

Supporting Information II:

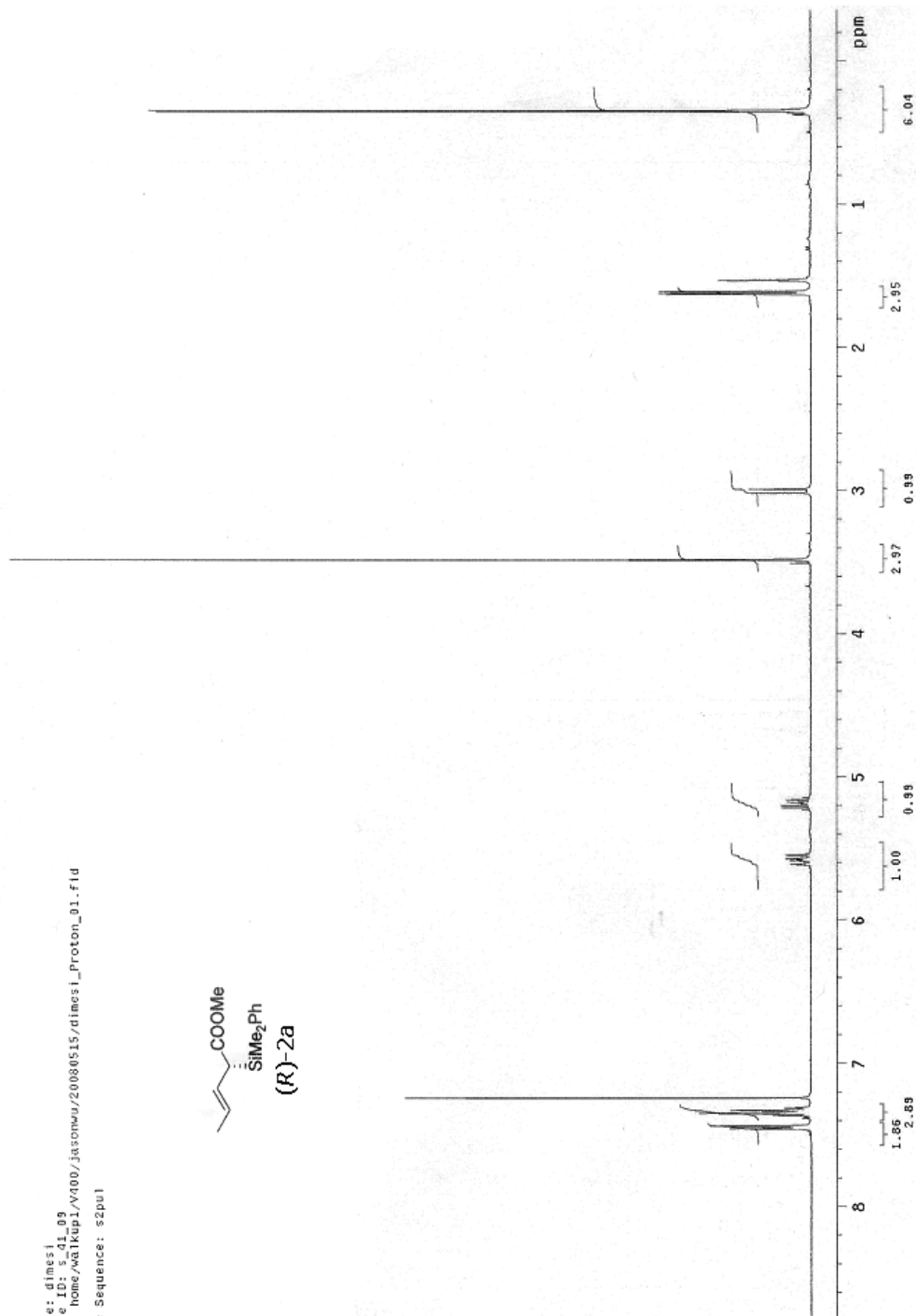
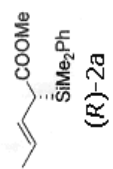
**Vinylogous Aldol Products From Chiral Crotylsilanes Obtained By
Enantioselective Rh(II) and Cu(I) Carbenoid Si-H Insertion**

Jie Wu, Yu Chen and James S. Panek*

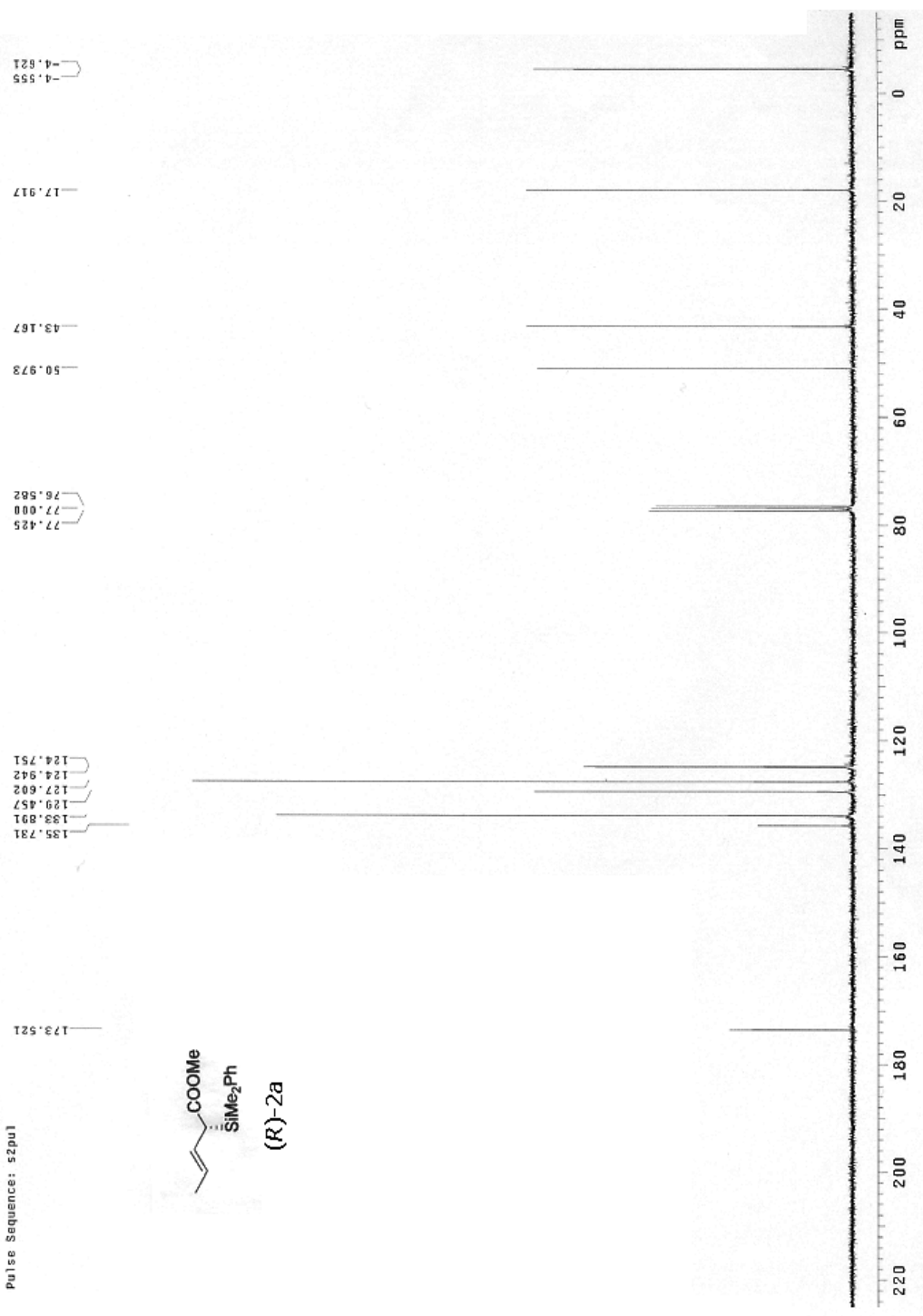
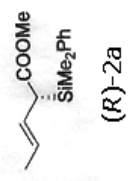
Department of Chemistry and Center for Chemical Methodology and Library
Development (CMLD-BU), Metcalf Center for Science and Engineering,
590 Commonwealth Avenue,
Boston University, Boston, Massachusetts 02215

Photocopies of ^1H and ^{13}C NMR Spectra

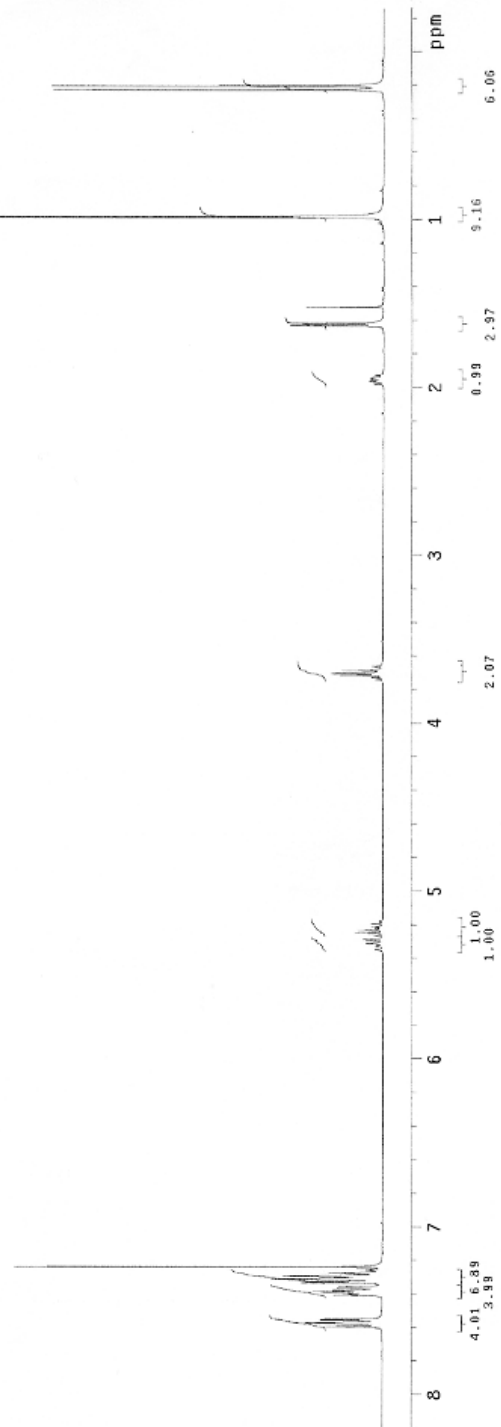
Sample: dimesi
Sample ID: s_41_09
File: home/walkepl/W100/jasonw/20080515/dimesi_Proton_01.Fid
Pulse Sequence: s2pu1

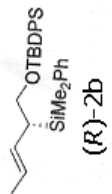
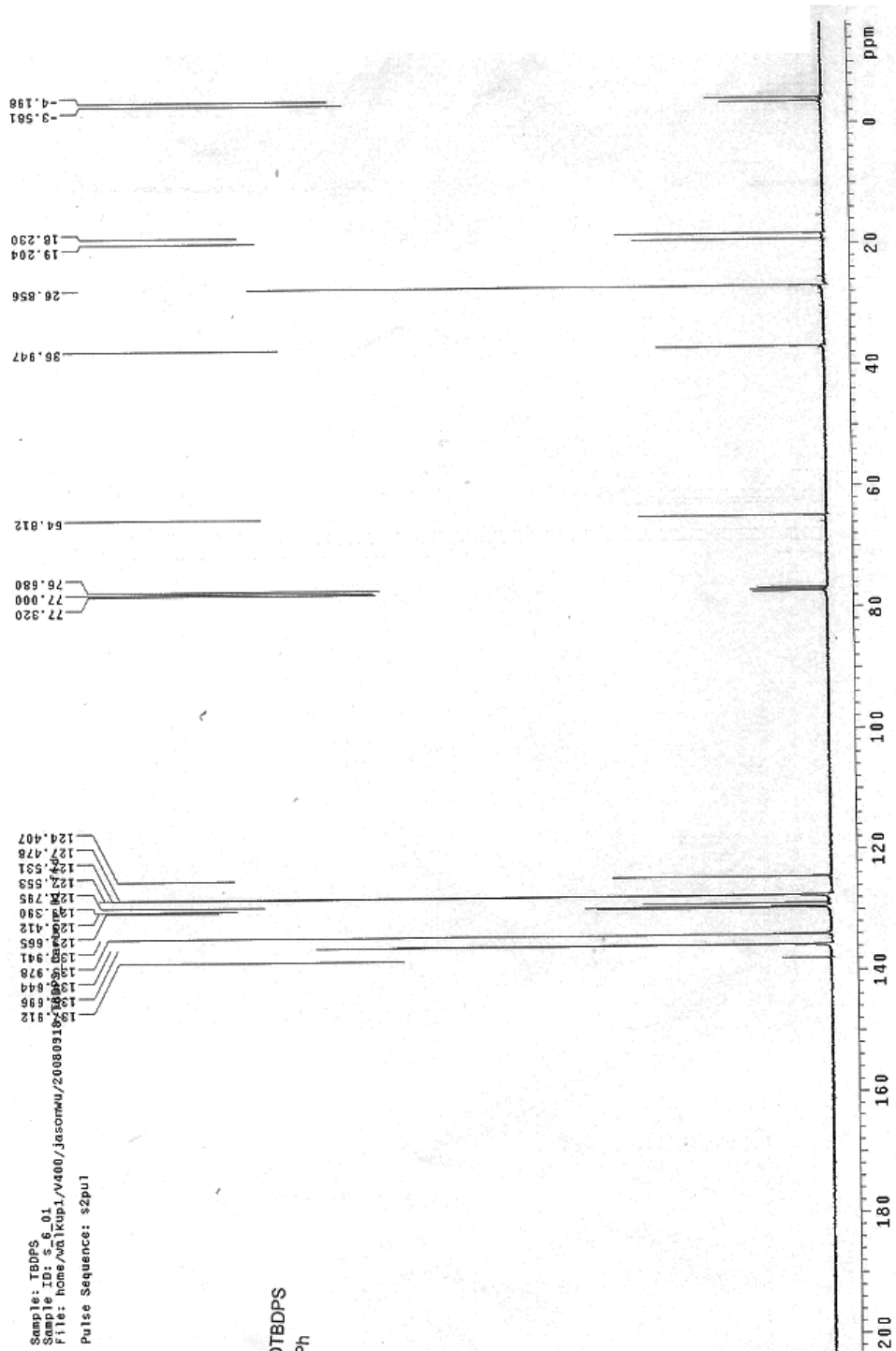


pad=1 run with findz0 before acquisition
pad=1 run with gradshim before acquisition
File: dimephs1_Carbon_01
Pulse Sequence: szpu1

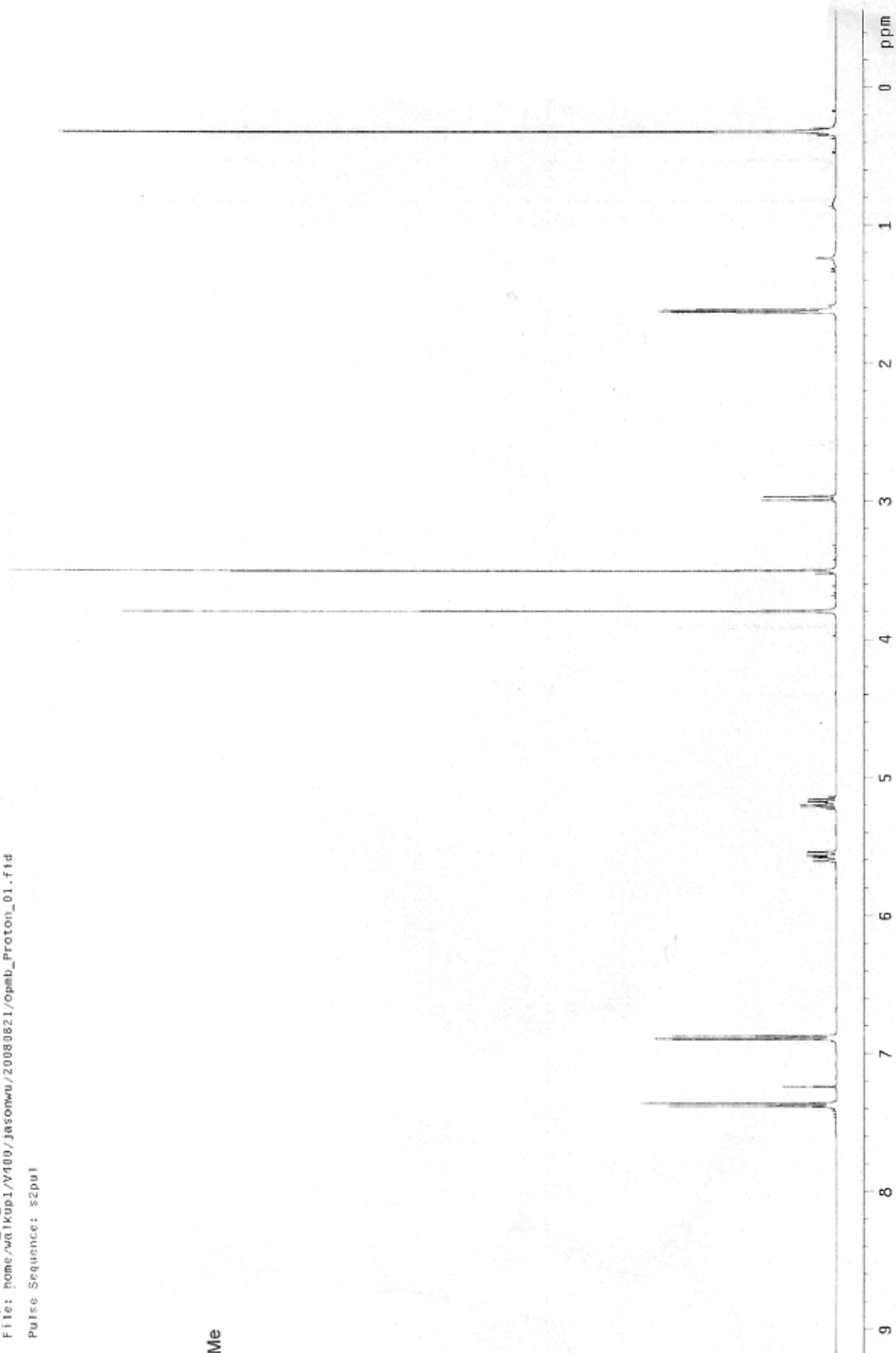
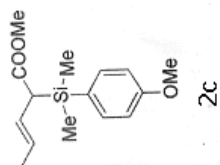


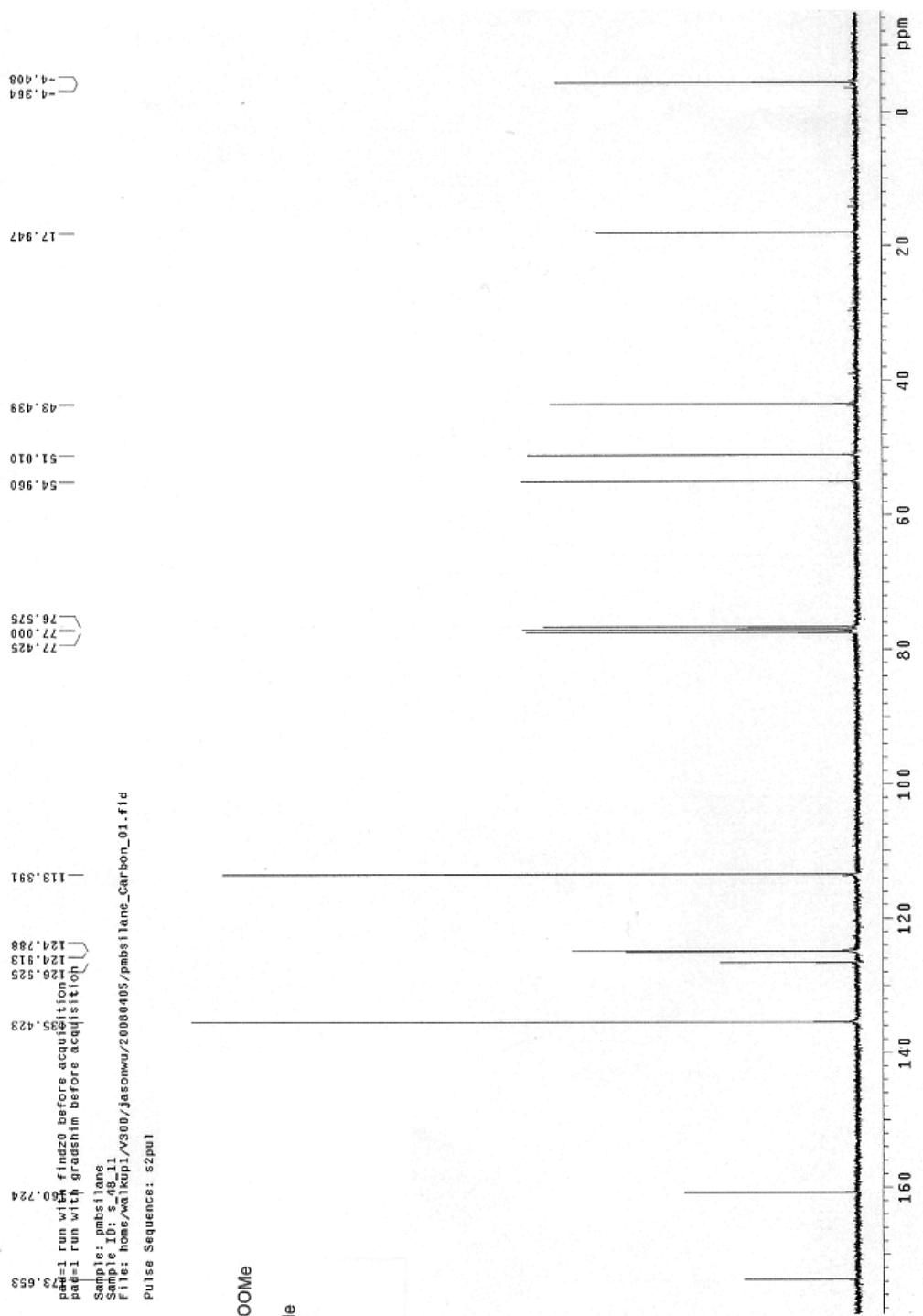
Sample: Dimethylphenyl_0180PS ether
Sample ID: s_14_01
File: home/walkup1/V400/chenyu/20080920/Dimethylphenyl_0180PS_ether_proton_01.fid
Pulse Sequence: s2pu1



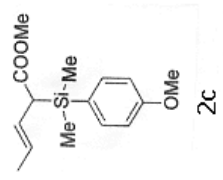


Sample: oomb
Sample ID: S_44_06
File: home/wa/kup1/v4100/jasonwu/20080821/opmb_Proton_01.fid
Pulse Sequence: s2pul

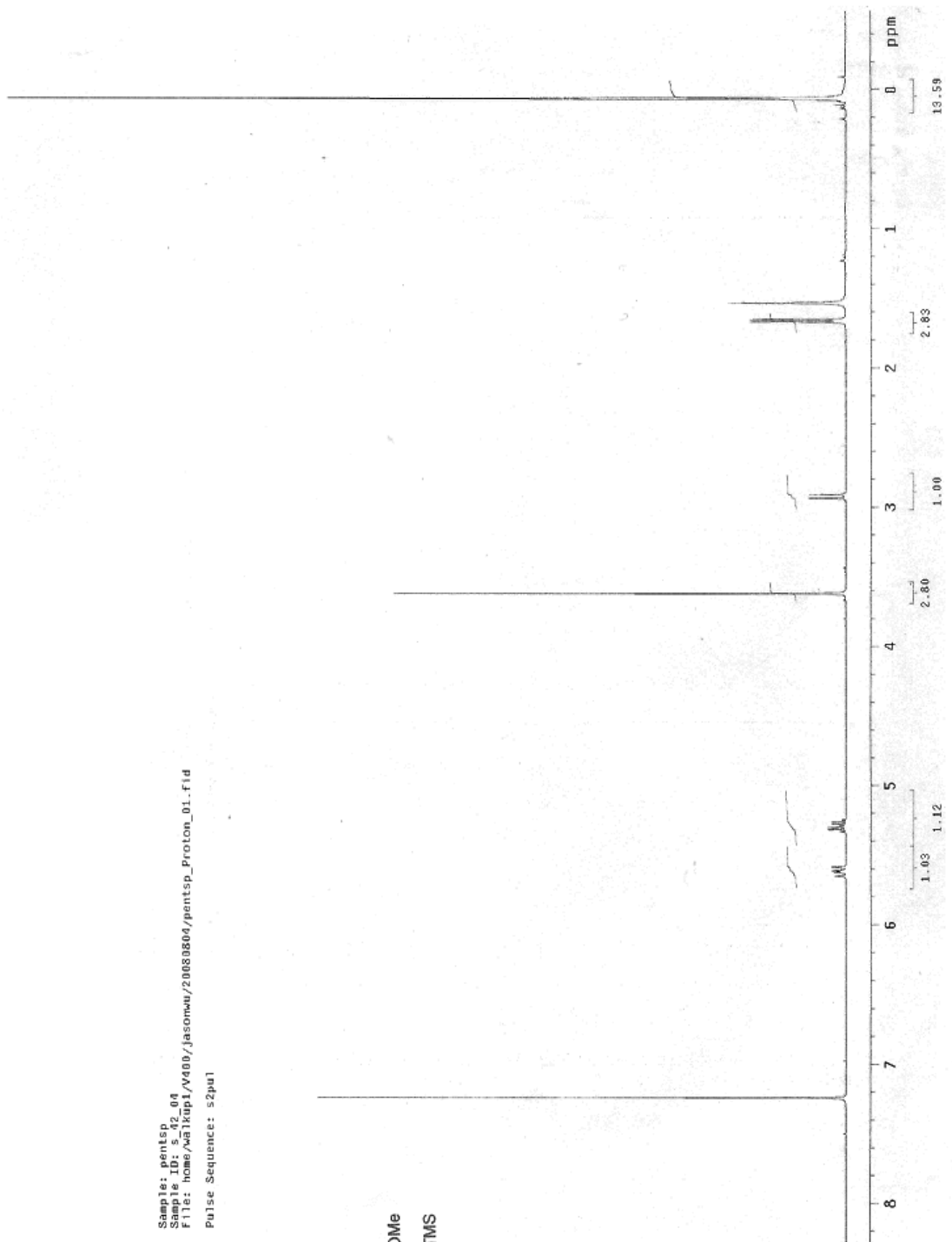
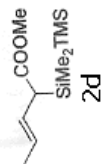


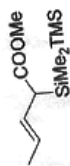


pep-1 run with findz0 before acquisition
 pep-1 run with gradshim before acquisition
 Sample: pmbstilane
 Sample ID: 5_48_11
 File: home/walkup1/VS00/Jasonwu/20080405/pmbstilane_Carbon_01.fid
 Pulse Sequence: s2pu1



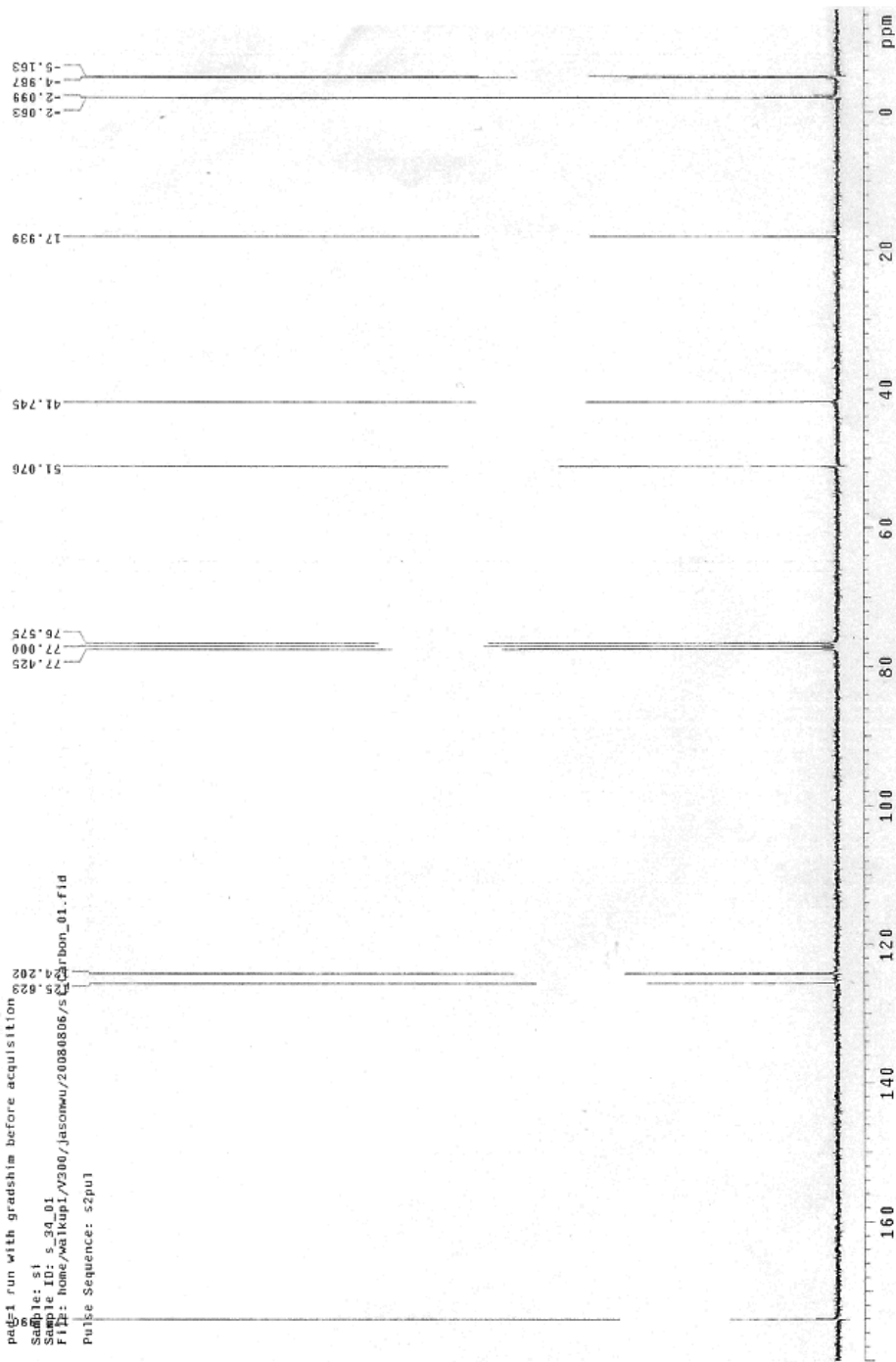
Sample: pentsp
Sample ID: S_12_01
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Pulse Sequence: s2pu1



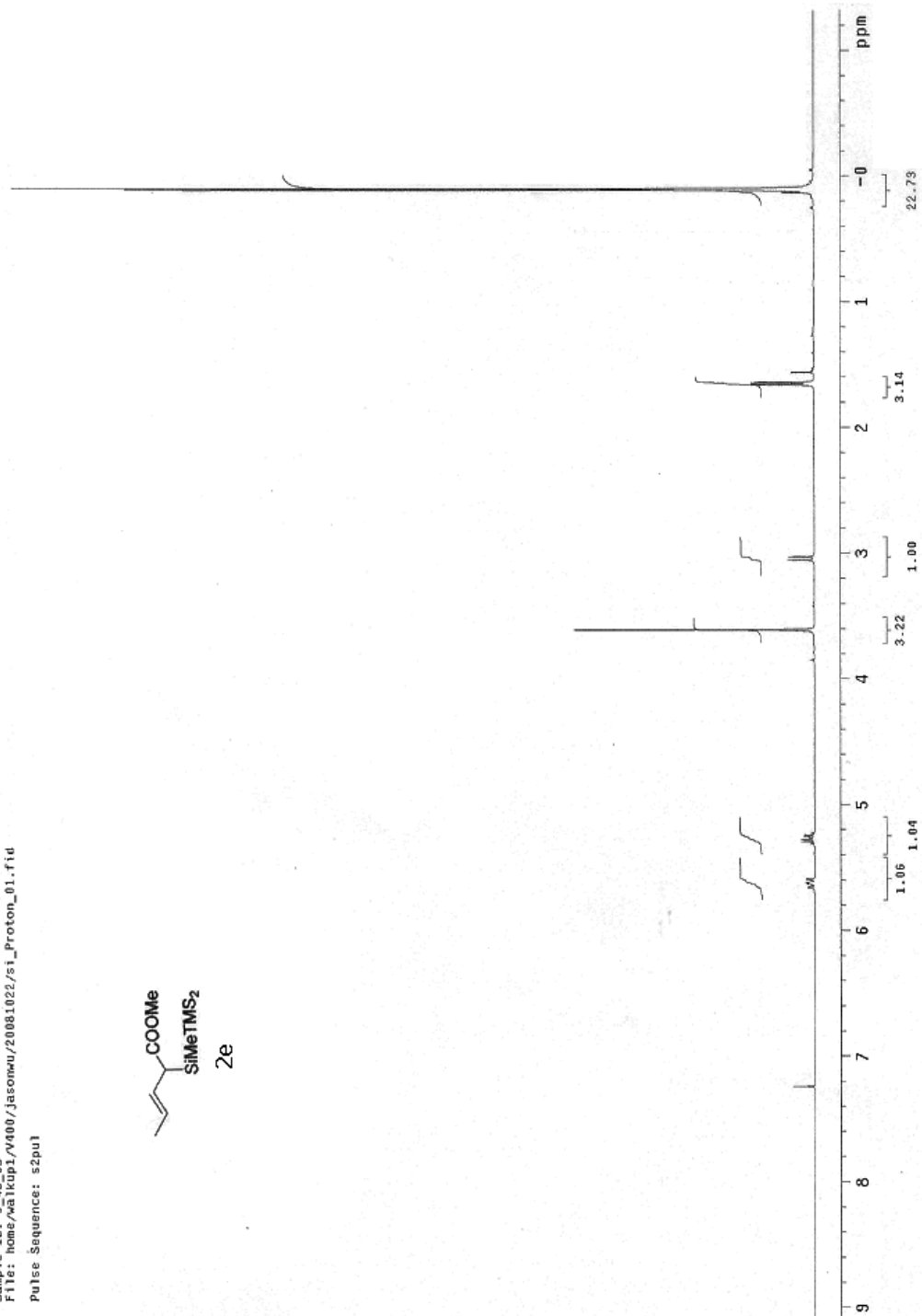
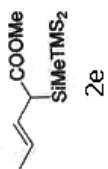


