

## **Proline Sulphonamide-Catalysed Yamada-Otani Condensation: Reaction Development, Substrate Scope and Scaffold Reactivity**

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**Electronic Supplementary Information: NMR Spectra**

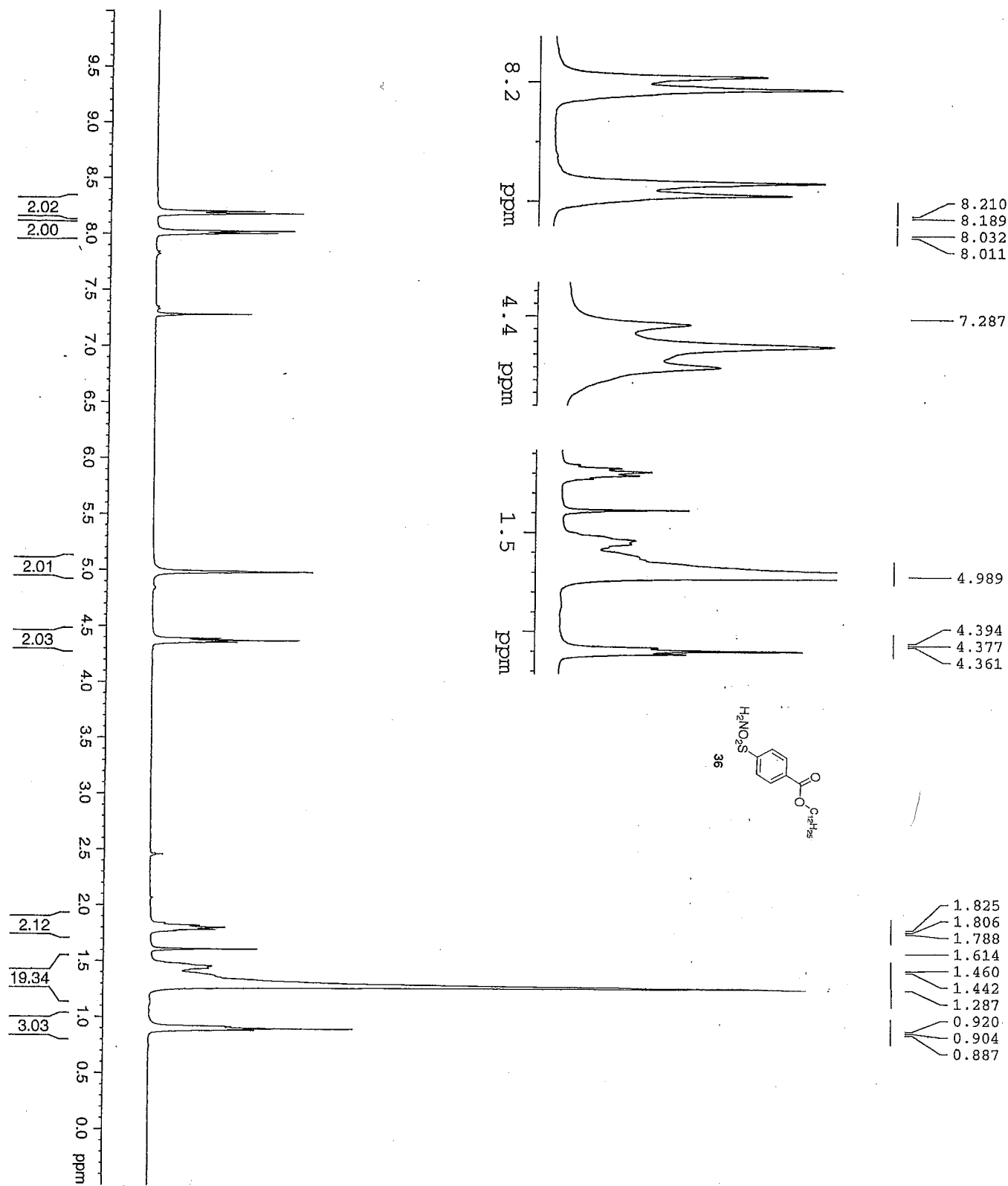
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# Proline Sulphonamide-Catalysed Yamada-Otani Condensation: Reaction Development, Substrate Scope and Scaffold Reactivity

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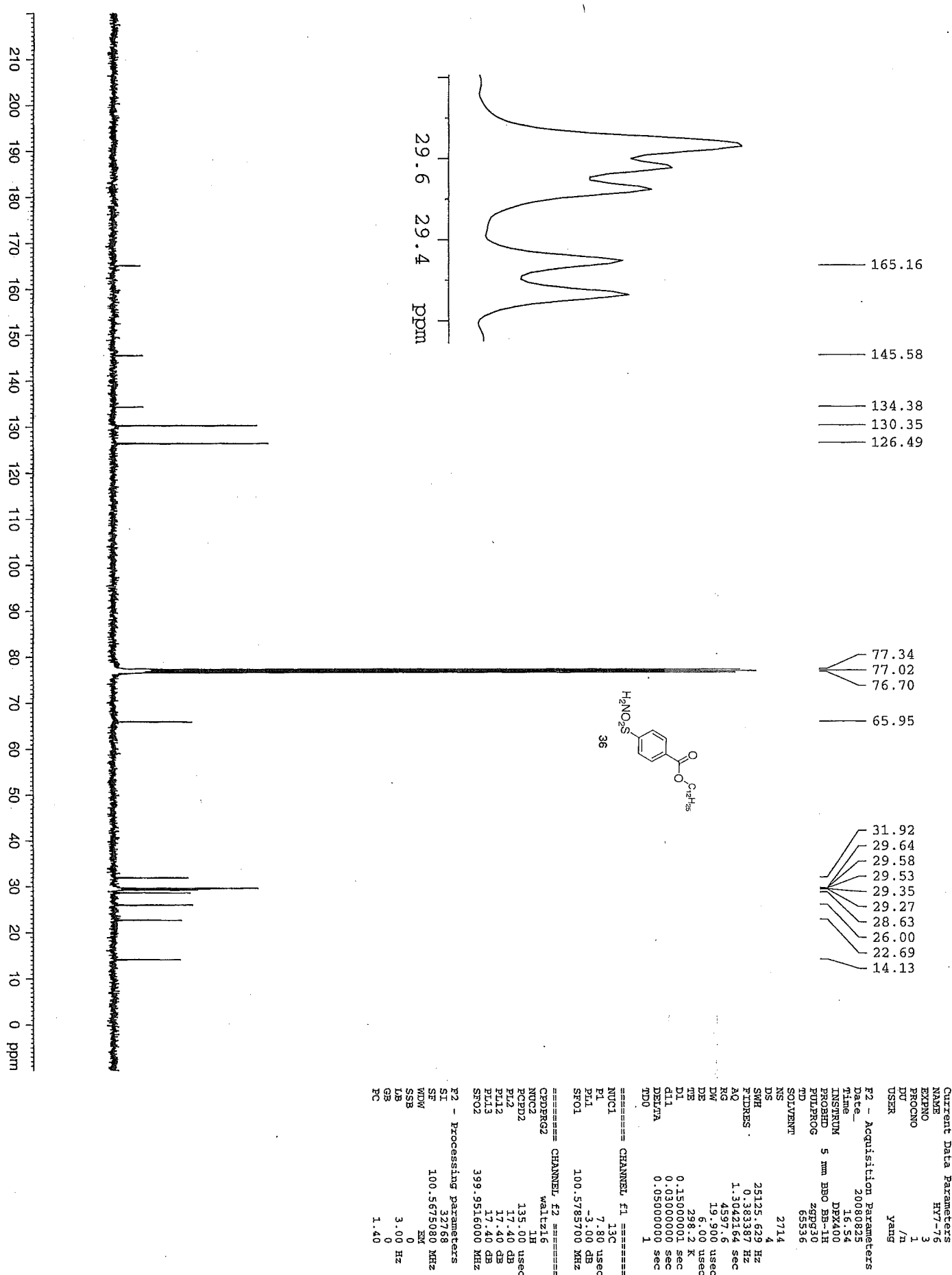


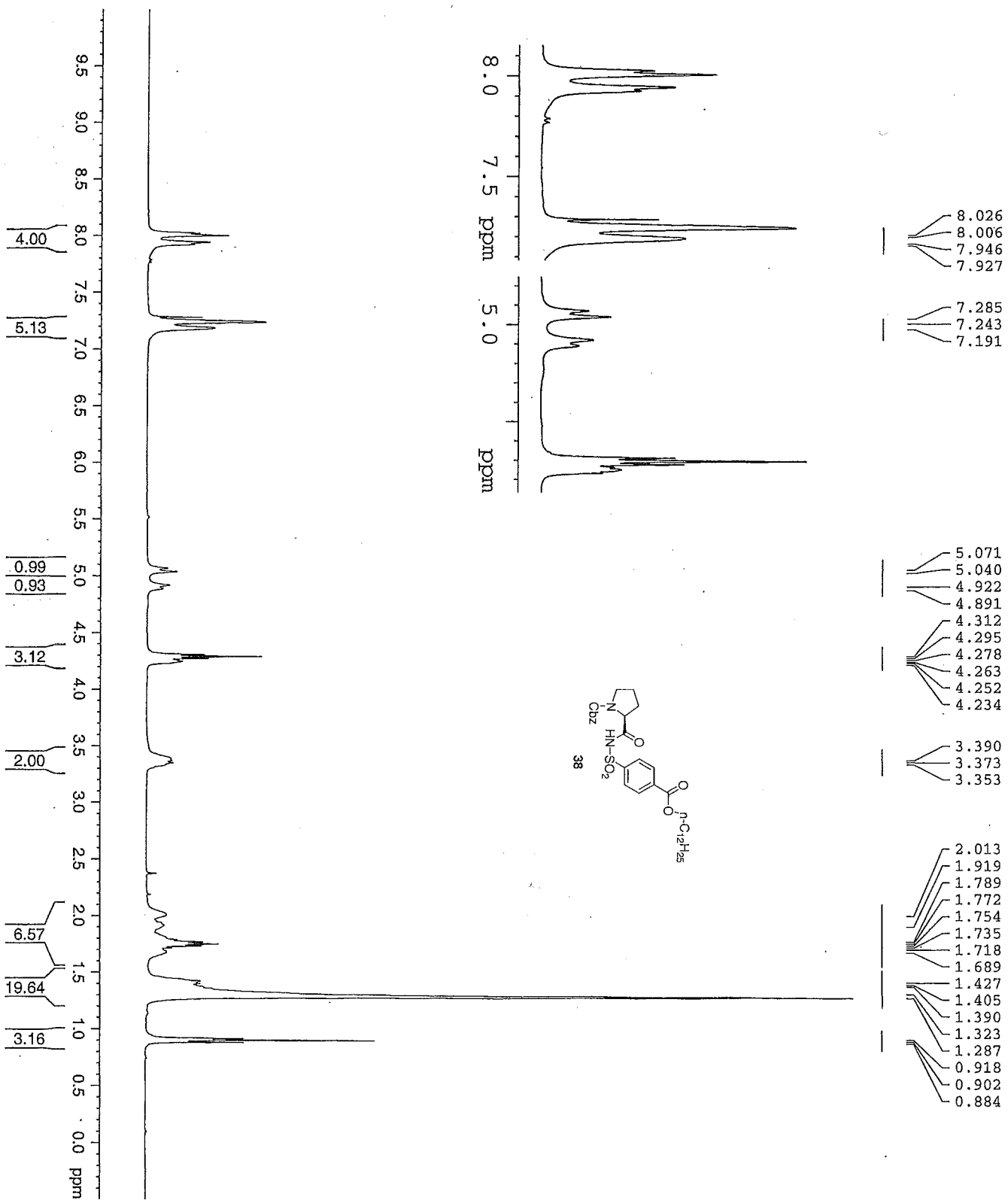
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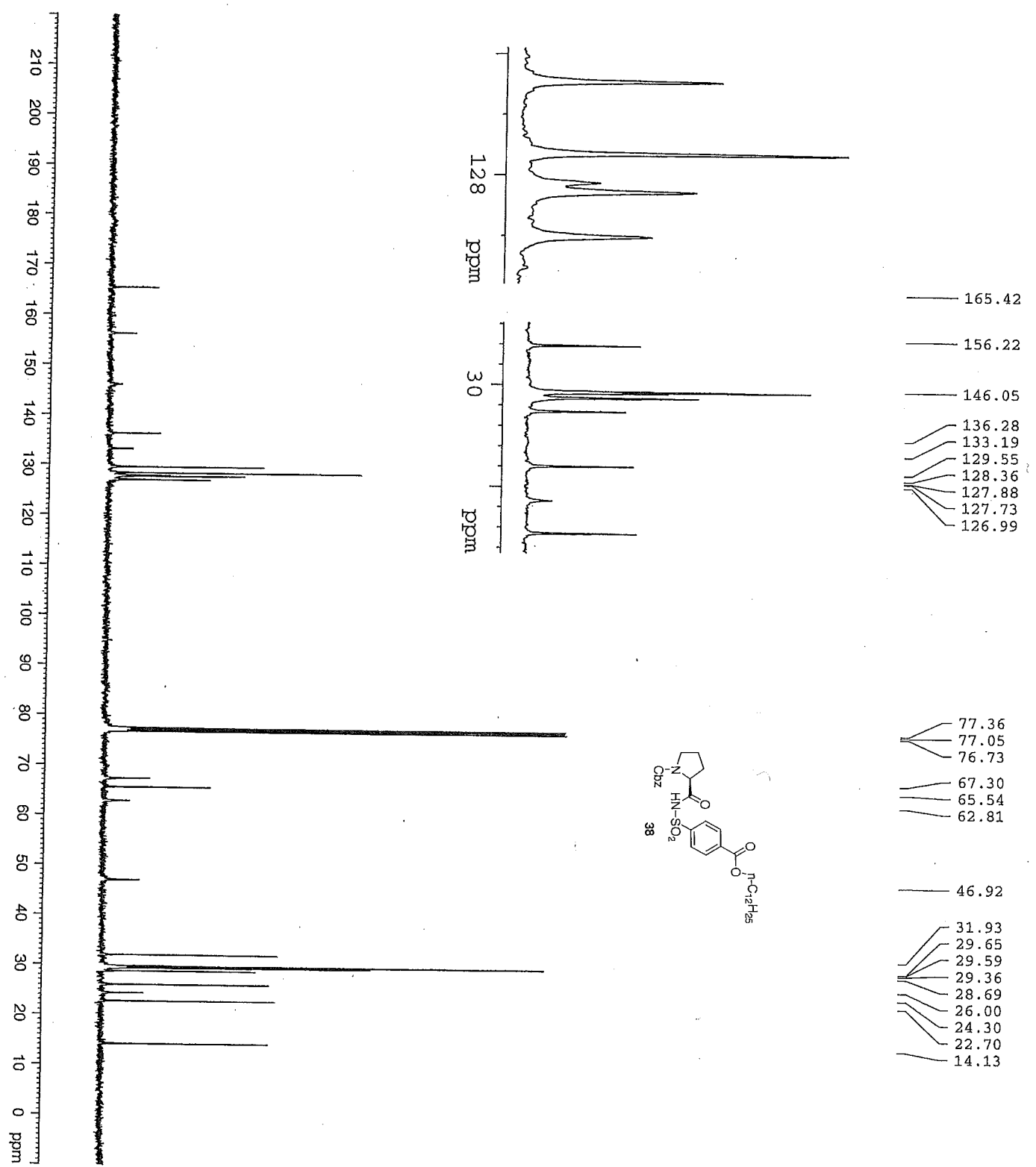
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SOLVENT CDCl3  
NS 32  
DS 2  
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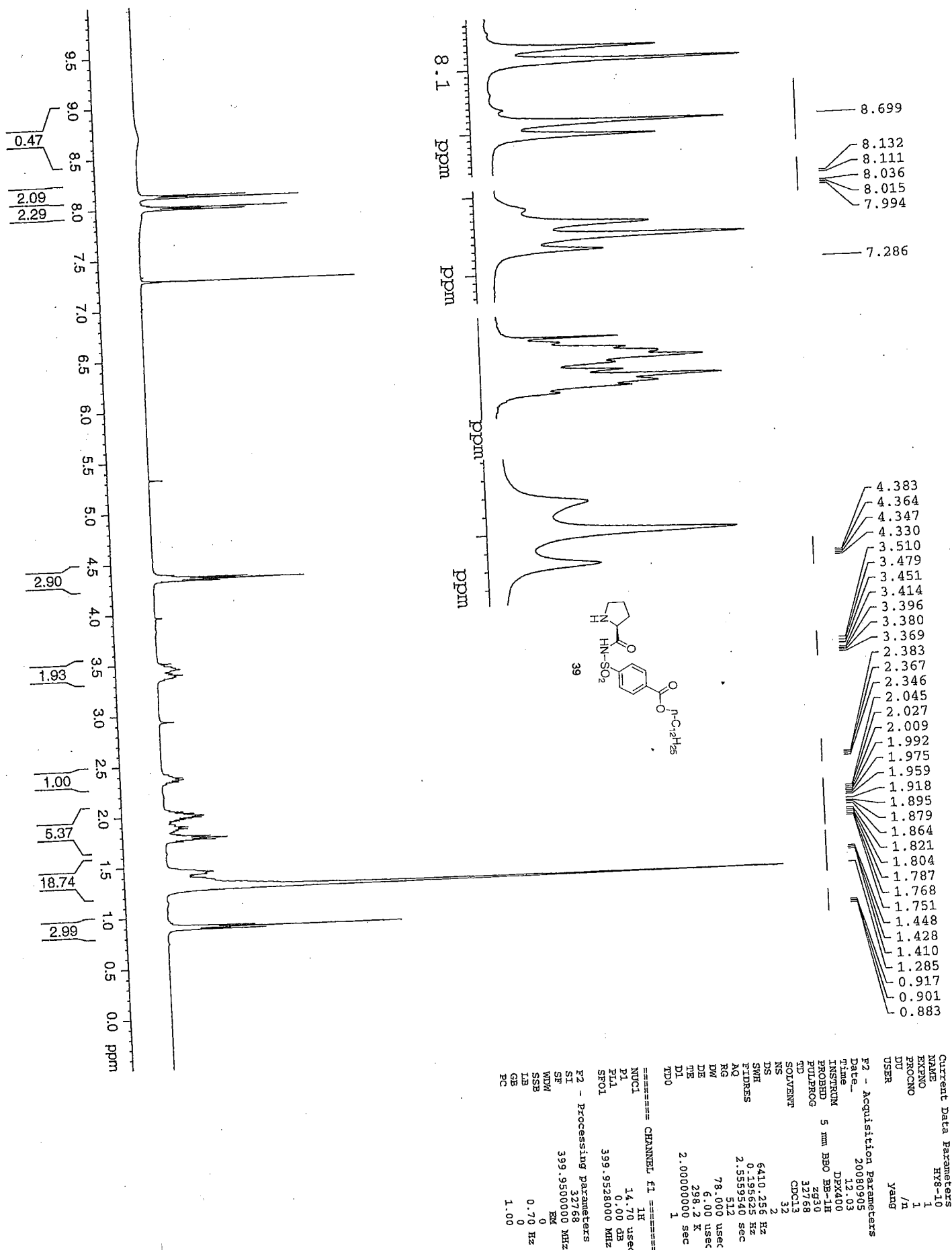
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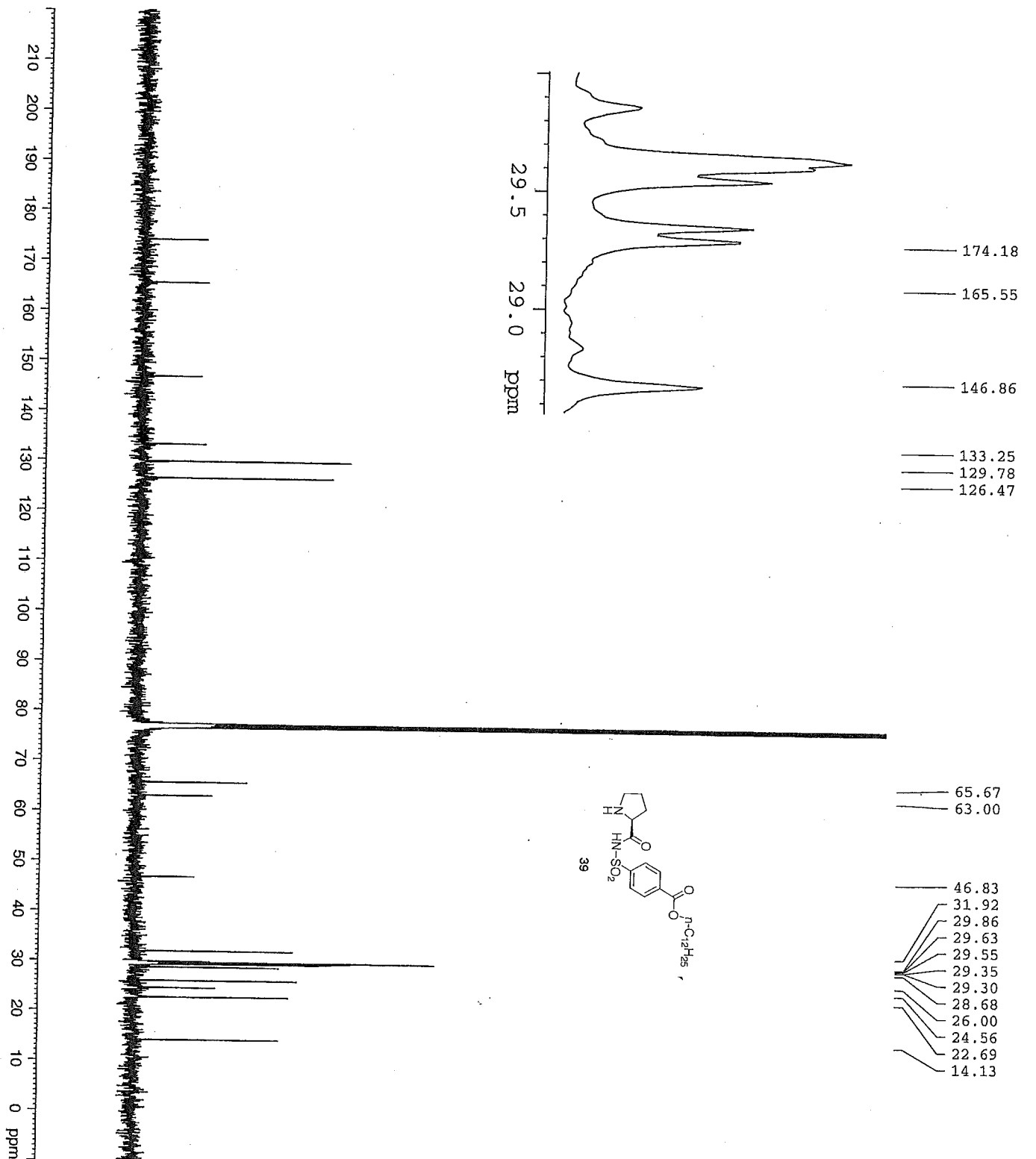
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SFO1 100.5785700 MHz

===== CHANNEL f2 =====  
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DU /n  
USSR Yang

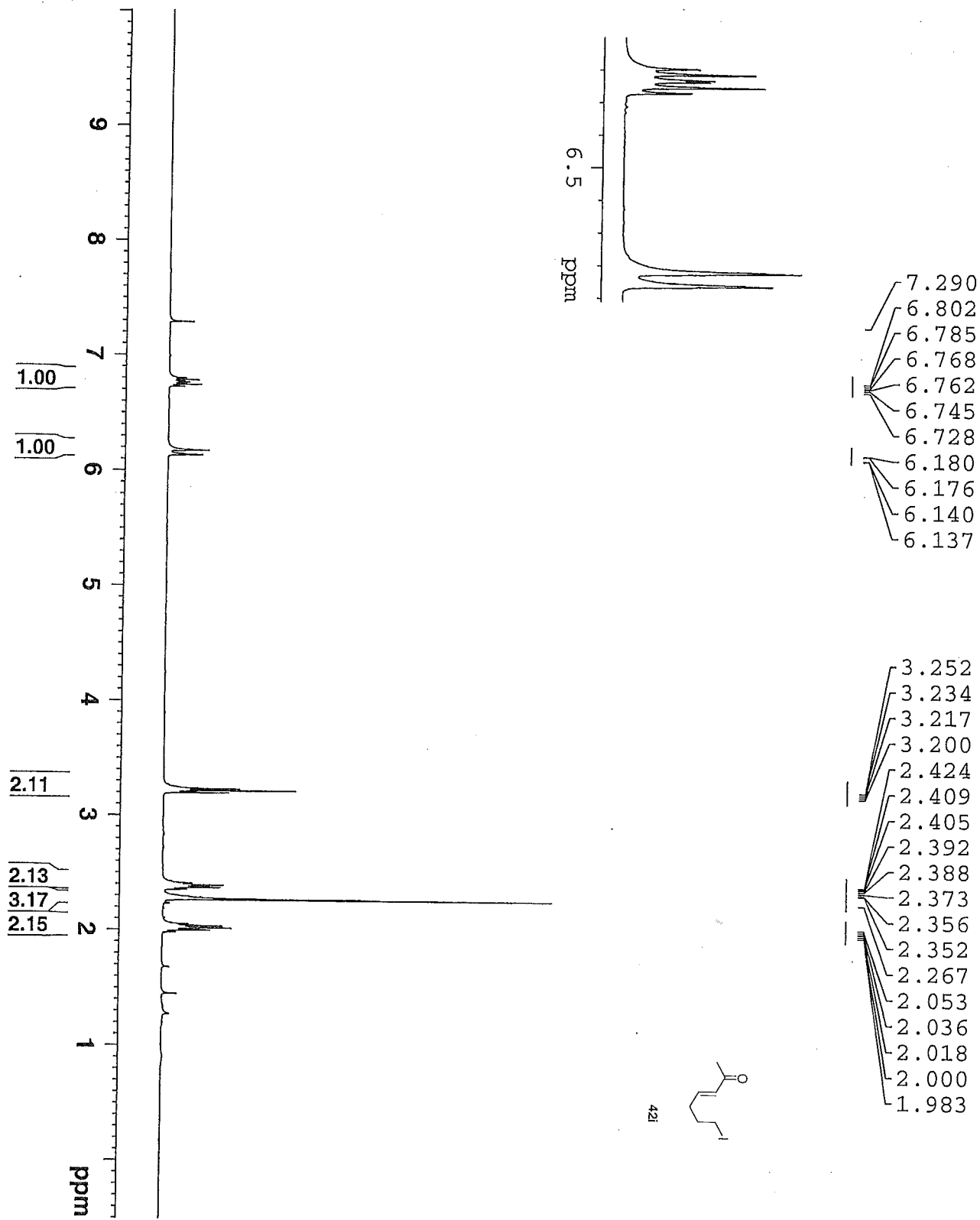
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FIDRES 0.383387 Hz  
AQ 1.3042164 sec  
RG 5792.6  
DW 19.900 usec  
DE 6.00 usec  
TE 298.2 K  
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d11 0.03000000 sec  
DELTA 0.05000000 sec  
TD0 1

===== CHANNEL f1 =====  
NUC1 13C  
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PL1 -3.00 dB  
SFO1 100.5785700 MHz

===== CHANNEL f2 =====  
CPDPRG2 waltz16  
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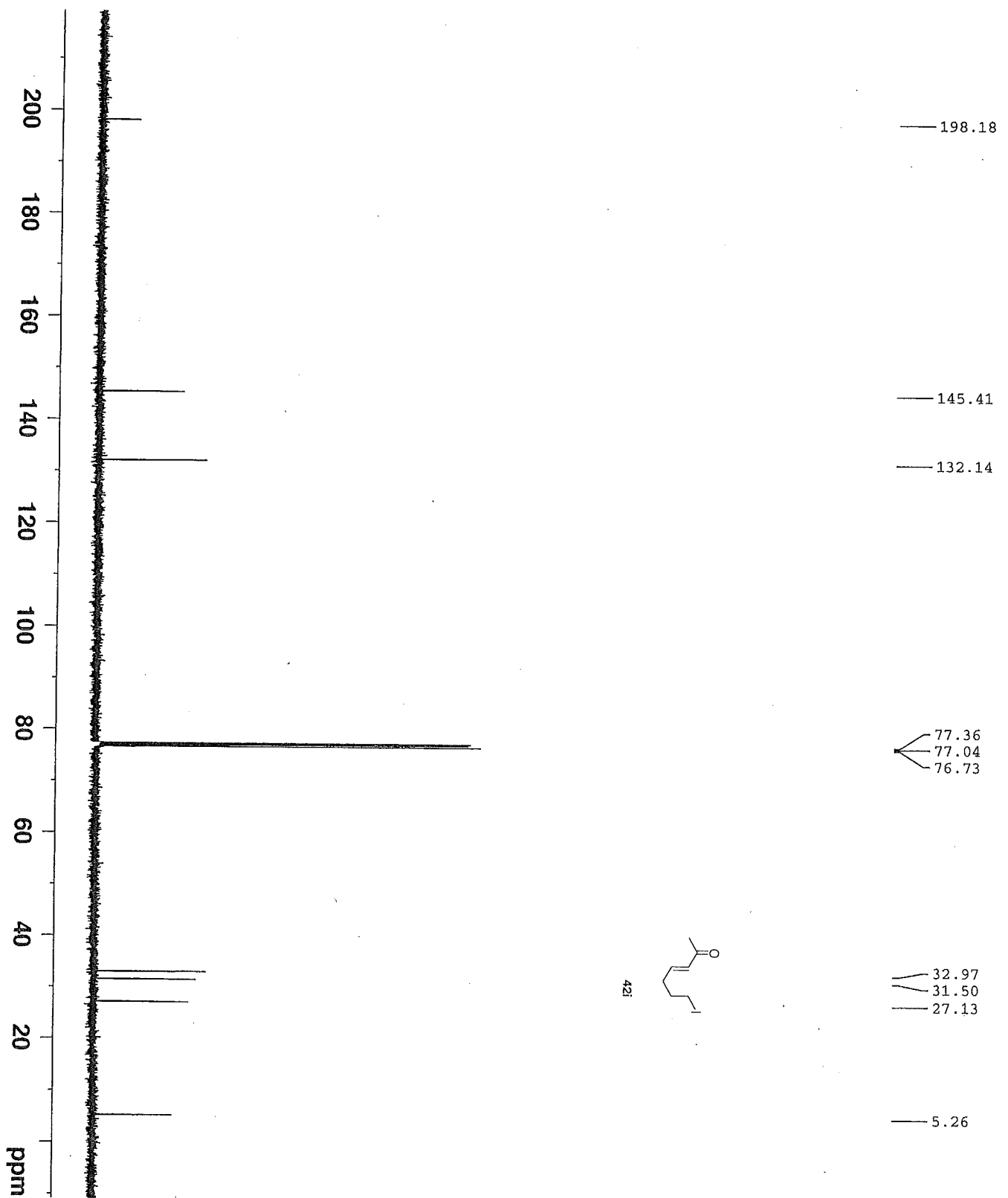
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Time 15.45  
INSTRUM spect  
PROBHD 5 mm PABBO BB-  
PULPROG zg30  
TD 32768  
SOLVENT CDCl3  
NS 32  
DS 2  
SWH 6410.256  
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AQ 2.5559540  
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TE 300.2  
D1 1.00000000  
TD0 1

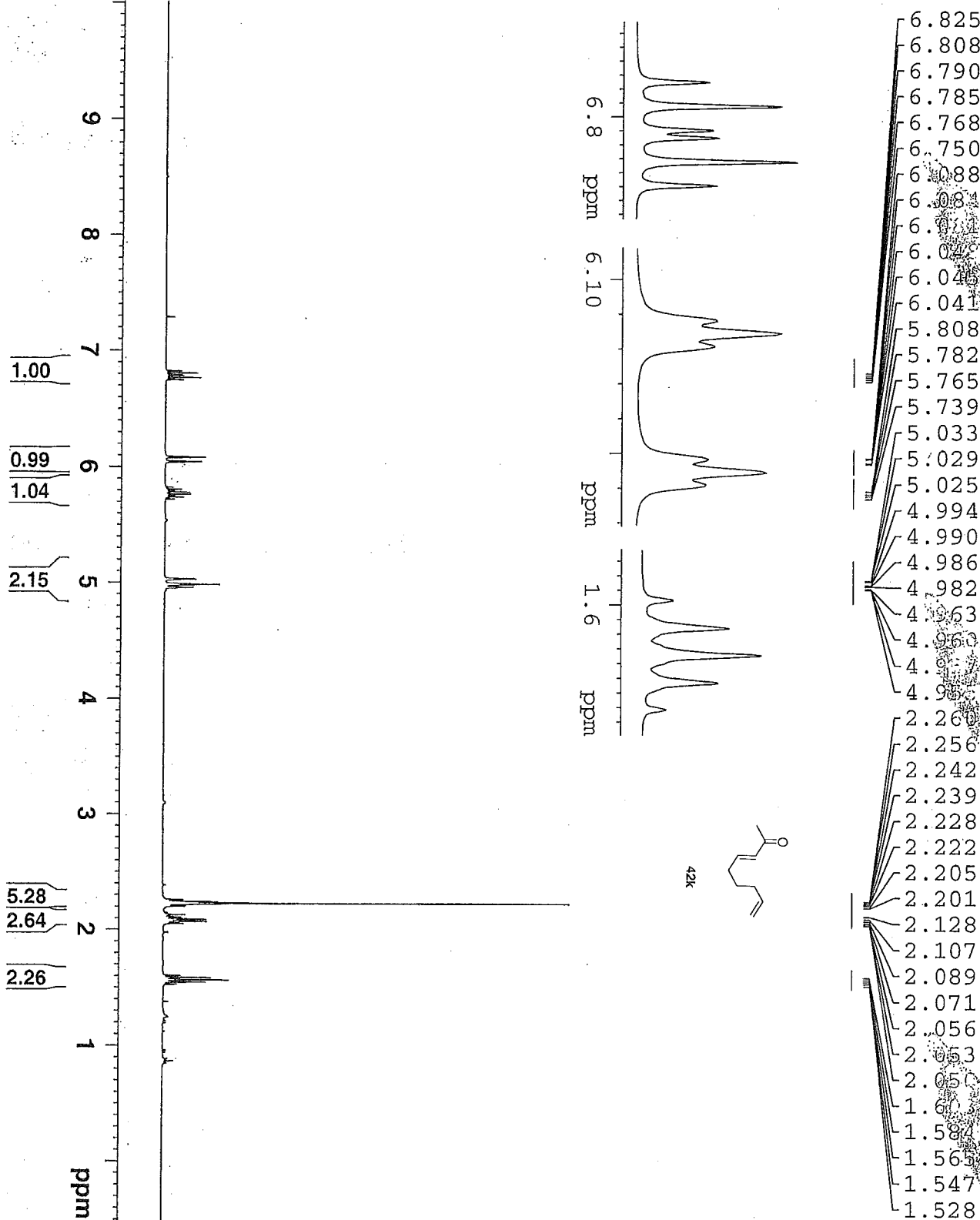
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SF 400.1350000  
WDW EM  
SSB 0  
LB 0.30  
GB 0  
PC 1.00



NAME	HY15-24
EXPNO	2
PROCNO	1
Date_	20100113
Time	15.55
INSTRUM	spect
PROBHD	5 mm PABBO BB-
PULPROG	zgpg30
TD	65536
SOLVENT	CDCl3
NS	149
DS	4
SWH	23980.814
FIDRES	0.365918
AQ	1.3664756
RG	16384
DW	20.850
DE	6.50
TE	301.4
D1	2.00000000
D11	0.03000000
TD0	1

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P1	9.00
PL1	-2.00
PL1W	46.89702606
SFO1	100.6240872

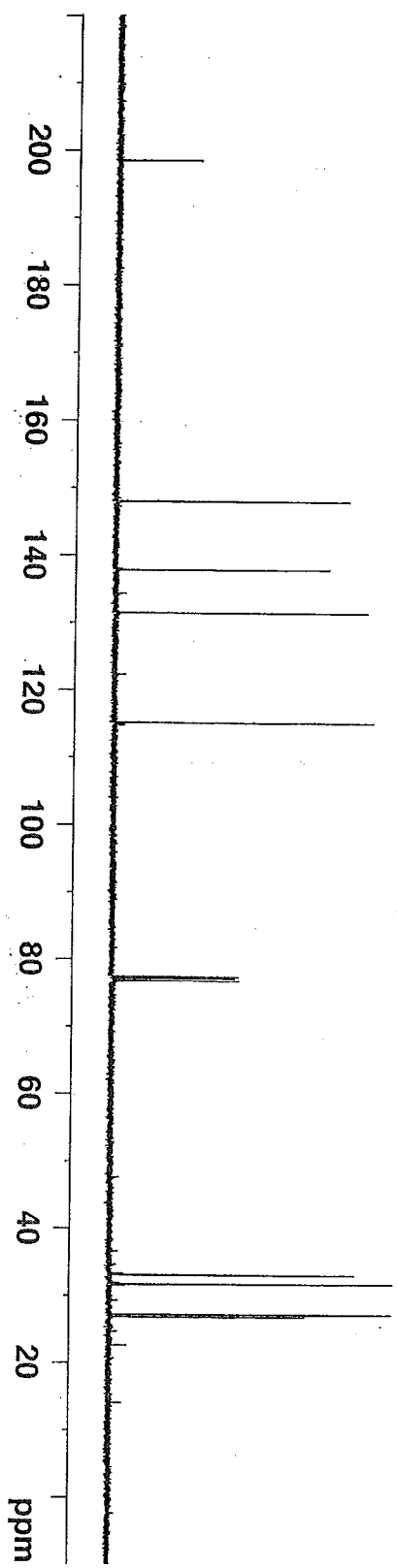
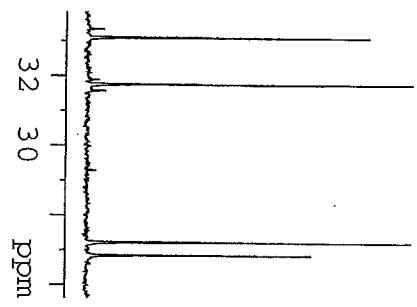
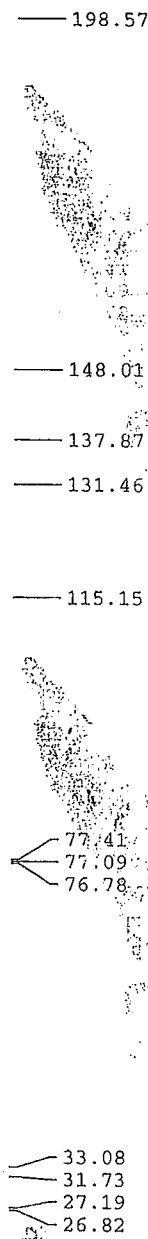
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CPDPRG2	waltz16
NUC2	1H
PCPD2	90.00
PL2	0.00
PL12	16.16
PL13	17.00
PL12W	10.27361584
PL12W	0.24872722
PL13W	0.20498557
SFO2	400.1366005
SI	32768
SF	100.6140260
WDW	EM
SSB	0
LB	1.00
GB	0
PC	1.40



NAME	HY15-47
EXPNO	3
PROCNO	1
Date_	20100310
Time	14.58
INSTRUM	spec
PROBHD	5 mm PABBO BB-
PULPROG	zg30
TD	32768
SOLVENT	CDCl3
DS	32
SWH	6410.256
FIDRES	0.195625
AQ	2.5559540
RG	28.5
DW	78.000
DE	6.50
TE	298.2
D1	2.0000000
TD0	1

===== CHANNEL f1 =====	
NUC1	1H
P1	14.00
PL1	0.00
PL1W	10.27361584
SFO1	400.1378009
SI	32768
SF	400.1350000
WDW	EM
SSB	0
LB	0.30
GB	0
PC	1.00



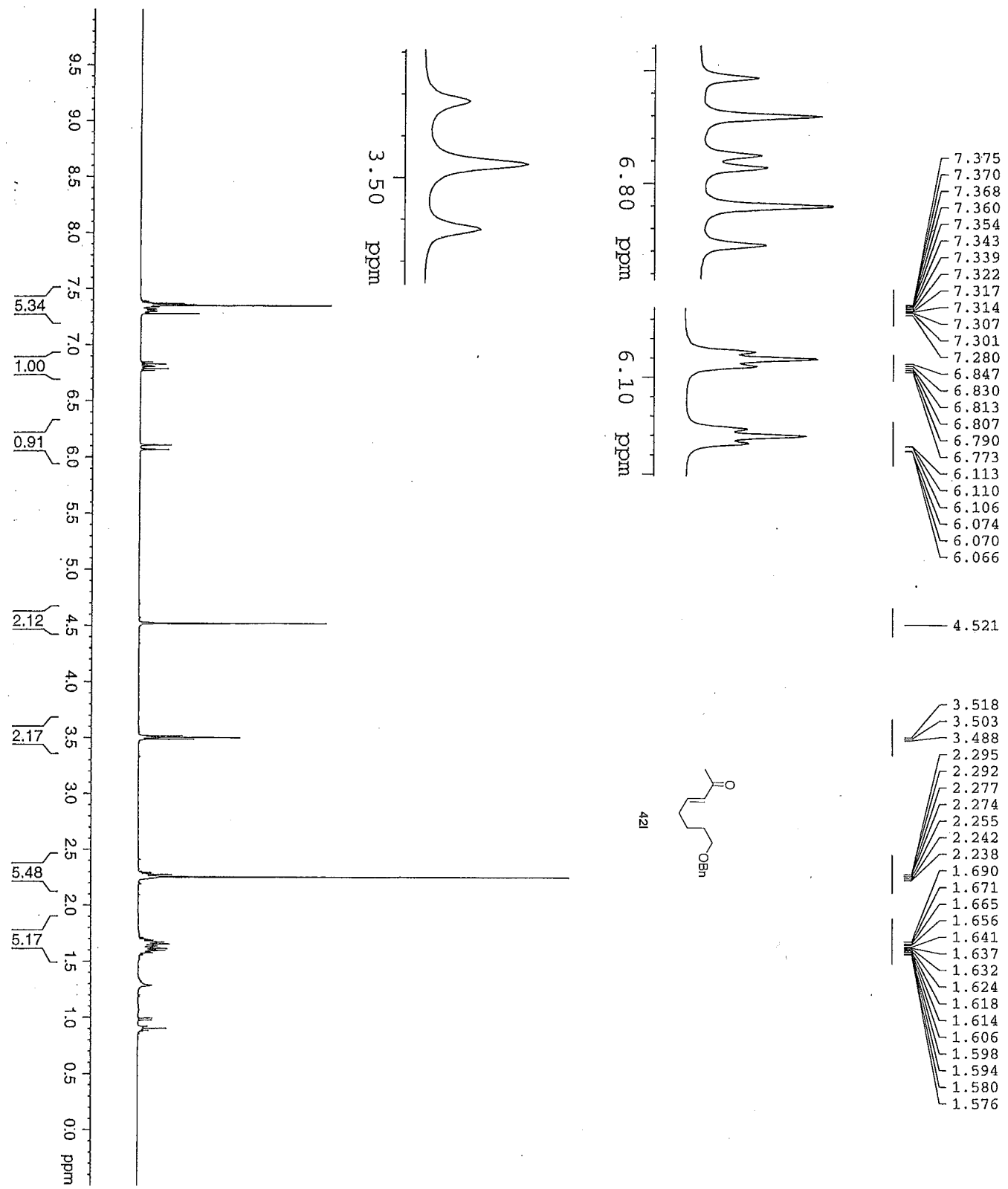
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PROBHD	5 mm PABBO BB-
PULPROG	zgpg30
TD	65536
SOLVENT	CDCl3
NS	58
DS	4
SWH	25125.629
FIDRES	0.383387
AQ	1.3042164
RG	16384
DW	19.900
DE	6.50
TE	298.7
D1	2.00000000
D11	0.03000000
TD0	1

===== CHANNEL f1 =====	
NUC1	13C
P1	9.00
PL1	-2.00
PL1W	46.89702606
SFO1	100.6255966

===== CHANNEL f2 =====	
CPDPRG2	waltz16
NUC2	1H
PCPD2	90.00
PL2	0.00
PL12	16.16
PL13	17.00
PL2W	10.27361584
PL12W	0.24872722
PL13W	0.20498557
SFO2	400.1366005
SI	32768
SF	100.6140260
WDW	EM
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LB	1.00
GB	0
PC	1.40

