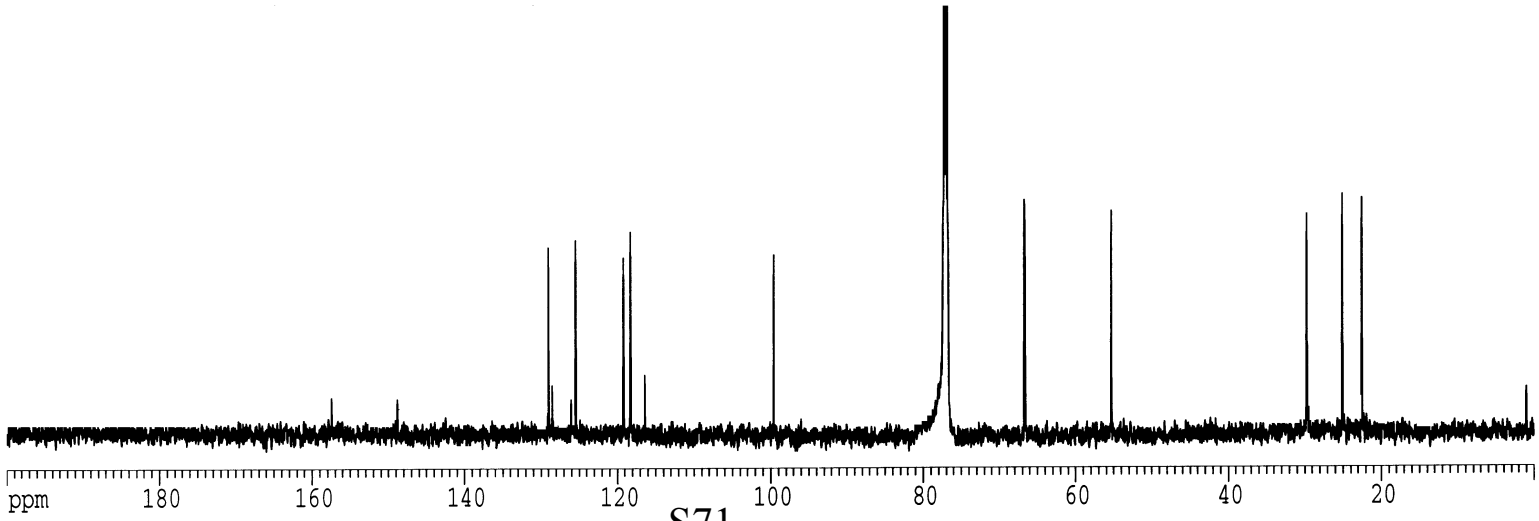
======== CHANNEL f2 ========
CPDPRG2          waltz16
NUC2                 1H
PCPD2              92.00 usec
PL2               120.00 dB
PL12               11.30 dB
PL13               14.00 dB
SFO2         599.6029980 MHz

F2 - Processing parameters
SI                 65536
SF           150.7695457 MHz
WDW                   EM
SSB                    0
LB                  3.00 Hz
GB                     0
PC                  0.50

1D NMR plot parameters
CX                 20.00 cm
CY                 50.00 cm
F1P               200.000 ppm
F1              30153.91 Hz
F2P               0.000 ppm
F2                 0.00 Hz
PPMCM           10.00000 ppm/cm
HZCM          1507.69543 Hz/cm
```







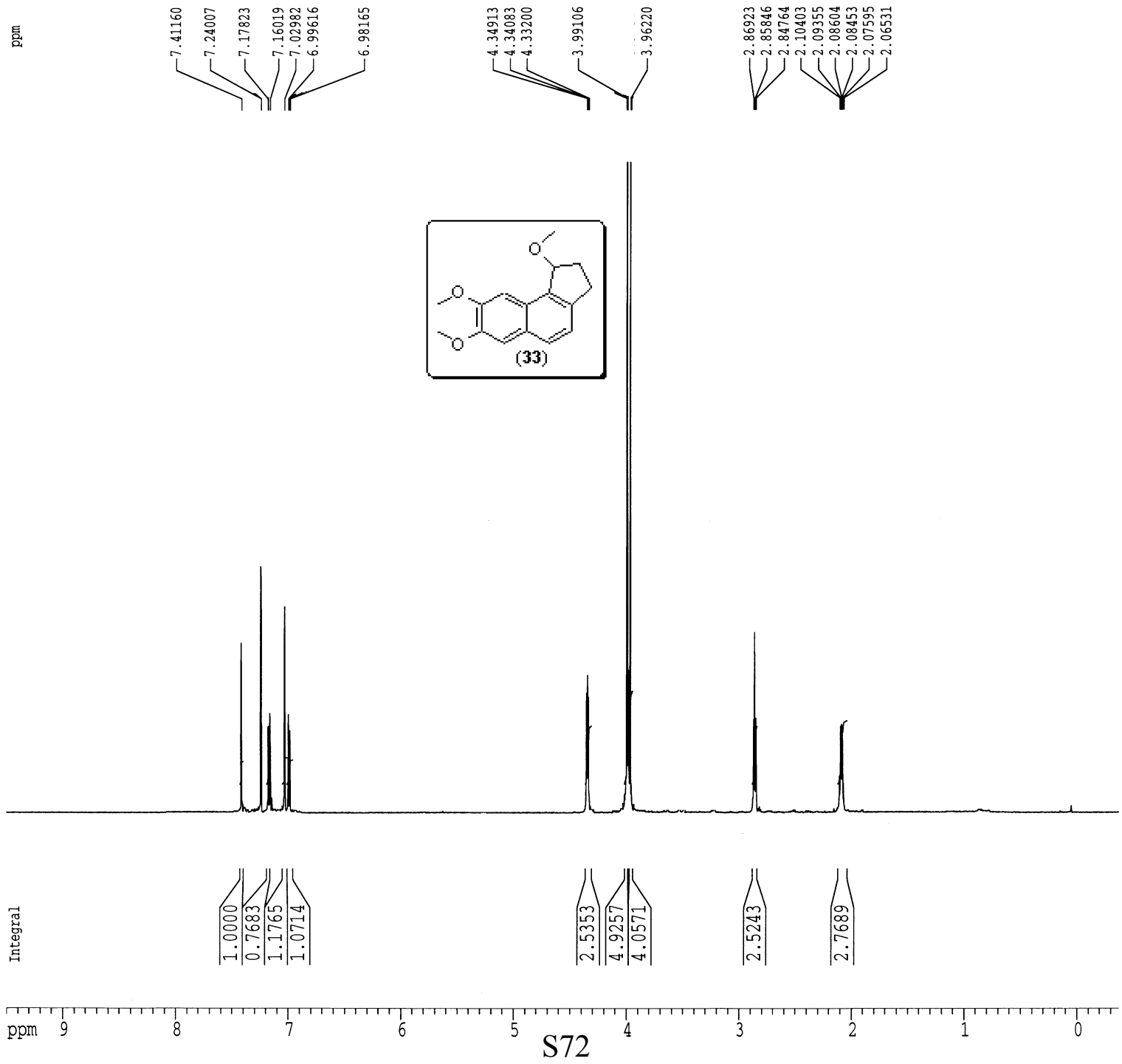
Data Parameters
Pratap-Methony-Aroduct
1
1

uisition Parameters
20050324
16.19
spect
5 mm QNP 1H/1
zg
32768
CDCl3
16
0
7183.908 Hz
0.219235 Hz
2.2807028 sec
256
69.600 usec
6.50 usec
294.3 K
1.00000000 sec
0.00000000 sec
0.01500000 sec

CHANNEL f1 ========
1H
10.00 usec
0.00 dB
599.6034006 MHz

cessing parameters
32768
599.6000302 MHz
no
0
0.00 Hz
0
0.50

lot parameters
20.00 cm
15.00 cm
9.500 ppm
5696.20 Hz
-0.500 ppm
-299.80 Hz
0.50000 ppm/cm
299.80002 Hz/cm



```
Current Data Parameters
NAME      Pratap-Methony-Aroduct
EXPNO                      2
PROCNO                     1

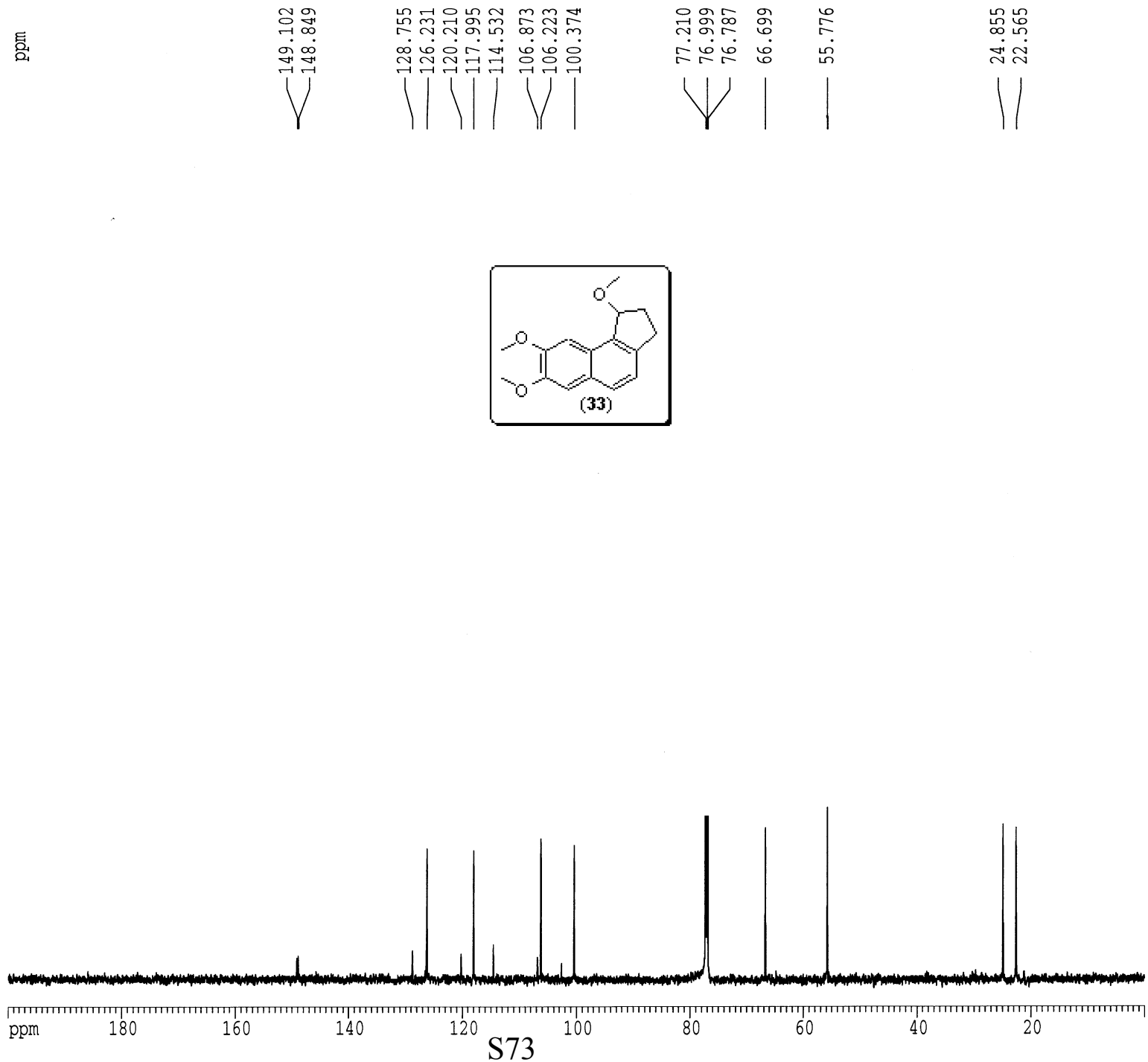
F2 - Acquisition Parameters
Date_              20050324
Time                 16.20
INSTRUM              spect
PROBHD   5 mm QNP  1H/1
PULPROG              zgpg
TD                  32768
SOLVENT              C6D6
NS                    600
DS                      0
SWH              37593.984 Hz
FIDRES            1.147277 Hz
AQ               0.4358644 sec
RG                   2048
DW                  13.300 usec
DE                   6.50 usec
TE                  294.3 K
D1               3.00000000 sec
d11              0.03000000 sec
DELTA            2.90000010 sec
MCREST           0.00000000 sec
MCWRK            0.01500000 sec

======== CHANNEL f1 ========
NUC1                    13C
P1                     4.30 usec
PL1                    0.00 dB
SFO1           150.7861246 MHz

======== CHANNEL f2 ========
CPDPRG2           waltz16
NUC2                    1H
PCPD2                92.00 usec
PL2                 120.00 dB
PL12                 11.30 dB
PL13                 14.00 dB
SFO2           599.6029980 MHz

F2 - Processing parameters
SI                    65536
SF             150.7695483 MHz
WDW                      EM
SSB                       0
LB                     3.00 Hz
GB                        0
PC                     0.50