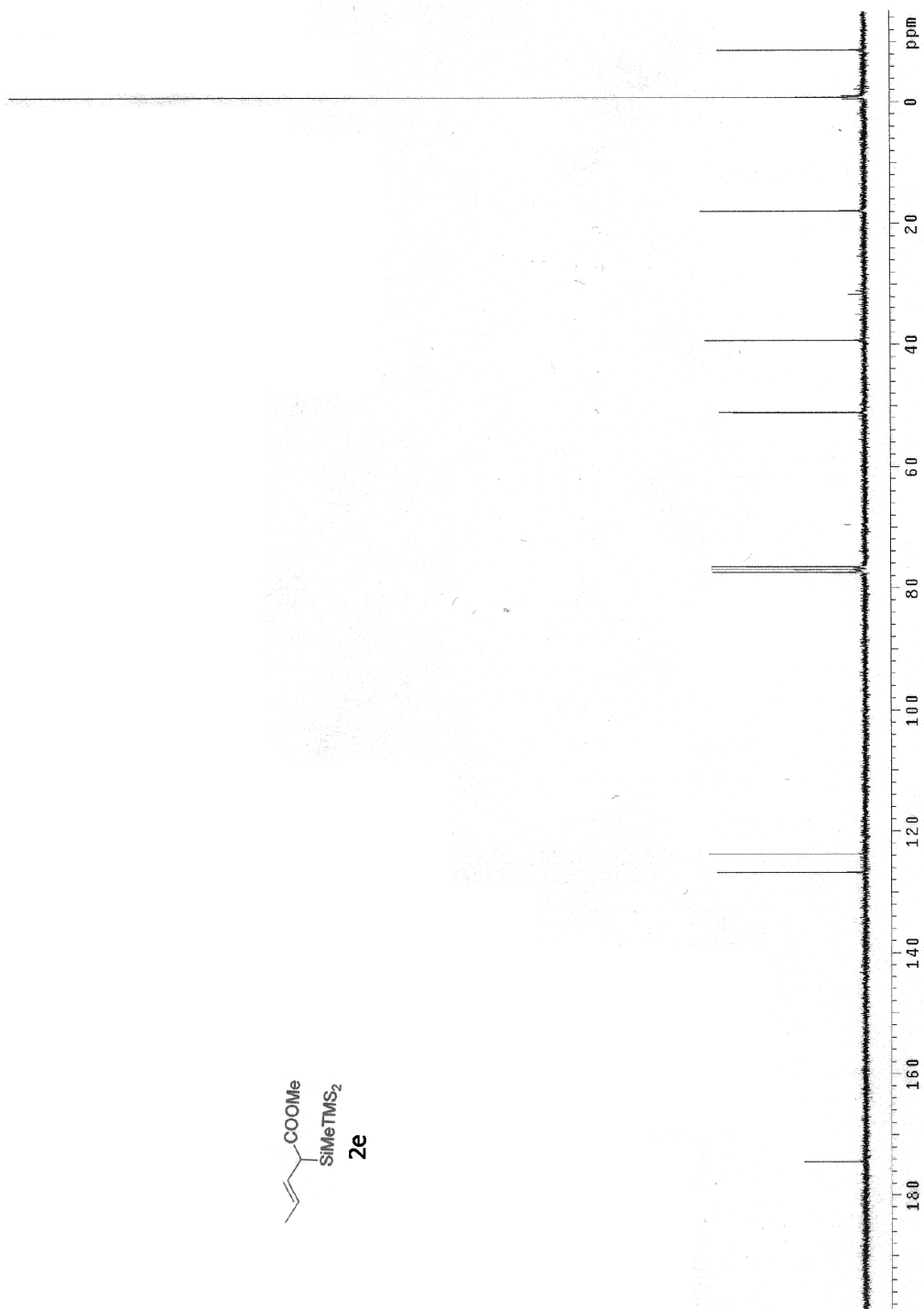
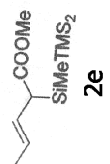
2d

pe051 run with gradshim before acquisition
 Sample: s1
 Sample ID: s_3d_01
 File: home/waikup1/v2300/jasonwu/20080806/s_3d_01/carbon_01.fid
 Pulse Sequence: s2pu1

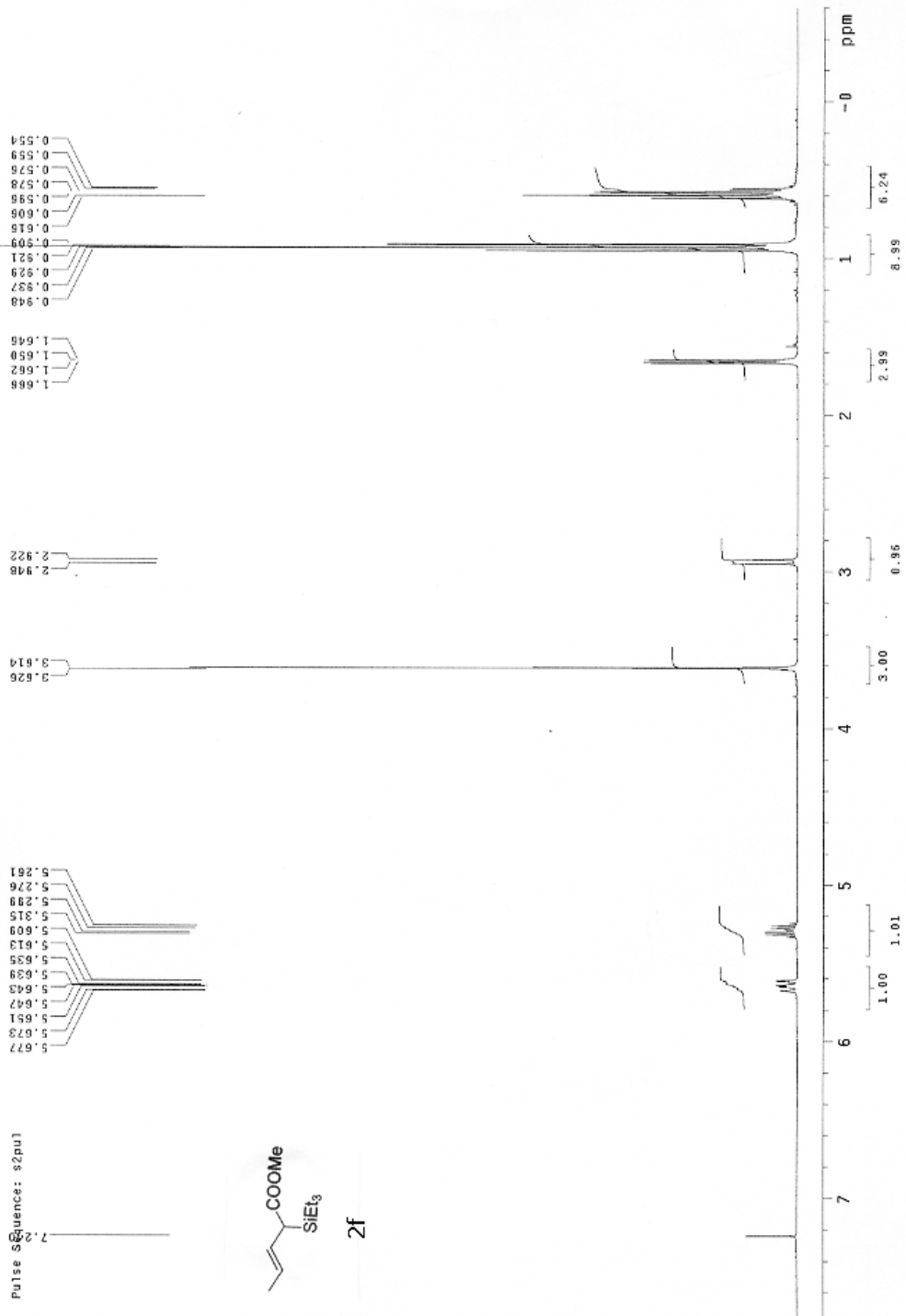


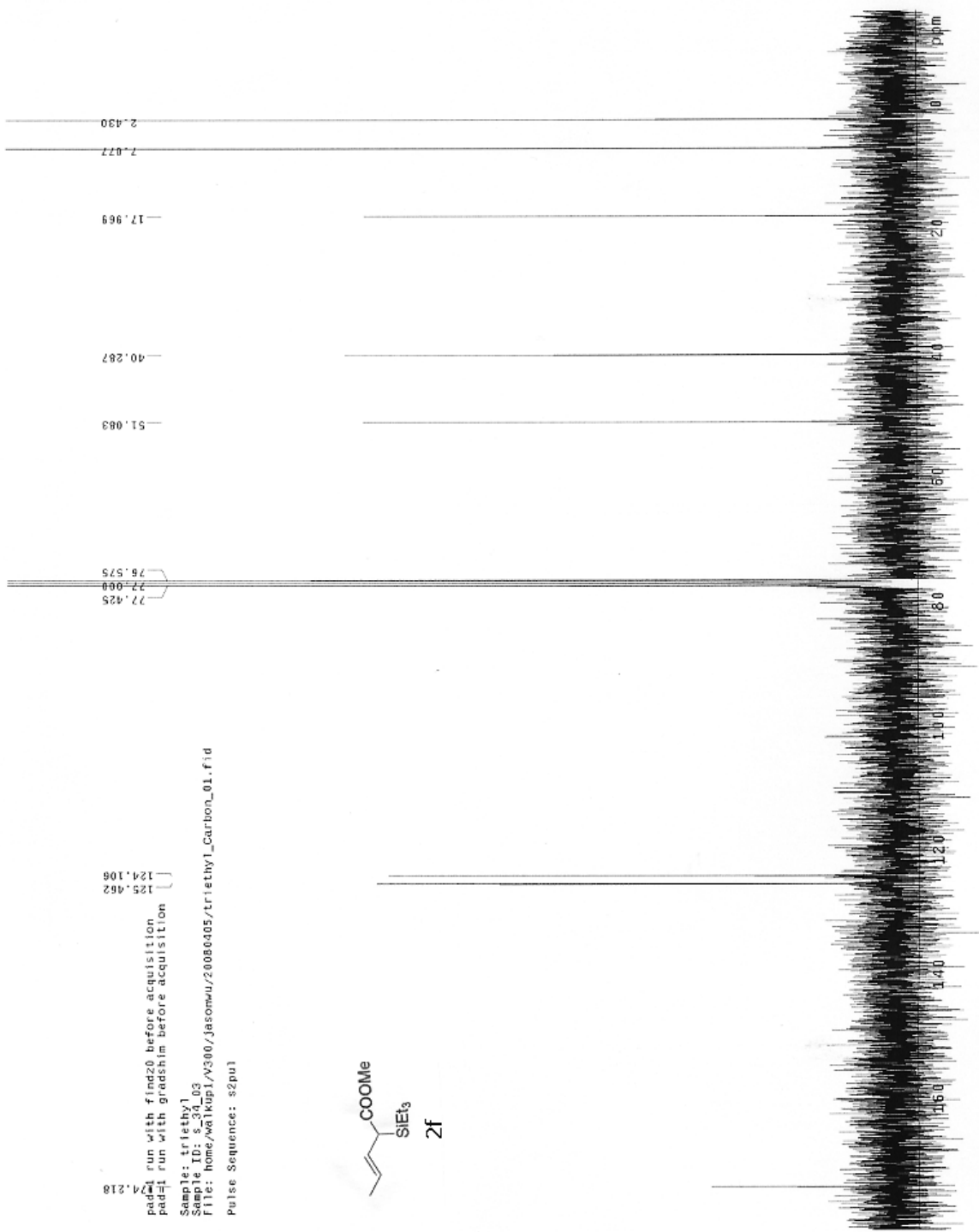
Sample: st
Sample ID: s_48_03
File: home/walkup1/V400/jasonwu/20081022/st_Proton_01.fid
Pulse Sequence: s2pu1



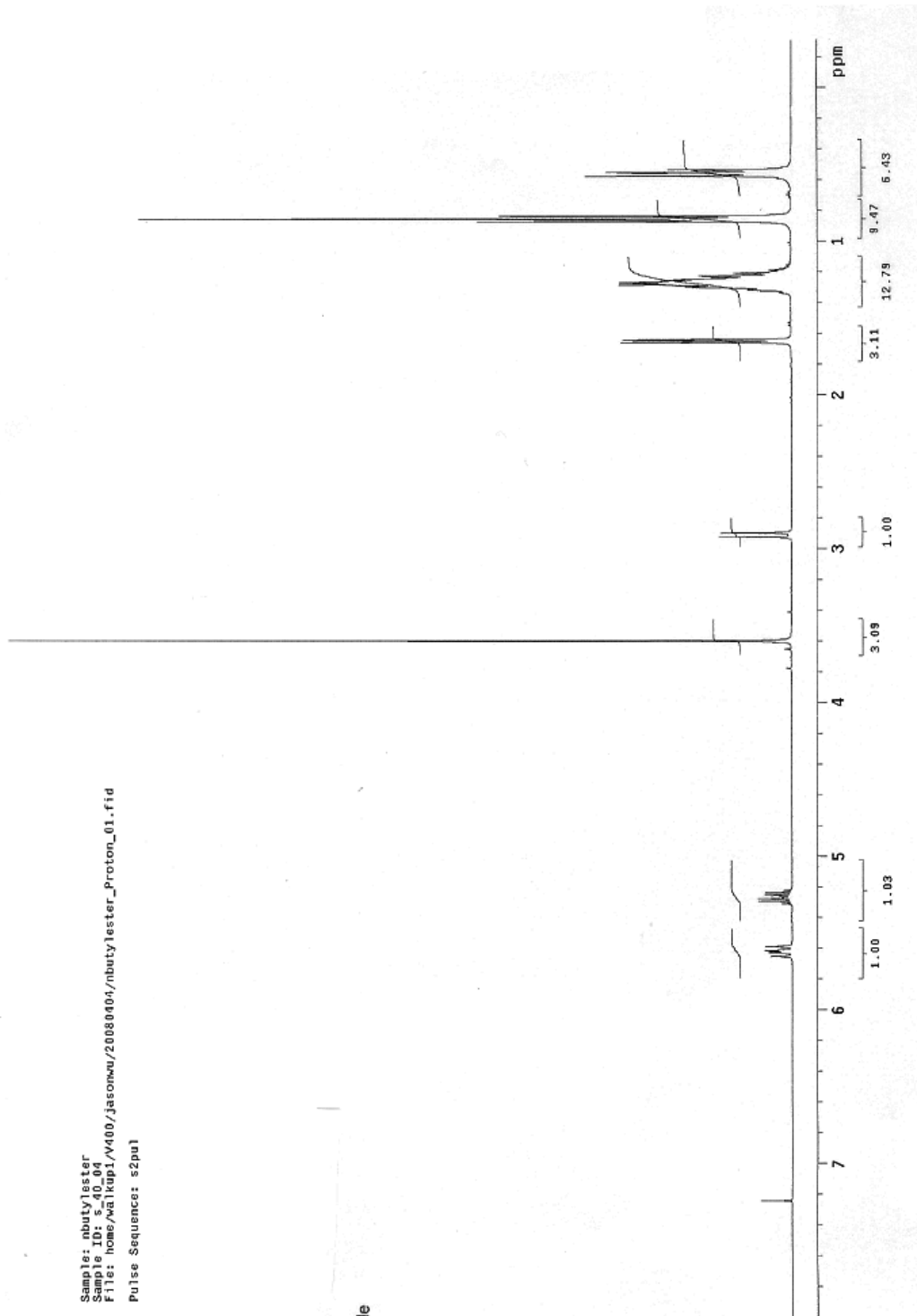
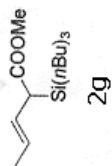


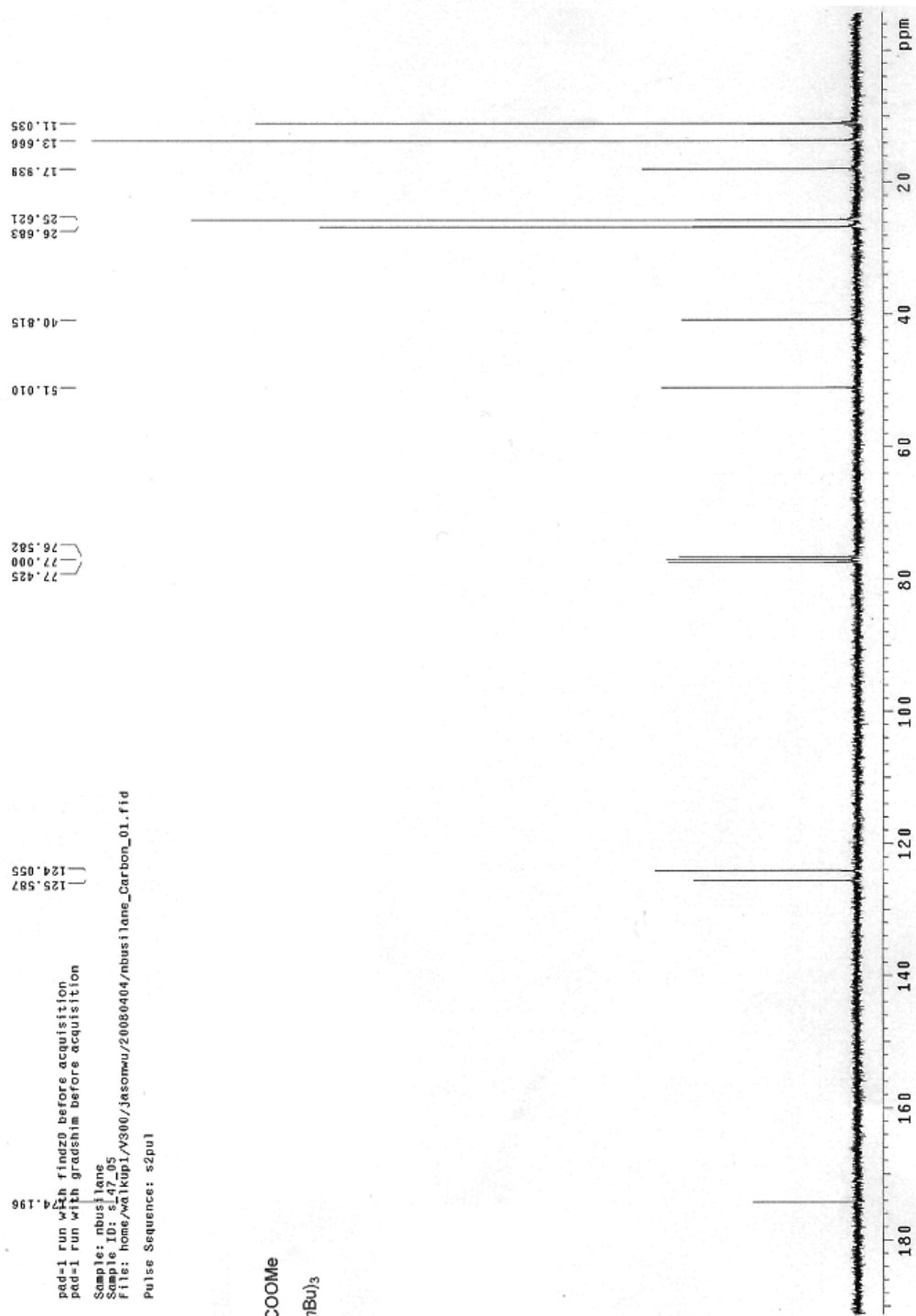
Sample: triethyl
 Sample ID: S_27_05
 File: home/walakup1/v400/jasonwu/20071229/triethyl_Proton_01.fid
 Pulse Sequence: s2pu1



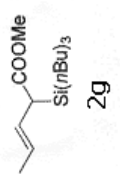


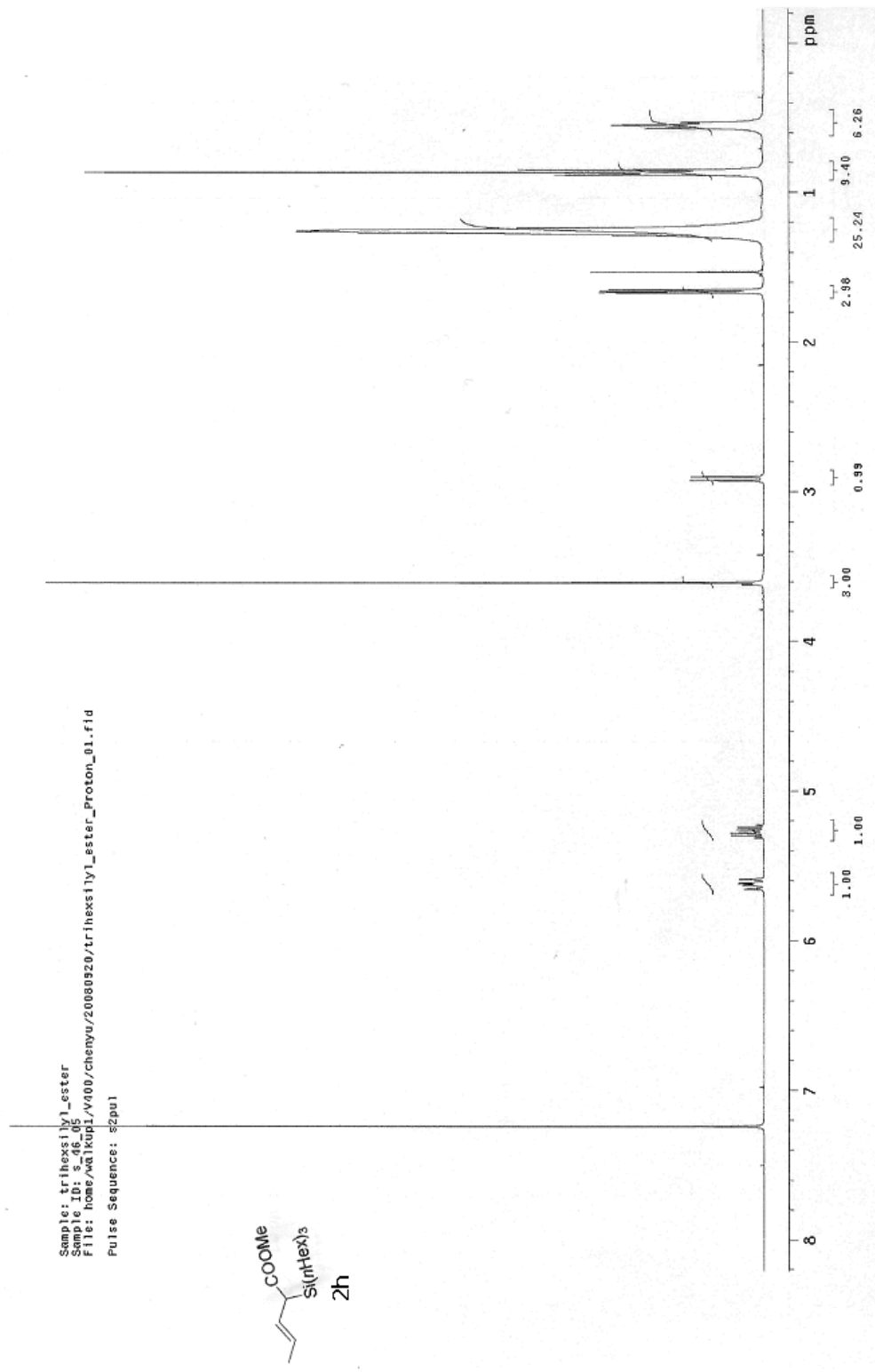
Sample: nbutylester
Sample ID: 00000000
File: home/walkup1/V4100/Jascowu/20080404/nbutylester_Proton_01.fid
Pulse Sequence: s2pu1





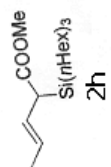
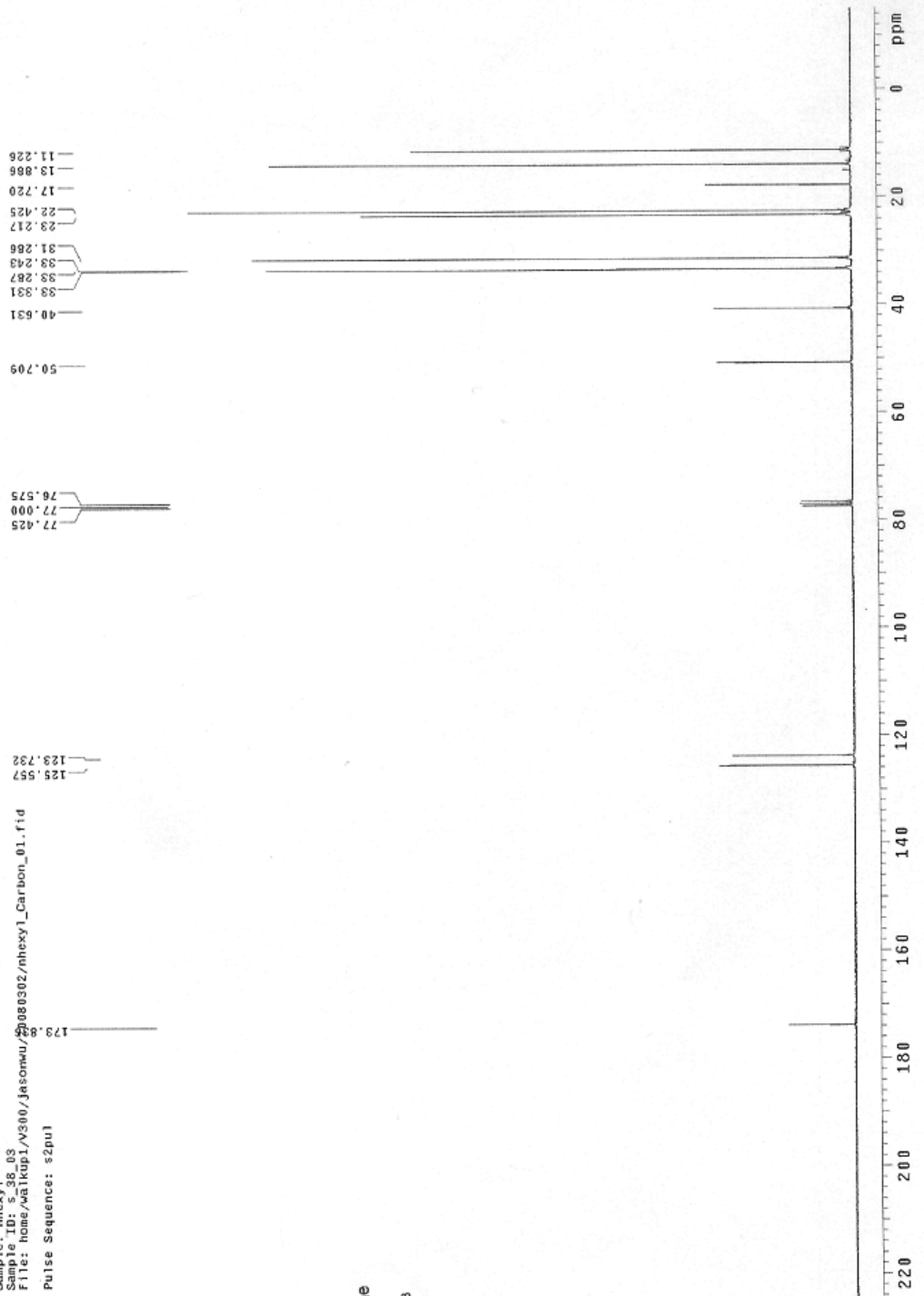
pad-1 run with findz0 before acquisition
 pad-1 run with gradshim before acquisition
 Sample: nbu3ilane
 Sample ID: s_17_05
 F1 file: home/wdtkp1/V300/jasomw/20050404/nbu3ilane_Carbon_01.fid
 Pulse Sequence: s2pul

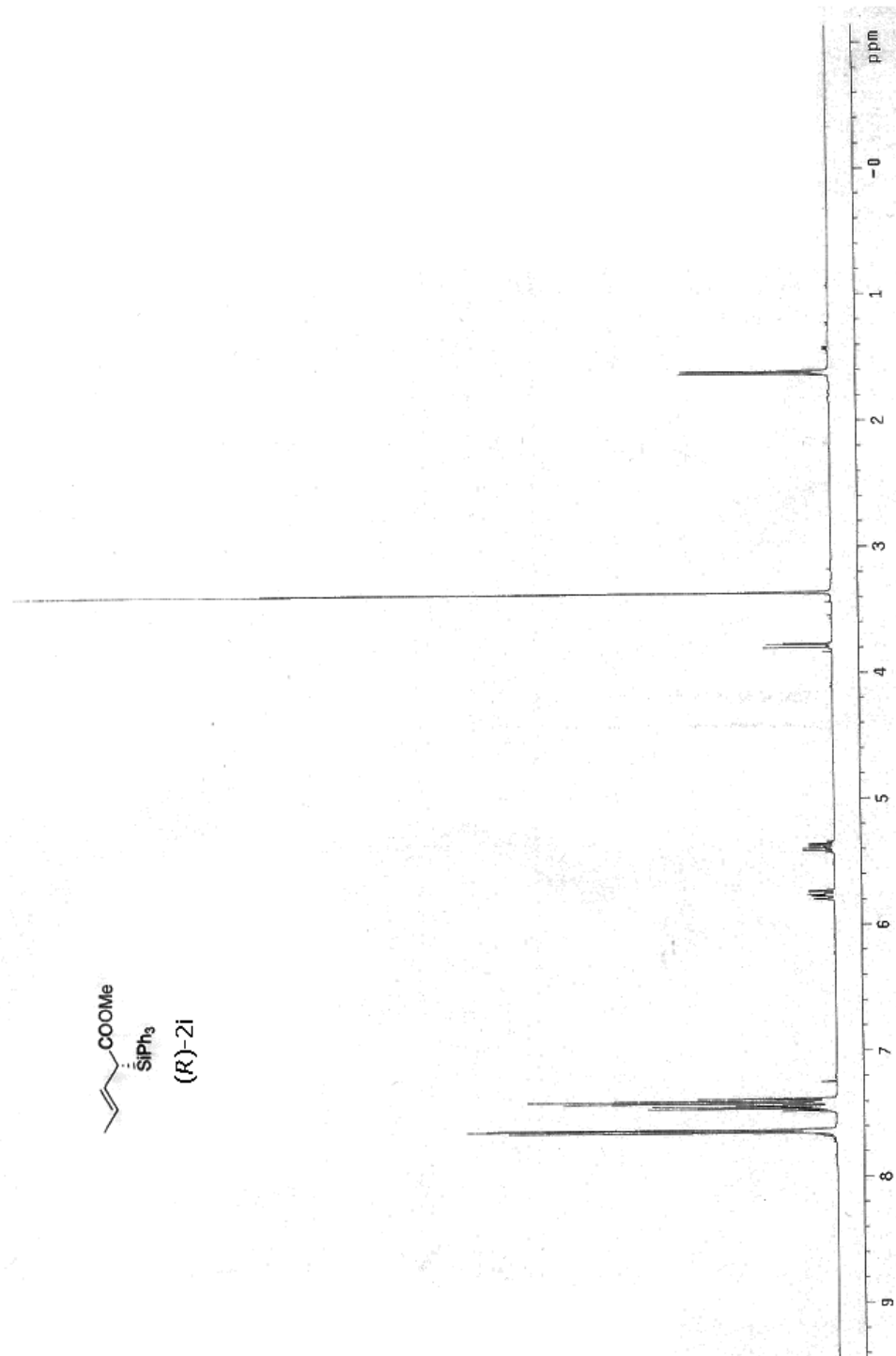
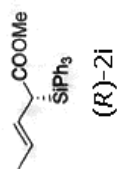