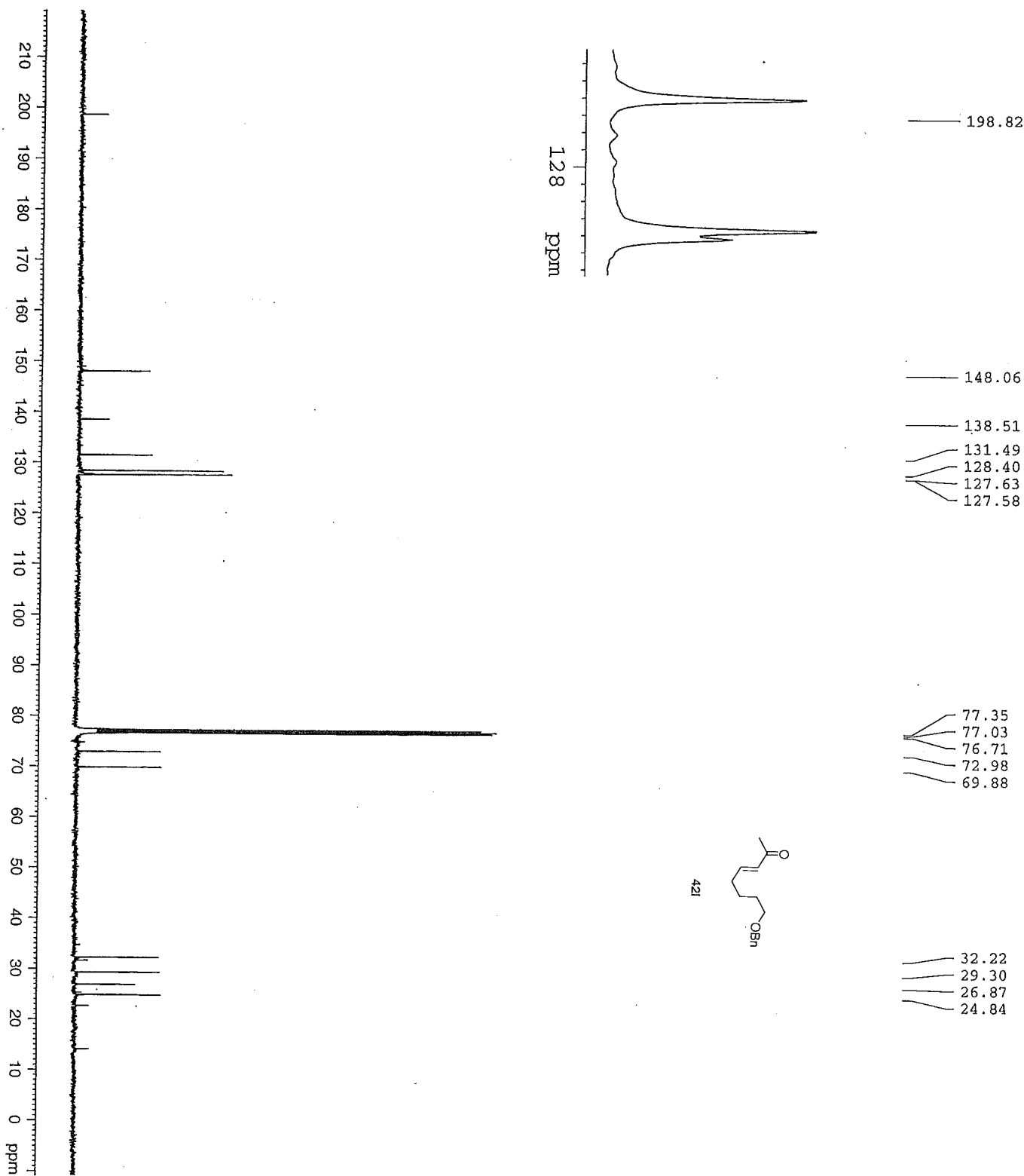


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PROCNO 1  
DT /m  
USER Hua

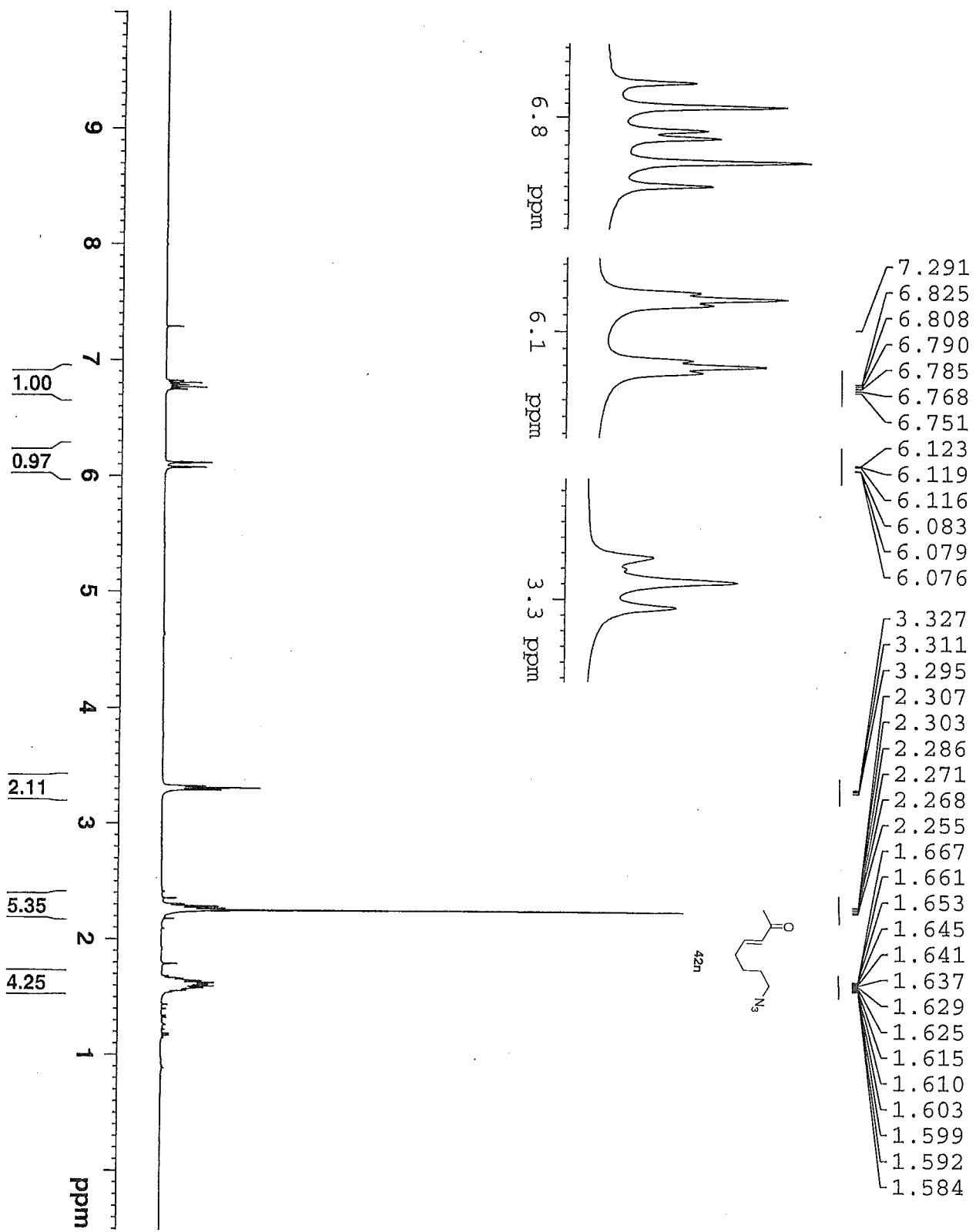
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INSTRUM DPX400  
PROBHD BB-1H  
PULPROG zg30  
TD 32768  
SOLVENT CDCl3  
DS 2  
SS 2  
SWH 6410.256 Hz  
FIDRES 0.195625 Hz  
AQ 2.558540 sec  
RG 228.1  
DW 78.000 usec  
DE 8.600 usec  
TE 299.2 K  
D1 1.00000000 sec  
TDO 1

==== CHANNEL f1 =====  
NUC1 1H  
P1 13.50 usec  
PL -3.00 dB  
SFO1 400.2478017 MHz

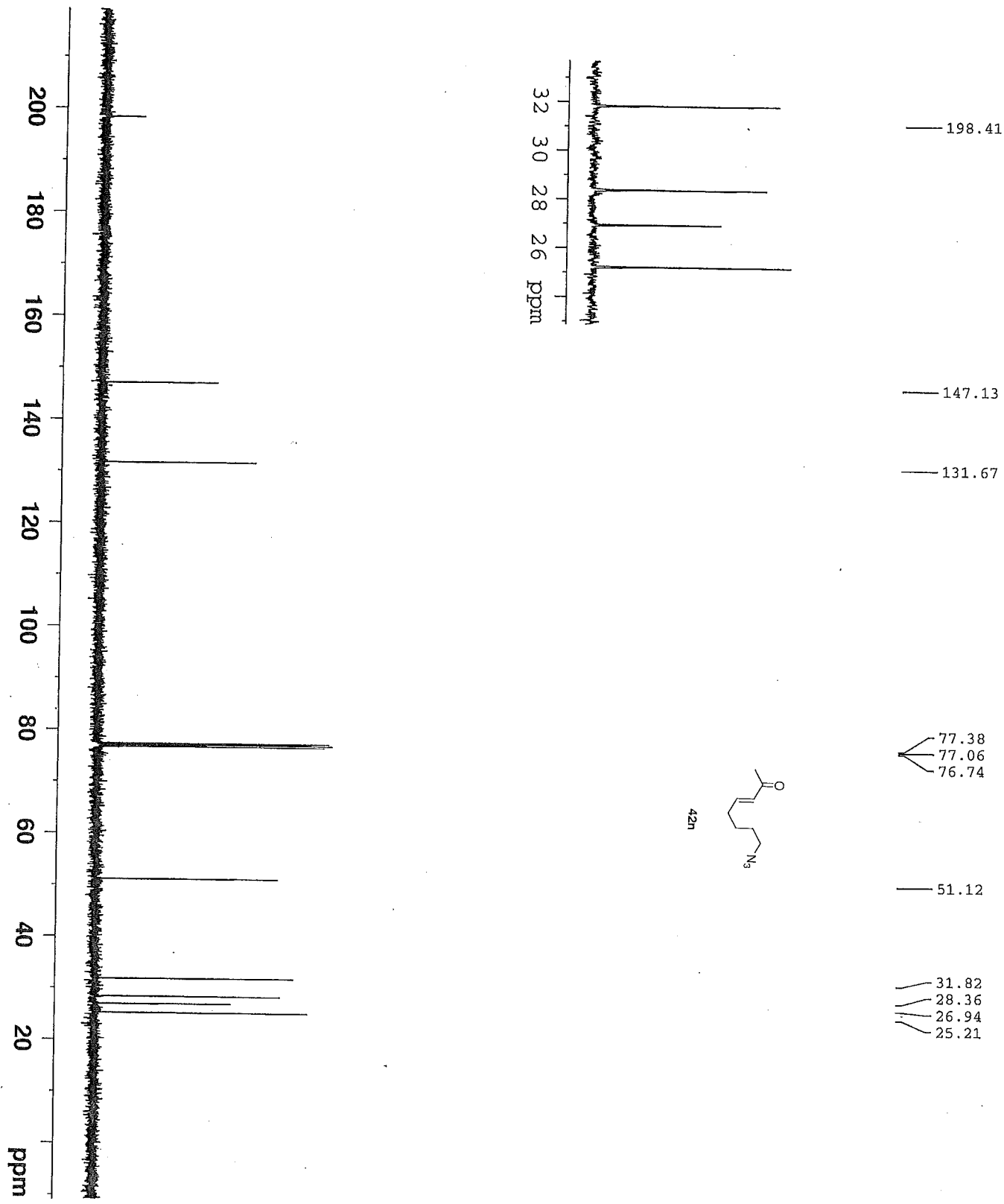
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GB 0  
PC 1.00



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EXPNO 3  
PROCNO 1  
DT 1  
F2 - Acquisition Parameters  
Date\_ 2010122  
Time 14.22  
INSTRUM DFX400  
PROBHD 5 mm BBO BB-1H  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 899  
DS 4  
SWH 23980.814 Hz  
FIDRES 0.365918 Hz  
AQ 1.3664756 sec  
RG 7298.2  
DW 20.850 usec  
DE 6.00 usec  
TE 299.2 K  
D1 2.00000000 sec  
d11 0.03000000 sec  
DELTA 1.89999998 sec  
TD0 1  
===== CHANNEL f1 =====  
NUC1 13C  
P1 8.30 usec  
PL1 -3.00 dB  
SFO1 100.6517495 MHz  
===== CHANNEL f2 =====  
CEPRG2 waitz16  
NUC2 1H  
PCPD2 90.00 usec  
PL2 -3.00 dB  
PL12 15.00 dB  
PL13 15.00 dB  
SFO2 400.2466010 MHz  
F2 - Processing Parameters  
SI 32768  
SF 100.6416850 MHz  
WDW EM  
SSB 0  
LB 3.00 Hz  
GB 0  
PC 1.40



NAME	EXPNO	PROCNO	Date_	Time	INSTRUM	PROBHD	PULPROG	TD	SOLVENT	NS	DS	SWH	FIDRES	AQ	RG	DW	DE	TE	D1	TD0
HY15-45	4	1	20100204	16.53	5 mm PABBO BB-	zg30	32768	32	CDCl3	32	2	6410.256	0.195625	2.5559540	64	78.000	6.50	299.4	1.00000000	1
===== CHANNEL f1 =====																				
NUC1	1H																			
P1	14.00																			
PL1	0.00																			
PL1W	10.27361584																			
SFO1	400.1378009																			
SI	32768																			
SF	400.1350000																			
WDW	EM																			
SSB	0																			
LB	0.30																			
GB	0																			
PC	1.00																			

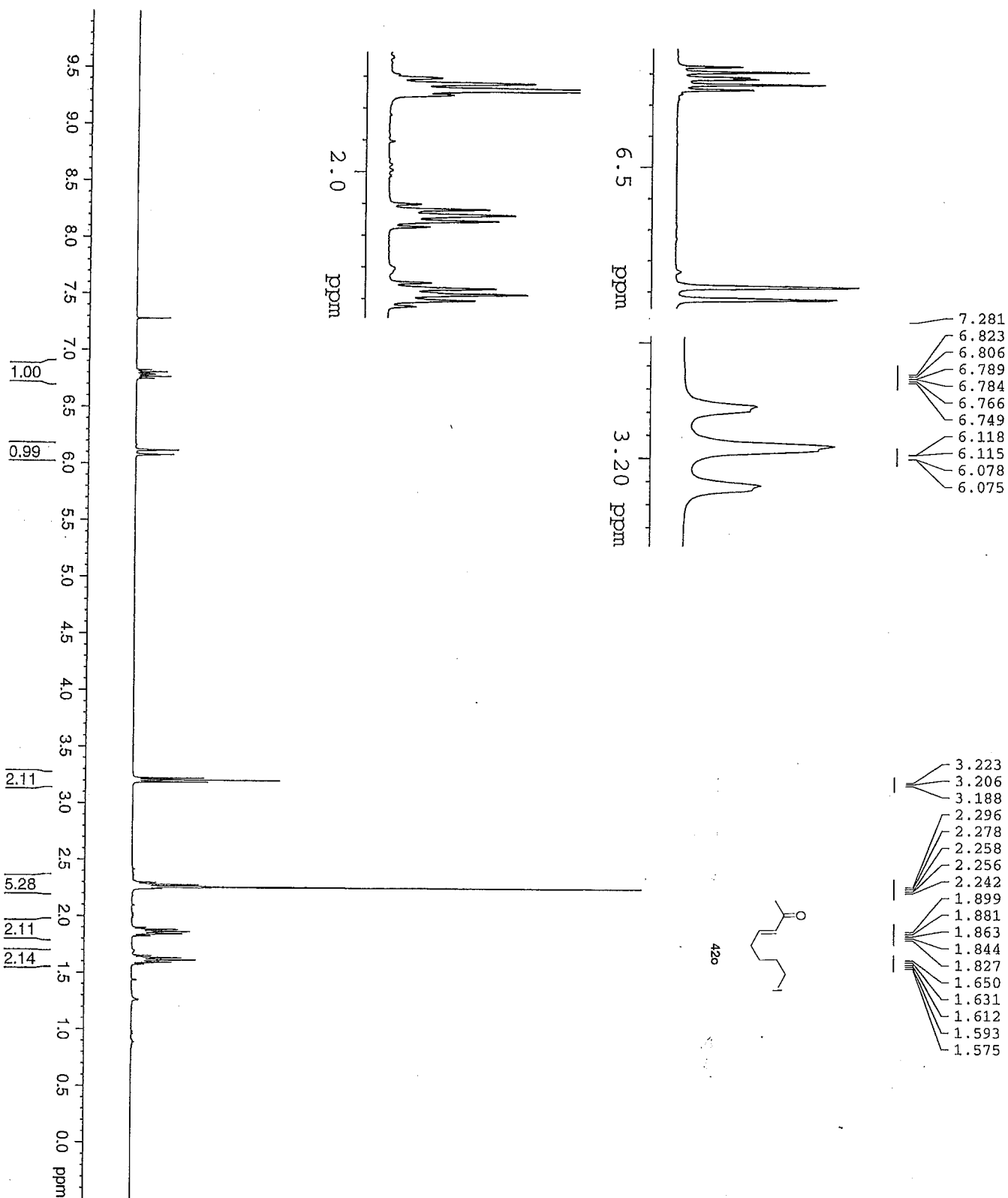


NAME HY15-45  
EXPNO 5  
PROCNO 1  
Date\_ 20100204  
Time 16.56  
INSTRUM spect  
PROBHD 5 mm PABBO BB-  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 47  
DS 4  
SWH 23980.814  
FIDRES 0.365918  
AQ 1.3664756  
RG 18390.4  
DW 20.850  
DE 6.50  
TE 299.6  
D1 2.0000000  
D11 0.0300000  
TD0 1

===== CHANNEL f1 =====  
NUC1 13C  
P1 9.00  
PL1 -2.00  
PLW 46.89702606  
SFO1 100.6240872

===== CHANNEL f2 =====  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 90.00  
PL2 0.00  
PL12 16.16  
PL13 17.00  
PL2W 10.27361584  
PL12W 0.24872722  
PL13W 0.20498557  
SFO2 400.1366005  
SI 32768  
SF 100.6140260  
WDM EM  
SSB 0  
LB 1.00  
GB 0  
PC 1.40



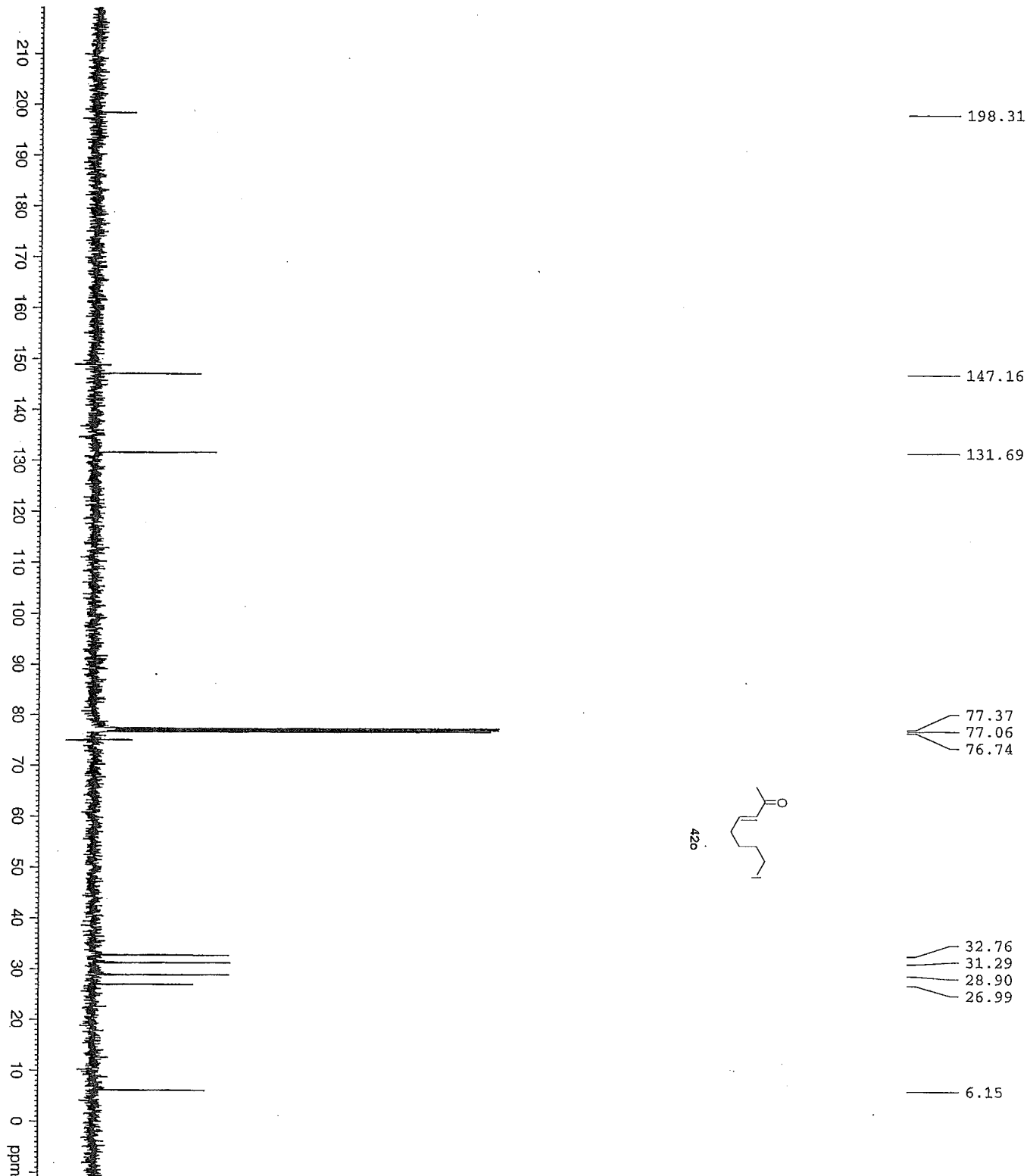


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USER Hua

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INSTRUM DPK400  
PROBHD 5 mm BBO BB-1H  
PULPROG zgpg30  
TD 32768  
SOLVENT CDCl3  
NS 32  
DS 2  
SWH 6410.256 Hz  
FIDRES 0.195625 Hz  
AQ 2.5559540 sec  
RG 181  
DW 78.000 usec  
DE 6.00 usec  
TE 299.2 K  
D1 1.00000000 sec  
TD0 1

===== CHANNEL f1 =====  
NUC1 1H  
P1 13.50 usec  
PL1 -3.00 dB  
SFO1 400.2478017 MHz

F2 - Processing parameters  
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SF 400.2450000 MHz  
WDW EM  
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LB 0.30 Hz  
GB 0  
PC 1.00



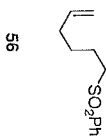
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DU /m  
USER Hua

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PROBHD 5 mm BBO BB-1H  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 617  
DS 4  
SWH 23980.814 Hz  
FIDRES 0.365918 Hz  
AQ 1.364756 sec  
RG 11585.2  
RW 20.850 usec  
DM 6.00 usec  
DE 289.2 K  
D1 2.00000000 sec  
d11 0.05000000 sec  
DELTA 1.89999998 sec  
TD0 1

==== CHANNEL f1 =====  
NUC1 13C  
P1 8.30 usec  
PL1 -3.00 dB  
SFO1 100.6517495 MHz

==== CHANNEL f2 =====  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 90.00 usec  
PL2 -3.00 dB  
PL12 15.00 dB  
PL13 15.00 dB  
SFO2 400.2466010 MHz

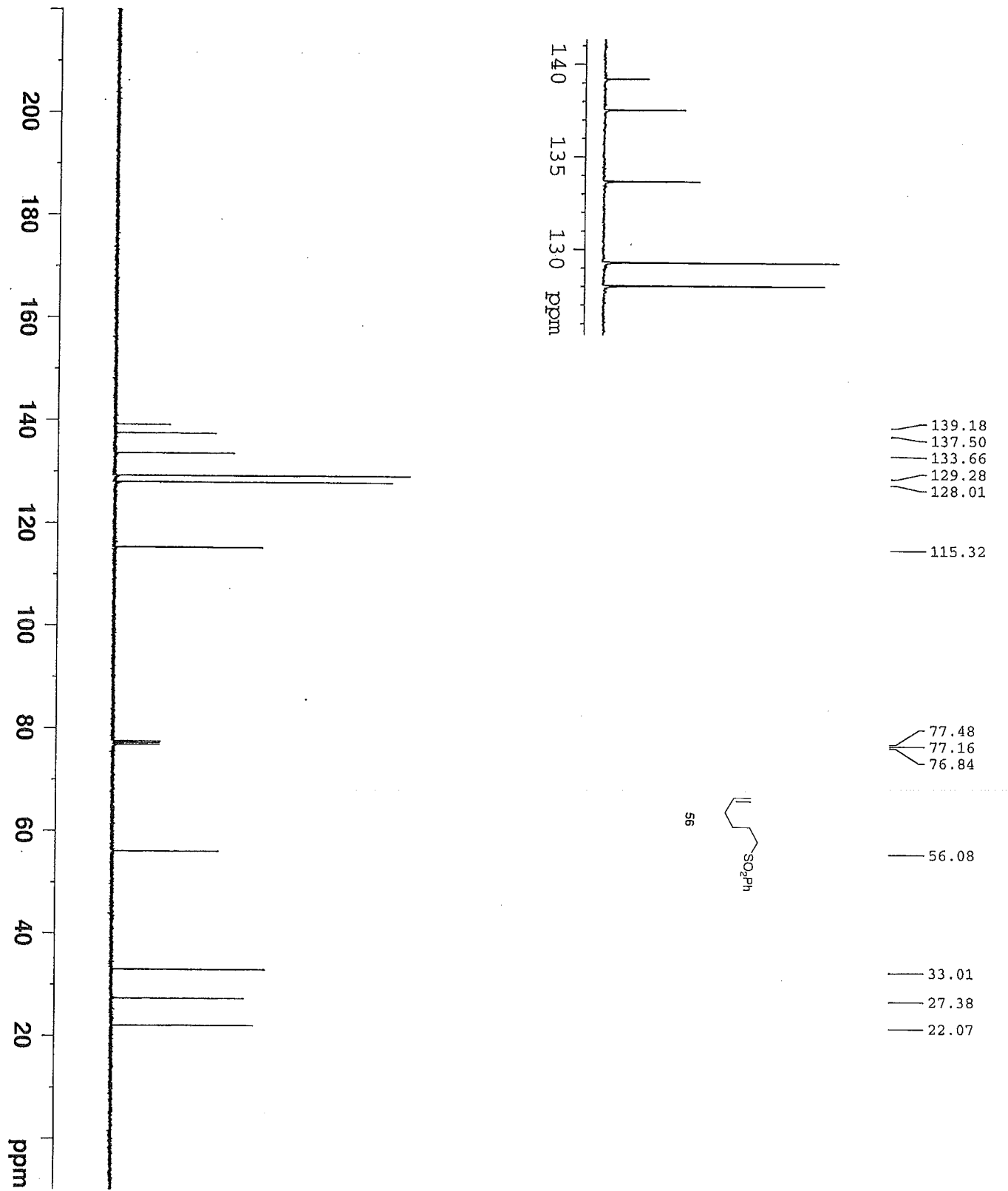
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SSB 0  
LB 3.00 Hz  
GB 0  
FC 1.40



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PROCN0	1	
Date_	20100303	
Time	15.16	
INSTRUM	5 mm PABBO BB-	
PROBHD	zg30	
PULPROG	32768	
SOLVENT	CDCl3	
NS	32	
DS	2	
SWH	6410.256	
FIDRES	0.195625	
AQ	2.5559540	
RG	32	
DW	78.000	
DE	6.50	
TE	298.2	
D1	2.00000000	
TD0	1	

===== CHANNEL f1 =====	1H
NUC1	1H
P1	14.00
PL1	0.00
PL1M	10.27361584
SFO1	400.1378009
SI	32768
SF	400.1350000
WDW	EM
SSB	0
LB	0.30
GB	0
PC	1.00



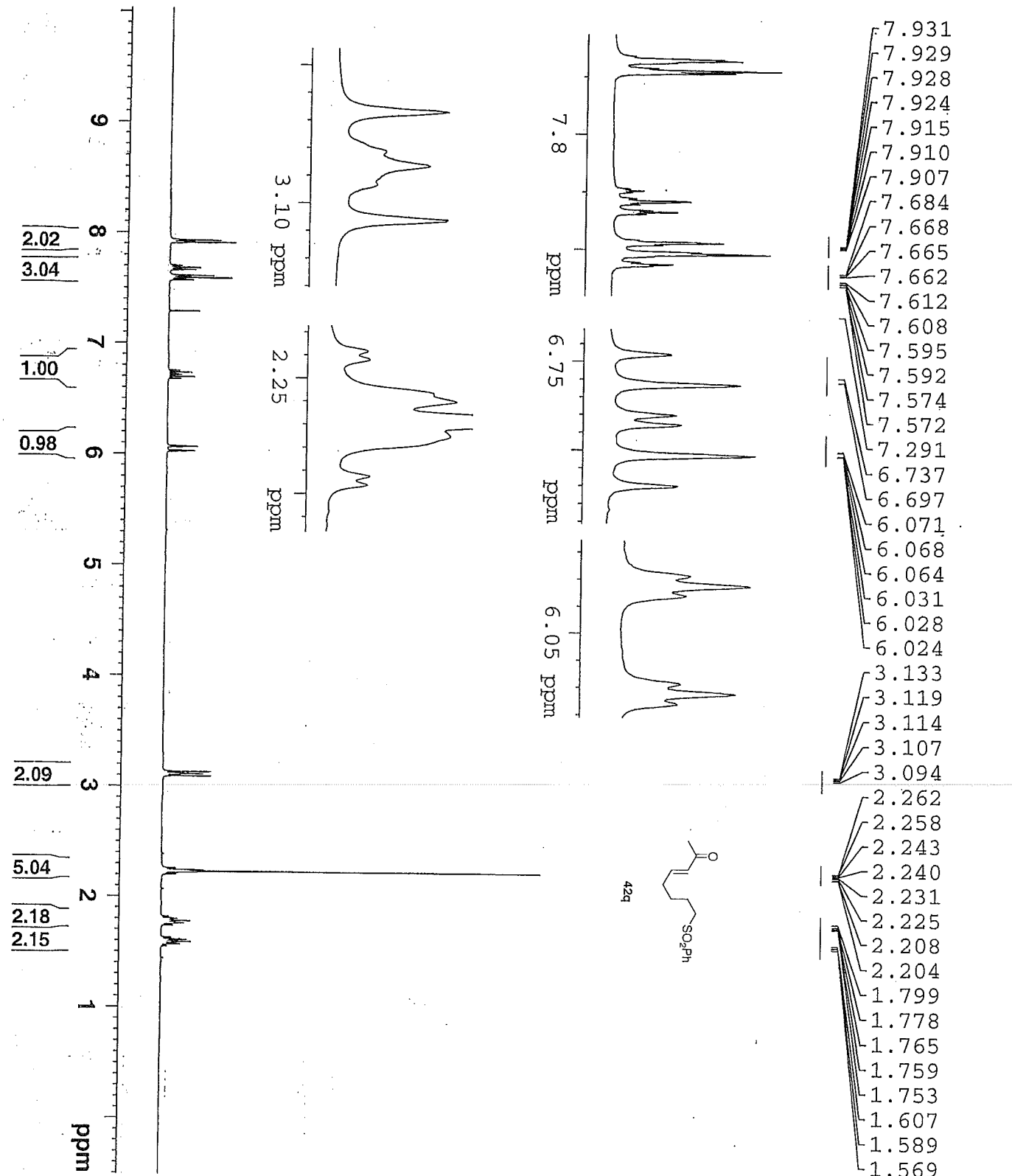
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EXPNO	2
PROCNO	1
Date_	20100303
Time	15.22
INSTRUM	spect
PROBHD	5 mm PABBO BB-
PULPROG	zgpg30
TD	65536
SOLVENT	CDCl3
NS	63
DS	4
SWH	25125.629
FIDRES	0.383387
AQ	1.3042164
RG	14596.5
DW	19.900
DE	6.50
TE	298.9
D1	2.00000000
D11	0.03000000
TD0	1

===== CHANNEL f1 =====	
NUC1	13C
P1	9.00
PL1	-2.00
PL1W	46.89702606
SFO1	100.6255966

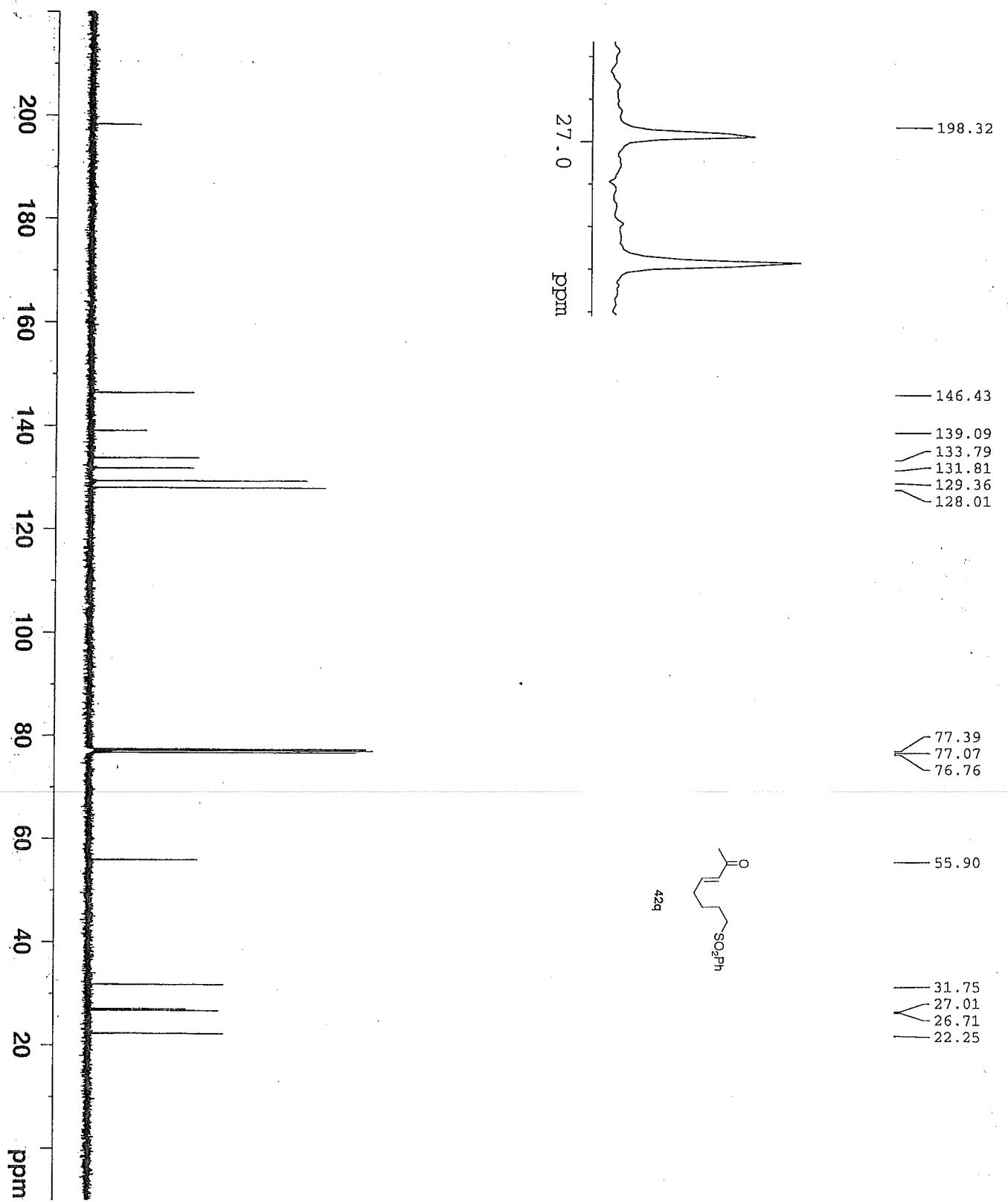
===== CHANNEL f2 =====	
CPDPRG2	waltz16
NUC2	1H
PCPD2	90.00
PL2	0.00
PL12	16.16
PL13	17.00
PL2W	10.27361584
PL12W	0.24872722
PL13W	0.20498557
SFO2	400.1366005
SI	32768
SF	100.6140260
WDW	EM
SSB	0
LB	1.00
GB	0
PC	1.40



NAME	HY15-73
EXPNO	1
PROCNO	1
Date_	20100309
Time	10.01
INSTRUM	spect
PROBHD	5 mm PABBO BB-
PULPROG	zg30
TD	32768
SOLVENT	CDCl3
NS	32
DS	2
SWH	6410.256
FIDRES	0.195625
AQ	2.5559540
RG	71.8
DW	78.000
DE	6.50
TE	298.2
D1	2.00000000
TD0	1

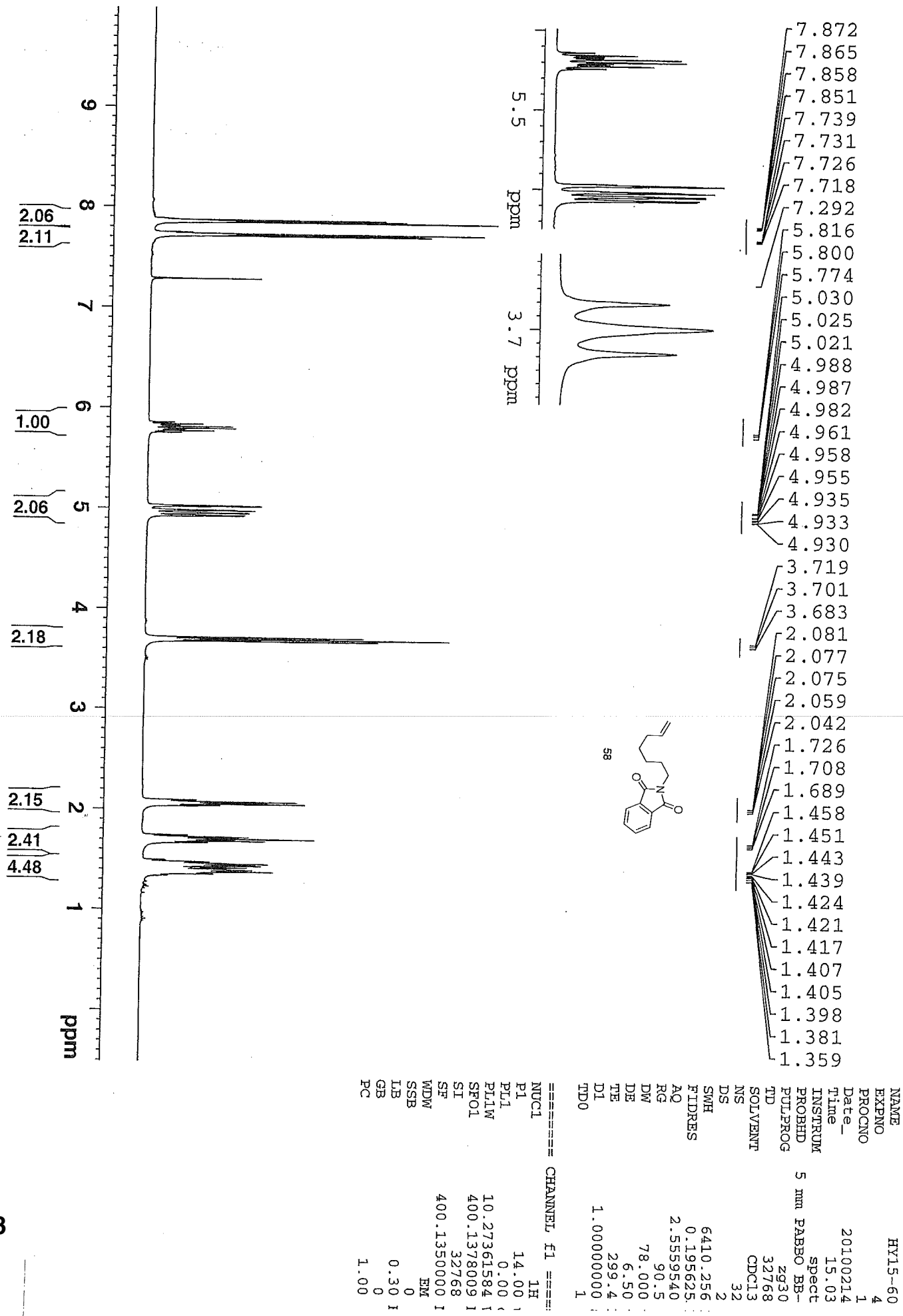
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NUC1	1H	
P1	14.00	
PL1	0.00	
PL1W	10.27361584	
SFO1	400.1378009	
SI	32768	
SF	400.1350000	
WDW	EM	
SSB	0	
LB	0.30	
GB	0	
PC	1.00	

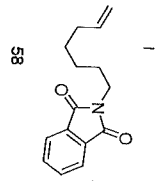
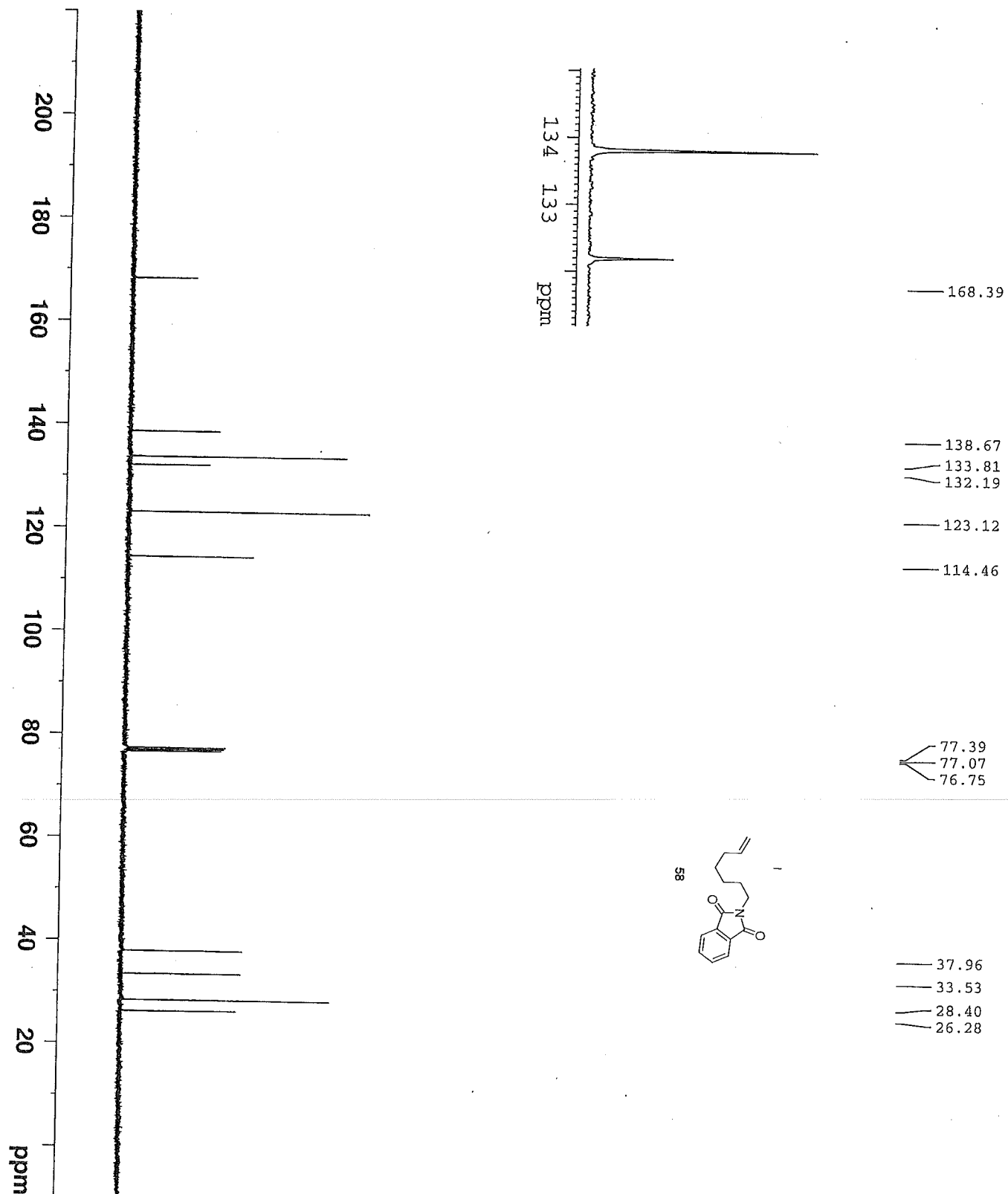


NAME	HY15-73
EXPNO	2
PROCNO	1
Date_	20100309
Time	10.08
INSTRUM	spect
PROBHD	5 mm PABBO BB-
PULPROG	zgpg30
TD	65536
SOLVENT	CDCl3
NS	85
DS	4
SWH	25125.629
FIDRES	0.383387
AQ	1.3042164
RG	18390.4
DW	19.900
DE	6.50
TE	298.6
D1	2.00000000
D11	0.03000000
TD0	1