1D NMR plot parameters
CX                    20.00 cm
CY                    10.00 cm
F1P                  200.000 ppm
F1                 30153.91 Hz
F2P                   0.000 ppm
F2                    0.00 Hz
PPMCM                10.00000 ppm/cm
HZCM              1507.69543 Hz/cm
```



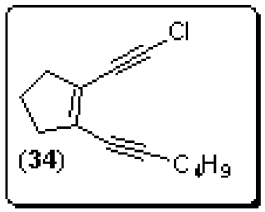
Ruo-C13

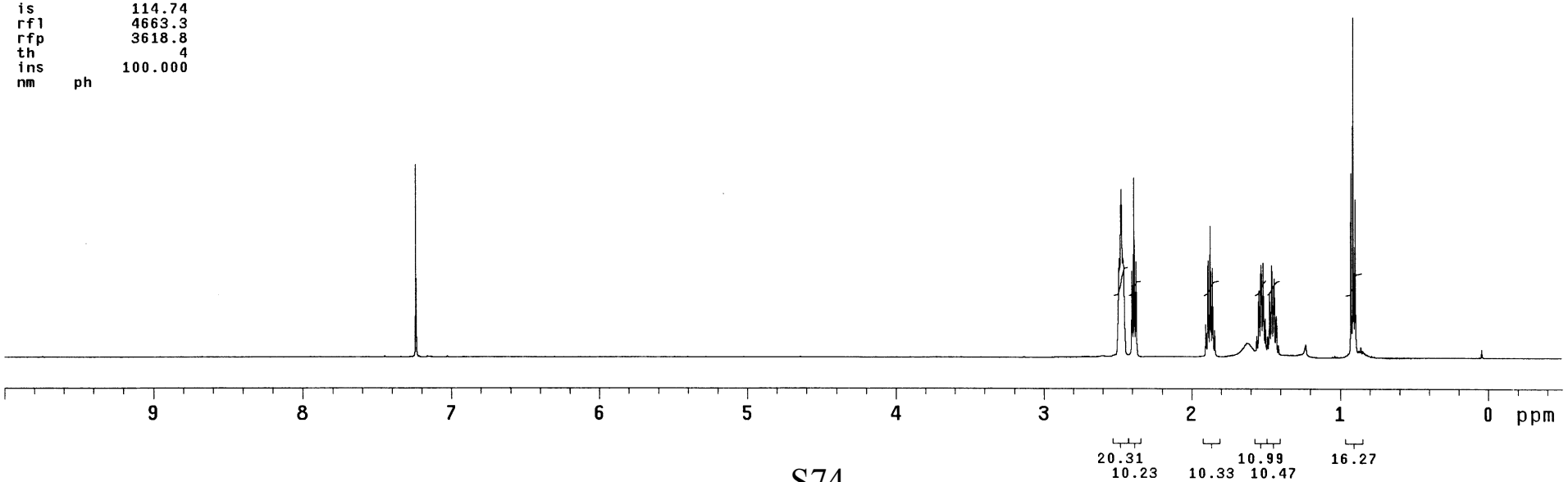
exp1 s2pul

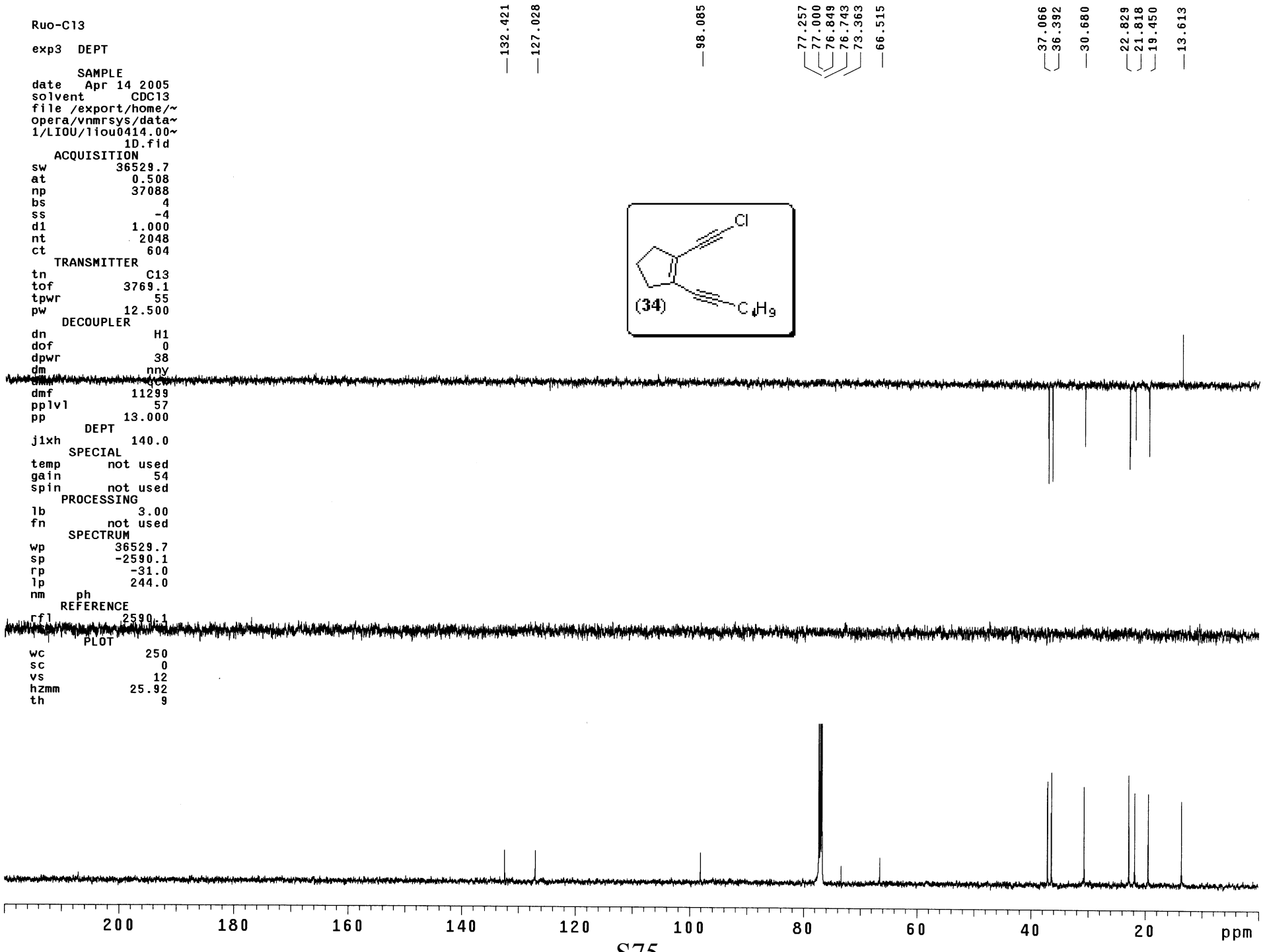
SAMPLE		DEC. & VT	
date	Apr 13 2005	dfrq	499.832
solvent	CDCl3	dn	H1
file	/export/home/~	dpwr	38
	opera/vnmrsys/data~	dof	0
	1/LIOU/liou0414.00~	dm	nnn
	1H.fid	dmm	c
ACQUISITION		dmf	11299
sfrq	499.833	dseq	
tn	H1	dres	1.0
at	2.182	homo	n
np	39276	PROCESSING	
sw	9000.9	wtfile	
fb	not used	proc	ft
bs	4	fn	32768
tpwr	55	math	f
pw	5.5		
d1	1.000	werr	
tof	980.4	wexp	
nt	32	wbs	wft
ct	32	wnt	wft
alock	y		
gain	not used		
FLAGS			
il	n		
in	n		
dp	y		
hs	nn		
DISPLAY			
sp	-250.1		
wp	5247.9		
vs	145		
sc	0		
wc	250		
hzmm	4.63		
is	114.74		
rfl	4663.3		
rfp	3618.8		
th	4		
ins	100.000		
nm	ph		

7.240

2.488 2.484 2.473 2.462 2.457 2.401 2.388 2.374 1.902 1.887 1.872 1.857 1.842 1.545 1.531 1.515 1.501 1.471 1.457 1.442 1.428 0.926 0.911 0.897






Ruo-C13
exp3 DEPT
SAMPLE
date Apr 14 2005
solvent CDCl3
file /export/home/~
opera/vnmrsys/data~
1/LIOU/liou0414.00~
1D.fid
ACQUISITION
sw 36529.7
at 0.508
np 37088
bs 4
ss -4
d1 1.000
nt 2048
ct 604
TRANSMITTER
tn C13
tof 3769.1
tpwr 55
pw 12.500
DECOUPLER
dn H1
dof 0
dpwr 38
dm nny
dmf 11299
pplvl 57
pp 13.000
DEPT
j1xh 140.0
SPECIAL
temp not used
gain 54
spin not used
PROCESSING
lb 3.00
fn not used
SPECTRUM
wp 36529.7
sp -2590.1
rp -31.0
lp 244.0
nm ph
REFERENCE
rfl 2590.1
PLOT
wc 250
sc 0
vs 12
hzmm 25.92
th 9
132.421
127.028
98.085
77.257
77.000
76.849
76.743
73.363
66.515
37.066
36.392
30.680
22.829
21.818
19.450
13.613
Cl
(34)
C4H9
200
180
160
140
120
100
80
60
40
20
ppm

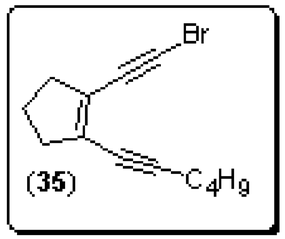
Rou-Br3

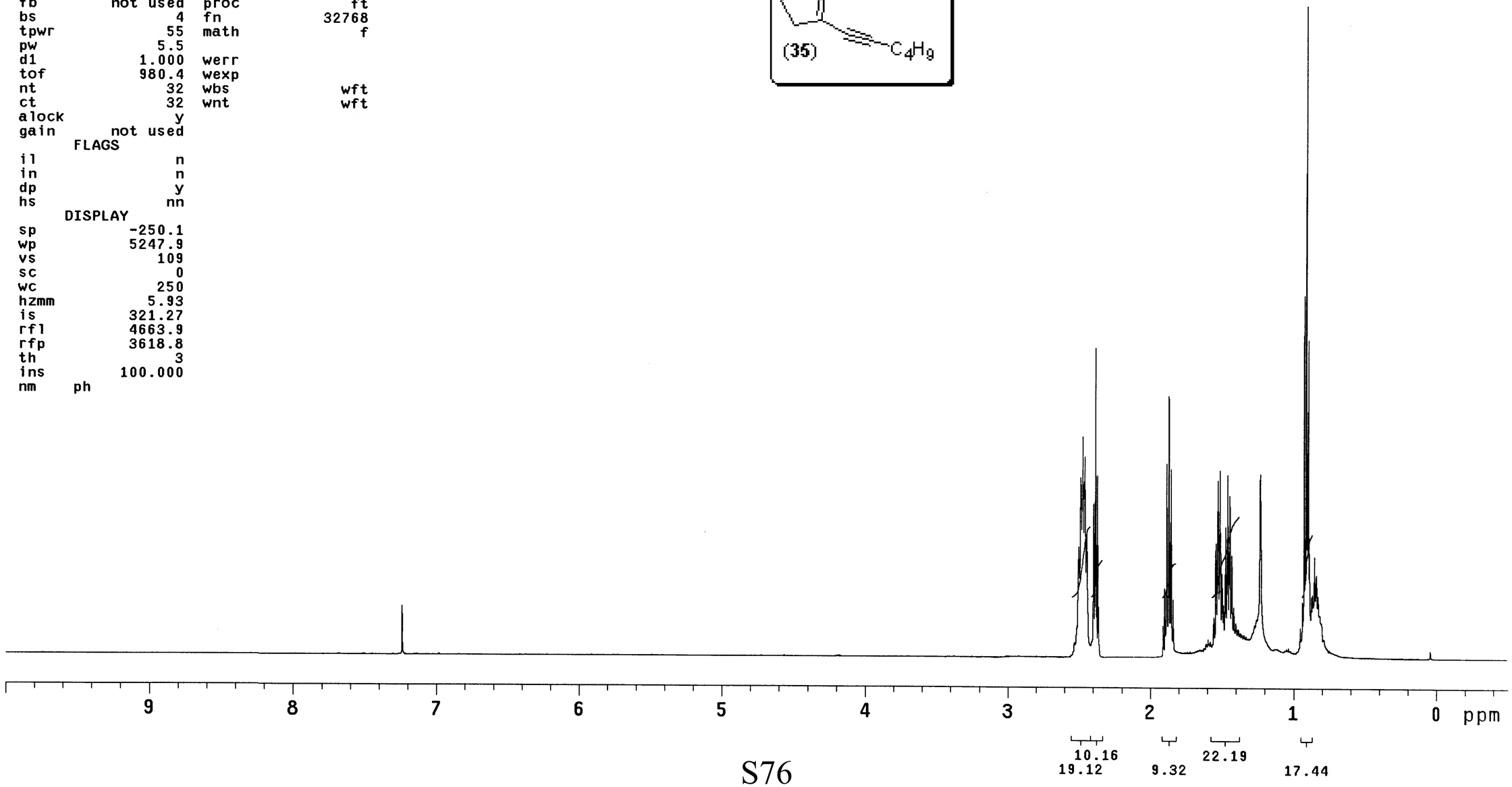
exp1 s2pul

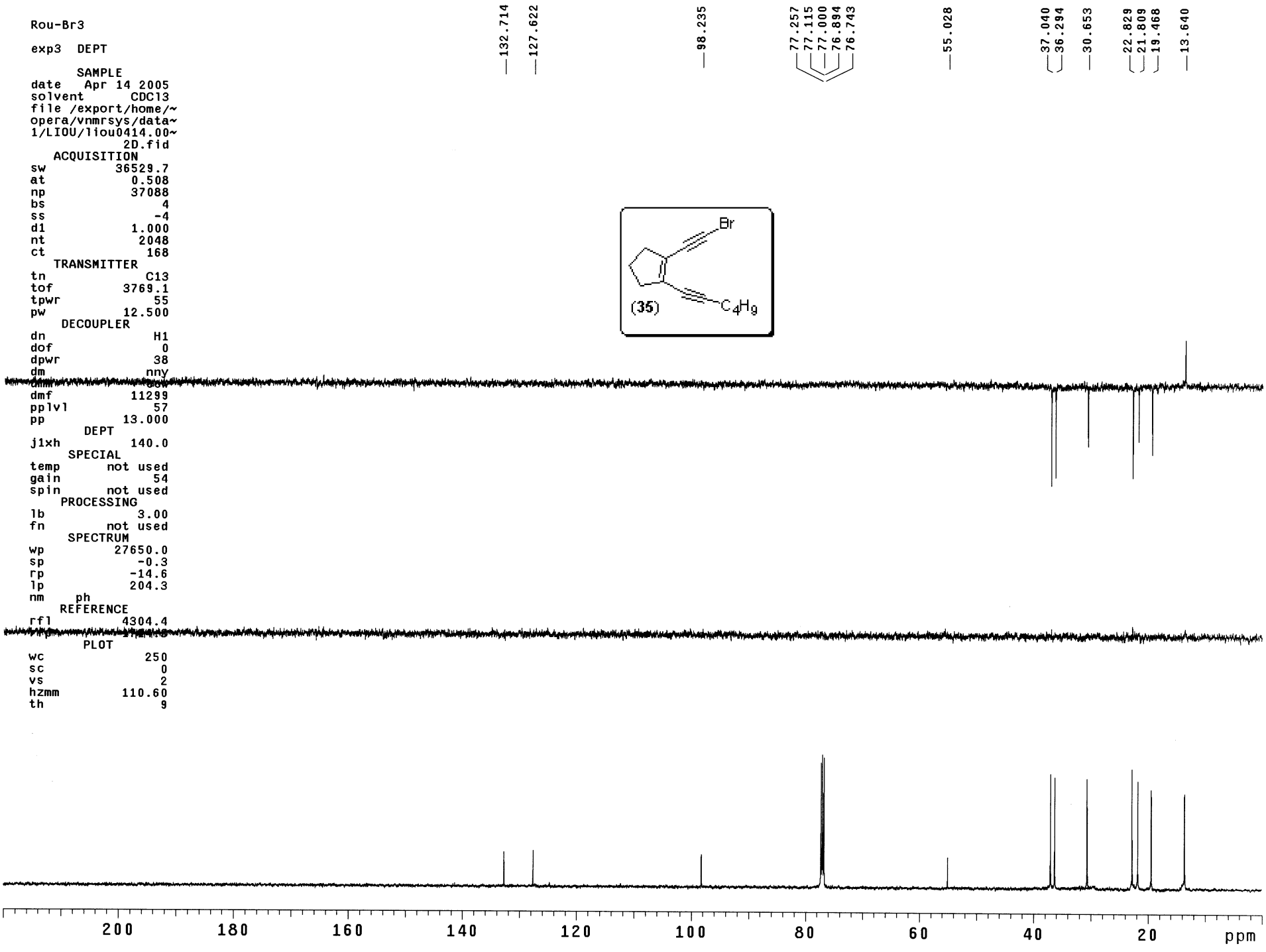
SAMPLE		DEC. & VT	
date	Apr 14 2005	dfrq	499.832
solvent	CDCl3	dn	H1
file	/export/home/~	dpwr	38
opera/vnmrsys/data~		dof	0
1/LIOU/liou0414.00~		dm	nnn
	2H.fid	dmm	c
ACQUISITION		dmf	11299
sfrq	499.833	dseq	
tn	H1	dres	1.0
at	2.182	homo	n
np	39276	PROCESSING	
sw	9000.9	wtfile	
fb	not used	proc	ft
bs	4	fn	32768
tpwr	55	math	f
pw	5.5		
d1	1.000	werr	
tof	980.4	wexp	
nt	32	wbs	wft
ct	32	wnt	wft
alock	y		
gain	not used		
FLAGS			
il	n		
in	n		
dp	y		
hs	nn		
DISPLAY			
sp	-250.1		
wp	5247.9		
vs	109		
sc	0		
wc	250		
hzmm	5.93		
is	321.27		
rfl	4663.9		
rfp	3618.8		
th	3		
ins	100.000		
nm	ph		

7.240

2.519 2.504 2.474 2.459 2.443 2.398 2.384 2.346 1.922 1.900 1.870 1.855 1.840 1.528 1.512 1.498 1.458 1.443 1.429 1.384 1.344 1.330 1.257 1.232 0.953 0.912 0.898 0.854 0.816






Rou-Br3
exp3 DEPT
SAMPLE
date Apr 14 2005
solvent CDCl3
file /export/home/~
opera/vnmrsys/data~
1/LIOU/liou0414.00~
2D.fid
ACQUISITION
sw 36529.7
at 0.508
np 37088
bs 4
ss -4
d1 1.000
nt 2048
ct 168
TRANSMITTER
tn C13
tof 3769.1
tpwr 55
pw 12.500
DECOUPLER
dn H1
dof 0
dpwr 38
dm nny
dmf 11299
pplvl 57
pp 13.000
DEPT
j1xh 140.0
SPECIAL
temp not used
gain 54
spin not used
PROCESSING
lb 3.00
fn not used
SPECTRUM
wp 27650.0
sp -0.3
rp -14.6
lp 204.3
nm ph
REFERENCE
rfl 4304.4
PLOT
wc 250
sc 0
vs 2
hzmm 110.60
th 9
132.714
127.622
98.235
77.257
77.115
77.000
76.894
76.743
55.028
37.040
36.294
30.653
22.829
21.809
19.468
13.640
Br
(35)
C4H9
200
180
160
140
120
100
80
60
40
20
ppm

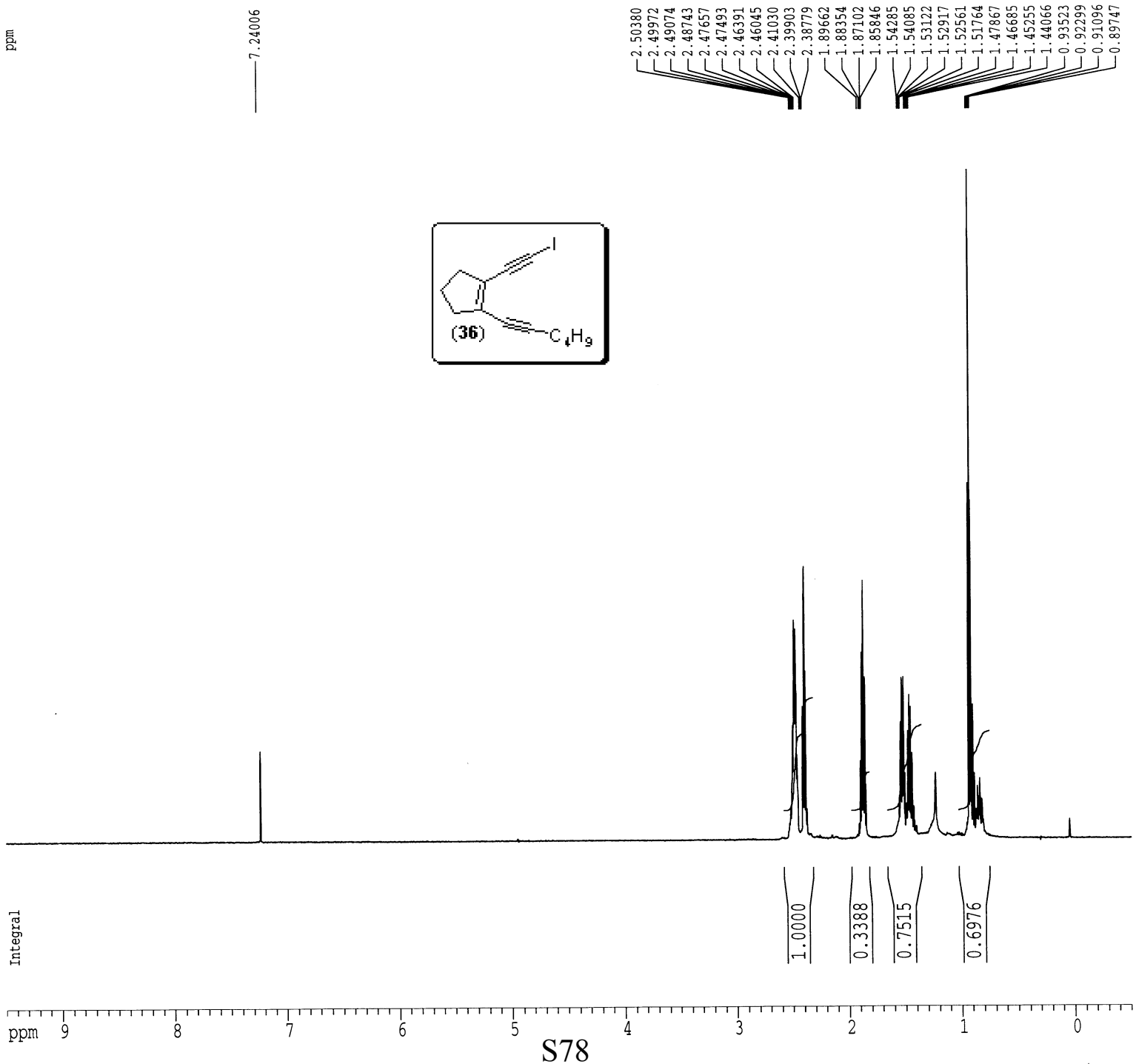
Current Data Parameters
NAME Ruo-I2
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20050328
Time 19.51
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zg
TD 32768
SOLVENT CDCl3
NS 16
DS 0
SWH 7183.908 Hz
FIDRES 0.219235 Hz
AQ 2.2807028 sec
RG 8
DW 69.600 usec
DE 6.50 usec
TE 295.7 K
D1 1.00000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 1H
P1 10.00 usec
PL1 4.00 dB
SFO1 599.6029980 MHz

F2 - Processing parameters
SI 32768
SF 599.6000297 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 1.00

1D NMR plot parameters
CX 20.00 cm
CY 12.00 cm
F1P 9.500 ppm
F1 5696.20 Hz
F2P -0.500 ppm
F2 -299.80 Hz
PPMCM 0.50000 ppm/cm
HZCM 299.80002 Hz/cm



Current Data Parameters
NAME Ruo-I2
EXPNO 2
PROCNO 1

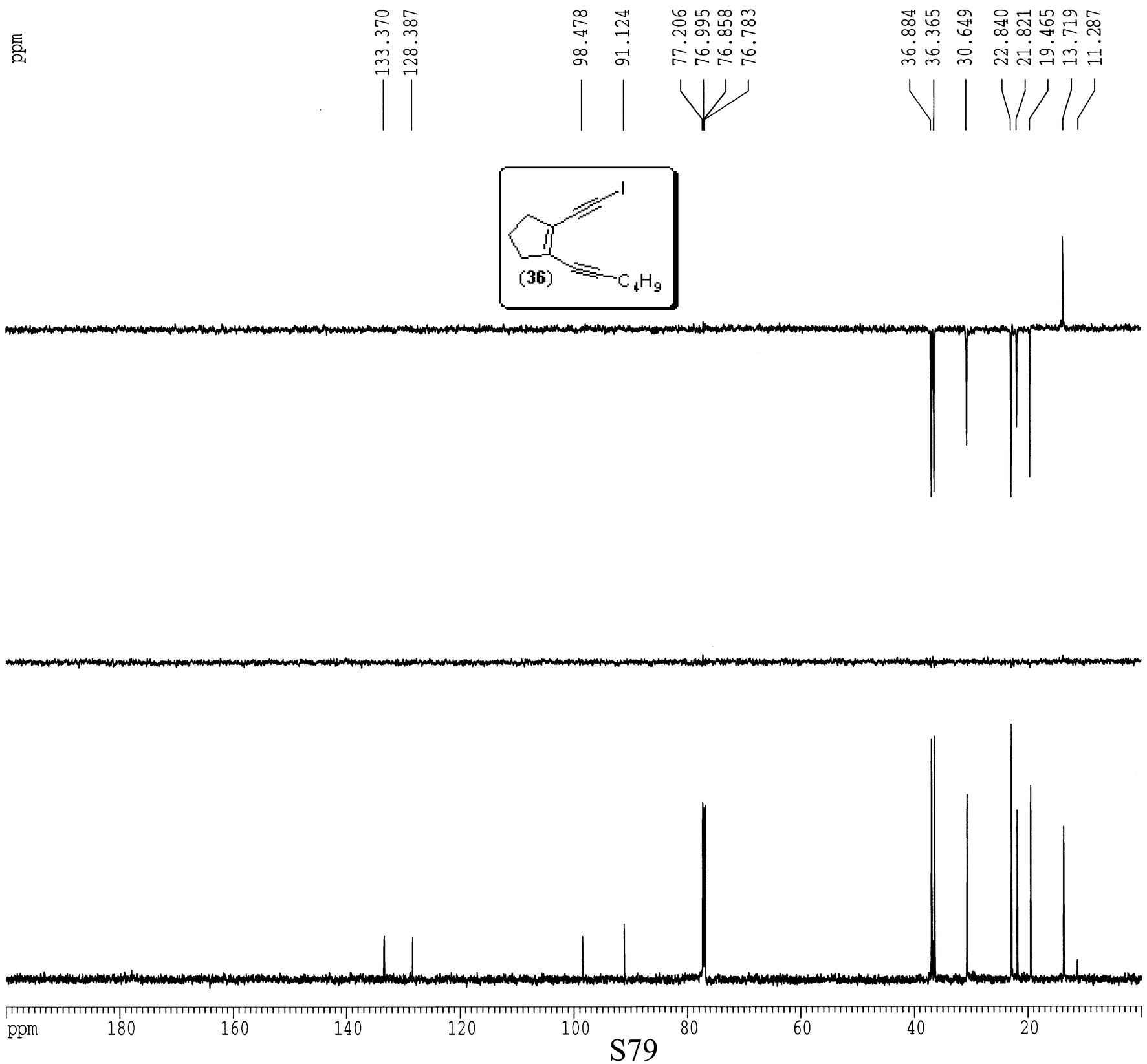
F2 - Acquisition Parameters
Date_ 20050328
Time 19.54
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zgpg
TD 32768
SOLVENT C6D6
NS 74
DS 0
SWH 37593.984 Hz
FIDRES 1.147277 Hz
AQ 0.4358644 sec
RG 2048
DW 13.300 usec
DE 6.50 usec
TE 295.8 K
D1 3.00000000 sec
d11 0.03000000 sec
DELTA 2.90000010 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 13C
P1 4.30 usec
PL1 0.00 dB
SFO1 150.7861246 MHz

======== CHANNEL f2 ========
CPDPRG2 waltz16
NUC2 1H
PCPD2 92.00 usec
PL2 120.00 dB
PL12 11.30 dB
PL13 14.00 dB
SFO2 599.6029980 MHz

F2 - Processing parameters
SI 65536
SF 150.7695483 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 0.50

1D NMR plot parameters
CX 20.00 cm
CY 4.50 cm
F1P 200.000 ppm
F1 30153.91 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPMCM 10.00000 ppm/cm
HZCM 1507.69543 Hz/cm



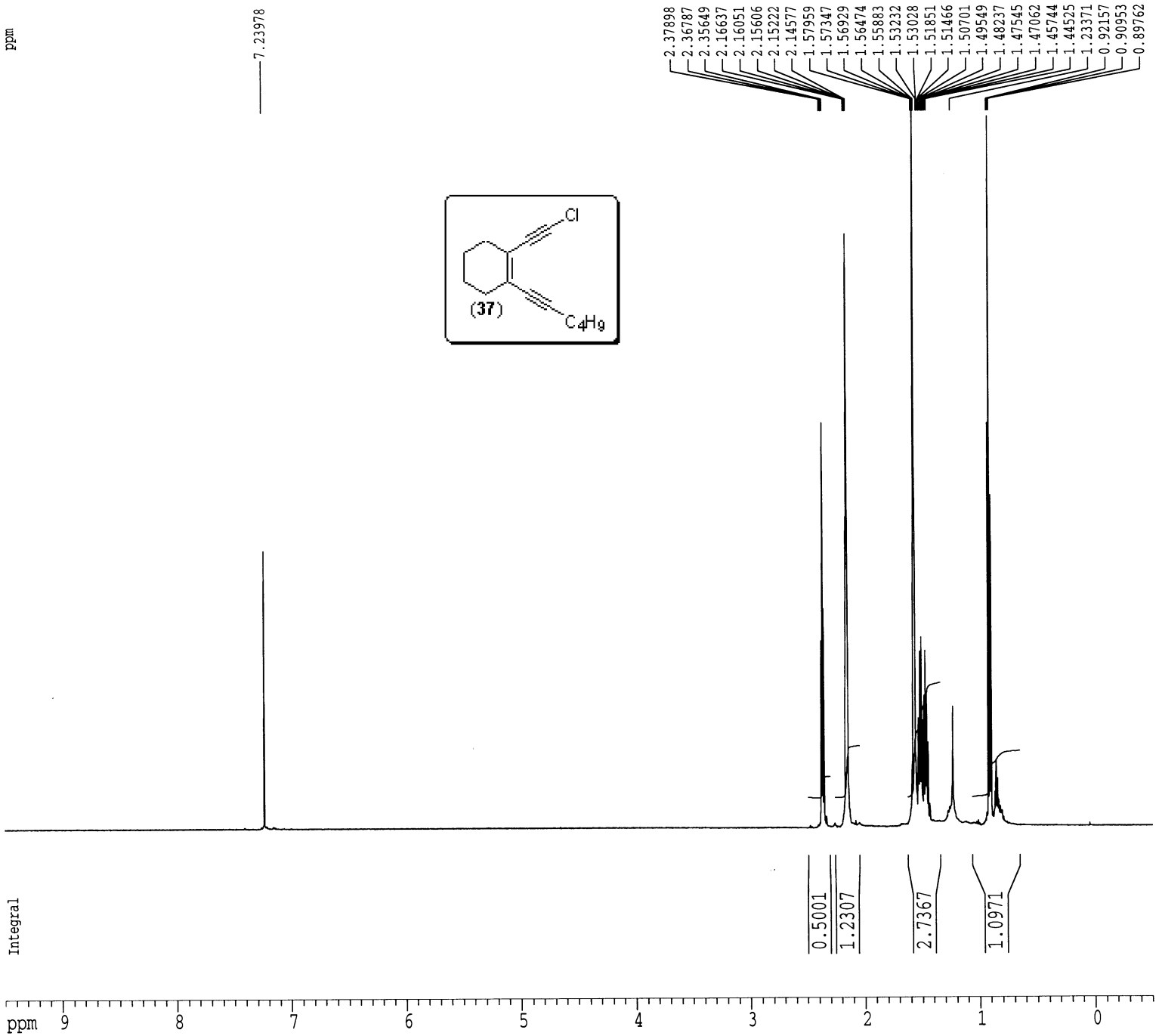
Current Data Parameters
NAME Ruo-Cl-1
EXPNO 1
PROCNO 1

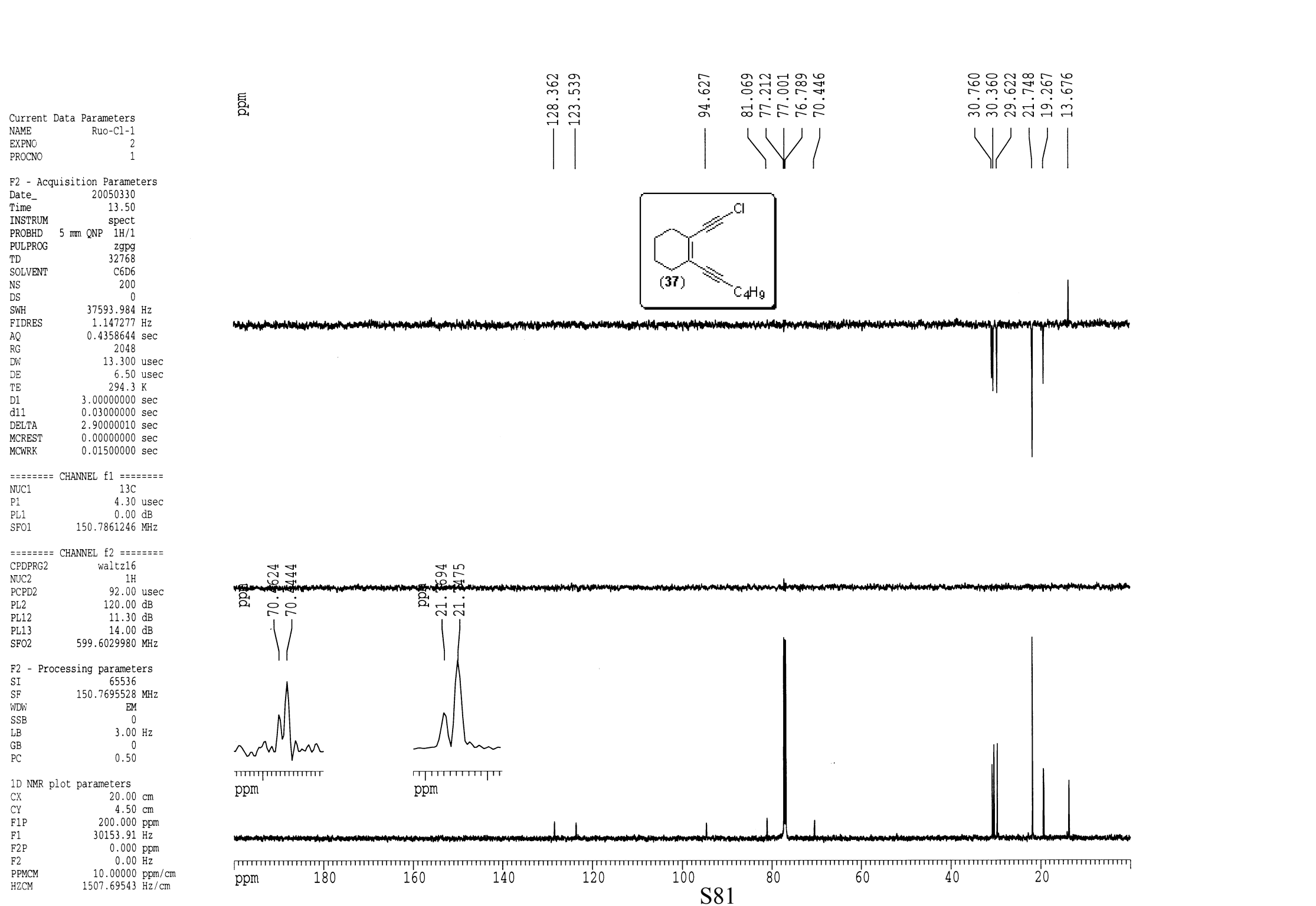
F2 - Acquisition Parameters
Date_ 20050330
Time 13.38
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zg
TD 32768
SOLVENT DMSO
NS 16
DS 0
SWH 7861.635 Hz
FIDRES 0.239918 Hz
AQ 2.0840948 sec
RG 32
DW 63.600 usec
DE 6.50 usec
TE 294.1 K
D1 1.00000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 1H
P1 10.00 usec
PL1 0.00 dB
SFO1 599.6028455 MHz

F2 - Processing parameters
SI 16384
SF 599.6000543 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 0.50

1D NMR plot parameters
CX 20.00 cm
CY 13.00 cm
F1P 9.500 ppm
F1 5696.20 Hz
F2P -0.500 ppm
F2 -299.80 Hz
PPMCM 0.50000 ppm/cm
HZCM 299.80002 Hz/cm




Current Data Parameters
NAME Ruo-Cl-1
EXPNO 2
PROCNO 1
F2 - Acquisition Parameters
Date_ 20050330
Time 13.50
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zgpg
TD 32768
SOLVENT C6D6
NS 200
DS 0
SWH 37593.984 Hz
FIDRES 1.147277 Hz
AQ 0.4358644 sec
RG 2048
DW 13.300 usec
DE 6.50 usec
TE 294.3 K
D1 3.00000000 sec
d11 0.03000000 sec
DELTA 2.90000010 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec
======== CHANNEL f1 ========
NUC1 13C
P1 4.30 usec
PL1 0.00 dB
SFO1 150.7861246 MHz
======== CHANNEL f2 ========
CPDPRG2 waltz16
NUC2 1H
PCPD2 92.00 usec
PL2 120.00 dB
PL12 11.30 dB
PL13 14.00 dB
SFO2 599.6029980 MHz
F2 - Processing parameters
SI 65536
SF 150.7695528 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 0.50
1D NMR plot parameters
CX 20.00 cm
CY 4.50 cm
F1P 200.000 ppm
F1 30153.91 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPMCM 10.00000 ppm/cm
HZCM 1507.69543 Hz/cm
ppm
128.362
123.539
94.627
81.069
77.212
77.001
76.789
70.446
30.760
30.360
29.622
21.748
19.267
13.676
Cl
(37)
C4H9
70.624
70.444
21.694
21.475
ppm
180
160
140
120
100
80
60
40
20

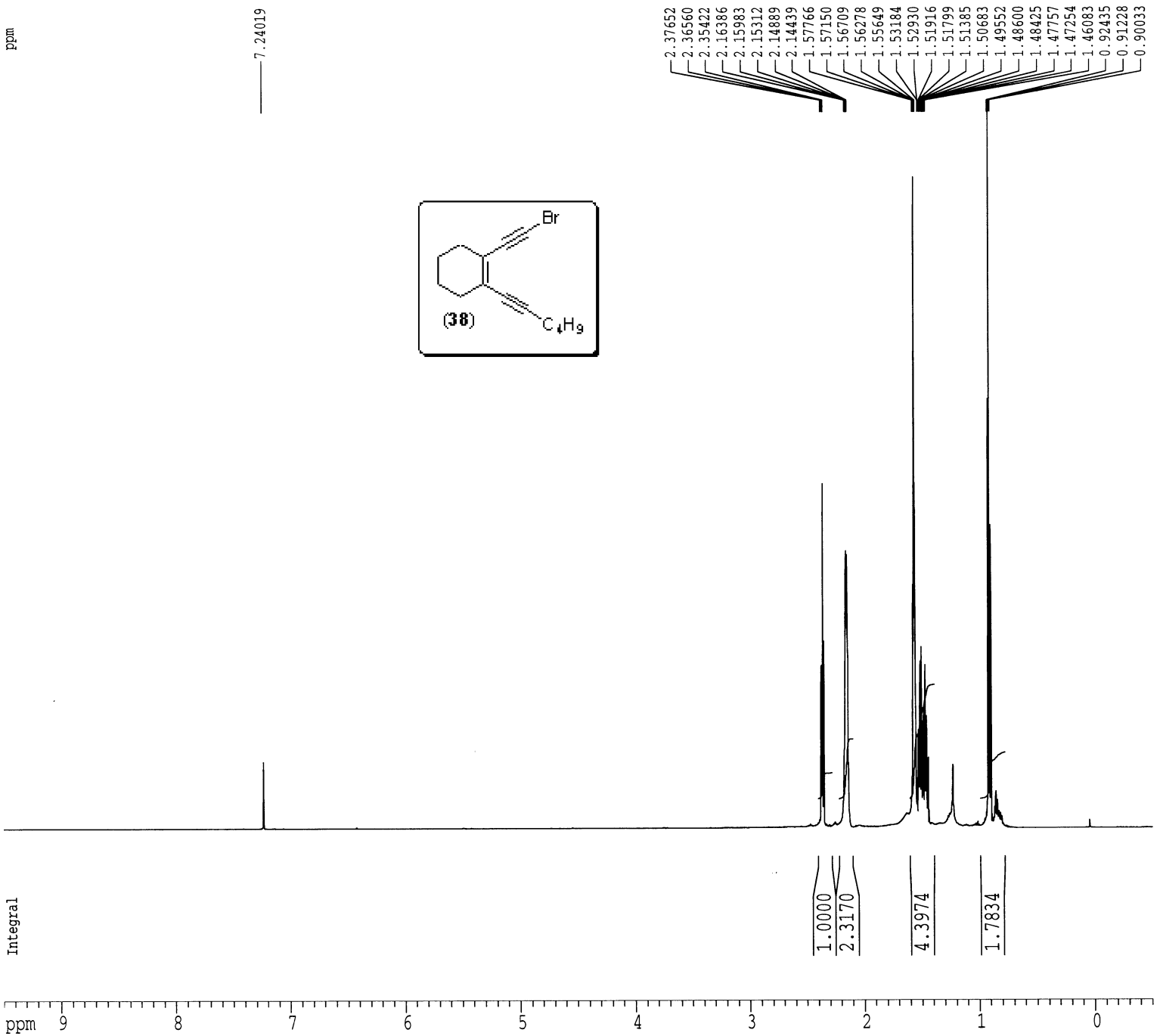
Current Data Parameters
NAME Ruo-Br-1
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20050330
Time 13.01
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zg
TD 32768
SOLVENT DMSO
NS 16
DS 0
SWH 7861.635 Hz
FIDRES 0.239918 Hz
AQ 2.0840948 sec
RG 32
DW 63.600 usec
DE 6.50 usec
TE 294.1 K
D1 1.00000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 1H
P1 10.00 usec
PL1 0.00 dB
SFO1 599.6028455 MHz

F2 - Processing parameters
SI 32768
SF 599.6000538 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 0.50

1D NMR plot parameters
CX 20.00 cm
CY 13.00 cm
F1P 9.500 ppm
F1 5696.20 Hz
F2P -0.500 ppm
F2 -299.80 Hz
PPMCM 0.50000 ppm/cm
HZCM 299.80002 Hz/cm



Current Data Parameters
NAME Ruo-Br-1
EXPNO 2
PROCNO 1

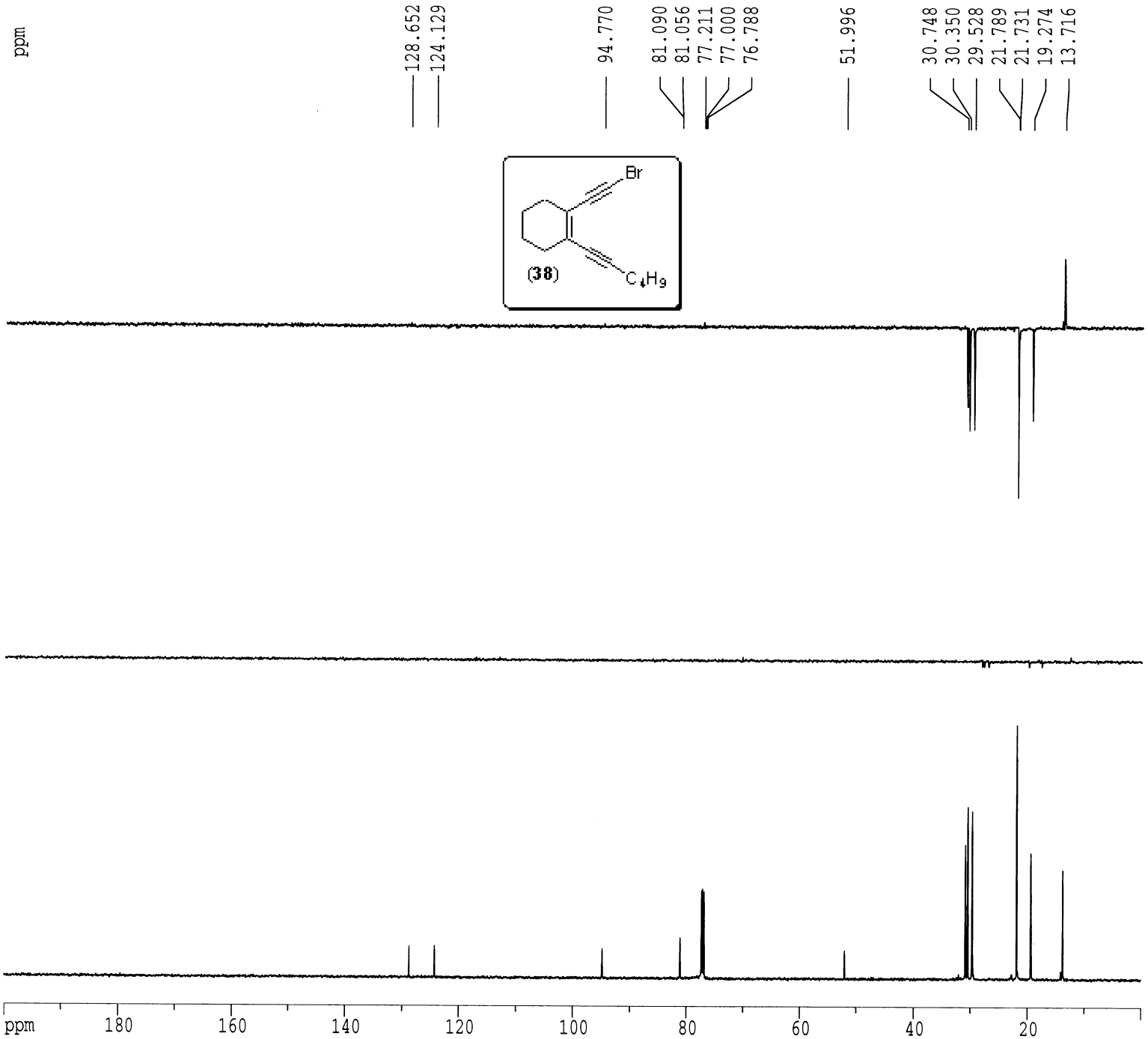
F2 - Acquisition Parameters
Date_ 20050330
Time 13.14
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zgpg
TD 32768
SOLVENT C6D6
NS 200
DS 0
SWH 37593.984 Hz
FIDRES 1.147277 Hz
AQ 0.4358644 sec
RG 2048
DW 13.300 usec
DE 6.50 usec
TE 294.3 K
D1 3.00000000 sec
d11 0.03000000 sec
DELTA 2.90000010 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 13C
P1 4.30 usec
PL1 0.00 dB
SFO1 150.7861246 MHz

======== CHANNEL f2 ========
CPDPRG2 waltz16
NUC2 1H
PCPD2 92.00 usec
PL2 120.00 dB
PL12 11.30 dB
PL13 14.00 dB
SFO2 599.6029980 MHz

F2 - Processing parameters
SI 65536
SF 150.7695546 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 0.50

1D NMR plot parameters
CX 20.00 cm
CY 4.50 cm
F1P 200.000 ppm
F1 30153.91 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPMCM 10.00000 ppm/cm
HZCM 1507.69556 Hz/cm



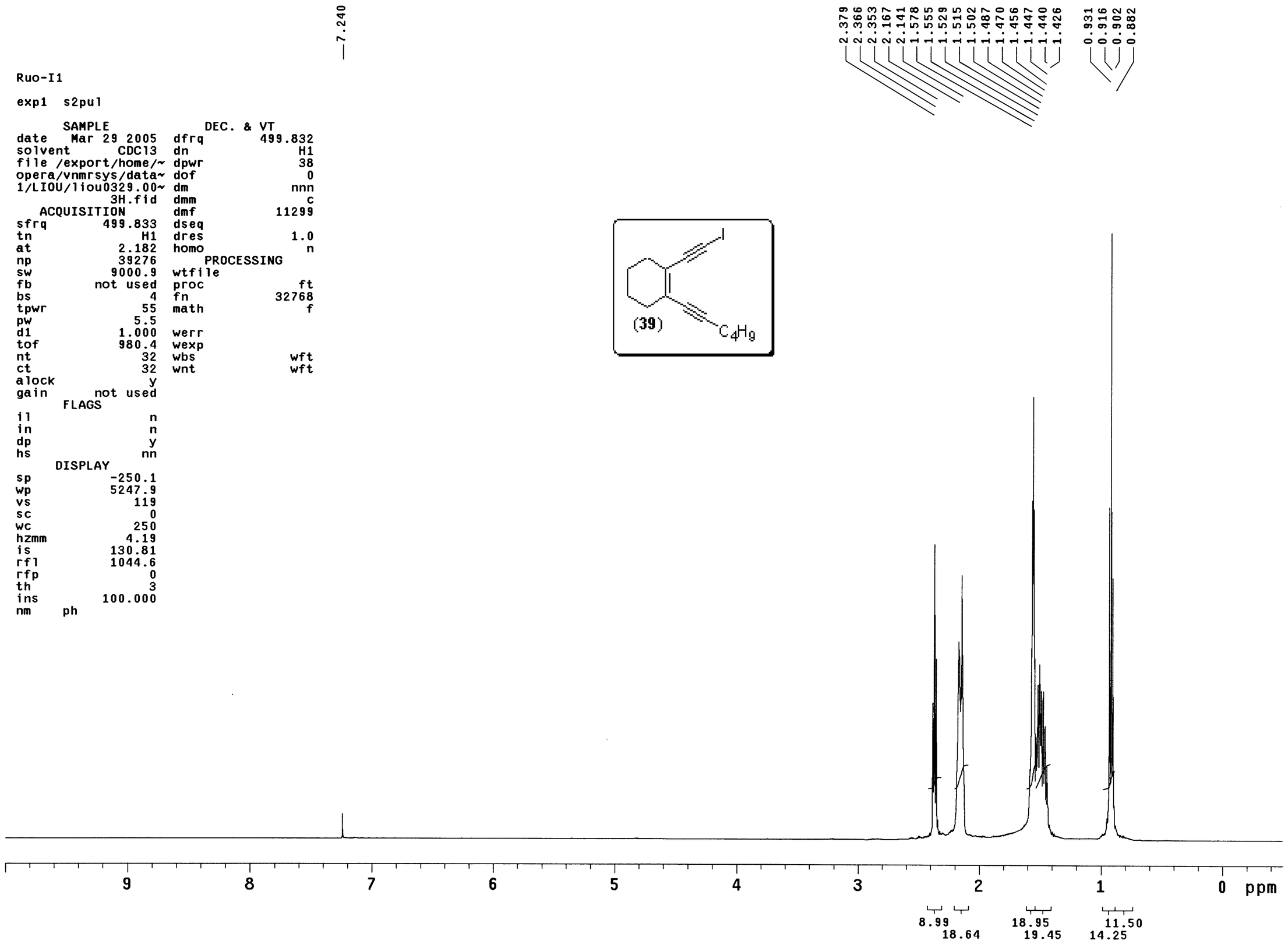
Ruo-I1

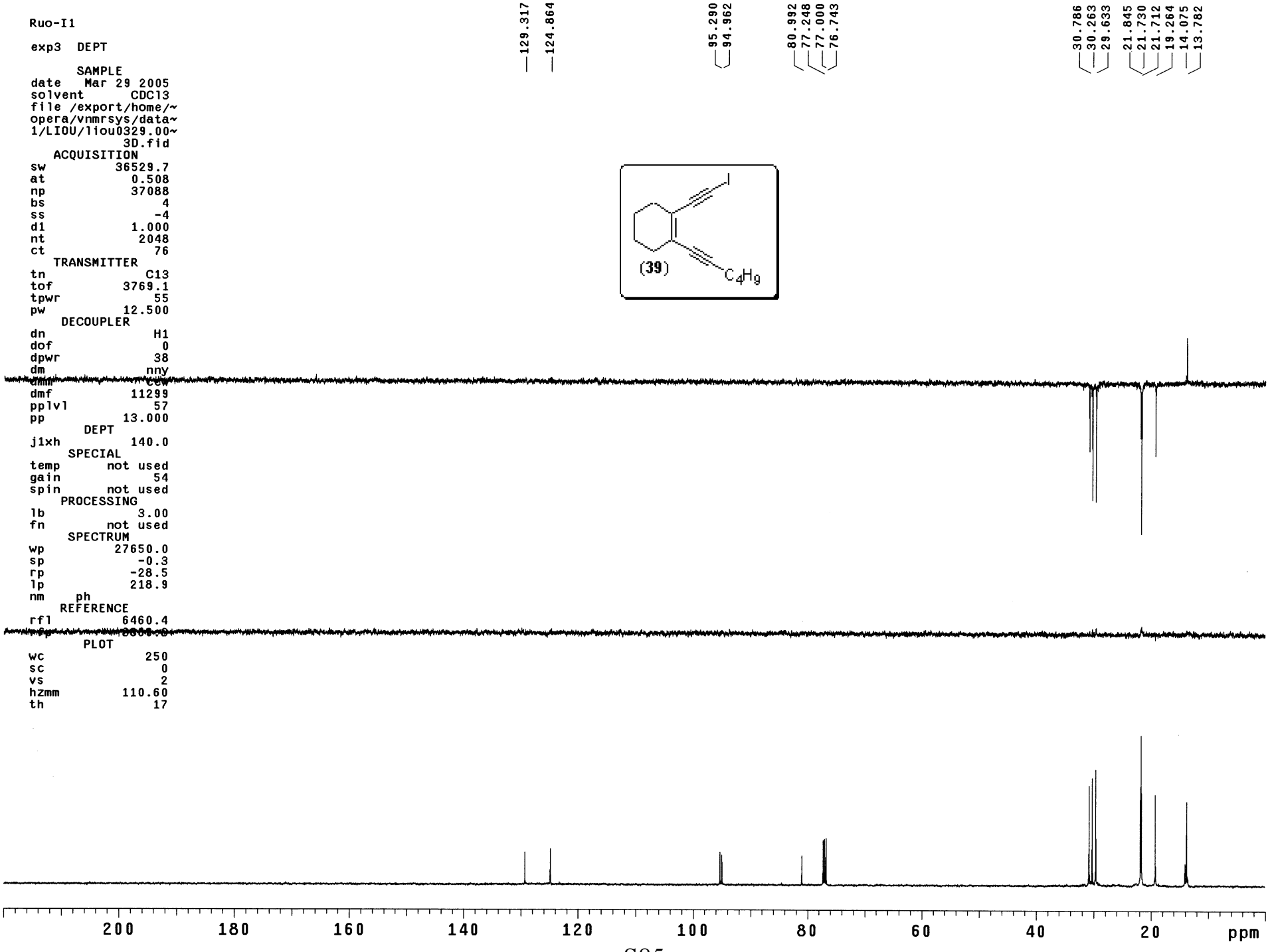
exp1 s2pul

SAMPLE		DEC. & VT	
date	Mar 29 2005	dfrq	499.832
solvent	CDCl3	dn	H1
file	/export/home/~	dpwr	38
	opera/vnmrsys/data~	dof	0
	1/LIOU/liou0329.00~	dm	nnn
	3H.fid	dmm	c
ACQUISITION		dmf	11299
sfrq	499.833	dseq	
tn	H1	dres	1.0
at	2.182	homo	n
np	39276	PROCESSING	
sw	9000.9	wtfile	
fb	not used	proc	ft
bs	4	fn	32768
tpwr	55	math	f
pw	5.5		
d1	1.000	werr	
tof	980.4	wexp	
nt	32	wbs	wft
ct	32	wnt	wft
alock	y		
gain	not used		

FLAGS	
il	n
in	n
dp	y
hs	nn

DISPLAY	
sp	-250.1
wp	5247.9
vs	119
sc	0
wc	250
hzmm	4.19
is	130.81
rfl	1044.6
rfp	0
th	3
ins	100.000
nm	ph




Ruo-I1
exp3 DEPT
SAMPLE
date Mar 29 2005
solvent CDCl3
file /export/home/~
opera/vnmrsys/data~
1/LIOU/liou0329.00~
3D.fid
ACQUISITION
sw 36529.7
at 0.508
np 37088
bs 4
ss -4
d1 1.000
nt 2048
ct 76
TRANSMITTER
tn C13
tof 3769.1
tpwr 55
pw 12.500
DECOUPLER
dn H1
dof 0
dpwr 38
dm nny
dmm wcw
dmf 11299
pplvl 57
pp 13.000
DEPT
j1xh 140.0
SPECIAL
temp not used
gain 54
spin not used
PROCESSING
lb 3.00
fn not used
SPECTRUM
wp 27650.0
sp -0.3
rp -28.5
lp 218.9
nm ph
REFERENCE
rfl 6460.4
PLOT
wc 250
sc 0
vs 2
hzmm 110.60
th 17
129.317
124.864
95.290
94.962
80.992
77.248
77.000
76.743
30.786
30.263
29.633
21.845
21.730
21.712
19.264
14.075
13.782
(39)
C4H9
200
180
160
140
120
100
80
60
40
20
ppm

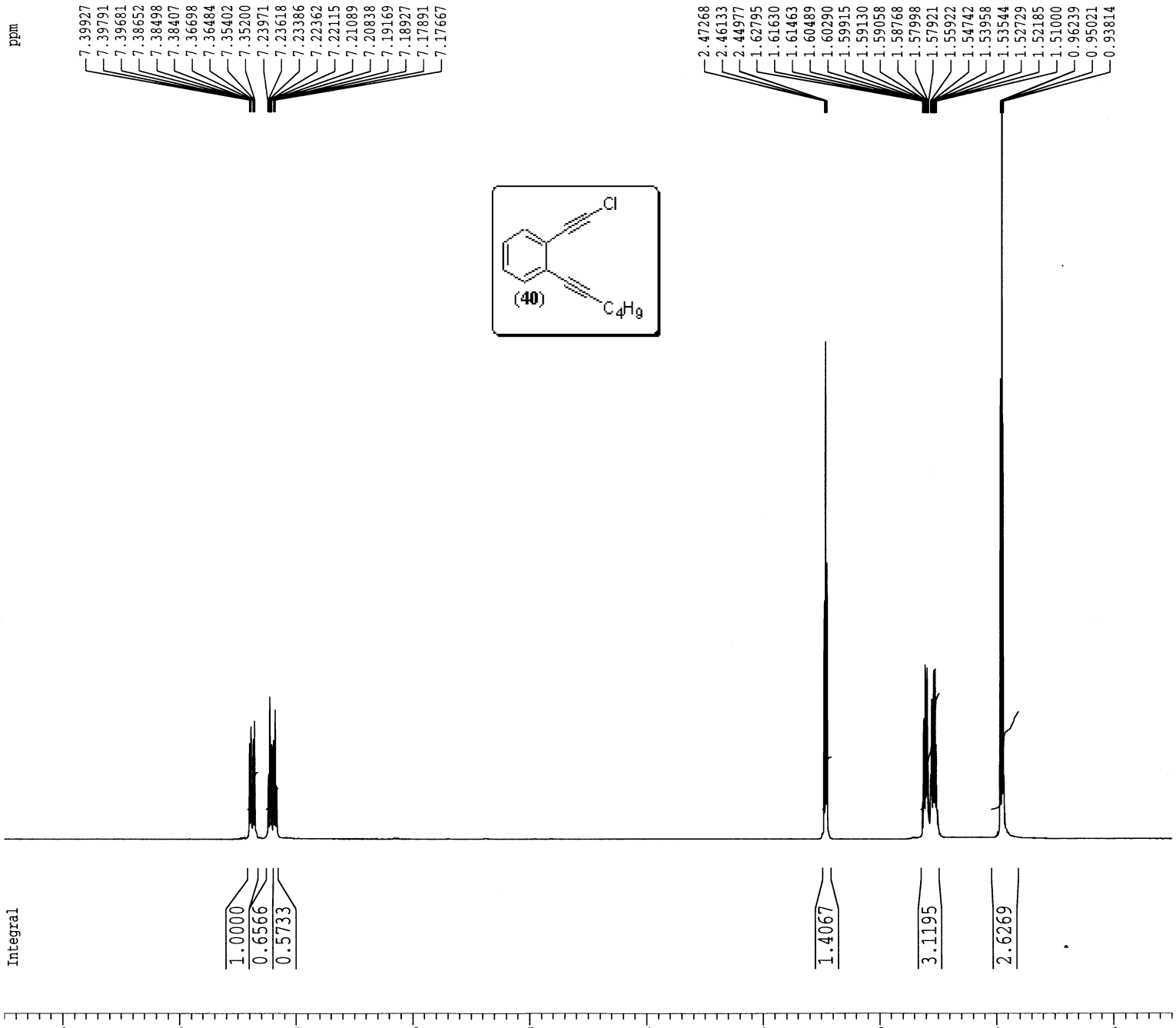
```
Current Data Parameters
NAME            Ria-166
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20050401
Time              13.21
INSTRUM           spect
PROBHD   5 mm QNP  1H/1
PULPROG             zg
TD                32768
SOLVENT           CDCl3
NS                   16
DS                    0
SWH            8389.262 Hz
FIDRES         0.256020 Hz
AQ           1.9530228 sec
RG                   32
DW               59.600 usec
DE                6.50 usec
TE                294.5 K
D1           1.00000000 sec
MCREST       0.00000000 sec
MCWRK        0.01500000 sec