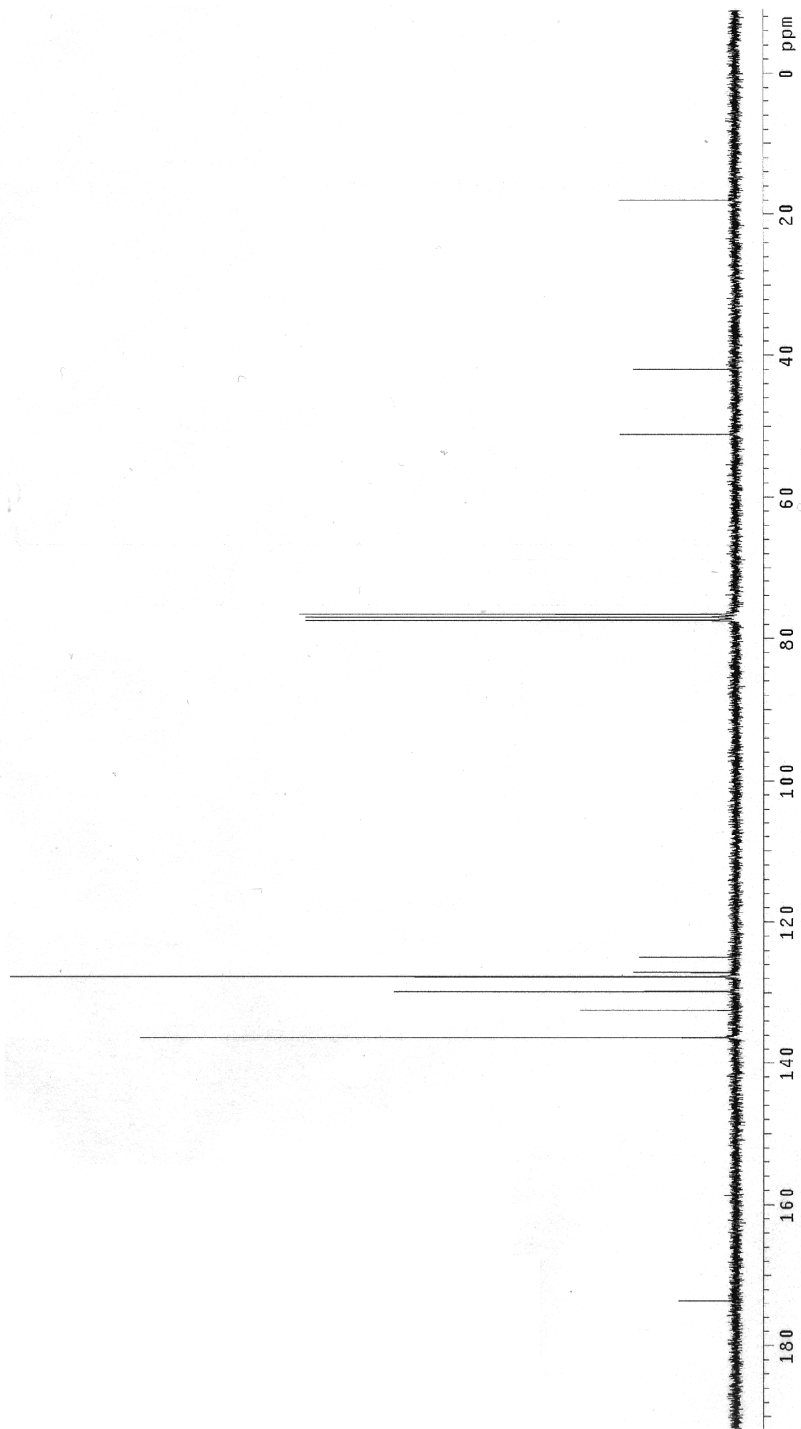
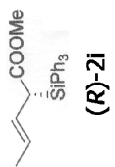


pad-1 run with findz0 before acquisition
pad-1 run with gradshim before acquisition

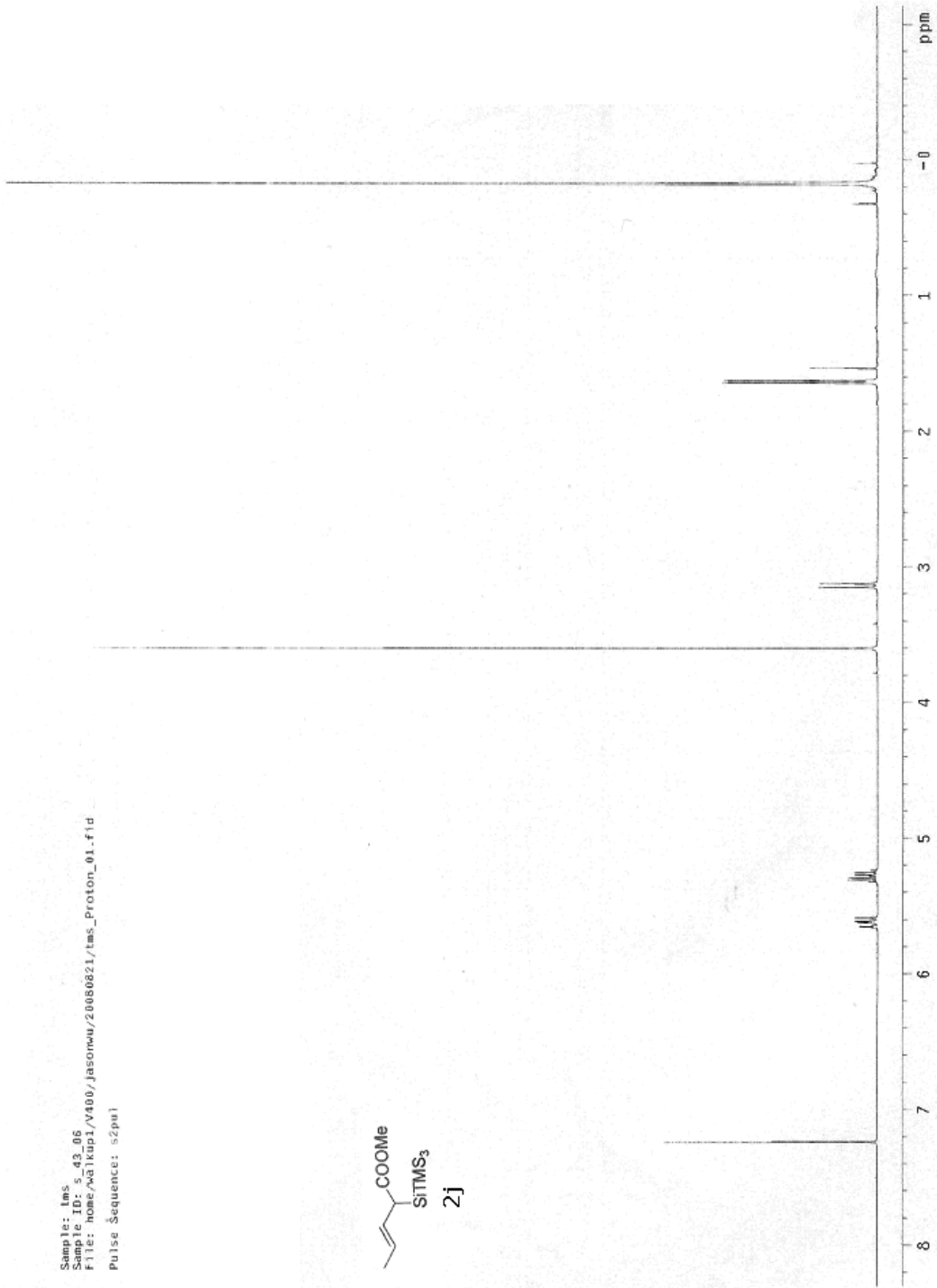
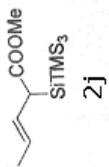
Sample: nhexyl
Sample ID: s_38_05
File: home/wallop1/V300/Jasonwu/20080302/nhexyl_Carbon_01.fid
Pulse Sequence: s2pu1

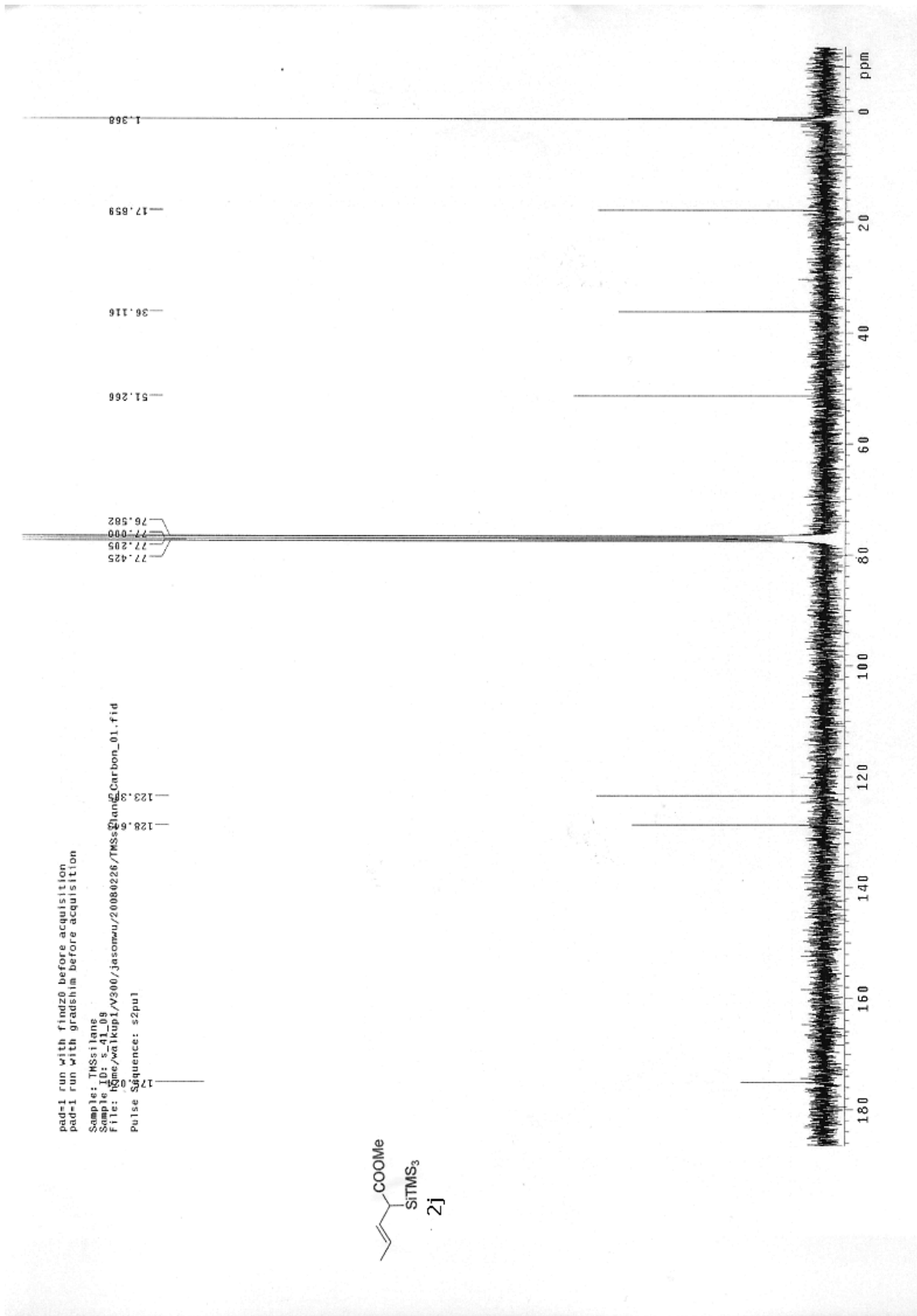


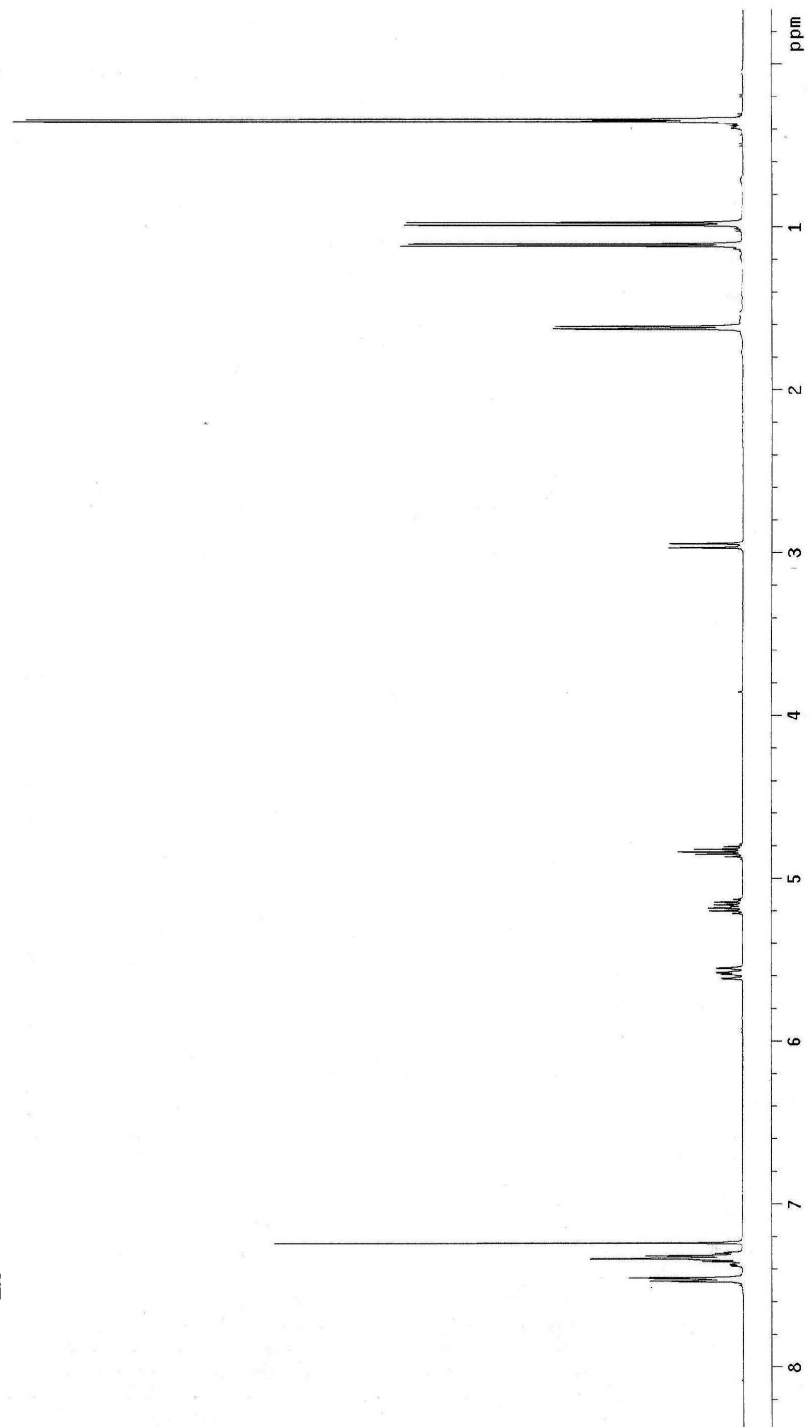
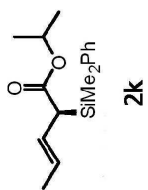




Sample: tms
Sample ID: s_43_05
File: home\w1k\p1\VA100\jasonwu\20050821\tms_Proton_01.fid
Pulse Sequence: szpu1

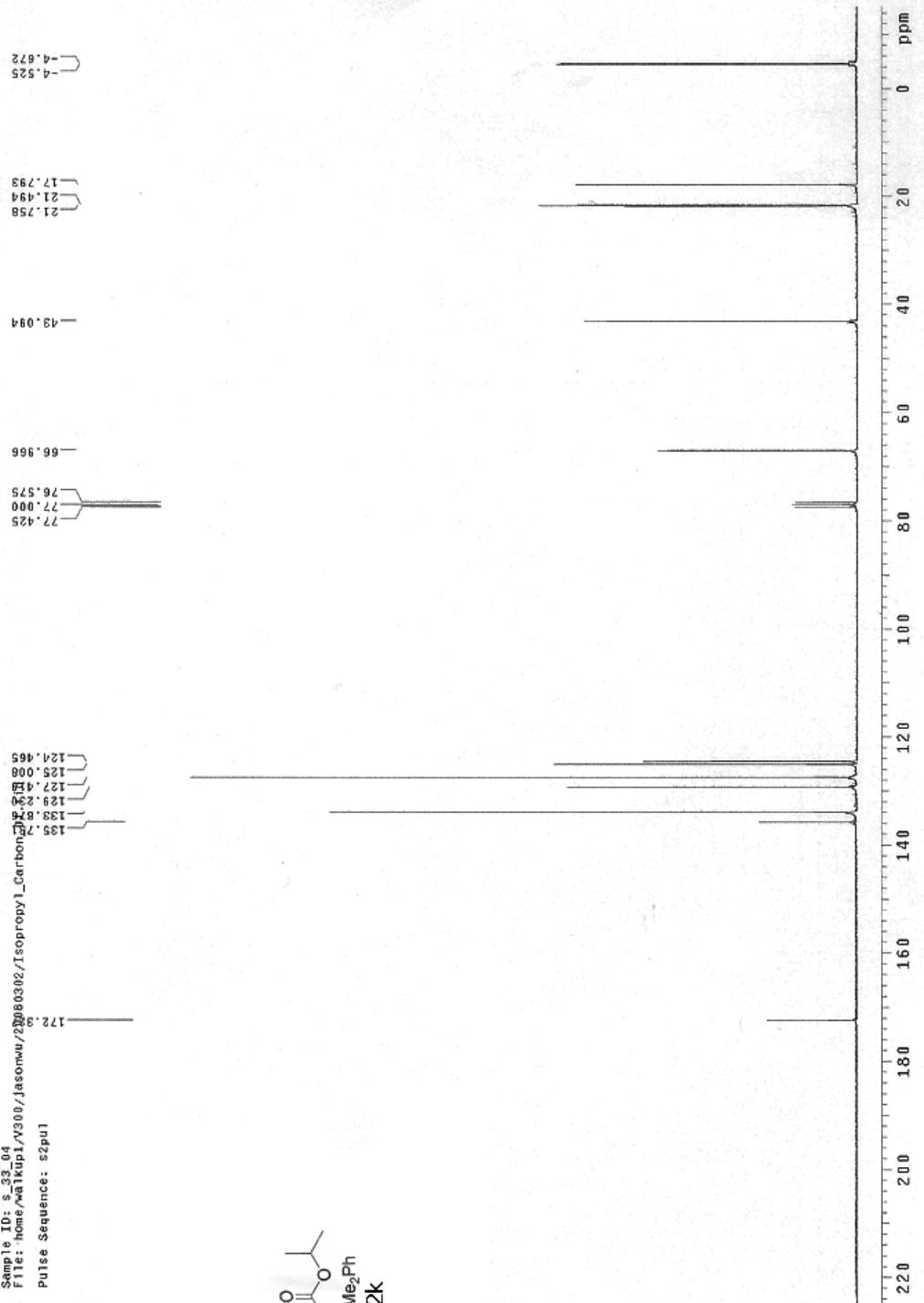
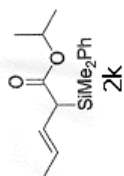




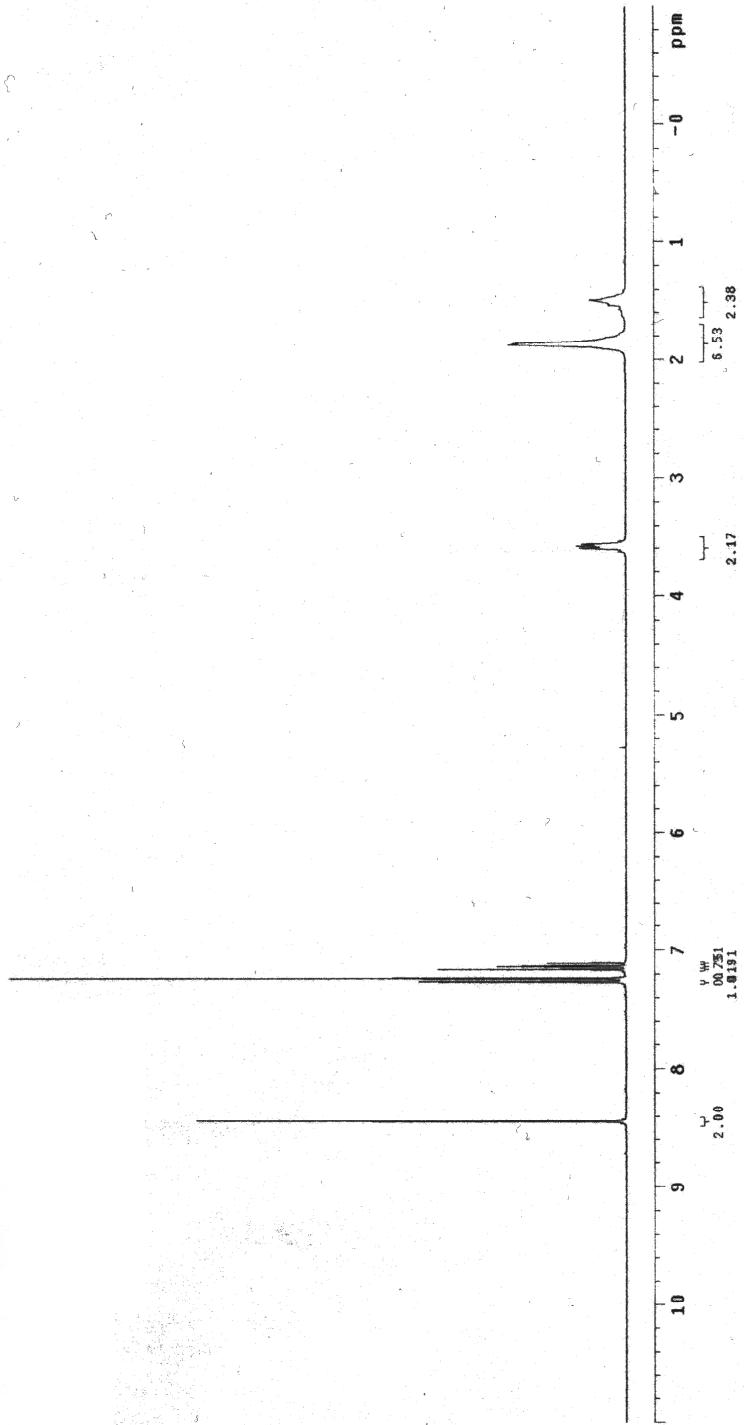
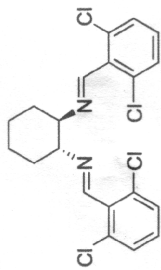


pad=1 run with findz0 before acquisition
pad=1 run with gradshim before acquisition

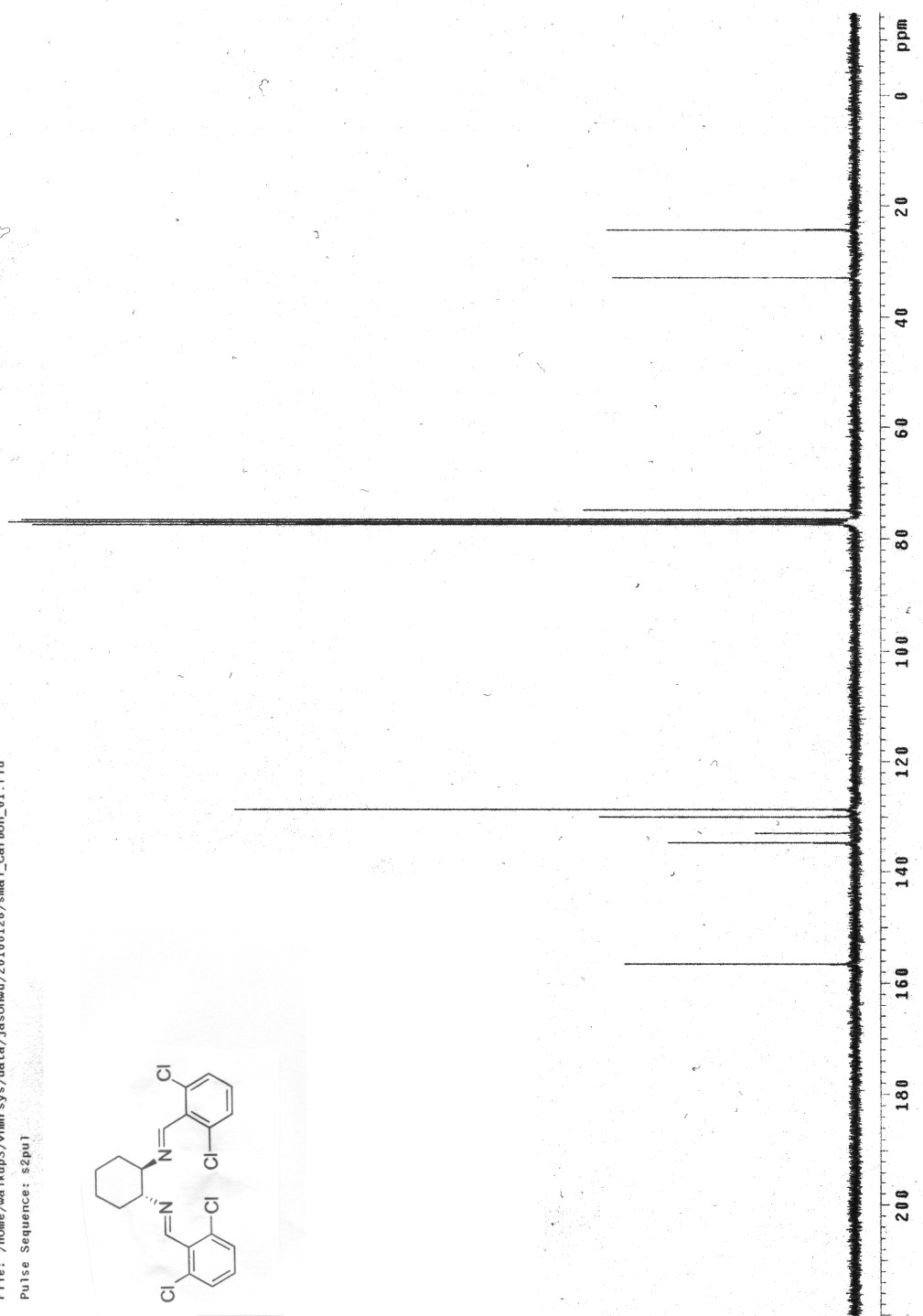
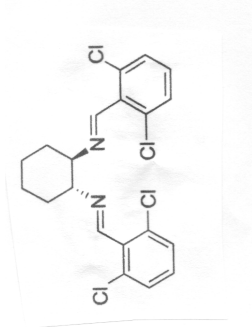
Sample: Isopropyl
Sample ID: S_33_04
File: home/retkdp1/V300/Jasomw/20080302/Isopropyl_Carbon
Pulse Sequence: s2pu1



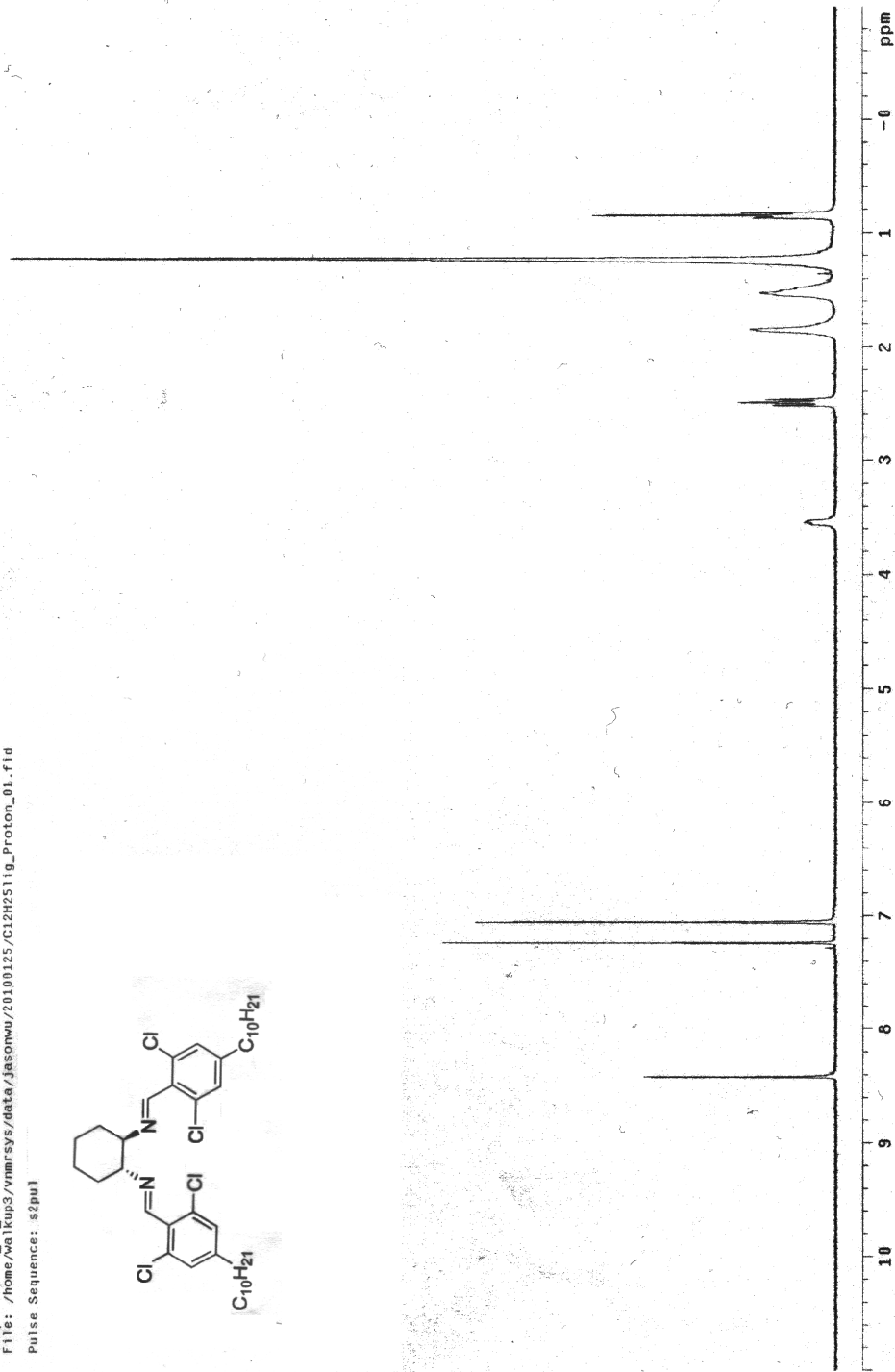
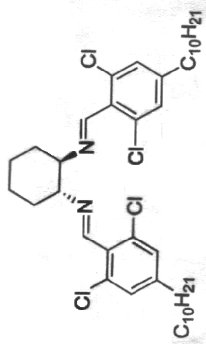
Sample: diclorolig
Sample ID: s_42_02
File: /home/va1kup3/vnmrSYS/data/jasonwu/20100125/diclorolig_Proton_01.fid
Pulse Sequence: s2pu1



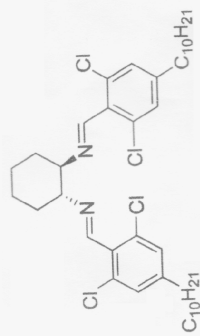
Sample: sma1
Sample ID: s_42_04
File: /home/wa1kep3/vnmr/20100126/sma1_carbon_01.fid
Pulse Sequence: s2pu1



Sample: C12H2511g
Sample ID: s_40_04
File: /home/waikup3/vnmrSYS/data/jasonwu/20100125/C12H2511g_Proton_01.fid
Pulse Sequence: s2pu1

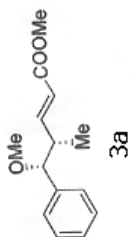
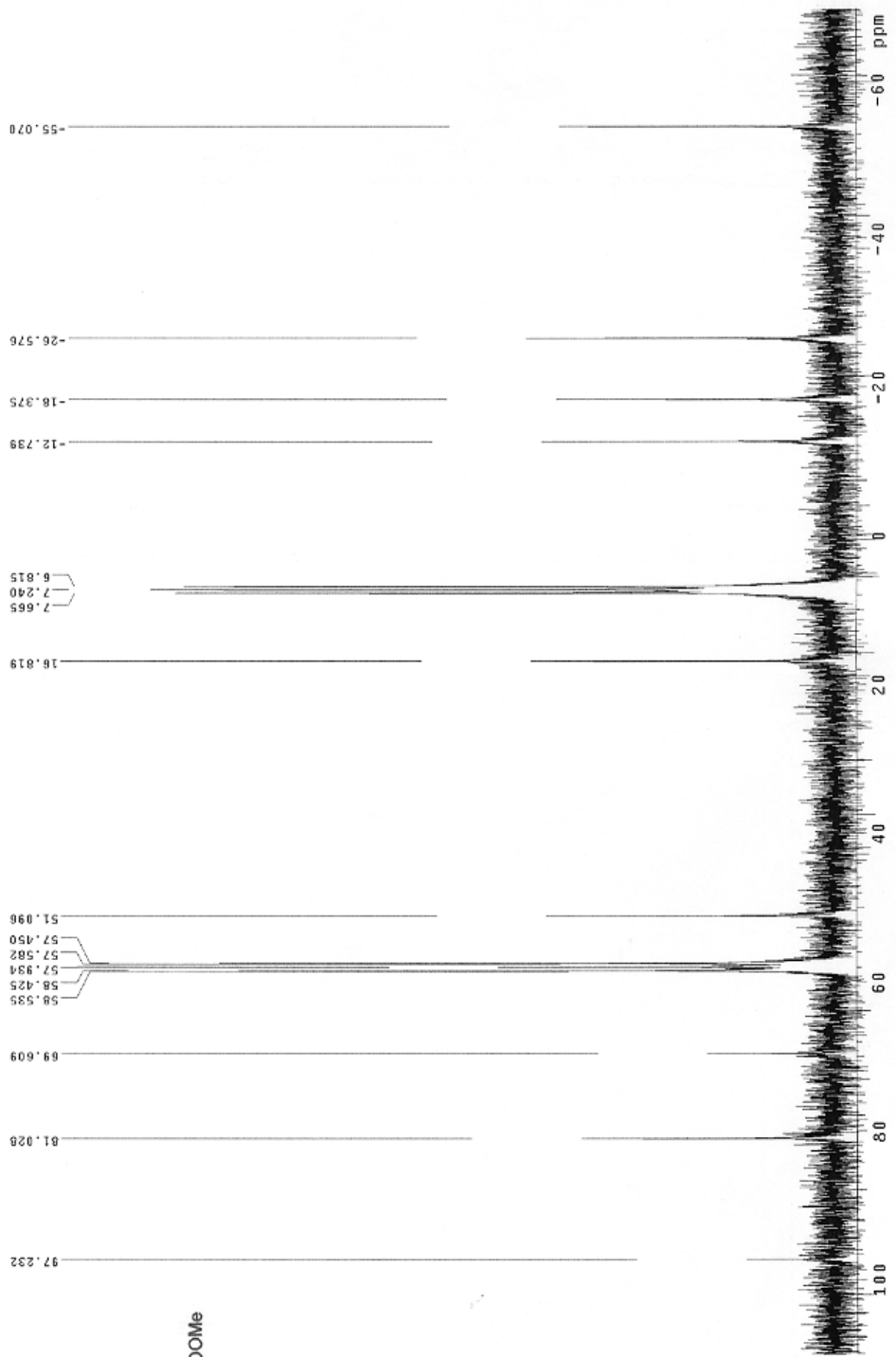