===== CHANNEL f1 =====	
NUC1	13C
P1	9.00
PL1	-2.00
PL1W	46.89702606
SFO1	100.6255966

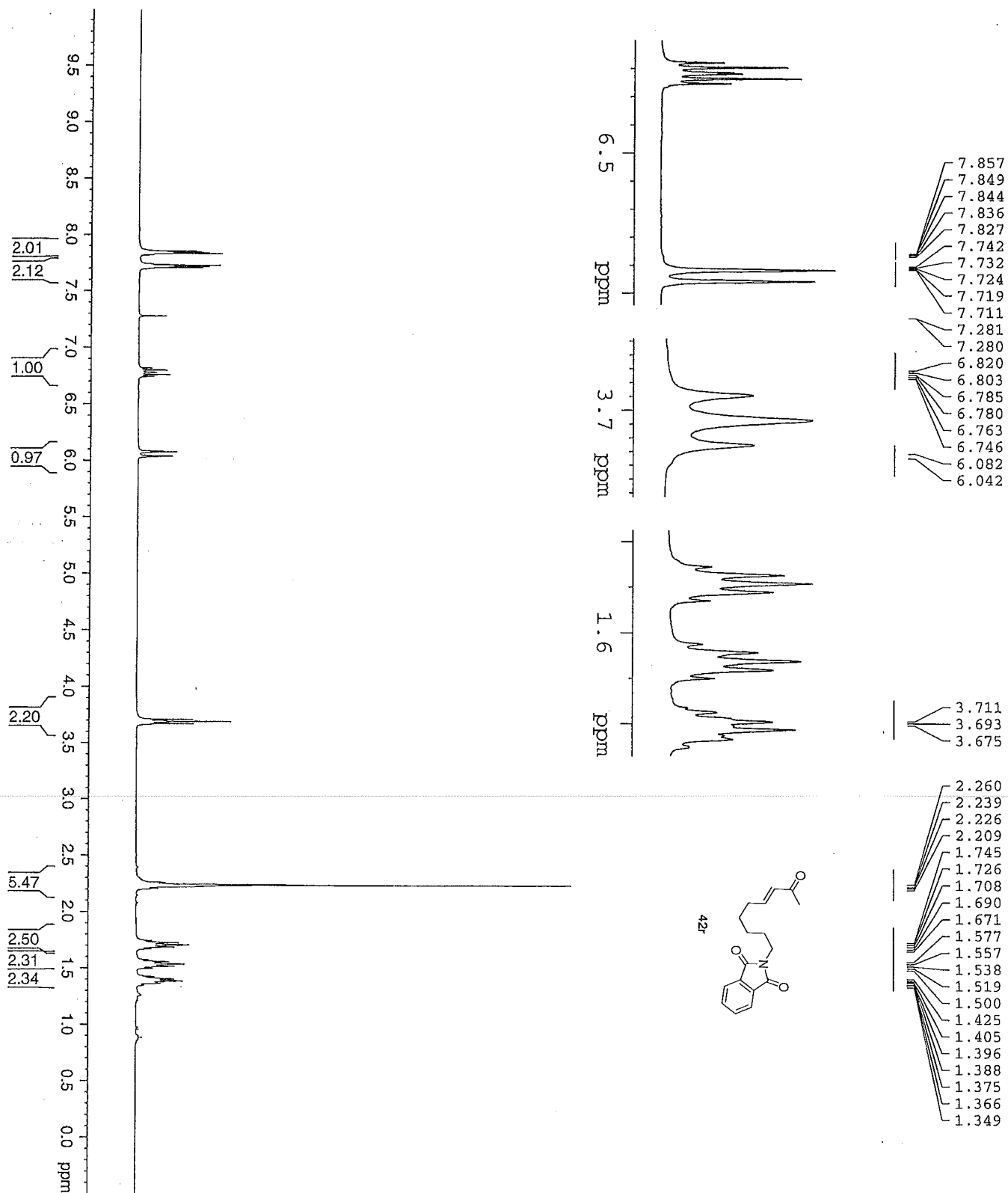
===== CHANNEL f2 =====	
CPDPRG2	waltz16
NUC2	1H
PCPD2	90.00
PL2	0.00
PL12	16.16
PL13	17.00
PL2W	10.27361584
PL12W	0.24872722
PL13W	0.20498557
SFO2	400.1366005
SI	32768
SF	100.6140260
WDW	EM
SSB	0
LB	1.00
GB	0
PC	1.40





NAME	HY15-60	EXPNO	3	PROCNO	1	Date_	20100214	Time	14.57	INSTRUM	spect	PROBHD	5 mm PABBO BB-	PULPROG	zgpg30	TD	65536	SOLVENT	CDCl3	NS	57	DS	4	SWH	25125.629	FIDRES	0.383387	AQ	1.3042164	RG	16384	DW	19.900	DE	6.50	TE	300.3	D1	2.00000000	D11	0.03000000	TDO	1
===== CHANNEL f1 =====																																											
NUC1	13C	P1	9.00	PL1	-2.00	PL1W	46.89702606	SFO1	100.6255966																																		
===== CHANNEL f2 =====																																											
CPDPRG2	waltz16	NUC2	1H	PCPD2	90.00	PL2	0.00	PL12	16.16	PL13	17.00	PL2W	10.27361584	PL12W	0.24872722	PL13W	0.20498557	SFO2	400.1366005	SI	32768	SF	100.6140260	WDW	EM	SSB	0	LB	1.00	GB	0	PC	1.40										



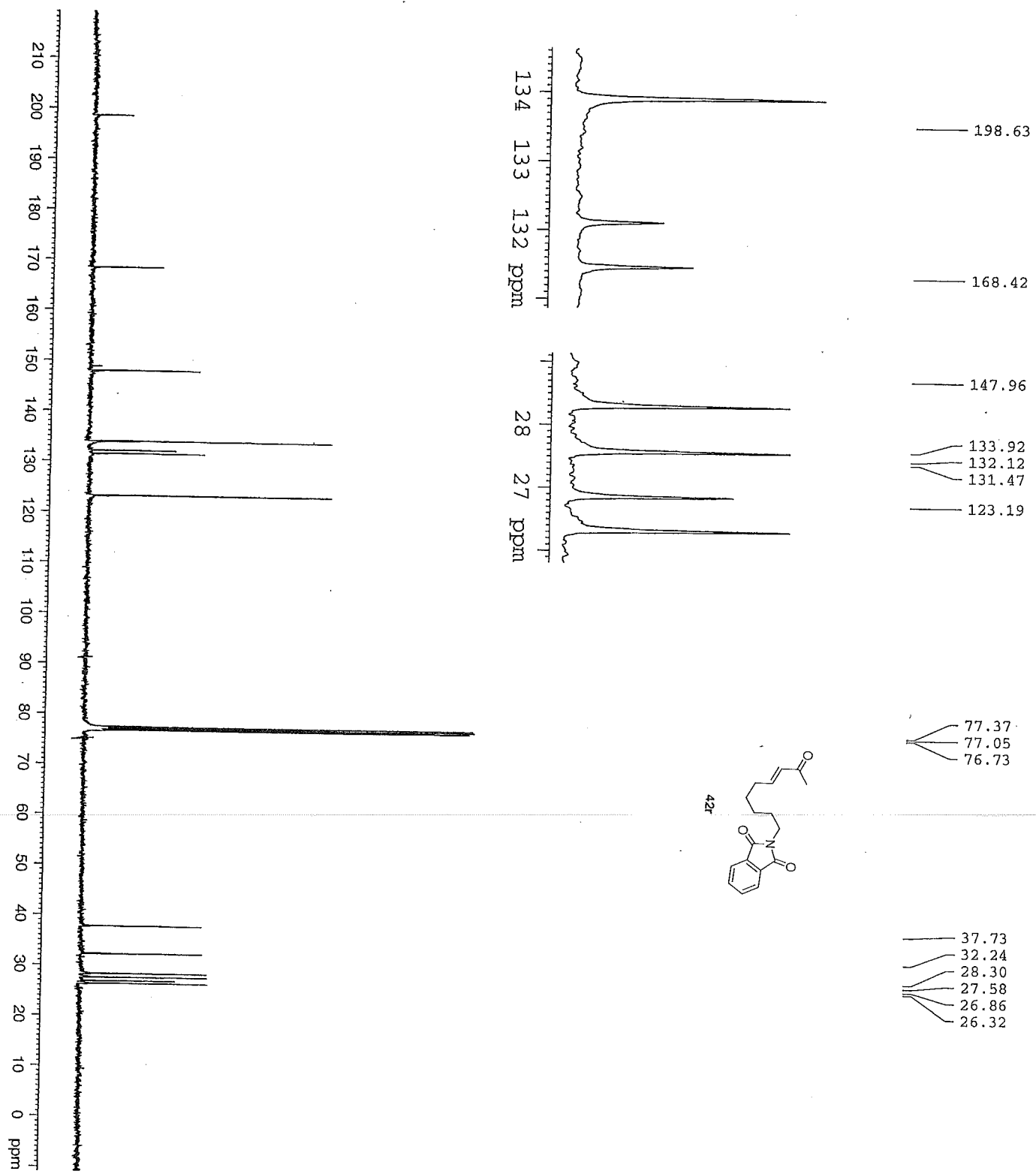


Current Data Parameters  
NAME HYL5-61  
EXPNO 1  
PROCNO 1  
DU /m  
USMR Hua

F2 - Acquisition Parameters  
Date\_ 20100215  
Time 15.06  
INSTRUM DEX400  
PROBHD 5 mm BBO BB-1H  
PULPROG zg30  
TD 32768  
SOLVENT CDCl3  
NS 32  
DS 2  
SWH 6410.256 Hz  
FIDRES 0.195625 Hz  
AQ 2.5559540 sec  
RG 181  
DW 78.000 usec  
DE 6.00 usec  
TE 298.2 K  
D1 1.0000000 sec  
TD0 1

===== CHANNEL f1 =====  
NUC1 1H  
P1 13.50 usec  
PL1 -3.00 dB  
SFO1 400.2478017 MHz

F2 - Processing parameters  
SI 32768  
SF 400.2450000 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00



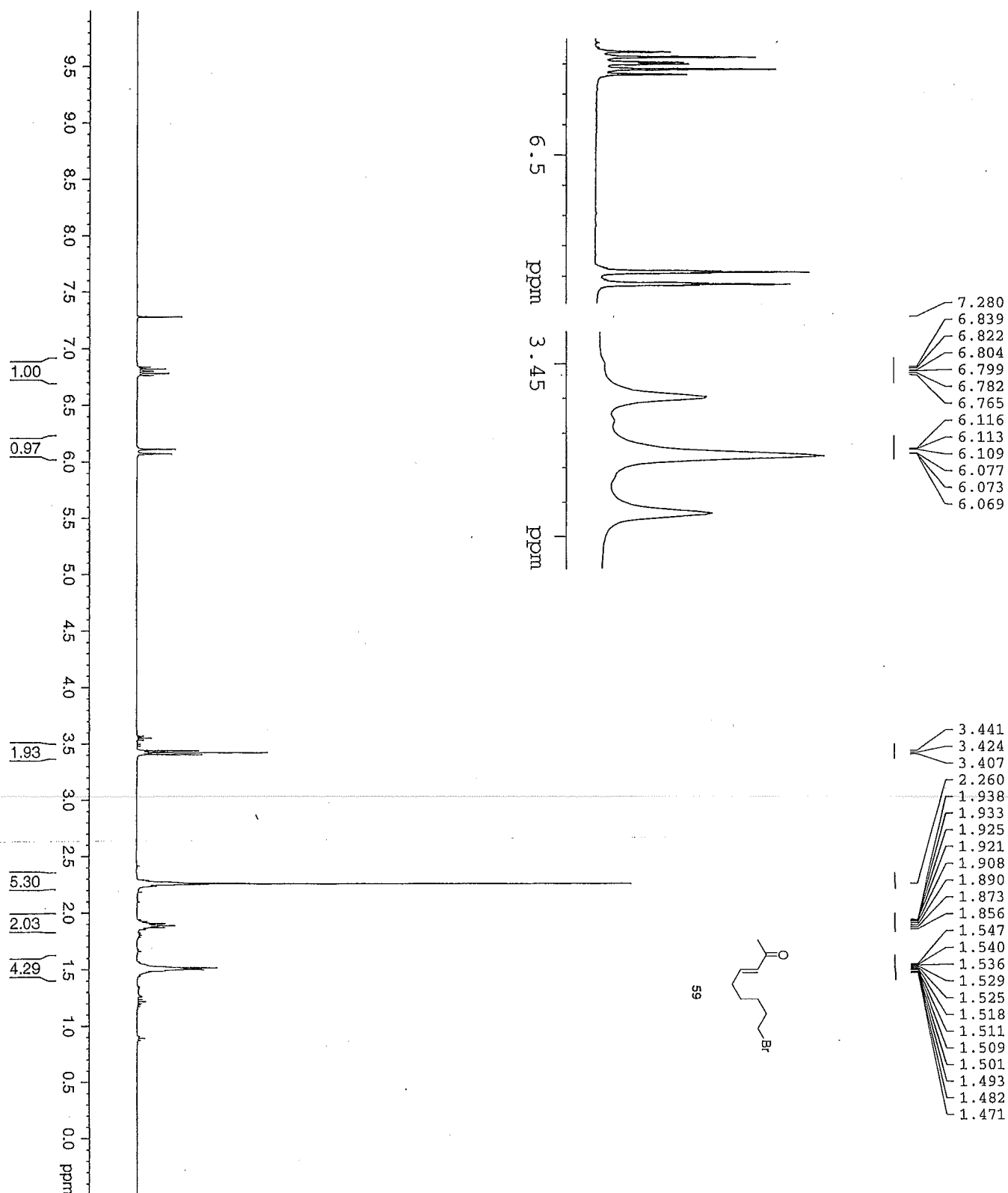
Current Data Parameters  
NAME HX15-61  
EXPNO 2  
PROCNO 1  
DO /m  
USER Hua

F2 - Acquisition Parameters  
Date\_ 20100215  
Time 15.12  
INSTRUM DECA00  
PROBHD 5 mm BBO BB-1H  
PULPROG zgpg30  
TD 65536  
FIDRES 0.365918 Hz  
SOLVENT CDCl3  
NS 736  
DS 4  
SWH 23980.814 Hz  
FIDRES 0.365918 Hz  
AQ 1.3664756 sec  
RG 6502  
RW 20.850 usec  
DE 6.00 usec  
TE 298.2 K  
D1 2.00000000 sec  
d11 0.03000000 sec  
DELTA 1.89999998 sec  
TD0 1

===== CHANNEL f1 =====  
NUC1 13C  
P1 8.30 usec  
PL1 -3.00 dB  
SFO1 100.6517495 MHz

===== CHANNEL f2 =====  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 90.00 usec  
PL2 13.00 dB  
PL12 15.00 dB  
PL13 15.00 dB  
SFO2 400.2468010 MHz

F2 - Processing parameters  
SI 32768  
SF 100.6416850 MHz  
WDW EM  
SSB 0  
LB 3.00 Hz  
GB 0  
PC 1.40

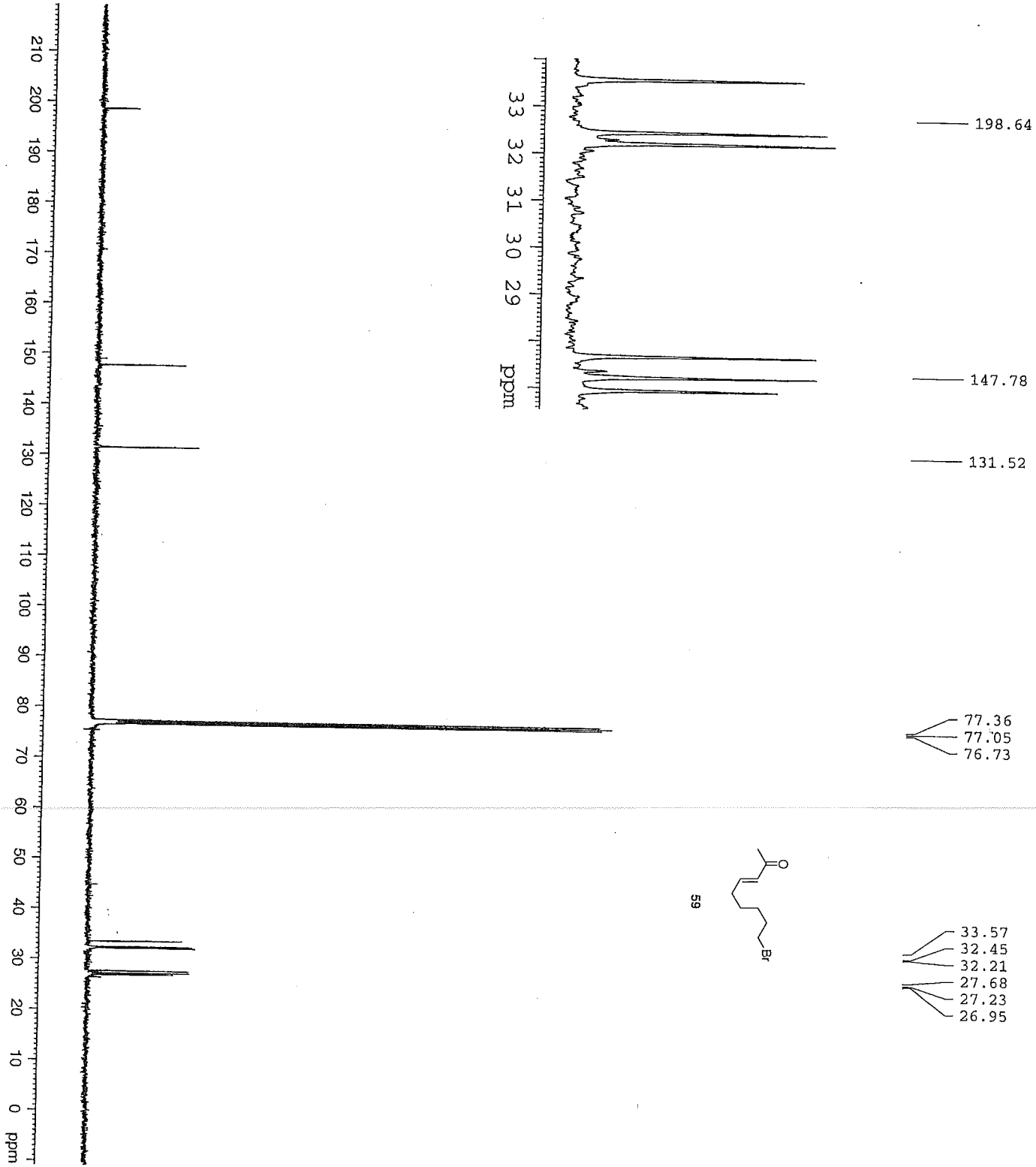


Current Data Parameters  
NAME HYL4-85  
EXPNO 3  
PROCNO 1  
PU /m  
USER Hua

F2 - Acquisition Parameters  
Date\_ 20091206  
Time 20.30  
INSTRUM DPX400  
PROBHD 5 mm BBO BB-1H  
PULPROG zg30  
TD 65536  
FIDRES 0.195625 Hz  
AQ 2.5559540 sec  
RG 203.2  
DW 78.000 usec  
DE 6.00 usec  
TE 295.2 K  
D1 1.00000000 sec  
TD0 1

===== CHANNEL f1 =====  
NUC1 1H  
P1 13.50 usec  
PL -3.00 dB  
SFO1 400.2478017 MHz

F2 - Processing parameters  
SI 32768  
SF 400.2450000 MHz  
WDW EM  
SSB 0  
GB 0  
PC 1.00



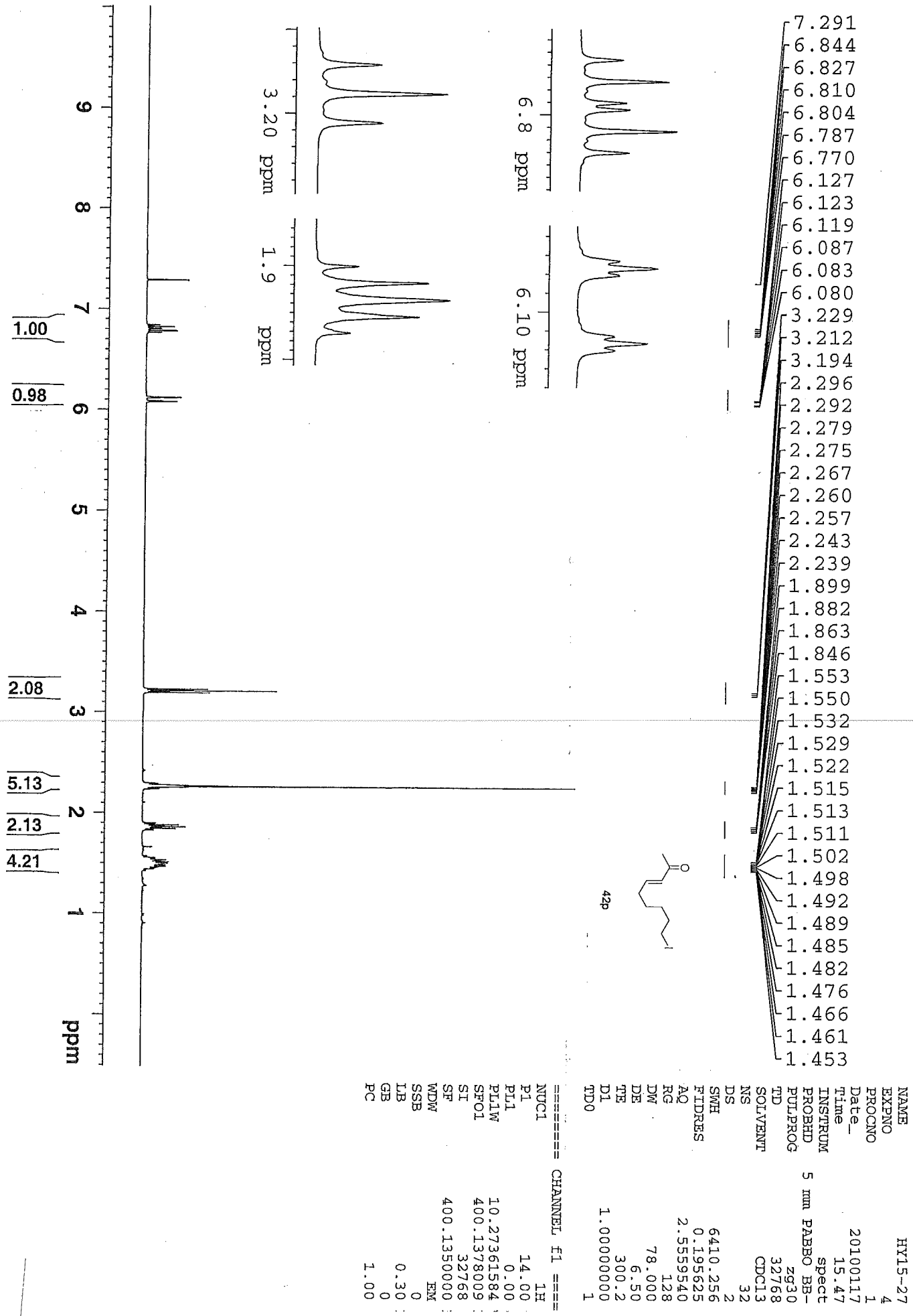
Current Data Parameters  
NAME HYL4-85  
EXNO 4  
PROCNO 1  
DO /m  
USER Hua

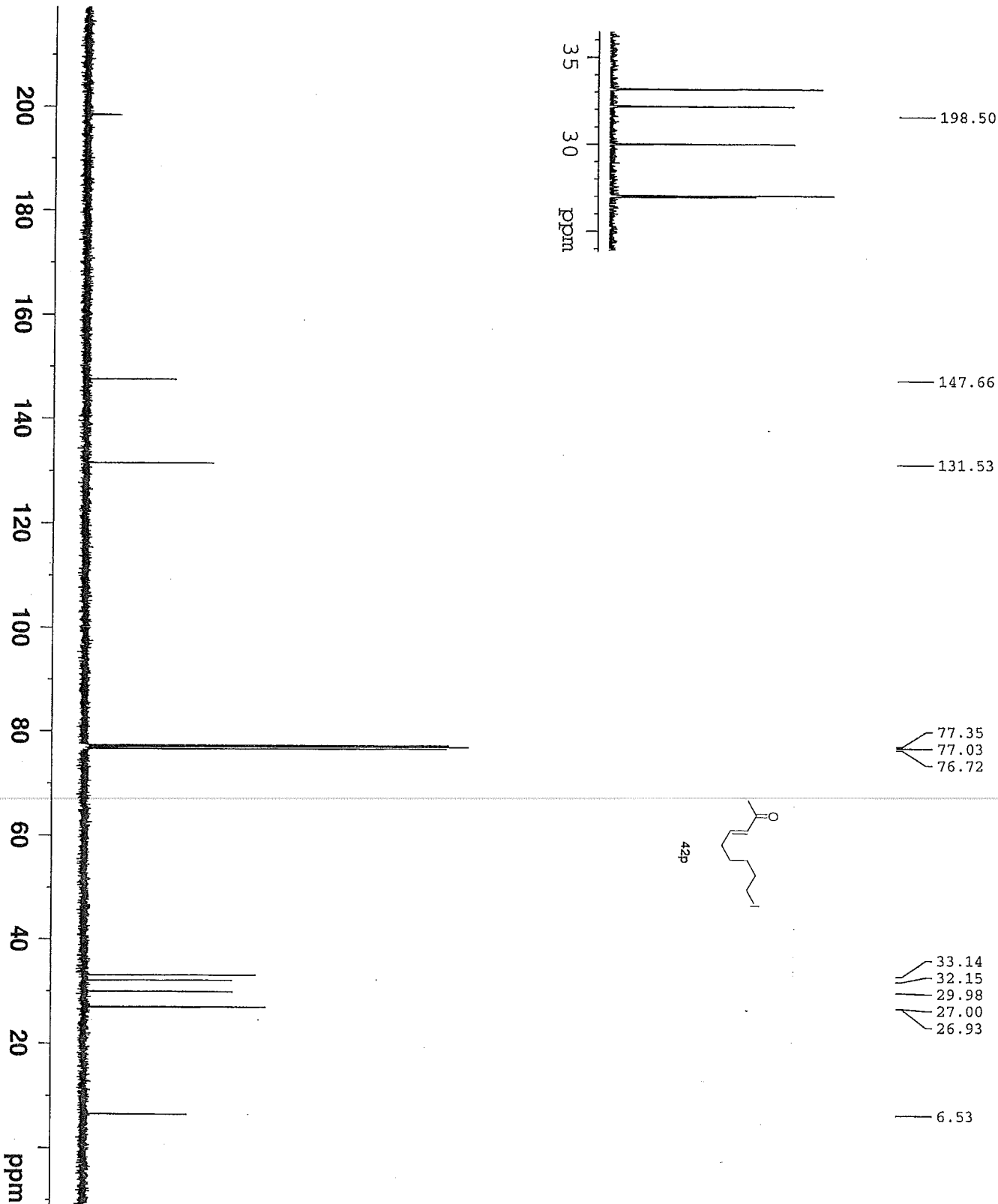
F2 - Acquisition Parameters  
Date\_ 20091206  
Time 20.36  
INSTRUM DPK400  
PROBHD 5 mm BBO BB-1H  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 620  
DS 4  
SWH 23980.814 Hz  
FIDRES 0.365918 Hz  
AQ 1.3664756 sec  
RG 6502  
DM 20.850 usec  
DE 6.00 usec  
TE 296.2 K  
D1 2.00000000 sec  
d11 0.03000000 sec  
DELTA 1.89999998 sec  
TD0 1

===== CHANNEL f1 =====  
NUC1 13C  
P1 8.30 usec  
PL1 -3.00 dB  
SFO1 100.6517495 MHz

===== CHANNEL f2 =====  
CPDPRG2 waltz216  
NUC2 1H  
PCPD2 90.00 usec  
PL2 -3.00 dB  
PL3 15.00 dB  
PL4 15.00 dB  
SFO2 400.2466010 MHz

F2 - Processing parameters  
SI 32768  
SF 100.6416850 MHz  
WDW EM  
SSB 0  
LB 3.00 Hz  
GB 0  
PC 1.40





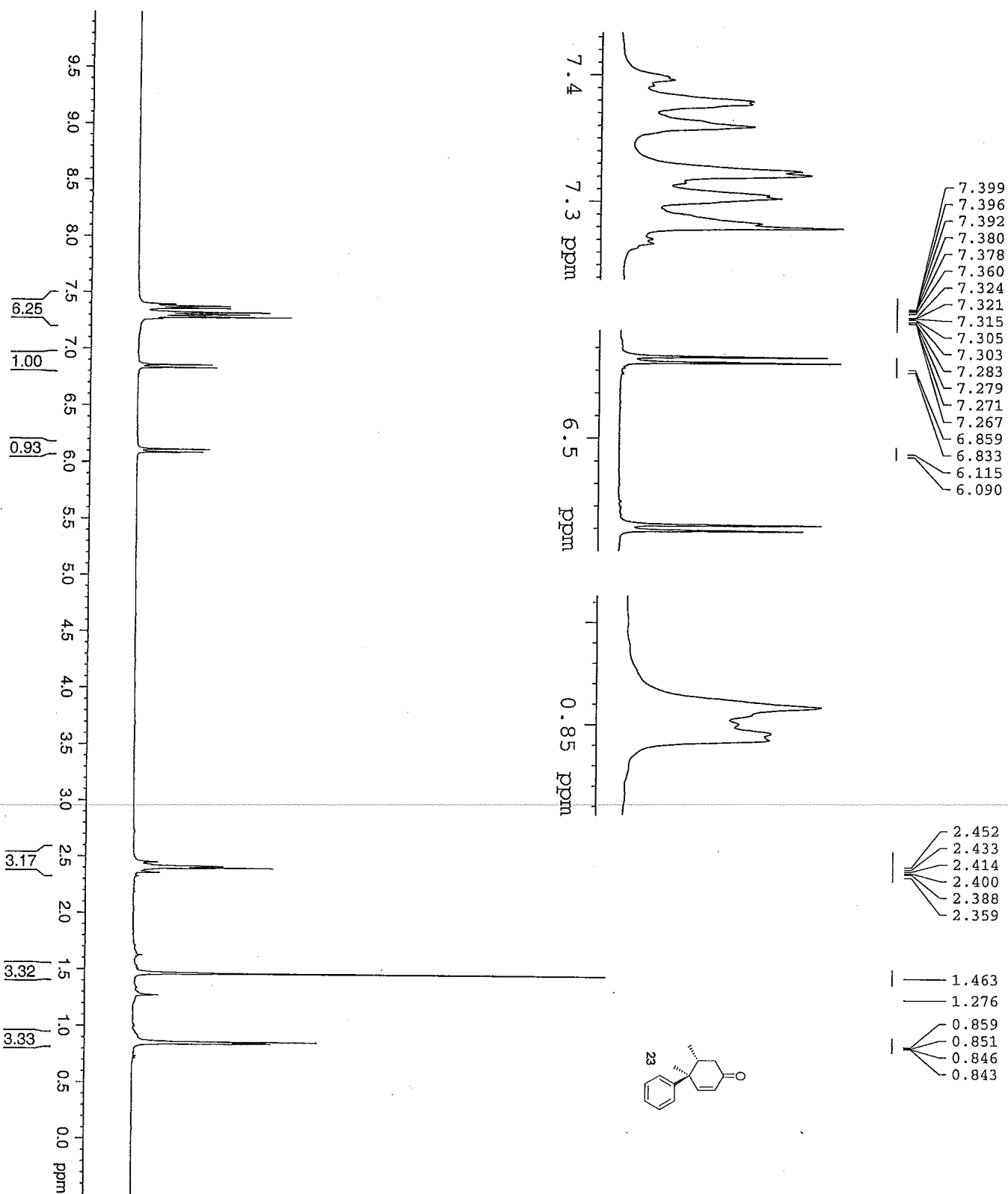
NAME	HY15-27
EXPNO	6
PROCNO	1
Date_	20100117
time	15.55
INSTRUM	spect
PROBHD	5 mm PABBO BB-
PULPROG	zgpg30
TD	65536
SOLVENT	CDCl3
NS	195
DS	4
SWH	23980.814
FIDRES	0.365918
AQ	1.3664756
RG	16384
DW	20.850
DE	6.50
TE	301.4
D1	2.00000000
D1.1	0.03000000
TD0	1

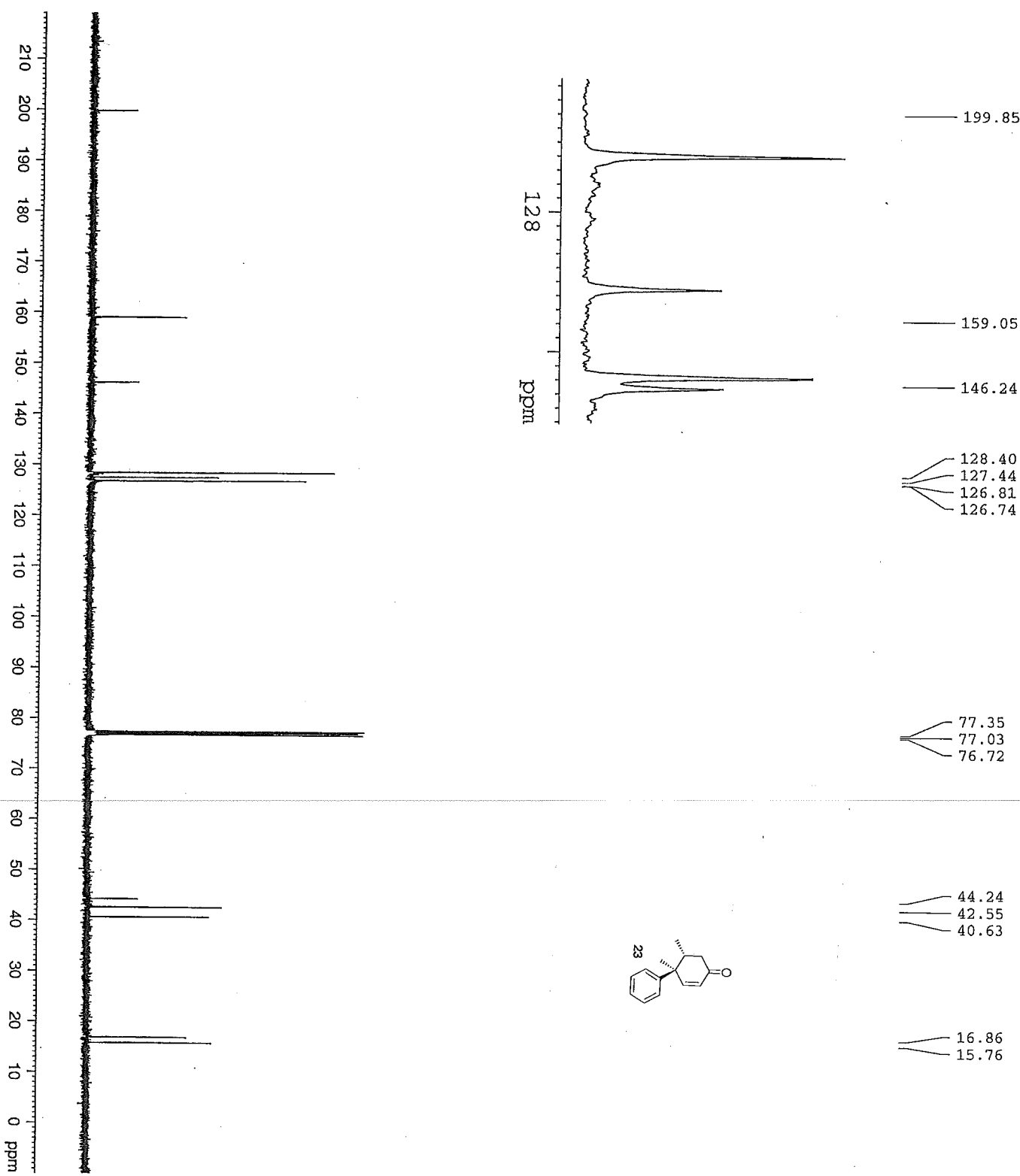
===== CHANNEL f1 =====	
NUC1	13C
P1	9.00
PL1	-2.00
PL1W	46.89702606
SFO1	100.6240872

===== CHANNEL f2 =====	
CPDPRG2	waltz16
NUC2	1H
PCPD2	90.00
PL2	0.00
PL12	16.16
PL13	17.00
PL2W	10.27361584
PL12W	0.24872722
PL13W	0.20498557
SFO2	400.1366005
SI	32768
SF	100.6140260
WDW	EM
SSB	0
LB	1.00
GB	0
PC	1.40



Current Data Parameters  
NAME HYL3-78  
EXPNO 2  
PROCNO 1  
F2 - Acquisition Parameters  
Date\_ 20091008  
Time 22:33  
INSTRUM DPX400  
PROBHD 5 mm BBO BB-1H  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 2  
DS 2  
SWH 6410.256 Hz  
FIDRES 0.195625 Hz  
AQ 2.555540 sec  
RG 406.4  
DW 78.000 usec  
DE 6.00 usec  
TE 299.2 K  
D1 1.00000000 sec  
TDO 1  
===== CHANNEL f1 =====  
NUC1 1H  
P1 13.50 usec  
PL1 -3.00 dB  
SFO1 400.2478017 MHz  
F2 - Processing parameters  
SI 32768  
SF 400.2450000 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00



Current Data Parameters  
NAME HYL3-68  
EXPNO 3  
PROCNO 1  
DT 1 /m  
USER Hua

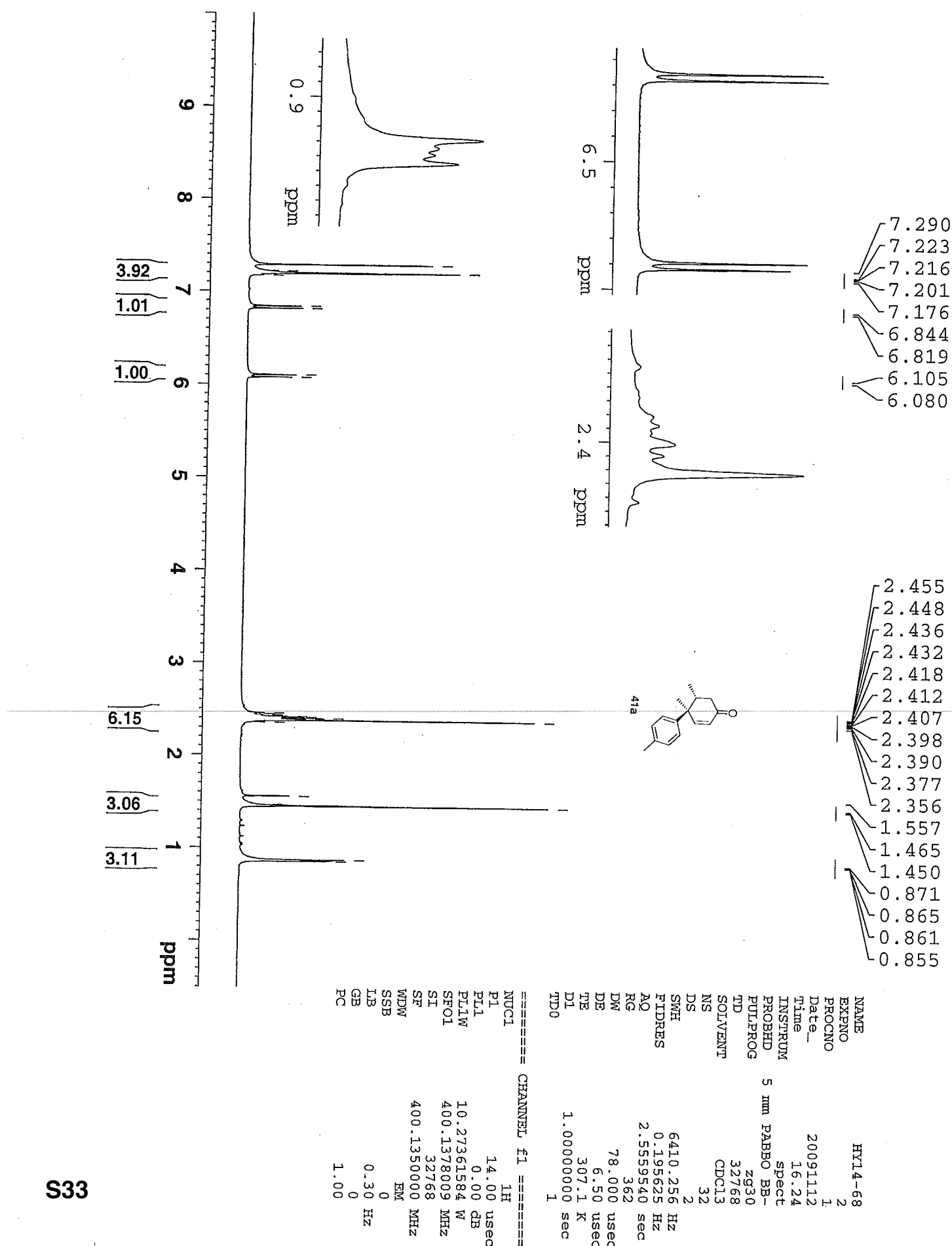
F2 - Acquisition Parameters  
Date\_ 20090911  
Time 20.55  
INSTRUM DPK400  
PROBHD 5 mm BBO BB-1H  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 374  
DS 4  
SWH 23980.814 Hz  
FIDRES 0.365918 Hz  
AQ 1.3664756 sec  
RG 18390.4  
DW 20.850 usec  
DE 6.00 usec  
TE 300.2 K  
D1 2.00000000 sec  
d11 0.03000000 sec  
DELTA 1.89999998 sec  
TD0 1

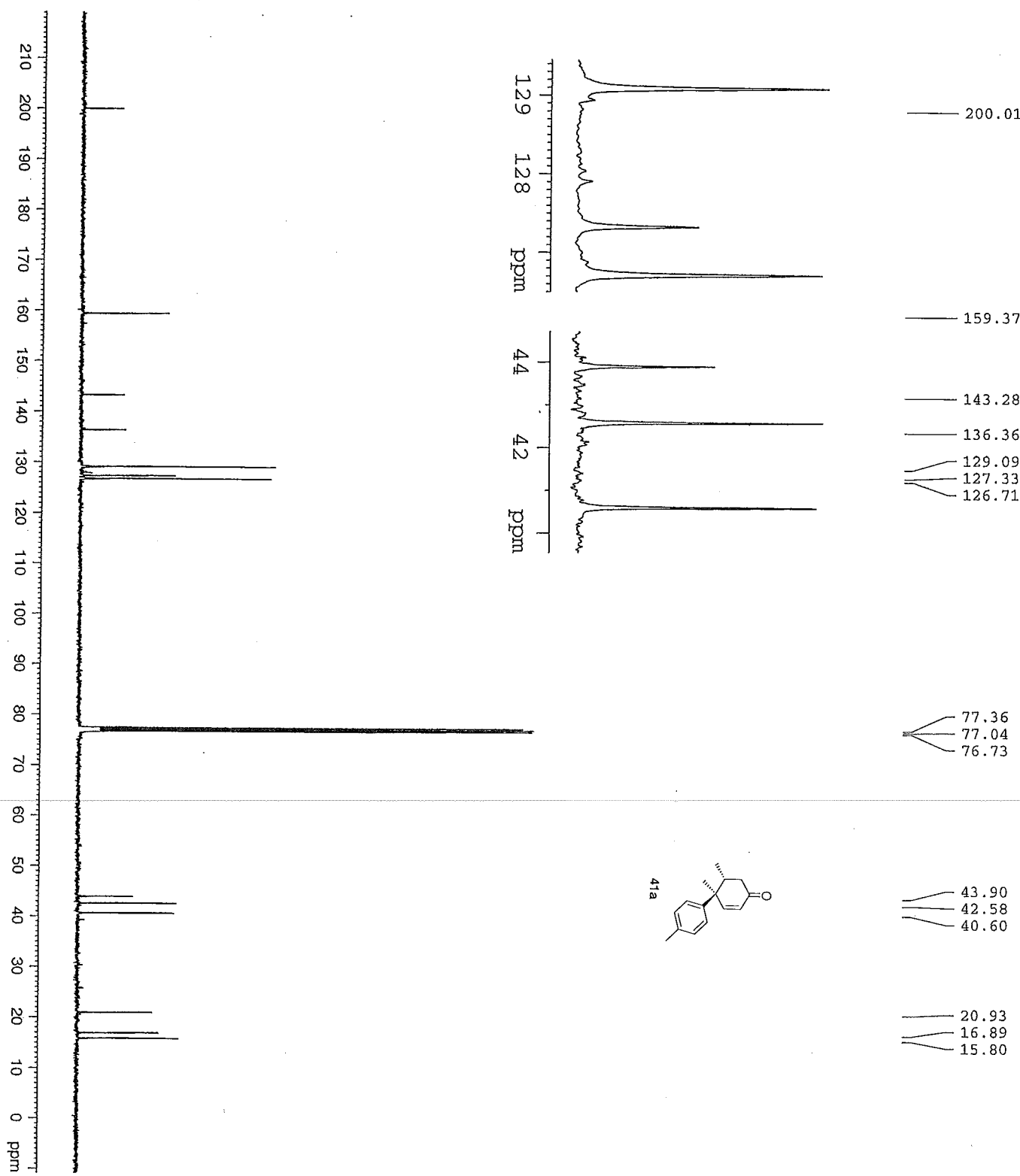
===== CHANNEL f1 =====  
NUC1 13C  
P1 8.30 usec  
PL1 -3.00 dB  
SFO1 100.6504921 MHz