======== CHANNEL f1 ========
NUC1                 1H
P1                10.00 usec
PL1                0.00 dB
SFO1        599.6029980 MHz

F2 - Processing parameters
SI                32768
SF          599.6000304 MHz
WDW                  no
SSB                   0
LB                 0.00 Hz
GB                    0
PC                 0.50

1D NMR plot parameters
CX                20.00 cm
CY                15.00 cm
F1P                9.500 ppm
F1              5696.20 Hz
F2P               -0.500 ppm
F2              -299.80 Hz
PPMCM          0.50000 ppm/cm
HZCM         299.80002 Hz/cm
```



Current Data Parameters
NAME Ria-166
EXPNO 2
PROCNO 1

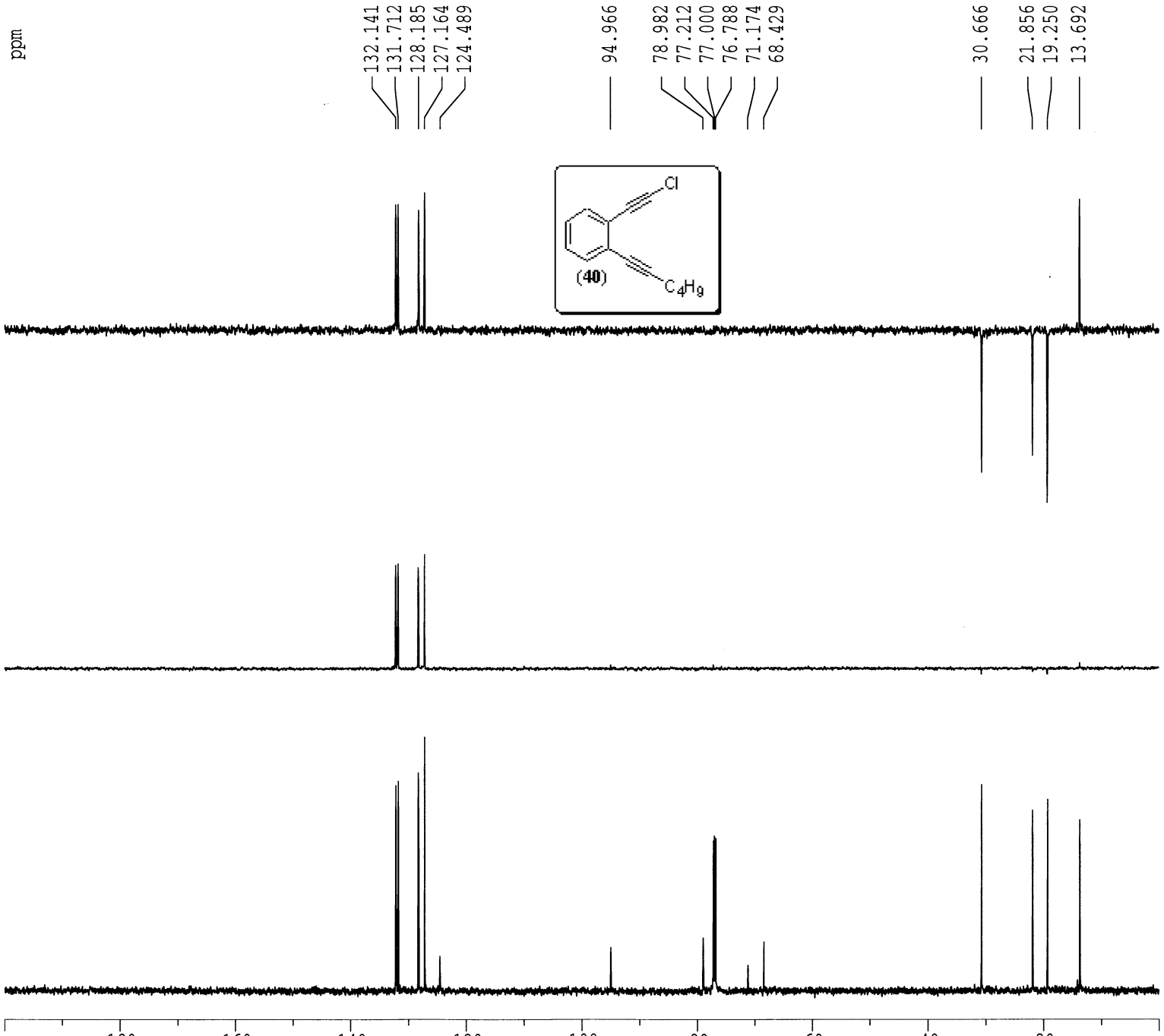
F2 - Acquisition Parameters
Date_ 20050401
Time 13.25
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zgpg
TD 32768
SOLVENT C6D6
NS 63
DS 0
SWH 37593.984 Hz
FIDRES 1.147277 Hz
AQ 0.4358644 sec
RG 2048
DW 13.300 usec
DE 6.50 usec
TE 294.7 K
D1 3.00000000 sec
d11 0.03000000 sec
DELTA 2.90000010 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 13C
P1 4.30 usec
PL1 0.00 dB
SFO1 150.7861246 MHz

======== CHANNEL f2 ========
CPDPRG2 waltz16
NUC2 1H
PCPD2 92.00 usec
PL2 120.00 dB
PL12 11.30 dB
PL13 14.00 dB
SFO2 599.6029980 MHz

F2 - Processing parameters
SI 65536
SF 150.7695483 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 0.50

1D NMR plot parameters
CX 20.00 cm
CY 4.50 cm
F1P 200.000 ppm
F1 30153.91 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPMCM 10.00000 ppm/cm
HZCM 1507.69543 Hz/cm



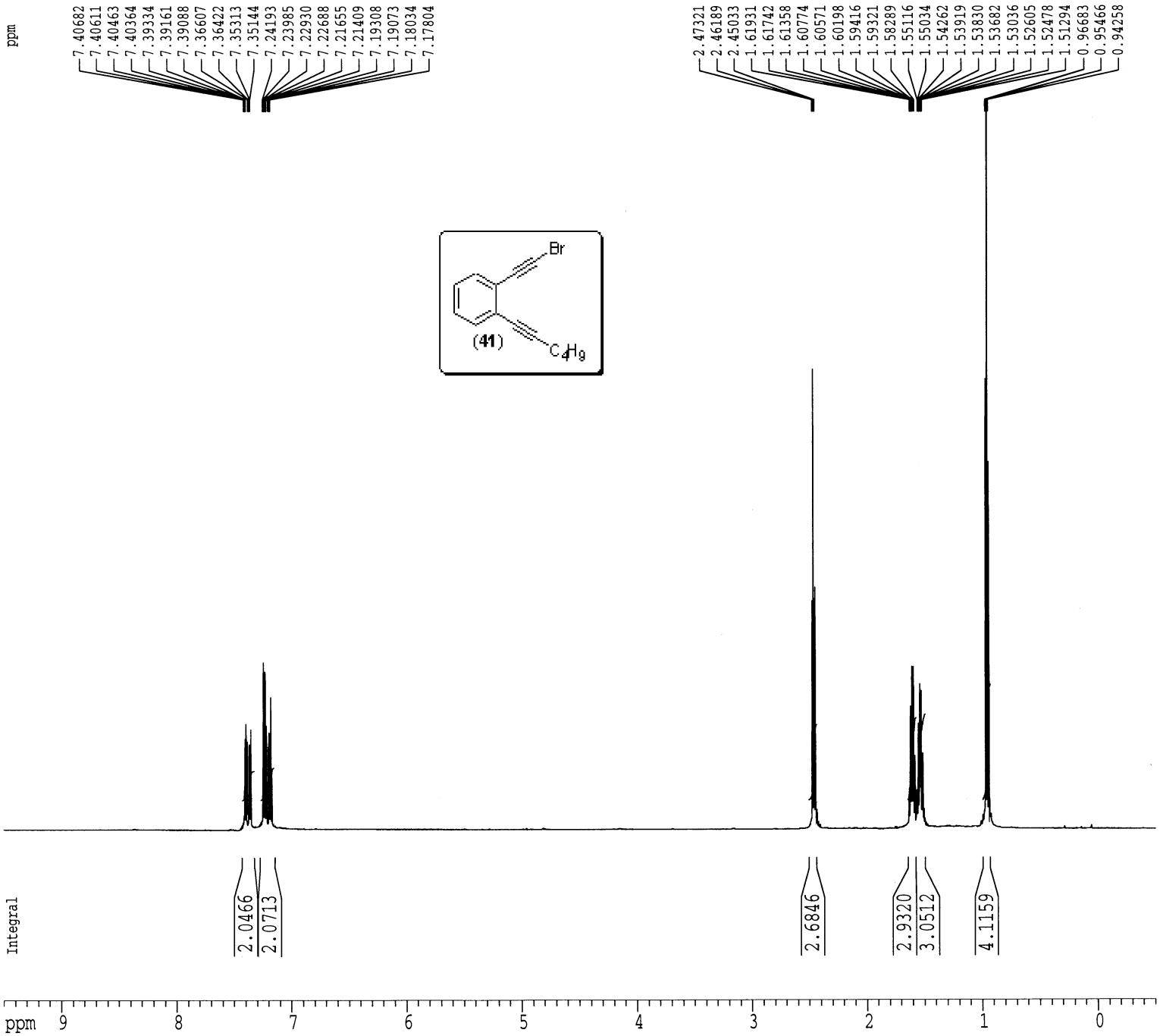
Current Data Parameters
NAME Ria-158
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20050401
Time 12.19
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zg
TD 32768
SOLVENT CDCl3
NS 16
DS 0
SWH 8389.262 Hz
FIDRES 0.256020 Hz
AQ 1.95302[illegible] sec
RG [illegible]
DW 59.600 usec
DE 6.50 usec
TE 294.4 K
D1 1.00000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 1H
P1 10.00 usec
PL1 0.00 dB
SFO1 599.6029980 MHz

F2 - Processing parameters
SI 32768
SF 599.6000299 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 0.50

1D NMR plot parameters
CX 20.00 cm
CY 15.00 cm
F1P 9.500 ppm
F1 5696.20 Hz
F2P -0.500 ppm
F2 -299.80 Hz
PPMCM 0.50000 ppm/cm
HZCM 299.80002 Hz/cm



Current Data Parameters
NAME Ria-158
EXPNO 2
PROCNO 1

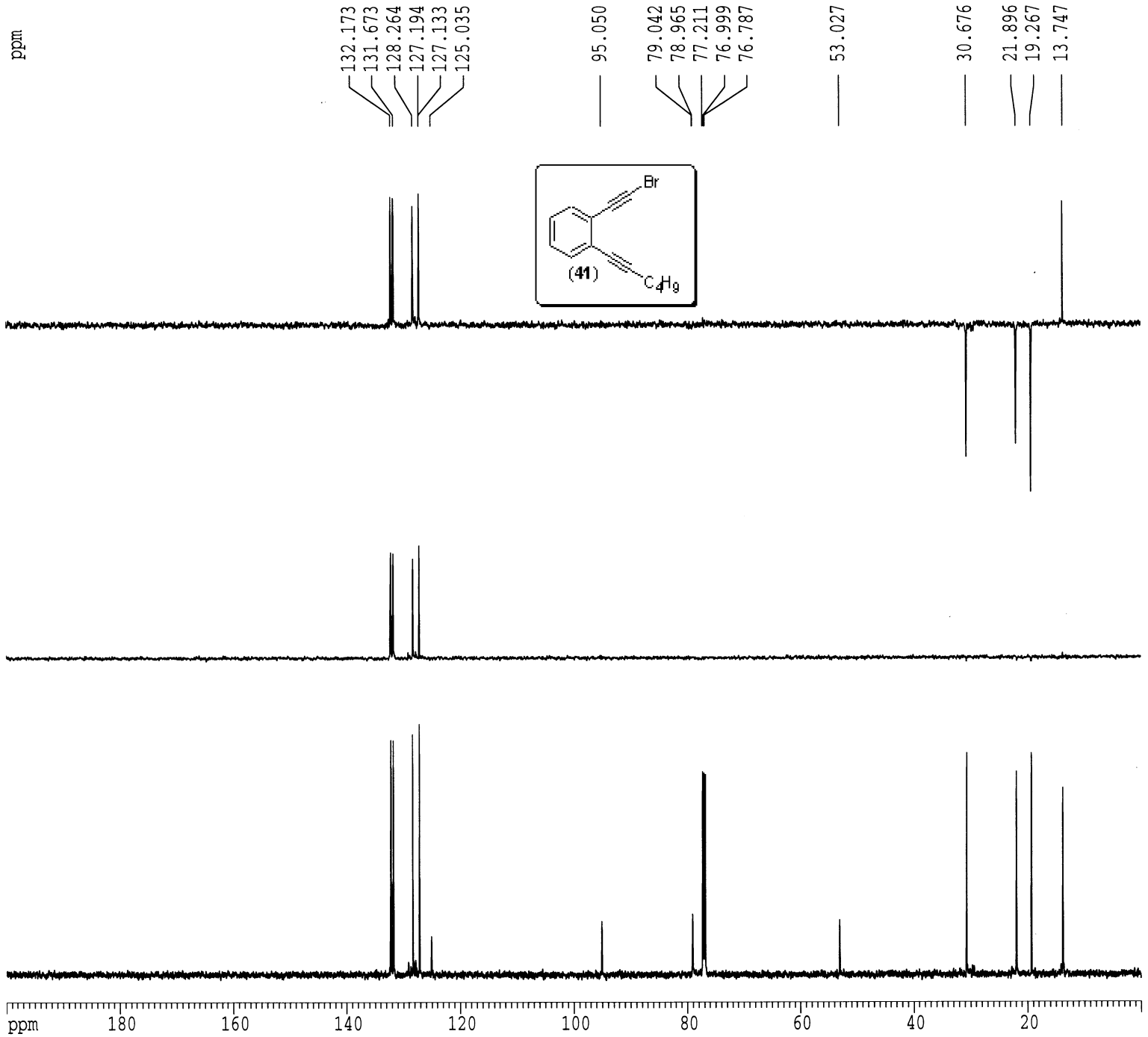
F2 - Acquisition Parameters
Date_ 20050401
Time 12.20
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zgpg
TD 32768
SOLVENT C6D6
NS 100
DS 0
SWH 37593.984 Hz
FIDRES 1.147277 Hz
AQ 0.4358644 sec
RG 2048
DW 13.300 usec
DE 6.50 usec
TE 294.5 K
D1 3.00000000 sec
d11 0.03000000 sec
DELTA 2.90000010 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 13C
P1 4.30 usec
PL1 0.00 dB
SFO1 150.7861246 MHz

======== CHANNEL f2 ========
CPDPRG2 waltz16
NUC2 1H
PCPD2 92.00 usec
PL2 120.00 dB
PL12 11.30 dB
PL13 14.00 dB
SFO2 599.6029980 MHz

F2 - Processing parameters
SI 65536
SF 150.7695488 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 0.50

1D NMR plot parameters
CX 20.00 cm
CY 4.50 cm
F1P 200.000 ppm
F1 30153.91 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPMCM 10.00000 ppm/cm
HZCM 1507.69543 Hz/cm



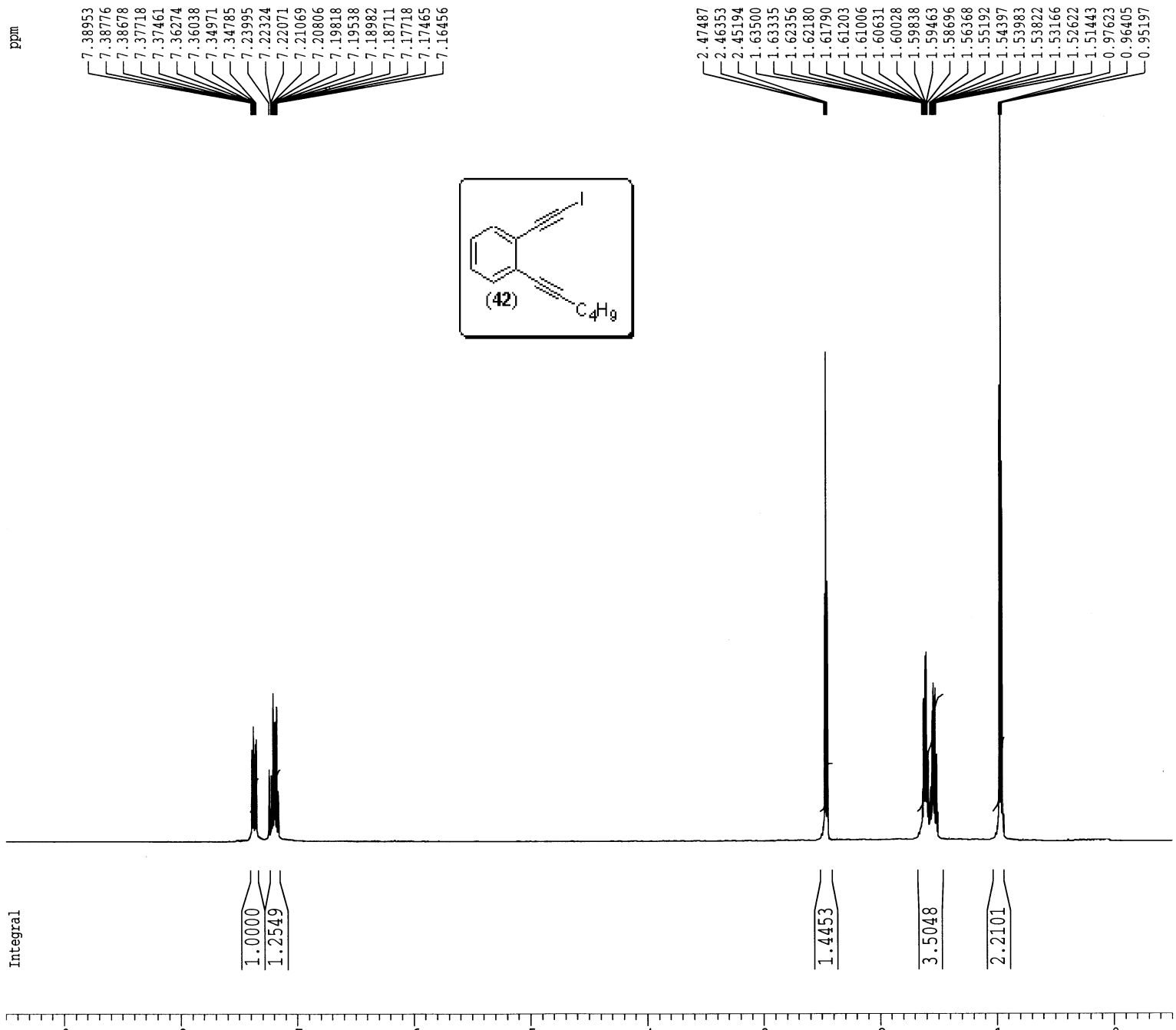
```
Current Data Parameters
NAME                  Ria-160
EXPNO                       1
PROCNO                      1