Sample: C12H2511g
Scan #: 10; 40.05
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Pulse Sequence: s2pr1

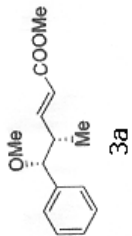
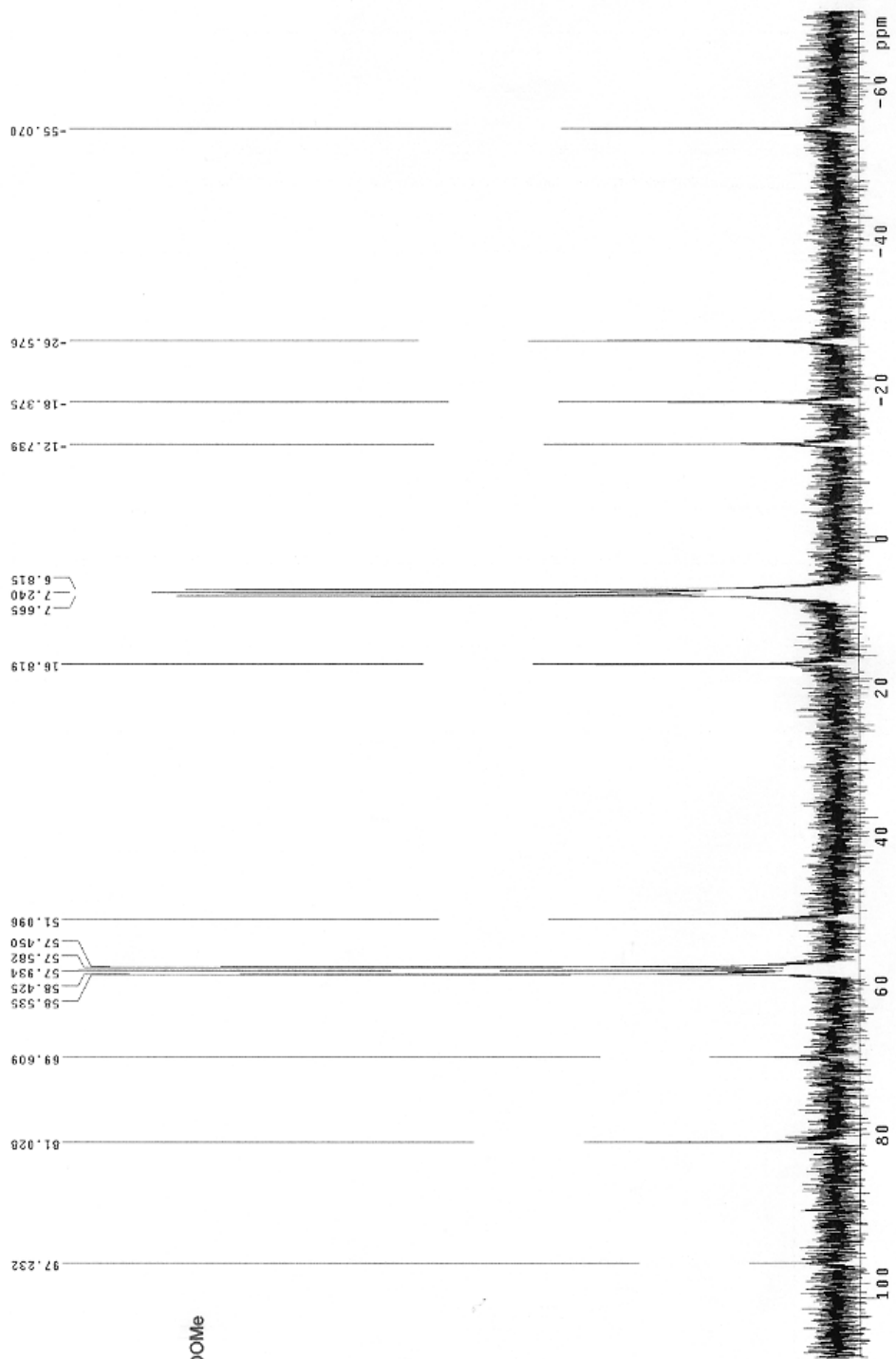


pad1 run with gradshim before acquisition

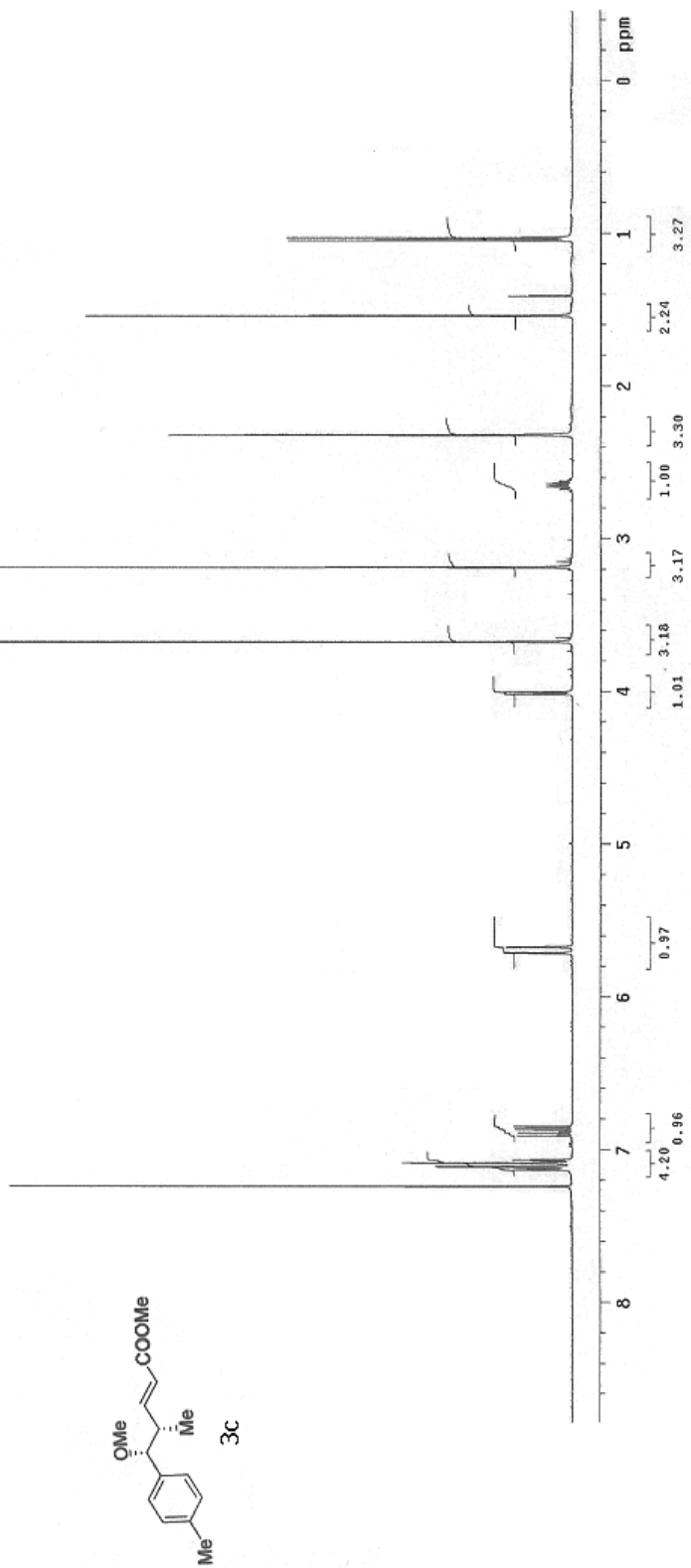
Sample: phester
Sample ID: s_56_03
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Pulse Sequence: s2pu1

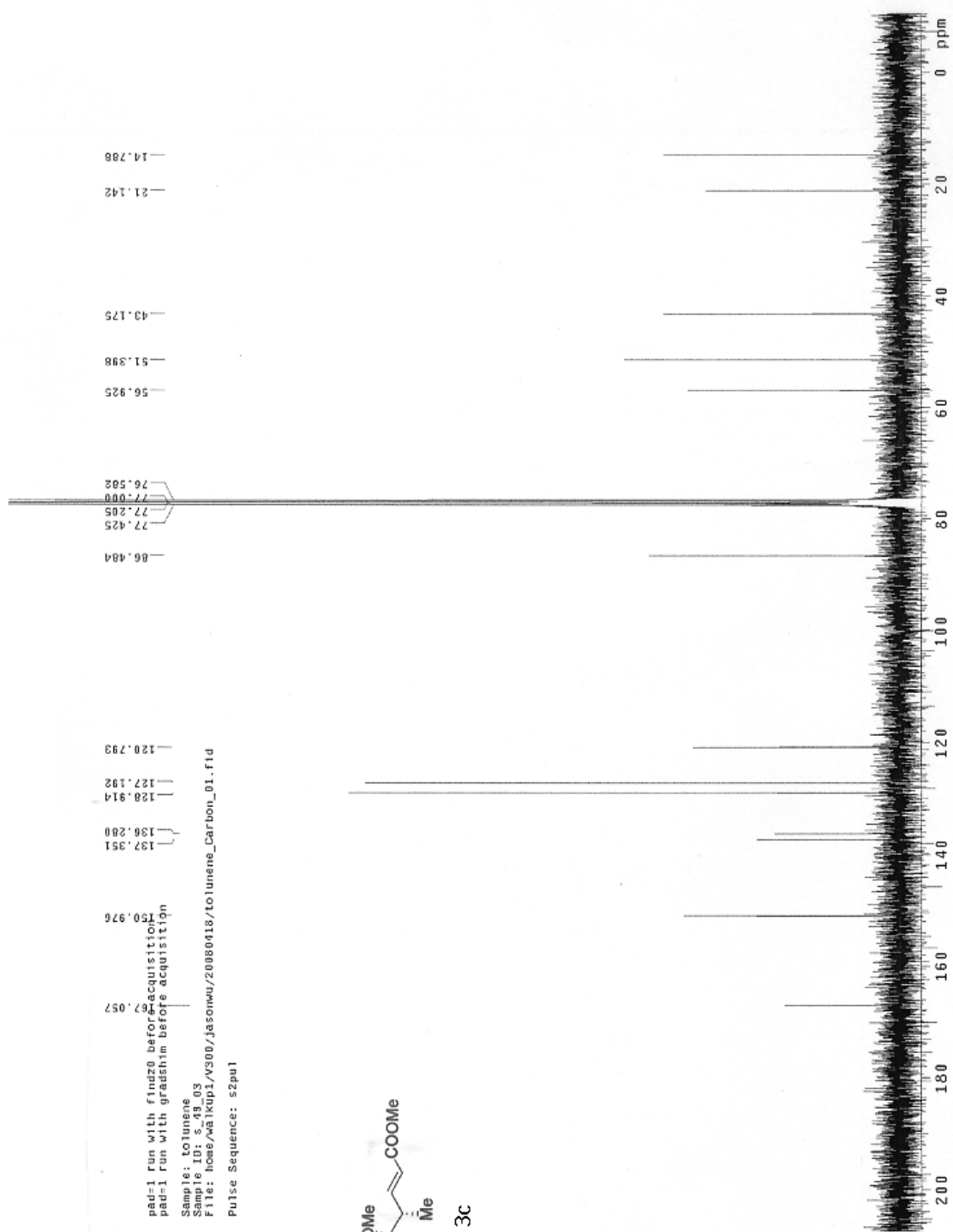


pad1 run with gradshim before acquisition
Sample: phester
Sample ID: s_56_03
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Pulse Sequence: s2pu1

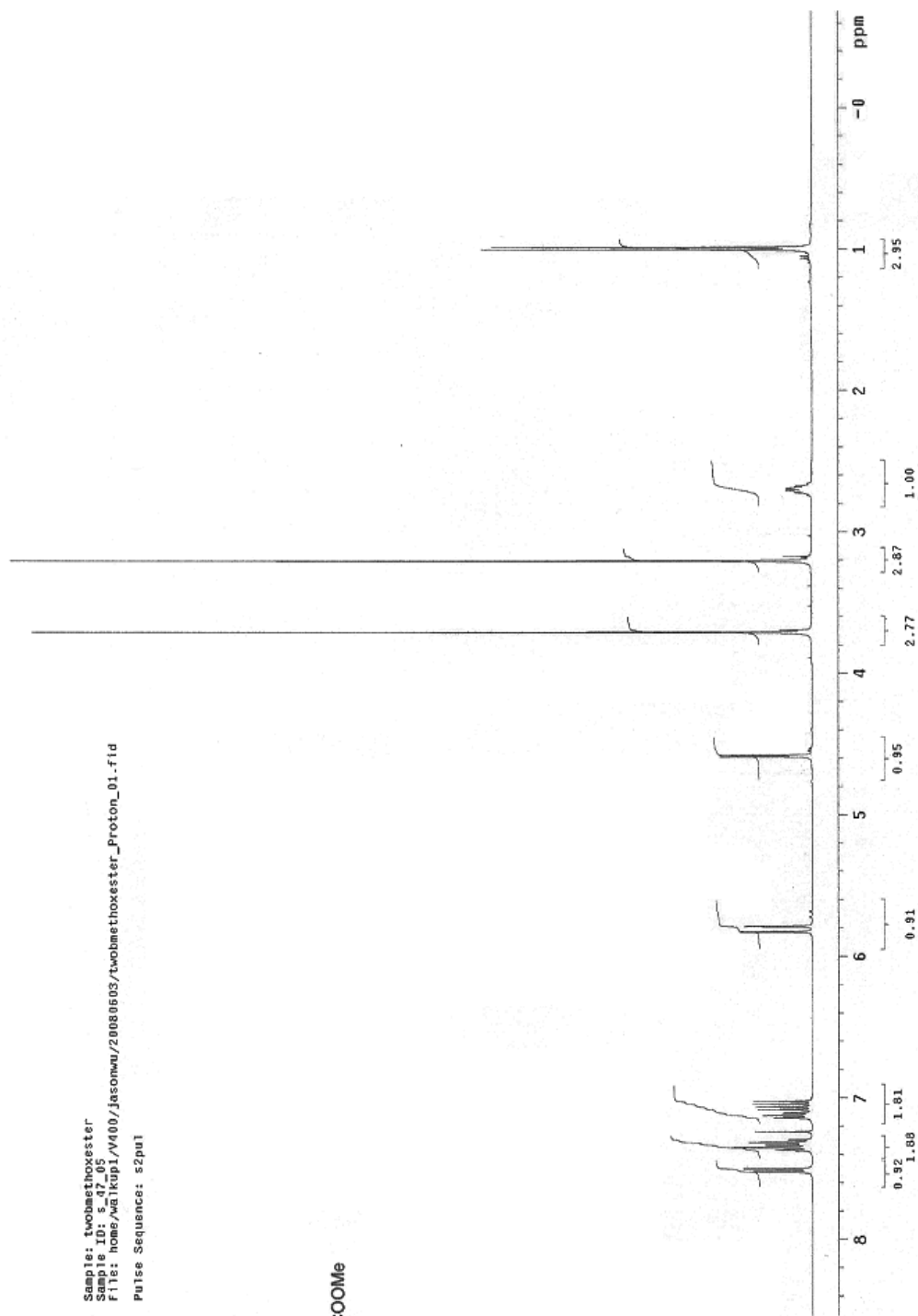
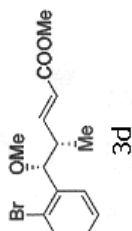


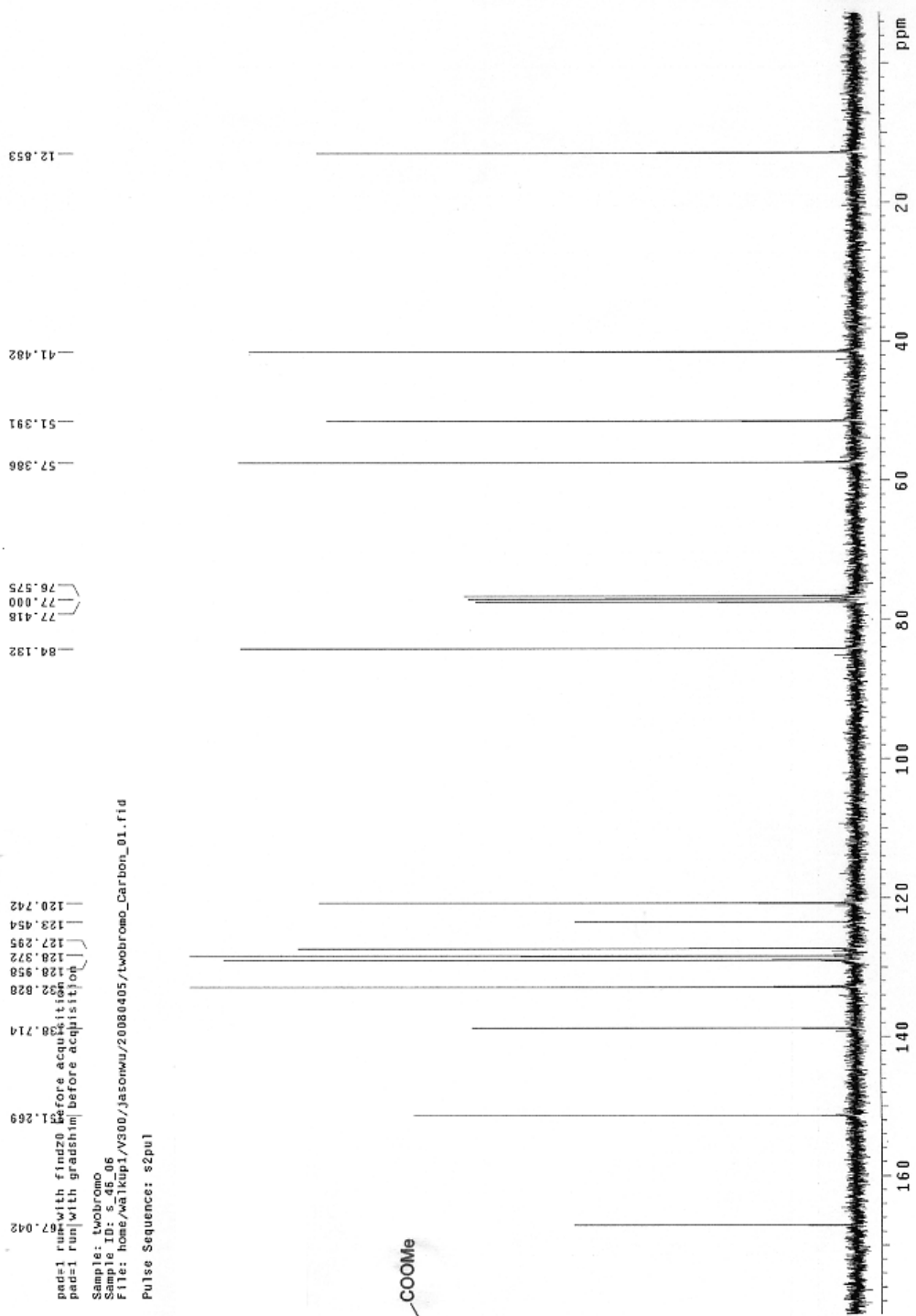
Sample: toluene
Sample ID: S_43_01
File: home/walkup1/V400/jasonwu/20080423/toluene Proton 01.fid
Pulse Sequence: szpu1



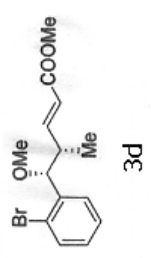


Sample: twobmethoxester
Sample ID: s_47_05
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Pulse Sequence: s2pu1

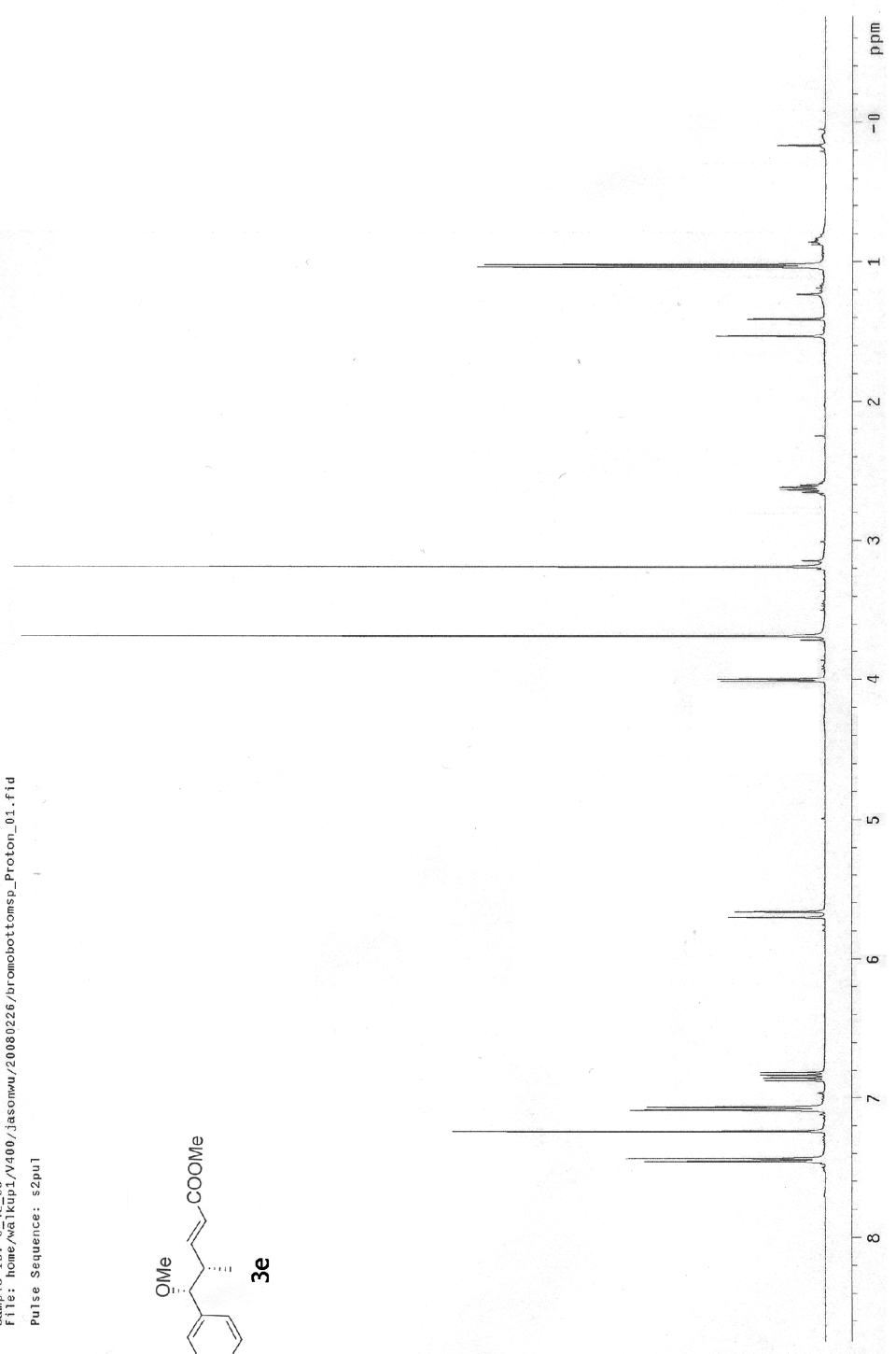
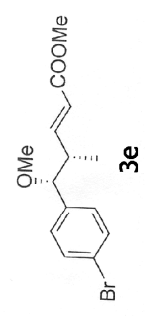


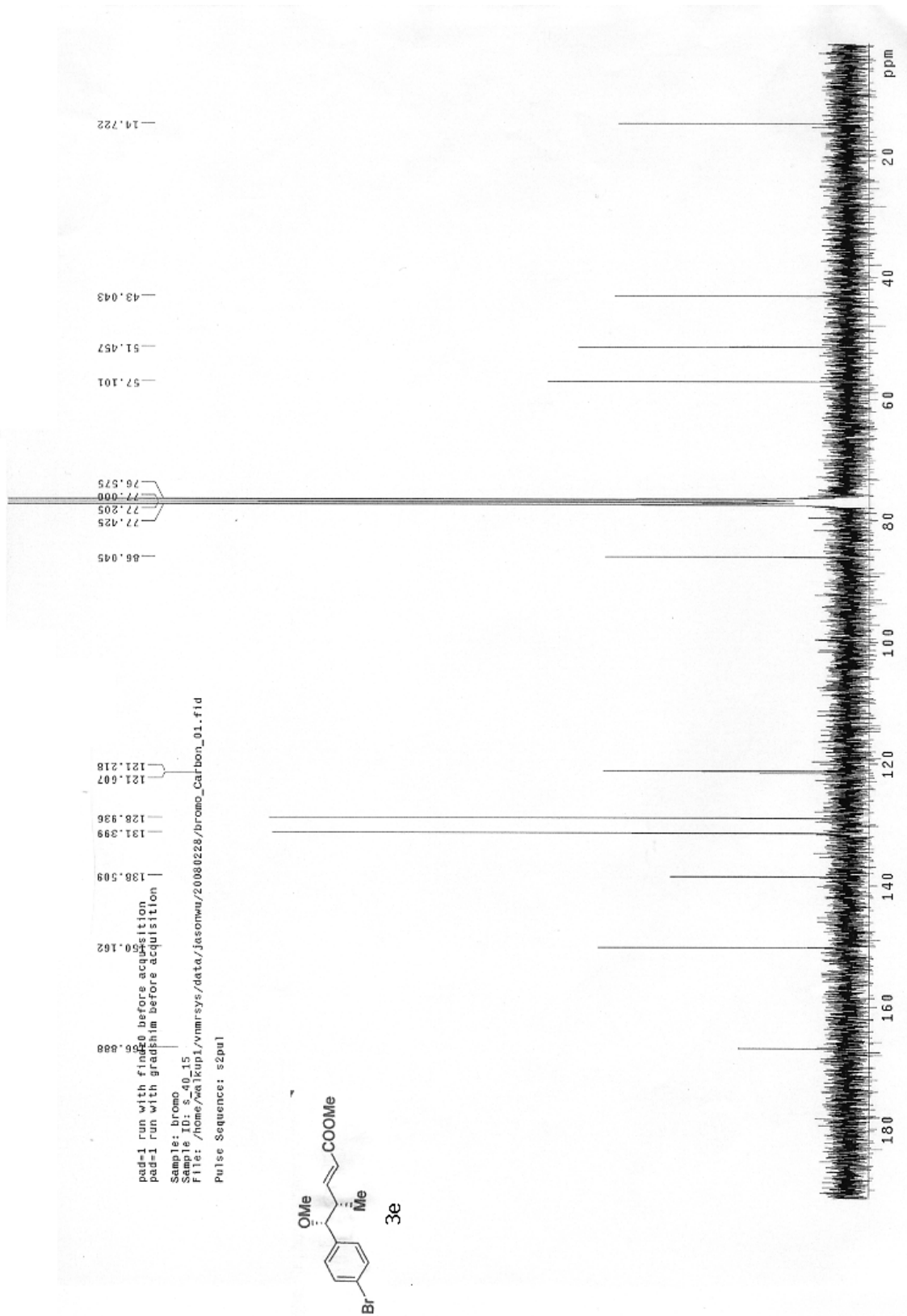


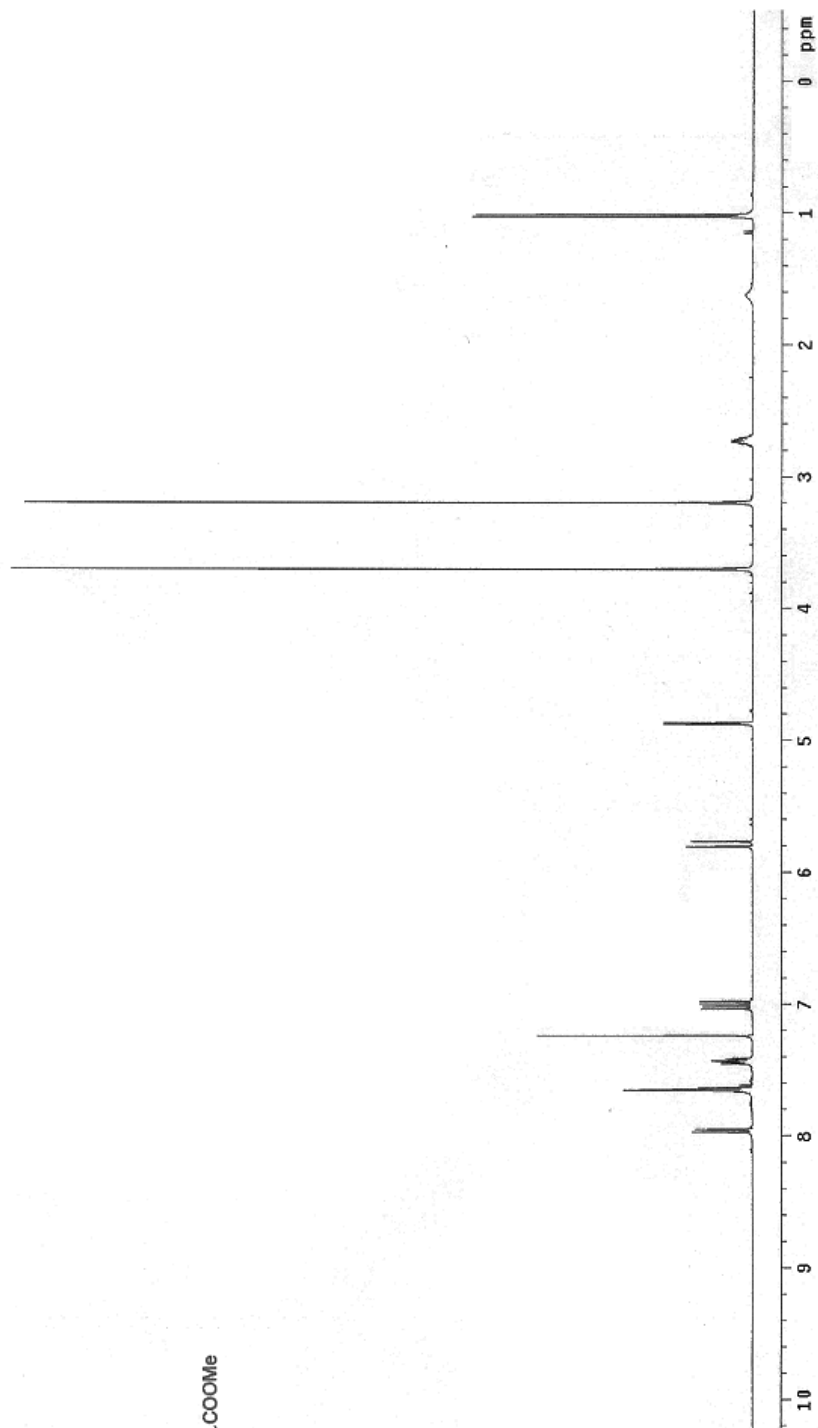
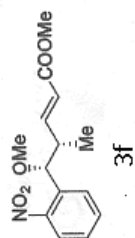
ped=1 run with findz0 before acquisition
 ped=1 run with gradshim before acquisition
 Sample: twobromo
 Sample T: 300.2 K
 File: home/wa1kup1/V300/jaschmu/20080405/twobromo_carbon_01.fid
 Pulse Sequence: s2pu1