===== CHANNEL f2 =====  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 90.00 usec  
PL2 -3.00 dB  
PL12 15.00 dB  
PL13 15.00 dB  
SFO2 400.2416010 MHz

F2 - Processing parameters  
SI 32768  
SF 100.6404280 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40







Current Data Parameters

NAME	HY14-69
EXPNO	1
PROCNO	1
F2	1
USER	Hua

F2 - Acquisition Parameters

Date_	20091113
Time	14.54
INSTRUM	DPX400
PROBHD	5 mm BBO BB-1H
PULPROG	zgpg30
TD	65536
SOLVENT	CDCl3
NS	1509
DS	4
SWH	23980.814 Hz
FIDRES	0.365918 Hz
AQ	1.3564756 sec
RG	16384
DM	20.850 usec
DE	298.2 K
TE	2.00000000 sec
D1	0.03000000 sec
DELTA	1.89999998 sec
TD0	1

==== CHANNEL f1 =====

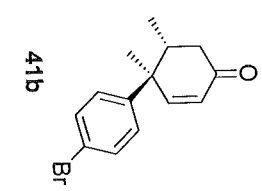
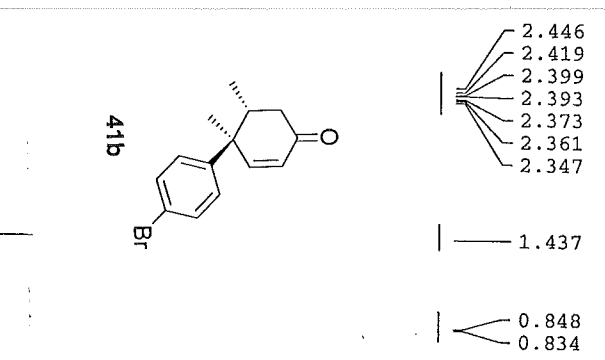
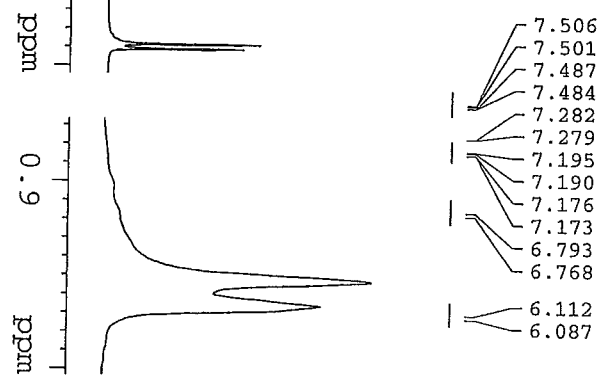
NUC1	<sup>13</sup> C
PL	8.30 usec
PL1	-3.00 dB
SFO1	100.6517495 MHz

==== CHANNEL f2 =====

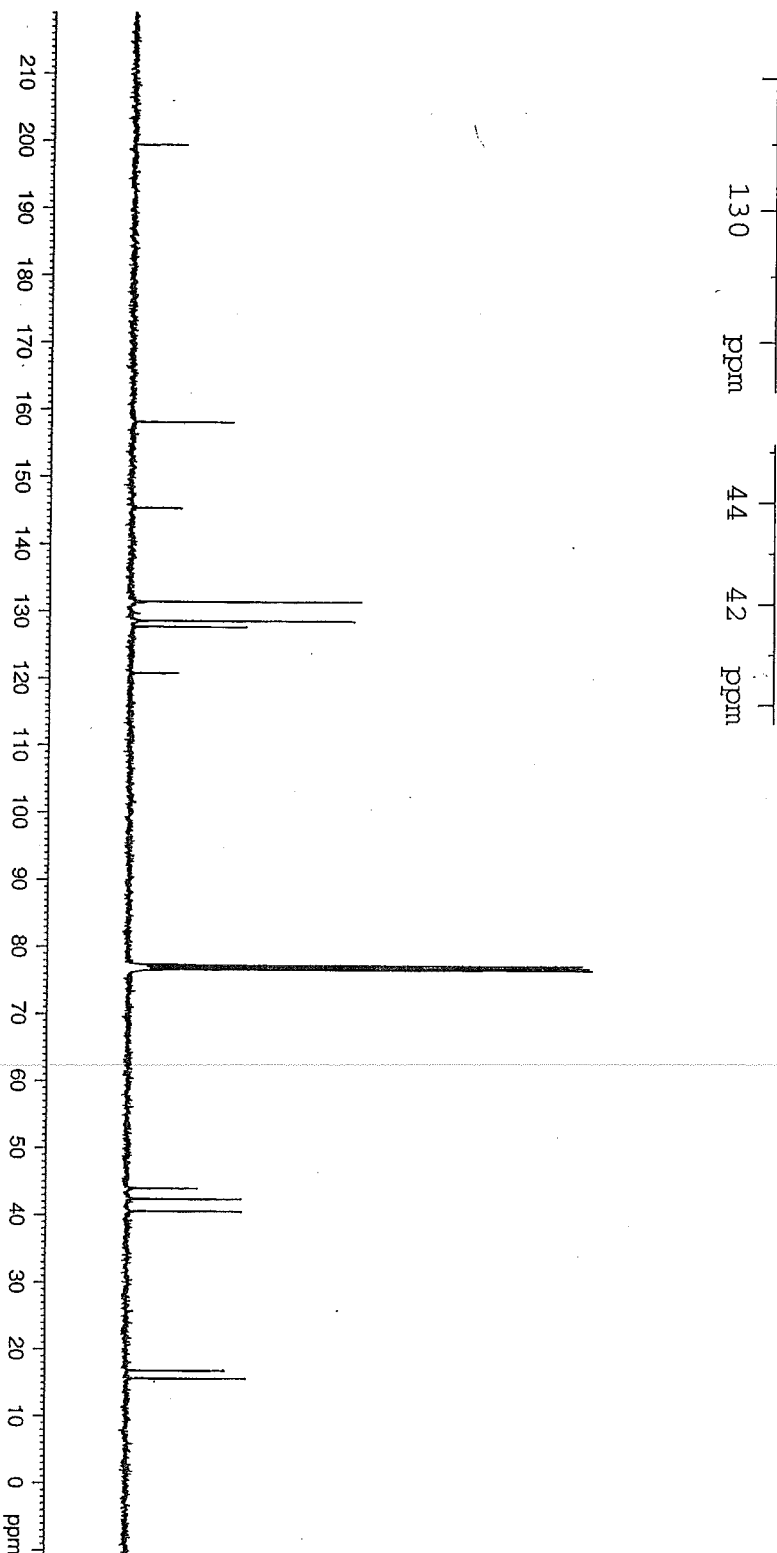
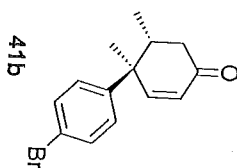
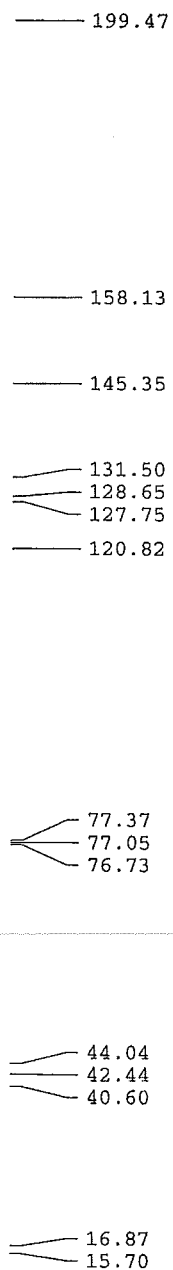
CPDPRG2	waltz16
NUC2	<sup>1</sup> H
PCPD2	90.00 usec
PL2	-3.00 dB
PL12	15.00 dB
PL13	15.00 dB
SFO2	400.2466010 MHz

F2 - Processing parameters

SI	32768
SF	100.6416850 MHz
WDW	EM
SSB	0
LB	3.00 Hz
GB	0
PC	1.40



Current Data Parameters  
NAME Hyl-49  
EXPNO 2  
PROCNO 1  
DU /m  
USER Hua  
F2 - Acquisition Parameters  
Date\_ 20091028  
Time 16.54  
INSTRUM DFX400  
PROBHD 5 mm BBO BH-1H  
PULPROG zg30  
TD 32768  
SOLVENT CDCl3  
NS 32  
DS 2  
SWH 6410.256 Hz  
FIDRES 0.195625 Hz  
AQ 2.5559540 sec  
RG 406.4  
DW 78.000 usec  
DE 6.00 usec  
TE 297.2 K  
D1 1.0000000 sec  
TD0 1  
===== CHANNEL f1 =====  
NUC1 1H  
P1 13.50 usec  
PL1 -3.00 dB  
SFO1 400.2478017 MHz  
F2 - Processing parameters  
SI 32768  
SF 400.2450000 MHz  
WDW EN  
SSB 0  
IB 0.30 Hz  
GB 0  
PC 1.00



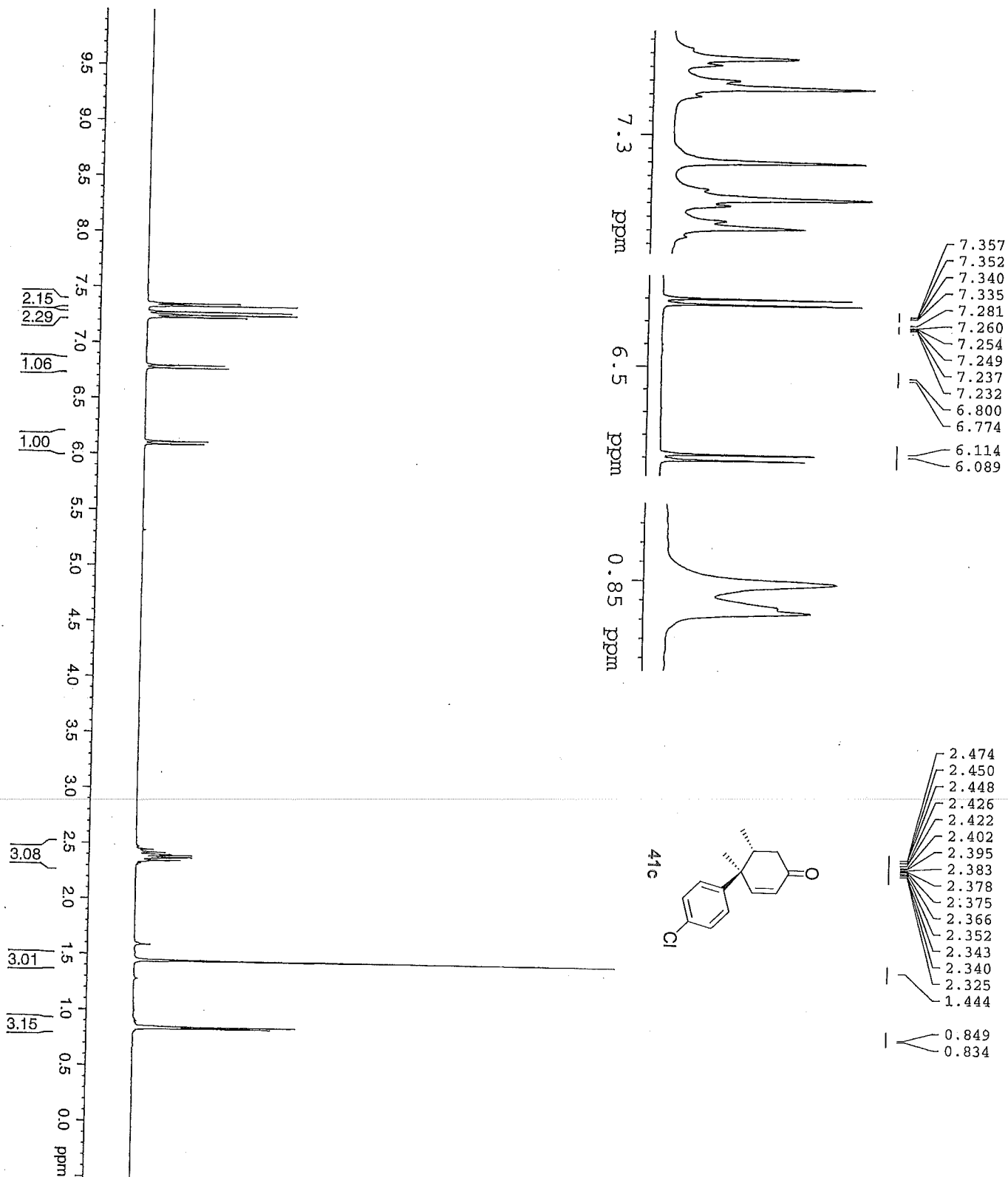
Current Data Parameters  
NAME HY14-50  
EXPNO 4  
PROCNO 1  
DU /m  
USER Hua

F2 - Acquisition Parameters  
Date\_ 20091021  
Time 16.15  
INSTRUM DEK400  
PROBHD 5 mm BBO BB-1H  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 402  
DS 4  
SWH 23980.814 Hz  
FIDRES 0.365818 Hz  
AQ 1.3664756 sec  
RG 8192  
DW 20.850 usec  
DE 388.2 K  
TE 2.00000000 sec  
d11 0.03000000 sec  
DELTA 1.89999998 sec  
TD0 1

==== CHANNEL f1 =====  
NUC1 13C  
P1 8.30 usec  
PL1 -3.00 dB  
SFO1 100.6517495 MHz

==== CHANNEL f2 =====  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 90.00 usec  
PL2 -3.00 dB  
PL12 15.00 dB  
PL13 15.00 dB  
SFO2 400.2466010 MHz

F2 - Processing Parameters  
SI 32768  
SF 100.6416850 MHz  
WDW EM  
SSB 0  
LB 3.00 Hz  
GB 0  
PC 1.40

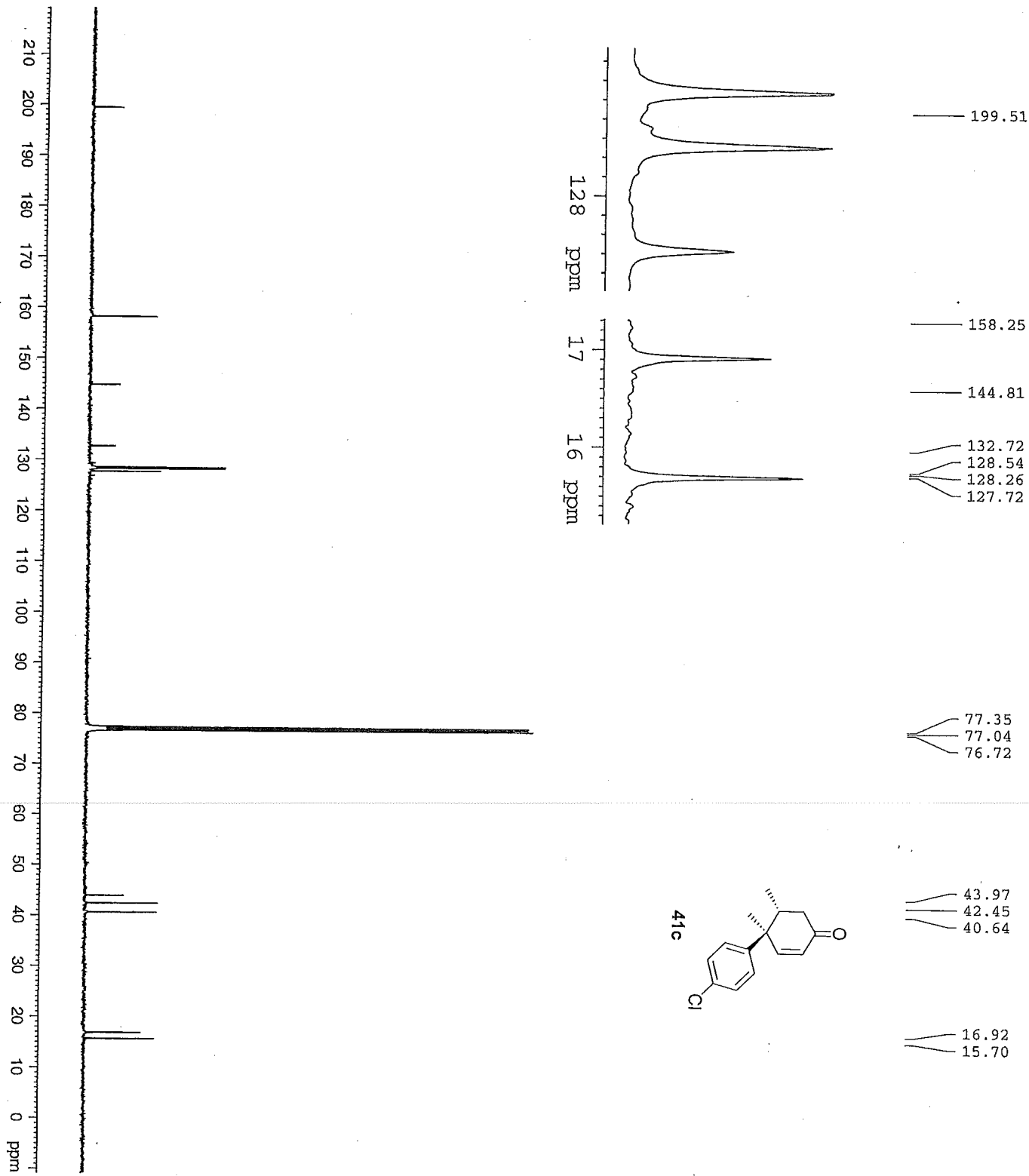


Current Data Parameters  
NAME HT14-66  
EXPNO 5  
PROCNO 1  
DU /m  
USER Hua

F2 - Acquisition Parameters  
Date\_ 20091113  
Time 15.40  
INSTRUM DPX400  
PROBHD 5 mm BBO BB-1H  
PULPROG zgpg30  
TD 32768  
SOLVENT CDCl3  
NS 32  
DS 2  
SWH 6410.256 Hz  
FIDRES 0.19625 Hz  
AQ 2.3559540 sec  
RG 812.7  
WDW 78.000 usec  
DE 6.00 usec  
TE 287.2 K  
D1 1.00000000 sec  
ZD0 1

==== CHANNEL f1 =====  
NUC1 1H  
P1 13.50 usec  
PL -3.00 dB  
SFO1 400.2478017 MHz

F2 - Processing parameters  
SI 32768  
SF 400.2450000 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00

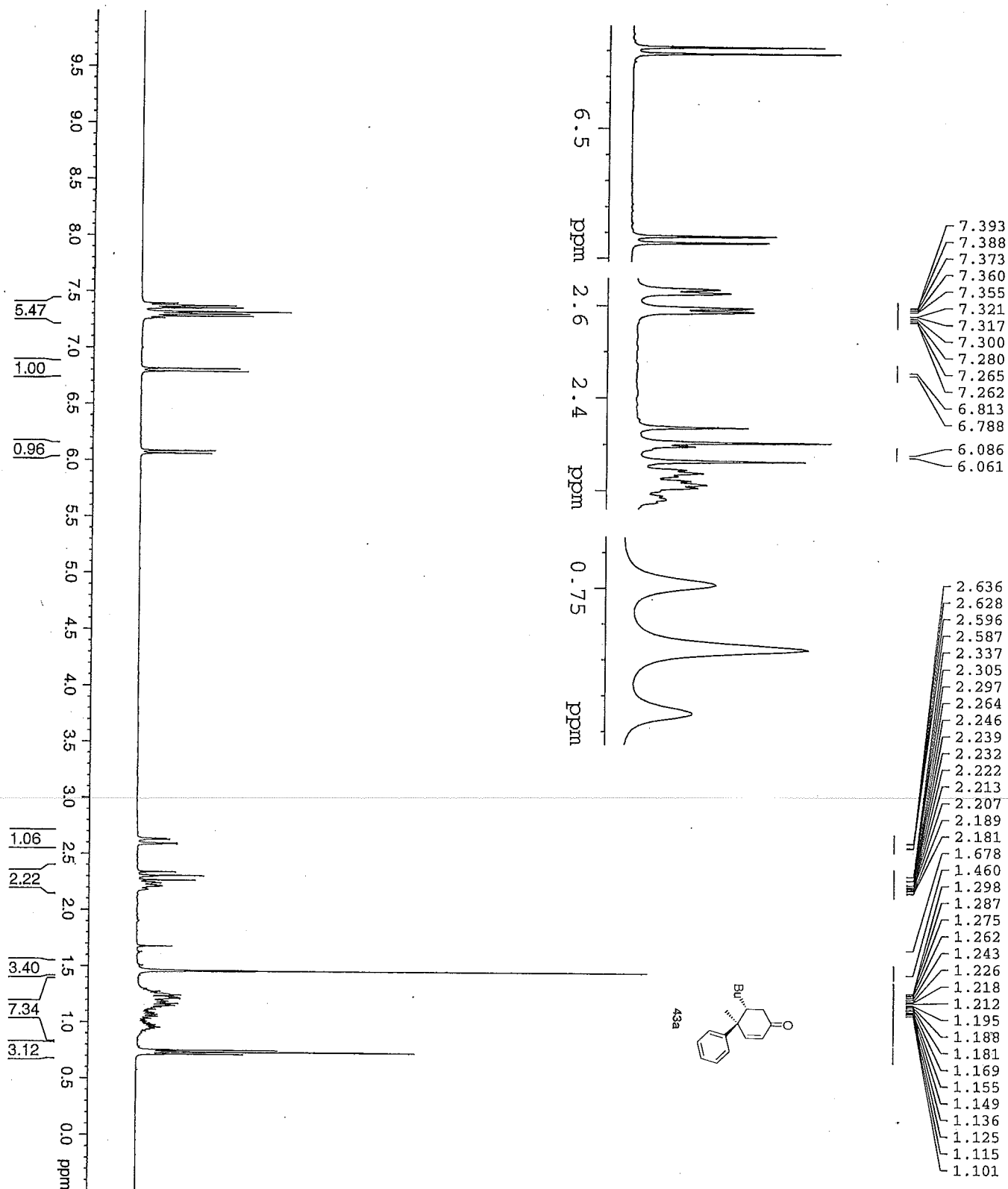


Current Data Parameters  
NAME HY14-66  
EXPNO 3  
PROCNO 1  
F2 - Acquisition Parameters  
Date\_ 20091109  
Time 13.32  
INSTRUM DFX400  
PROBHD 5 mm BBO BB-1H  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 1789  
DS 4  
SWH 23980.814 Hz  
FIDRES 0.365918 Hz  
AQ 1.3664756 sec  
RG 4096  
DW 20.850 usec  
DE 6.00 usec  
TE 298.2 K  
D1 2.00000000 sec  
d11 0.03000000 sec  
DELTA 1.89999998 sec  
TD0 1

==== CHANNEL f1 =====  
NUC1 13C  
P1 8.30 usec  
PL -3.00 dB  
SFO1 100.6517495 MHz

==== CHANNEL f2 =====  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 90.00 usec  
PR2 -3.00 dB  
PR12 15.00 dB  
PR13 15.00 dB  
SFO2 400.2466010 MHz

F2 - Processing Parameters  
SI 32768  
SF 100.6416850 MHz  
WDW EX  
SSB 0  
LB 3.00 Hz  
GB 0  
PC 1.40

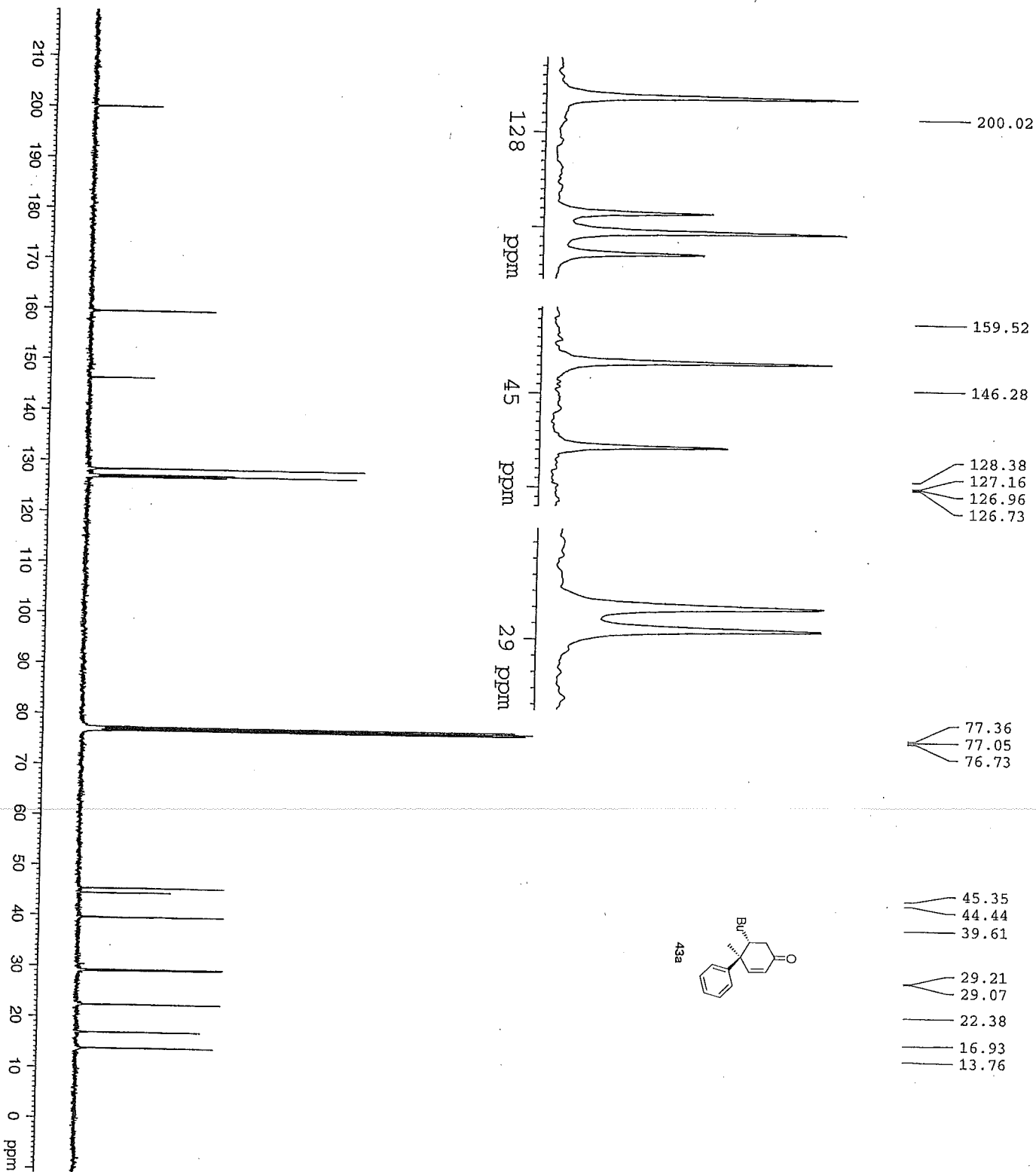


Current Data Parameters  
NAME HT14-45  
EXNO 2  
PROCNO 1  
DU /m  
USPR hua

F2 - Acquisition Parameters  
Date\_ 20091020  
Time 20.58  
INSTRUM DEX400  
PROBHD 5 mm BBO B1-H  
PULPROG zg30  
TD 32768  
SOLVENT CDCl3  
NS 32  
DS 2  
SWH 6410.256 Hz  
FIDRES 0.195625 Hz  
AQ 2.5559540 sec  
RG 161.3  
DW 78.000 usec  
DE 6.00 usec  
TE 298.2 K  
D1 1.00000000 sec  
TD0 1

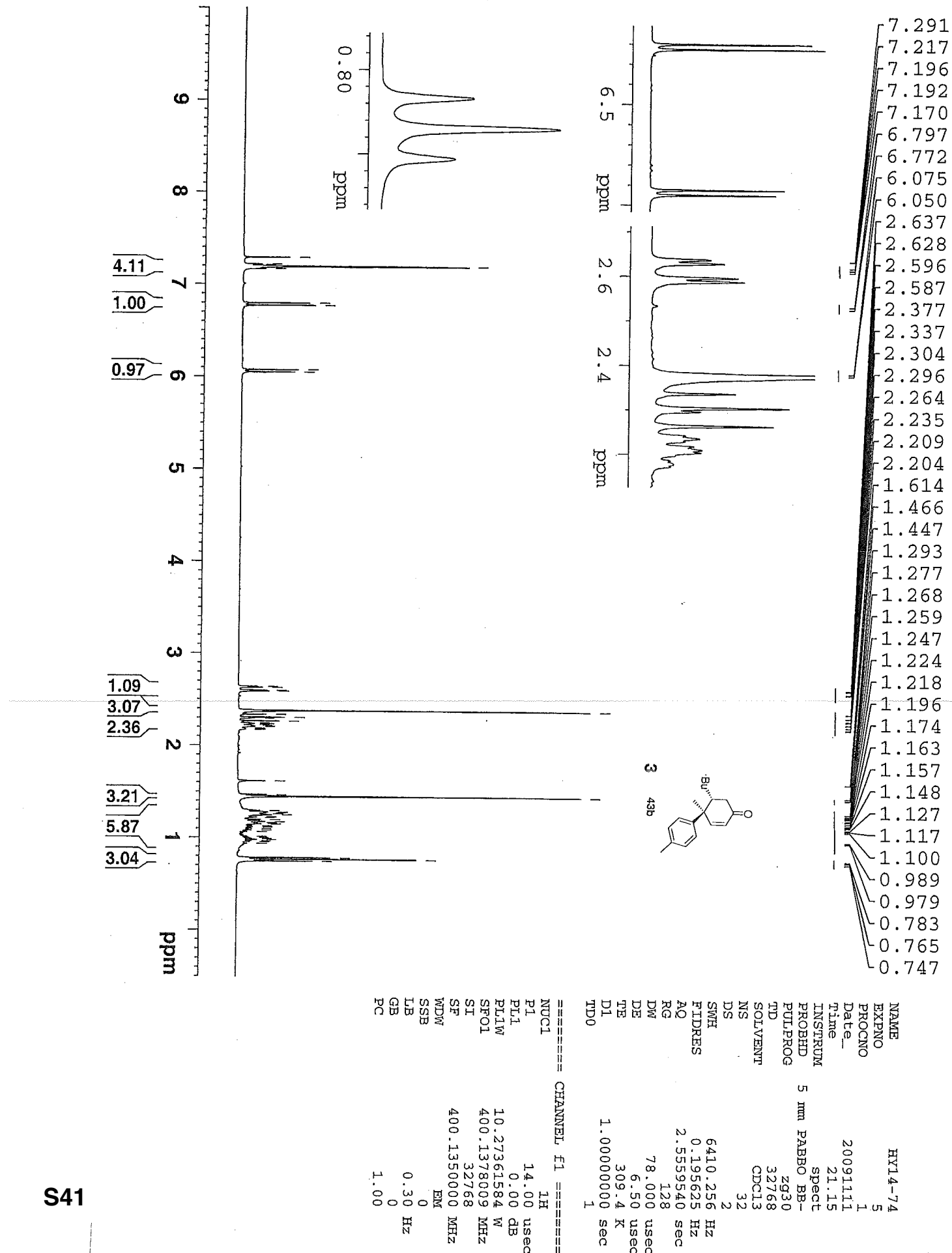
===== CHANNEL f1 =====  
NUC1 1H  
P1 13.50 usec  
PL -3.00 dB  
SFO1 400.2478017 MHz

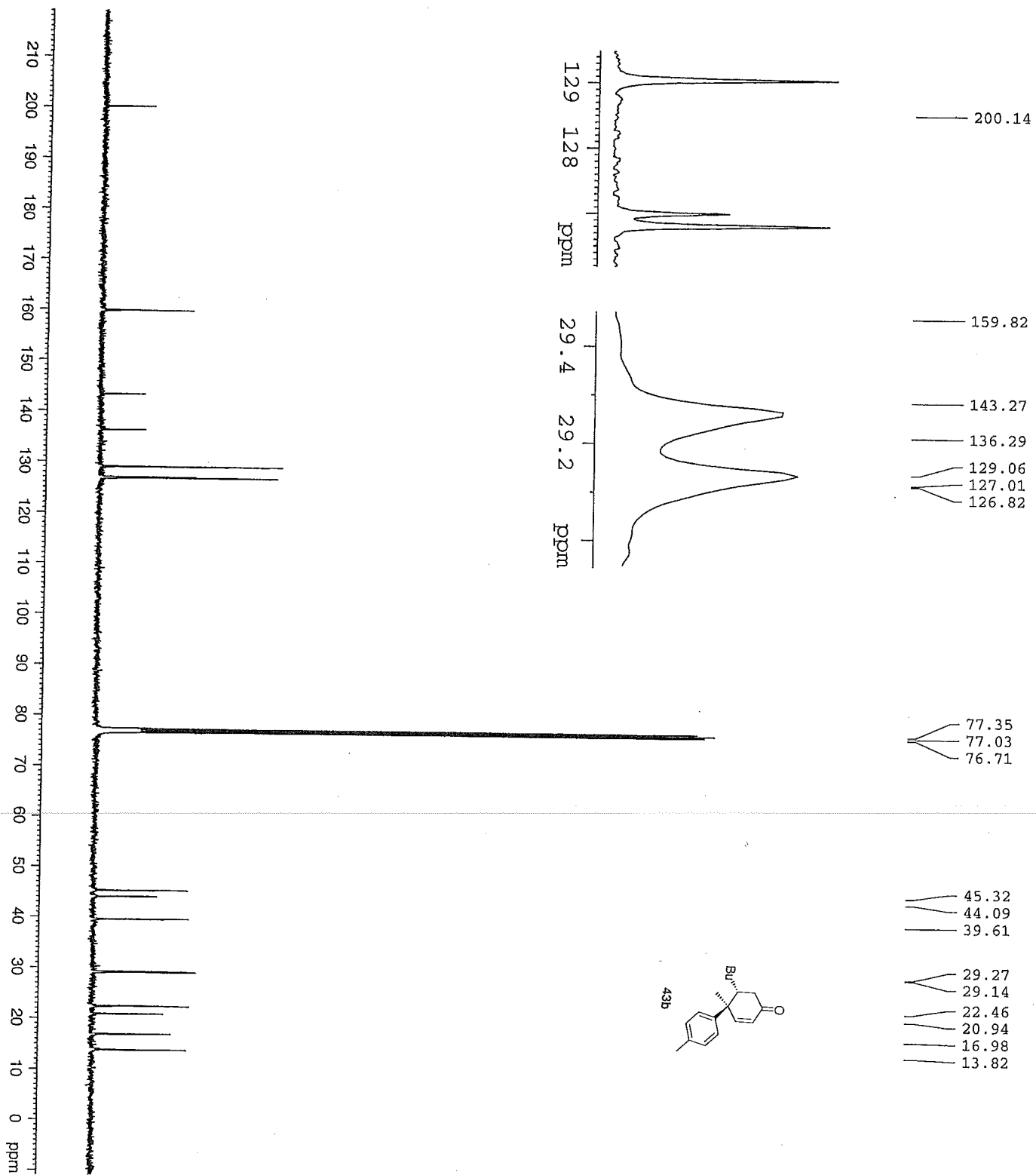
F2 - Processing parameters  
SI 32768  
SF 400.2450000 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00



Current Data Parameters  
NAME HT14-45  
EXPNO 4  
PROCNO 1  
F2 - Acquisition Parameters  
Date\_ 20091020  
Time 22.06  
INSTRUM DEX400  
PROBHD 5 mm BBO BB-1H  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 1001  
DS 4  
SWH 23980.814 Hz  
FIDRES 0.365918 Hz  
AQ 1.3664756 sec  
RG 32768  
DW 20.850 usec  
DE 6.00 usec  
TE 299.2 K  
D1 2.00000000 sec  
d11 0.03000000 sec  
DELTA 1.89999998 sec  
TD0 1  
===== CHANNEL f1 =====  
NUC1 13C  
P1 8.30 usec  
PL1 -3.00 dB  
SFO1 100.6517495 MHz  
===== CHANNEL f2 =====  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 90.00 usec  
PL2 -3.00 dB  
PL12 15.00 dB  
PL13 15.00 dB  
SFO2 400.2466010 MHz  
F2 - Processing parameters  
SI 32768  
SF 100.641850 MHz  
WDW EM  
SSB 0  
LB 3.00 Hz  
GB 0  
PC 1.40







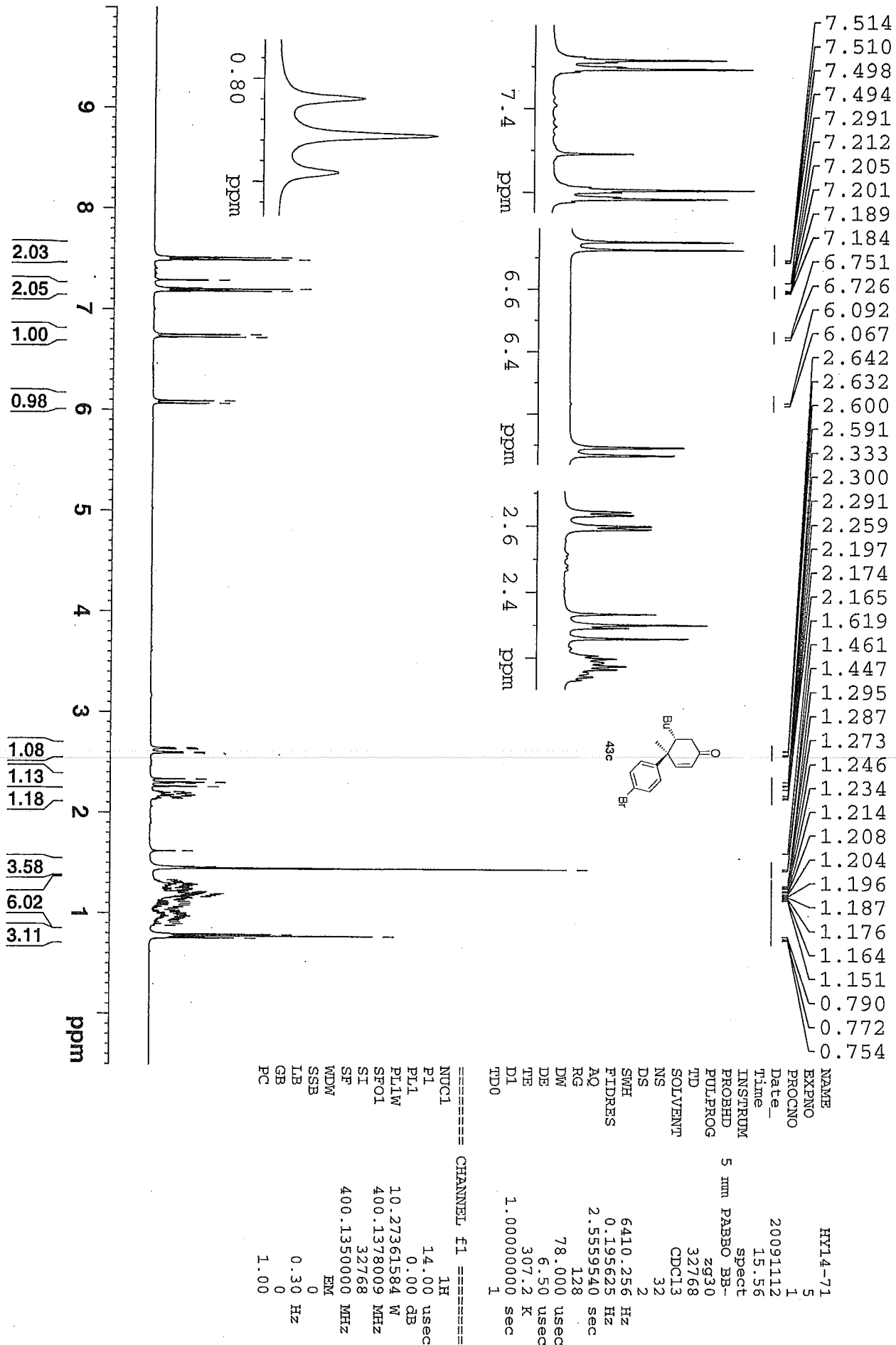
Current Data Parameters  
NAME HYL4-74  
EXPNO 3  
PROCNO 1  
ID 1  
USER Hua

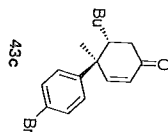
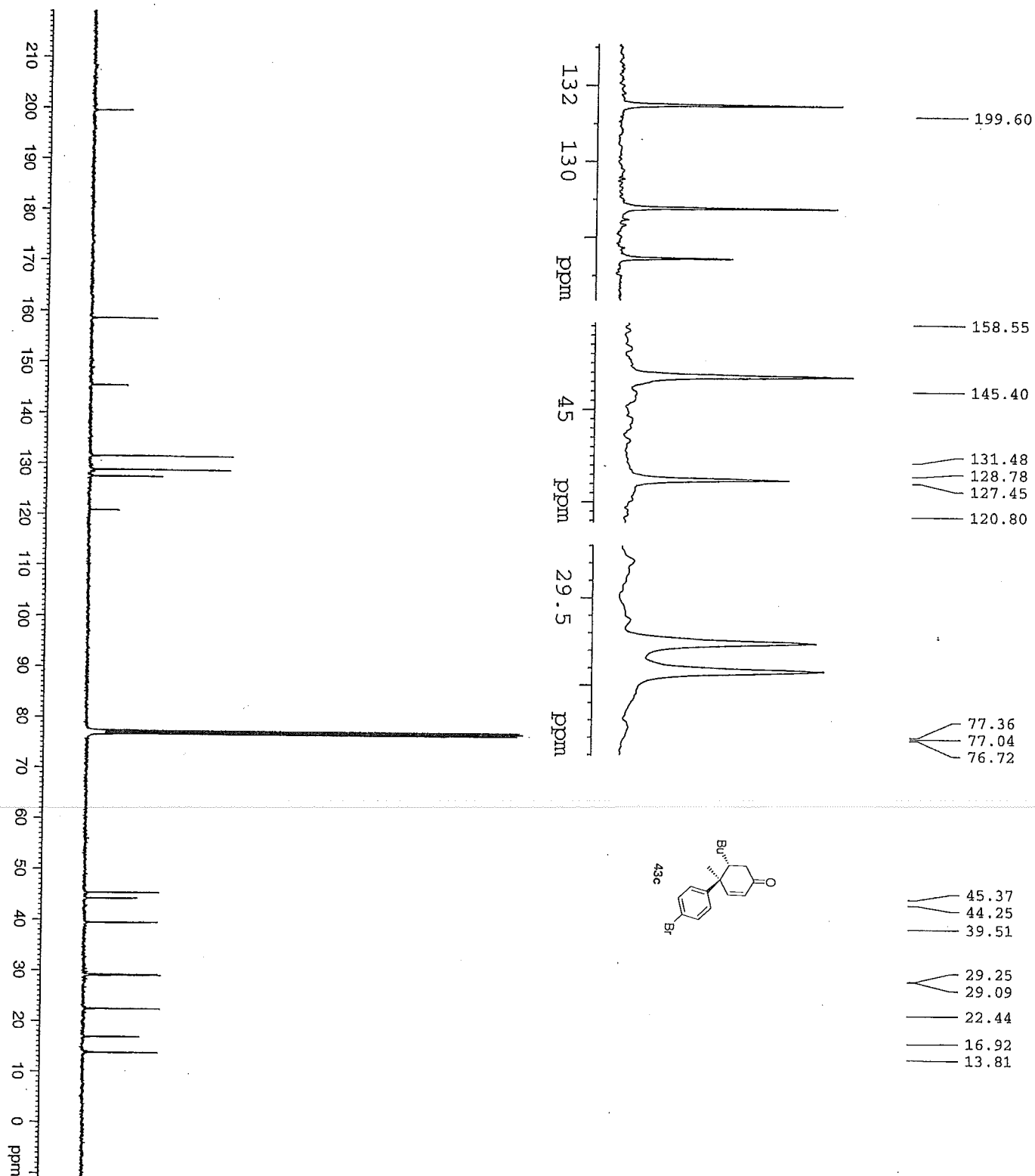
F2 - Acquisition Parameters  
Date\_ 20091111  
Time 16:41  
INSTRUM DFK400  
PROBHD 5 mm BBO BB-1H  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 1500  
DS 4  
SWH 23980.814 Hz  
FIDRES 0.365918 Hz  
AQ 1.3664756 sec  
RG 11585.2  
DE 20.850 usec  
TE 298.2 K  
D1 2.00000000 sec  
d11 0.03000000 sec  
DELTA 1.8993998 sec  
TD0 1

===== CHANNEL f1 =====  
NUC1 13C  
P1 8.30 usec  
PL1 -3.00 dB  
SFO1 100.6517495 MHz

===== CHANNEL f2 =====  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 90.00 usec  
PL2 -3.00 dB  
PL12 15.00 dB  
PL13 15.00 dB  
SFO2 400.2466010 MHz