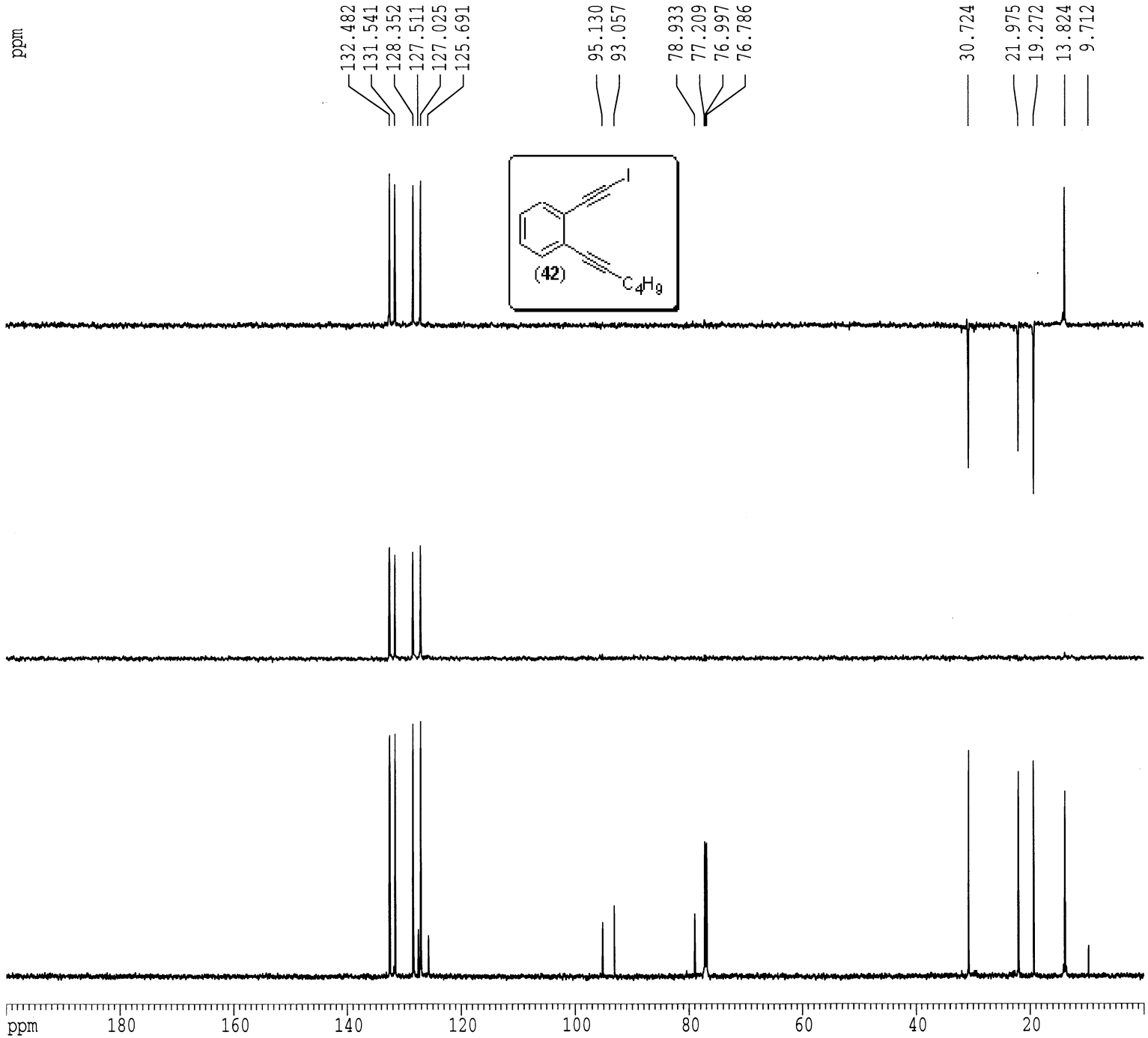
F2 - Acquisition Parameters
Date_               20050401
Time                   13.05
INSTRUM                spect
PROBHD   5 mm QNP  1H/1
PULPROG                   zg
TD                     32768
SOLVENT                CDCl3
NS                        16
DS                         0
SWH                 8389.262 Hz
FIDRES              0.256020 Hz
AQ                  1.9530228 sec
RG                        32
DW                    59.600 usec
DE                     6.50 usec
TE                    294.5 K
D1                  1.00000000 sec
MCREST              0.00000000 sec
MCWRK               0.01500000 sec

======== CHANNEL f1 ========
NUC1                       1H
P1                    10.00 usec
PL1                    0.00 dB
SFO1              599.6029980 MHz

F2 - Processing parameters
SI                     32768
SF                599.6000299 MHz
WDW                       no
SSB                        0
LB                     0.00 Hz
GB                         0
PC                     0.50

1D NMR plot parameters
CX                    20.00 cm
CY                    15.00 cm
F1P                    9.500 ppm
F1                  5696.20 Hz
F2P                   -0.500 ppm
F2                  -299.80 Hz
PPMCM                 0.50000 ppm/cm
HZCM                299.80002 Hz/cm
```





Current Data Parameters
NAME Ria-160
EXPNO 2
PROCNO 1

F2 - Acquisition Parameters
Date_ 20050401
Time 13.11
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zgpg
TD 32768
SOLVENT C6D6
NS 100
DS 0
SWH 37593.984 Hz
FIDRES 1.147277 Hz
AQ 0.4358644 sec
RG 2048
DW 13.300 usec
DE 6.50 usec
TE 294.6 K
D1 3.00000000 sec
d11 0.03000000 sec
DELTA 2.90000010 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 13C
P1 4.30 usec
PL1 0.00 dB
SFO1 150.7861246 MHz

======== CHANNEL f2 ========
CPDPRG2 waltz16
NUC2 1H
PCPD2 92.00 usec
PL2 120.00 dB
PL12 11.30 dB
PL13 14.00 dB
SFO2 599.6029980 MHz

F2 - Processing parameters
SI 65536
SF 150.7695511 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 0.50

1D NMR plot parameters
CX 20.00 cm
CY 4.50 cm
F1P 200.000 ppm
F1 30153.91 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPMCM 10.00000 ppm/cm
HZCM 1507.69543 Hz/cm

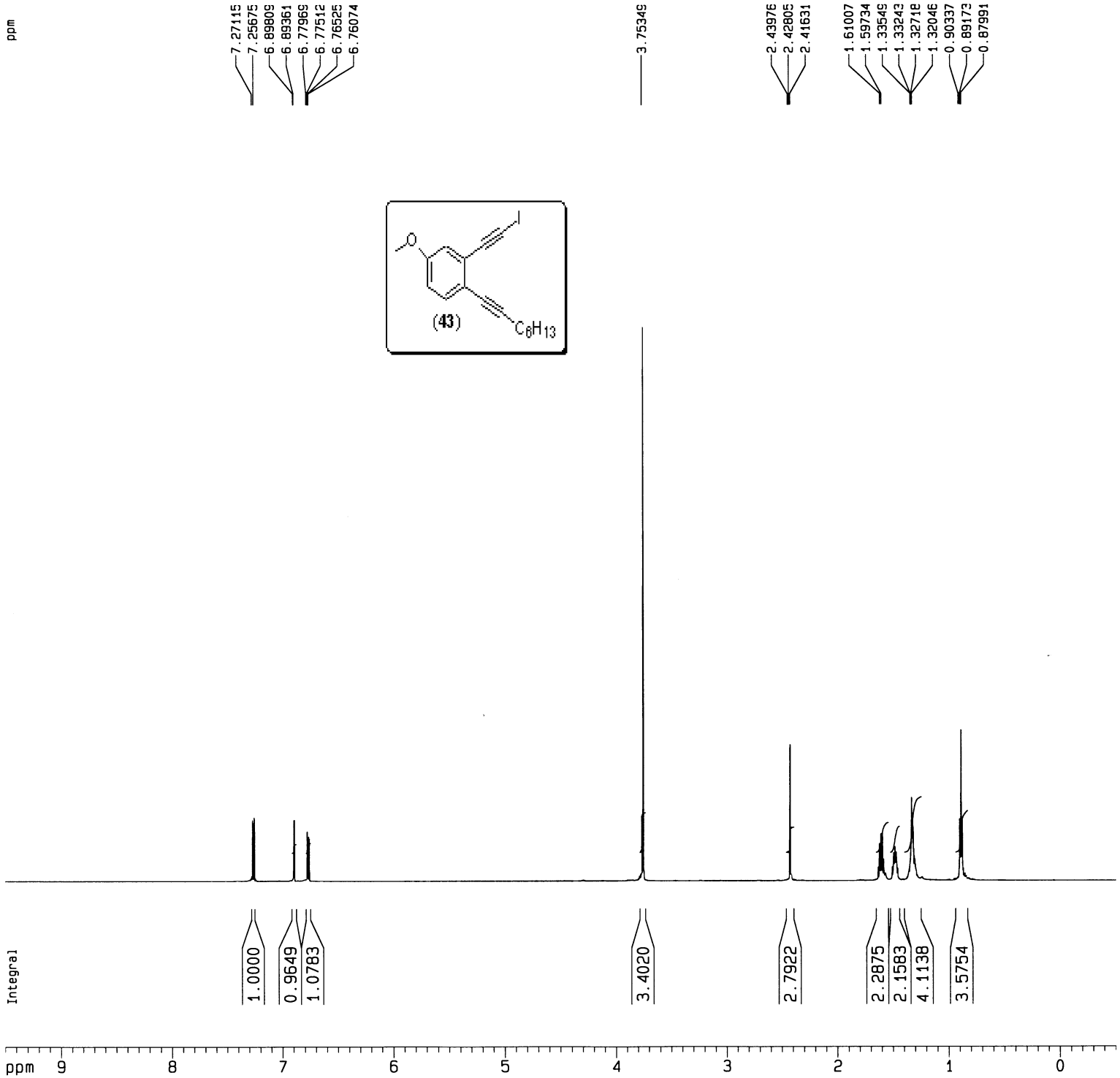
```
Current Data Parameters
NAME                  Ria-68
EXPNO                      1
PROCNO                     1

F2 - Acquisition Parameters
Date_               20040802
Time                   22.44
INSTRUM                spect
PROBHD   5 mm TXI 1H-15
PULPROG                   zg
TD                     32768
SOLVENT              H2O+D2O
NS                        16
DS                         0
SWH                 7183.908 Hz
FIDRES              0.219235 Hz
AQ                  2.2807028 sec
RG                       256
DW                    69.600 usec
DE                     6.50 usec
TE                    303.0 K
D1                 1.50000000 sec
MCREST             0.00000000 sec
MCWRK              0.01500000 sec

======== CHANNEL f1 ========
NUC1                       1H
P1                      10.50 usec
PL1                      4.00 dB
SFO1              599.7029985 MHz

F2 - Processing parameters
SI                     32768
SF                599.7000260 MHz
WDW                       no
SSB                        0
LB                      0.00 Hz
GB                         0
PC                      2.00

1D NMR plot parameters
CX                     20.00 cm
CY                     10.00 cm
F1P                     9.500 ppm
F1                   5697.15 Hz
F2P                    -0.500 ppm
F2                   -299.85 Hz
PPMCM                 0.50000 ppm/cm
HZCM                299.85001 Hz/cm
```



```
Current Data Parameters
NAME                  Ria-68
EXPNO                      2
PROCNO                     1

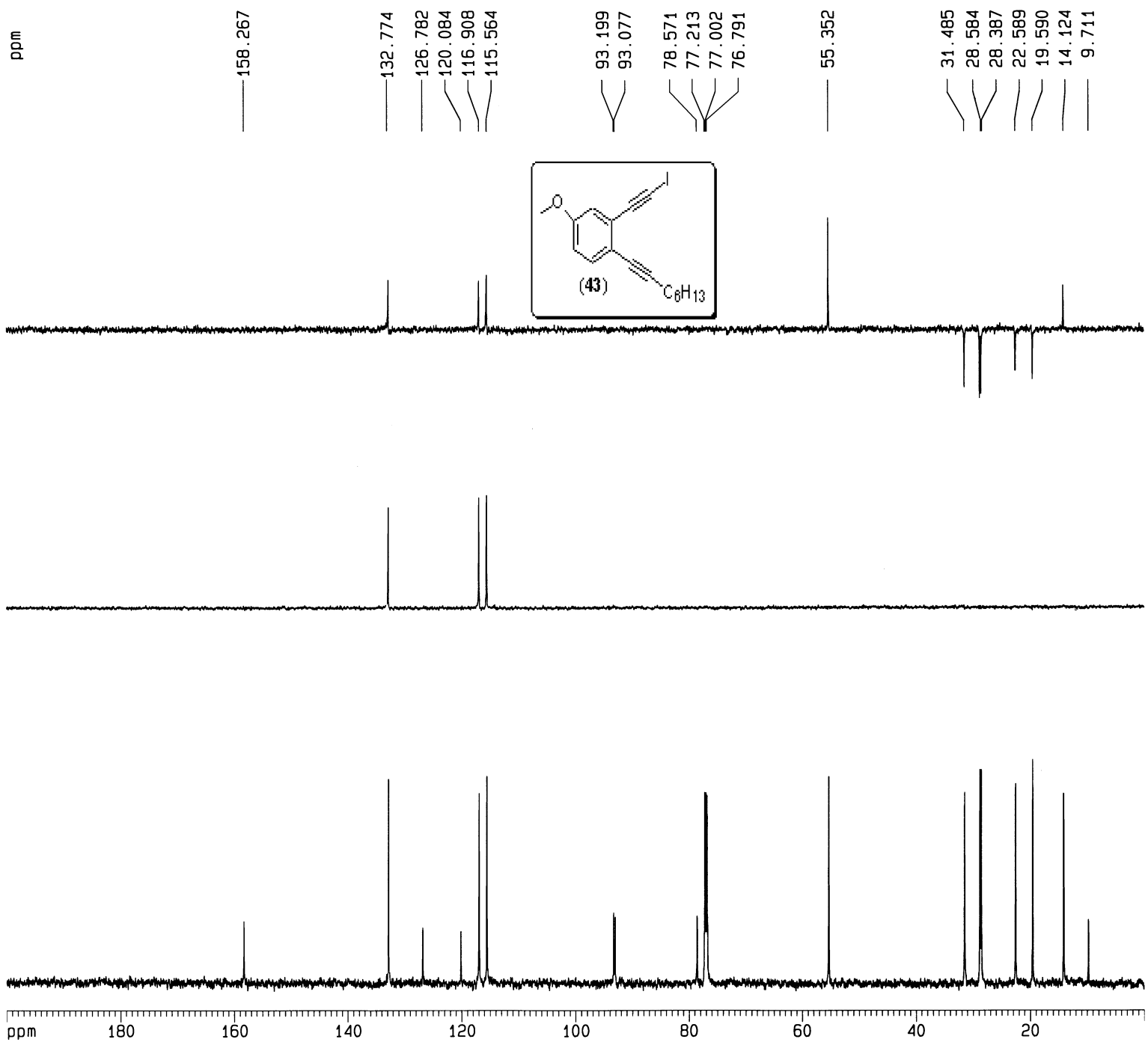
F2 - Acquisition Parameters
Date_              20040803
Time                  17.05
INSTRUM               spect
PROBHD   5 mm TXI 1H-15
PULPROG                zgpg
TD                    32768
SOLVENT               CDCl3
NS                      272
DS                        0
SWH               45045.047 Hz
FIDRES             1.374666 Hz
AQ                 0.3637748 sec
RG                     1024
DW                   11.100 usec
DE                    6.50 usec
TE                   299.6 K
D1              3.50000000 sec
d11             0.03000000 sec
MCREST          0.00000000 sec
MCWRK           0.01500000 sec

======== CHANNEL f1 ========
NUC1                    13C
P1                    6.00 usec
PL1                   0.00 dB
SFO1           150.8097645 MHz

======== CHANNEL f2 ========
CPDPRG2             waltz16
NUC2                    1H
PCPD2                92.00 usec
PL2                 120.00 dB
PL12                 10.50 dB
PL13                 10.00 dB
SFO2           599.7029985 MHz

F2 - Processing parameters
SI                    32768
SF             150.7946919 MHz
WDW                      EM
SSB                       0
LB                    5.00 Hz
GB                        0
PC                     0.50