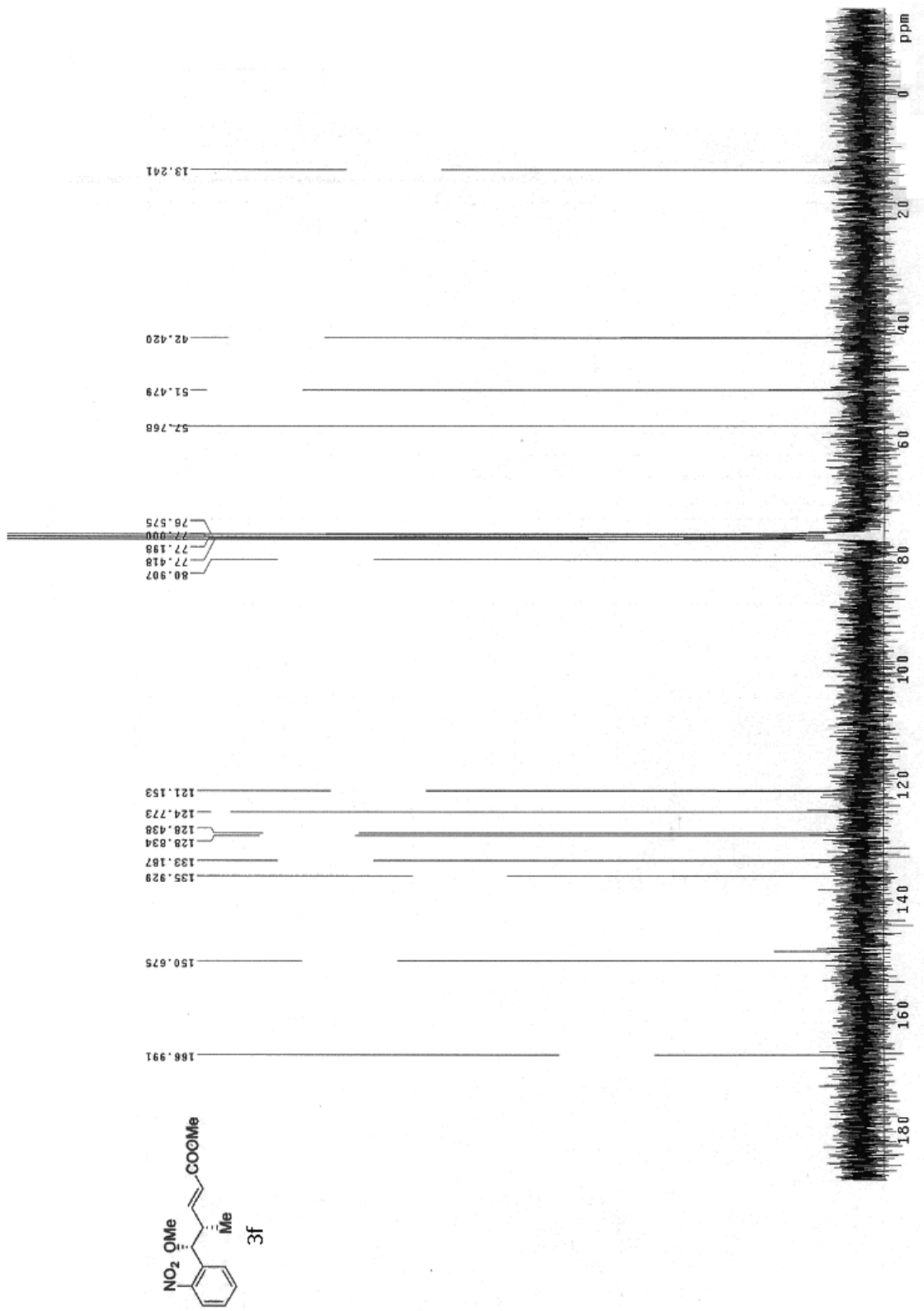


Sample: bromobottomsp
Sample ID: S_42_05
File: home\workup1\4400\jasonwu\20080226\bromobottomsp_Proton_01.fid
Pulse Sequence: s2pu1

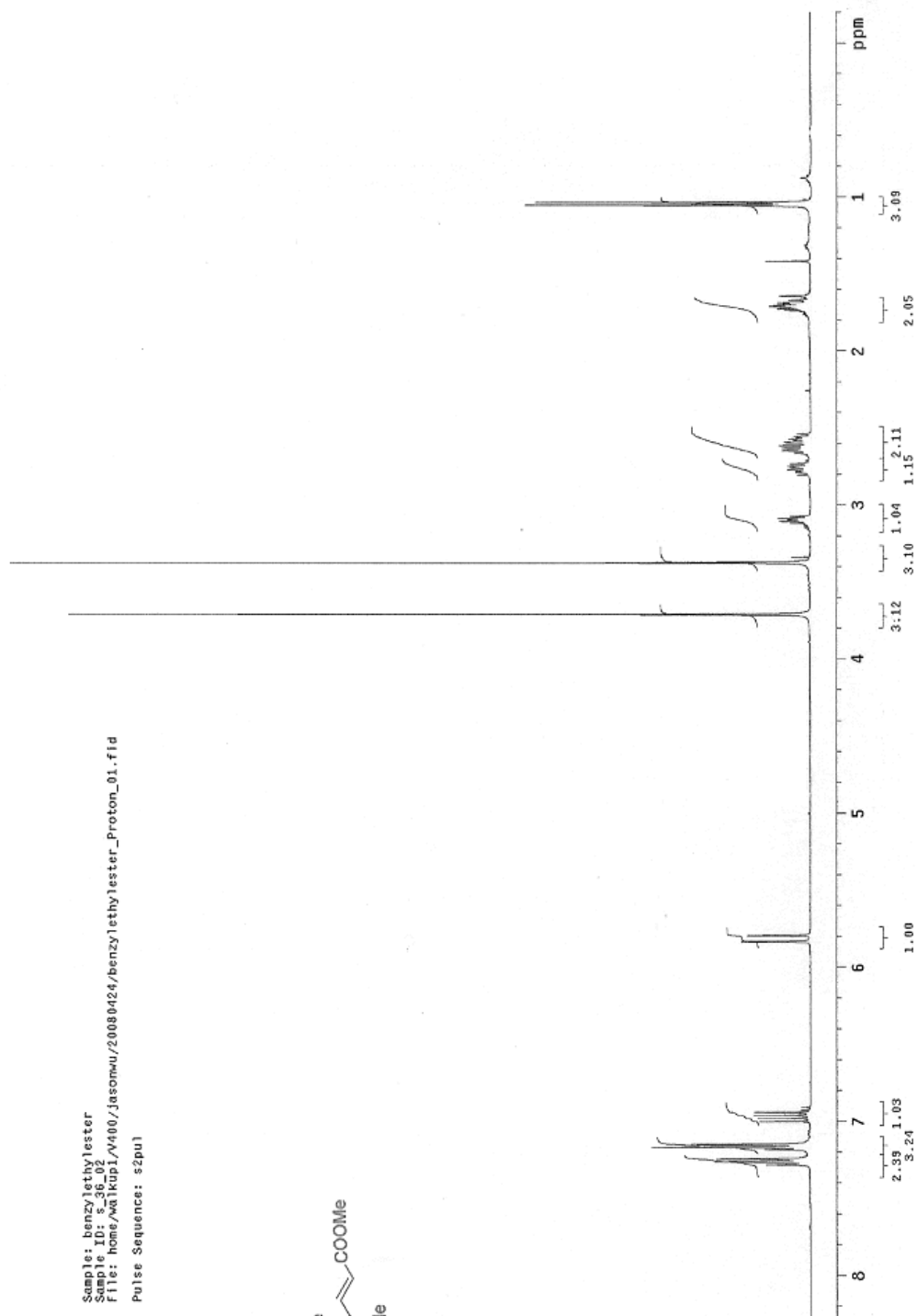
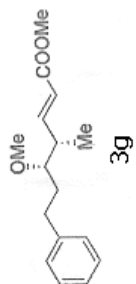


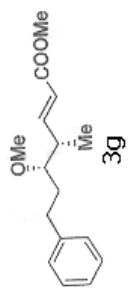
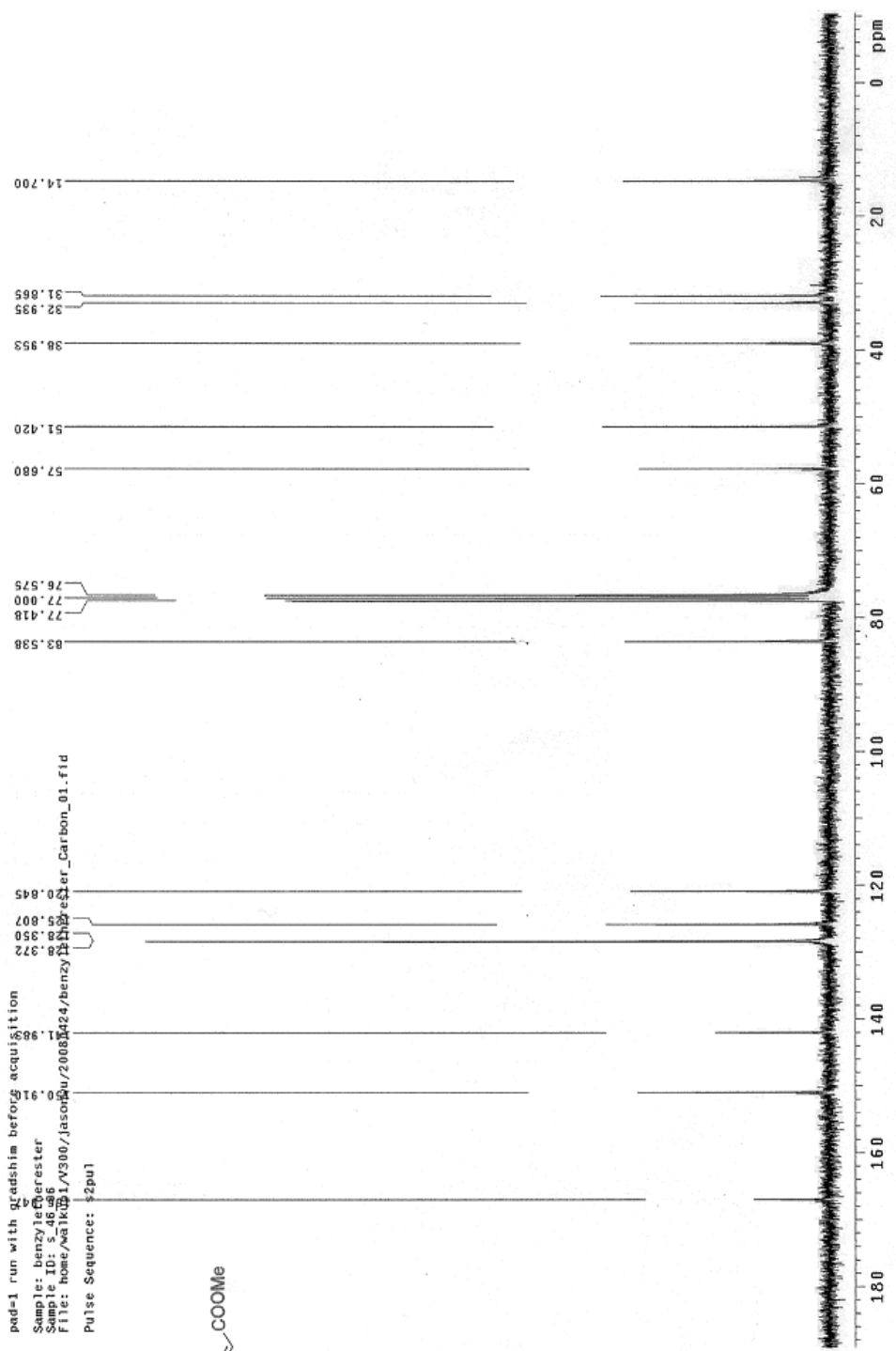




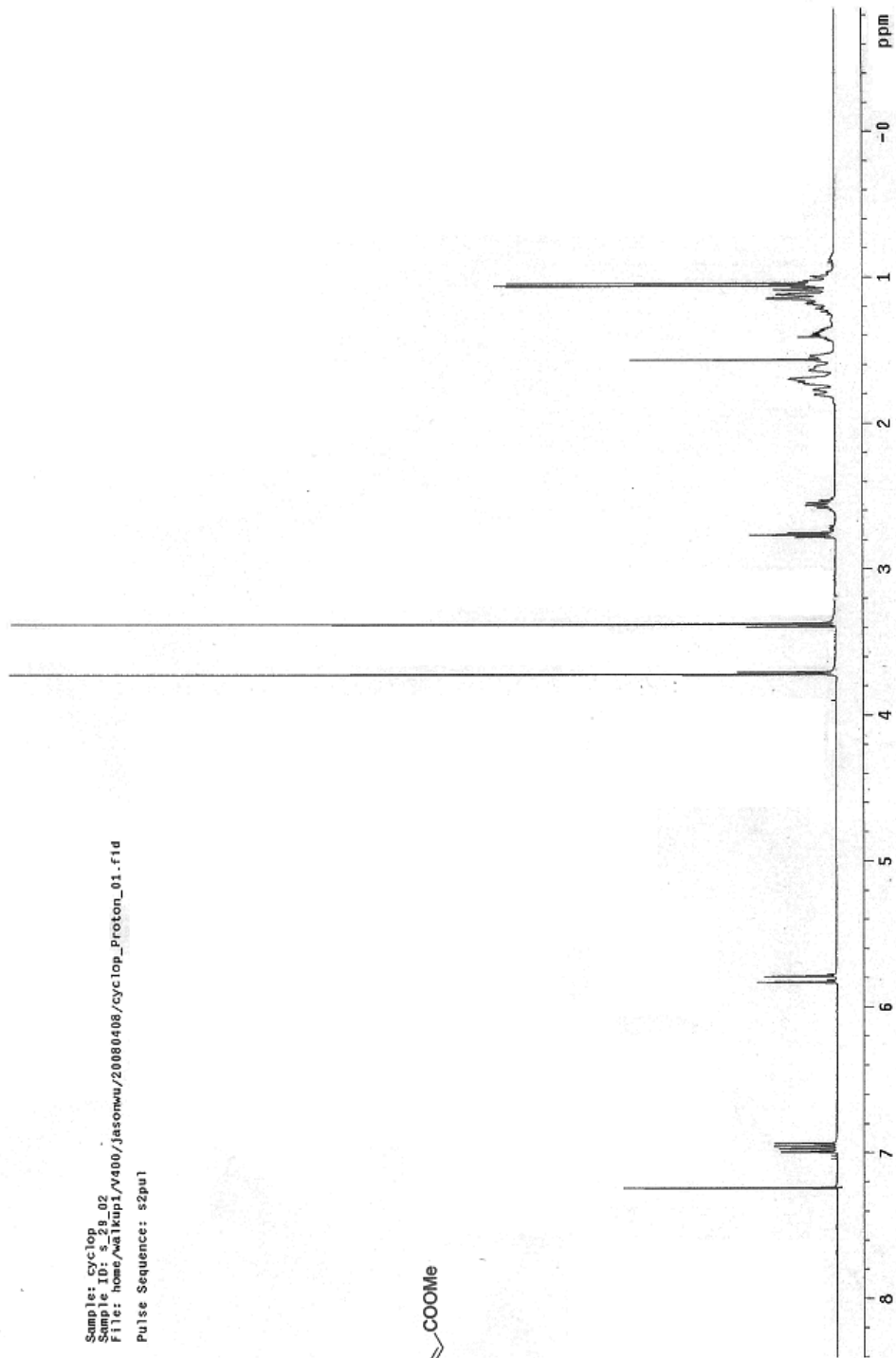
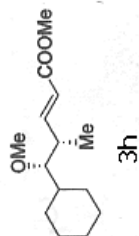


Sample: benzylethylester
Sample ID: S_210001
F119: home/ndkhp1/V400/jasonmu/20080424/benzylethylester_Proton_01.fid
Pulse Sequence: s2pu1

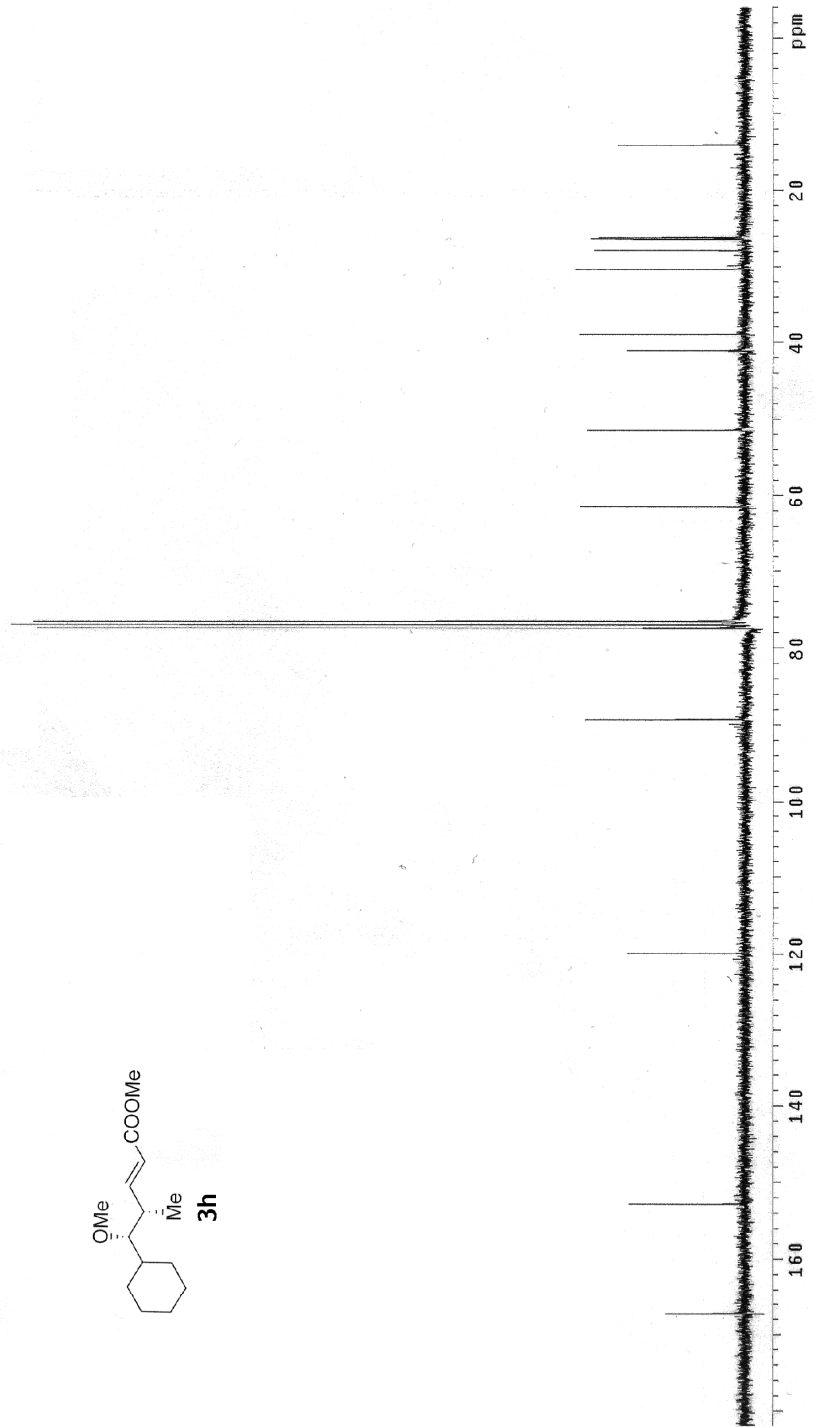
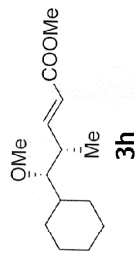




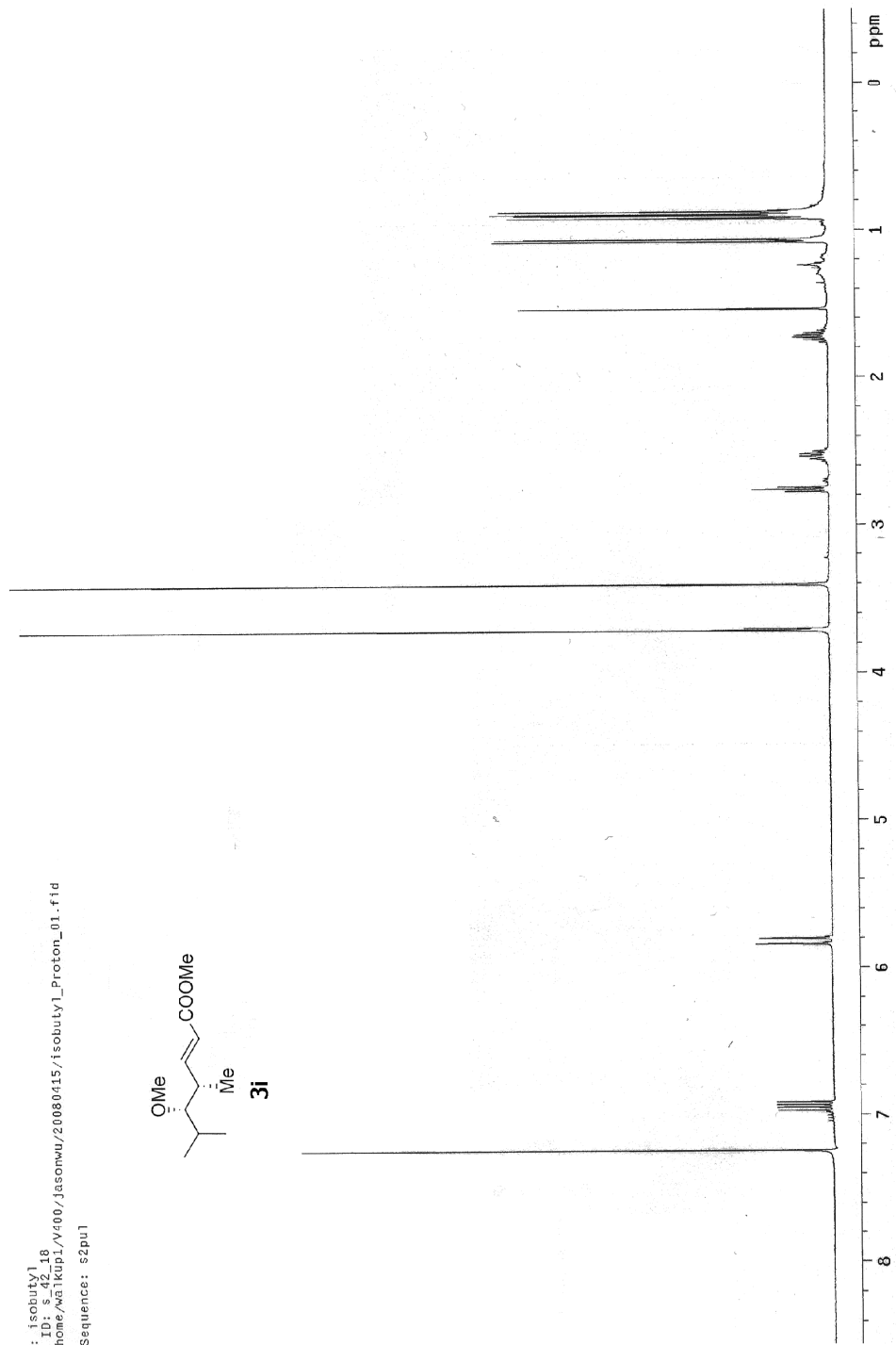
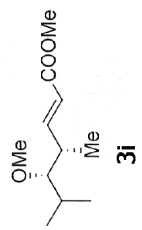
Sample: cyclop
Sample ID: s_29_02
File: home/walidup1/vs00/jasonwu/20080408/cyclop_proton_01.fid
Pulse Sequence: s2pu1



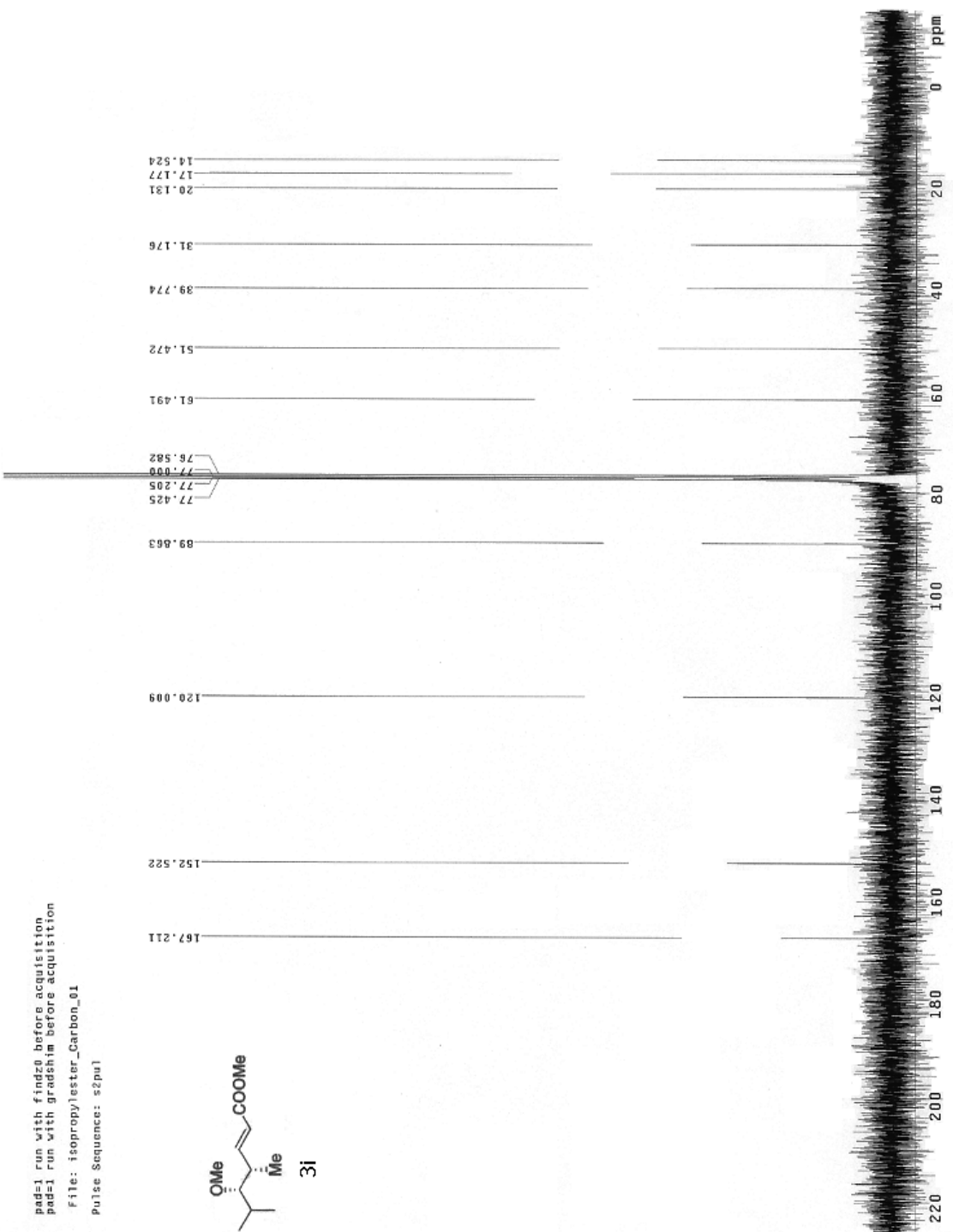
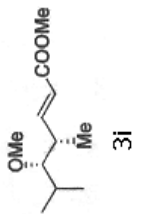
pad=1 run with findz0 before acquisition
pad=1 run with gradshim before acquisition
Sample: cyclo
Sample ID: s_46_01
File: home/walakupi/v300/jasonwu/20080410/cyclo_carbon_01.fid
Pulse Sequence: s2pu1



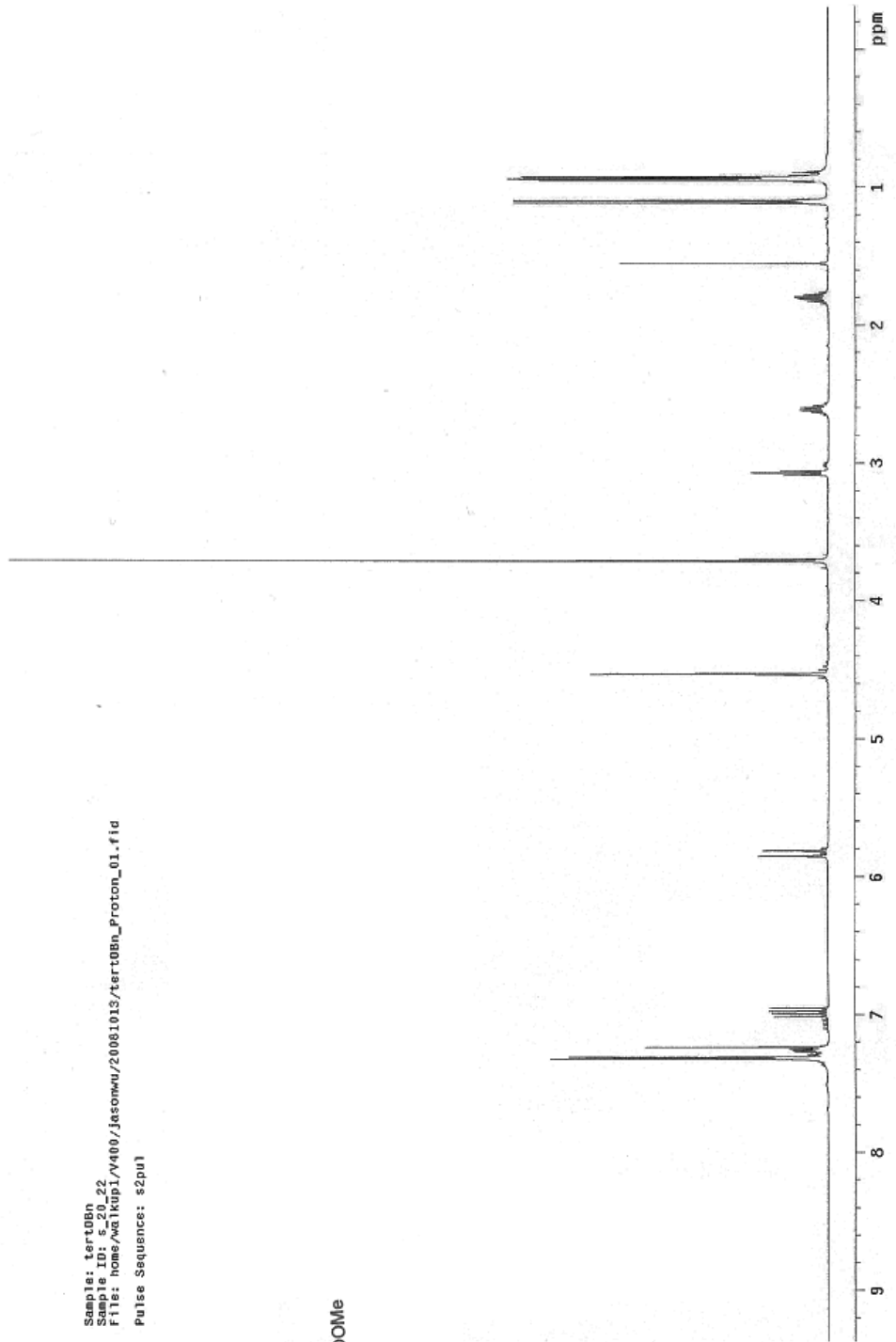
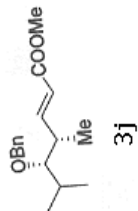
Sample: isobuty1
Sample ID: s_42_18
File: home/walkup1/V400/Jasonwu/20080415/isobuty1_Proton_01.fid
Pulse Sequence: s2pu1