F2 - Processing parameters  
SI 32768  
SF 100.6416850 MHz  
WDW EM  
SSB 0  
LB 3.00 Hz  
GB 0  
PC 1.40





```

Current Data Parameters
NAME          HY1-71
EXPNO         7
PROCNO        1
DU            1 /m
USER          Hua

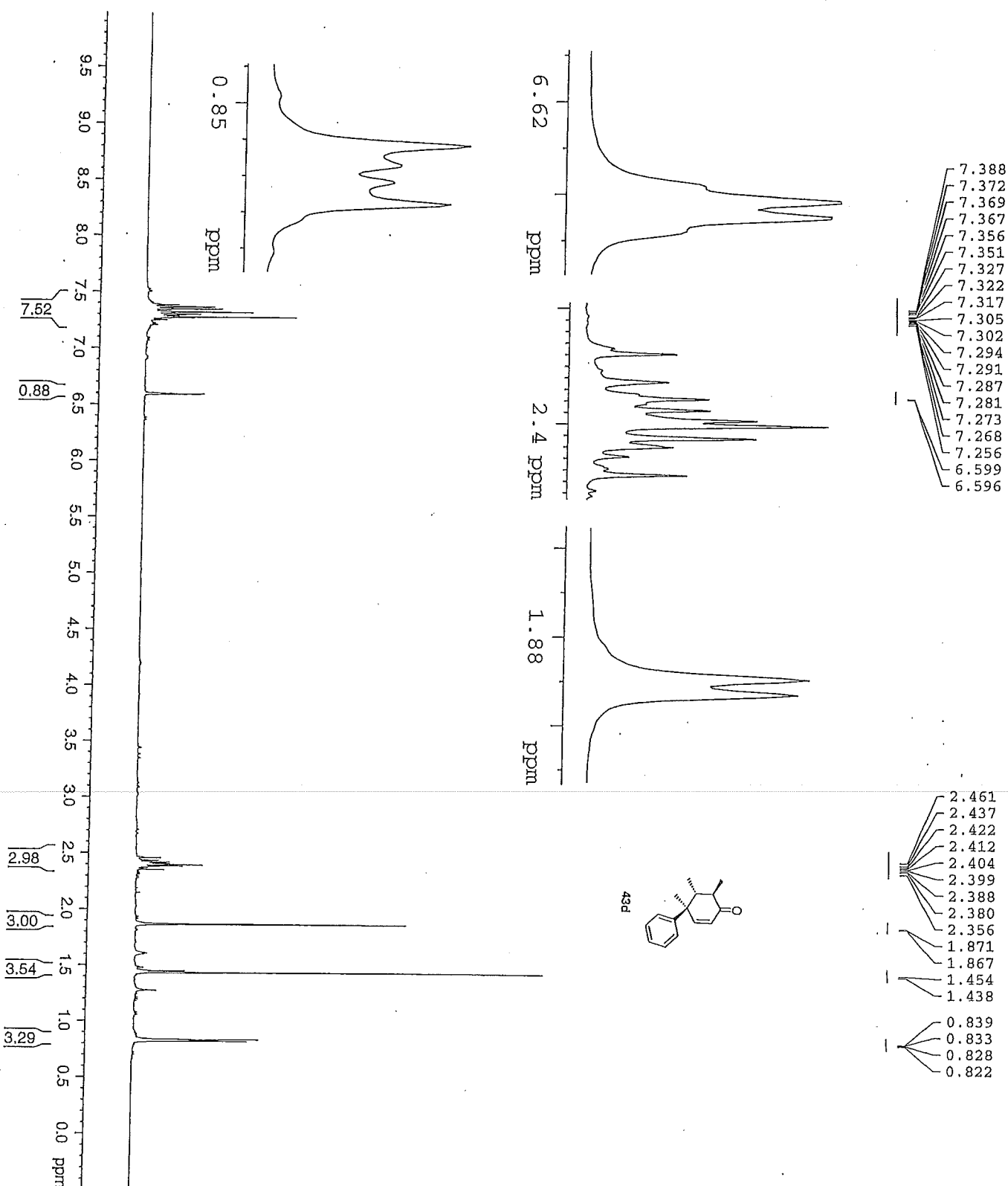
F2 - Acquisition Parameters
Date_         20091112
Time          16.33
INSTRUM       DPK4000
PROBHD        5 mm BBO BB-1H
PULPROG       zgpg30
TD            65536
SOLVENT       CDCl3
DS            1231
SWH           23980.814 Hz
FIDRES       0.365918 Hz
AQ           1.3664756 sec
RG           9195.2
DM           20.850 usec
DE           6.00 usec
TE           298.2 K
D1           2.00000000 sec
d11          0.03000000 sec
DELTA        1.88959998 sec
TD0          1

===== CHANNEL f1 =====
NUC1          13C
P1            8.30 usec
PL1          -3.00 dB
SFO1         100.6517495 MHz

===== CHANNEL f2 =====
CPDPRG2       waltz16
NUC2          1H
PC2           90.00 usec
DCPCP2       -3.00 dB
PL2          15.00 dB
PL12         15.00 dB
PL13         15.00 dB
SFO2         400.2466010 MHz

F2 - Processing Parameters
SI           32768
SF           100.6416880 MHz
WDW          EM
SSB          0
GB           3.00 Hz
CB           1.40
GC          0

```

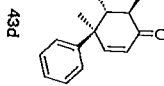
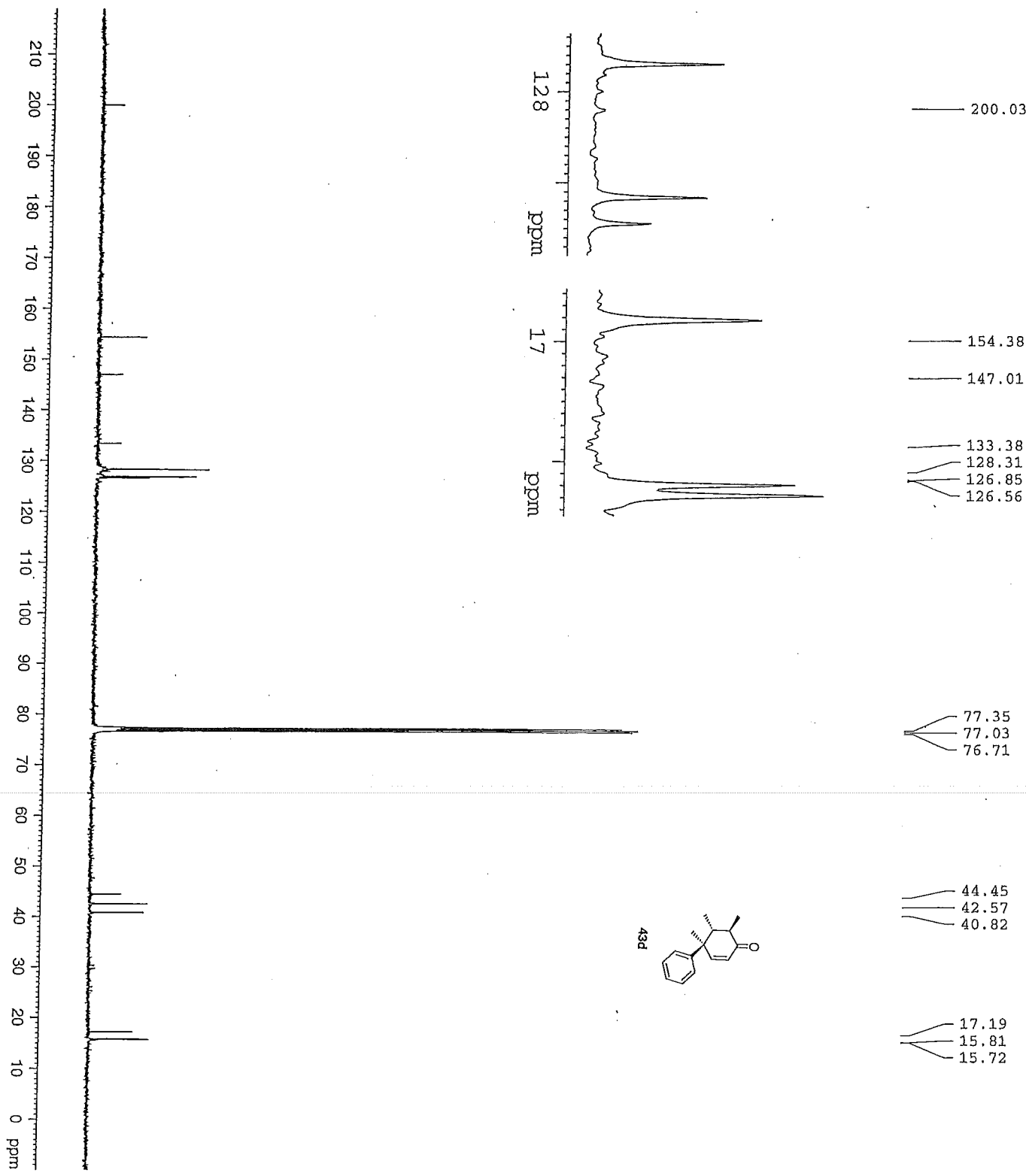


Current Data Parameters  
NAME HYL442  
EXPNO 1  
PROCNO 1  
DIR /m  
USER Hui

F2 - Acquisition Parameters  
Date\_ 20091020  
Time 10.58  
INSTRUM DPK400  
PROBHD 5 mm BBO HS-1H  
PULPROG zg30  
TD 32768  
SOLVENT CDCl3  
NS 32  
DS 2  
SWH 6410.256 Hz  
FIDRES 0.195625 Hz  
AQ 2.5559540 sec  
RG 322.5  
RW 78.000 usec  
DE 6.00 usec  
TE 298.2 K  
D1 1.00000000 sec  
TD0 1

==== CHANNEL f1 =====  
NUC1 1H  
P1 13.50 usec  
PL -3.00 dB  
SFO1 400.2478017 MHz

F2 - Processing parameters  
SI 32768  
SF 400.2450000 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00



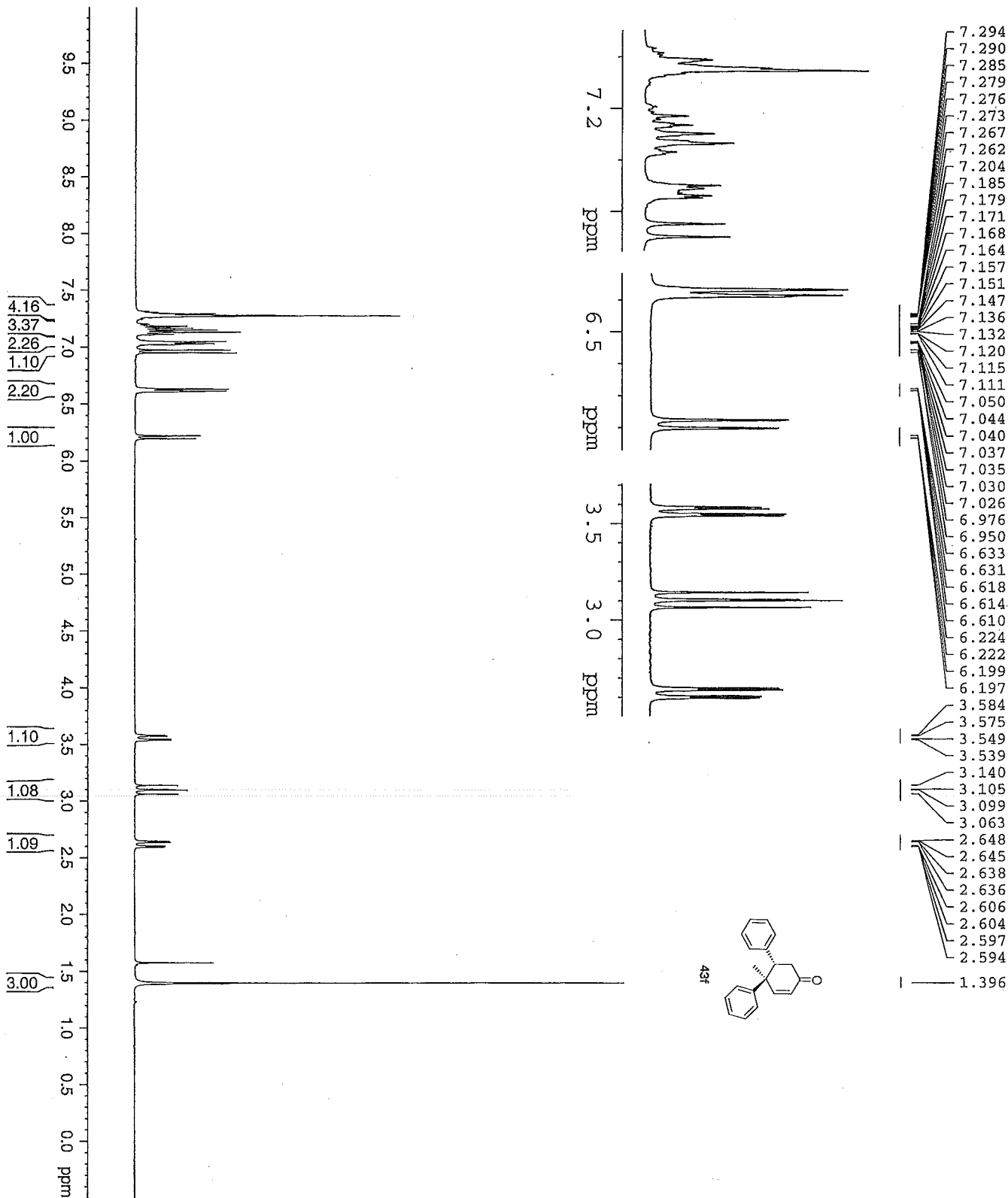
Current Data Parameters  
NAME HYL4-42  
EXPNO 3  
PROCNO 1  
DU /m  
USER Hua

F2 - Acquisition Parameters  
Date\_ 20081020  
Time 12.24  
INSTRUM DEX400  
PROBHD 5 mm BBO BB-1H  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl<sub>3</sub>  
NS 1253  
DS 4  
SWH 23980.814 Hz  
FIDRES 0.365918 Hz  
AQ 1.3664756 sec  
RG 2580.3  
DW 20.850 usec  
DE 6.00 usec  
TE 299.2 K  
D1 2.00000000 sec  
d11 0.03000000 sec  
DELTA 1.89999998 sec  
TD0 1

==== CHANNEL f1 =====  
NUC1 13C  
P1 8.30 usec  
PL1 -3.00 dB  
SFO1 100.6517485 MHz

==== CHANNEL f2 =====  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 90.00 usec  
PL2 -3.00 dB  
PL12 15.00 dB  
PL13 15.00 dB  
SFO2 400.2466010 MHz

F2 - Processing parameters  
SI 32768  
SF 100.6416850 MHz  
WDW EM  
SSB 0  
LB 3.00 Hz  
GB 0  
PC 1.40

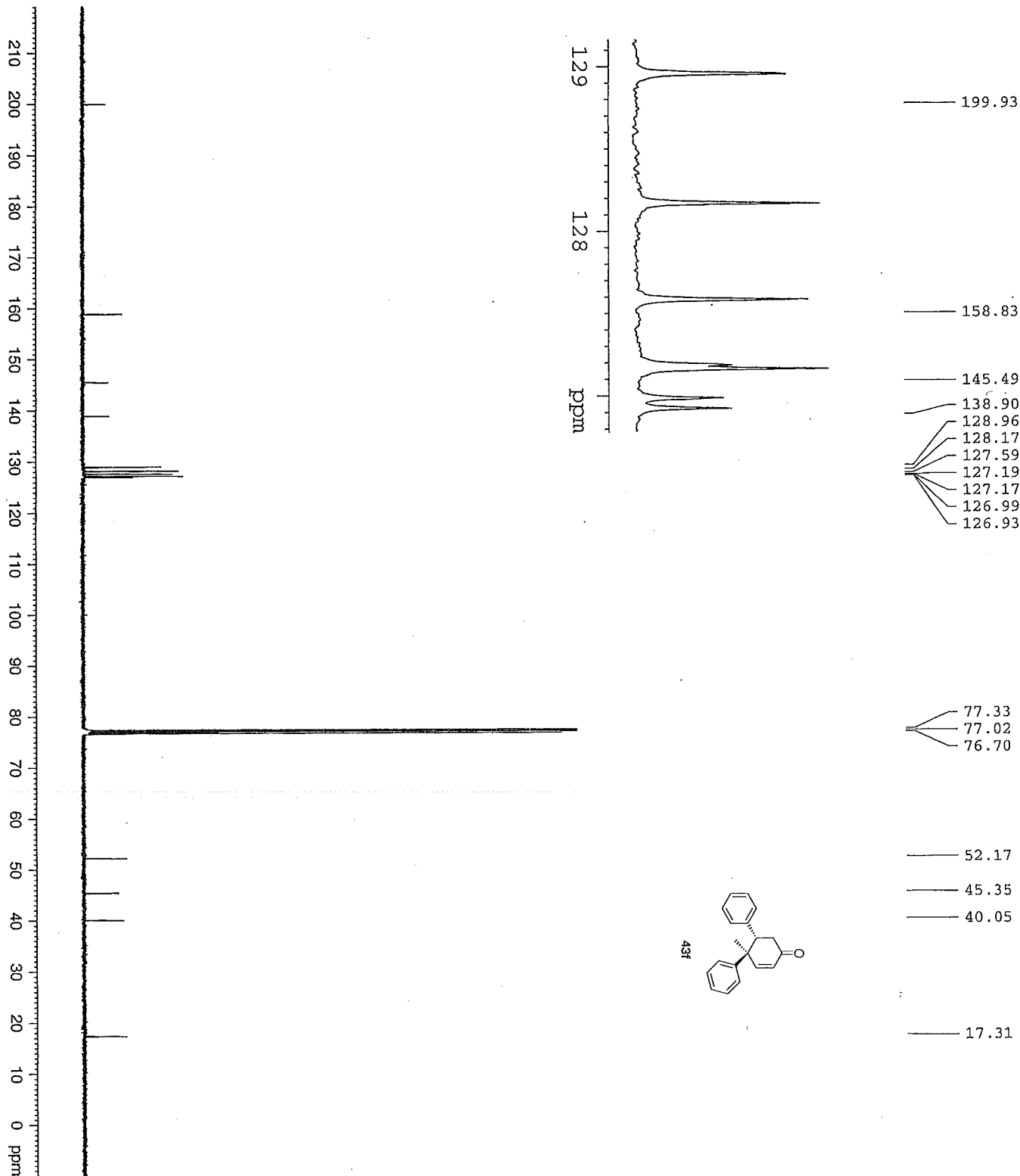


Current Data Parameters  
NAME HT13-85  
EXPNO 3  
PROCNO 1  
DU /m  
USER Rua

F2 - Acquisition Parameters  
Date\_ 20090921  
Time 20.07  
INSTRUM DFX400  
PROBHD 5 mm BBO BB-1H  
PULPROG zgpg30  
TD 32768  
SOLVENT CDCl3  
NS 32  
DS 2  
SWH 6410.256 Hz  
FIDRES 0.195625 Hz  
AQ 2.5559540 sec  
RG 645.1  
DW 78.000 usec  
DE 6.00 usec  
TE 299.2 K  
D1 1.00000000 sec  
TD0 1

===== CHANNEL f1 =====  
NUC1 1H  
P1 13.50 usec  
PL1 -3.00 dB  
SFO1 400.2428017 MHz

F2 - Processing parameters  
SI 32768  
SF 400.2400000 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00



Current Data Parameters  
NAME HX13-65  
EXPNO 5  
PROCNO 1  
PU /m  
USER Haa

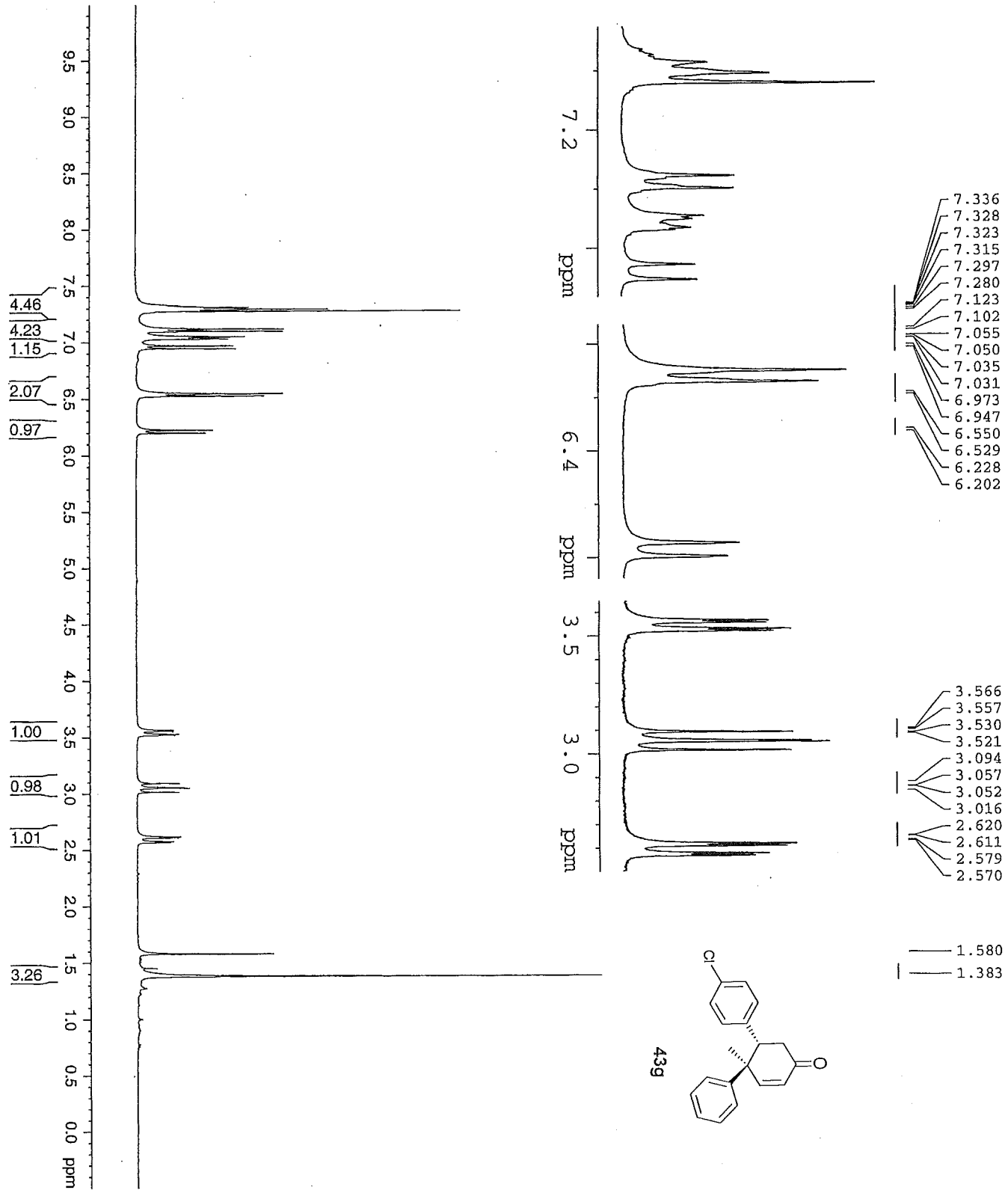
F2 - Acquisition Parameters  
Date\_ 20090921  
Time 21.49  
INSTRUM DFK400  
PROBHD 5 mm BBO BB-1H  
PULPROG zgpg30  
TD 65536  
FIDRES 0.364735  
SOLVENT CDCl3  
NS 1362  
DS 4  
SWH 23980.814 Hz  
FIDRES 0.365918 Hz  
AQ 1.3664735 sec  
RG 9195.2  
RW 20.850 usec  
DE 6.00 usec  
TE 299.2 K  
D1 2.00000000 sec  
d11 0.03000000 sec  
DELTA 1.89999998 sec  
TD0 1

==== CHANNEL f1 =====  
NUC1 13C  
P1 8.30 usec  
PL1 -3.00 dB  
SFO1 100.6504921 MHz

==== CHANNEL f2 =====  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 90.00 usec  
PL2 -3.00 dB  
PL12 15.00 dB  
PL13 15.00 dB  
SFO2 400.2416010 MHz

F2 - Processing Parameters  
SI 32768  
SF 100.6404280 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.00



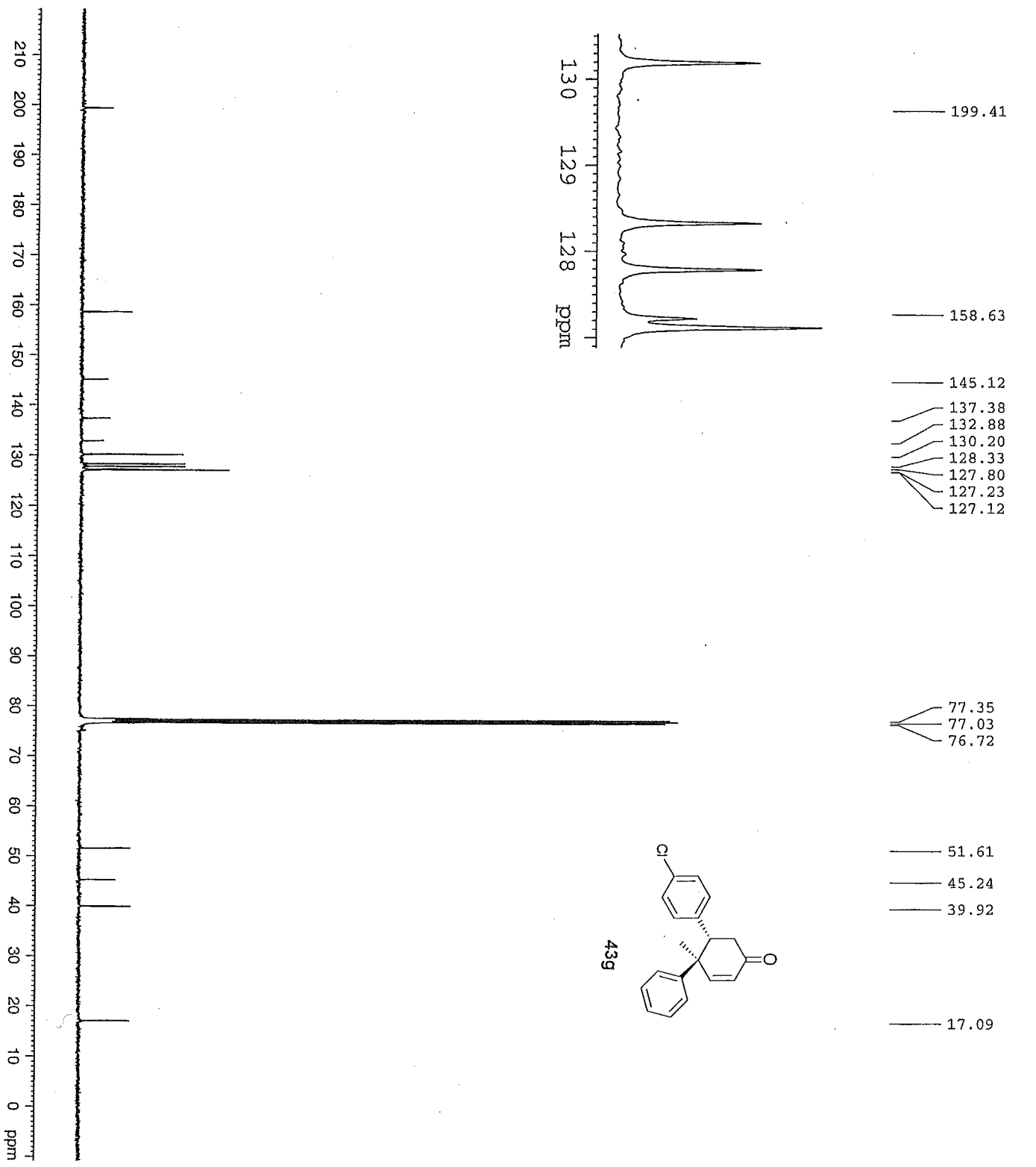


Current Data Parameters  
NAME HY14-12  
EXPNO 3  
PROCNO 1  
PU /m  
USER Hua

F2 - Acquisition Parameters  
Date\_ 20091022  
Time 12.36  
INSTRUM DEK400  
PROBHD 5 mm BBO BB-1H  
PULPROG zg30  
TD 32768  
SOLVENT CDCl3  
NS 32  
DS 2  
SWH 6410.256 Hz  
FIDRES 0.195625 Hz  
AQ 2.5559540 sec  
RG 11024  
DM 78.000 usec  
DE 26.00 usec  
TE 297.2 K  
D1 1.0000000 sec  
TD0 1

==== CHANNEL f1 =====  
NUC1 1H  
P1 13.50 usec  
PL1 -3.00 dB  
SFO1 400.2478017 MHz

F2 - Processing parameters  
SI 32768  
SF 400.2450000 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00



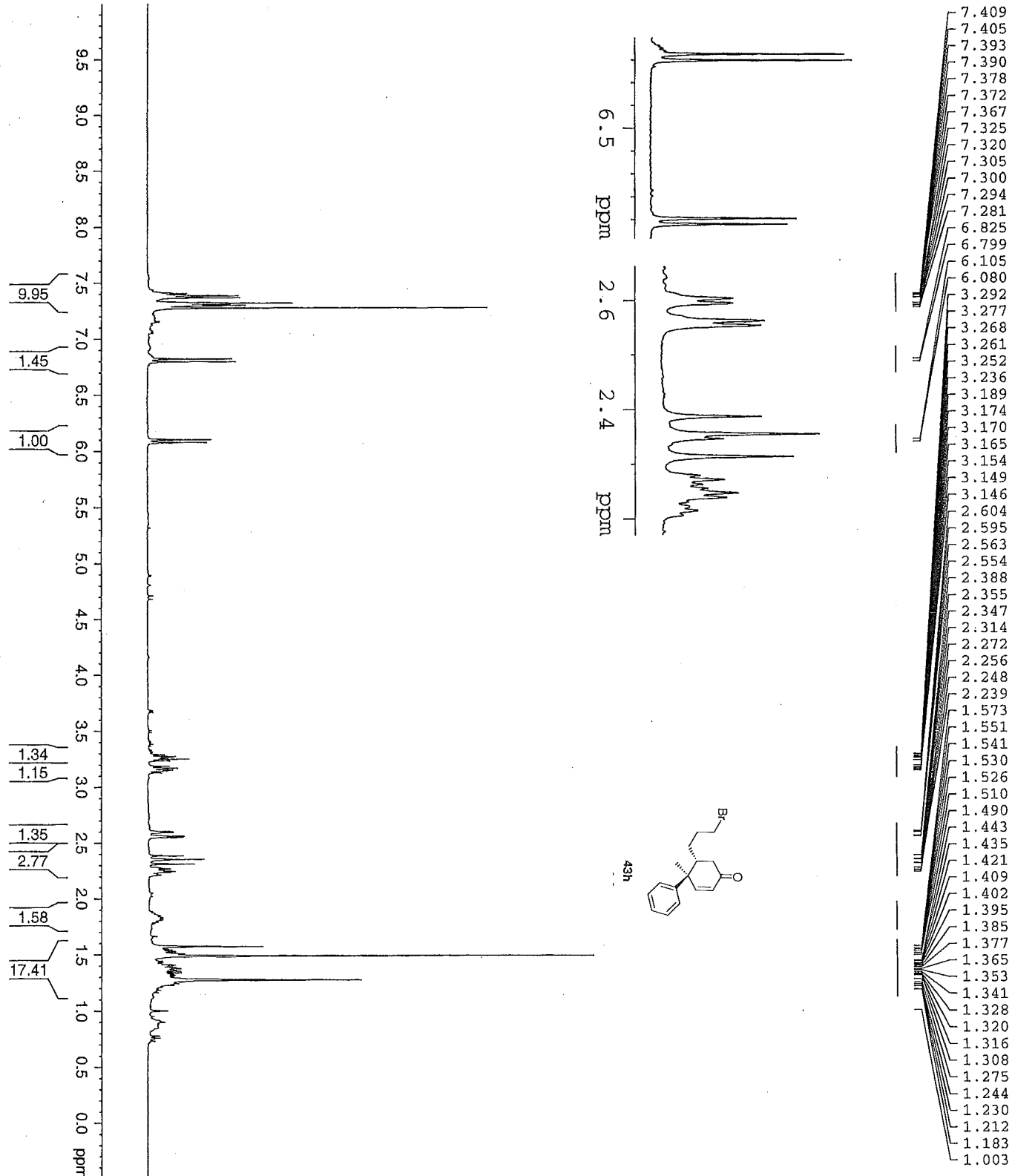
Current Data Parameters  
NAME HYL4-12  
EXPNO 8  
PROCNO 1  
DU /m  
USER Hua

F2 - Acquisition Parameters  
Date\_ 20091029  
Time 14.48  
INSTRUM DPX400  
PROBHD 5 mm BBO BB-1H  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl<sub>3</sub>  
NS 2704  
DS 4  
SWH 23980.814 Hz  
FIDRES 0.365918 Hz  
AQ 1.3664756 sec  
RG 13004  
DW 20.850 usec  
DE 6.00 usec  
TE 298.2 K  
D1 2.00000000 sec  
d11 0.03000000 sec  
DELTA 1.89999998 sec  
TD0 1

===== CHANNEL f1 =====  
NUC1 13C  
P1 8.30 usec  
PL1 -3.00 dB  
SFO1 100.6517495 MHz

===== CHANNEL f2 =====  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 90.00 usec  
PL2 -3.00 dB  
PL12 15.00 dB  
PL13 15.00 dB  
SFO2 400.2466010 MHz

F2 - Processing parameters  
SI 32768  
SF 100.6416850 MHz  
WDW EM  
SSB 0  
LB 3.00 Hz  
GB 0  
PC 1.40

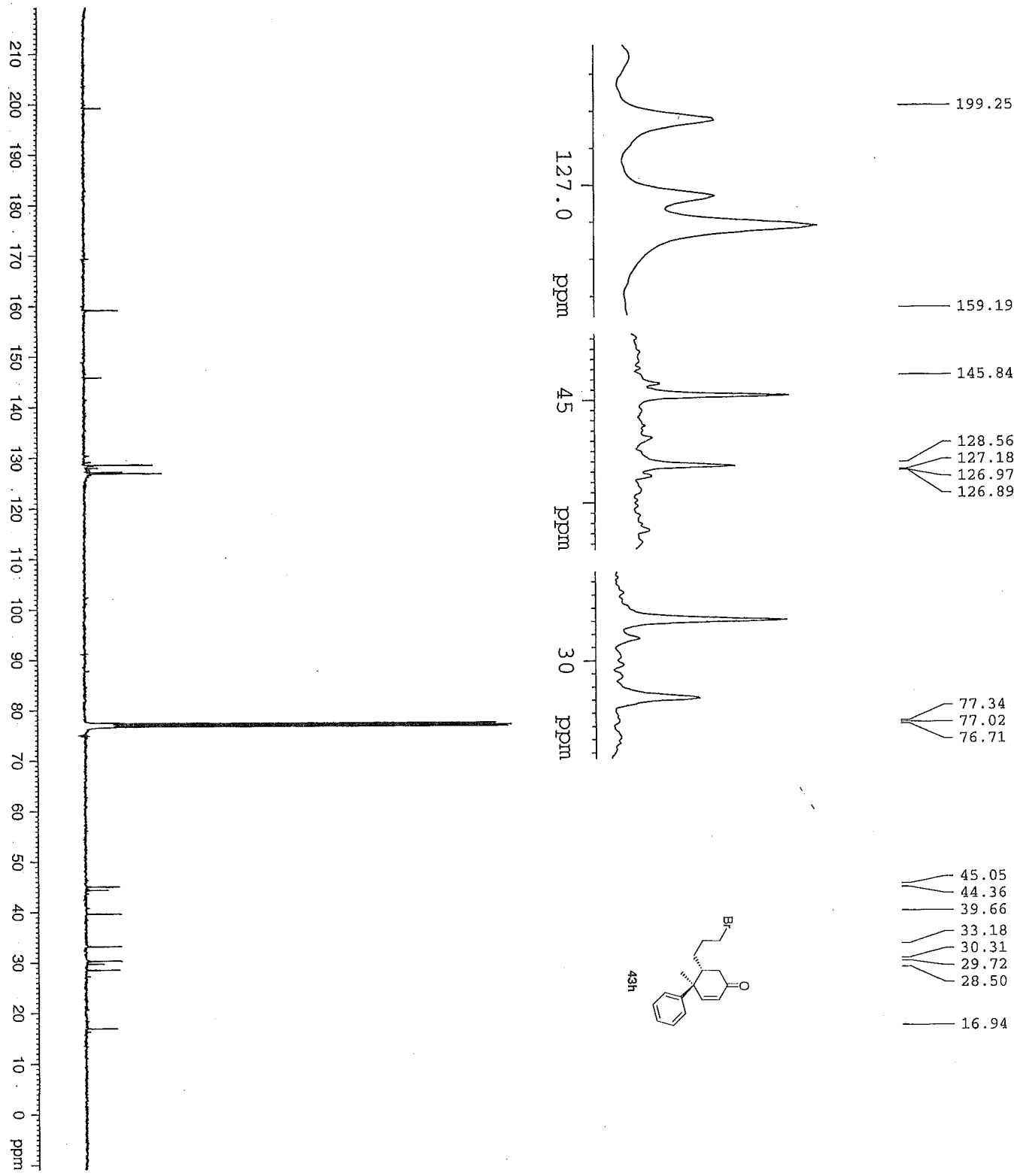


Current Data Parameters  
NAME HY15-57  
EXPNO 3  
PROCNO 1  
PU /m  
USER Hua

F2 - Acquisition Parameters  
Date\_ 20100224  
Time 21.59  
INSTRUM DPX400  
PROBHD 5 mm BBO BB-1H  
PULPROG zg30  
TD 32768  
SOLVENT CDCl3  
NS 32  
DS 2  
SWH 6410.256 Hz  
FIDRES 0.195625 Hz  
AQ 2.5559540 sec  
RG 645.1  
RW 78.000 usec  
DE 6.00 usec  
TE 298.2 K  
D1 1.00000000 sec  
TD0 1

===== CHANNEL f1 =====  
NUC1 1H  
P1 13.50 usec  
PLA -3.00 dB  
SF01 400.2478017 MHz

F2 - Processing parameters  
SI 32768  
SF 400.2450000 MHz  
WDW EM  
SSB 0  
GB 0  
PC 1.00



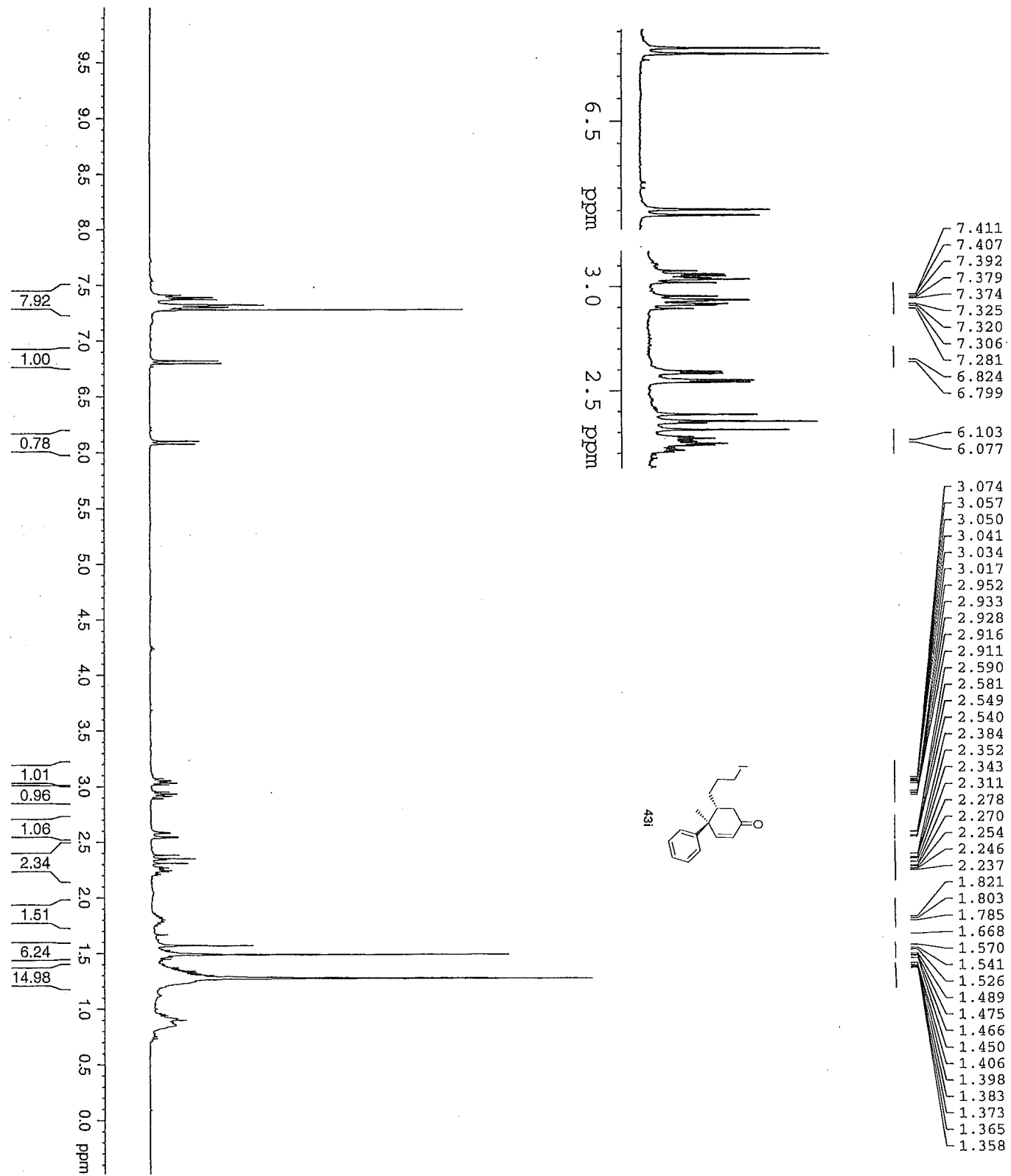
Current Data Parameters  
NAME HYL5-57  
EXPNO 5  
PROCNO 1  
IN 1  
USER Hua

F2 - Acquisition Parameters  
Date\_ 20100228  
Time 19.06  
INSTRUM DPX400  
PROBHD 5 mm BBO BB-1H  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 3024  
DS 4  
SWH 23580.814 Hz  
FIDRES 0.365818 Hz  
AQ 1.364756 sec  
RG 5160  
RG 20.850 usec  
DW 6.09 usec  
DE 300.2 K  
TE 2.00000000 sec  
d1 0.03000000 sec  
DELTA 1.89999998 sec  
TD0 1

==== CHANNEL f1 =====  
NUC1 13C  
P1 8.30 usec  
PL1 -3.00 dB  
SFO1 100.6517495 MHz

==== CHANNEL f2 =====  
CPDPRG2 waltz16  
NUC2 1H  
P2 90.00 usec  
PL2 -3.00 dB  
PL3 15.00 dB  
PL4 15.00 dB  
SFO2 400.2466010 MHz

F2 - Processing parameters  
SI 32768  
SF 100.6416850 MHz  
WDW EM  
SSB 0  
LB 3.00 Hz  
GB 0  
PC 1.40