1D NMR plot parameters
CX                   20.00 cm
CY                    4.00 cm
F1P                 200.000 ppm
F1                30158.94 Hz
F2P                   0.000 ppm
F2                    0.00 Hz
PPMCM             10.00000 ppm/cm
HZCM            1507.94690 Hz/cm
```



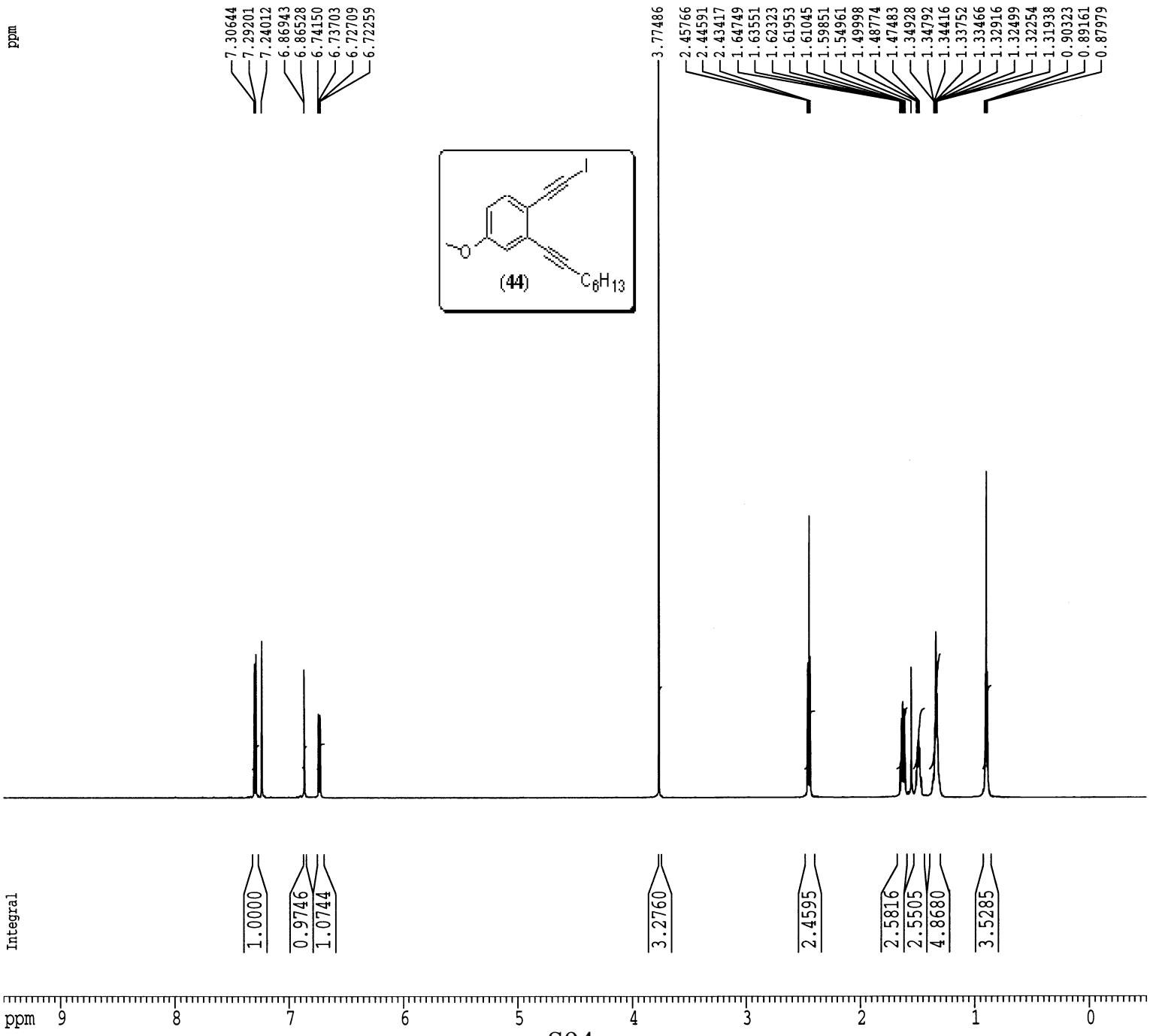
Current Data Parameters
NAME Ria-118
EXPNO 1
PROCNO 1

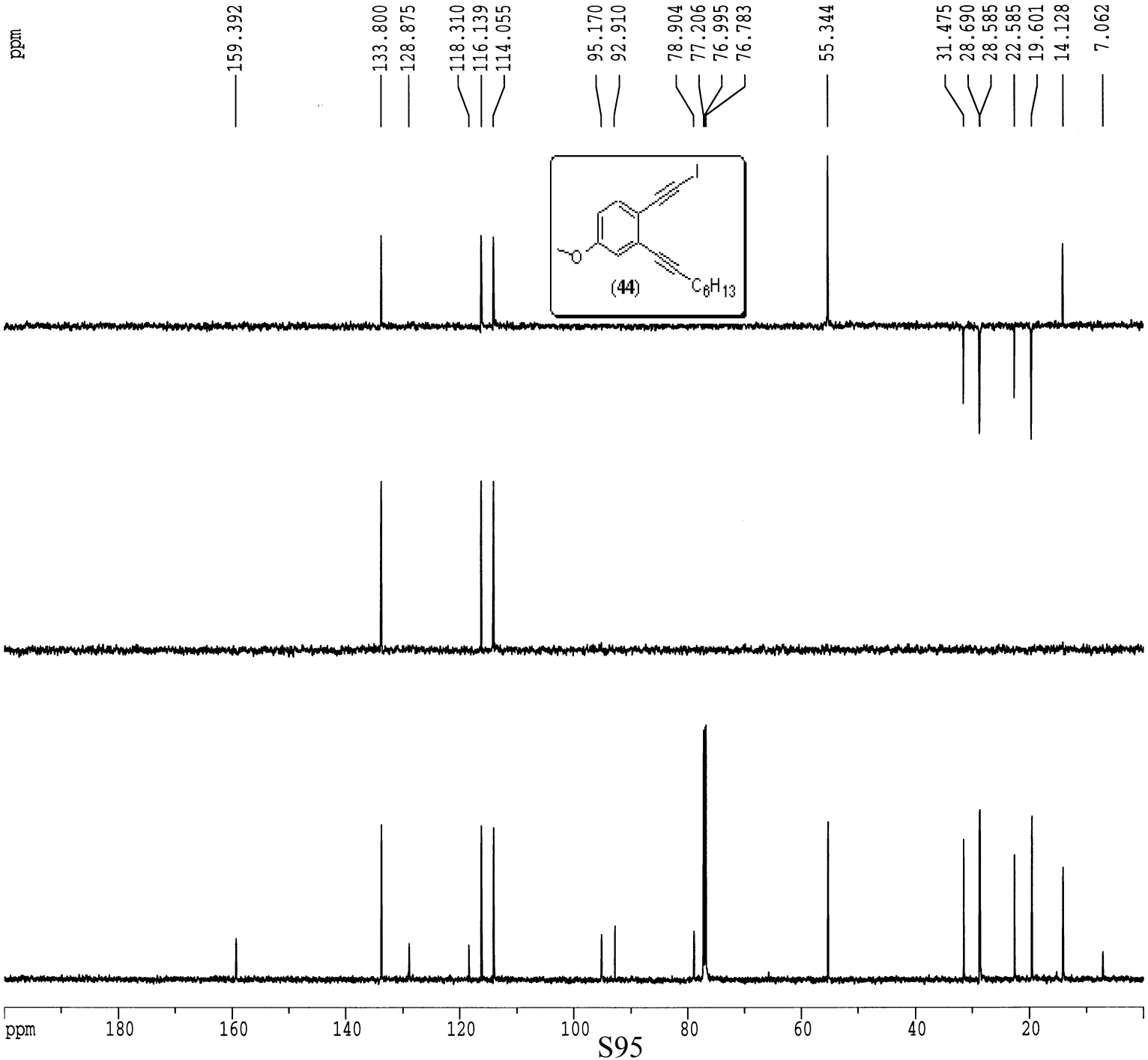
F2 - Acquisition Parameters
Date_ 20041102
Time 18.53
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zg
TD 32768
SOLVENT CDCl3
NS 16
DS 0
SWH 8389.262 Hz
FIDRES 0.256020 Hz
AQ 1.9530228 sec
RG 128
DW 59.600 usec
DE 6.50 usec
TE 299.0 K
D1 1.00000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 1H
P1 10.00 usec
PL1 4.00 dB
SFO1 599.6029980 MHz

F2 - Processing parameters
SI 32768
SF 599.6000302 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 0.50

1D NMR plot parameters
CX 20.00 cm
CY 20.00 cm
F1P 9.500 ppm
F1 5696.20 Hz
F2P -0.500 ppm
F2 -299.80 Hz
PPMCM 0.50000 ppm/cm
HZCM 299.80002 Hz/cm





Current Data Parameters
NAME Ria-118
EXPNO 2
PROCNO 1

F2 - Acquisition Parameters
Date_ 20041102
Time 18.58
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zgpg
TD 32768
SOLVENT C6D6
NS 235
DS 0
SWH 37878.789 Hz
FIDRES 1.155969 Hz
AQ 0.4325876 sec
RG 2048
DW 13.200 usec
DE 6.50 usec
TE 299.1 K
D1 4.00000000 sec
d11 0.03000000 sec
DELTA 3.90000010 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

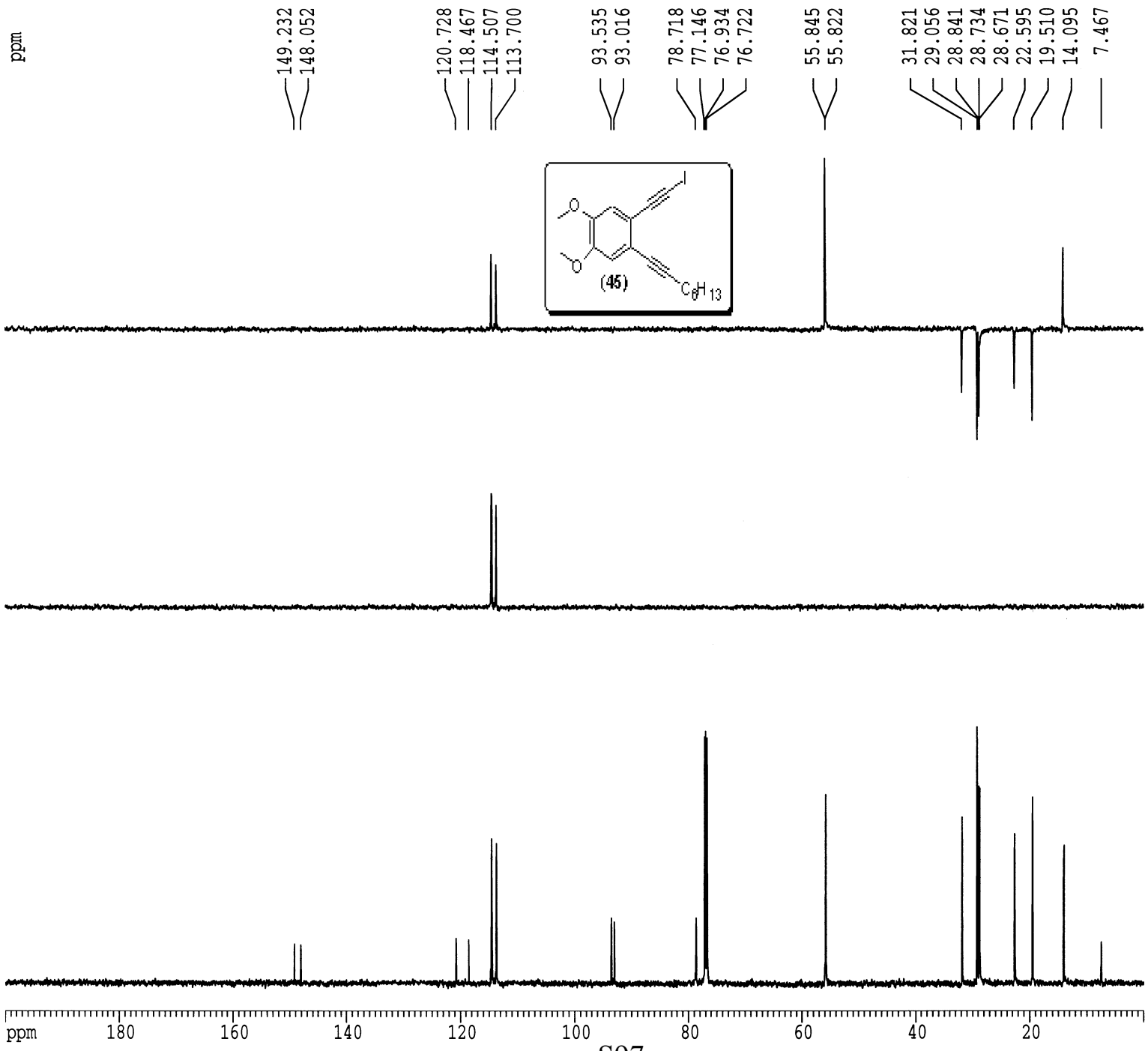
======== CHANNEL f1 ========
NUC1 13C
P1 4.30 usec
PL1 0.00 dB
SFO1 150.7861246 MHz

======== CHANNEL f2 ========
CPDPRG2 waltz16
NUC2 1H
PCPD2 92.00 usec
PL2 120.00 dB
PL12 11.30 dB
PL13 14.00 dB
SFO2 599.6029980 MHz

F2 - Processing parameters
SI 65536
SF 150.7695459 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 0.50

1D NMR plot parameters
CX 20.00 cm
CY 4.50 cm
F1P 200.000 ppm
F1 30153.91 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPMCM 10.00000 ppm/cm
HZCM 1507.69543 Hz/cm

Current Data Parameters
NAME Ria-92
EXPNO 1
PROCNO 1
F2 - Acquisition Parameters
Date_ 20041017
Time 14.43
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zg
TD 32768
SOLVENT CDCl3
NS 16
DS 0
SWH 8389.262 Hz
FIDRES 0.256020 Hz
AQ 1.9530228 sec
RG 128
DW 59.600 usec
DE 6.50 usec
TE 0.0 K
D1 1.00000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec
======== CHANNEL f1 ========
NUC1 1H
P1 10.00 usec
PL1 4.00 dB
SFO1 599.7032427 MHz
F2 - Processing parameters
SI 32768
SF 599.7000261 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 0.50
1D NMR plot parameters
CX 20.00 cm
CY 15.00 cm
F1P 9.500 ppm
F1 5697.15 Hz
F2P -0.500 ppm
F2 -299.85 Hz
PPMCM 0.50000 ppm/cm
HZCM 299.85001 Hz/cm
ppm
7.24029
6.84630
6.81342
3.83412
3.82601
2.44120
2.42966
2.41791
1.62382
1.61149
1.59861
1.47417
1.46125
1.32684
1.32277
1.31686
1.31054
1.29950
1.29571
1.28574
1.28270
1.27407
1.26813
1.26519
1.26186
1.24223
1.23029
1.21838
0.86908
0.85760
0.84574
(45)
Integral
0.901
0.942
6.173
1.966
2.239
2.065
9.385
3.291
ppm 9 8 7 6 5 4 3 2 1 0



Current Data Parameters
NAME Ria-92
EXPNO 2
PROCNO 1

F2 - Acquisition Parameters
Date_ 20041017
Time 14.48
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zgpg
TD 32768
SOLVENT C6D6
NS 200
DS 0
SWH 37878.789 Hz
FIDRES 1.155969 Hz
AQ 0.4325876 sec
RG 2048
DW 13.200 usec
DE 6.50 usec
TE 0.0 K
D1 4.00000000 sec
d11 0.03000000 sec
DELTA 3.90000010 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 13C
P1 4.50 usec
PL1 0.00 dB
SFO1 150.8112724 MHz

======== CHANNEL f2 ========
CPDPRG2 waltz16
NUC2 1H
PCPD2 92.00 usec
PL2 120.00 dB
PL12 8.80 dB
PL13 10.00 dB
SFO2 599.7029985 MHz

F2 - Processing parameters
SI 65536
SF 150.7947021 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 0.50

1D NMR plot parameters
CX 20.00 cm
CY 4.50 cm
F1P 200.000 ppm
F1 30158.94 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPMCM 10.00000 ppm/cm
HZCM 1507.94702 Hz/cm

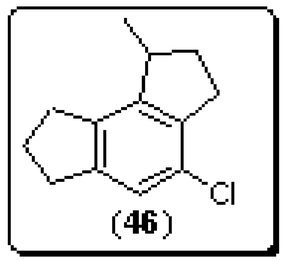
Rou-ClP3

exp1 s2pul

SAMPLE		DEC. & VT	
date	Apr 15 2005	dfrq	499.832
solvent	CDCl3	dn	H1
file	/export/home/~	dpwr	38
	opera/vnmrsys/data~	dof	0
	1/LIOU/liou0414.00~	dm	nnn
	4H.fid	dmm	c
ACQUISITION		dmf	11299
sfrq	499.833	dseq	
tn	H1	dres	1.0
at	2.182	homo	n
np	39276	PROCESSING	
sw	9000.9	wtfile	
fb	not used	proc	ft
bs	4	fn	32768
tpwr	55	math	f
pw	5.5		
d1	1.000	werr	
tof	980.4	wexp	
nt	32	wbs	wft
ct	32	wnt	wft
alock	y		
gain	not used		
FLAGS			
il	n		
in	n		
dp	y		
hs	nn		
DISPLAY			
sp	-250.1		
wp	5247.9		
vs	124		
sc	0		
wc	250		
hzmm	6.58		
is	128.51		
rfl	1044.6		
rfp	0		
th	5		
ins	10.300		
nm	ph		

7.240
6.974

3.193 3.168 3.010 2.995 2.978 2.962 2.945 2.911 2.884 2.867 2.852 2.836 2.796 2.774 2.744 2.714 2.548 2.289 2.273 2.248 2.217 2.129 2.102 2.078 2.063 2.046 2.005 1.692 1.667 1.652 1.324 1.309 1.237 1.212 1.181



(46)

9 8 7 6 5 4 3 2 1 0 ppm

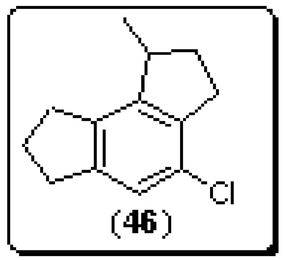
4.12
4.39 28.44 8.51
6.69 15.74
13.49
17.15

Rou-ClP3

exp3 DEPT

SAMPLE
date Apr 15 2005
solvent CDCl3
file /export/home/~
opera/vnmrsys/data~
1/LIOU/liou0414.00~
4D.fid
ACQUISITION
sw 36529.7
at 0.508
np 37088
bs 4
ss -4
d1 1.000
nt 2048
ct 768
TRANSMITTER
tn C13
tof 3769.1
tpwr 55
pw 12.500
DECOUPLER
dn H1
dof 0
dpwr 38
dm nny
dmf 11299
pplvl 57
pp 13.000
DEPT
j1xh 140.0
SPECIAL
temp not used
gain 54
spin not used
PROCESSING
lb 3.00
fn not used
SPECTRUM
wp 27650.0
sp -0.3
rp 21.8
lp 204.3
nm ph
REFERENCE
rfl 17944.3
PLOT
wc 250
sc 0
vs 18
hzmm 110.60
th 15

143.775
142.764
141.087
140.298
128.341
122.176
77.248
77.000
76.743
38.379
34.414
31.815
31.797
30.804
24.648
19.370



(46)

200 180 160 140 120 100 80 60 40 20 ppm

7.240
7.156

3.176
3.165
3.042
3.026
3.010
2.994
2.945
2.937
2.927
2.918
2.908
2.896
2.892
2.886
2.870
2.780
2.774
2.762
2.278
2.265
2.254
2.240
2.132
2.122
2.117
2.106
2.089
2.069
2.053
2.038
1.702
1.691
1.686
1.677
1.661
1.208
1.193

Rou-BrP3

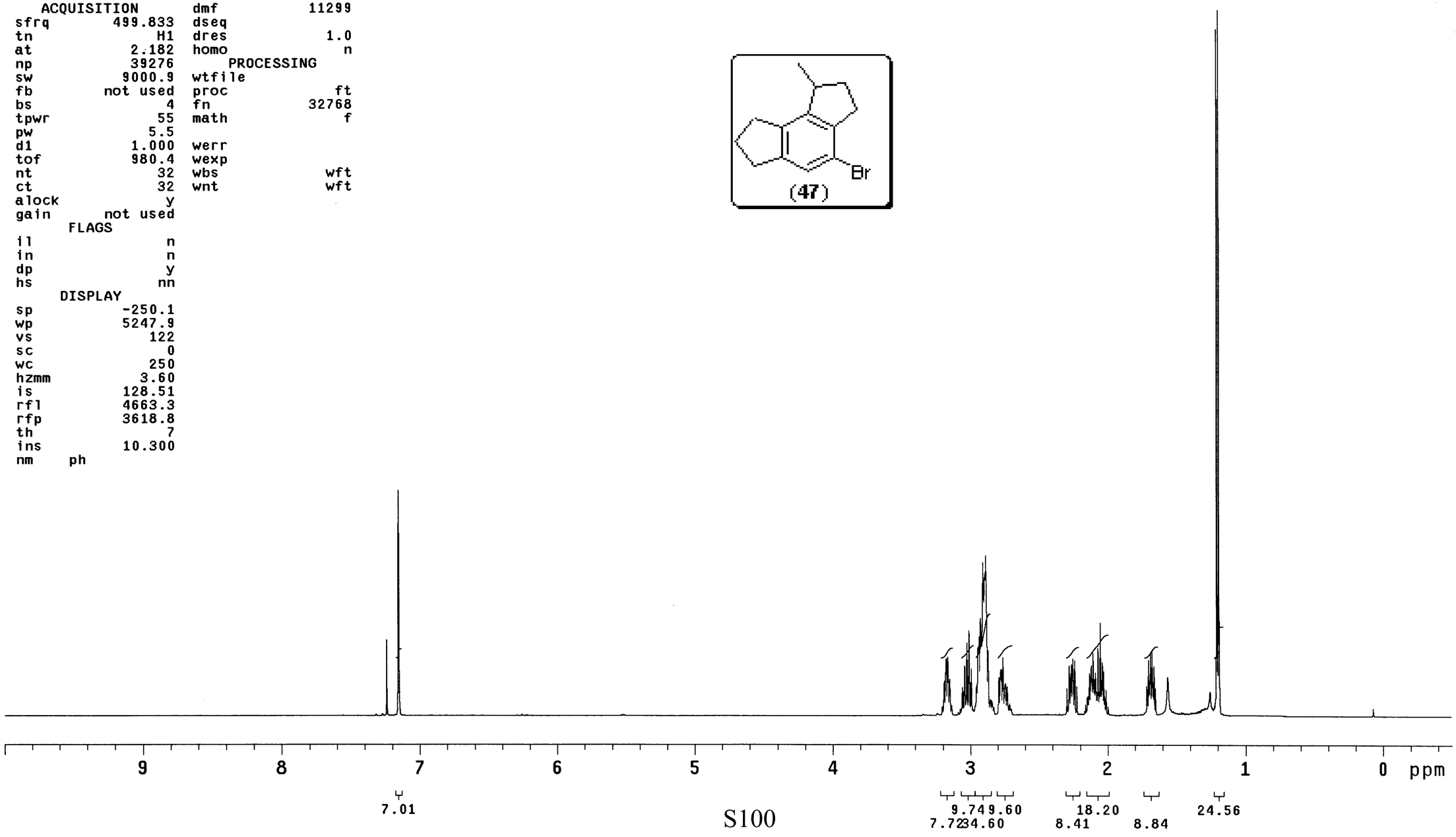
exp1 s2pul

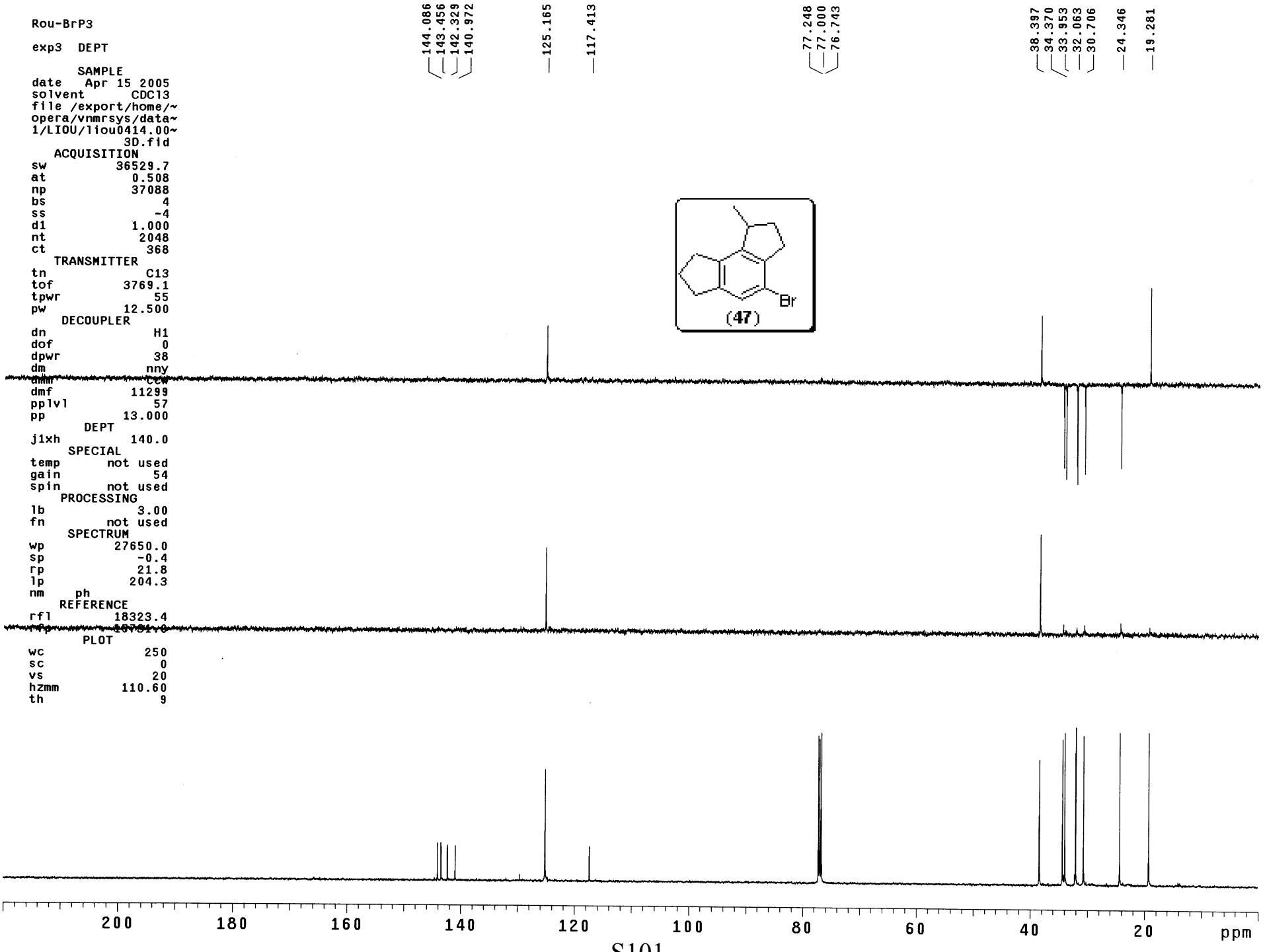
SAMPLE		DEC. & VT	
date	Apr 15 2005	dfrq	499.832
solvent	CDCl3	dn	H1
file	/export/home/~	dpwr	38
opera/vnmrsys/data~		dof	0
1/LIOU/liou0414.00~		dm	nnn
	3H.fid	dmm	c
ACQUISITION		dmf	11299
sfrq	499.833	dseq	
tn	H1	dres	1.0
at	2.182	homo	n
np	39276	PROCESSING	
sw	9000.9	wtfile	
fb	not used	proc	ft
bs	4	fn	32768
tpwr	55	math	f
pw	5.5		
d1	1.000	werr	
tof	980.4	wexp	
nt	32	wbs	wft
ct	32	wnt	wft
alock	y		
gain	not used		

FLAGS	
il	n
in	n
dp	y
hs	nn

DISPLAY	
sp	-250.1
wp	5247.9
vs	122
sc	0
wc	250
hzmm	3.60
is	128.51
rfl	4663.3
rfp	3618.8
th	7
ins	10.300
nm	ph

(47)




Rou-BrP3
exp3 DEPT
SAMPLE
date Apr 15 2005
solvent CDCl3
file /export/home/~
opera/vnmrsys/data~
1/LIOU/liou0414.00~
3D.fid
ACQUISITION
sw 36529.7
at 0.508
np 37088
bs 4
ss -4
d1 1.000
nt 2048
ct 368
TRANSMITTER
tn C13
tof 3769.1
tpwr 55
pw 12.500
DECOUPLER
dn H1
dof 0
dpwr 38
dm nny
dmm ccw
dmf 11299
pplvl 57
pp 13.000
DEPT
j1xh 140.0
SPECIAL
temp not used
gain 54
spin not used
PROCESSING
lb 3.00
fn not used
SPECTRUM
wp 27650.0
sp -0.4
rp 21.8
lp 204.3
nm ph
REFERENCE
rfl 18323.4
PLOT
wc 250
sc 0
vs 20
hzmm 110.60
th 9
144.086
143.456
142.329
140.972
125.165
117.413
77.248
77.000
76.743
38.397
34.370
33.953
32.063
30.706
24.346
19.281
Br
(47)
200
180
160
140
120
100
80
60
40
20
ppm

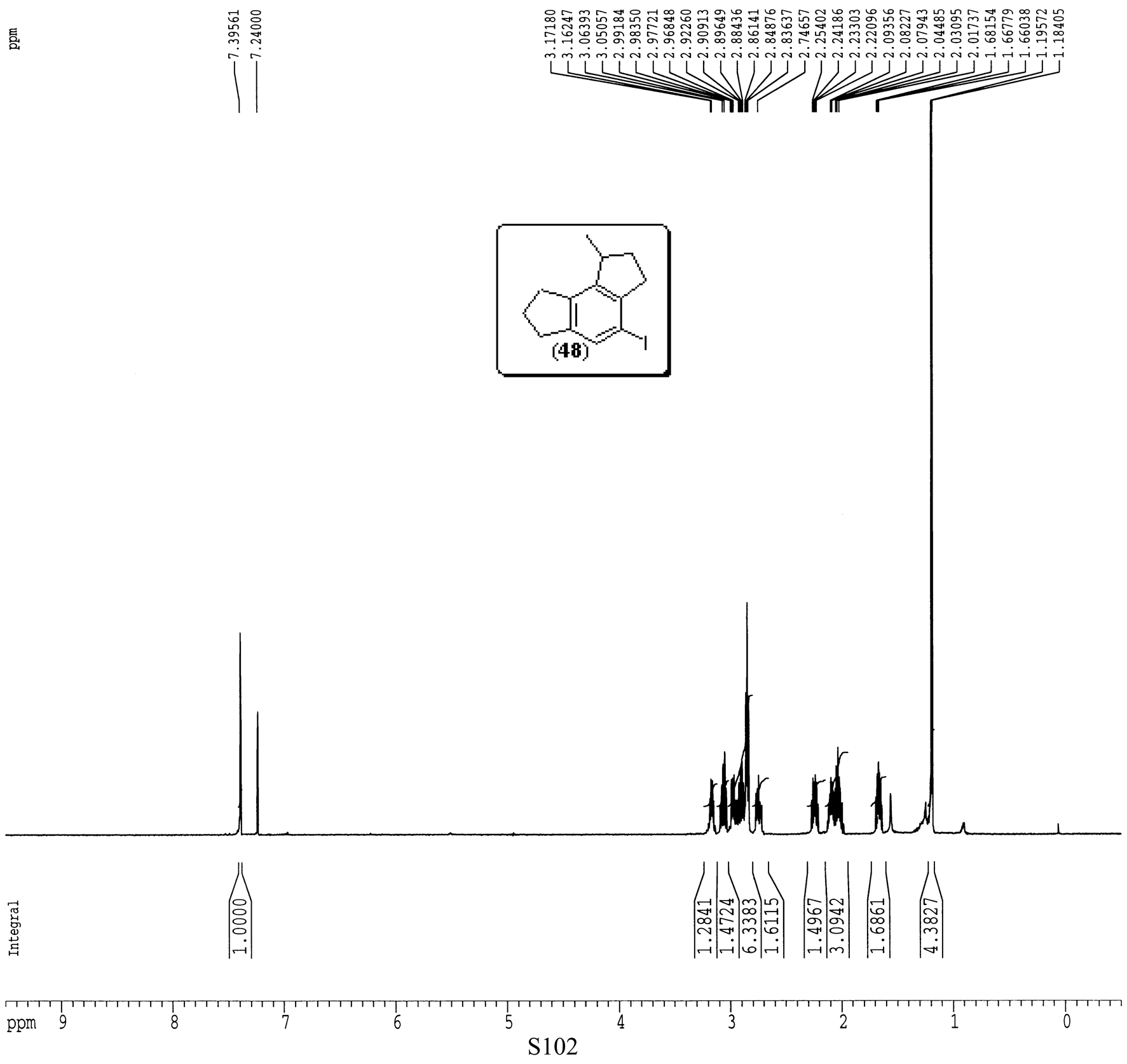
```
Current Data Parameters
NAME            Ruo-IP2
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20050328
Time              19.15
INSTRUM           spect
PROBHD   5 mm QNP  1H/1
PULPROG             zg
TD                32768
SOLVENT           CDCl3
NS                   16
DS                    0
SWH            7183.908 Hz
FIDRES        0.219235 Hz
AQ            2.2807028 sec
RG                    8
DW               69.600 usec
DE                6.50 usec
TE                295.7 K
D1           1.00000000 sec
MCREST       0.00000000 sec
MCWRK        0.01500000 sec

======== CHANNEL f1 ========
NUC1                  1H
P1                10.00 usec
PL1                4.00 dB
SFO1        599.6029980 MHz

F2 - Processing parameters
SI                32768
SF          599.6000304 MHz
WDW                  no
SSB                   0
LB                 0.00 Hz
GB                    0
PC                 1.00