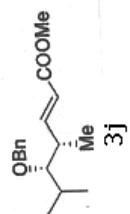
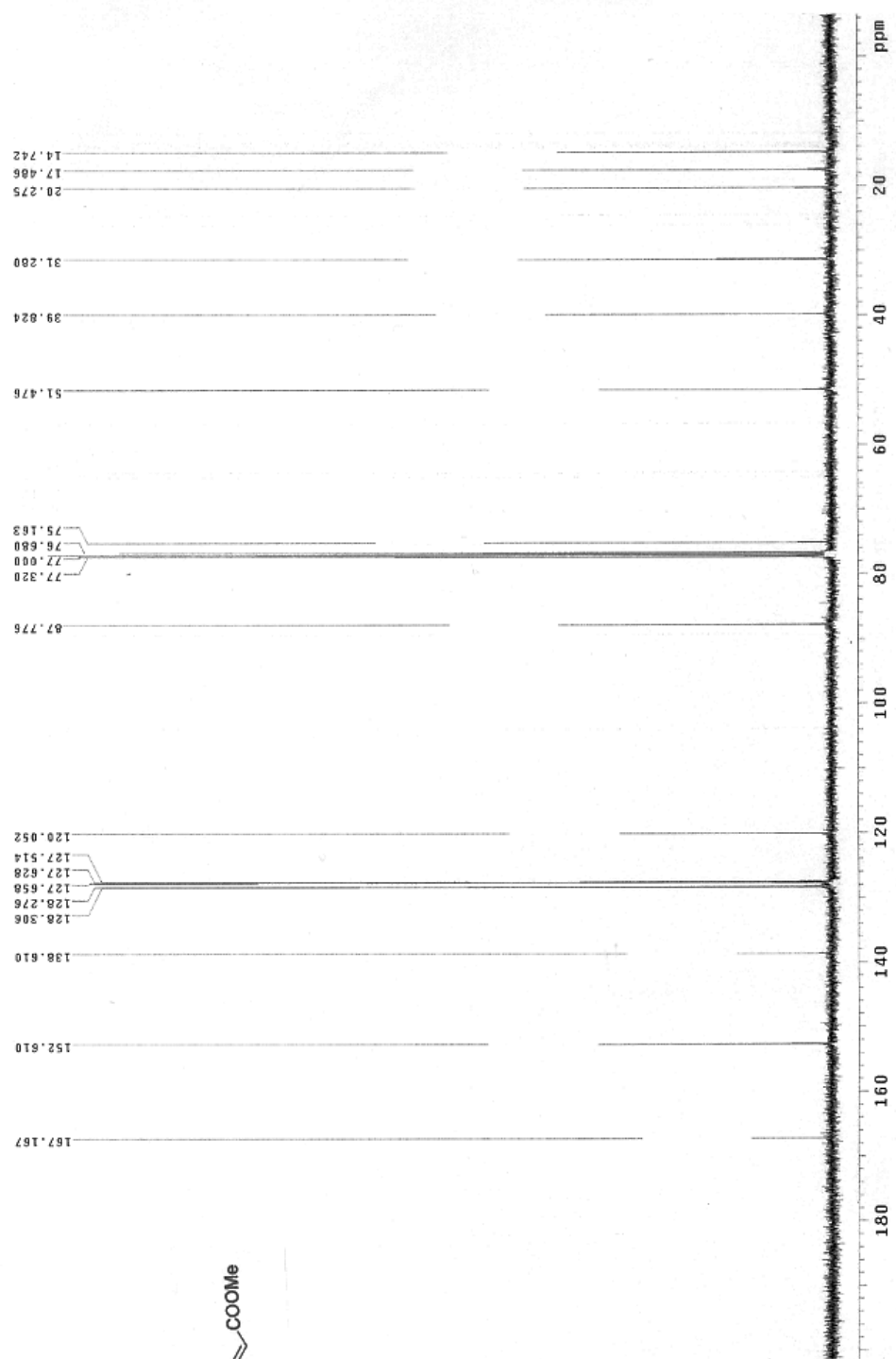


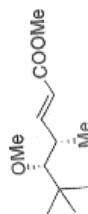
pad=1 run with findzo before acquisition
 pad=1 run with gradshim before acquisition
 File: isopropylester_Carbon_01
 Pulse Sequence: s2pu1



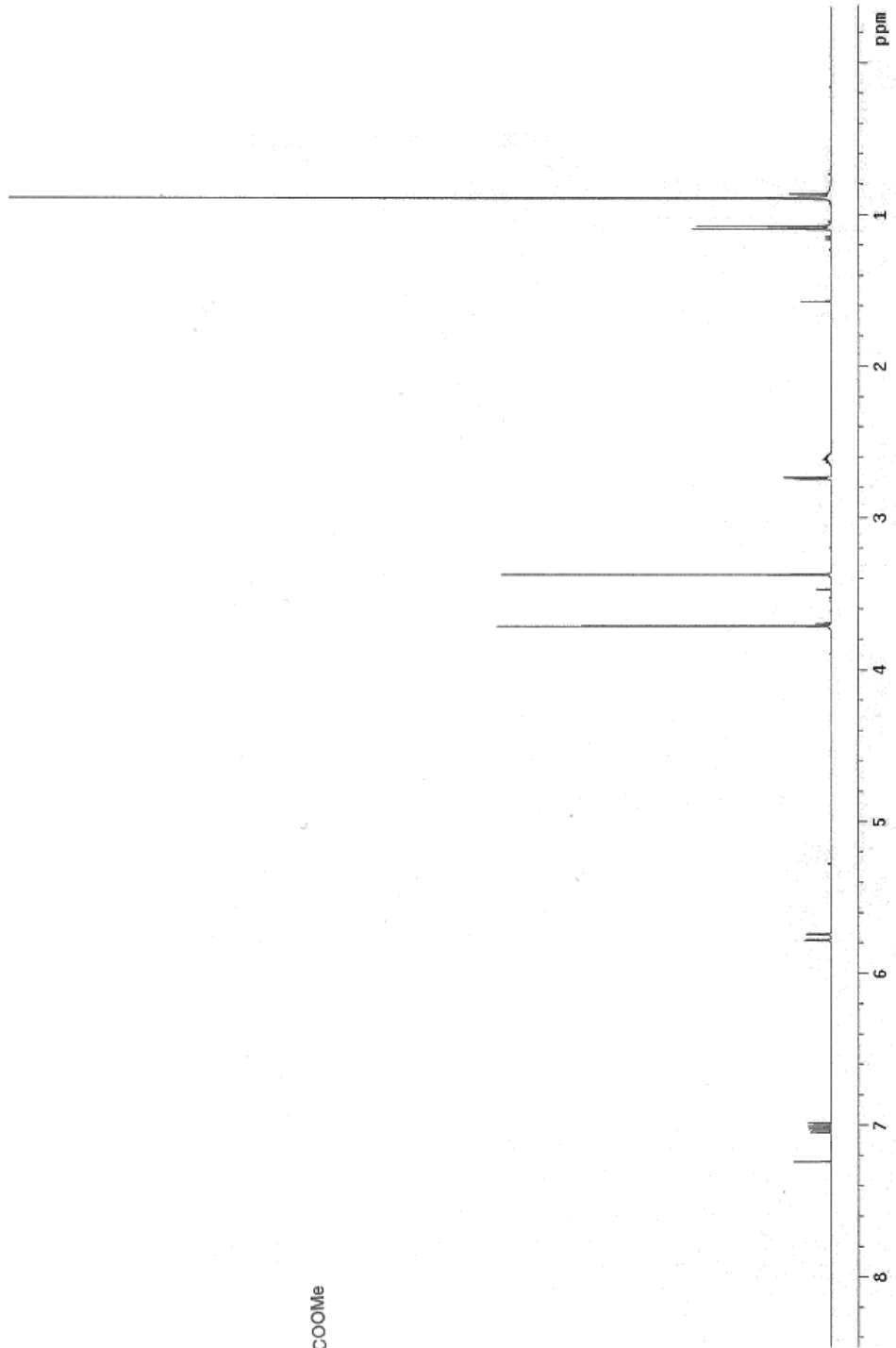
Sample: tertOBn
Sample ID: s_20_22
File: home/wdtkupi/V400/Jasonwu/20081018/tertOBn_Proton_01.fid
Pulse Sequence: s2pu1





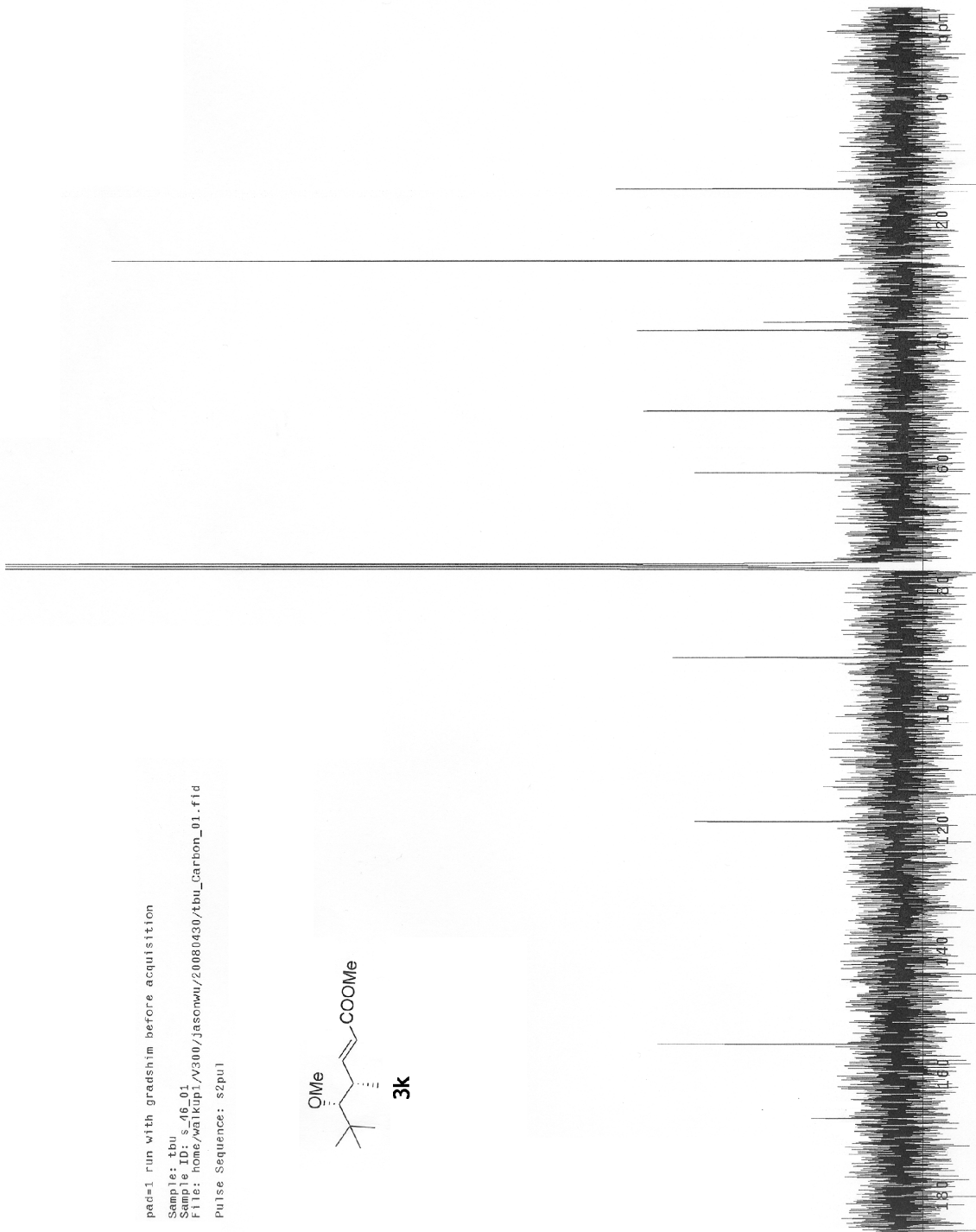
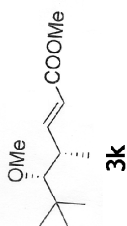


3k

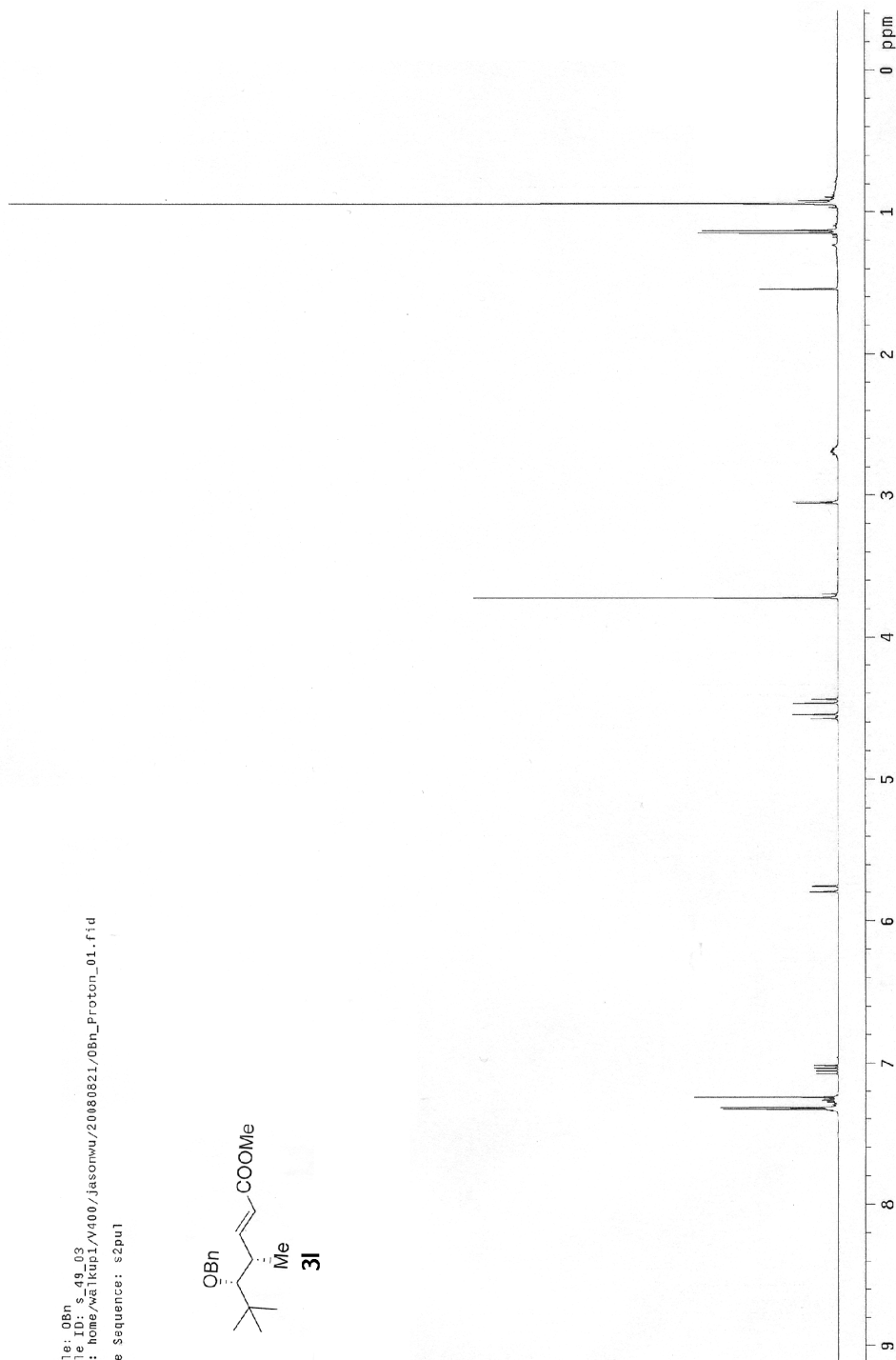
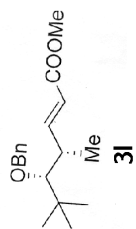


pad=1 run with gradshim before acquisition

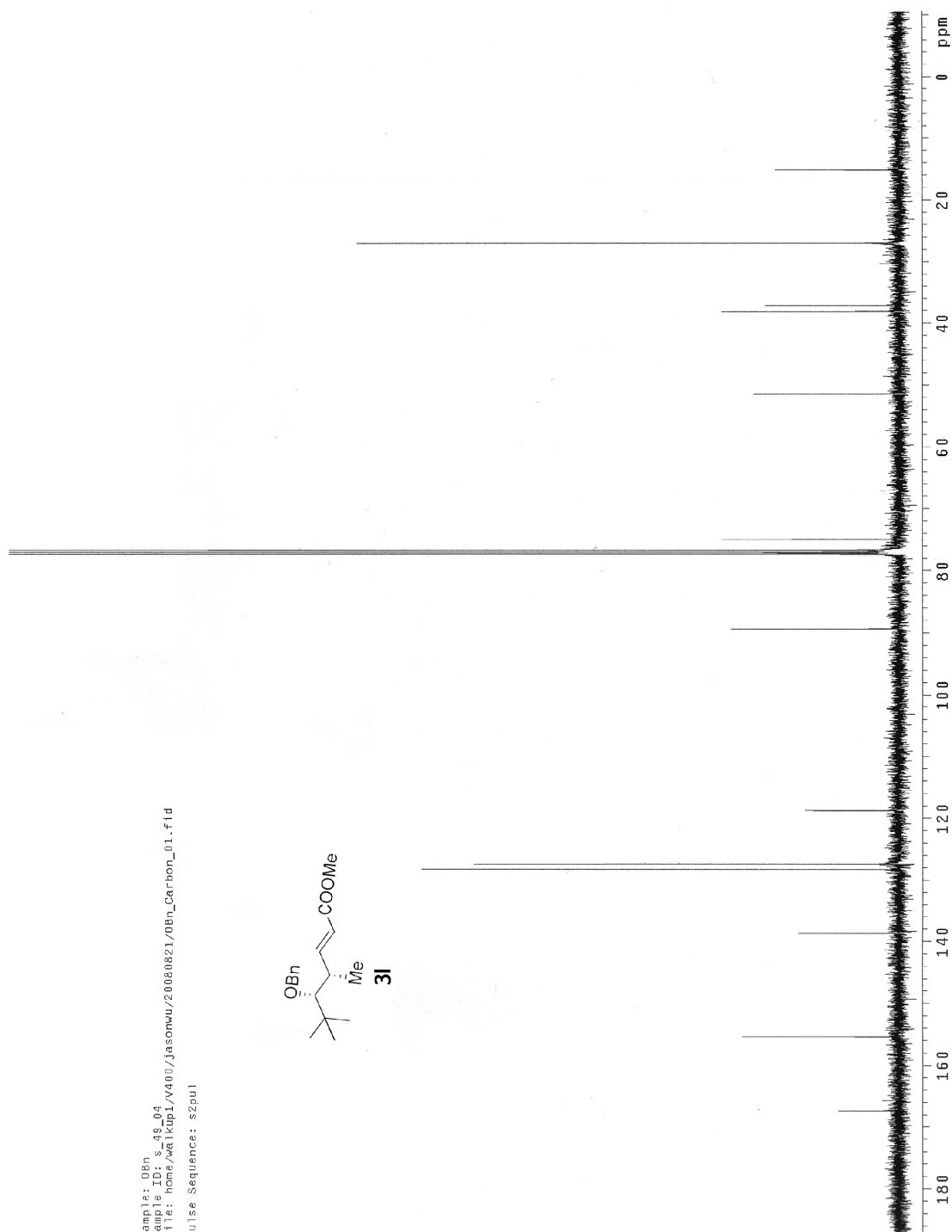
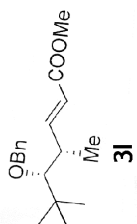
Sample: tbu
Sample ID: S_06_01
File: home/watkkp1/V300/jasonwu/20080430/tbu_Carbon_01.fid
Pulse Sequence: s2pu1



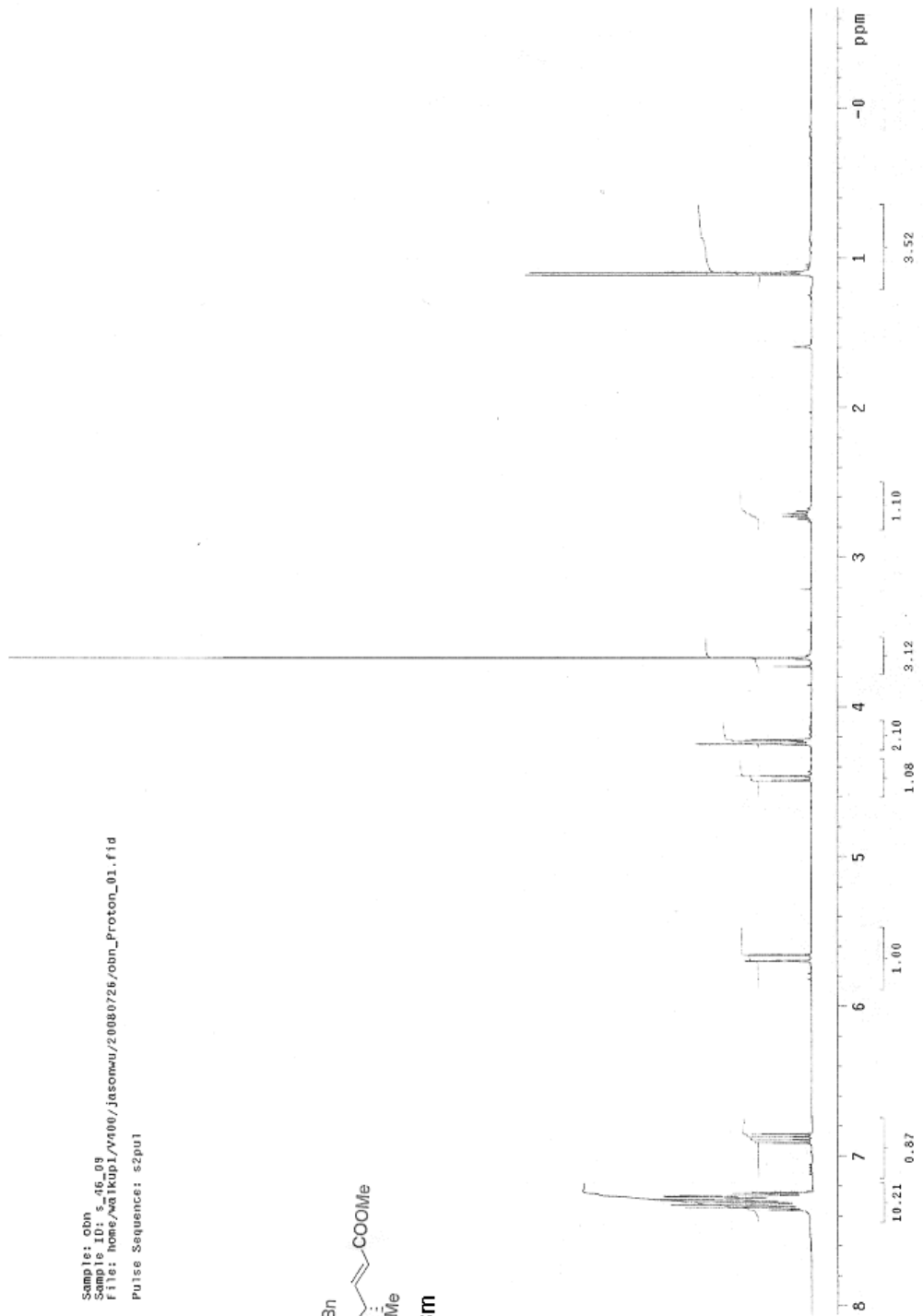
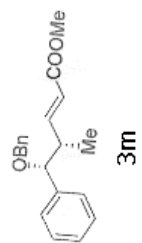
Sample: OBn
Sample ID: s_49_03
File: home/wal/ktcp1/v400/jasonwu/20080821/OBn_Proton_01.fid
Pulse Sequence: s2pu1

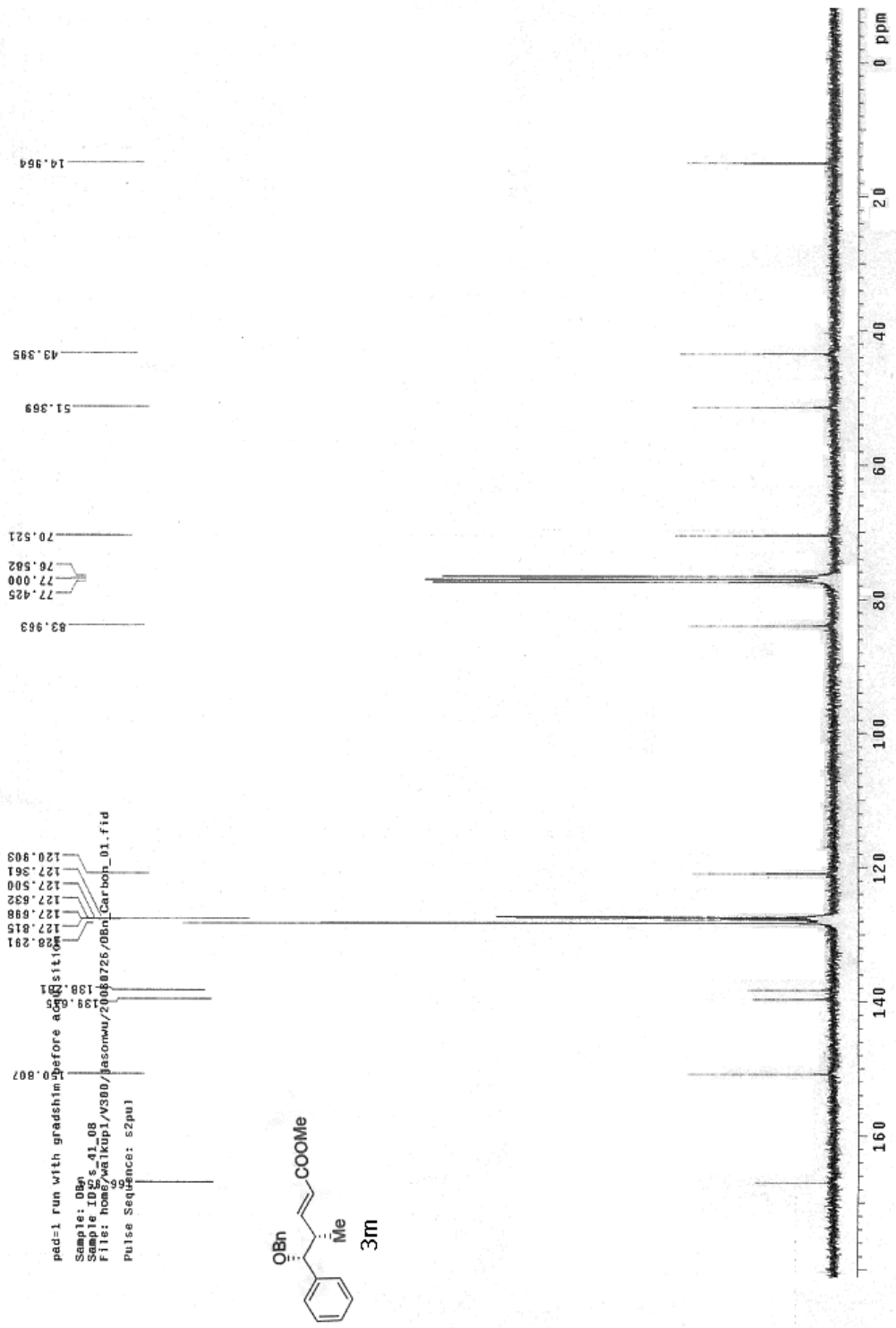


Sample: dbn
Sample ID: s_49_04
File: home/wa1kup1/v400/jasonwu/20060821/dbn_Carbon_01.fid
Pulse Sequence: sZpu1

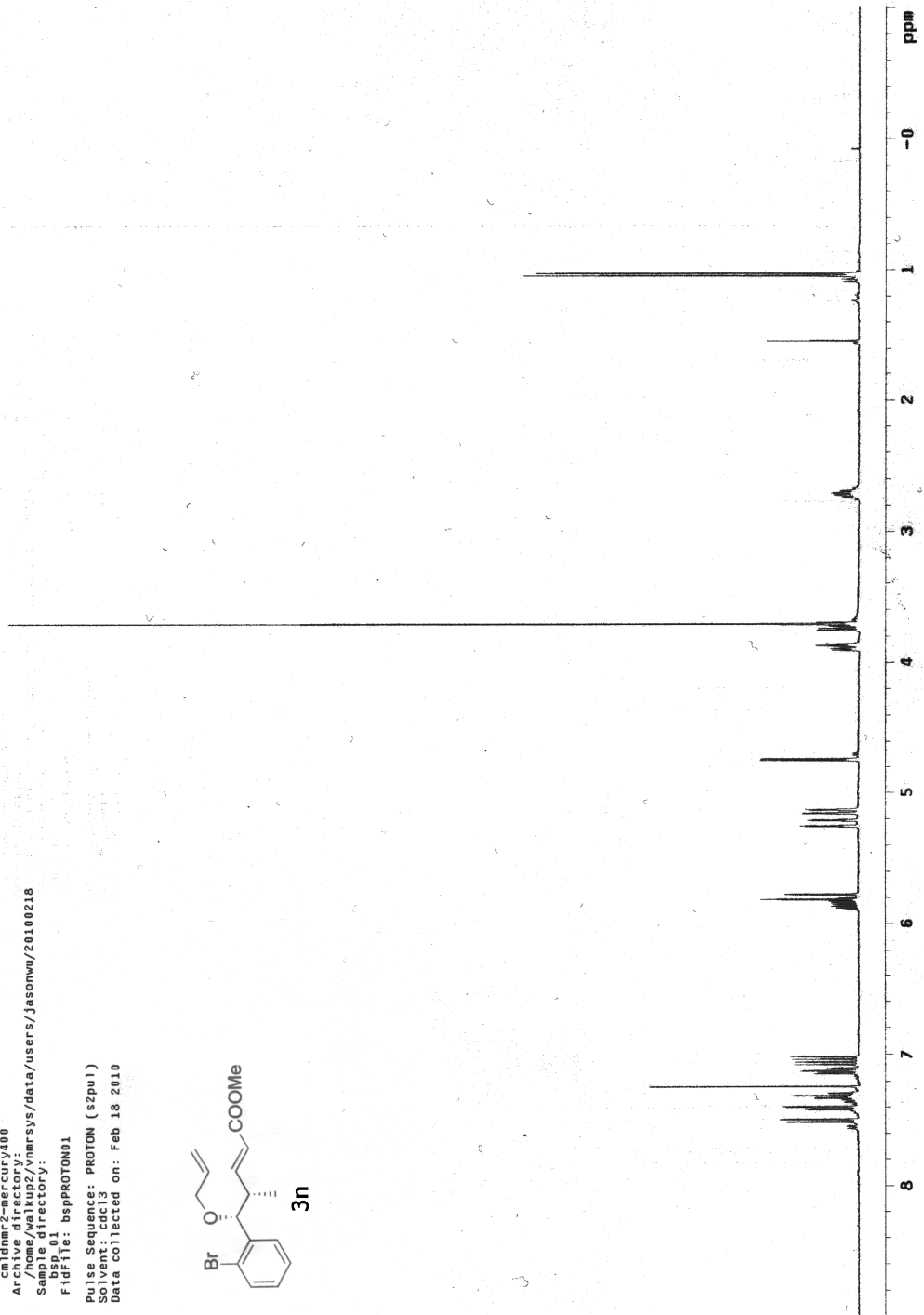
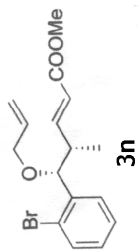


Sample: obn
Sample ID: S_16_09
File: home/waikupj/vv400/jasonmu/20080726/obn_Proton_01.f1d
Pulse Sequence: s2pu1

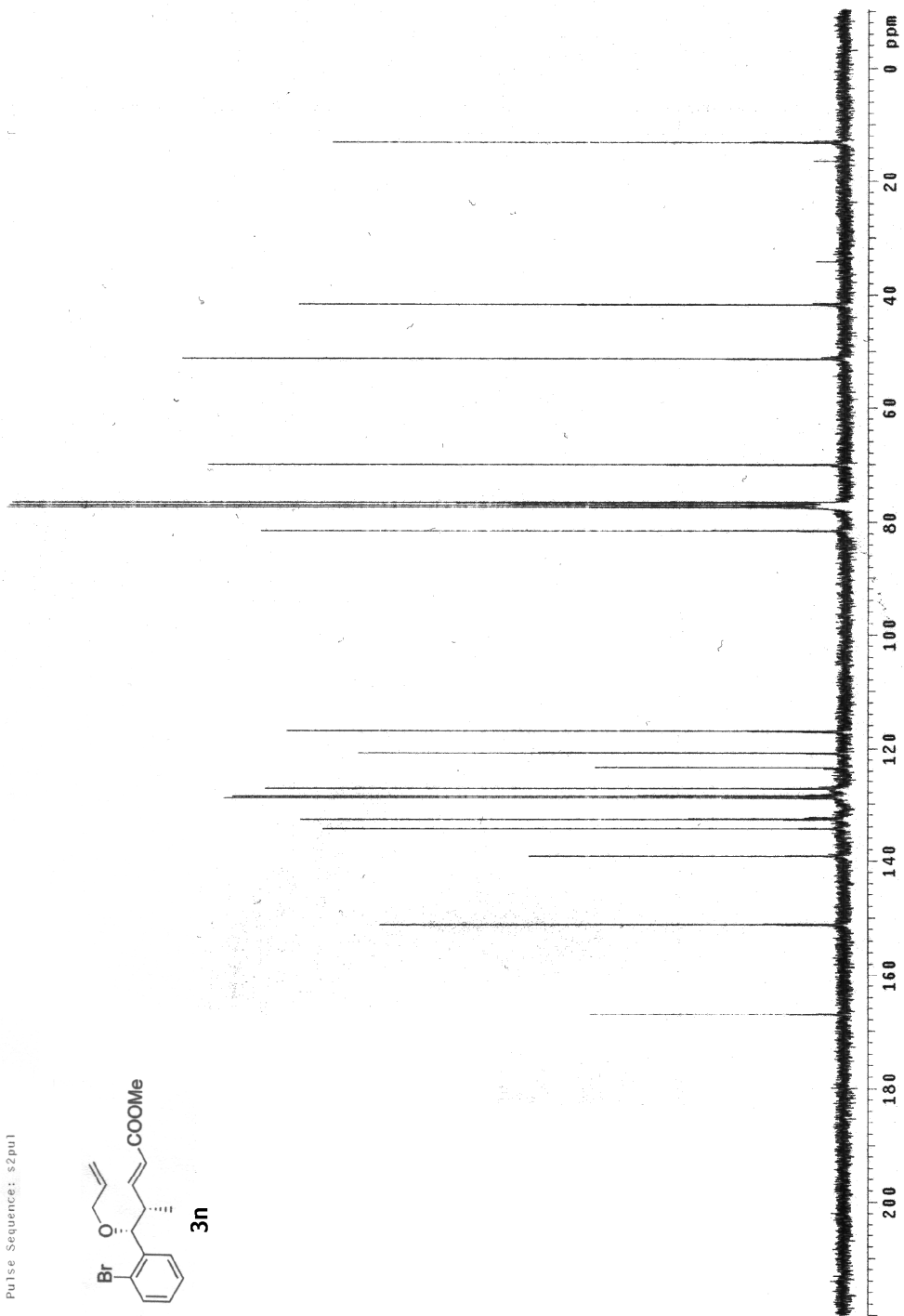
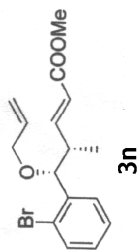




bsp
Sample Name:
bsp
Data Collected on:
cmidmar2-mercury400
Archive directory:
/home/wakupz/vnmrSys/data/users/jasonwu/20100218
Sample directory:
bsp_0
FidFile: bspPROTON01
Pulse Sequence: PROTON (s2pu1)
Solvent: cdcl3
Data collected on: Feb 18 2010