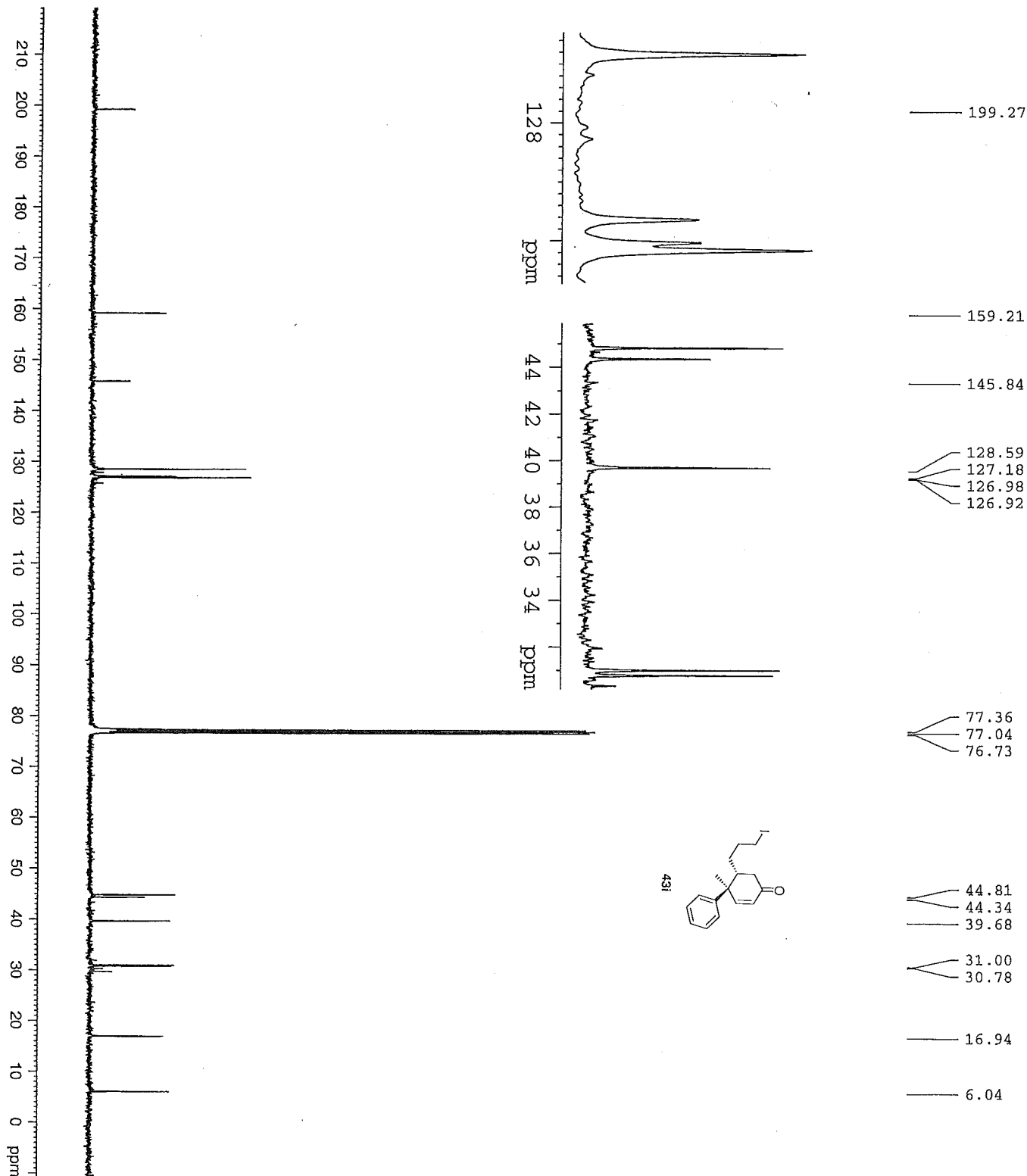


Current Data Parameters  
NAME HY15-10  
EXPNO 5  
PROCNO 1  
DU /m  
USER Hua

F2 - Acquisition Parameters  
Date\_ 20100211  
Time 10.47  
INSTRUM DEX400  
PROBHD 5 mm BBO BB-1H  
PULPROG zgpg30  
TD 32768  
SOLVENT CDCl3  
NS 32  
DS 2  
SWH 6410.256 Hz  
FIDRES 0.18625 Hz  
AQ 2.5355340 sec  
RG 574.7  
DW 78.000 usec  
DE 6.00 usec  
TE 298.2 K  
D1 1.00000000 sec  
TD0 1

===== CHANNEL f1 =====  
NUC1 1H  
P1 13.50 usec  
PL1 -3.00 dB  
SFO1 400.2478017 MHz

F2 - Processing parameters  
SI 32768  
SF 400.2450000 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00



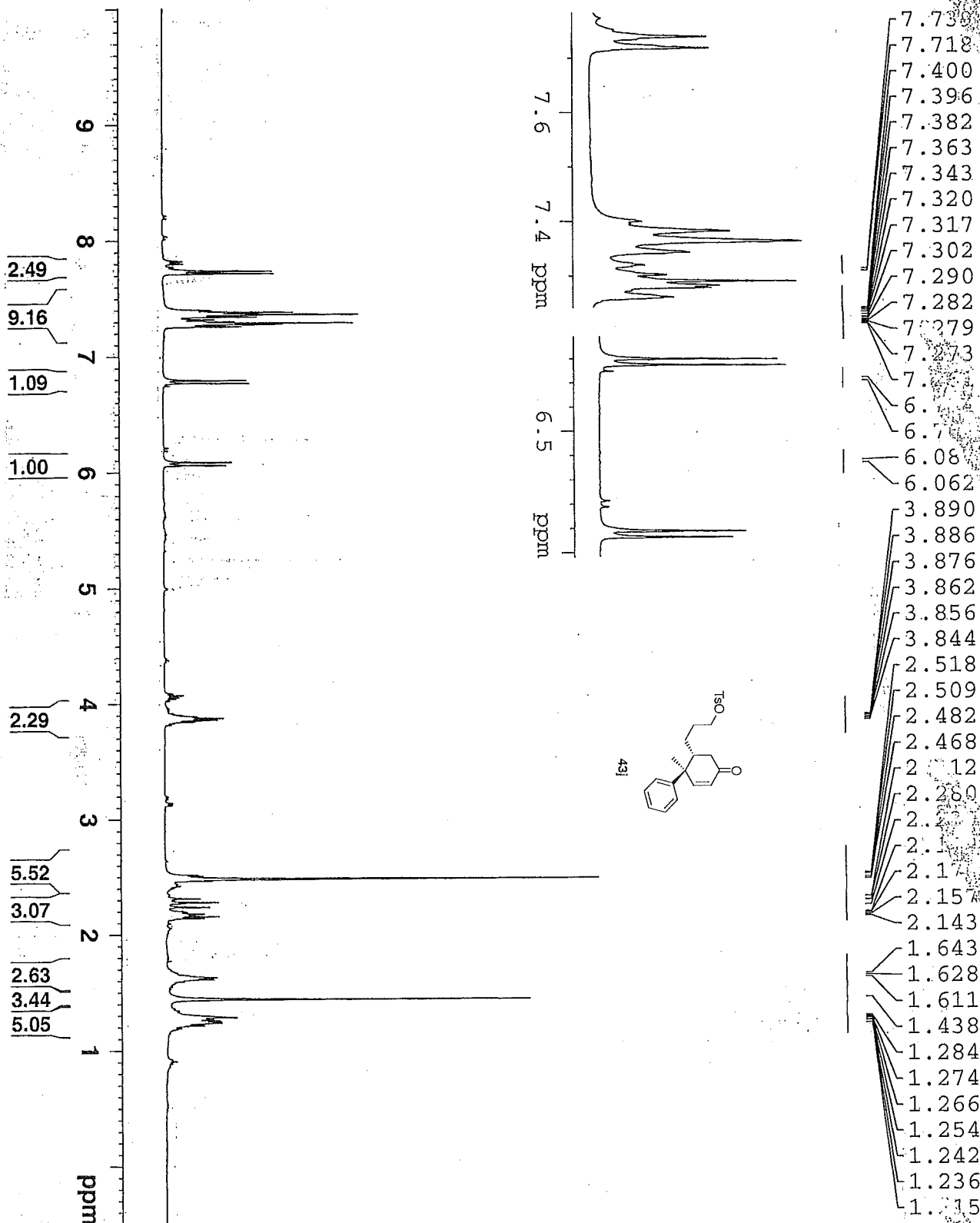
Current Data Parameters  
NAME HYL5-10  
EXNO 4  
PROCNO 1  
DT /m  
USER Hua

F2 - Acquisition Parameters  
Date\_ 20091231  
Time\_ 17.18  
INSTRUM DPX400  
PROBHD 5 mm BBO HB-1H  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 648  
DS 4  
SWH 23980.814 Hz  
FIDRES 0.355918 Hz  
AQ 1.366756 sec  
RG 32728  
DB 20.850 usec  
DE 6.00 usec  
TE 299.2 K  
D1 2.0000000 sec  
d11 0.0300000 sec  
DELTA 1.8999998 sec  
TD0 1

==== CHANNEL f1 =====  
NUC1 13C  
P1 8.30 usec  
PL1 -3.00 dB  
SFO1 100.6517495 MHz

==== CHANNEL f2 =====  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 90.00 usec  
PL2 -3.00 dB  
PL12 15.00 dB  
PL13 15.00 dB  
SFO2 400.2466010 MHz

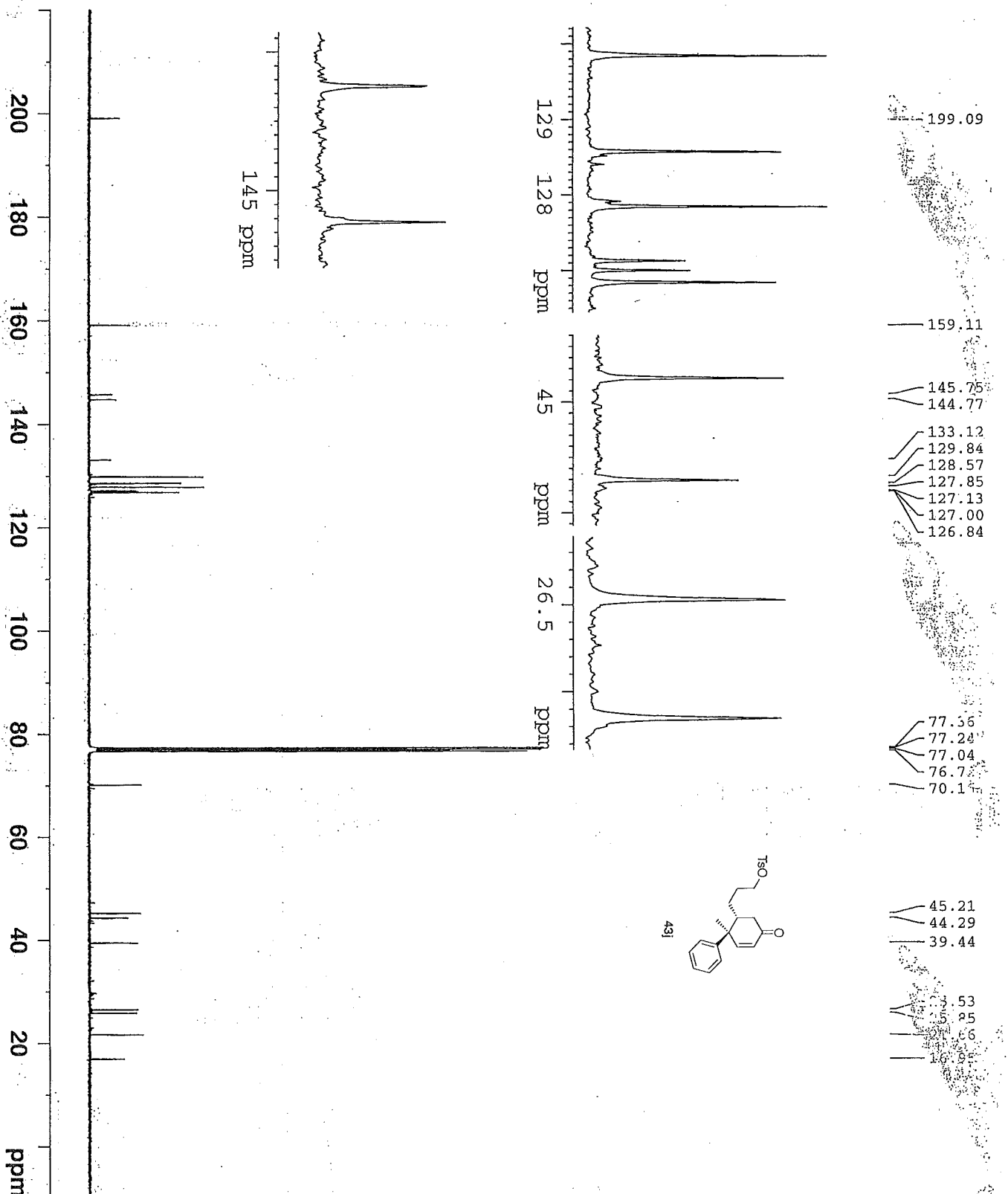
F2 - Processing parameters  
SI 32768  
SF 100.6416850 MHz  
WDW EM  
SSB 0  
LB 3.00 Hz  
GB 0  
PC 1.40



NAME	HYL-09
EXPNO	1
PROCNO	20100309
F2	22.18
INSTRUM	probehd
PROBHD	5 mm PABBO BB-
PULPROG	zg30
TD	32768
SOLVENT	CDCl3
NS	32
DS	2
SWH	6410.256
FIDRES	0.195625
AQ	2.5559540
RG	128
DW	78.000
DE	6.50
TE	298.3
D1	2.0000000
TD0	1

===== CHANNEL f1 =====	
NUC1	1H
P1	14.00
PL1	0.00
PL1W	10.27361584
SFO1	400.1378009
SI	32768
SF	400.1350000
WDW	EM
SSB	0
LB	0.30
GB	0
PC	1.00



NAME	HY15-69
EXPNO	8
PROCNO	20150006
Date_	20150006
Time	11:00
INSTRUM	spect
PROBHD	5 mm PABBO BB-
PULPROG	zgpg30
TD	65536
SOLVENT	CDCl3
NS	3024
DS	4
SWH	25125.629
FIDRES	0.383387
AQ	1.3042164
RG	18390.4
DW	19.900
DE	6.50
TE	299.1
D1	2.0000000
D11	0.0300000
TD0	1

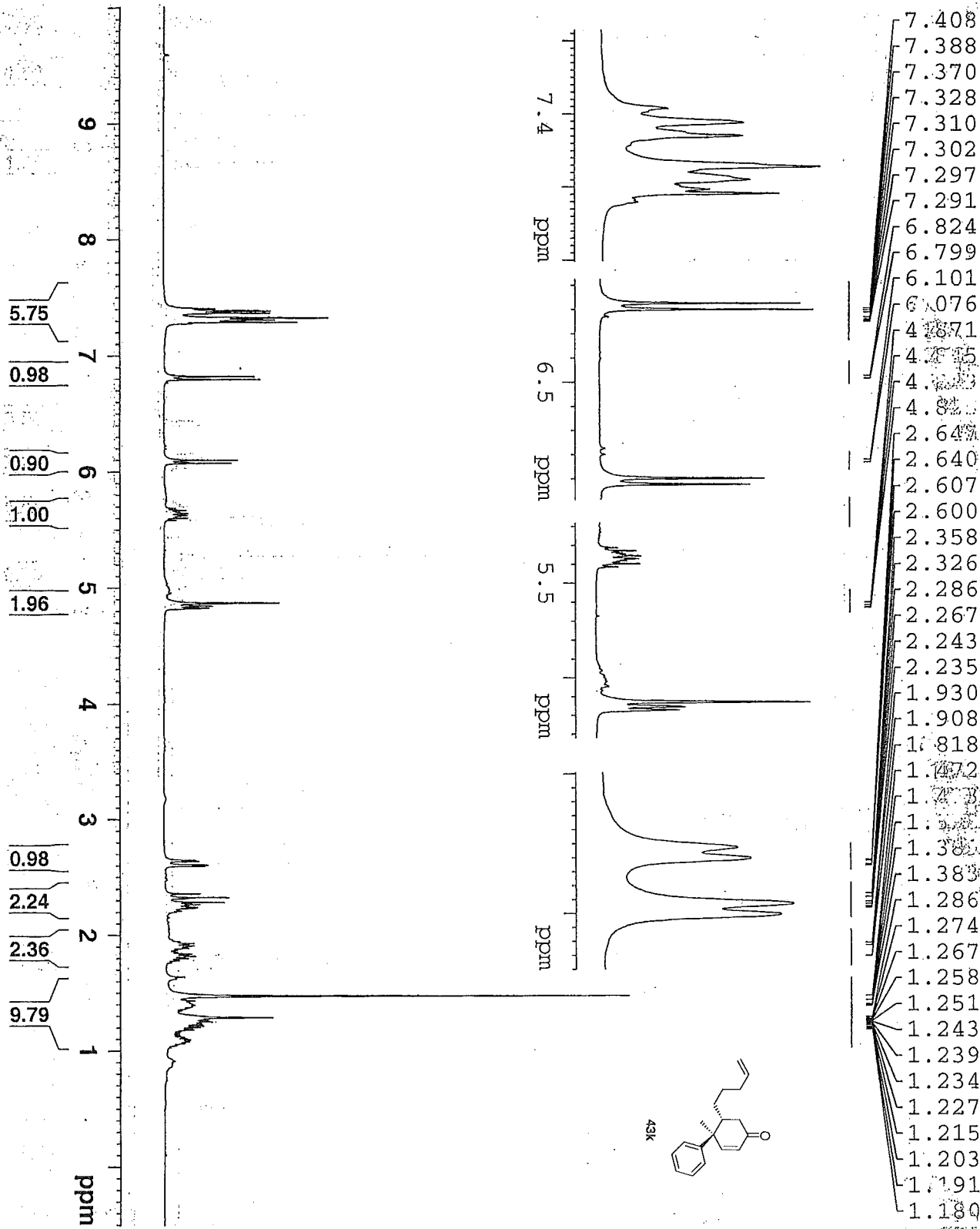
  

===== CHANNEL f1 =====	
NUC1	13C
P1	9.00
PL1	-2.00
PL1W	46.89702606
SFO1	100.6255966

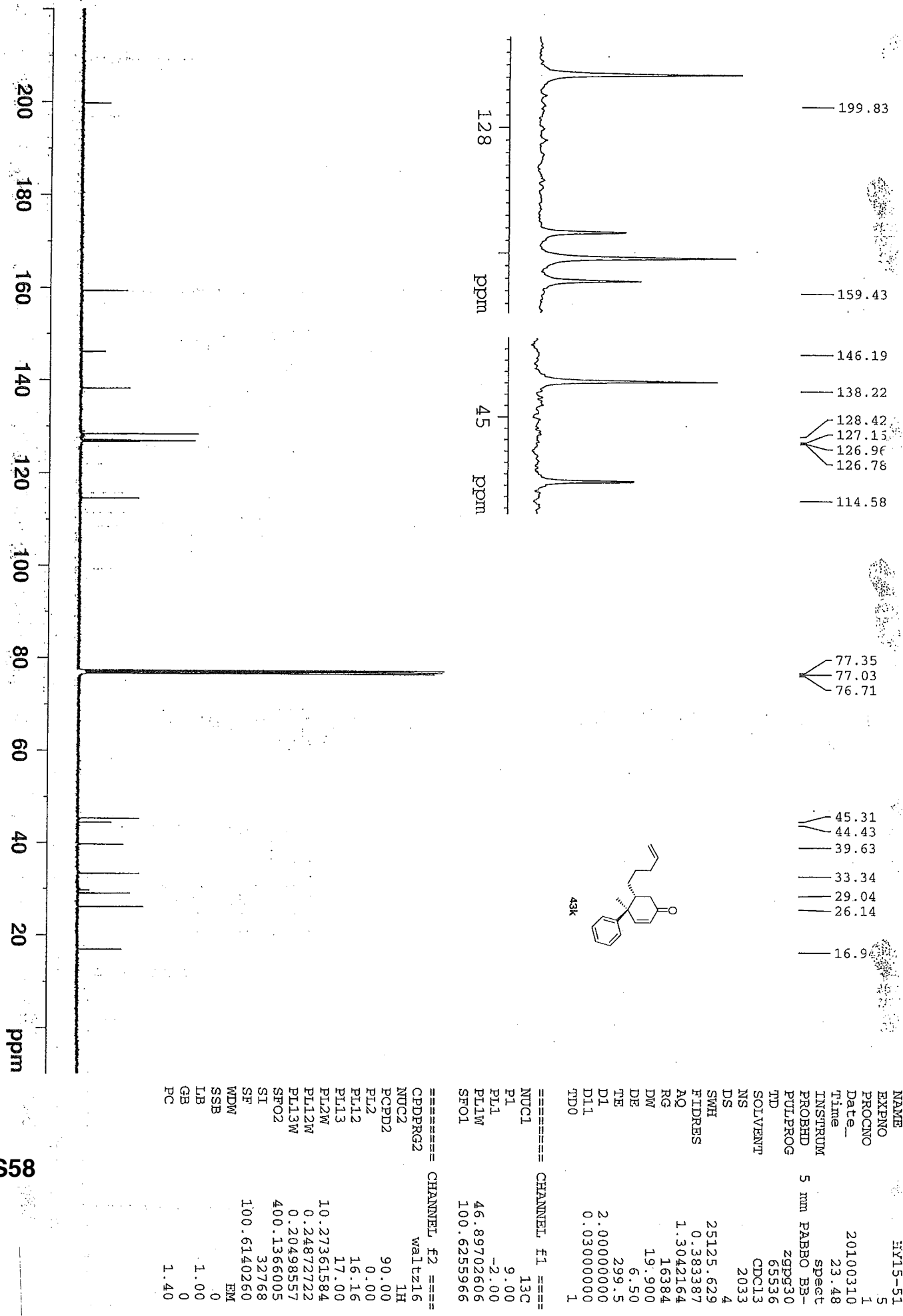
  

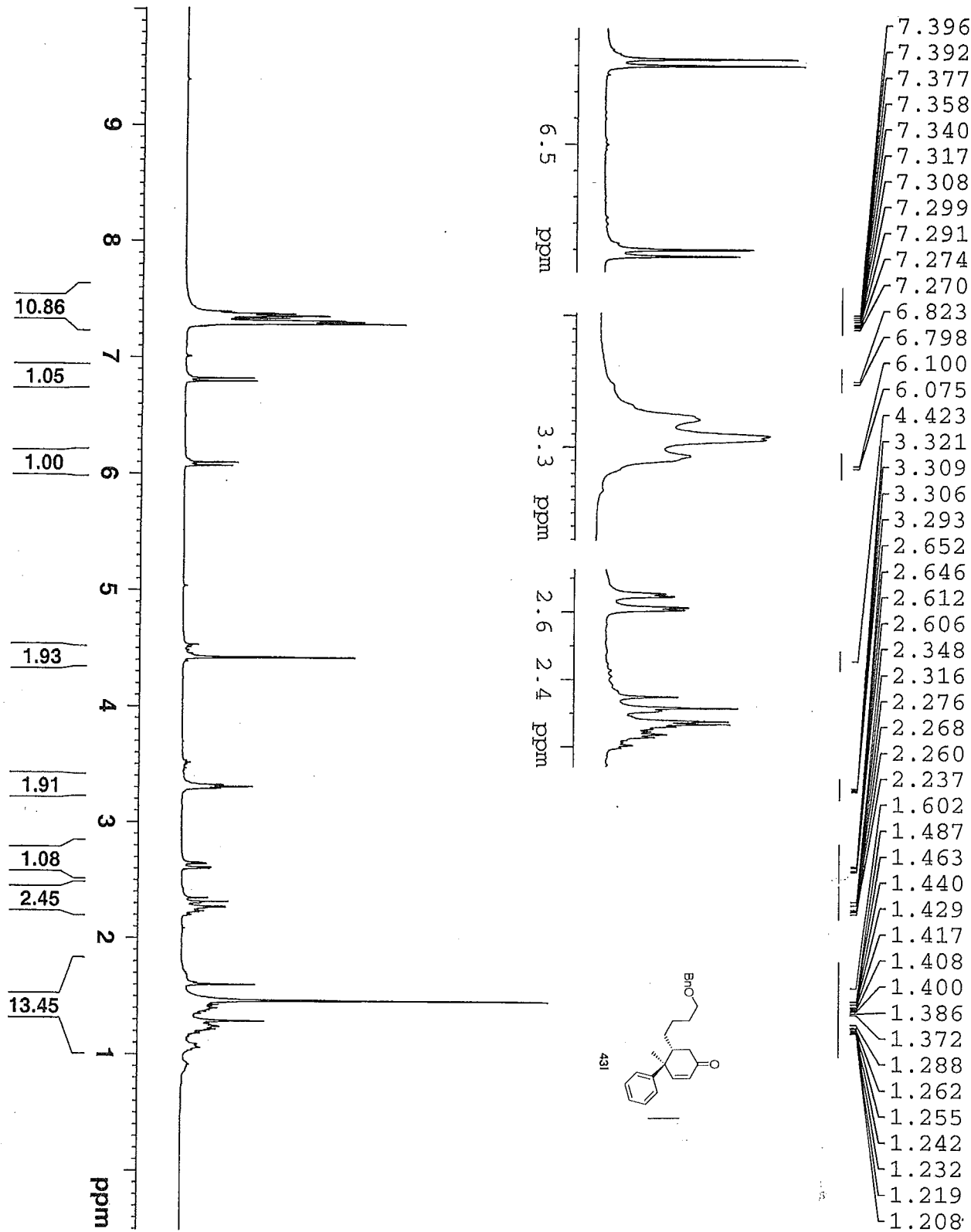
===== CHANNEL f2 =====	
CPDPRG2	waltz16
NUC2	1H
PCPD2	90.00
PL2	0.00
PL12	16.16
PL13	17.00
PL12W	10.27361584
PL13W	0.24872722
SFO2	0.20498557
SI	400.1366005
SF	32768
WDW	100.6140260
SSB	EM
LB	0
GB	1.00
PC	0
	1.40





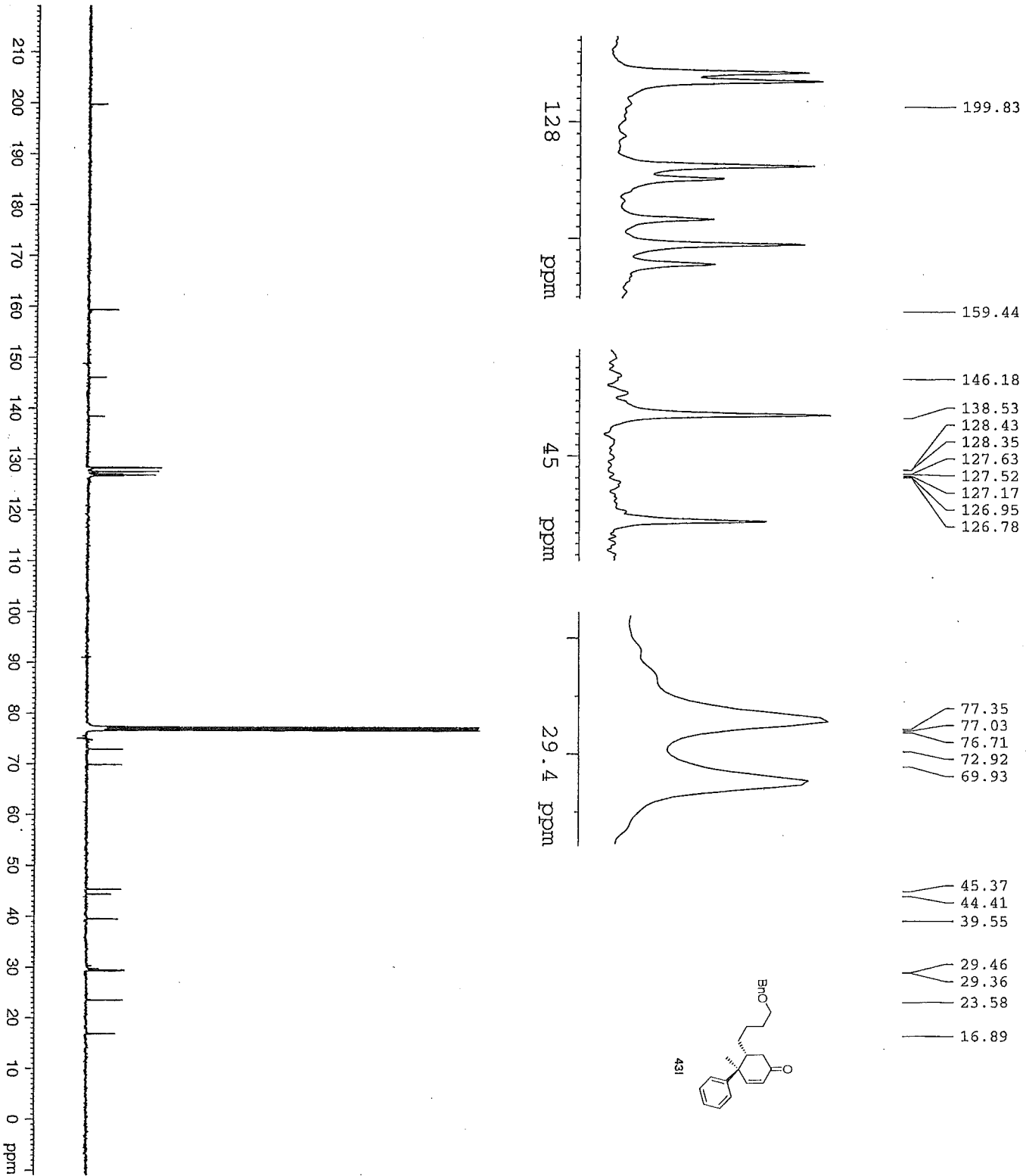
NAMF	EXPNO	PROCNO	PROBHD	PULPROG	TD	SOLVENT	NS	DS	SWH	FIDRES	AO	RG	DW	DE	TE	D1	TD0
EXPNO	20100310	1	5 mm PABBO BB-	zg30	32768	CDCl3	32	2	6410.256	0.195625	2.5559540	128	78.000	6.50	298.6	2.0000000	1
PROCNO	1	1															
PROBHD	5 mm PABBO BB-																
PULPROG	zg30																
TD	32768																
SOLVENT	CDCl3																
NS	32																
DS	2																
SWH	6410.256																
FIDRES	0.195625																
AO	2.5559540																
RG	128																
DW	78.000																
DE	6.50																
TE	298.6																
D1	2.0000000																
TD0	1																
===== CHANNEL f1 =====																	
NUC1	1H																
P1	14.00																
PL1	0.00																
PL1W	10.27361584																
SFO1	400.1378009																
SI	32768																
SF	400.1350000																
WDW	EM																
SSB	0																
LB	0.30																
GB	0																
PC	1.00																





NAME HY15-48  
EXPNO 2  
PROCNO 1  
Date\_ 20100217  
Time 13.40  
INSTRUM spect  
PROBHD 5 mm PABBO BB-  
PULPROG zg30  
TD 32768  
SOLVENT CDCl3  
NS 32  
DS 2  
SWH 6410.256  
FIDRES 0.195625  
AQ 2.5559540  
RG 128  
DW 78.000  
DE 6.50  
TE 298.2  
D1 1.00000000  
TD0 1

==== CHANNEL f1 ====  
NUC1 1H  
P1 14.00  
PL1 0.00  
PL1W 10.27361584  
SF01 400.1378009  
SI 32768  
SF 400.1350000  
WDW EM  
SSB 0  
LB 0.30  
GB 0  
PC 1.00



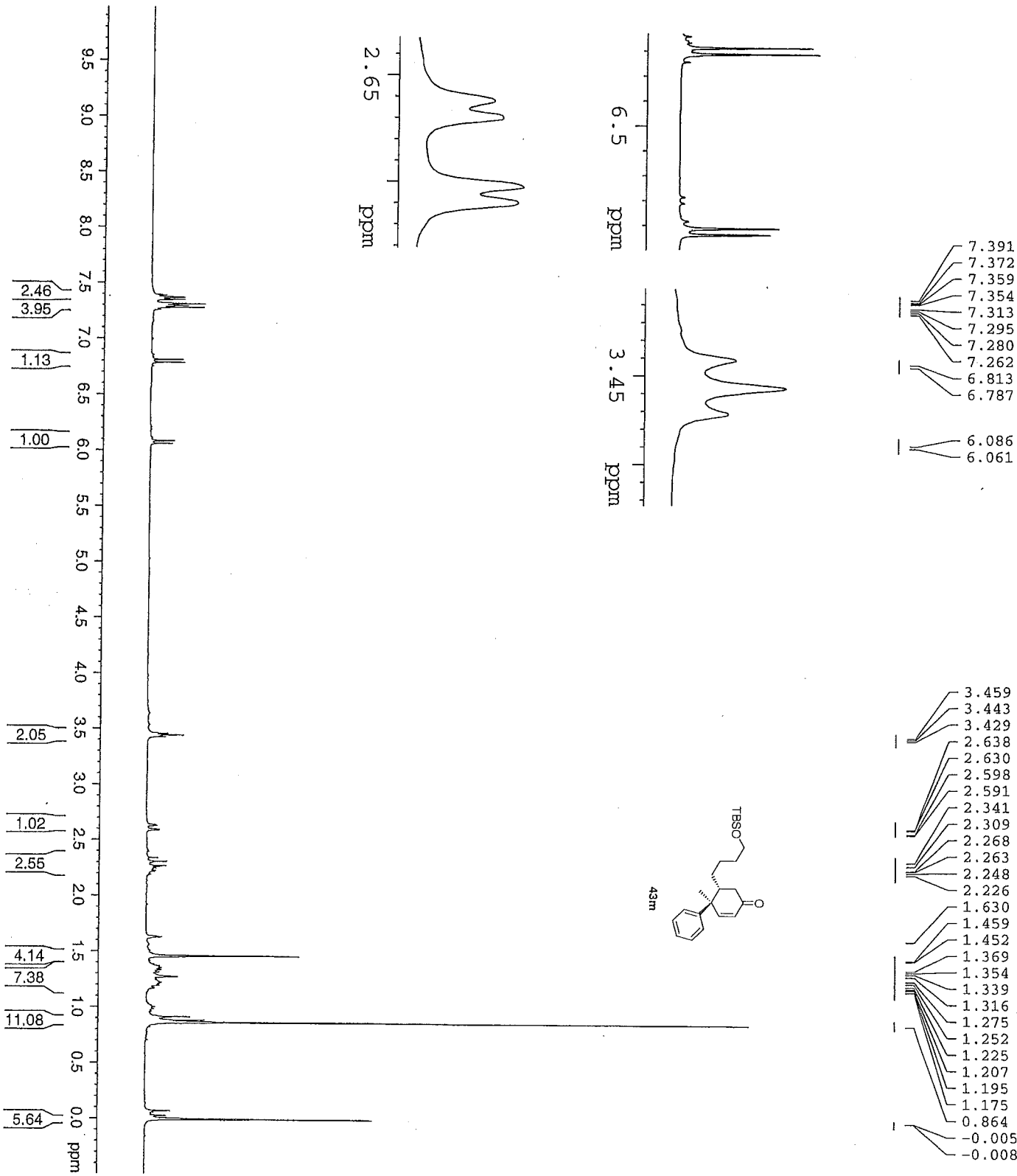
Current Data Parameters  
NAME HY15-48  
EXPNO 5  
PROCNO 1  
DU /m  
USDR Hua

F2 - Acquisition Parameters  
Date\_ 20100217  
Time 21.12  
INSTRUM DPX400  
PROBHD 5 mm BBO BB-1H  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 1700  
DS 4  
SWH 23980.814 Hz  
FIDRES 0.365918 Hz  
AQ 1.3664756 sec  
RG 5160.6  
DW 20.850 usec  
DE 6.00 usec  
TE 299.2 K  
d1 2.00000000 sec  
d11 0.03000000 sec  
DELTA 1.89999998 sec  
TD0 1

===== CHANNEL f1 =====  
NUC1 13C  
P1 8.30 usec  
PL1 -3.00 dB  
SFO1 100.6517495 MHz

===== CHANNEL f2 =====  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 90.00 usec  
PL2 -3.00 dB  
PL12 15.00 dB  
PL13 15.00 dB  
SFO2 400.2466010 MHz

F2 - Processing parameters  
SI 32768  
SF 100.6416850 MHz  
WDW EM  
SSB 0  
LB 3.00 Hz  
GB 0  
PC 1.40

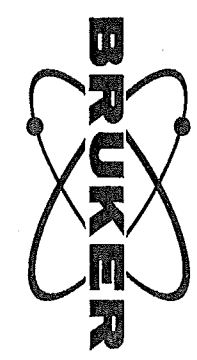


Current Data Parameters  
NAME H15-40  
EXPNO 1  
PROCNO 1  
DU /m  
USER HNA

F2 - Acquisition Parameters  
Date\_ 20100209  
Time 20.12  
INSTRUM DPX400  
PROBHD 5 mm BBO BB-1H  
PULPROG zg30  
TD 32768  
SOLVENT CDCl3  
NS 32  
DS 2  
SWH 6410.256 Hz  
FIDRES 0.195625 Hz  
AQ 2.559540 sec  
RG 181  
RW 78.000 usec  
DE 6.00 usec  
TE 299.2 K  
D1 1.00000000 sec  
TD0 1

==== CHANNEL f1 =====  
NUC1 1H  
P1 13.50 usec  
PL1 -3.00 dB  
SFO1 400.2478017 MHz

F2 - Processing parameters  
SI 32768  
SF 400.2450000 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00



Current Data Parameters  
NAME HY15-40  
EXPNO 2  
PROCNO 1

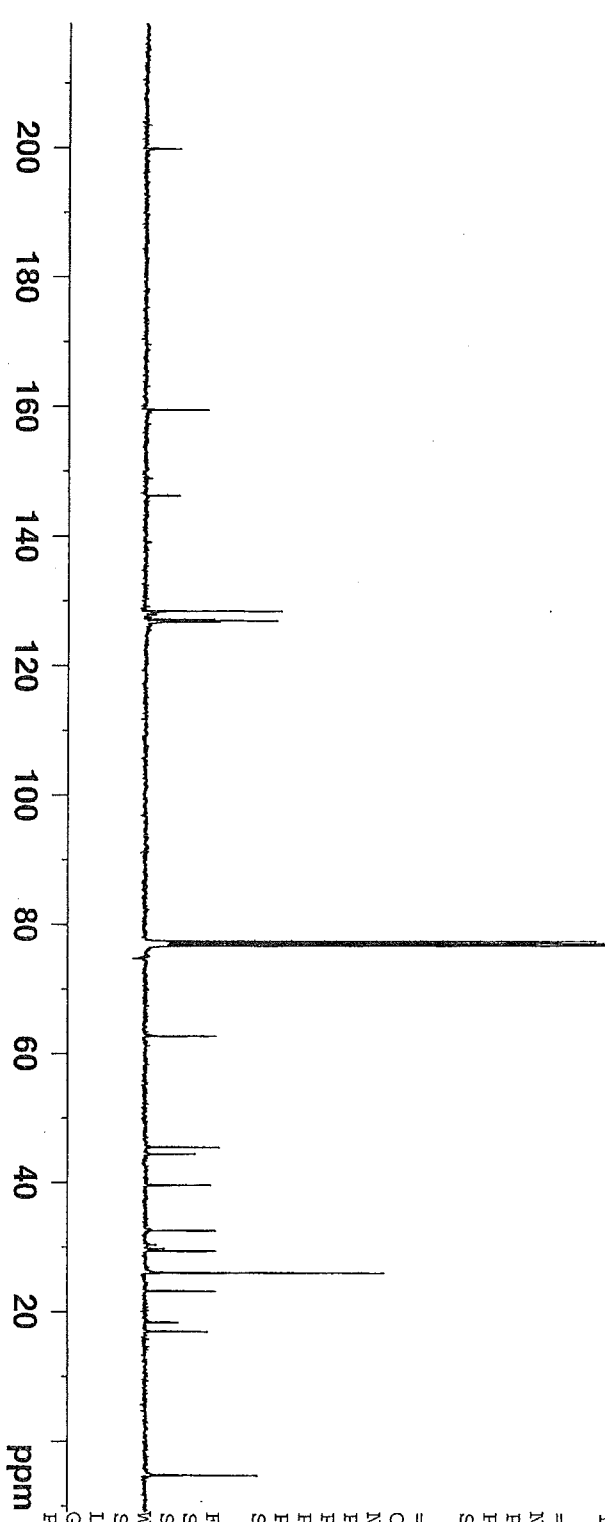
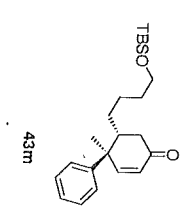
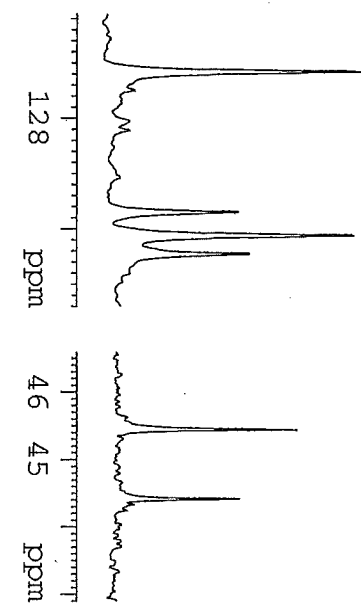
F2 - Acquisition Parameters  
Date\_ 20100209  
Time 21.48  
INSTRUM DPX400  
PROBHD 5 mm BBO BB-1H  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 1668  
DS 4  
SWH 23980.814 Hz  
FIDRES 0.365918 Hz  
AQ 1.3664756 sec  
RG 4597.6  
DW 20.850 usec  
DE 6.00 usec  
TE 299.2 K  
D1 2.0000000 sec  
d11 0.0300000 sec  
DELTA 1.8999998 sec  
TD0 1

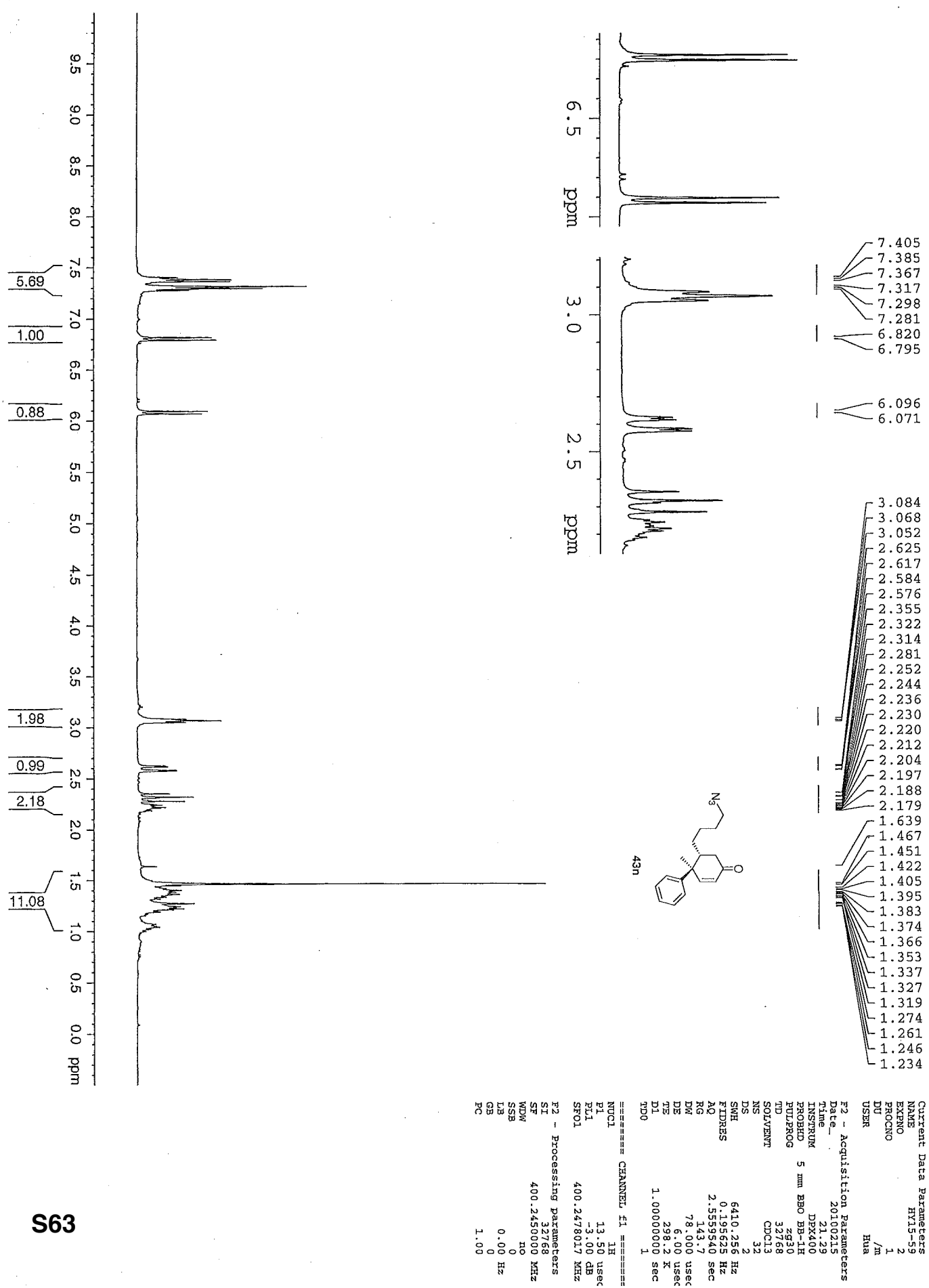
===== CHANNEL f1 =====  
NUC1 13C  
P1 8.30 usec  
PL1 -3.00 dB  
SFO1 100.6517495 MHz