1D NMR plot parameters
CX                20.00 cm
CY                15.00 cm
F1P               9.500 ppm
F1              5696.20 Hz
F2P               -0.500 ppm
F2              -299.80 Hz
PPMCM          0.50000 ppm/cm
HZCM         299.80002 Hz/cm
```



Current Data Parameters
NAME Ruo-IP2
EXPNO 2
PROCNO 1

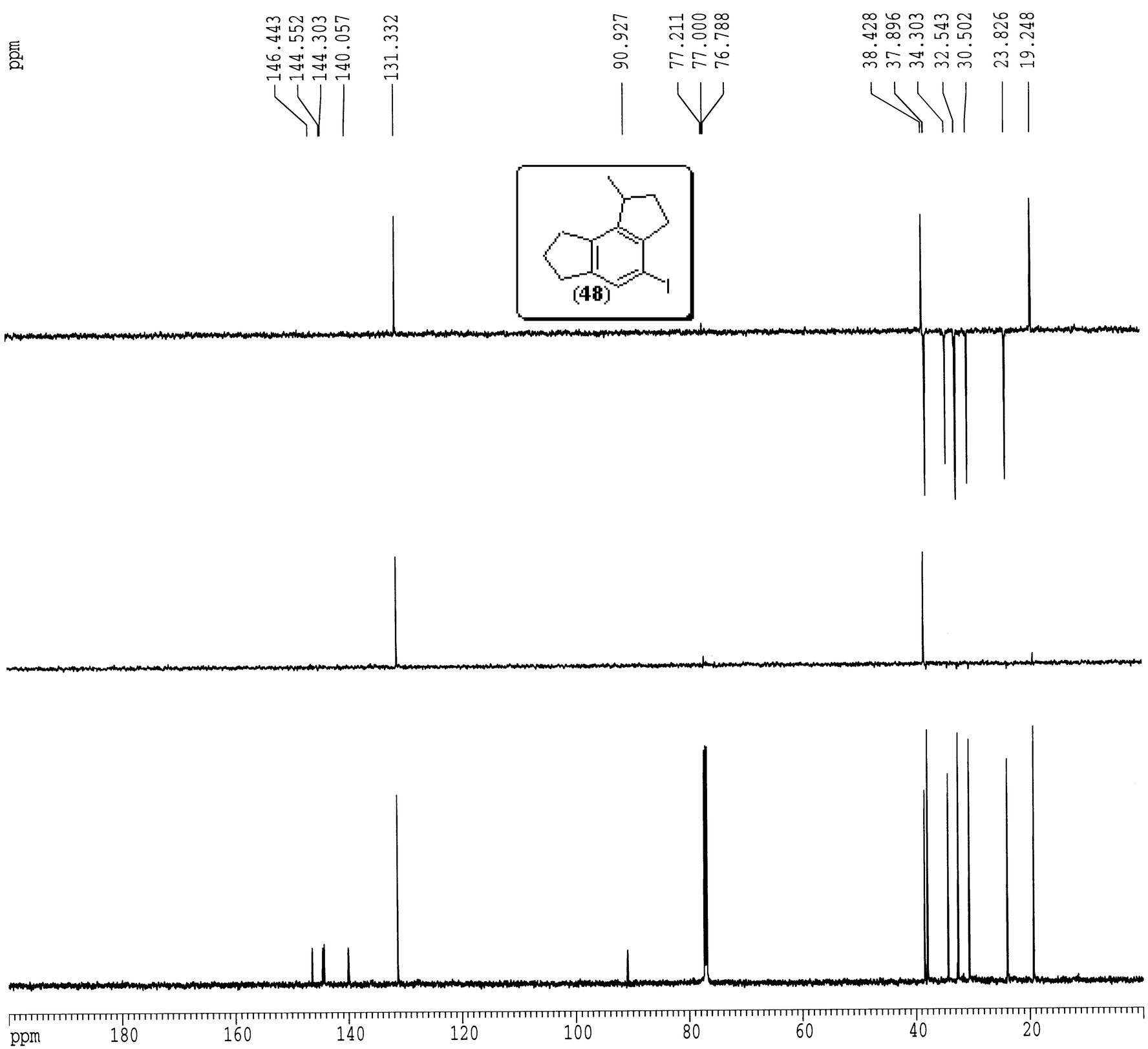
F2 - Acquisition Parameters
Date_ 20050328
Time 19.27
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zgpg
TD 32768
SOLVENT C6D6
NS 200
DS 0
SWH 37593.984 Hz
FIDRES 1.147277 Hz
AQ 0.4358644 sec
RG 2048
DW 13.300 usec
DE 6.50 usec
TE 295.9 K
D1 3.00000000 sec
d11 0.03000000 sec
DELTA 2.90000010 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 13C
P1 4.30 usec
PL1 0.00 dB
SFO1 150.7861246 MHz

======== CHANNEL f2 ========
CPDPRG2 waltz16
NUC2 1H
PCPD2 92.00 usec
PL2 120.00 dB
PL12 11.30 dB
PL13 14.00 dB
SFO2 599.6029980 MHz

F2 - Processing parameters
SI 65536
SF 150.7695488 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 0.50

1D NMR plot parameters
CX 20.00 cm
CY 4.50 cm
F1P 200.000 ppm
F1 30153.91 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPMCM 10.00000 ppm/cm
HZCM 1507.69543 Hz/cm



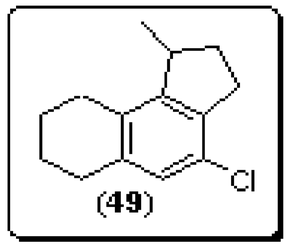
7.240
7.064

3.205
3.000
2.985
2.969
2.950
2.817
2.783
2.772
2.745
2.727
2.708
2.696
2.654
2.642
2.218
2.211
2.194
2.167
1.894
1.880
1.868
1.857
1.846
1.832
1.775
1.759
1.750
1.733
1.720
1.712
1.701
1.690
1.673
1.657
1.255
1.141
1.131

Ruo-C1P1

exp1 s2pul

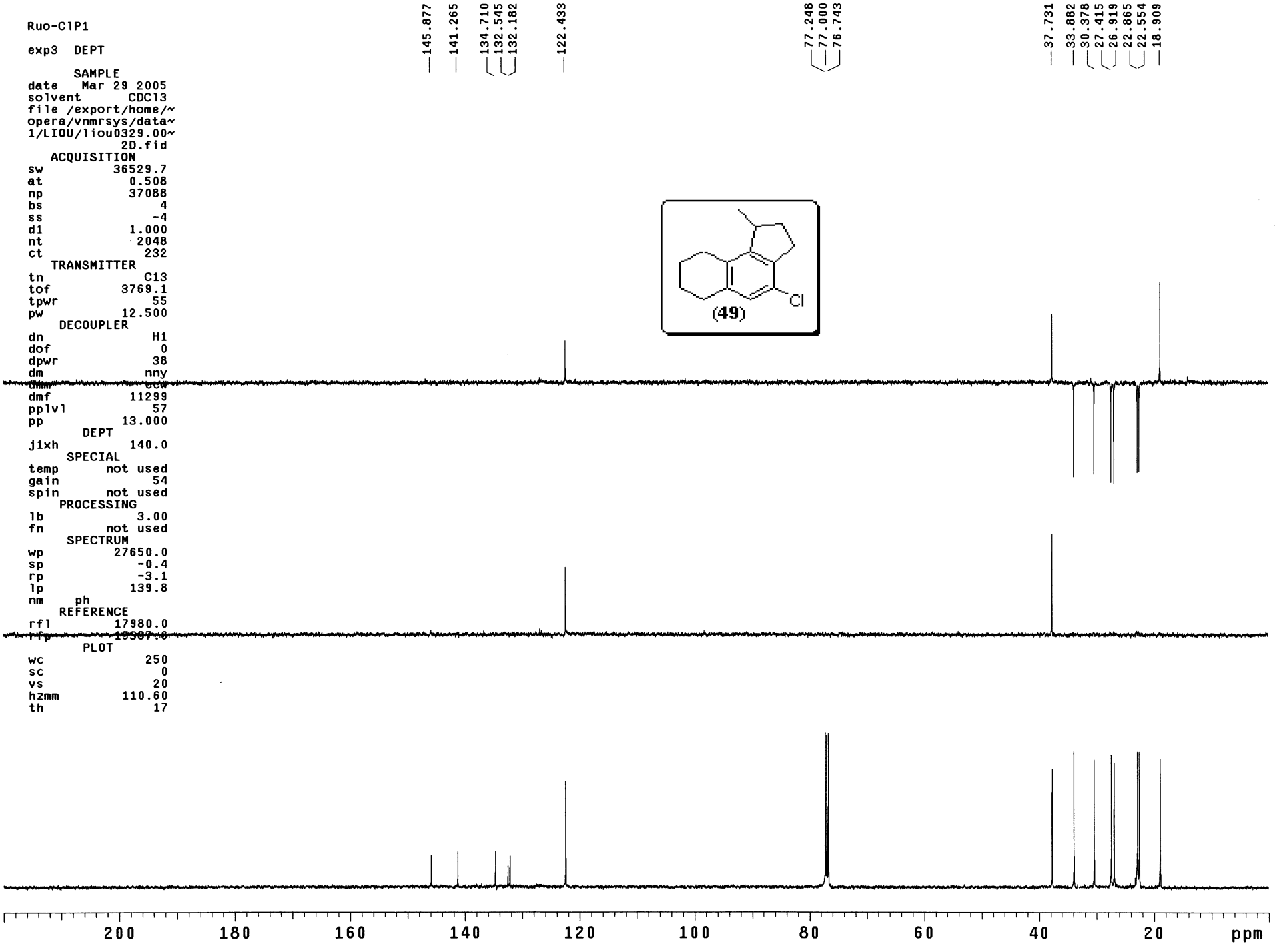
SAMPLE		DEC. & VT	
date	Mar 29 2005	dfrq	499.832
solvent	CDCl3	dn	H1
file	/export/home/~	dpwr	38
opera/vnmrsys/data~		dof	0
1/LIOU/liou0329.00~		dm	nnn
	2H.fid	dmm	c
ACQUISITION		dmf	11299
sfrq	499.833	dseq	
tn	H1	dres	1.0
at	2.182	homo	n
np	39276	PROCESSING	
sw	9000.9	wtfile	
fb	not used	proc	ft
bs	4	fn	32768
tpwr	55	math	f
pw	5.5		
d1	1.000	werr	
tof	980.4	wexp	
nt	32	wbs	wft
ct	32	wnt	wft
alock	y		
gain	not used		
FLAGS			
il	n		
in	n		
dp	y		
hs	nn		
DISPLAY			
sp	-250.1		
wp	5247.9		
vs	119		
sc	0		
wc	250		
hzmm	7.05		
is	130.81		
rfl	4663.3		
rfp	3618.8		
th	6		
ins	100.000		
nm	ph		



(49)

9 8 7 6 5 4 3 2 1 0 ppm

4.28
4.80
5.37
28.76
7.26
11.40
21.95
16.56


Ruo-C1P1
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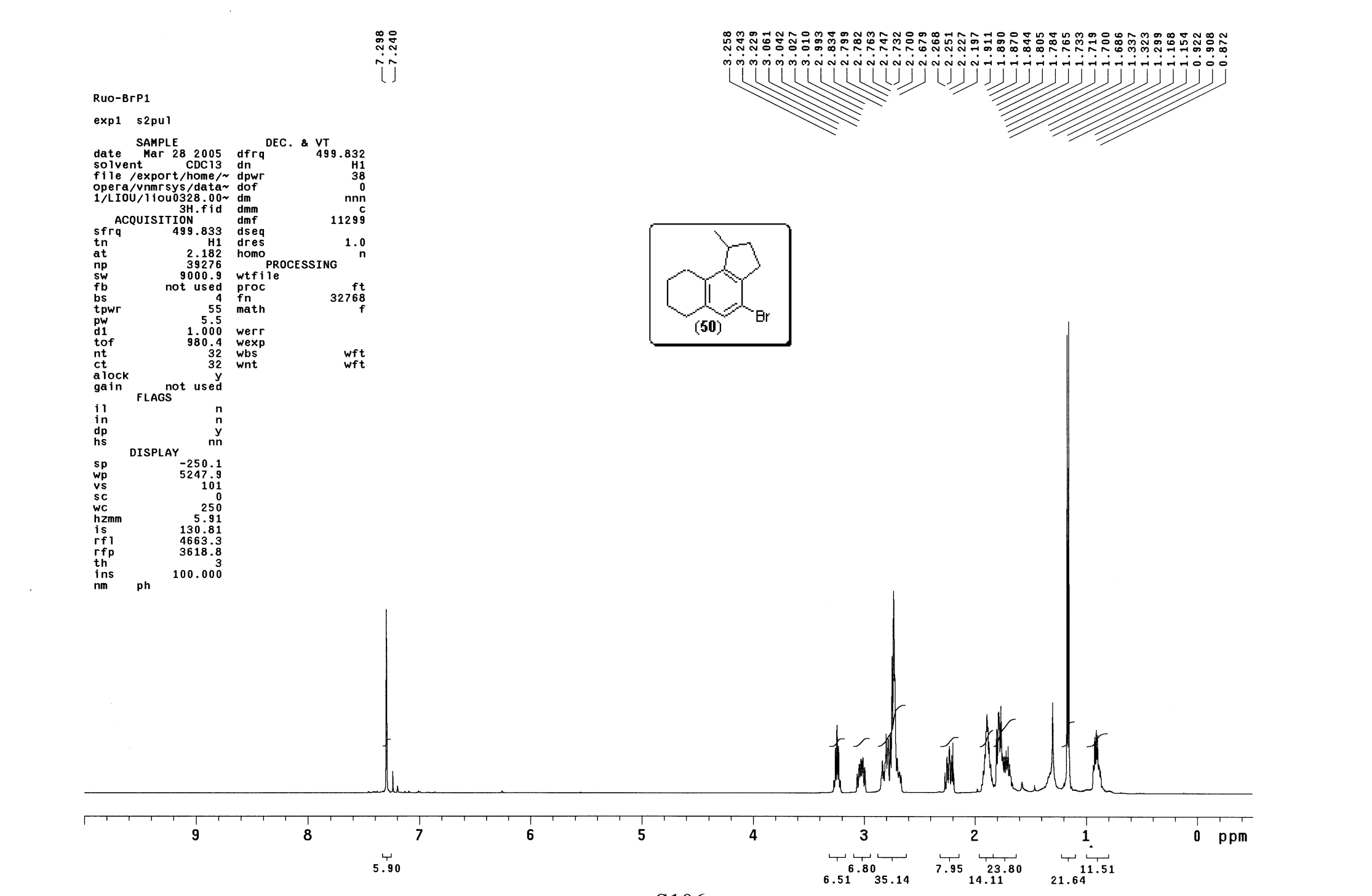
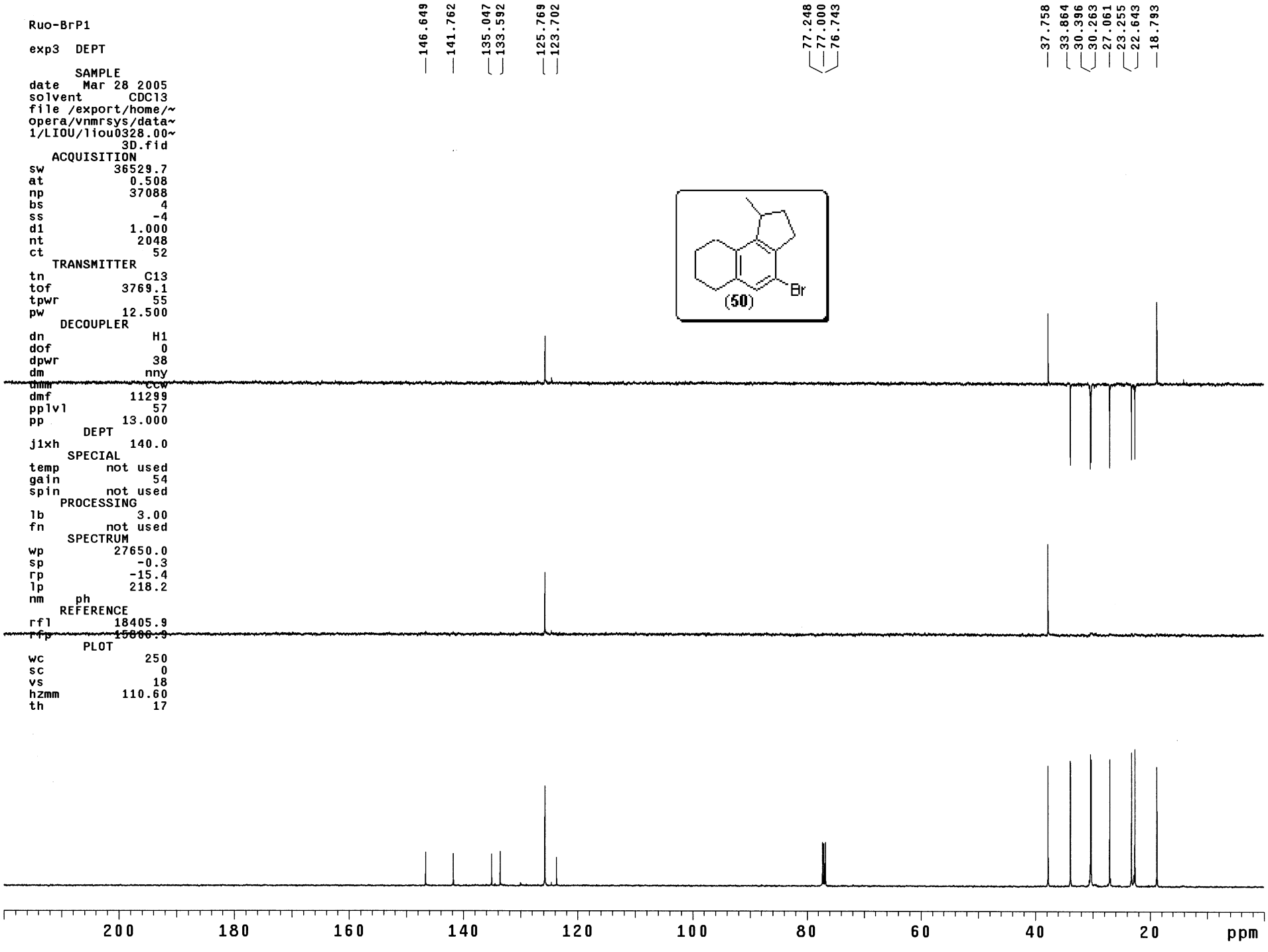
SAMPLE
date Mar 29 2005
solvent CDCl3
file /export/home/~
opera/vnmrsys/data~
1/LIOU/liou0329.00~
2D.fid
ACQUISITION
sw 36529.7
at 0.508
np 37088
bs 4
ss -4
d1 1.000
nt 2048
ct 232
TRANSMITTER
tn C13
tof 3769.1
tpwr 55
pw 12.500
DECOUPLER
dn H1
dof 0
dpwr 38
dm nny
dmf 11299
pplvl 57
pp 13.000
DEPT
j1xh 140.0
SPECIAL
temp not used
gain 54
spin not used
PROCESSING
lb 3.00
fn not used
SPECTRUM
wp 27650.0
sp -0.4
rp -3.1
lp 139.8
nm ph
REFERENCE
rfl 17980.0
PLOT
wc 250
sc 0
vs 20
hzmm 110.60
th 17
145.877
141.265
134.710
132.545
132.182
122.433
77.248
77.000
76.743
37.731
33.882
30.378
27.415
26.919
22.865
22.554
18.909
Cl
(49)
200
180
160
140
120
100
80
60
40
20
ppm


7.298
7.240
3.258
3.243
3.229
3.061
3.042
3.027
3.010
2.993
2.834
2.799
2.782
2.763
2.747
2.732
2.700
2.679
2.268
2.251
2.227
2.197
1.911
1.890
1.870
1.844
1.805
1.784
1.765
1.733
1.719
1.700
1.686
1.337
1.323
1.299
1.168
1.154
0.922
0.908
0.872
Ruo-BrP1
exp1 s2pul
SAMPLE
date Mar 28 2005
solvent CDCl3
file /export/home/~
opera/vnmrsys/data~
1/LIOU/liou0328.00~
3H.fid
ACQUISITION
sfrq 499.833
tn H1
at 2.182
np 39276
sw 9000.9
fb not used
bs 4
tpwr 55
pw 5.5
d1 1.000
tof 980.4
nt 32
ct 32
alock y
gain not used
FLAGS
il n
in n
dp y
hs nn
DISPLAY
sp -250.1
wp 5247.9
vs 101
sc 0
wc 250
hzmm 5.91
is 130.81
rfl 4663.3
rfp 3618.8
th 3
ins 100.000
nm ph
DEC. & VT
dfrq 499.832
dn H1
dpwr 38
dof 0
dm nnn
dmm c
dmf 11299
dseq
dres 1.0
homo n
PROCESSING
wtfile
proc ft
fn 32768
math f
werr
wexp
wbs wft
wnt wft
Br
(50)
9
8
7
6
5
4
3
2
1
0 ppm
5.90
6.51
6.80
35.14
7.95
14.11
23.80
21.64
11.51


Ruo-BrP1
exp3 DEPT
SAMPLE
date Mar 28 2005
solvent CDCl3
file /export/home/~
opera/vnmrsys/data~
1/LIOU/liou0328.00~
3D.fid
ACQUISITION
sw 36529.7
at 0.508
np 37088
bs 4
ss -4
d1 1.000
nt 2048
ct 52
TRANSMITTER
tn C13
tof 3769.1
tpwr 55
pw 12.500
DECOUPLER
dn H1
dof 0
dpwr 38
dm nny
dmm ccw
dmf 11299
pplvl 57
pp 13.000
DEPT
j1xh 140.0
SPECIAL
temp not used
gain 54
spin not used
PROCESSING
lb 3.00
fn not used
SPECTRUM
wp 27650.0
sp -0.3
rp -15.4
lp 218.2
nm ph
REFERENCE
rfl 18405.9
rfp 15868.9
PLOT
wc 250
sc 0
vs 18
hzmm 110.60
th 17
146.649
141.762
135.047
133.592
125.769
123.702
77.248
77.000
76.743
37.758
33.864
30.396
30.263
27.061
23.255
22.643
18.793
Br
(50)
200
180
160
140
120
100
80
60
40
20
ppm

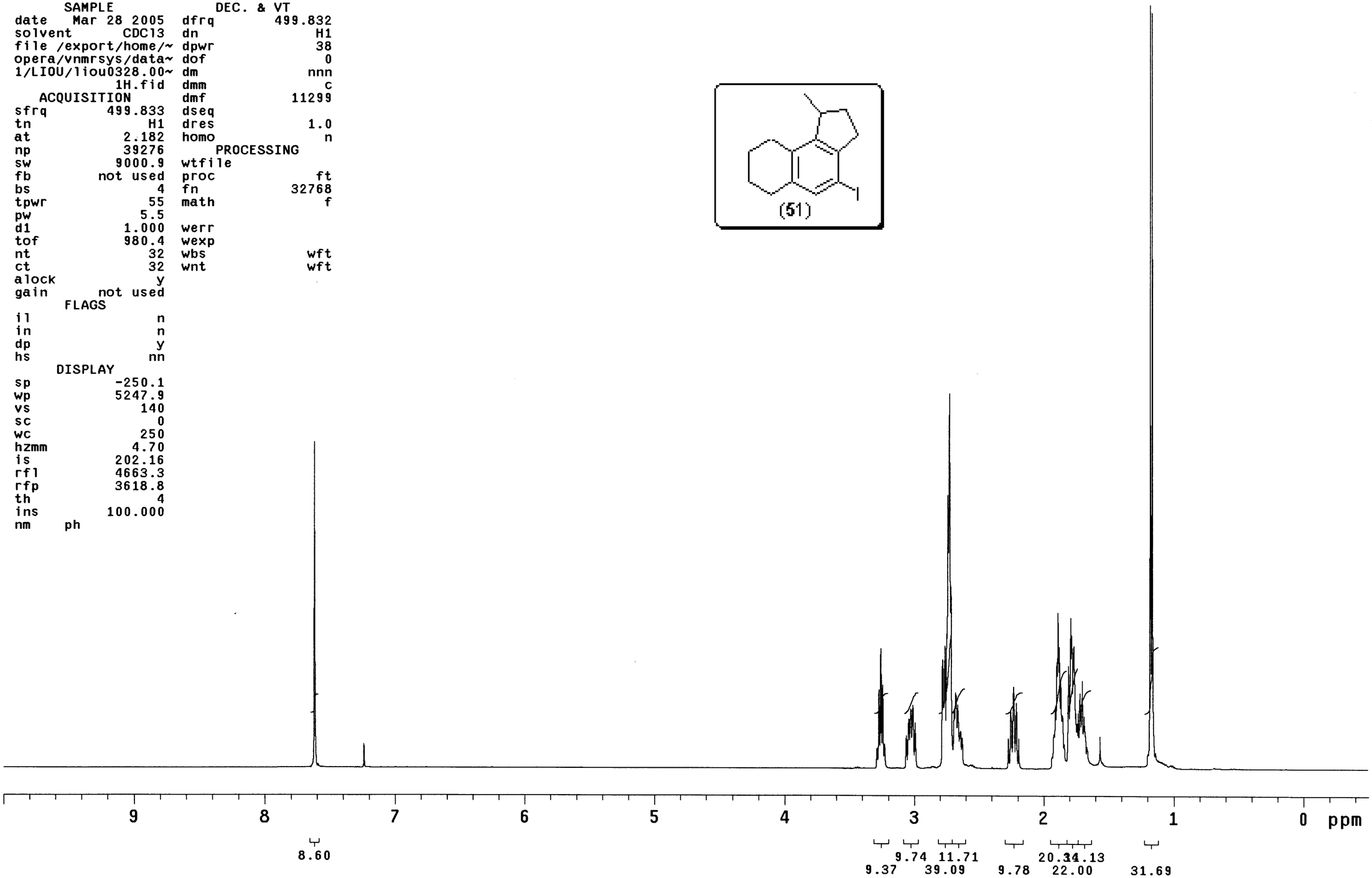
7.618
7.240

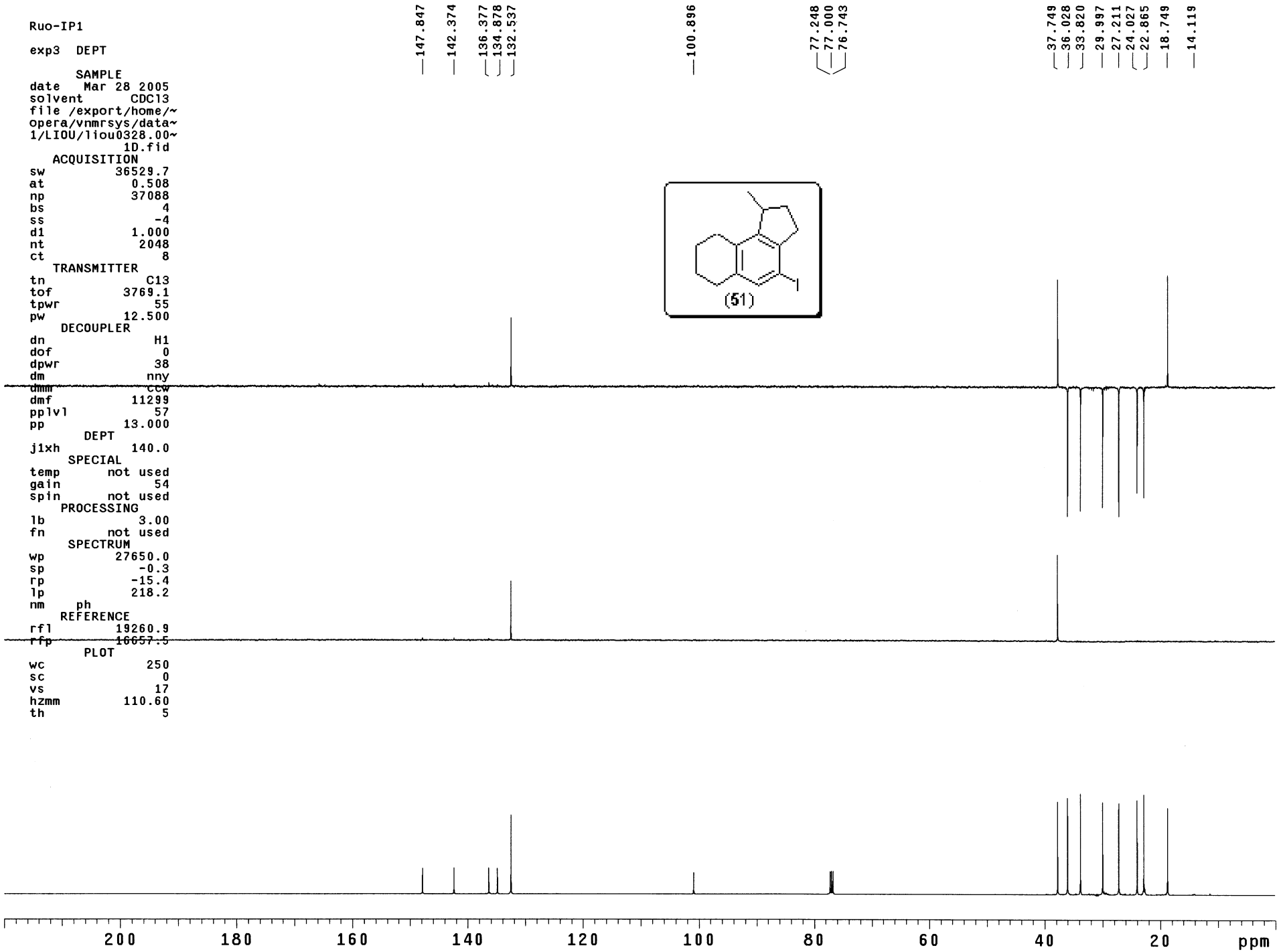
3.258
3.229
3.062
3.028
3.010
2.993
2.781
2.762
2.728
2.679
2.662
2.641
2.272
2.255
2.231
2.209
2.191
1.910
1.888
1.867
1.791
1.766
1.720
1.701
1.565
1.180

Ruo-IP1

exp1 s2pul

SAMPLE		DEC. & VT	
date	Mar 28 2005	dfrq	499.832
solvent	CDCl3	dn	H1
file	/export/home/~	dpwr	38
opera/vnmrsys/data~		dof	0
1/LIOU/liou0328.00~		dm	nnn
	1H.fid	dmm	c
ACQUISITION		dmf	11299
sfrq	499.833	dseq	
tn	H1	dres	1.0
at	2.182	homo	n
np	39276	PROCESSING	
sw	9000.9	wtfile	
fb	not used	proc	ft
bs	4	fn	32768
tpwr	55	math	f
pw	5.5		
d1	1.000	werr	
tof	980.4	wexp	
nt	32	wbs	wft
ct	32	wnt	wft
alock	y		
gain	not used		
FLAGS			
il	n		
in	n		
dp	y		
hs	nn		
DISPLAY			
sp	-250.1		
wp	5247.9		
vs	140		
sc	0		
wc	250		
hzmm	4.70		
is	202.16		
rfl	4663.3		
rfp	3618.8		
th	4		
ins	100.000		
nm	ph		




Ruo-IP1
exp3 DEPT
SAMPLE
date Mar 28 2005
solvent CDCl3
file /export/home/~
opera/vnmrsys/data~
1/LIOU/liou0328.00~
1D.fid
ACQUISITION
sw 36529.7
at 0.508
np 37088
bs 4
ss -4
d1 1.000
nt 2048
ct 8
TRANSMITTER
tn C13
tof 3769.1
tpwr 55
pw 12.500
DECOUPLER
dn H1
dof 0
dpwr 38
dm nny
dmm ccw
dmf 11299
pplvl 57
pp 13.000
DEPT
j1xh 140.0
SPECIAL
temp not used
gain 54
spin not used
PROCESSING
lb 3.00
fn not used
SPECTRUM
wp 27650.0
sp -0.3
rp -15.4
lp 218.2
nm ph
REFERENCE
rfl 19260.9
rfp 16657.5
PLOT
wc 250
sc 0
vs 17
hzmm 110.60
th 5
147.847
142.374
136.377
134.878
132.537
100.896
77.248
77.000
76.743
37.749
36.028
33.820
29.997
27.211
24.027
22.865
18.749
14.119
(51)
200
180
160
140
120
100
80
60
40
20
ppm

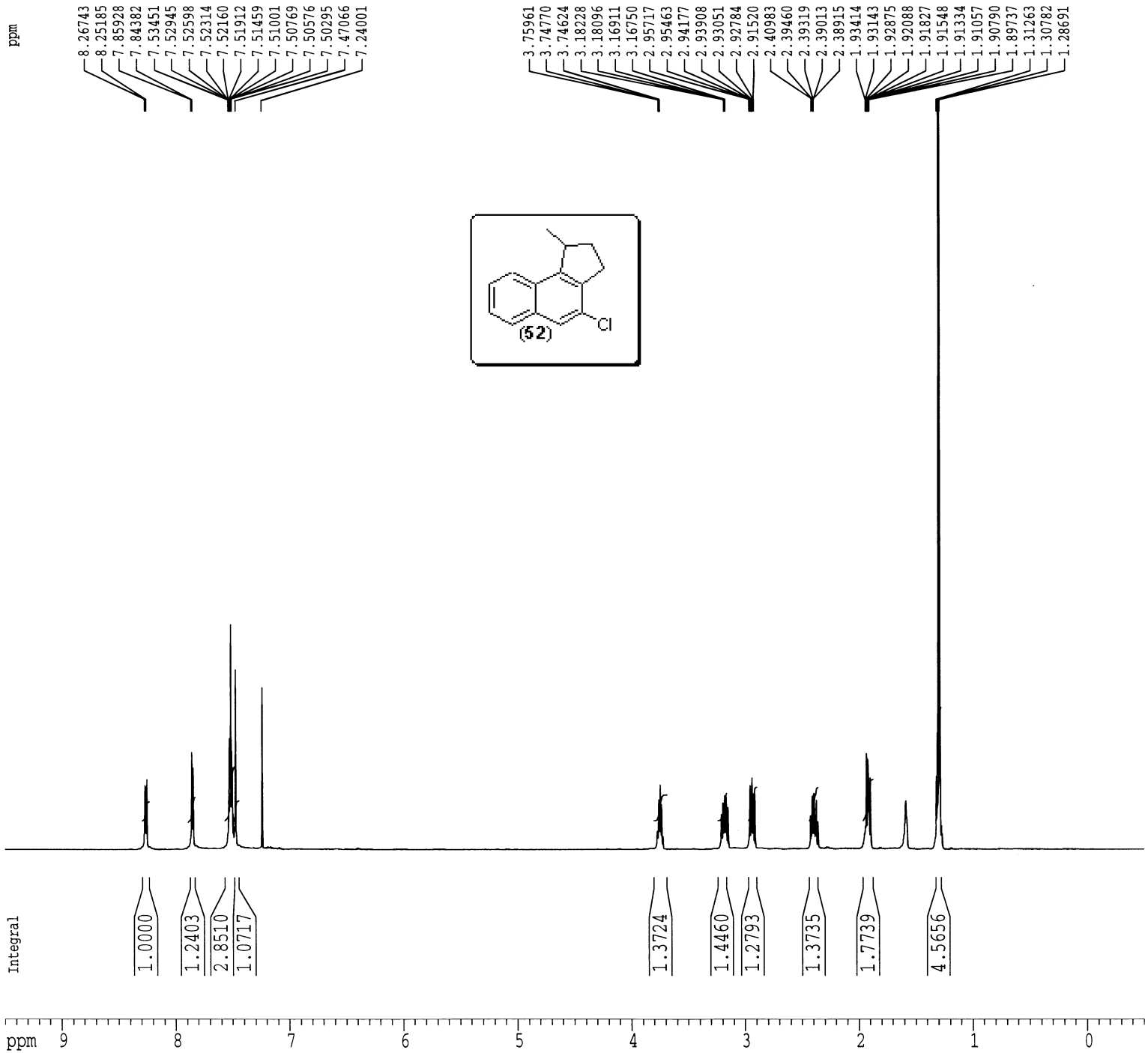
Current Data Parameters
NAME Ria-167
EXPNO 1
PROCNO 1

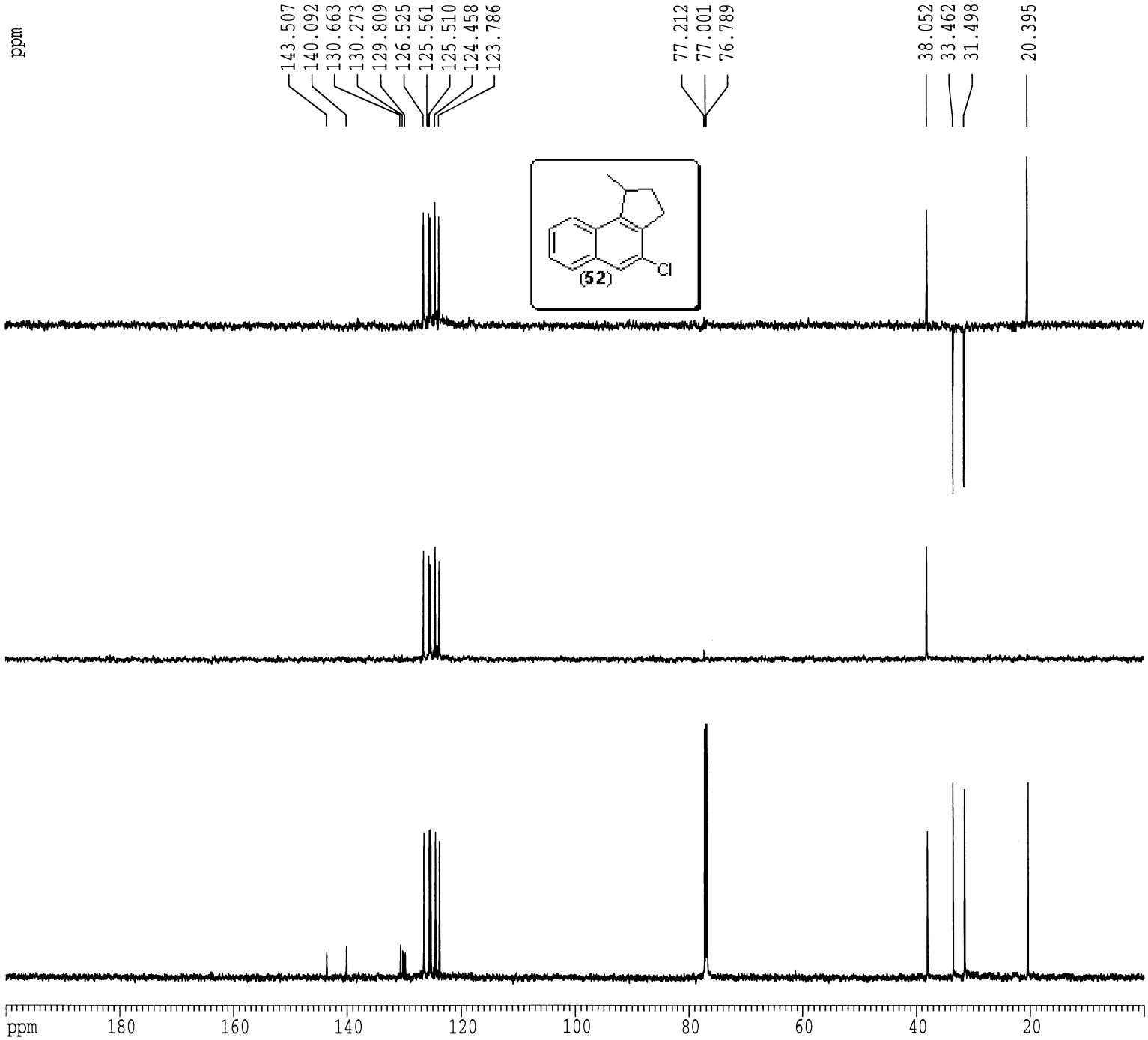
F2 - Acquisition Parameters
Date_ 20050419
Time 18.15
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zg
TD 32768
SOLVENT CDCl3
NS 16
DS 0
SWH 9615.385 Hz
FIDRES 0.293438 Hz
AQ 1.7039860 sec
RG 128
DW 52.000 usec
DE 6.50 usec
TE 298.7 K
D1 1.00000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 1H
P1 10.00 usec
PL1 0.00 dB
SFO1 599.6035976 MHz

F2 - Processing parameters
SI 32768
SF 599.6000297 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 0.50

1D NMR plot parameters
CX 20.00 cm
CY 15.00 cm
F1P 9.500 ppm
F1 5696.20 Hz
F2P -0.500 ppm
F2 -299.80 Hz
PPMCM 0.50000 ppm/cm
HZCM 299.80002 Hz/cm





Current Data Parameters
NAME Ria-167
EXPNO 2
PROCNO 1

F2 - Acquisition Parameters
Date_ 20050419
Time 18.28
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zgpg
TD 32768
SOLVENT C6D6
NS 300
DS 0
SWH 37593.984 Hz
FIDRES 1.147277 Hz
AQ 0.4358644 sec
RG 1024
DW 13.300 usec
DE 6.50 usec
TE 298.9 K
D1 3.00000000 sec
d11 0.03000000 sec
DELTA 2.90000010 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 13C
P1 4.30 usec
PL1 0.00 dB
SFO1 150.7861246 MHz

======== CHANNEL f2 ========
CPDPRG2 waltz16
NUC2 1H
PCPD2 92.00 usec
PL2 120.00 dB
PL12 11.30 dB
PL13 14.00 dB
SFO2 599.6029980 MHz

F2 - Processing parameters