Sample: obrophal11yp
Sample ID: S145_01
File: /home/va1kup3/vmmsys/data/jasonwu/20100220/obrophal11yp_Carbon_01.fid
Pulse Sequence: s2pu1

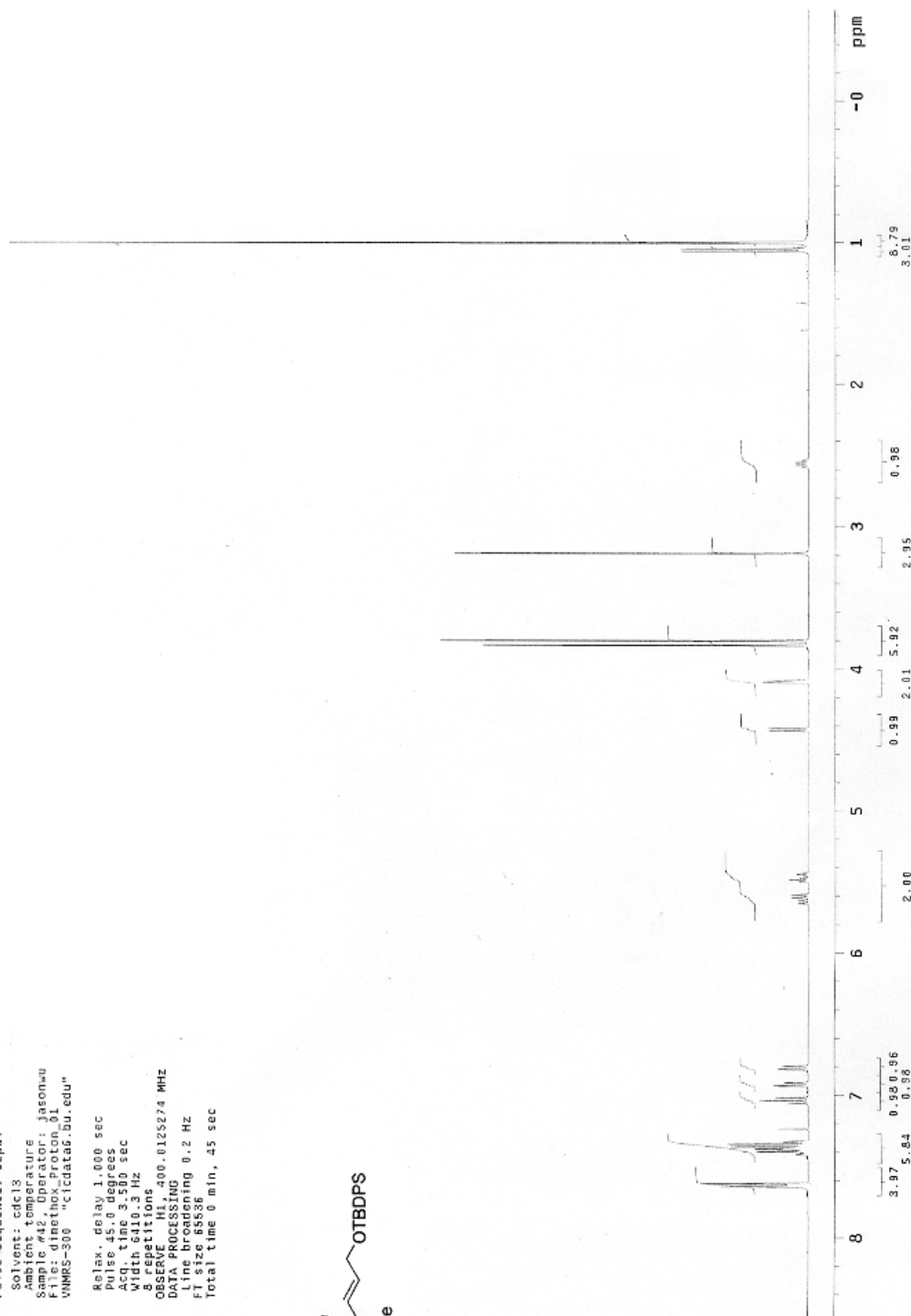
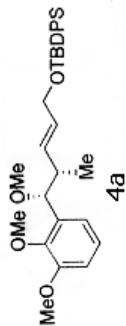


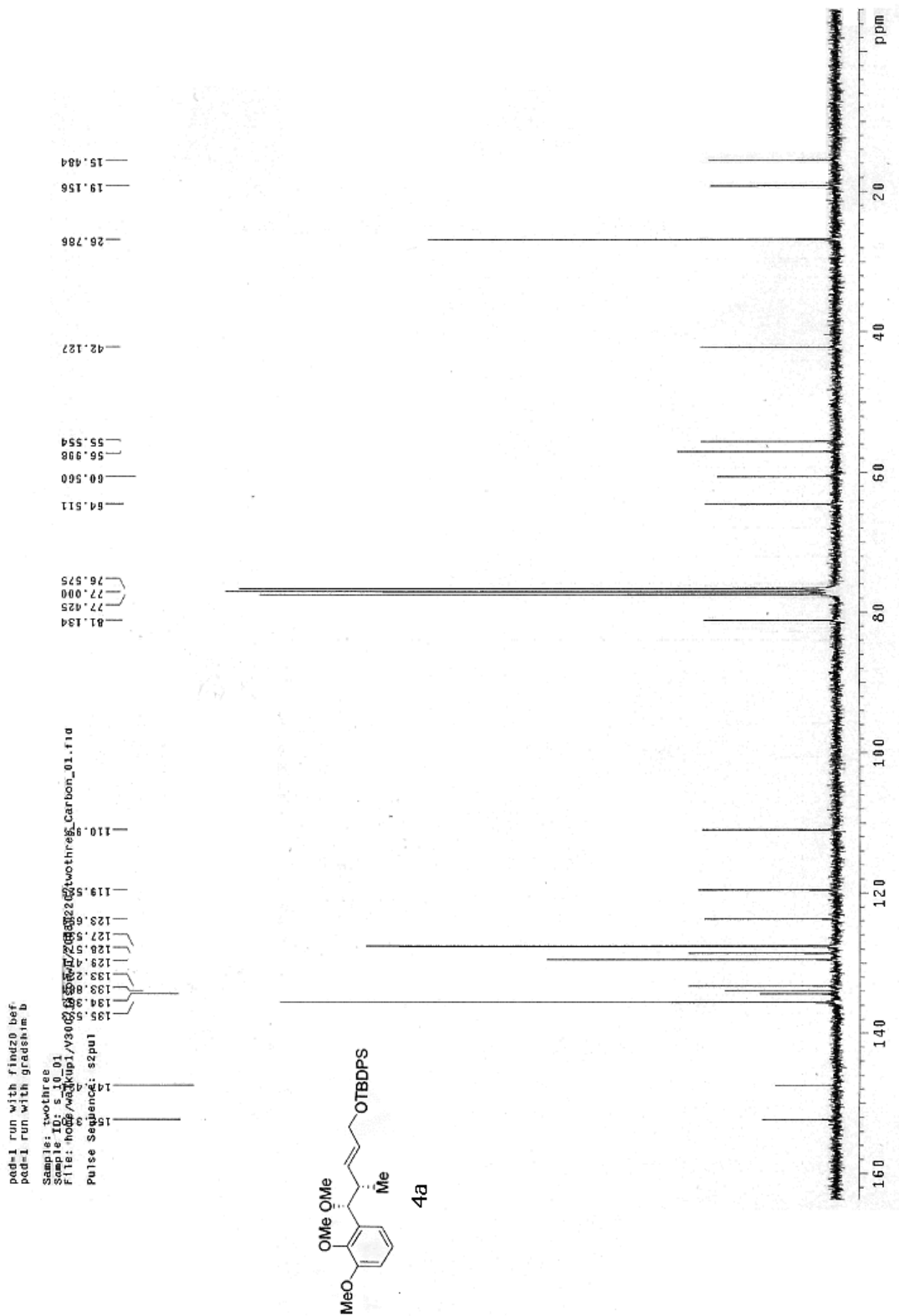
File: dimethox Proton 01

Pulse Sequence: zgpg30

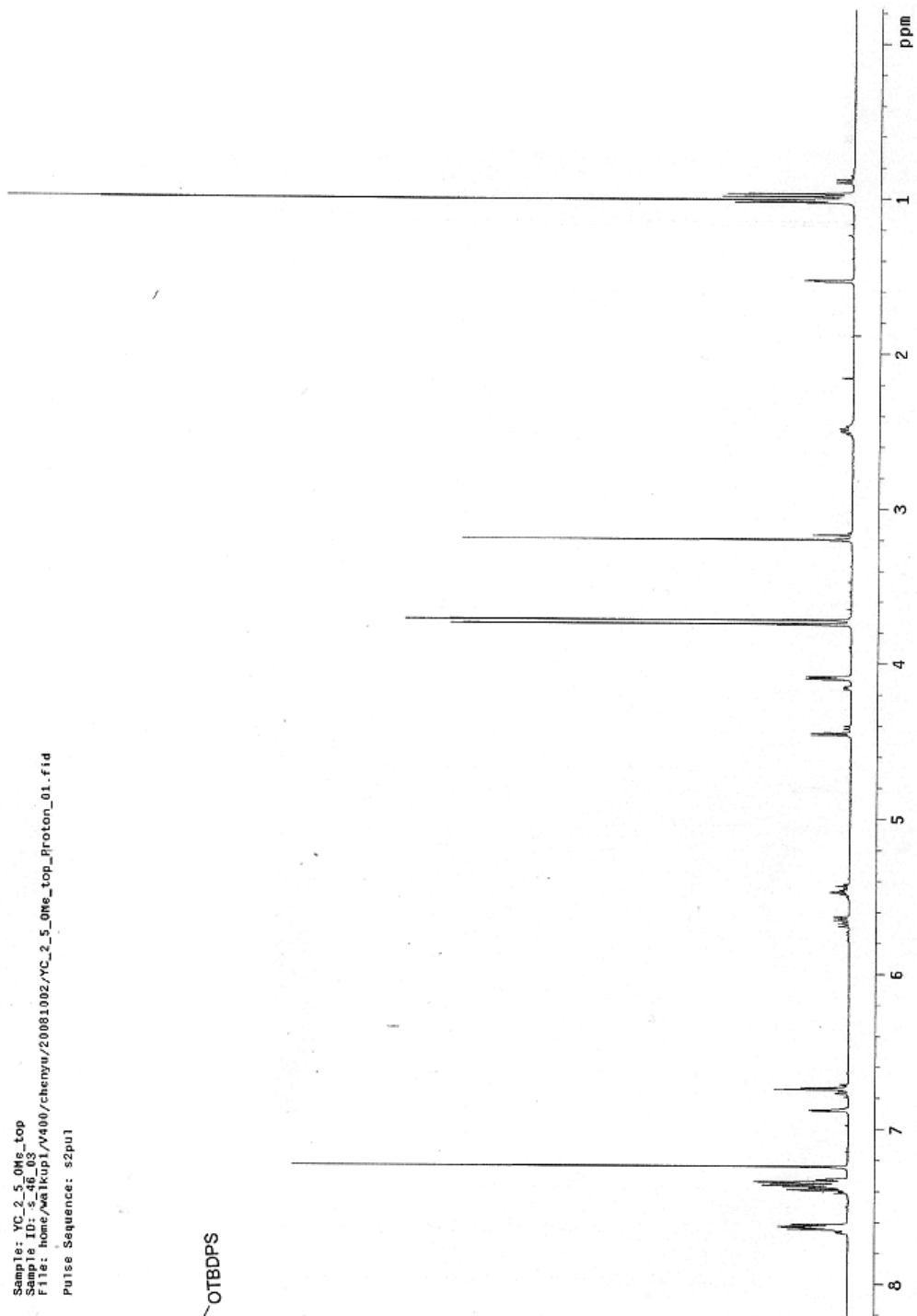
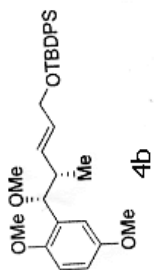
Solvent: cdcl3
Ambient Temperature
Sample Temperature: 300.2 K
File: dimethox Proton 01
F1: C:\data66\bu.edu"

Relay delay: 1.000 sec
Pulse: 45.0 degrees
Acq. time: 3.590 sec
Width: 6410.3 Hz
& repetitions
OBSERVE: H1, 400.0125274 MHz
DATA PROCESSING: 0.2 Hz
FT size: 65536
Total time: 0 min, 45 sec



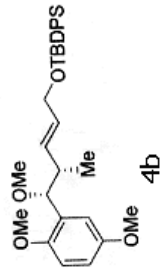
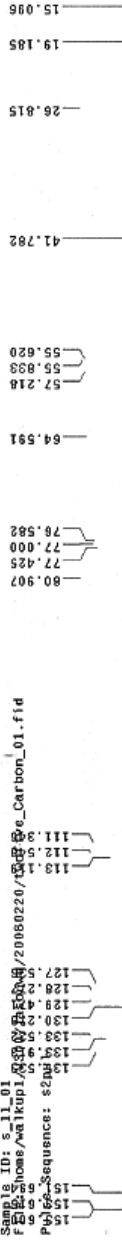


Sample: YC_2_5_0Me_top
Sample ID: S_46_03
File: home/watkup1/Y400/chenyu/20081002/YC_2_5_0Me_top_proton_01.fid
Pulse Sequence: s2pu1

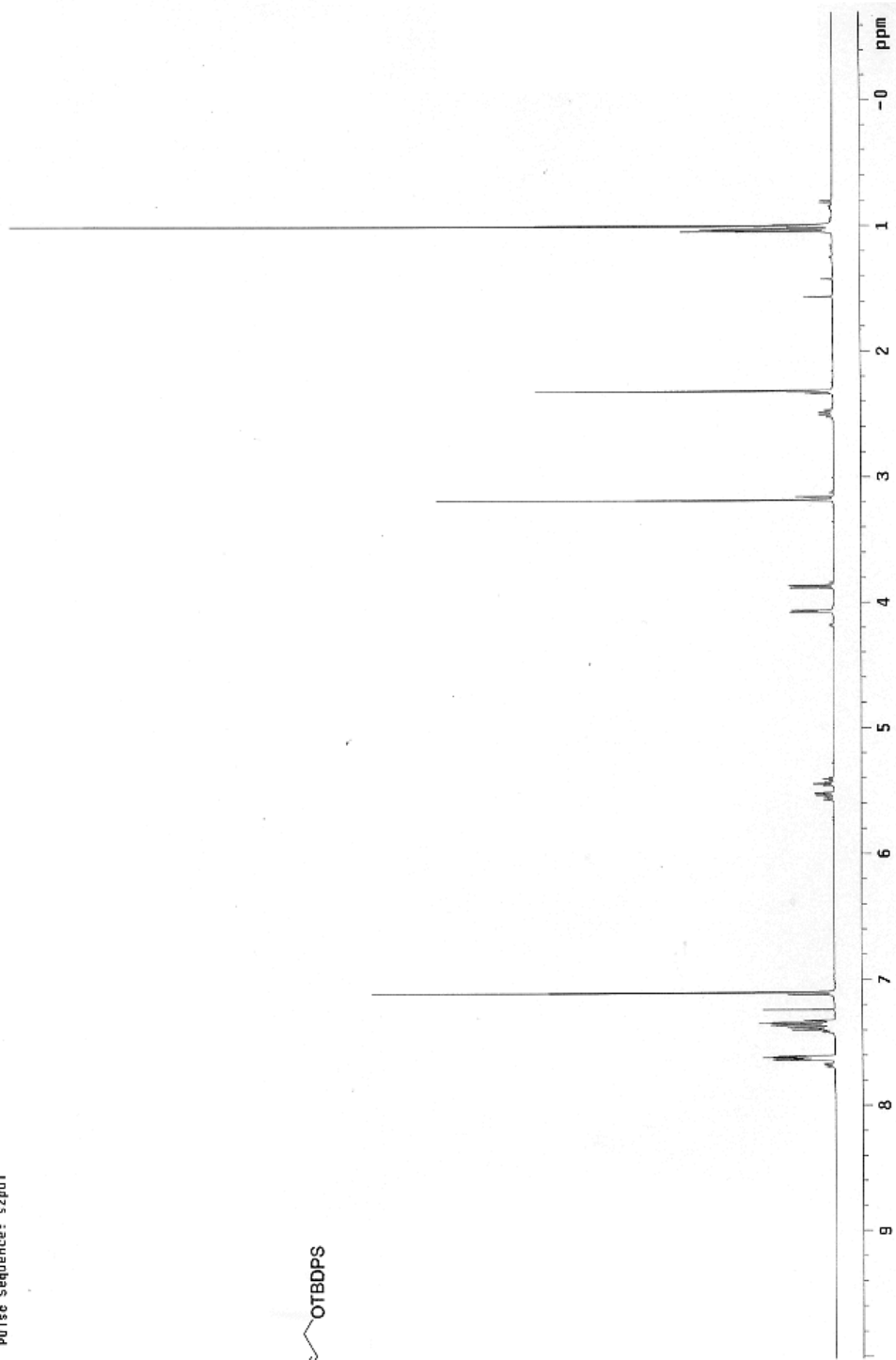
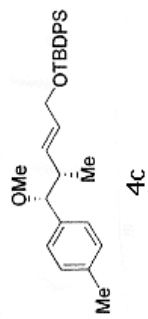


pad=1 run with findz0 before acquisition
 pad=1 run with gradshim before acquisition

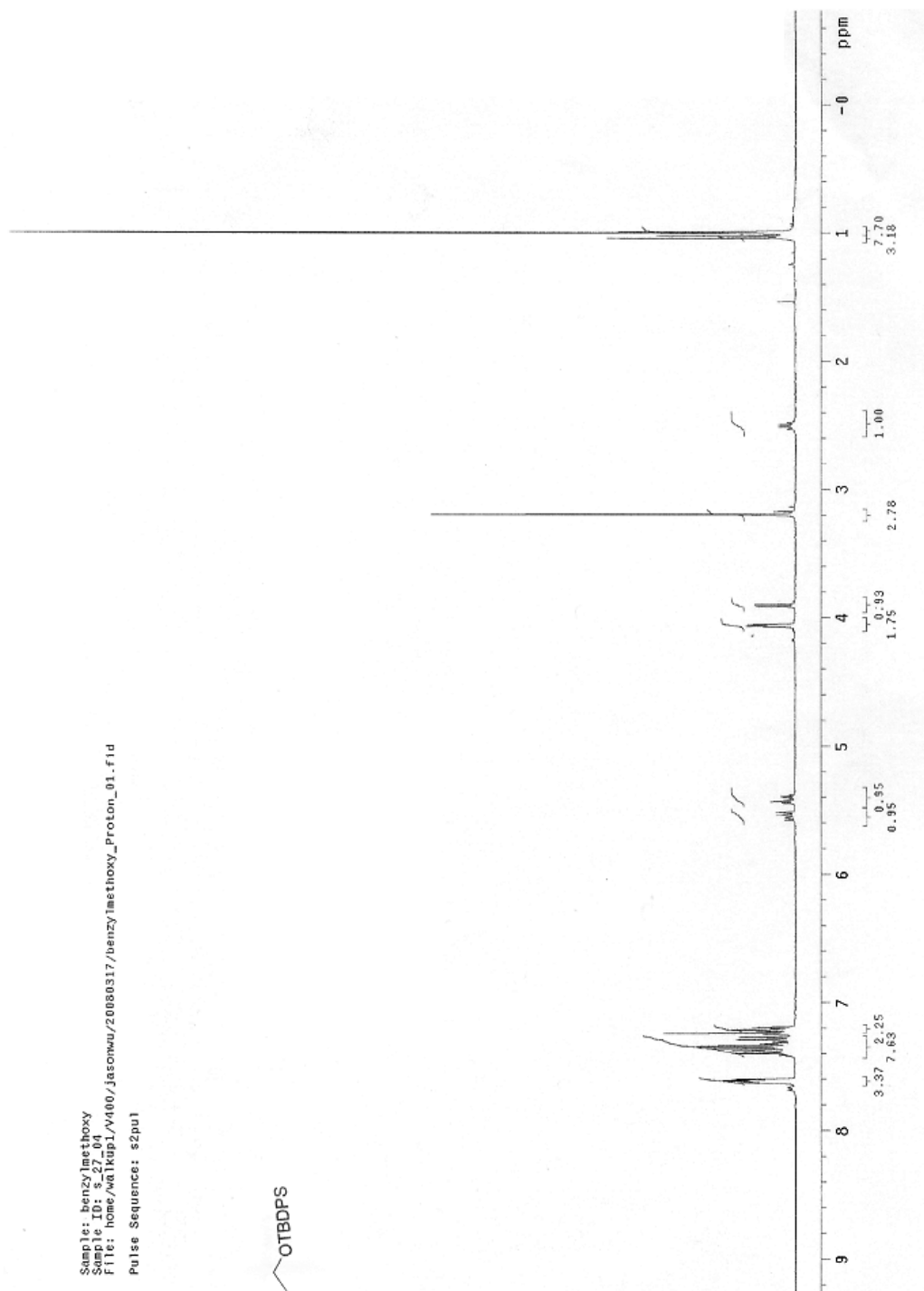
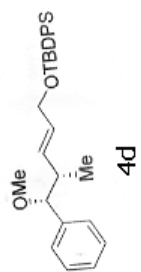
Sample: twofive
 Sample ID: 5_11_01
 Sample Name: Metldp1
 File: 20060220_45461960_Carbon_01.fid
 Pulse Sequence: s2p1



File: toluenecp_Proton_01
Pulse Sequence: s2pul



Sample: benzylmethoxy
Sample ID: 20080317
File: home/waltrip/V4100/Jasonwu/20080317/benzylmethoxy_Proton_01.f1d
Pulse Sequence: s2pu1



pad=1 run with findz0 before acquisition
 pad=1 run with gradshim before acquisition

Automation directory:

Sample file: s_16_02

Sample: ben

Pulse Sequence: zgpg30

Solvent: cdcl3

Ambient temperature:

Sample #46, Operator: jasonwu

File: ben_Carbon_01

Mercury-300DBB "Cicdata2"

Relax. delay 1.000 sec

Pulse 45.0 degrees

Acq. time 1.30 sec

400 MHz

5000 repetitions

OBSERVE C13, 75.4293947 MHZ

DECOUPLE H1, 289.9789680 MHZ

Power 37 dB

continuously on

WALTZ-16 modulated

DATA PROCESSING

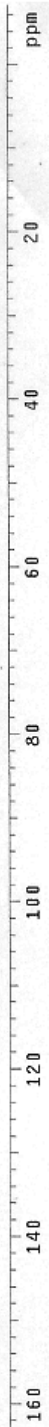
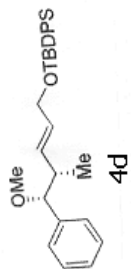
Using presatting 0.5 Hz

FT size 65536

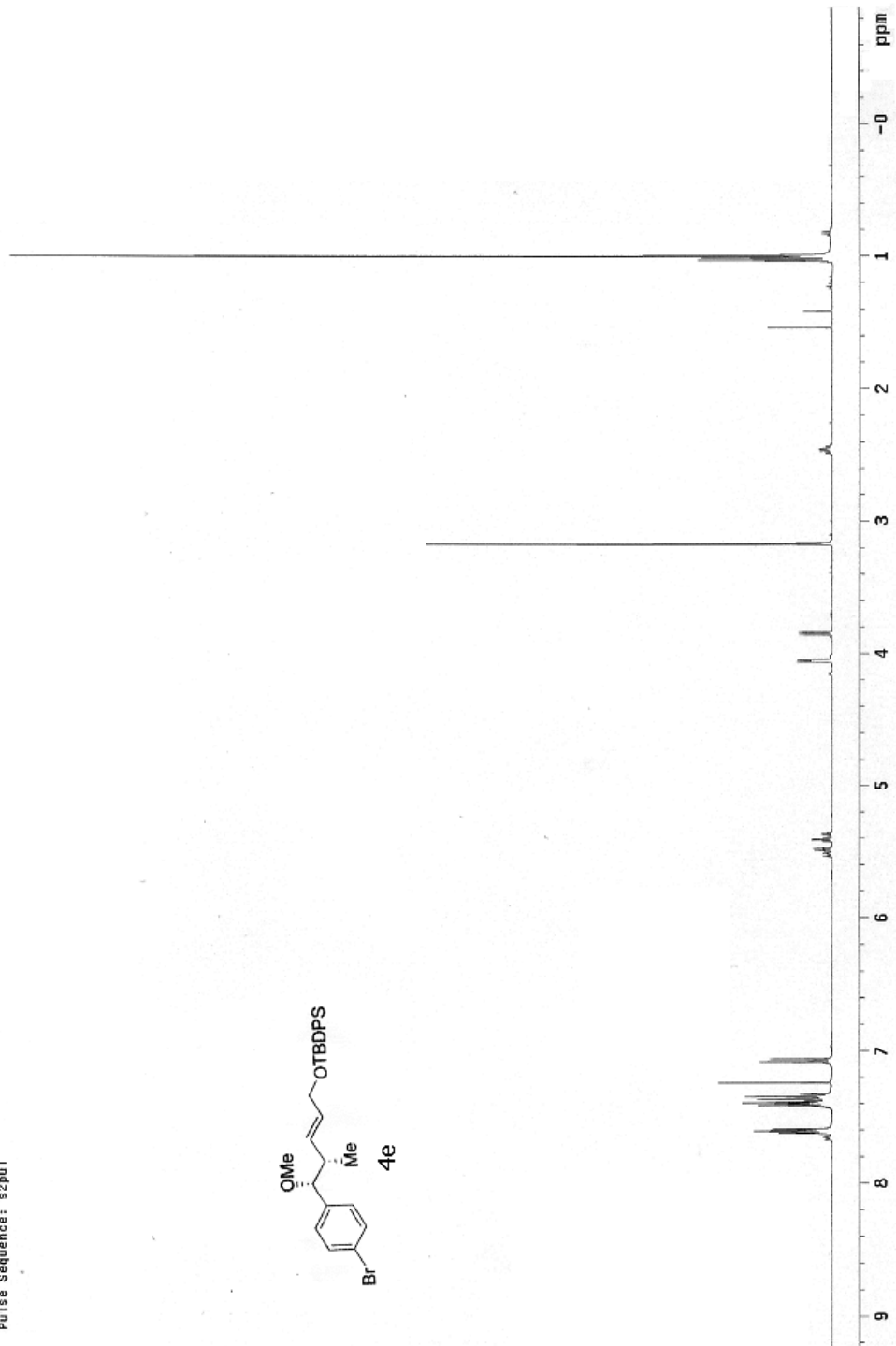
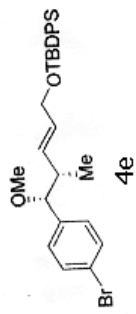
Total time 3 hr, 18 min, 16 sec

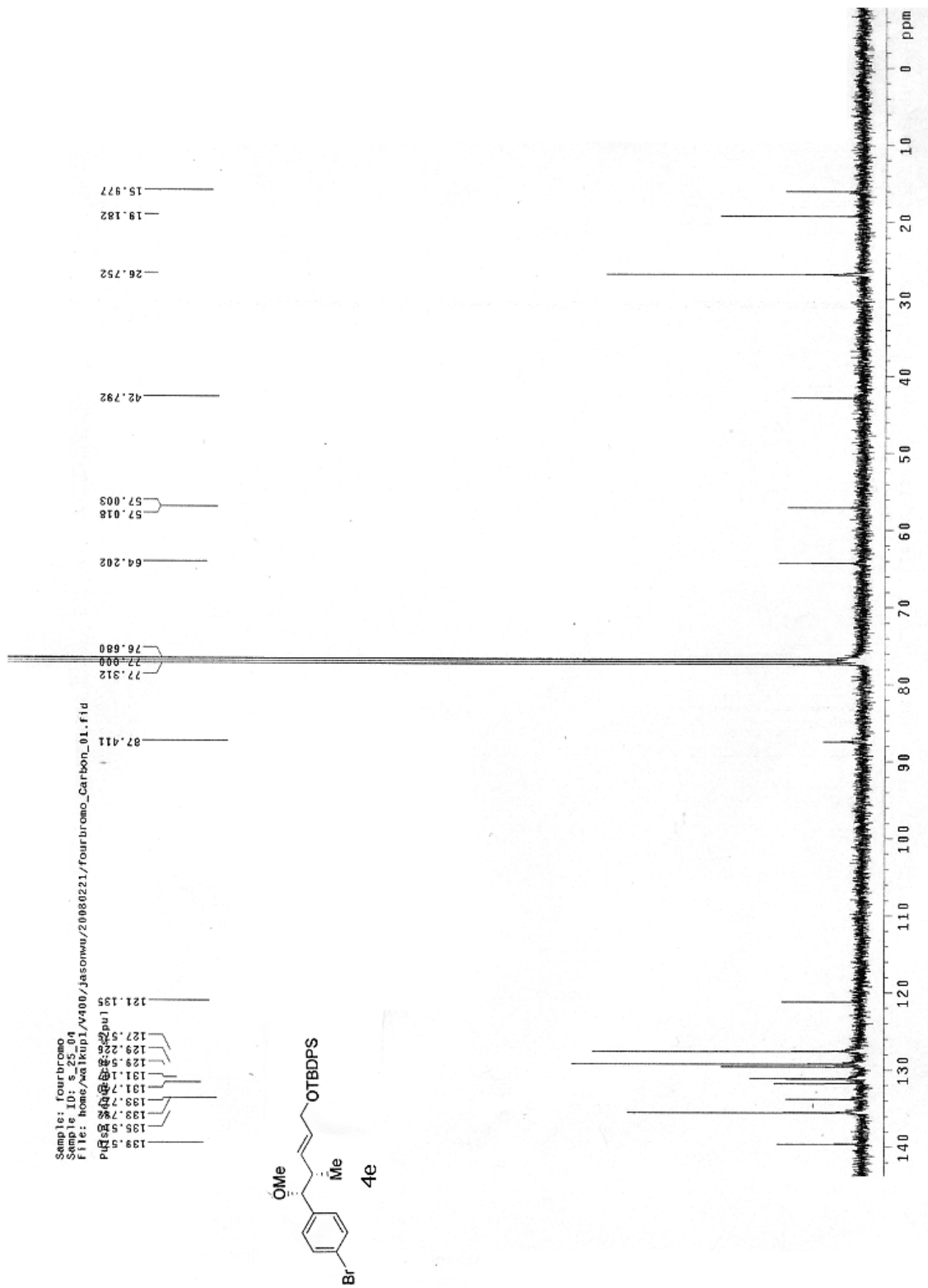
87.987
 77.425
 77.205
 77.000
 76.582
 64.964
 56.933
 42.096
 20.801
 19.193
 15.887