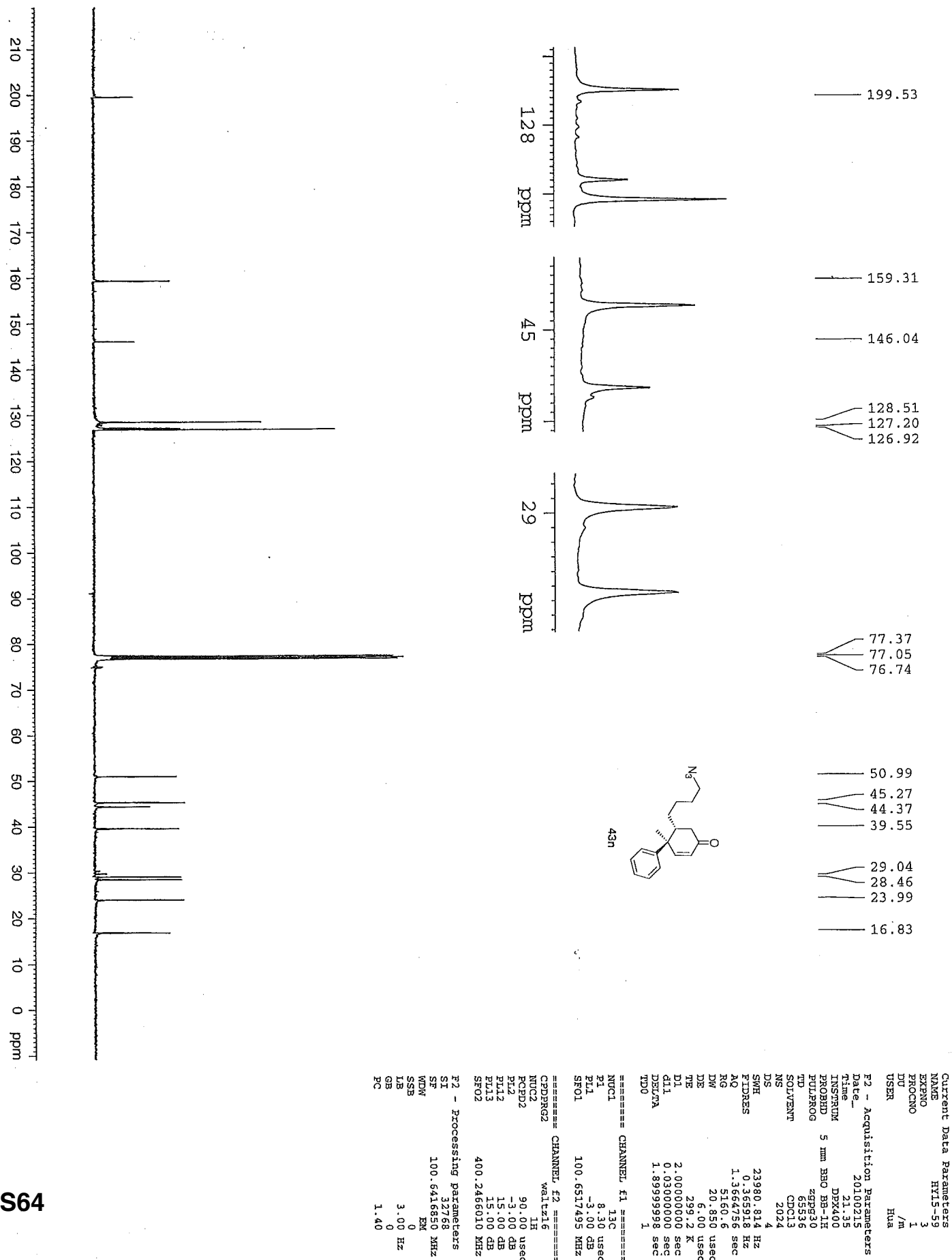
===== CHANNEL f2 =====  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 90.00 usec  
PL2 -3.00 dB  
PL12 15.00 dB  
PL13 15.00 dB  
SFO2 400.2466010 MHz

F2 - Processing Parameters  
SI 32768  
SF 100.6416850 MHz  
WDW EM  
SSB 0  
LB 3.00 Hz  
GB 0  
PC 1.40

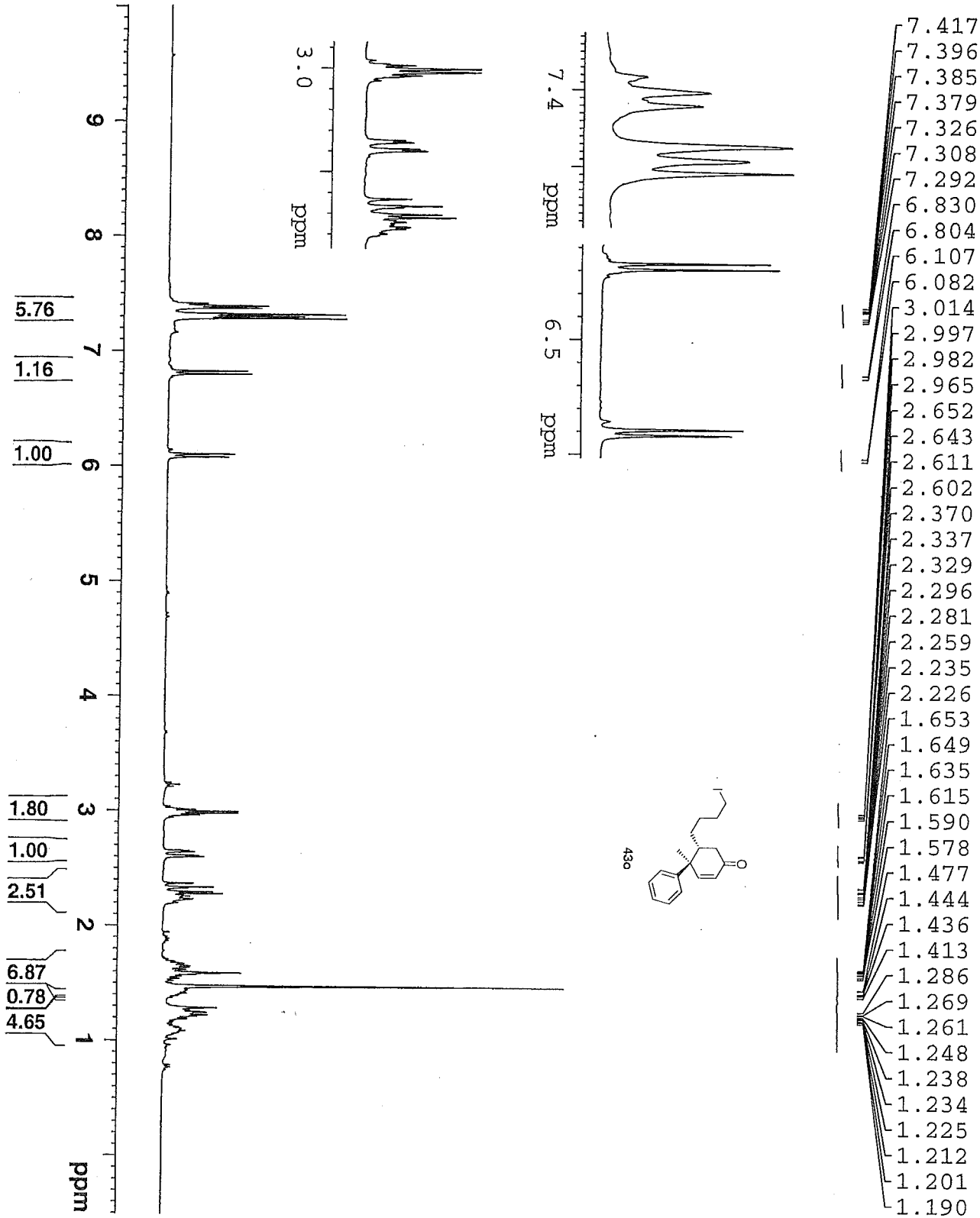
199.84  
159.49  
146.21  
128.42  
127.15  
126.94  
126.77  
77.35  
77.03  
76.71  
62.68  
45.45  
44.42  
39.56  
32.49  
29.36  
25.96  
23.15  
18.32  
16.92  
-5.32





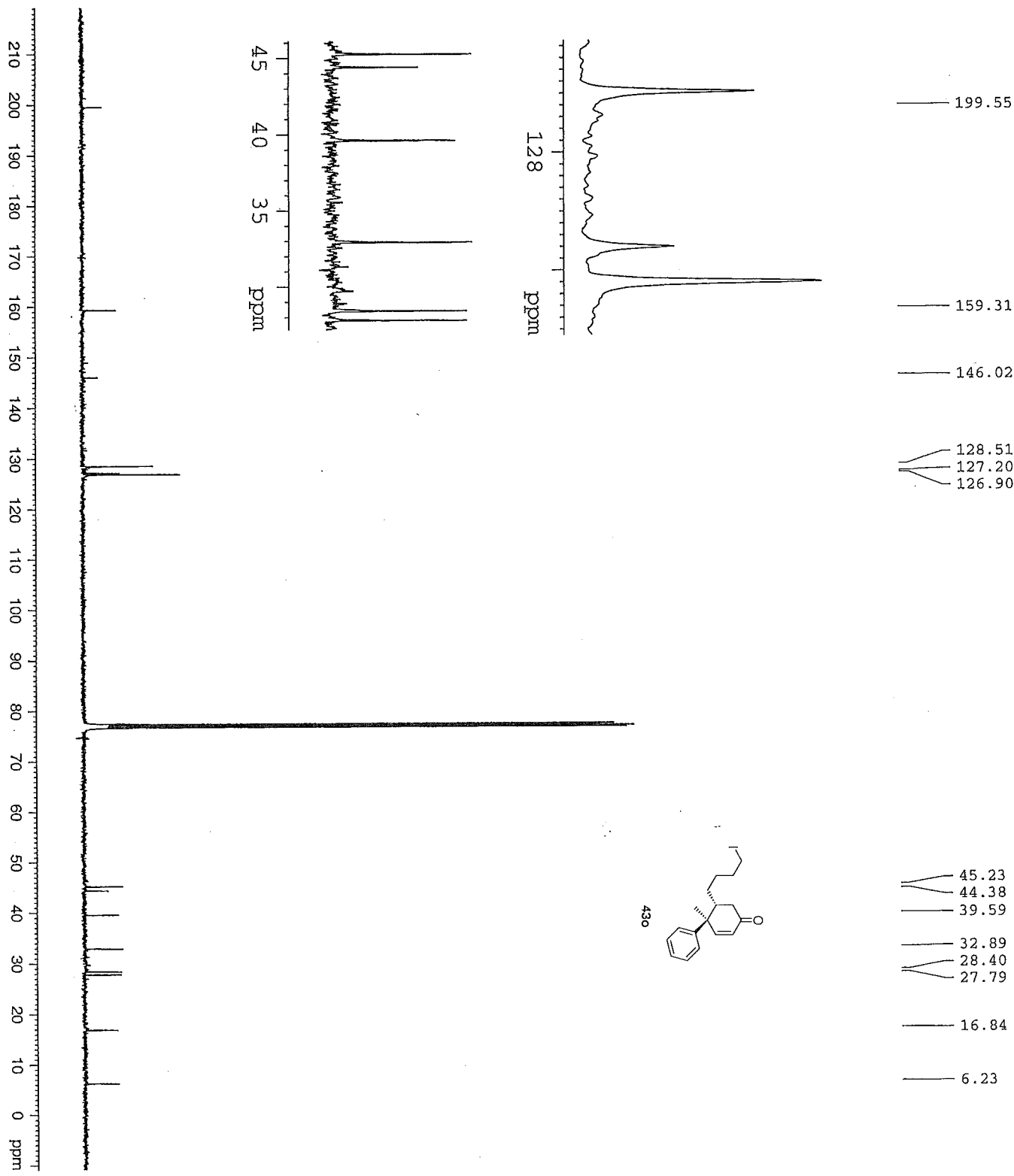






NAME HY15-9  
EXPNO 4  
PROCNO 1  
Date\_ 20100127  
Time 15.10  
INSTRUM spect  
PROBHD 5 mm PABBO BB-  
PULPROG zg30  
TD 32768  
SOLVENT CDCl3  
NS 32  
DS 2  
SWH 6410.256  
FIDRES 0.195625  
AQ 2.5559540  
RG 128  
DW 78.000  
DE 6.50  
TE 299.7  
D1 1.0000000  
TDO 1

===== CHANNEL f1 =====  
NUC1 1H  
P1 14.00  
PL1 0.00  
PL1W 10.27361584  
SF01 400.1378009  
SI 32768  
SF 400.1350000  
WDW EM  
SSB 0  
LB 0.30  
GB 0  
PC 1.00



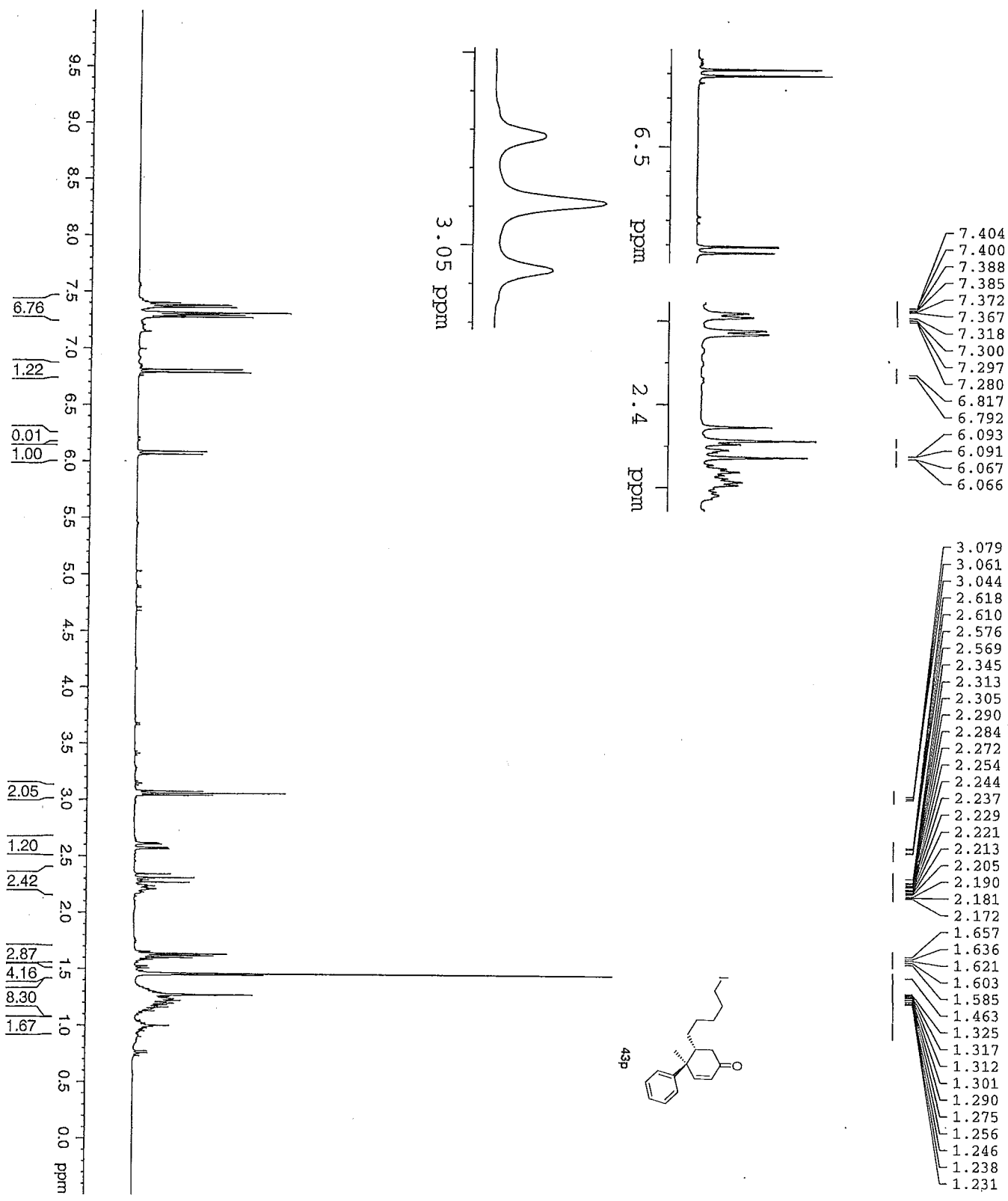
Current Data Parameters  
NAME HYL5-9  
EXPNO 5  
PROCNO 1  
DT 1/m  
USER Hwa

F2 - Acquisition Parameters  
Date\_ 20100127  
Time 16.01  
INSTRUM DFX400  
PROBHD 5 mm BBO BB-1H  
PULPROG zgpg30  
TD 65536  
FIDRES 0.03000000 sec  
DELTA 1.89999998 sec  
TD0 1

===== CHANNEL f1 =====  
NUC1 13C  
P1 8.30 usec  
PL1 -3.00 dB  
SFO1 100.6517495 MHz

===== CHANNEL f2 =====  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 90.00 usec  
PL2 -3.00 dB  
PL12 15.00 dB  
PL13 15.00 dB  
SFO2 400.2466010 MHz

F2 - Processing parameters  
SI 32768  
SF 100.6416850 MHz  
WDW EM  
SSB 0  
LB 3.00 Hz  
GB 0  
PC 1.40

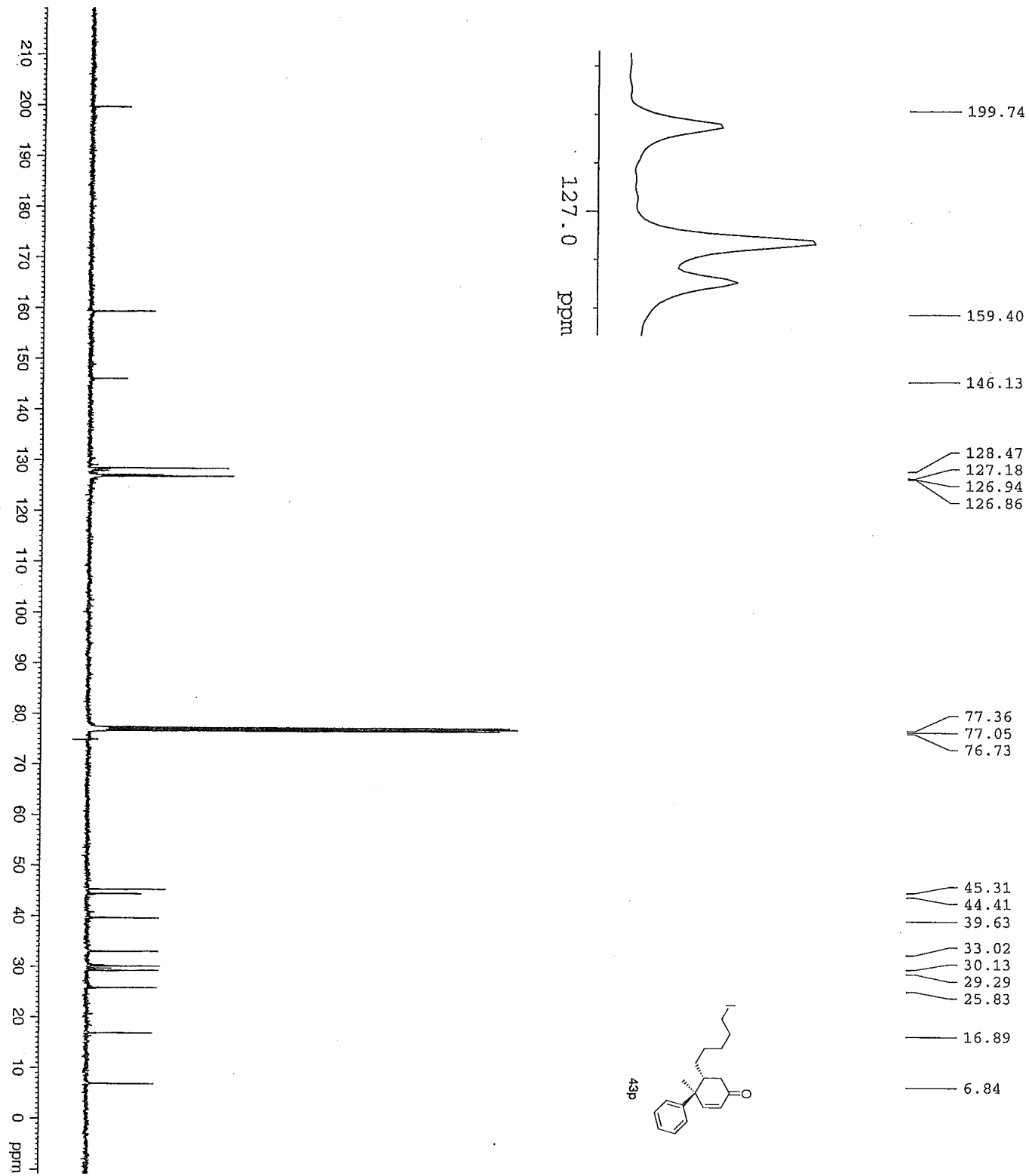


Current Data Parameters  
NAME: HX15-22  
EXPNO: 2  
PROCNO: 1  
DU: /m  
USER: Hua

F2 - Acquisition Parameters  
Date\_: 20100114  
Time: 12.50  
INSTRUM: DPX400  
PROBHD: 5 mm BBO BB-1H  
PULPROG: zg30  
TD: 32768  
SOLVENT: CDCl3  
NS: 32  
DS: 2  
SWH: 6410.256 Hz  
FIDRES: 0.195625 Hz  
AQ: 2.3539540 sec  
RG: 181  
DW: 78.000 usec  
DE: 6.00 usec  
TE: 299.2 K  
D1: 1.00000000 sec  
TD0: 1

==== CHANNEL f1 =====  
NUC1: 1H  
P1: 13.50 usec  
PL: -3.00 dB  
SFO1: 400.2478017 MHz

F2 - Processing parameters  
SI: 32768  
SF: 400.2450000 MHz  
WDW: EM  
SSB: 0  
LB: 0.30 Hz  
GB: 0  
PC: 1.00



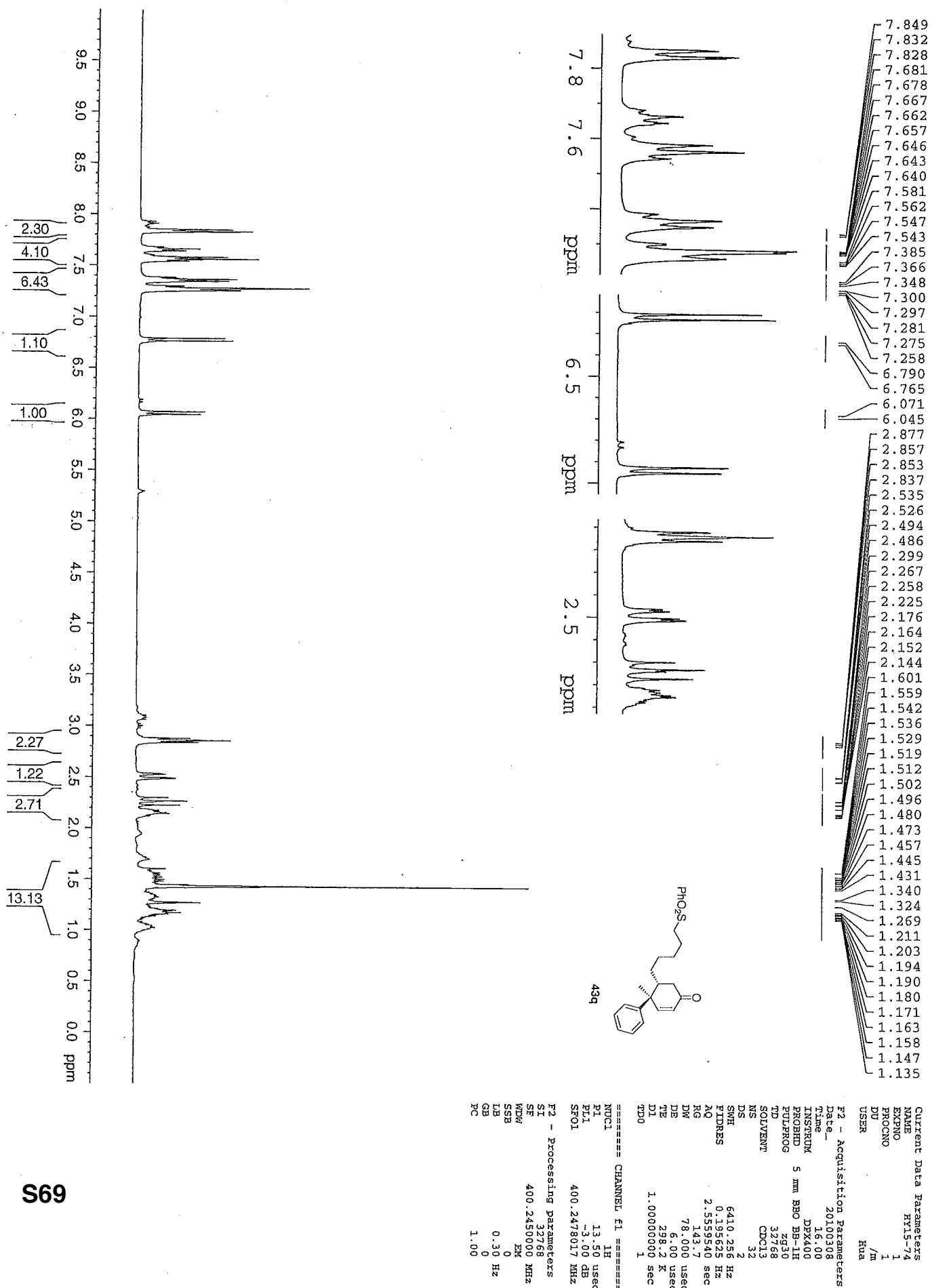
Current Data Parameters  
NAME HY15-22  
EXPNO 4  
PROCNO 1  
DU /m  
USER Hua

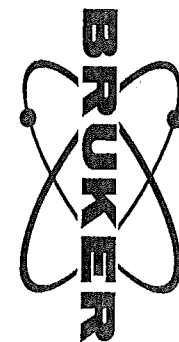
F2 - Acquisition Parameters  
Date\_ 20100114  
Time 13.30  
INSTRUM DPX400  
PROBHD 5 mm BBO BB-1H  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 556  
DS 4  
SWH 23980.814 Hz  
FIDRES 0.365918 Hz  
AQ 1.3664756 sec  
RG 10321.3  
DW 20.850 usec  
DE 6.00 usec  
TE 329.2 K  
D1 2.0000000 sec  
d11 0.0300000 sec  
DELTA 1.8999999 sec  
TD0 1

===== CHANNEL f1 =====  
NUC1 13C  
P1 8.30 usec  
PL1 -3.00 dB  
SF01 100.6517495 MHz

===== CHANNEL f2 =====  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 90.00 usec  
PL2 -3.00 dB  
PL12 15.00 dB  
PL13 15.00 dB  
SFO2 400.2466010 MHz

F2 - Processing parameters  
SI 32768  
SF 100.6416850 MHz  
WDW EM  
SSB 0  
LB 3.00 Hz  
GB 0  
PC 1.40





Current Data Parameters  
NAME HYL5-74  
EXPNO 2  
PROCNO 1

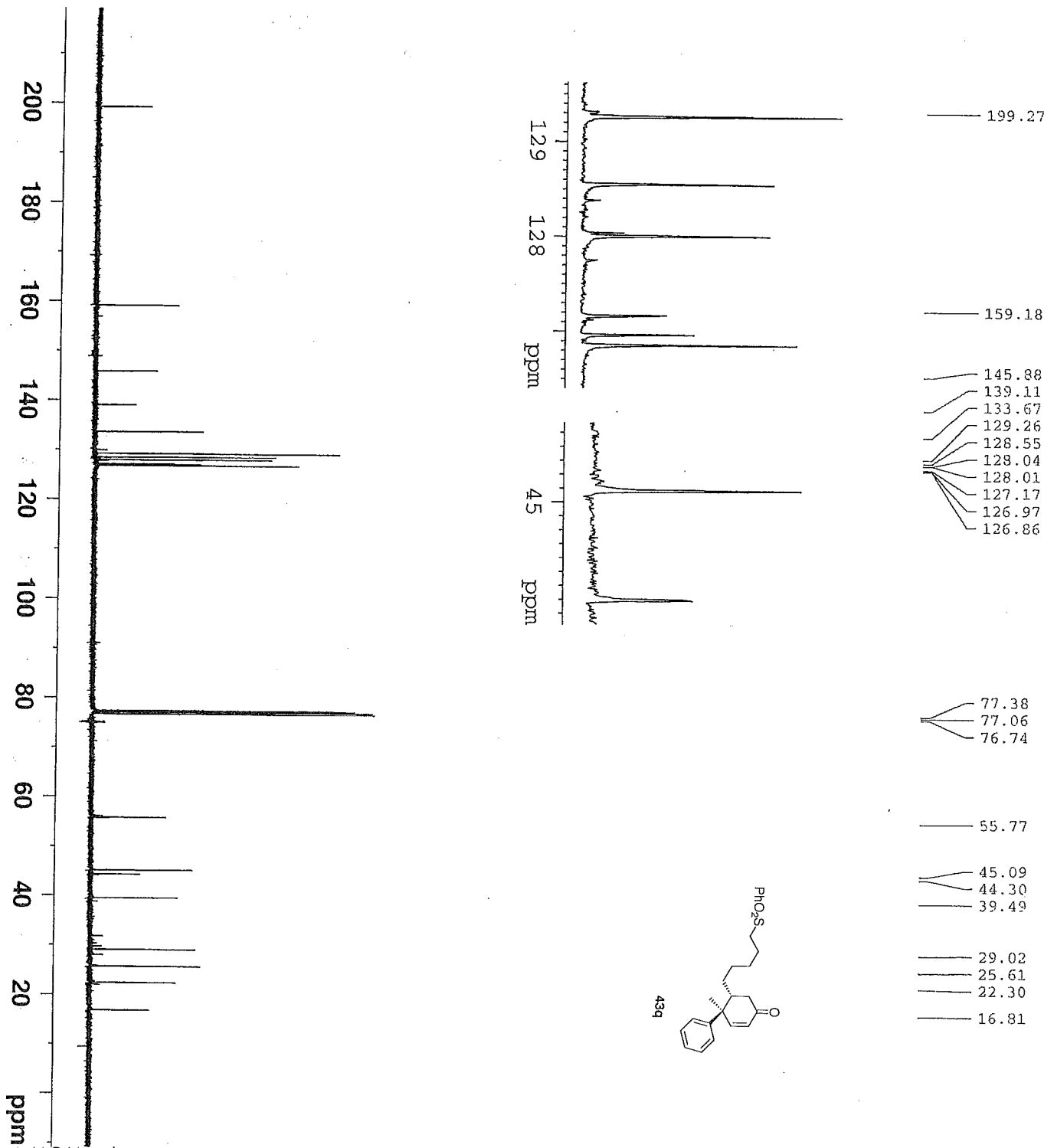
F2 - Acquisition Parameters

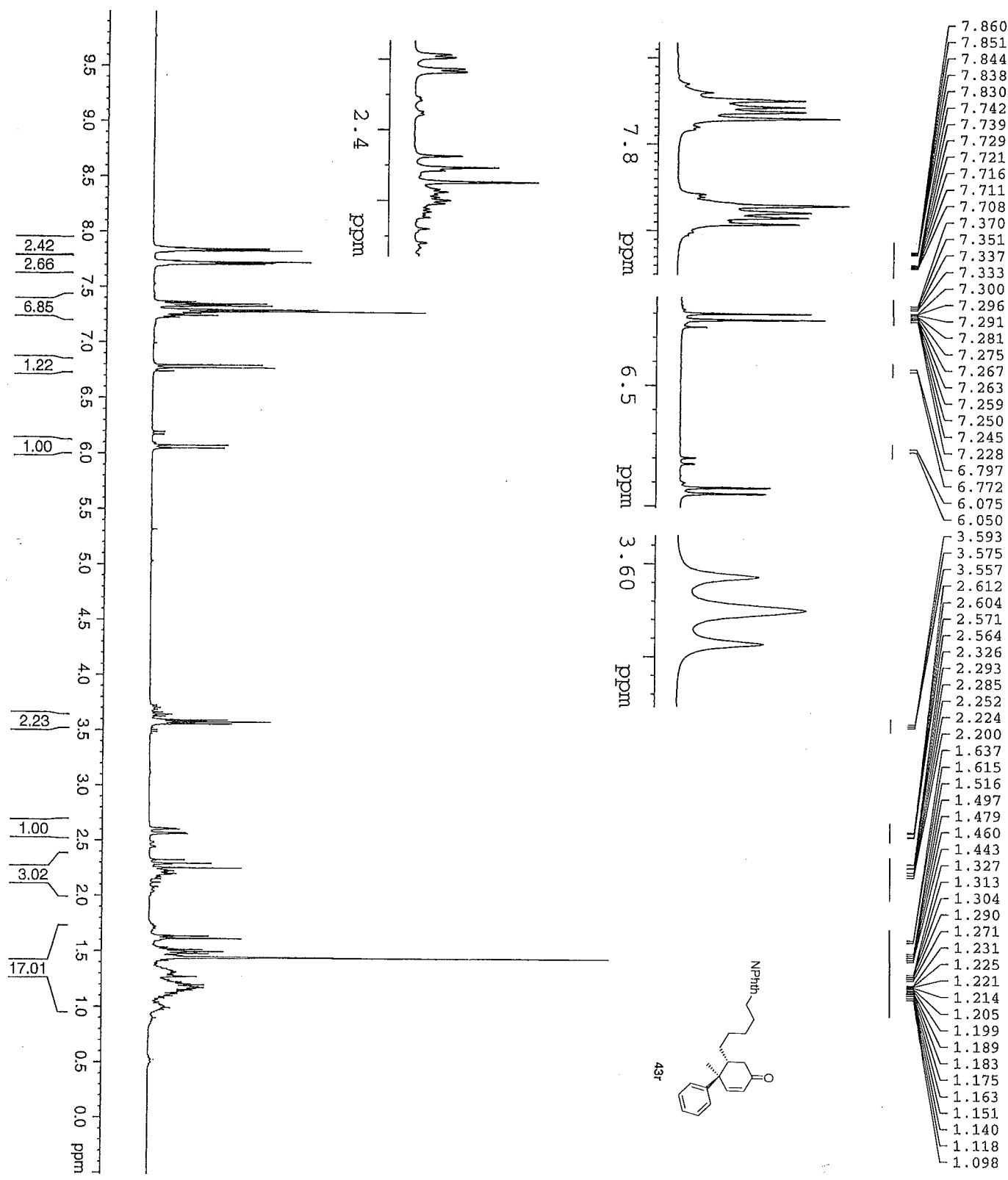
Date\_ 20100308  
Time 17.58  
INSTRUM DPX400  
PROBHD 5 mm BBO BB-1H  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 2024  
DS 4  
SWH 23980.814 Hz  
FIDRES 0.365918 Hz  
AQ 1.3664756 sec  
RG 9195.2  
DW 20.850 usec  
DE 6.00 usec  
TE 299.2 K  
d1 2.0000000 sec  
d11 0.0300000 sec  
DELTA 1.8999998 sec  
TD0 1

===== CHANNEL f1 =====  
NUC1 13C  
P1 8.30 usec  
PL1 -3.00 dB  
SFO1 100.6517495 MHz

===== CHANNEL f2 =====  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 90.00 usec  
PL2 -3.00 dB  
PL12 15.00 dB  
PL13 15.00 dB  
SFO2 400.2466010 MHz

F2 - Processing Parameters  
SI 32768  
SF 100.6416850 MHz  
WDW no  
SSB 0  
LB 0.00 Hz  
GB 0  
PC 1.40



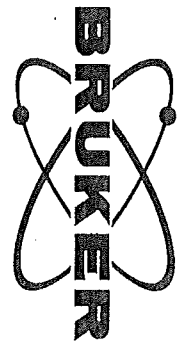


Current Data Parameters  
NAME HT15-62  
EXPNO 1  
PROCNO 1  
DU /m  
USER Hua

F2 - Acquisition Parameters  
Date\_ 20100222  
Time 21.48  
INSTRUM DPK400  
PROBHD 5 mm BBO BB-1H  
PULPROG zg30  
TD 32768  
SOLVENT CDCl3  
NS 2  
DS 2  
SWH 6410.255 Hz  
FIDRES 0.195625 Hz  
AQ 2.5595540 sec  
RG 322.5  
DW 78.000 usec  
DE 6.00 usec  
TE 298.2 K  
D1 1.00000000 sec  
TDO 1

==== CHANNEL f1 =====  
NUC1 1H  
P1 13.50 usec  
PL -3.00 dB  
SFO1 400.2478017 MHz

F2 - Processing parameters  
SI 32768  
SF 400.2450000 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00



Current Data Parameters  
NAME HY15-62  
EXPTNO 2  
PROCNO 1

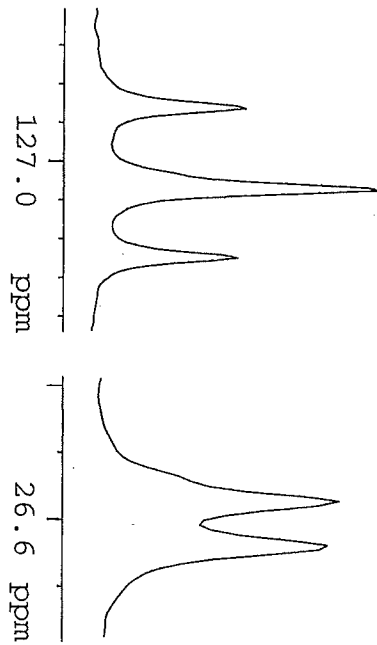
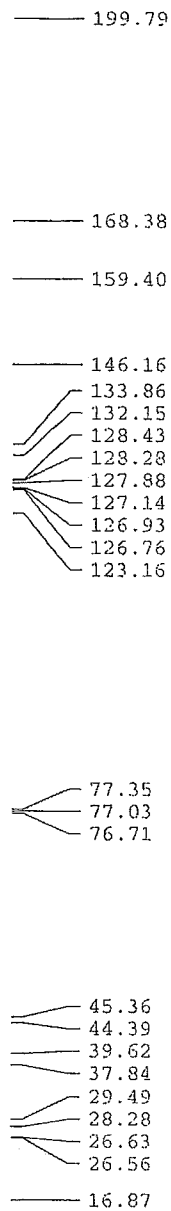
F2 - Acquisition Parameters  
Date\_ 20100223

Time 5.34  
INSTRUM DPX400  
PROBHD 5 mm BBO BB-1H  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 8024  
DS 4  
SWH 23980.814 Hz  
FIDRES 0.365918 Hz  
AQ 1.3664756 sec  
RG 7298.2  
DW 20.850 usec  
DE 6.00 usec  
TE 299.2 K  
D1 2.00000000 sec  
d11 0.03000000 sec  
DELTA 1.89999998 sec  
TD0 1

===== CHANNEL f1 =====  
NUC1 13C  
P1 8.30 usec  
PL1 -3.00 dB  
SFO1 100.6517495 MHz

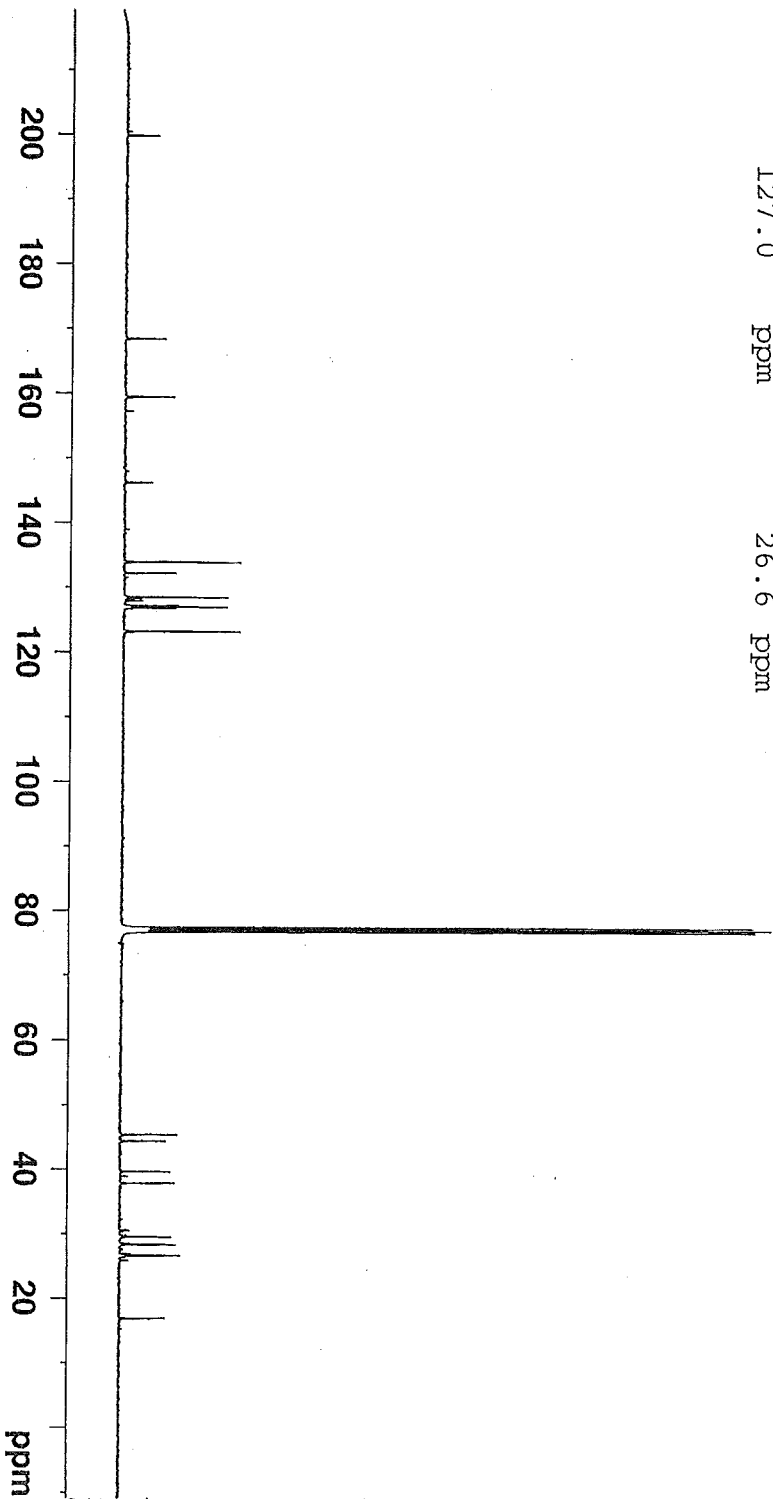
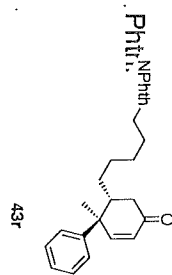
===== CHANNEL f2 =====  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 90.00 usec  
PL2 -3.00 dB  
PL12 15.00 dB  
PL13 15.00 dB  
SFO2 400.2466010 MHz

F2 - Processing parameters  
SI 32768  
SF 100.6416850 MHz  
WDW EM  
SSB 0  
LB 3.00 Hz  
GB 0  
PC 1.40