SI 65536
SF 150.7695465 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 0.50

1D NMR plot parameters
CX 20.00 cm
CY 4.50 cm
F1P 200.000 ppm
F1 30153.91 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPMCM 10.00000 ppm/cm
HZCM 1507.69543 Hz/cm

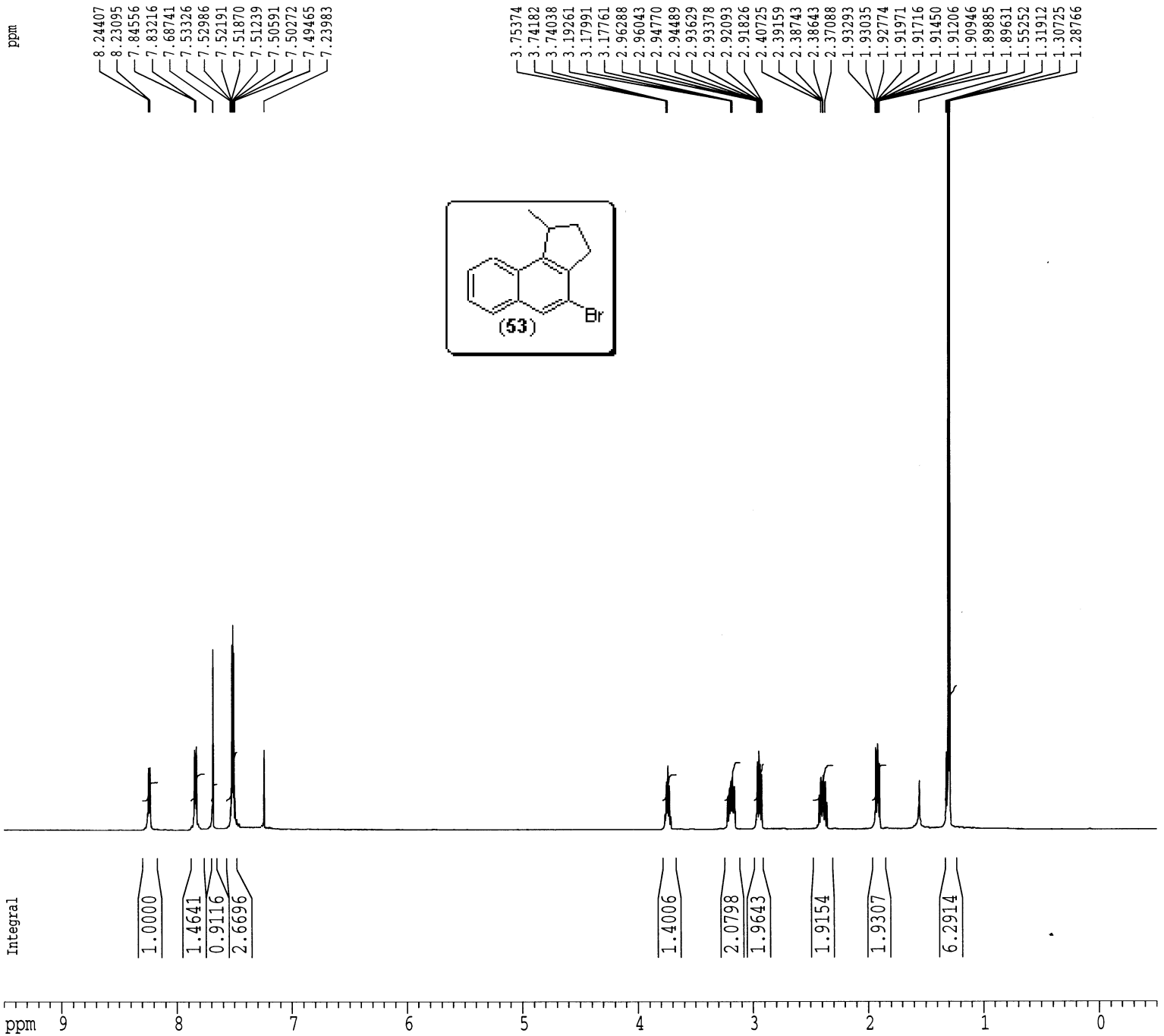
Current Data Parameters
NAME Ria-159
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20050401
Time 12.42
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zg
TD 32768
SOLVENT CDCl3
NS 16
DS 0
SWH 8389.262 Hz
FIDRES 0.256020 Hz
AQ 1.9530228 sec
RG 32
DW 59.600 usec
DE 6.50 usec
TE 294.4 K
D1 1.00000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 1H
P1 10.00 usec
PL1 0.00 dB
SFO1 599.6029980 MHz

F2 - Processing parameters
SI 32768
SF 599.6000298 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 0.50

1D NMR plot parameters
CX 20.00 cm
CY 15.00 cm
F1P 9.500 ppm
F1 5696.20 Hz
F2P -0.500 ppm
F2 -299.80 Hz
PPMCM 0.50000 ppm/cm
HZCM 299.80002 Hz/cm



Current Data Parameters
NAME Ria-159
EXPNO 2
PROCNO 1

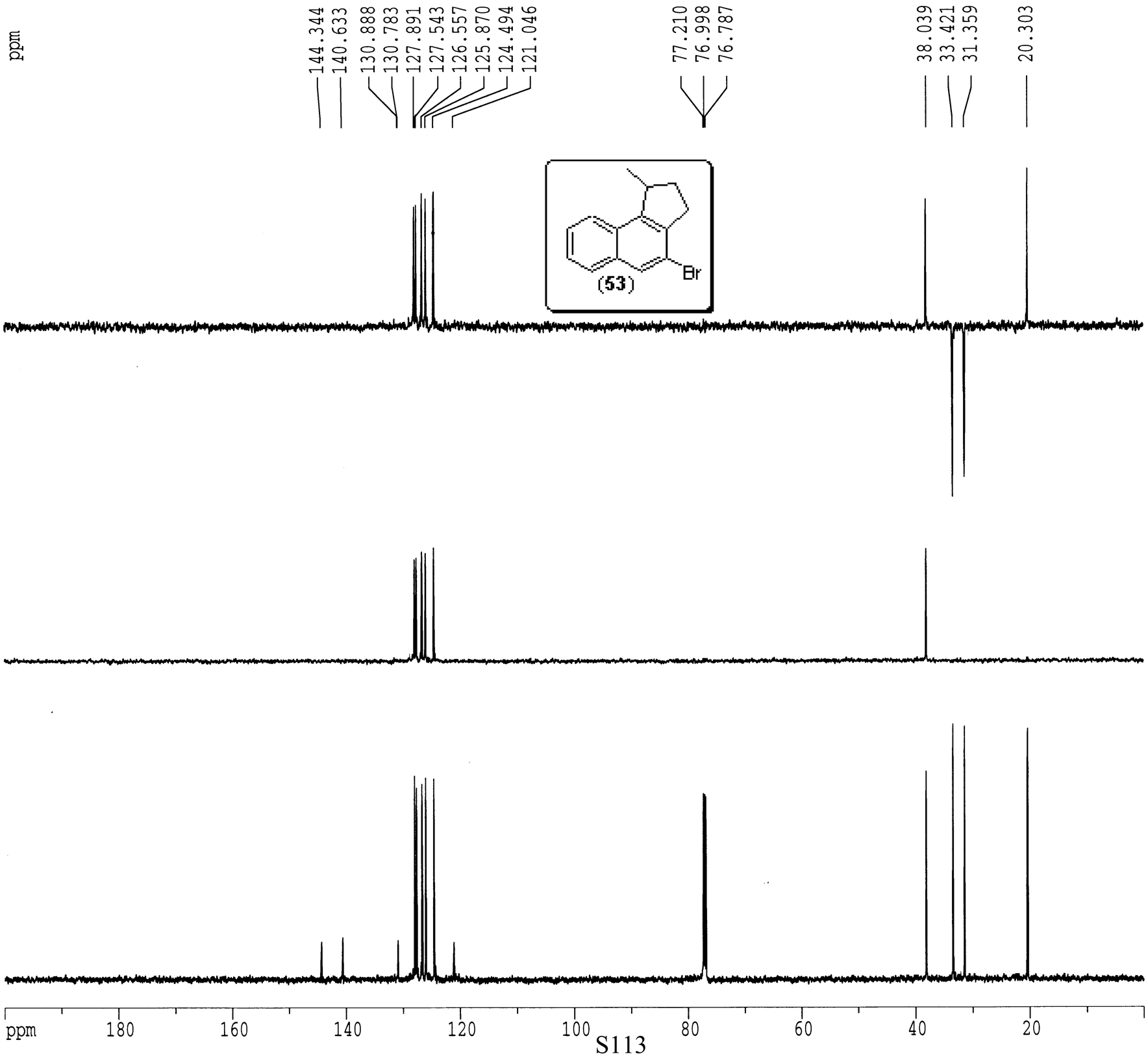
F2 - Acquisition Parameters
Date_ 20050401
Time 12.52
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zgpg
TD 32768
SOLVENT C6D6
NS 150
DS 0
SWH 37593.984 Hz
FIDRES 1.147277 Hz
AQ 0.4358644 sec
RG 2048
DW 13.300 usec
DE 6.50 usec
TE 294.6 K
D1 3.00000000 sec
d11 0.03000000 sec
DELTA 2.90000010 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 13C
P1 4.30 usec
PL1 0.00 dB
SFO1 150.7861246 MHz

======== CHANNEL f2 ========
CPDPRG2 waltz16
NUC2 1H
PCPD2 92.00 usec
PL2 120.00 dB
PL12 11.30 dB
PL13 14.00 dB
SFO2 599.6029980 MHz

F2 - Processing parameters
SI 65536
SF 150.7695511 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 0.50

1D NMR plot parameters
CX 20.00 cm
CY 4.50 cm
F1P 200.000 ppm
F1 30153.91 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPMCM 10.00000 ppm/cm
HZCM 1507.69543 Hz/cm



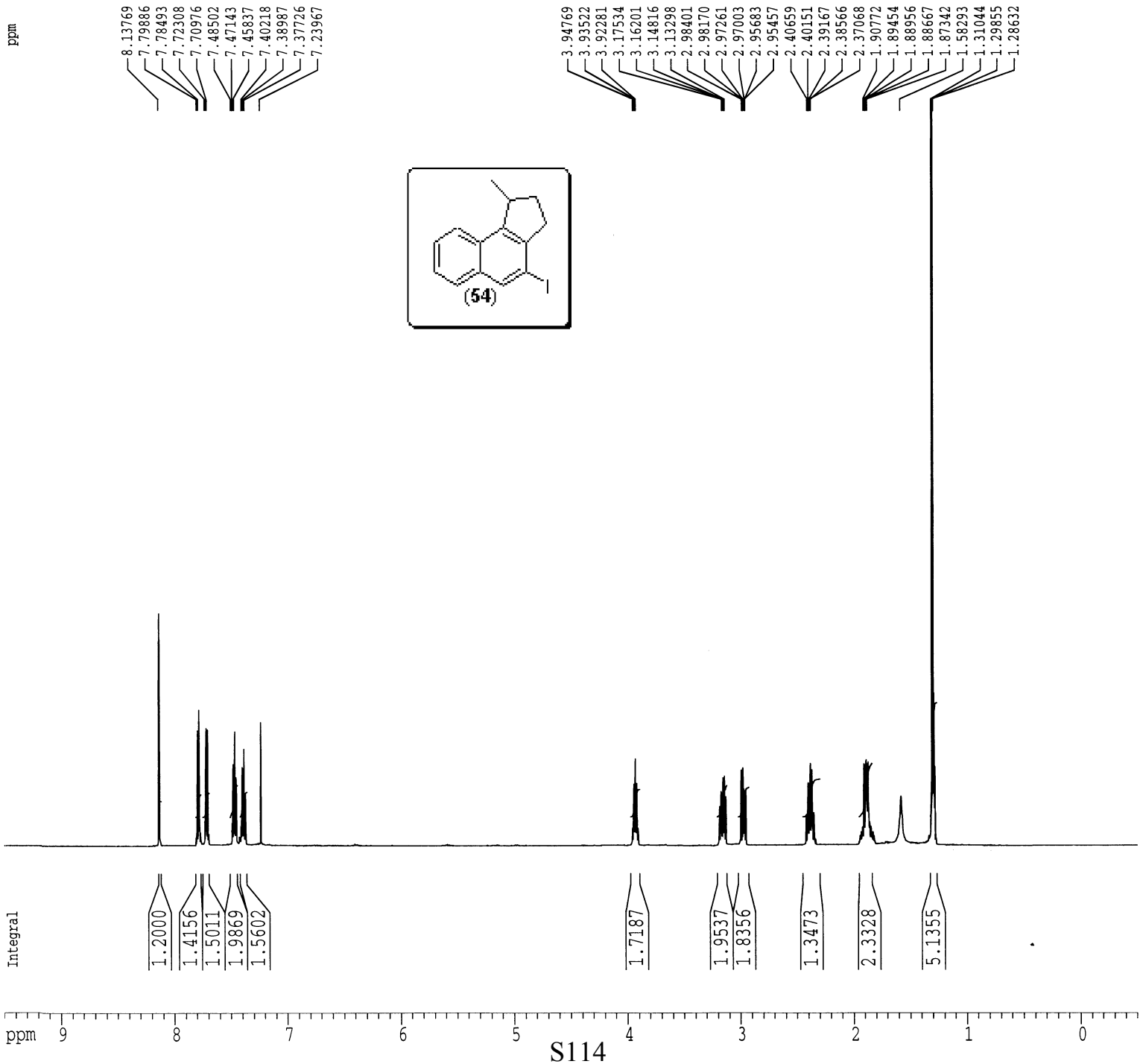
Current Data Parameters
NAME Ria-1611
EXPNO 1
PROCNO 1

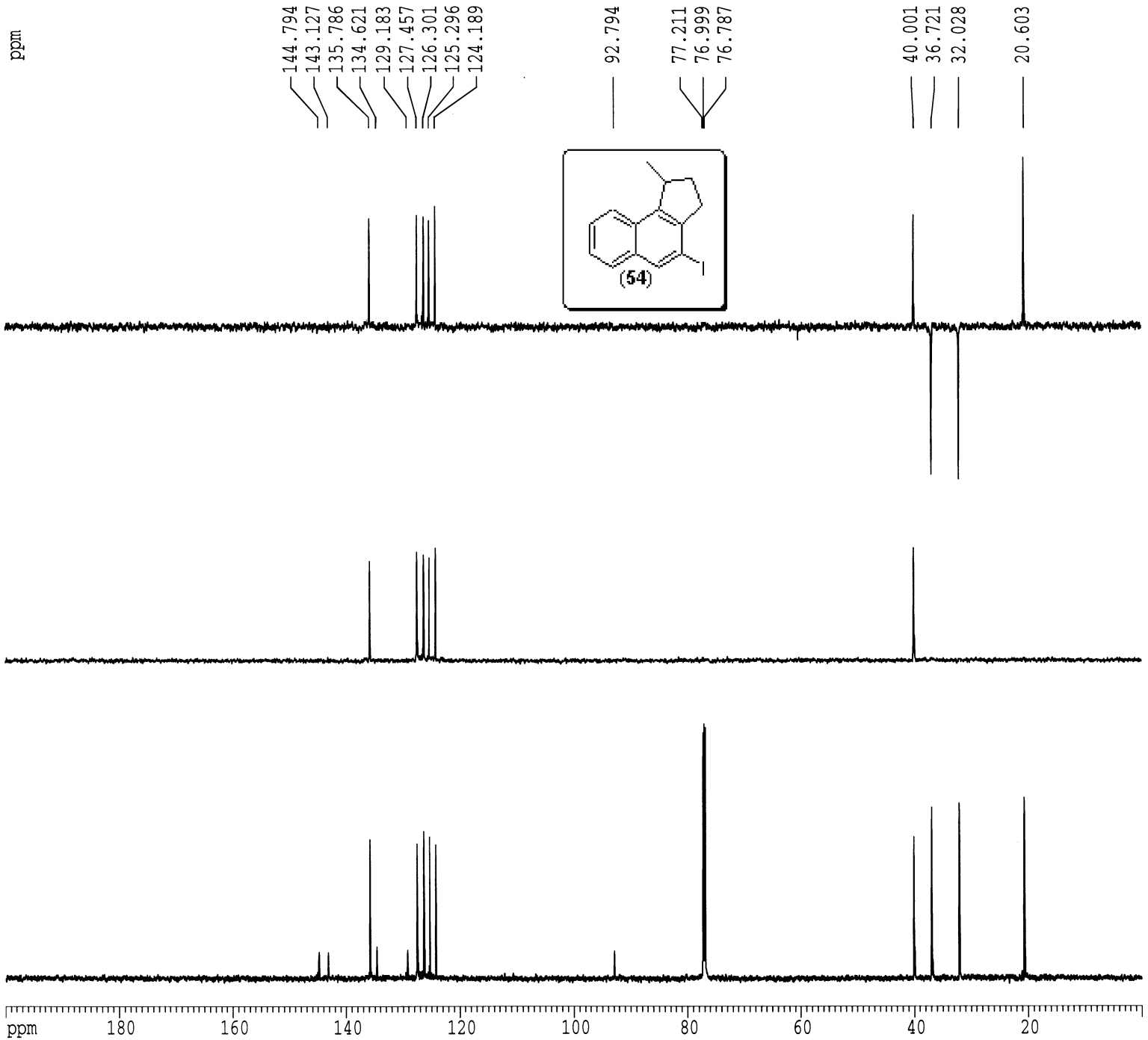
F2 - Acquisition Parameters
Date_ 20050419
Time 14.33
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zg
TD 32768
SOLVENT CDCl3
NS 16
DS 0
SWH 9842.520 Hz
FIDRES 0.300370 Hz
AQ 1.6646644 sec
RG 128
DW 50.800 usec
DE 6.50 usec
TE 298.5 K
D1 1.00000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 1H
P1 10.00 usec
PL1 0.00 dB
SFO1 599.6036772 MHz

F2 - Processing parameters
SI 16384
SF 599.6000305 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 0.50

1D NMR plot parameters
CX 20.00 cm
CY 15.00 cm
F1P 9.500 ppm
F1 5696.20 Hz
F2P -0.500 ppm
F2 -299.80 Hz
PPMCM 0.50000 ppm/cm
HZCM 299.80002 Hz/cm





Current Data Parameters
NAME Ria-1611
EXPNO 2
PROCNO 1

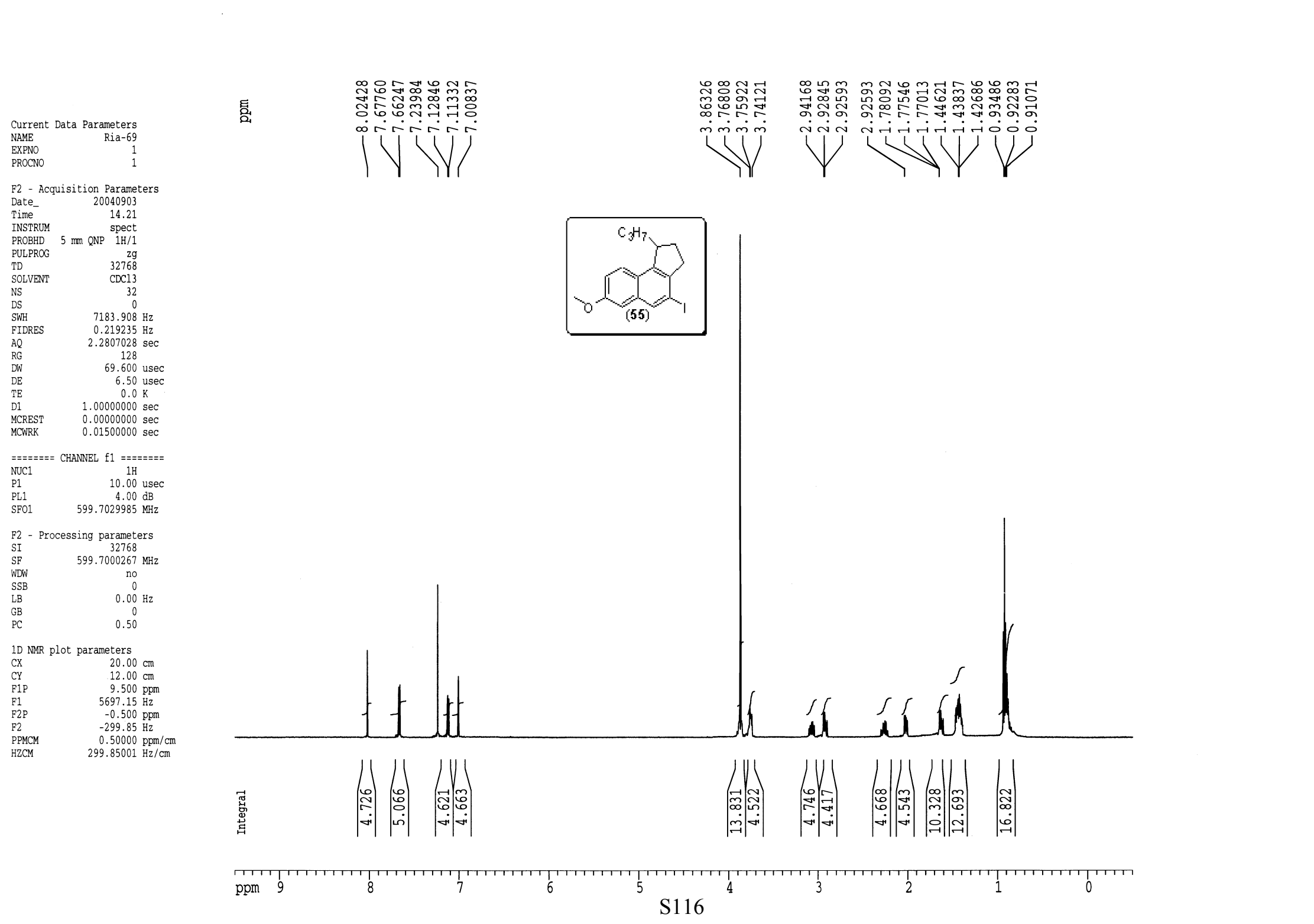
F2 - Acquisition Parameters
Date_ 20050419
Time 14.37
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zgpg
TD 32768
SOLVENT C6D6
NS 300
DS 0
SWH 37593.984 Hz
FIDRES 1.147277 Hz
AQ 0.4358644 sec
RG 1024
DW 13.300 usec
DE 6.50 usec
TE 298.6 K
D1 3.00000000 sec
d11 0.03000000 sec
DELTA 2.90000010 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

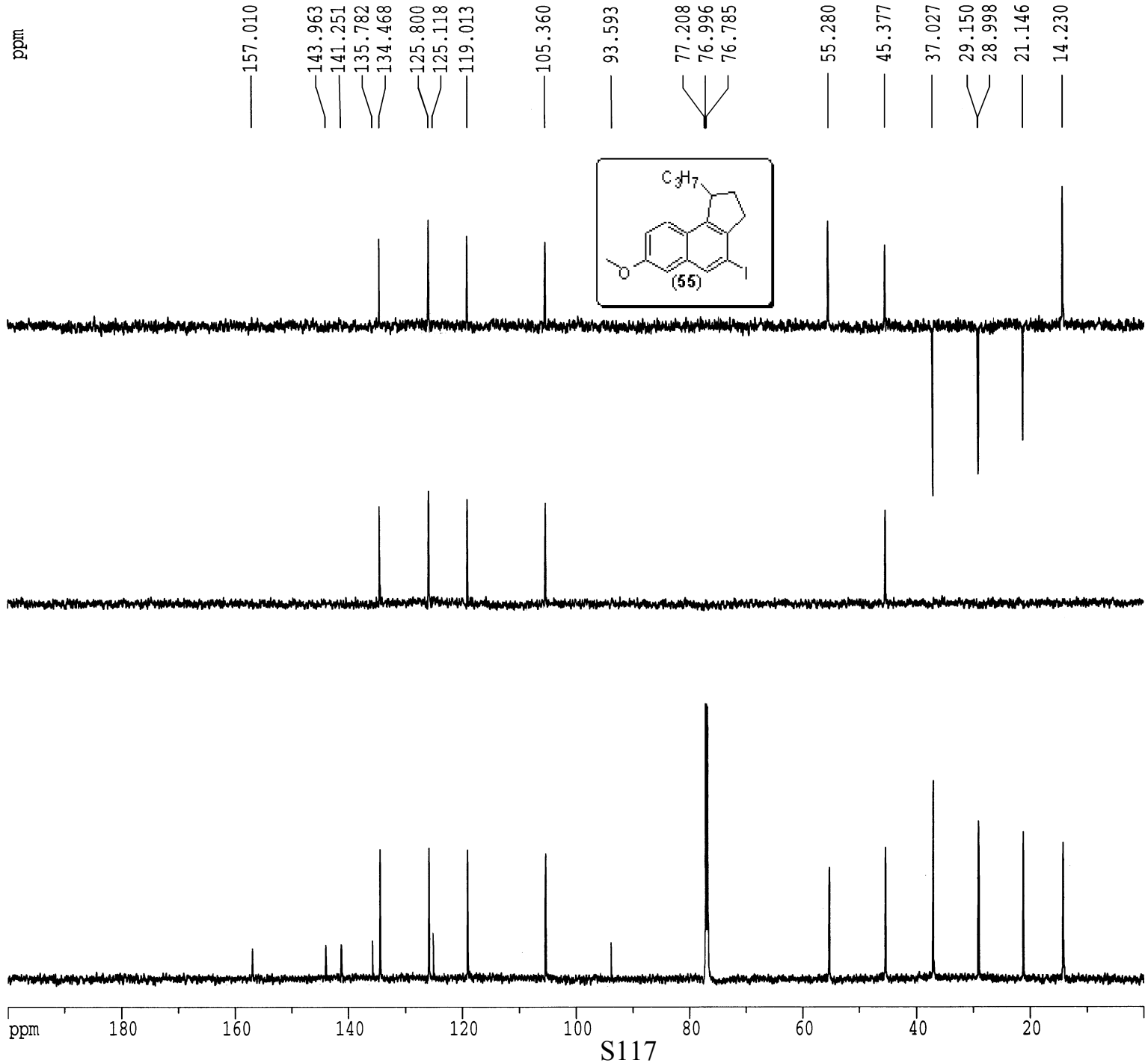
======== CHANNEL f1 ========
NUC1 13C
P1 4.30 usec
PL1 0.00 dB
SFO1 150.7861246 MHz

======== CHANNEL f2 ========
CPDPRG2 waltz16
NUC2 1H
PCPD2 92.00 usec
PL2 120.00 dB
PL12 11.30 dB
PL13 14.00 dB
SFO2 599.6029980 MHz

F2 - Processing parameters
SI 65536
SF 150.7695477 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 0.50

1D NMR plot parameters
CX 20.00 cm
CY 4.50 cm
F1P 200.000 ppm
F1 30153.91 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPMCM 10.00000 ppm/cm
HZCM 1507.69543 Hz/cm


Current Data Parameters
NAME Ria-69
EXPNO 1
PROCNO 1
F2 - Acquisition Parameters
Date_ 20040903
Time 14.21
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zg
TD 32768
SOLVENT CDCl3
NS 32
DS 0
SWH 7183.908 Hz
FIDRES 0.219235 Hz
AQ 2.2807028 sec
RG 128
DW 69.600 usec
DE 6.50 usec
TE 0.0 K
D1 1.00000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec
======== CHANNEL f1 ========
NUC1 1H
P1 10.00 usec
PL1 4.00 dB
SFO1 599.7029985 MHz
F2 - Processing parameters
SI 32768
SF 599.7000267 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 0.50
1D NMR plot parameters
CX 20.00 cm
CY 12.00 cm
F1P 9.500 ppm
F1 5697.15 Hz
F2P -0.500 ppm
F2 -299.85 Hz
PPMCM 0.50000 ppm/cm
HZCM 299.85001 Hz/cm
ppm
8.02428
7.67760
7.66247
7.23984
7.12846
7.11332
7.00837
3.86326
3.76808
3.75922
3.74121
2.94168
2.92845
2.92593
2.92593
1.78092
1.77546
1.77013
1.44621
1.43837
1.42686
0.93486
0.92283
0.91071
(55)
Integral
4.726
5.066
4.621
4.663
13.831
4.522
4.746
4.417
4.668
4.543
10.328
12.693
16.822
ppm 9 8 7 6 5 4 3 2 1 0



Current Data Parameters
NAME Ria-69
EXPNO 2
PROCNO 1

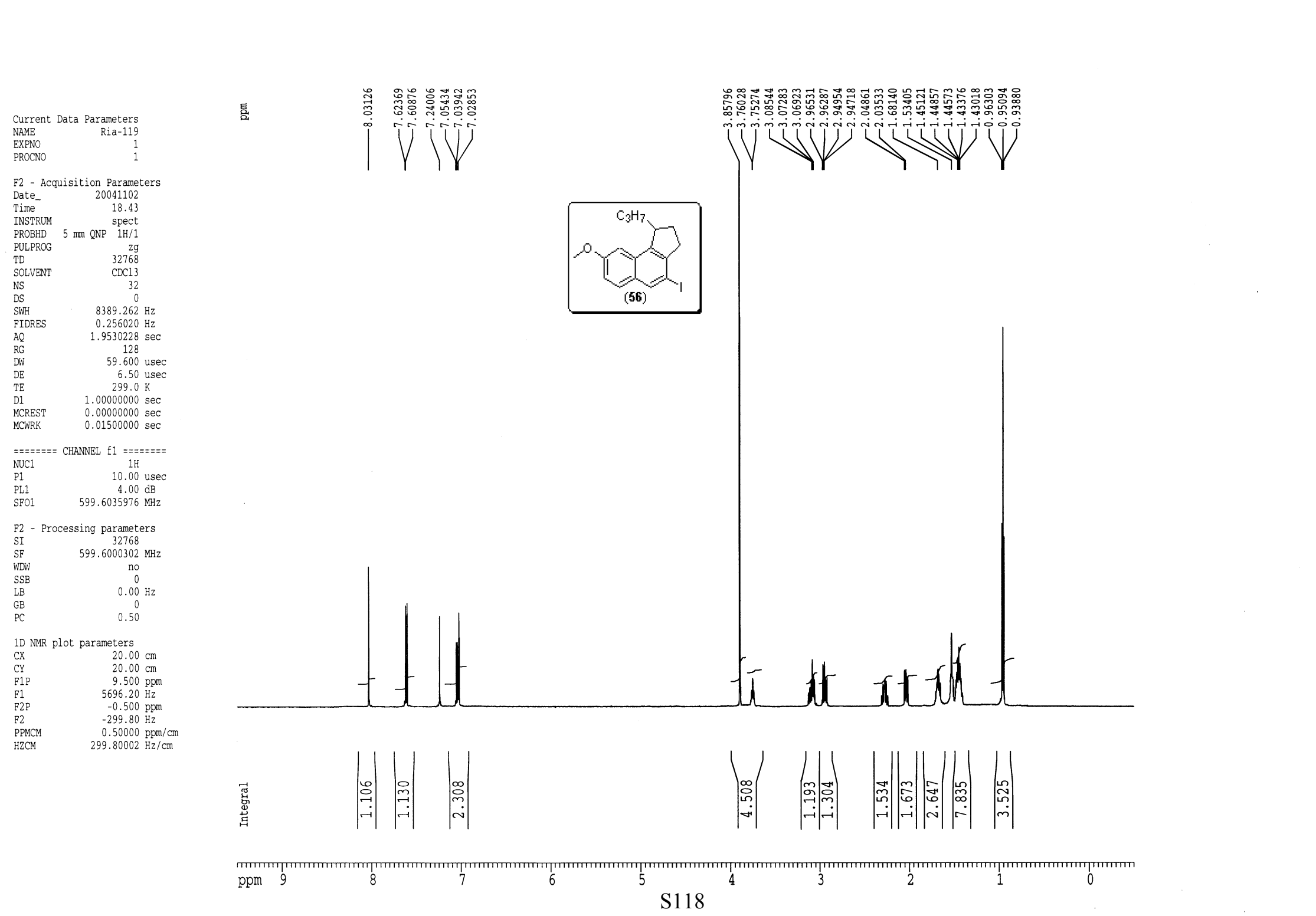
F2 - Acquisition Parameters
Date_ 20040918
Time 22.44
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zgpg
TD 32768
SOLVENT C6D6
NS 6144
DS 0
SWH 37878.789 Hz
FIDRES 1.155969 Hz
AQ 0.4325876 sec
RG 2048
DW 13.200 usec
DE 6.50 usec
TE 0.0 K
D1 4.00000000 sec
d11 0.03000000 sec
DELTA 3.90000010 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

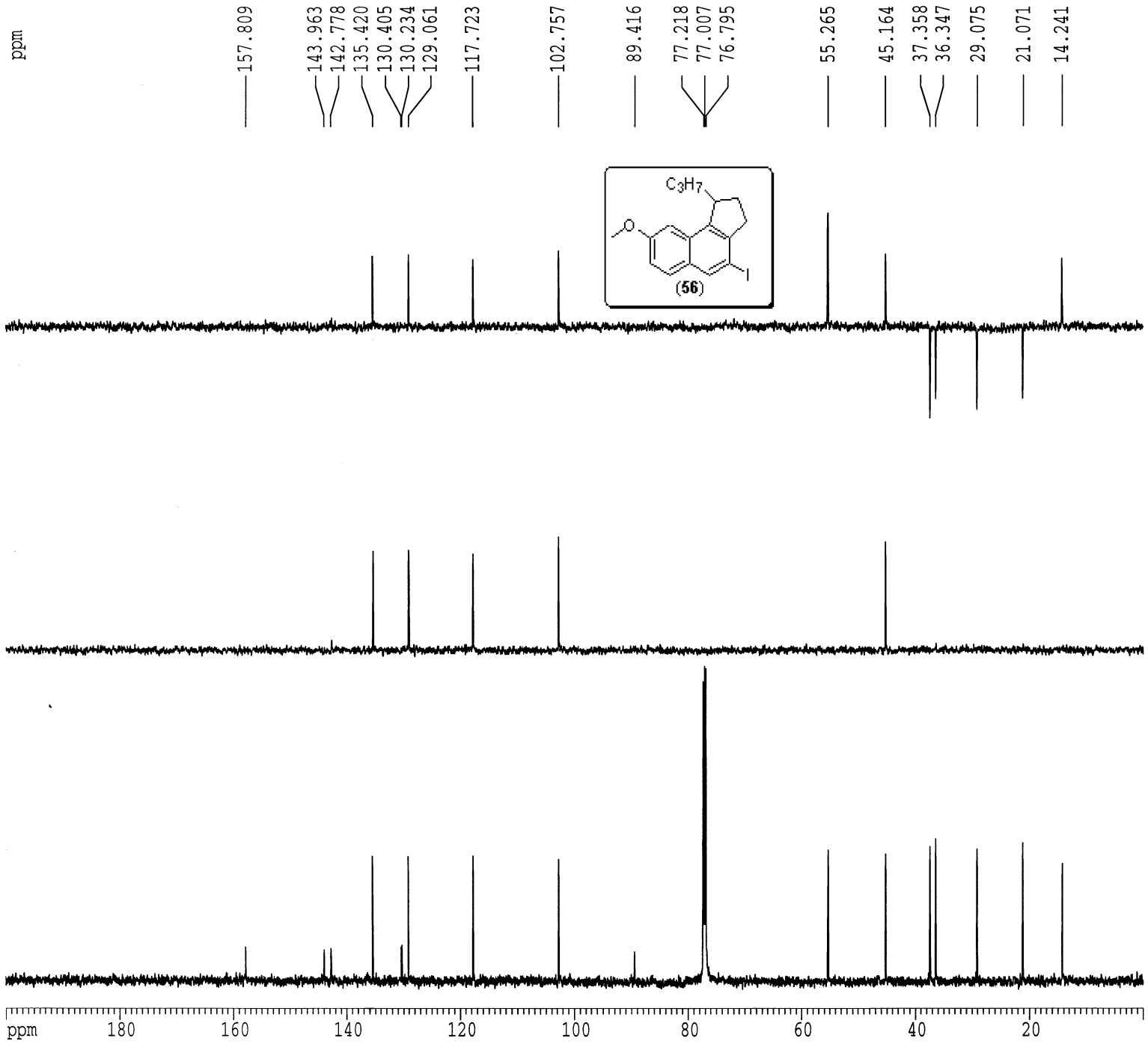
======== CHANNEL f1 ========
NUC1 13C
P1 4.50 usec
PL1 0.00 dB
SFO1 150.8112724 MHz

======== CHANNEL f2 ========
CPDPRG2 waltz16
NUC2 1H
PCPD2 92.00 usec
PL2 120.00 dB
PL12 8.80 dB
PL13 10.00 dB
SFO2 599.7029985 MHz

F2 - Processing parameters
SI 65536
SF 150.7946894 MHz
WDW EM
SSB 0
LB 5.00 Hz
GB 0
PC 0.50

1D NMR plot parameters
CX 20.00 cm
CY 40.00 cm
F1P 200.000 ppm
F1 30158.94 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPMCM 10.00000 ppm/cm
HZCM 1507.94690 Hz/cm


Current Data Parameters
NAME Ria-119
EXPNO 1
PROCNO 1
F2 - Acquisition Parameters
Date_ 20041102
Time 18.43
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zg
TD 32768
SOLVENT CDCl3
NS 32
DS 0
SWH 8389.262 Hz
FIDRES 0.256020 Hz
AQ 1.9530228 sec
RG 128
DW 59.600 usec
DE 6.50 usec
TE 299.0 K
D1 1.00000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec
======== CHANNEL f1 ========
NUC1 1H
P1 10.00 usec
PL1 4.00 dB
SFO1 599.6035976 MHz
F2 - Processing parameters
SI 32768
SF 599.6000302 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 0.50
1D NMR plot parameters
CX 20.00 cm
CY 20.00 cm
F1P 9.500 ppm
F1 5696.20 Hz
F2P -0.500 ppm
F2 -299.80 Hz
PPMCM 0.50000 ppm/cm
HZCM 299.80002 Hz/cm
ppm
8.03126
7.62369
7.60876
7.24006
7.05434
7.03942
7.02853
3.85796
3.76028
3.75274
3.08544
3.07283
3.06923
2.96531
2.96287
2.94954
2.94718
2.04861
2.03533
1.68140
1.53405
1.45121
1.44857
1.44573
1.43376
1.43018
0.96303
0.95094
0.93880
C3H7
O
I
(56)
Integral
1.106
1.130
2.308
4.508
1.193
1.304
1.534
1.673
2.647
7.835
3.525
ppm 9 8 7 6 5 4 3 2 1 0



Current Data Parameters
NAME Ria-119
EXPNO 2
PROCNO 1

F2 - Acquisition Parameters
Date_ 20041102
Time 19.40
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zgpg
TD 32768
SOLVENT C6D6
NS 786
DS 0
SWH 37878.789 Hz
FIDRES 1.155969 Hz
AQ 0.4325876 sec
RG 2048
DW 13.200 usec
DE 6.50 usec
TE 299.1 K
D1 4.00000000 sec
d11 0.03000000 sec
DELTA 3.90000010 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 13C
P1 4.30 usec
PL1 0.00 dB
SFO1 150.7861246 MHz

======== CHANNEL f2 ========
CPDPRG2 waltz16
NUC2 1H
PCPD2 92.00 usec
PL2 120.00 dB
PL12 11.30 dB
PL13 14.00 dB
SFO2 599.6029980 MHz

F2 - Processing parameters
SI 65536
SF 150.7695436 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 0.50

1D NMR plot parameters
CX 20.00 cm
CY 15.00 cm
F1P 200.000 ppm
F1 30153.91 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPMCM 10.00000 ppm/cm
HZCM 1507.69543 Hz/cm