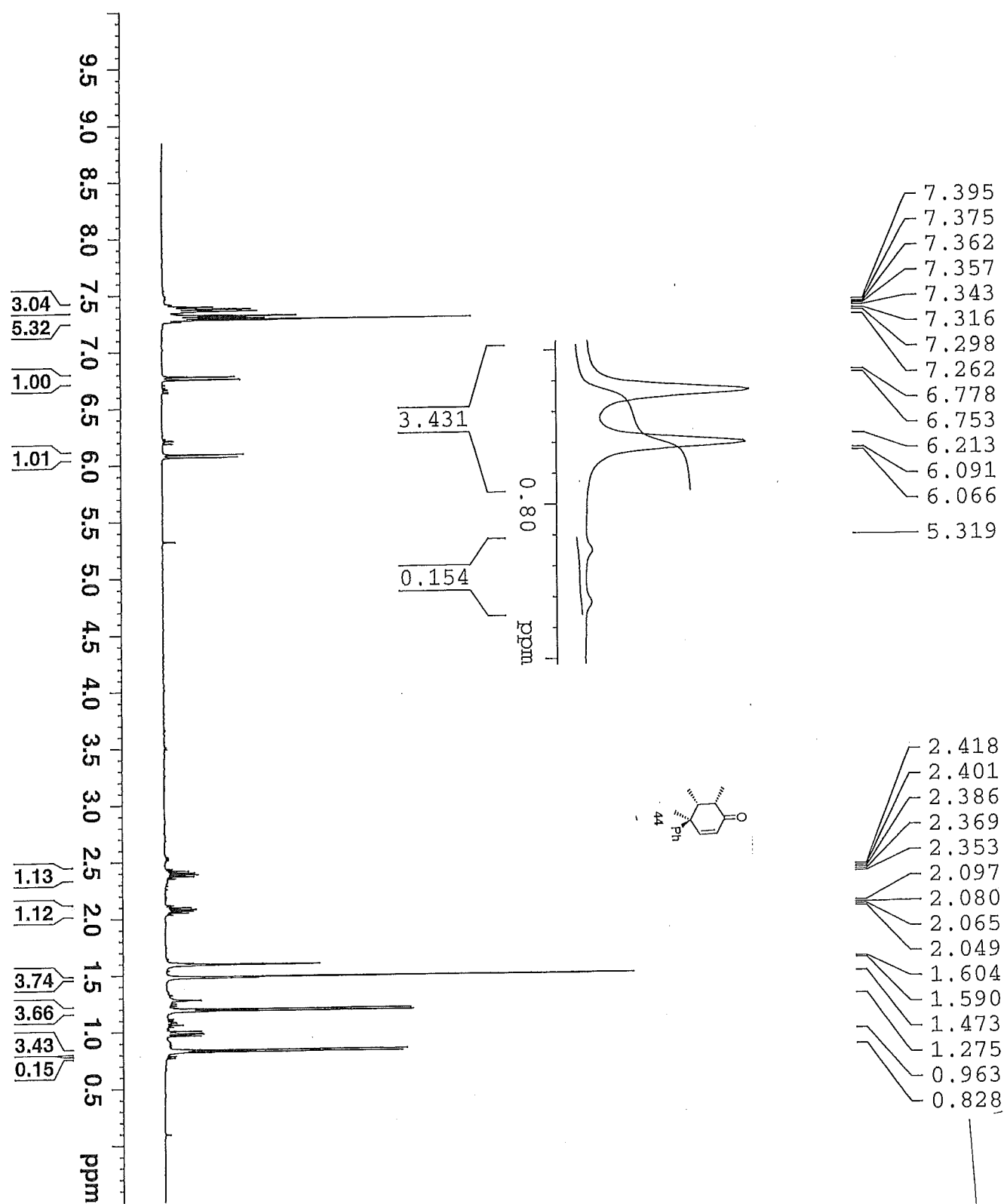


127.0 ppm

26.6 ppm





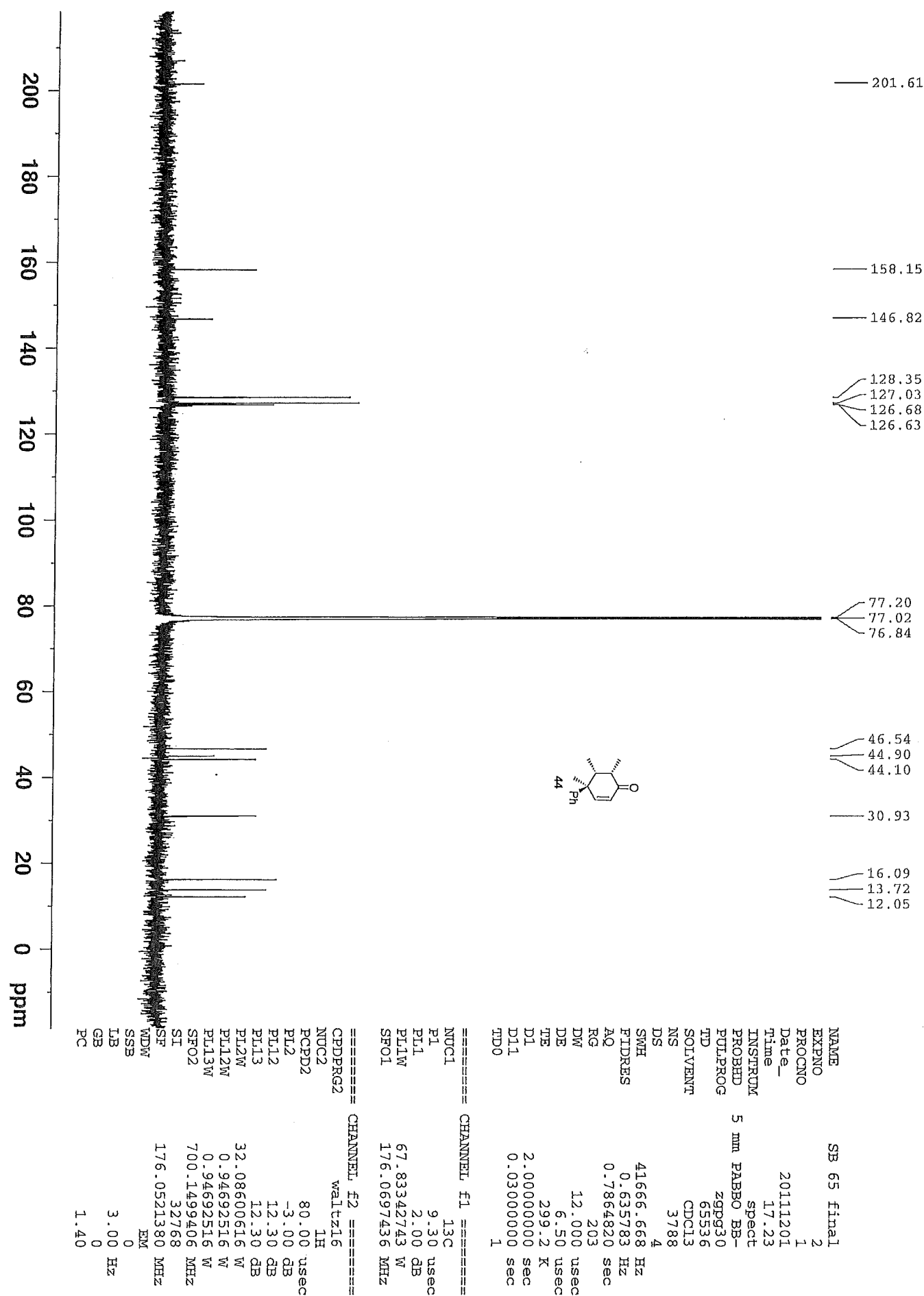


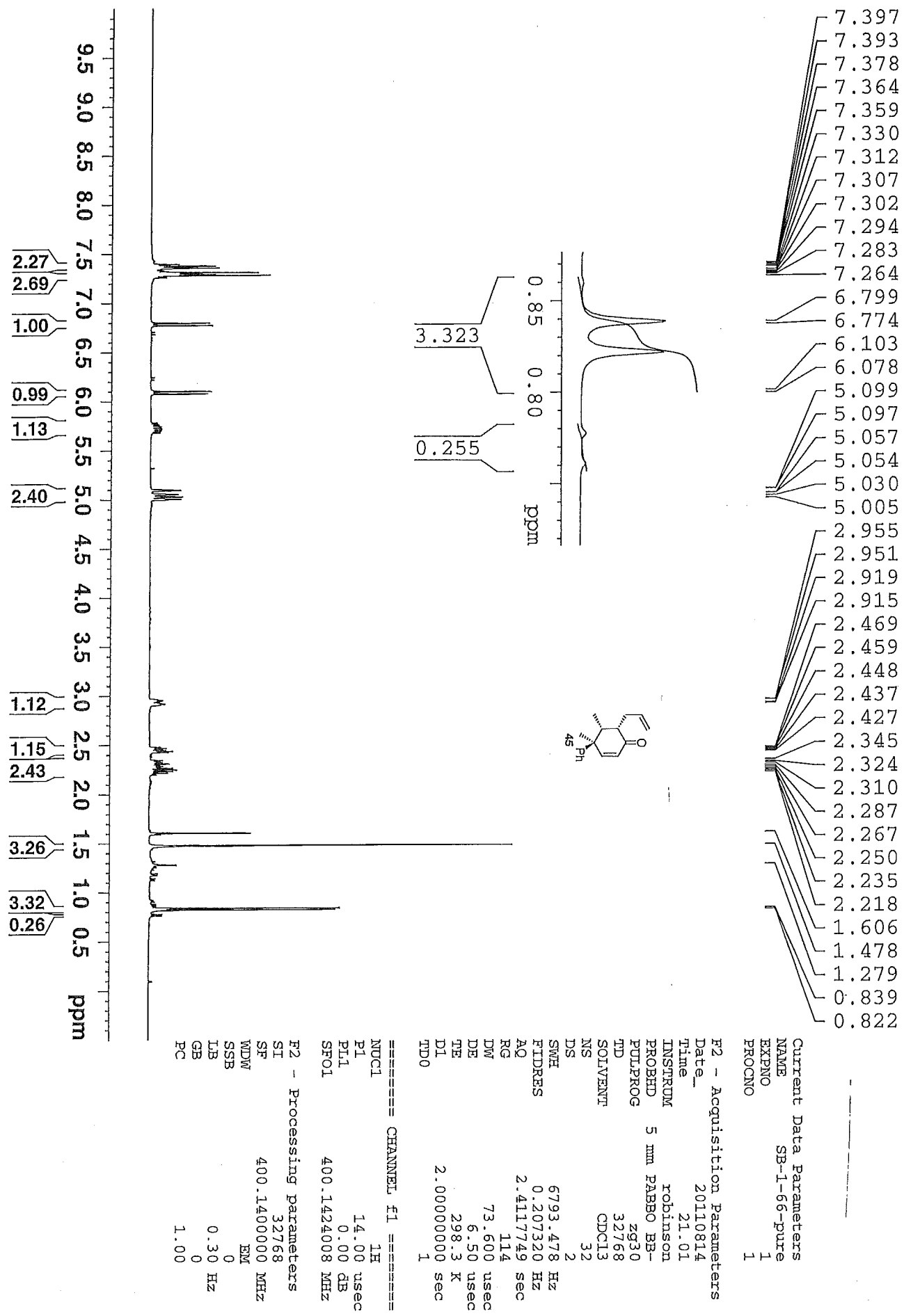
Current Data Parameters  
NAME SB-65  
EXPNO 1  
PROCNO 1

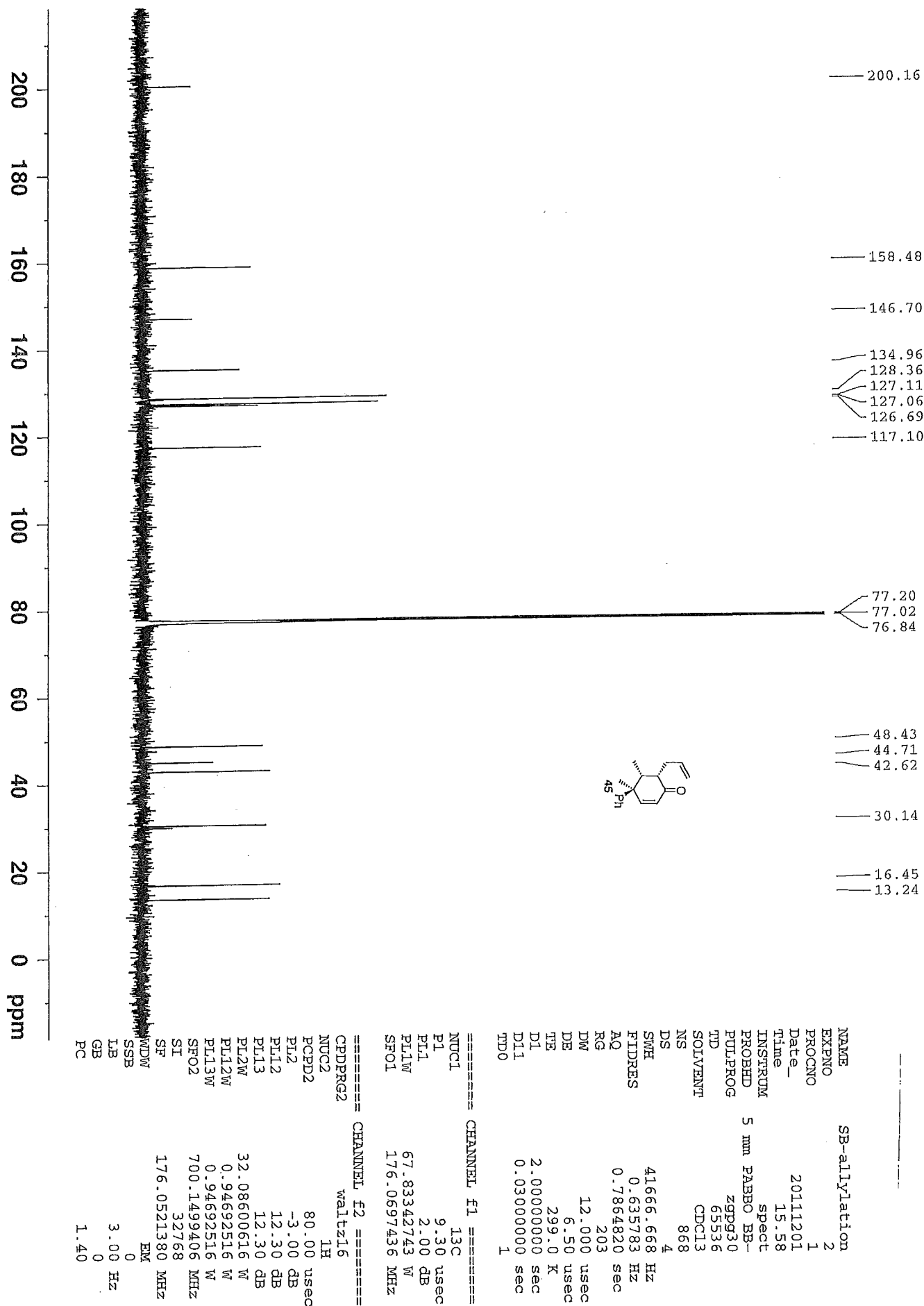
F2 - Acquisition Parameters  
Date\_ 20110809  
Time 17.03  
INSTRUM DPX400  
PROBHD 5 mm Multinucl  
PULPROG zg30  
TD 32768  
SOLVENT CDCl3  
NS 16  
DS 2  
SWH 6410.256  
FIDRES 0.195625  
AQ 2.5559540  
RG 574.7  
DW 78.000  
DE 6.00  
TE 298.2  
D1 2.0000000  
TD0 1

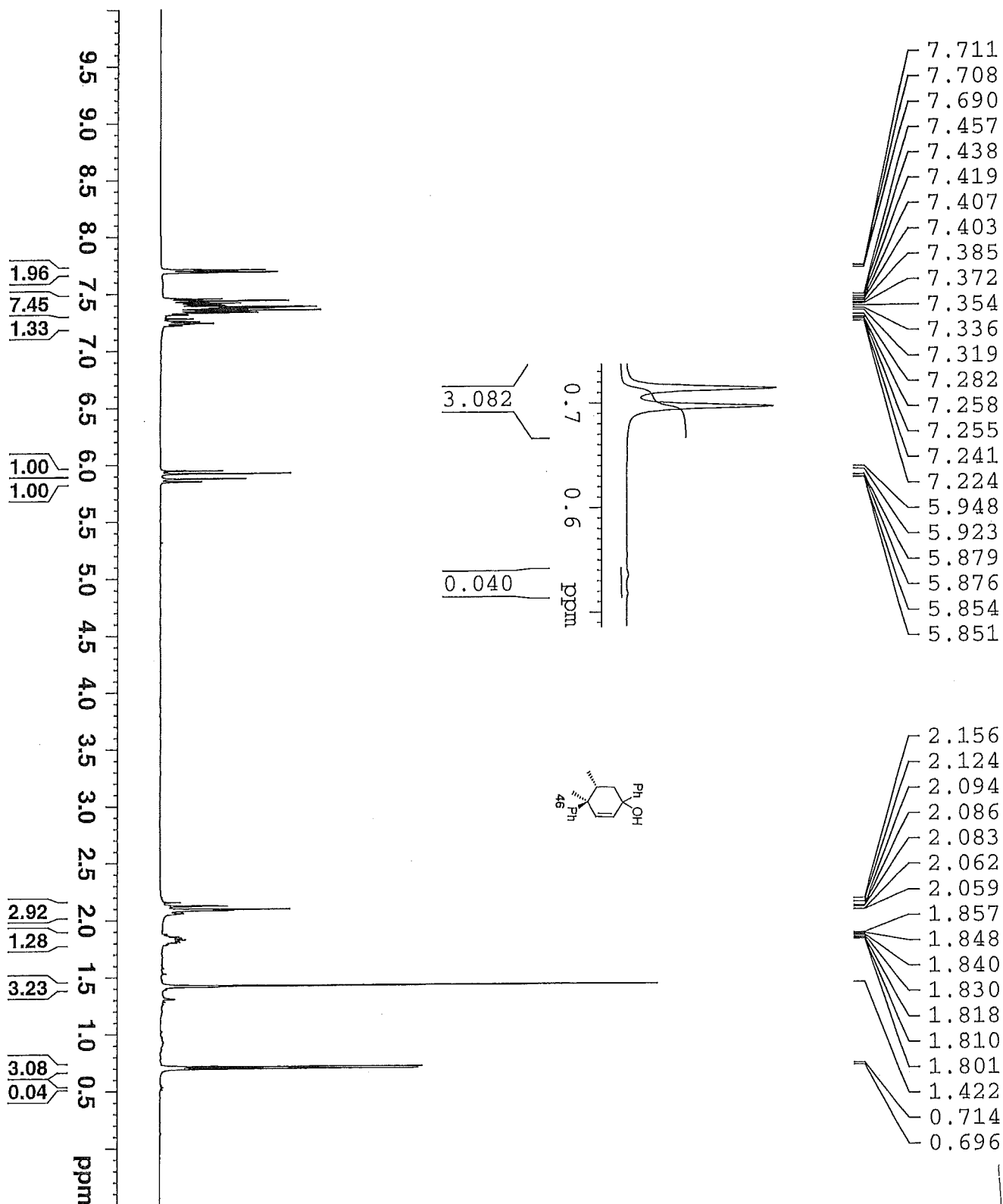
===== CHANNEL f1 =====  
NUC1 1H  
P1 13.50  
PL1 -3.00  
SFO1 400.2453311

F2 - Processing Parameters  
SI 32768  
SF 400.2450000  
WDW EM  
SSB 0  
LB 0.30  
GB 0  
PC 1.00







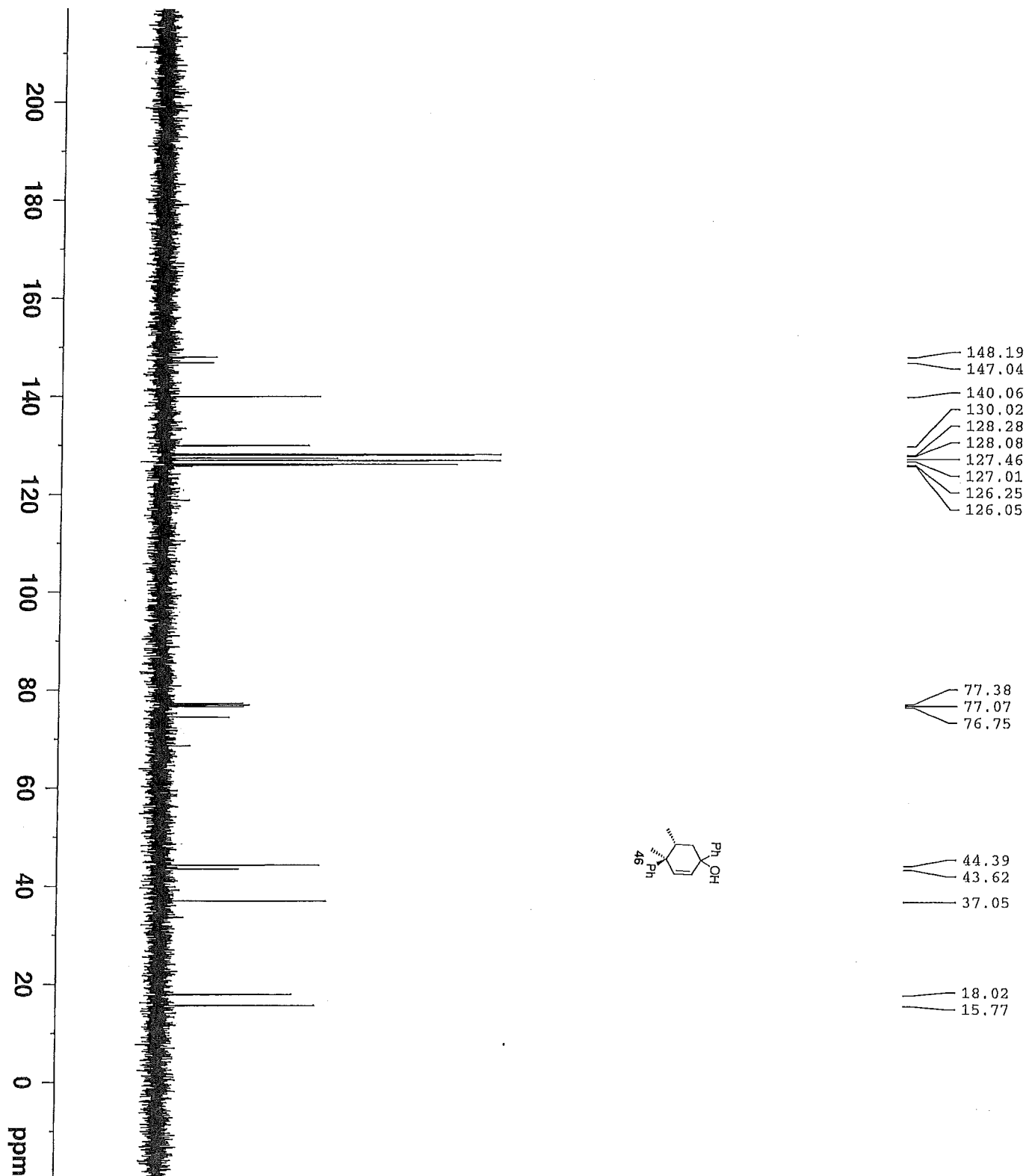


Current Data Parameters  
NAME SB-1-1,2 additi  
EXPNO 1  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20110814  
Time 23.08  
INSTRUM robinson  
PROBHD 5 mm PABBO BB-  
PULPROG zg30  
TD 32768  
SOLVENT CDCl3  
NS 29  
DS 2  
SWH 6793.478  
FIDRES 0.207320  
AQ 2.4117749  
RG 35.9  
DE 73.600  
TE 298.2  
D1 2.00000000  
TD0 1

===== CHANNEL f1 =====  
NUC1 1H  
P1 14.00  
PL1 0.00  
SF01 400.1424008

F2 - Processing parameters  
SI 32768  
SF 400.1400000  
WDW EM  
SSB 0  
LB 0.30  
GB 0  
PC 1.00



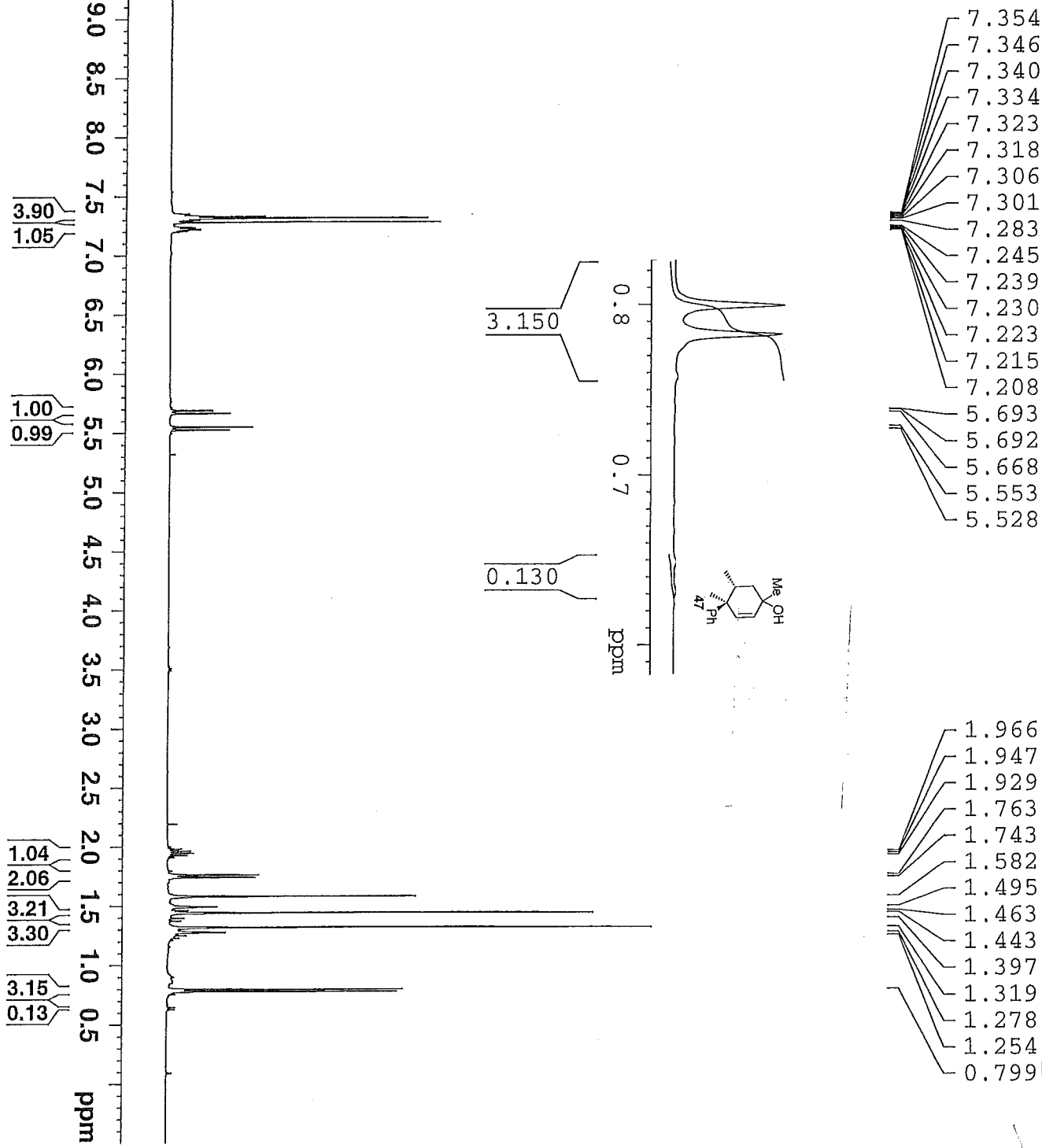
Current Data Parameters  
NAME SB-1-1,2 additio  
EXPNO 3  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20110814  
Time 23.12  
INSTRUM robinson  
PROBHD 5 mm PABBO BB-  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 318  
DS 4  
SWH 23980.814 H  
FIDRES 0.365918 H  
AQ 1.3664756 s  
RG 1149.4  
DW 20.850 u  
DE 6.50 u  
TE 298.7 K  
D1 0.2000000 s  
D11 0.0300000 s  
TD0 1

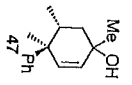
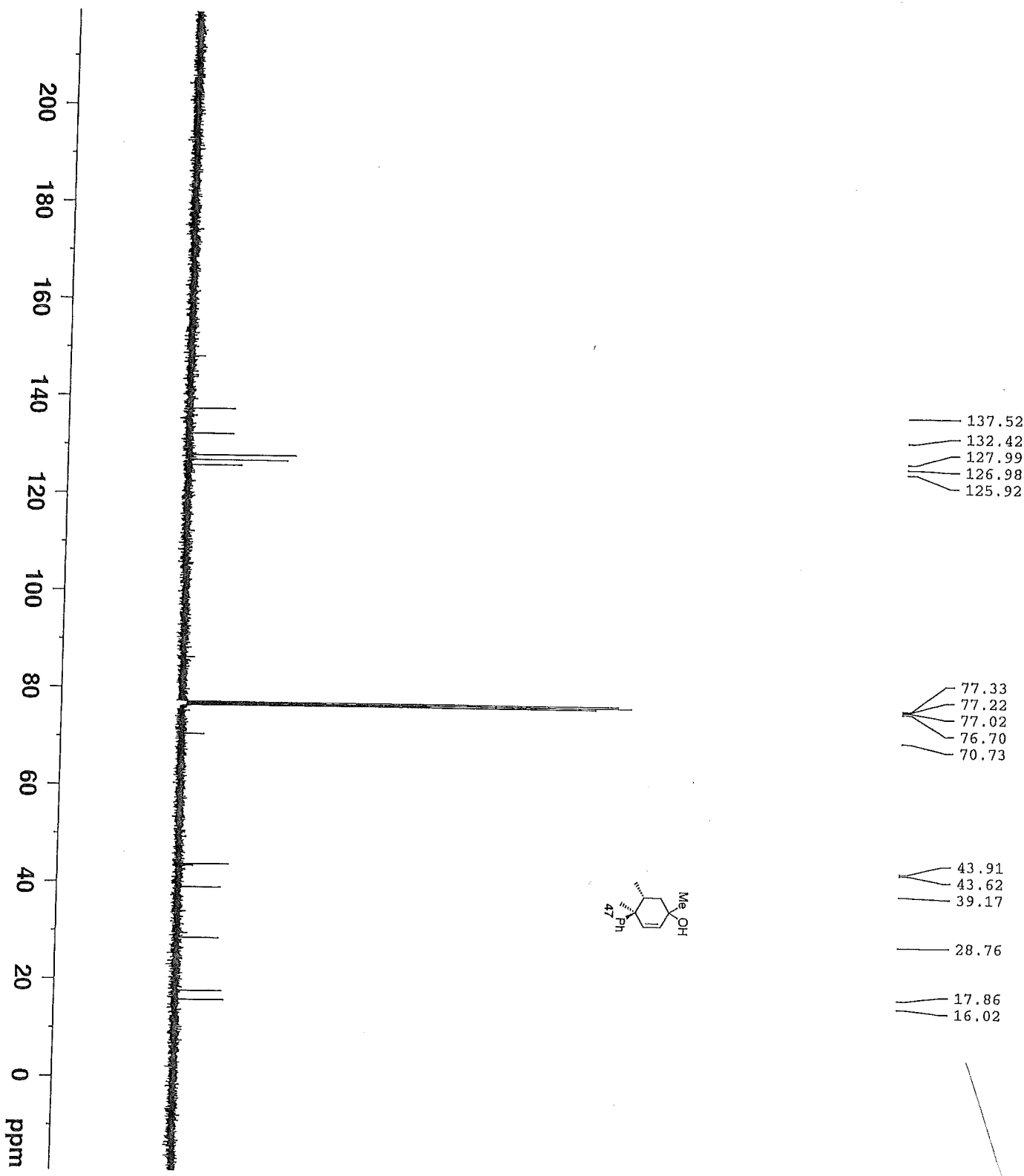
===== CHANNEL f1 =====  
NUC1 13C  
P1 9.00 u  
PL1 -2.00 d  
SFO1 100.6253446 M

===== CHANNEL f2 =====  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 90.00 u  
PL2 0.00 d  
PLA2 16.16 d  
PL13 17.00 d  
SFO2 400.1416006 M

F2 - Processing parameter  
SI 32768  
SF 100.6152830 M  
WDW EM  
SSB 0  
LB 1.00 H  
GB 0  
PC 1.40



Current Data Parameters	
NAME	SB-68 pure
EXPNO	3
PROCNO	1
F2 - Acquisition Parameters	
Date_	20110818
Time	16.04
INSTRUM	robinson
PROBHD	5 mm PABBO BB-
PULPROG	zg30
TD	32768
SOLVENT	CDCl3
NS	23
DS	2
SWH	6793.478
FIDRES	0.207320
AQ	2.4117749
RG	181
DW	73.600
DE	6.50
TE	298.2
D1	2.0000000
TD0	1
===== CHANNEL f1 =====	
NUC1	1H
P1	14.00
PL1	0.00
SFO1	400.1424008
F2 - Processing parameters	
SI	32768
SF	400.1400000
WDW	EM
SSB	0
LB	0.30
GB	0
PC	1.00



Current Data Parameters  
NAME SB-1-68 pure  
EXPNO 2  
PROCNO 1

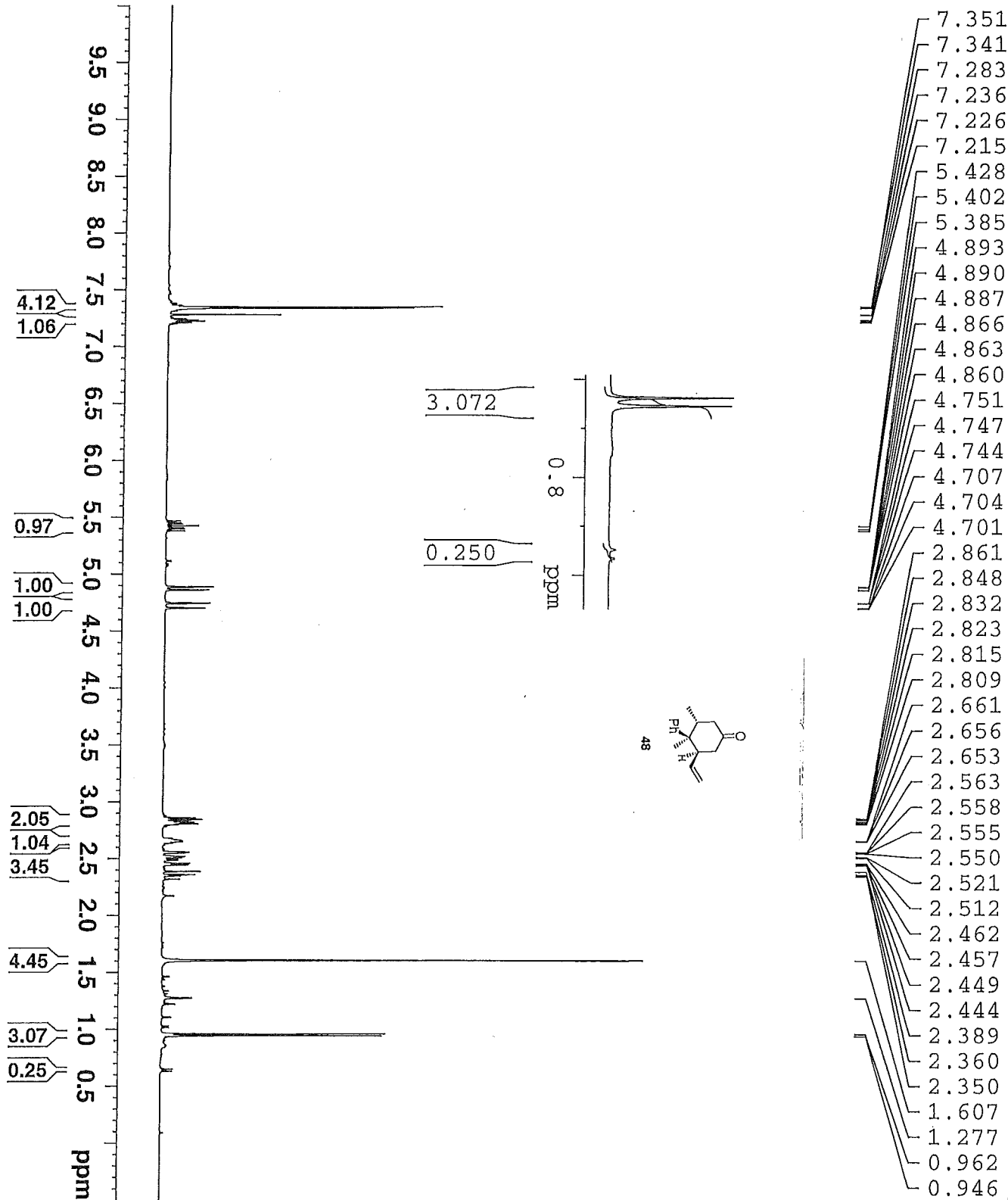
F2 - Acquisition Parameters  
Date\_ 20110821  
Time 20.50  
INSTRUM robinson  
PROBHD 5 mm PABBO BB-  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 541  
DS 4  
SWH 23980.814 Hz  
FIDRES 0.365918 Hz  
AQ 1.3664756 s  
RG 18390.4  
DW 20.850 us  
DE 6.50 us  
TE 299.5 K  
D1 0.20000000 s  
D11 0.03000000 s  
TD0 1

===== CHANNEL f1 =====  
NUC1 13C  
P1 9.00 us  
PL1 -2.00 dB  
SFO1 100.6253446 MHz

===== CHANNEL f2 =====  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 90.00 us  
PL2 0.00 dB  
PL12 16.16 dB  
PL13 17.00 dB  
SFO2 400.1416006 MHz

F2 - Processing parameters:  
SI 32768  
SF 100.6152830 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40



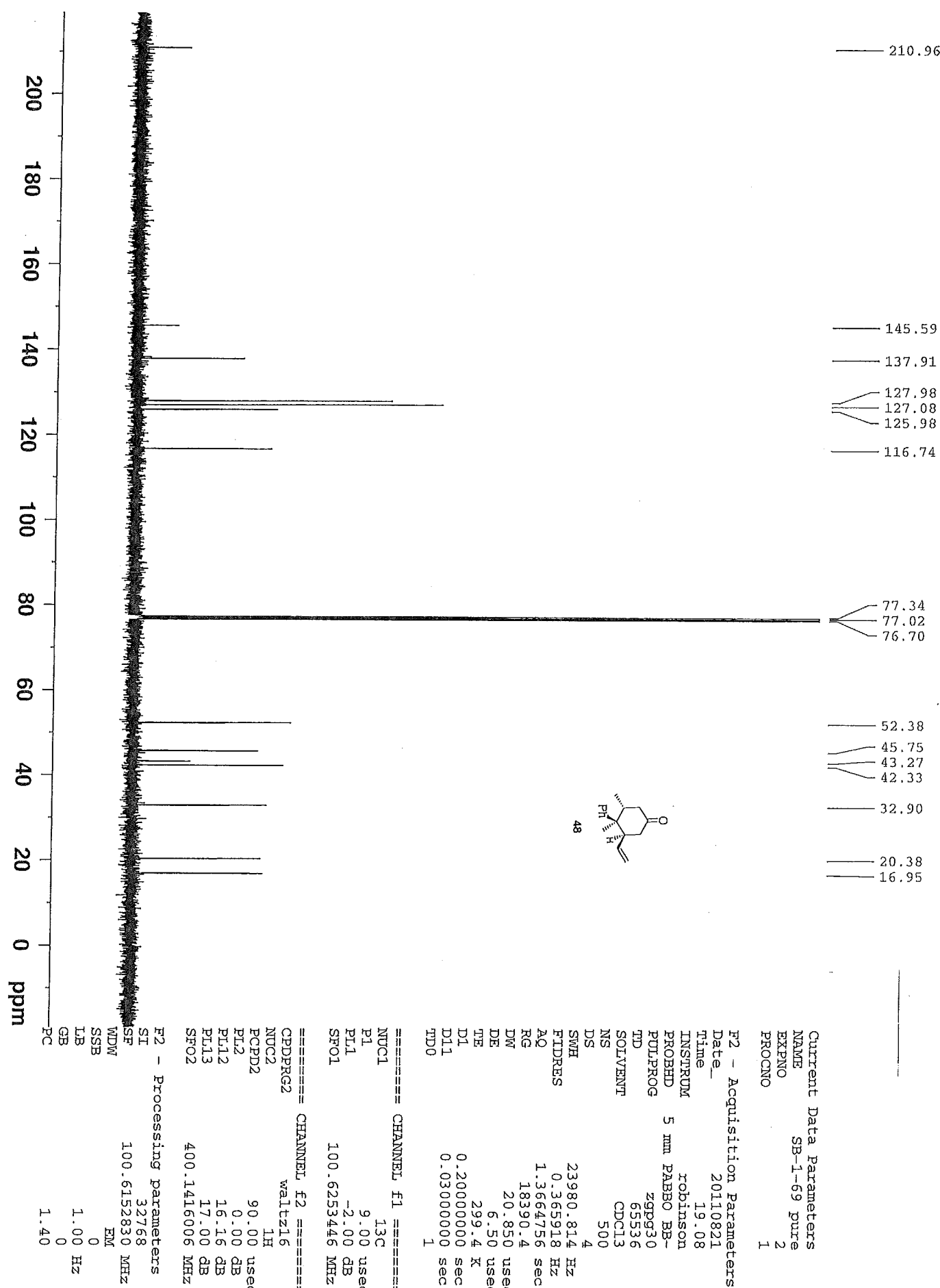


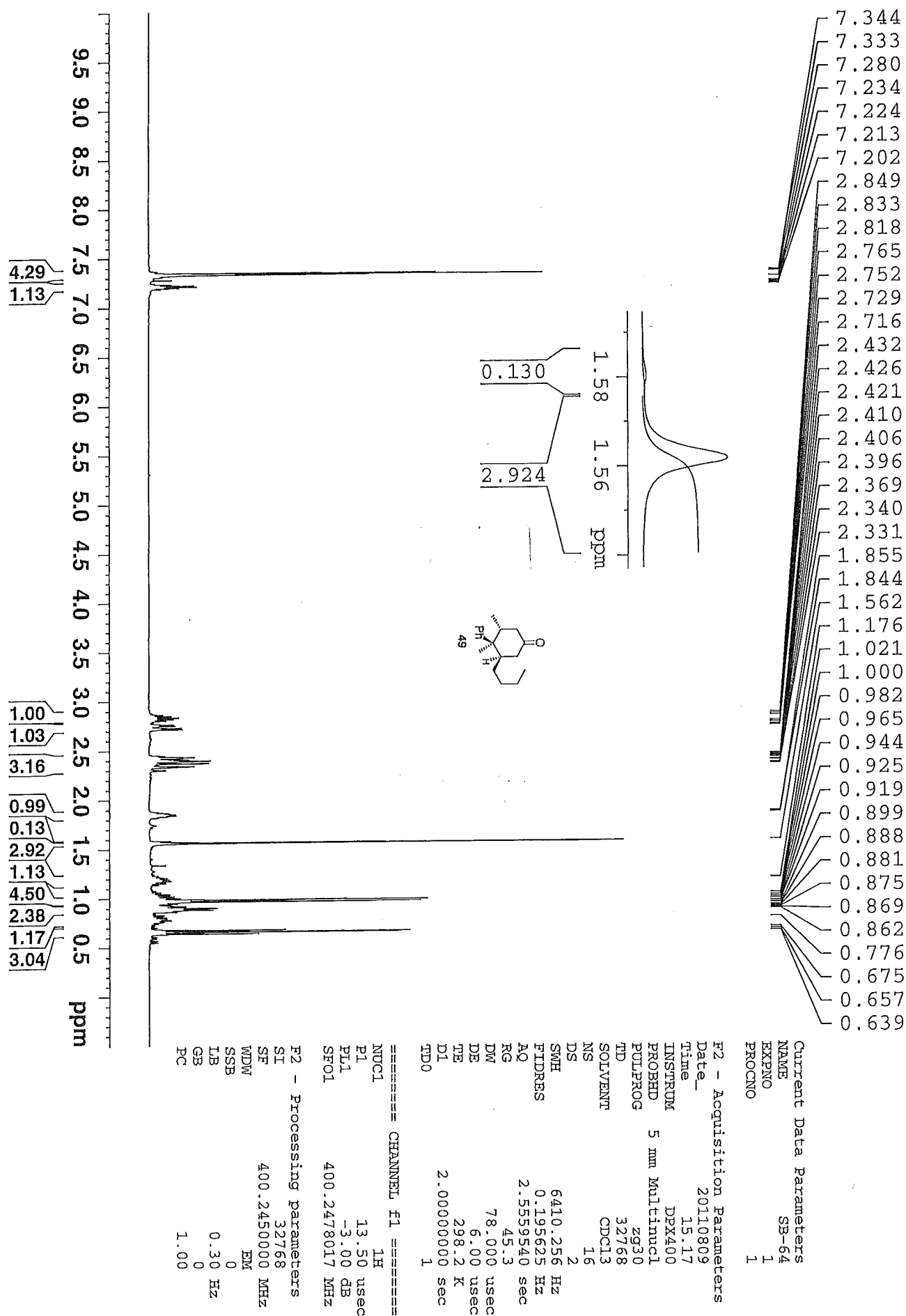
Current Data Parameters  
NAME SB-1-69 pure  
EXPNO 1  
PROCNO 1

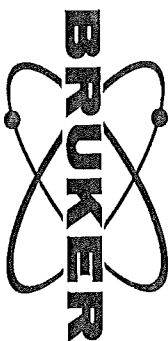
F2 - Acquisition Parameters  
Date\_ 20110821  
Time 19.47  
INSTRUM robinson  
PROBHD 5 mm PABBO BB-  
PULPROG zg30  
TD 32768  
SOLVENT CDCl3  
NS 19  
DS 2  
SWH 6793.478  
FIDRES 0.207320  
AQ 2.4117749  
RG 128  
DW 73.600  
DE 6.50  
TE 298.2  
D1 2.0000000  
TD0 1

===== CHANNEL f1 =====  
NUC1 1H  
P1 14.00  
PL1 0.00  
SF01 400.1424008

F2 - Processing Parameters  
SI 32768  
SF 400.1400000  
WDW EM  
SSB 0  
LB 0.30  
GB 0  
PC 1.00







Current Data Parameters  
 NAME SB-48b  
 EXPNO 2  
 PROCNO 1

F2 - Acquisition Parameters

Date\_ 20110723  
 Time 23.29  
 INSTRUM robinson  
 PROBHD 5 mm PABBO BB-  
 PULPROG zgpg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 851  
 DS 4  
 SWH 23980.814 Hz  
 FIDRES 0.365918 Hz  
 AQ 1.3664756 sec  
 RG 16384  
 DW 20.850 usec  
 DE 6.50 usec  
 TE 298.7 K  
 D1 0.20000000 sec  
 D11 0.03000000 sec  
 TD0 1

===== CHANNEL f1 =====  
 NUC1 13C  
 P1 9.00 usec  
 PL1 -2.00 dB  
 SFO1 100.6253446 MHz

===== CHANNEL f2 =====  
 CPDPRG2 waltz16  
 NUC2 1H  
 PCPD2 90.00 usec  
 PL2 0.00 dB  
 PL12 16.16 dB  
 PL13 17.00 dB  
 SFO2 400.1416006 MHz

F2 - Processing parameters  
 SI 32768  
 SF 100.6152830 MHz  
 WDW EM  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 PC 1.40