```
Current Data Parameters
NAME            Ria-182
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20050427
Time              14.41
INSTRUM           spect
PROBHD   5 mm QNP  1H/1
PULPROG             zg
TD                32768
SOLVENT           CDCl3
NS                   16
DS                    0
SWH            7183.908 Hz
FIDRES         0.219235 Hz
AQ             2.2807028 sec
RG                  128
DW                69.600 usec
DE                 6.50 usec
TE                298.6 K
D1           1.00000000 sec
MCREST       0.00000000 sec
MCWRK        0.01500000 sec

======== CHANNEL f1 ========
NUC1                1H
P1                10.00 usec
PL1                0.00 dB
SFO1        599.6029980 MHz

F2 - Processing parameters
SI                32768
SF          599.6000543 MHz
WDW                  no
SSB                   0
LB                 0.00 Hz
GB                    0
PC                 0.50

1D NMR plot parameters
CX                20.00 cm
CY                10.00 cm
F1P               9.500 ppm
F1              5696.20 Hz
F2P              -0.500 ppm
F2              -299.80 Hz
PPMCM          0.50000 ppm/cm
HZCM         299.80002 Hz/cm
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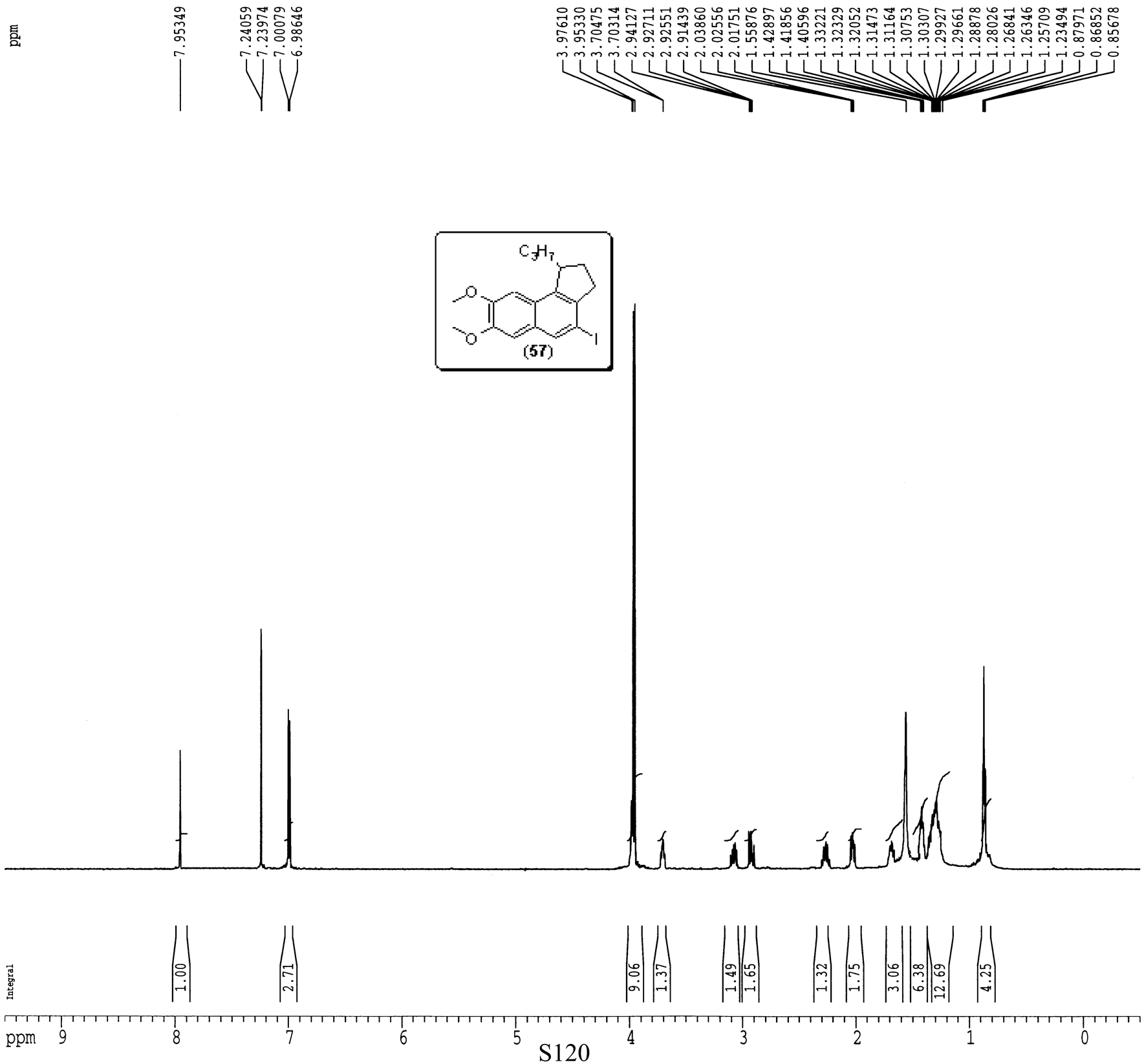

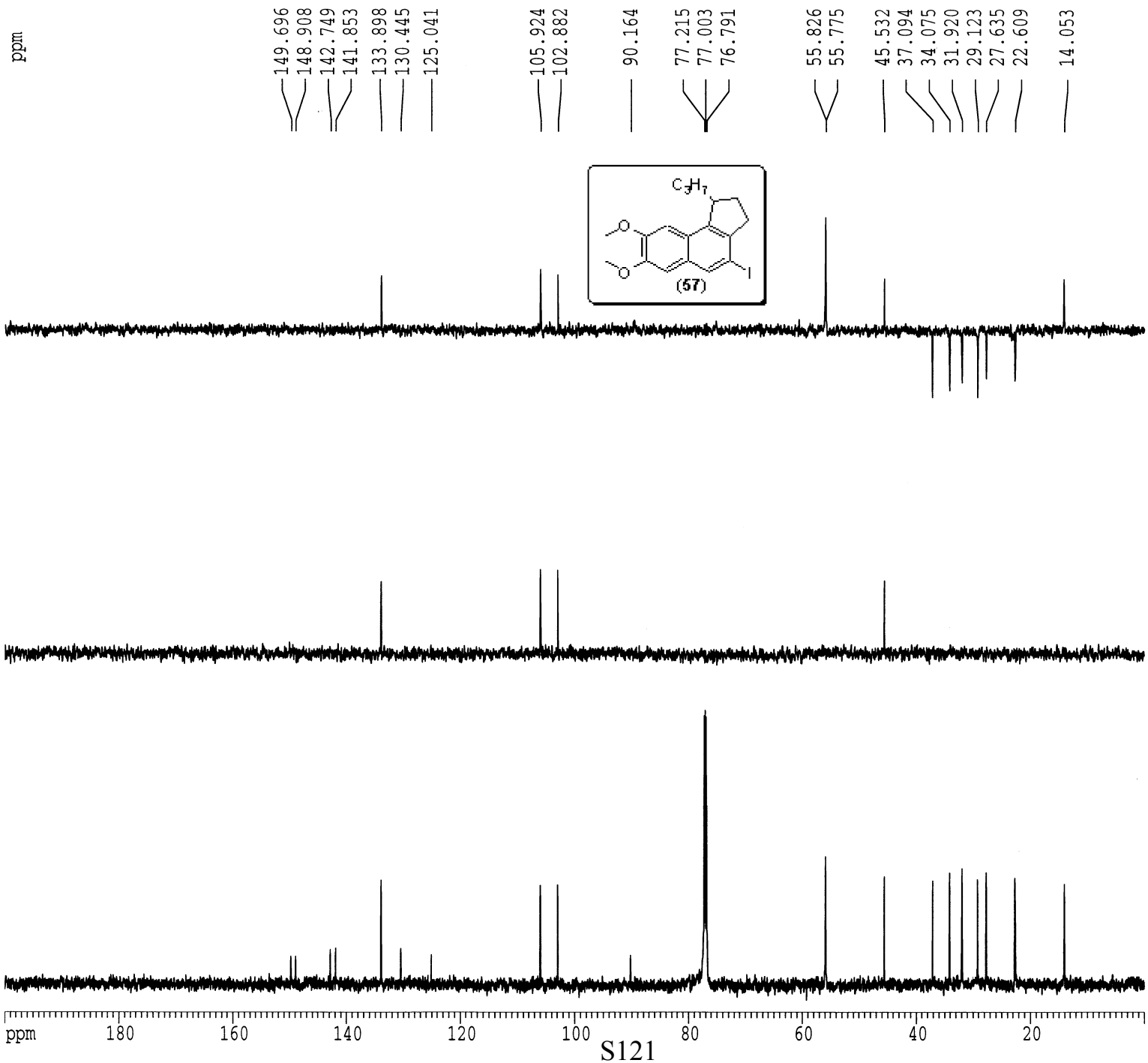

Current Data Parameters
NAME Ria-182
EXPNO 2
PROCNO 1

F2 - Acquisition Parameters
Date_ 20050427
Time 20.52
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zgpg
TD 32768
SOLVENT C6D6
NS 500
DS 0
SWH 45045.047 Hz
FIDRES 1.374666 Hz
AQ 0.3637748 sec
RG 2048
DW 11.100 usec
DE 6.50 usec
TE 299.8 K
D1 4.00000000 sec
d11 0.03000000 sec
DELTA 3.90000010 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 13C
P1 4.30 usec
PL1 0.00 dB
SFO1 150.7876323 MHz

======== CHANNEL f2 ========
CPDPRG2 waltz16
NUC2 1H
PCPD2 92.00 usec
PL2 120.00 dB
PL12 11.30 dB
PL13 14.00 dB
SFO2 599.6029980 MHz

F2 - Processing parameters
SI 65536
SF 150.7695505 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 0.50

1D NMR plot parameters
CX 20.00 cm
CY 15.00 cm
F1P 200.000 ppm
F1 30153.91 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPMCM 10.00000 ppm/cm
HZCM 1507.69543 Hz/cm