127.309
 127.500
 127.558
 127.962
 128.641
 129.501
 132.418
 133.854
 134.276

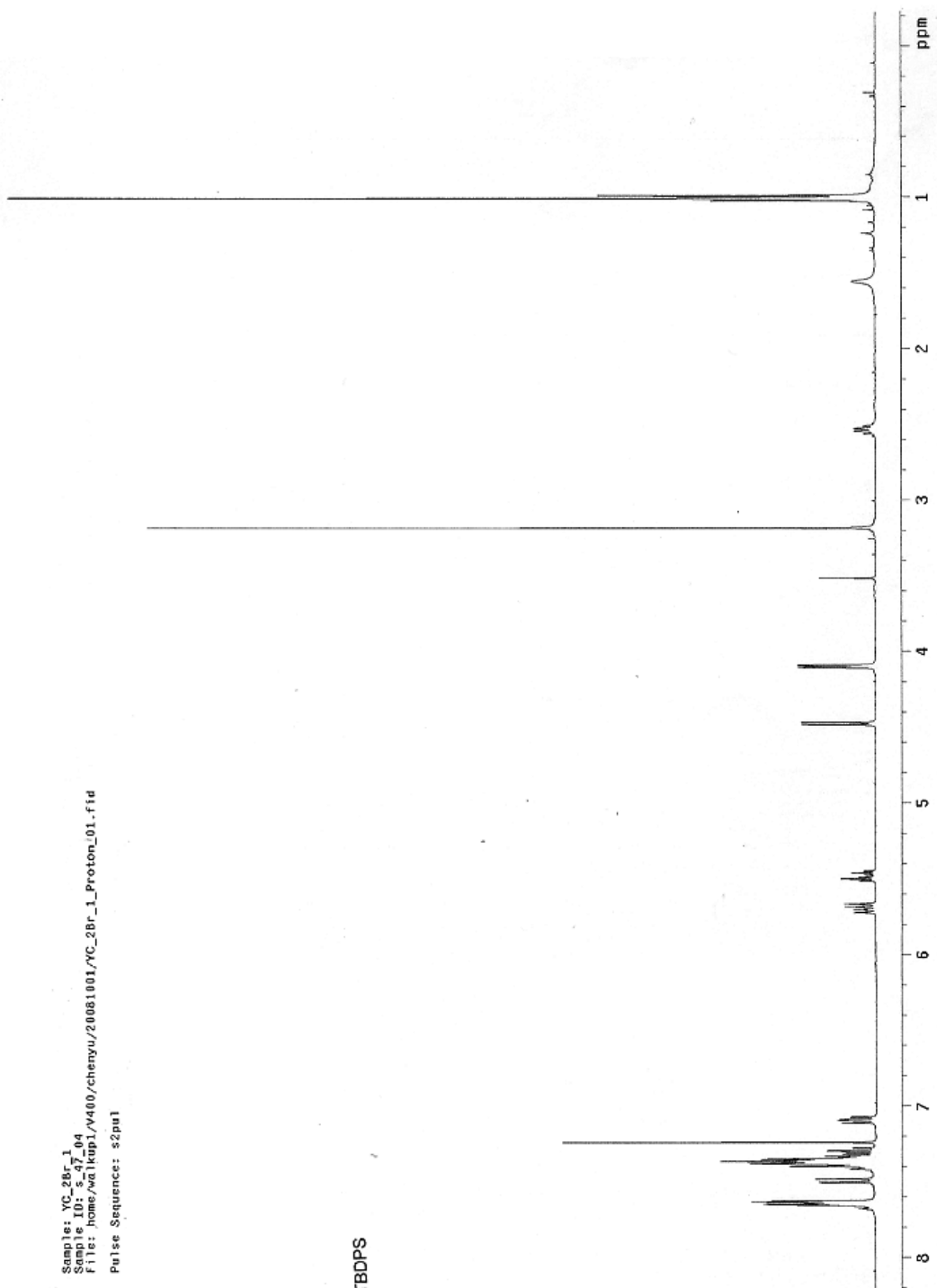


File: fourbrOTBDPS_Proton_01
Pulse Sequence: szpu1





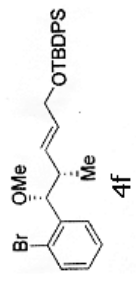
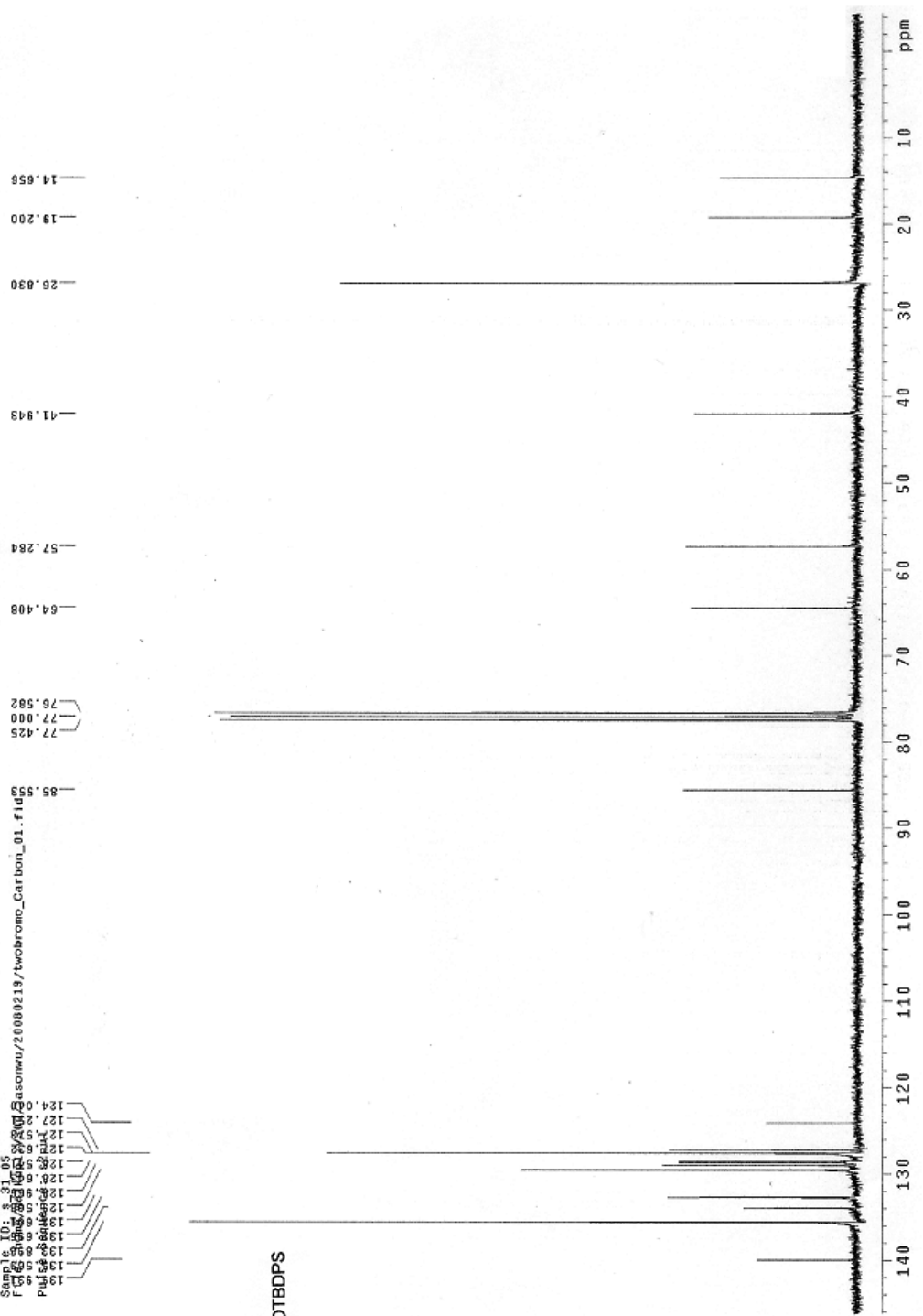
Sample: YC_2Br_1
Sample ID: s_47_04
File: home/walkup1/V400/chenyu/20081001/YC_2Br_1_Proton_01.fid
Pulse Sequence: s2pu1



pad-1 run with findzo before acquisition
pad-1 run with gradshim before acquisition

Sample: twobromo
Sample ID: 83105
File: 0103080219/twobromo_Carbon_01.fid
Pulse Sequence: zgpg30

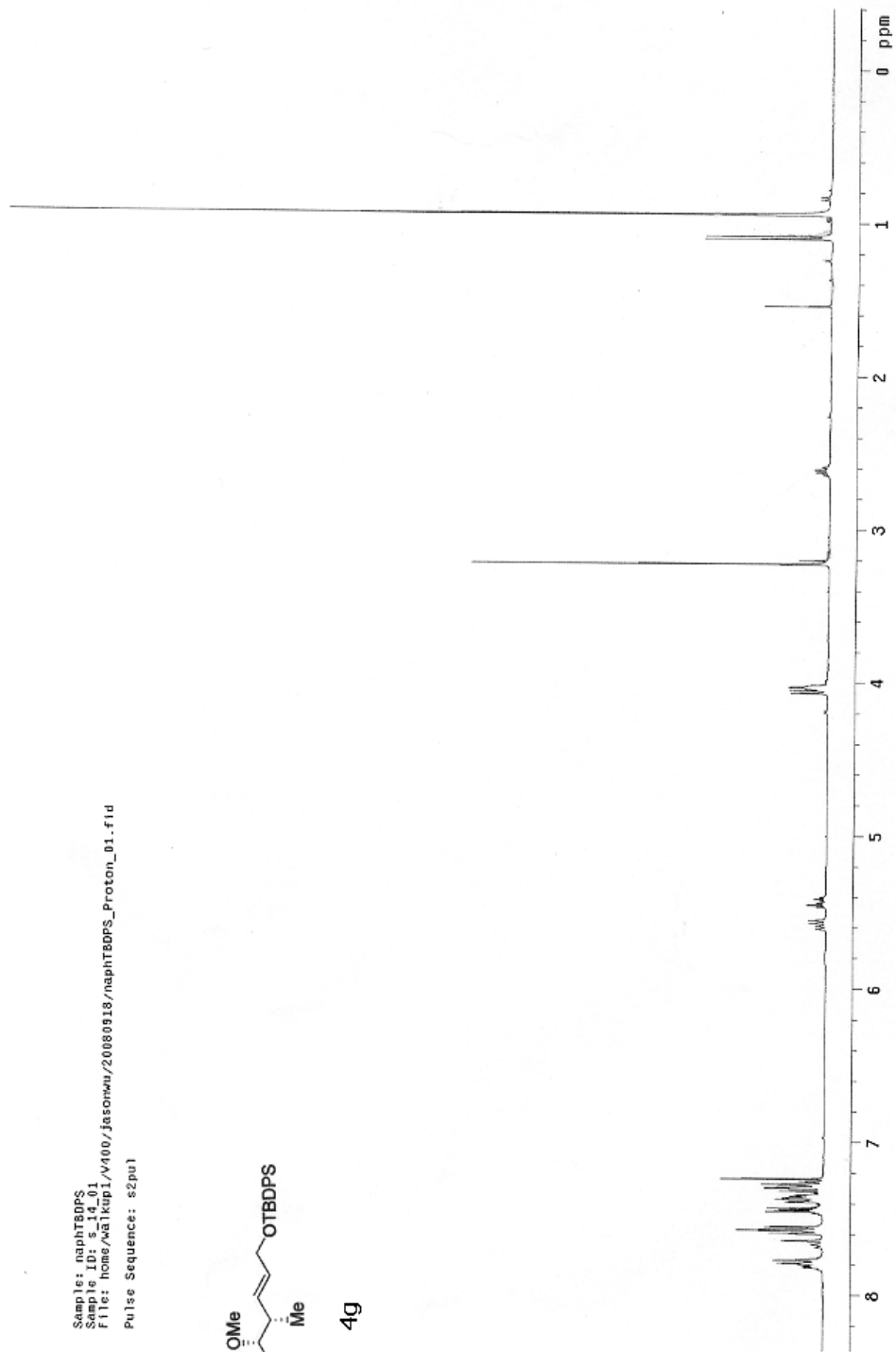
124
122
121
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104
103
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1

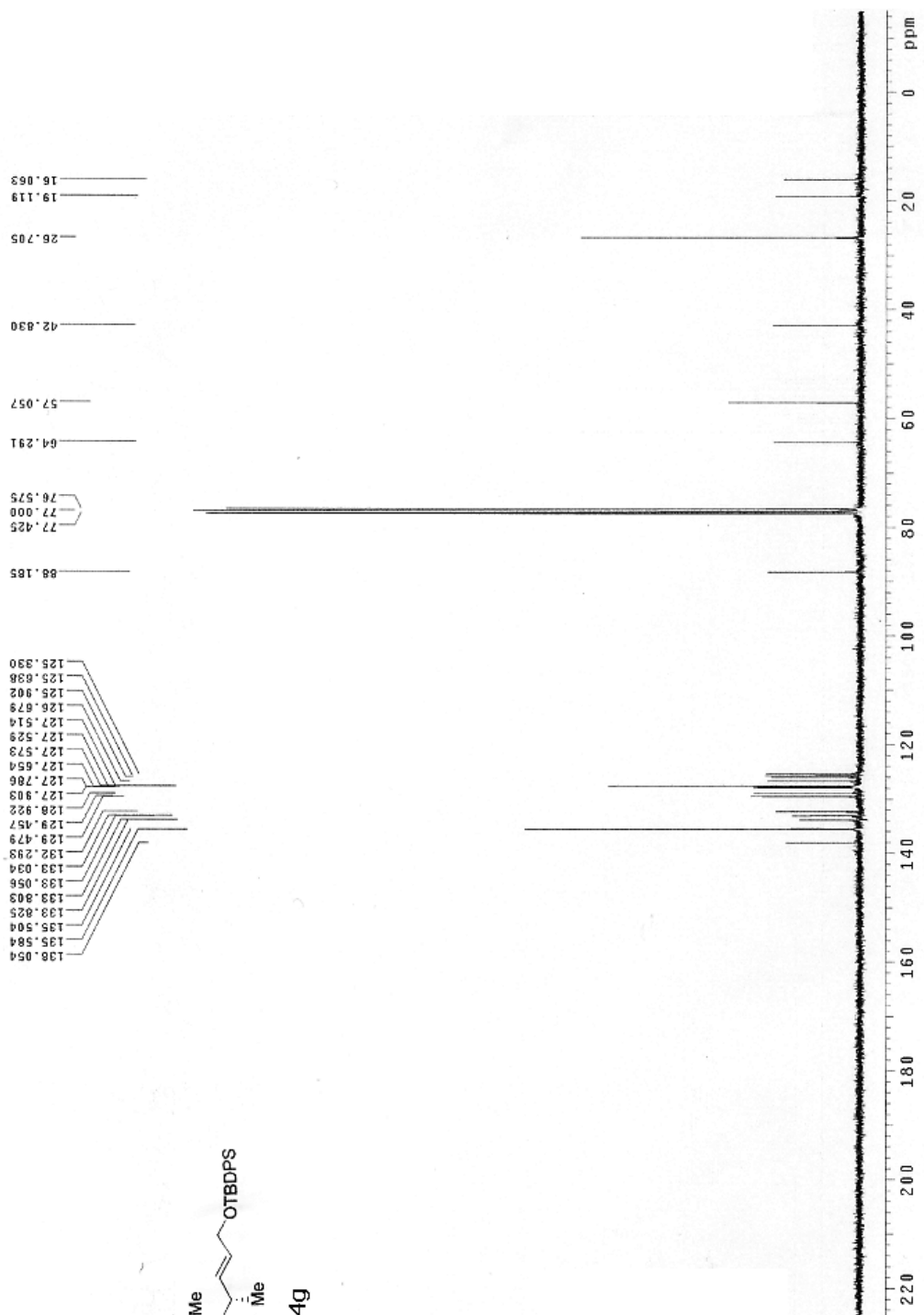
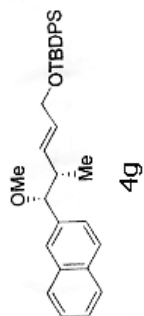


Sample: naphTBDPS
Sample ID: s_14_01
Files: home/va1kup1/v100/jasonwu/20080918/naphTBDPS_Proton_01.fid
Pulse Sequence: s2pul

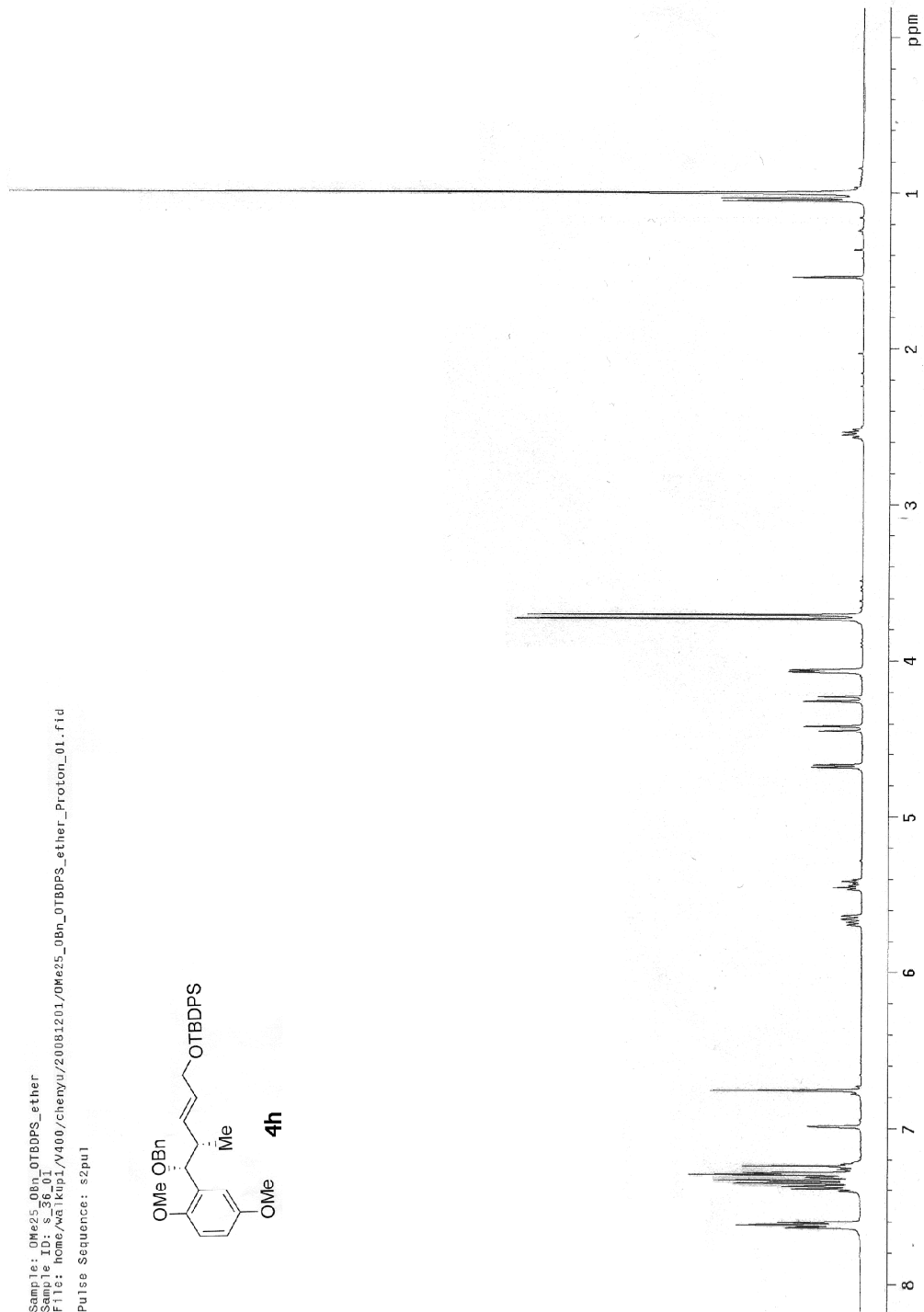
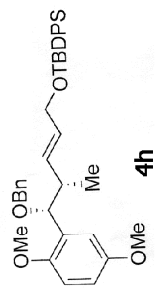


4g





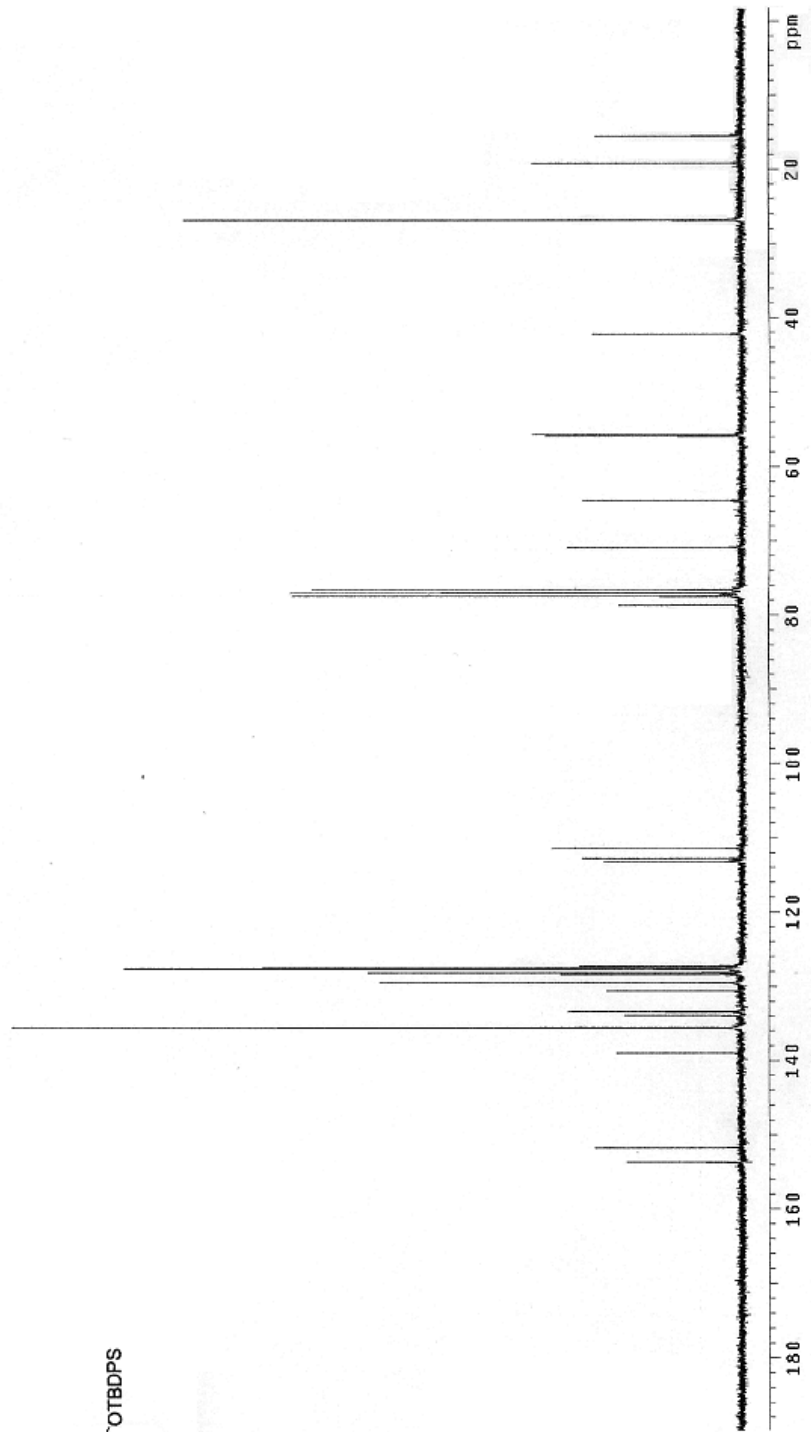
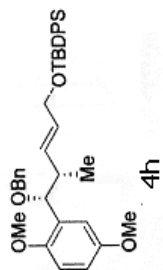
Sample: OMe25_OBn_OTBDPS_ether
Sample ID: s_36_01
File: home/Wgikip1/V400/chenyu/20081201/OMe25_OBn_OTBDPS_ether_Proton_01.fid
Pulse Sequence: s2pu1



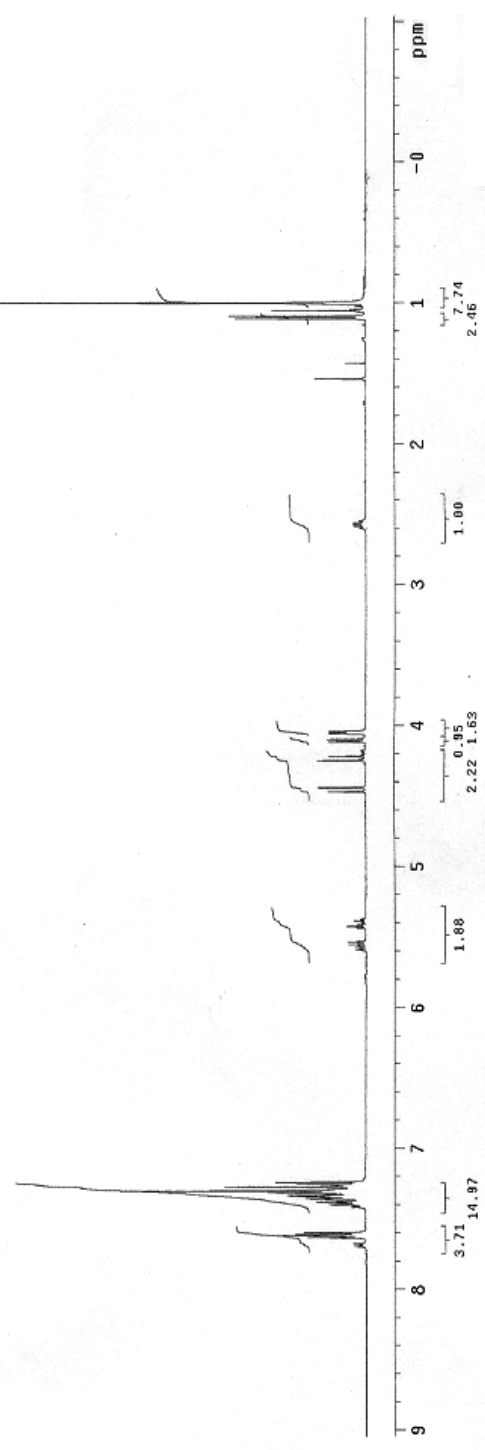
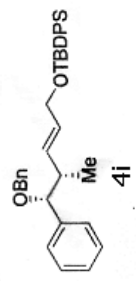
pad1 run with findz0 before acquisition
 pad1 run with gradshim before acquisition

Sample: OBn
 Sample ID: s_43_01
 File: home\alkkup1\V300\Jasco\04\20080628\08030301152.d
 Pulse Sequence: szpul

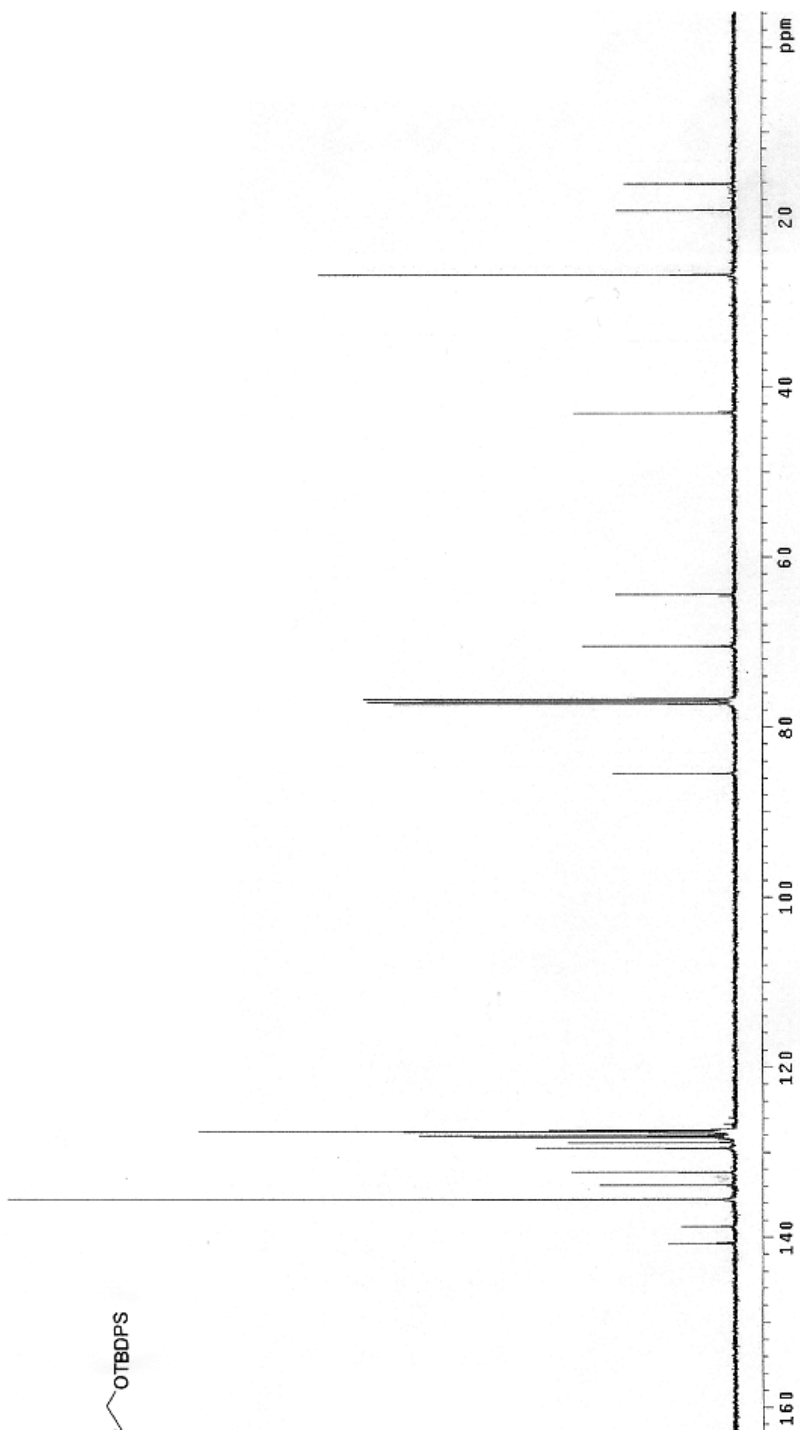
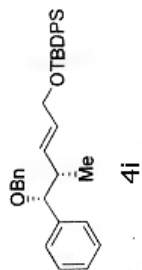
159.0
 151.7
 138.9
 138.5
 133.9
 133.8
 130.5
 129.4
 128.3
 128.1
 127.6
 127.5
 127.2
 127.1
 119.229
 112.753
 111.404
 78.620
 77.425
 77.000
 76.582
 70.917
 64.562
 55.877
 55.657
 42.134
 28.815
 19.185
 15.477



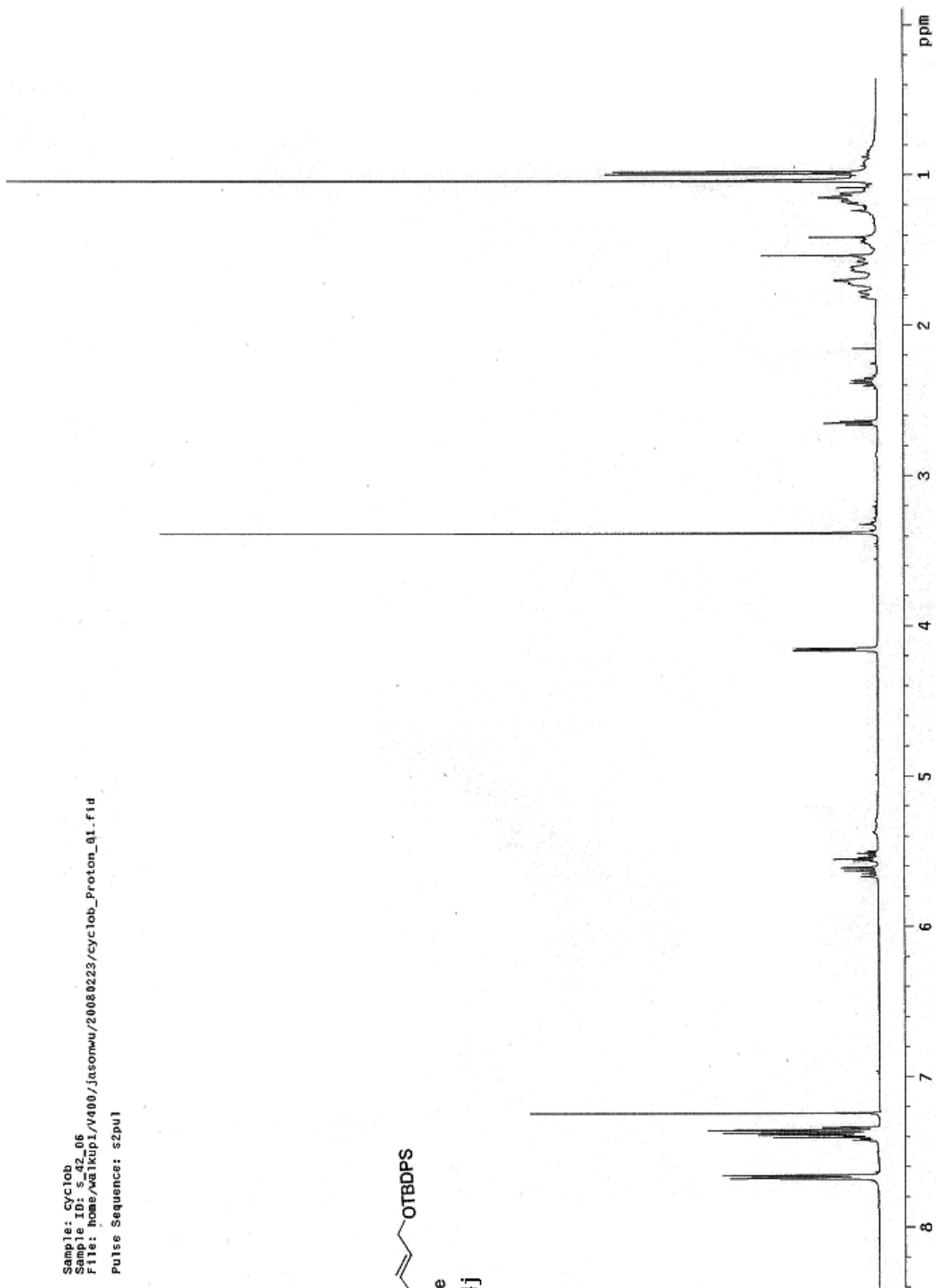
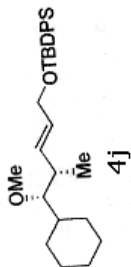
Sample: ph08n
Sample ID: s_1_02
File: home/waikup1/V400/jasomwu/20081014/ph08n_Proton_01.fid
Pulse Sequence: s2pu1

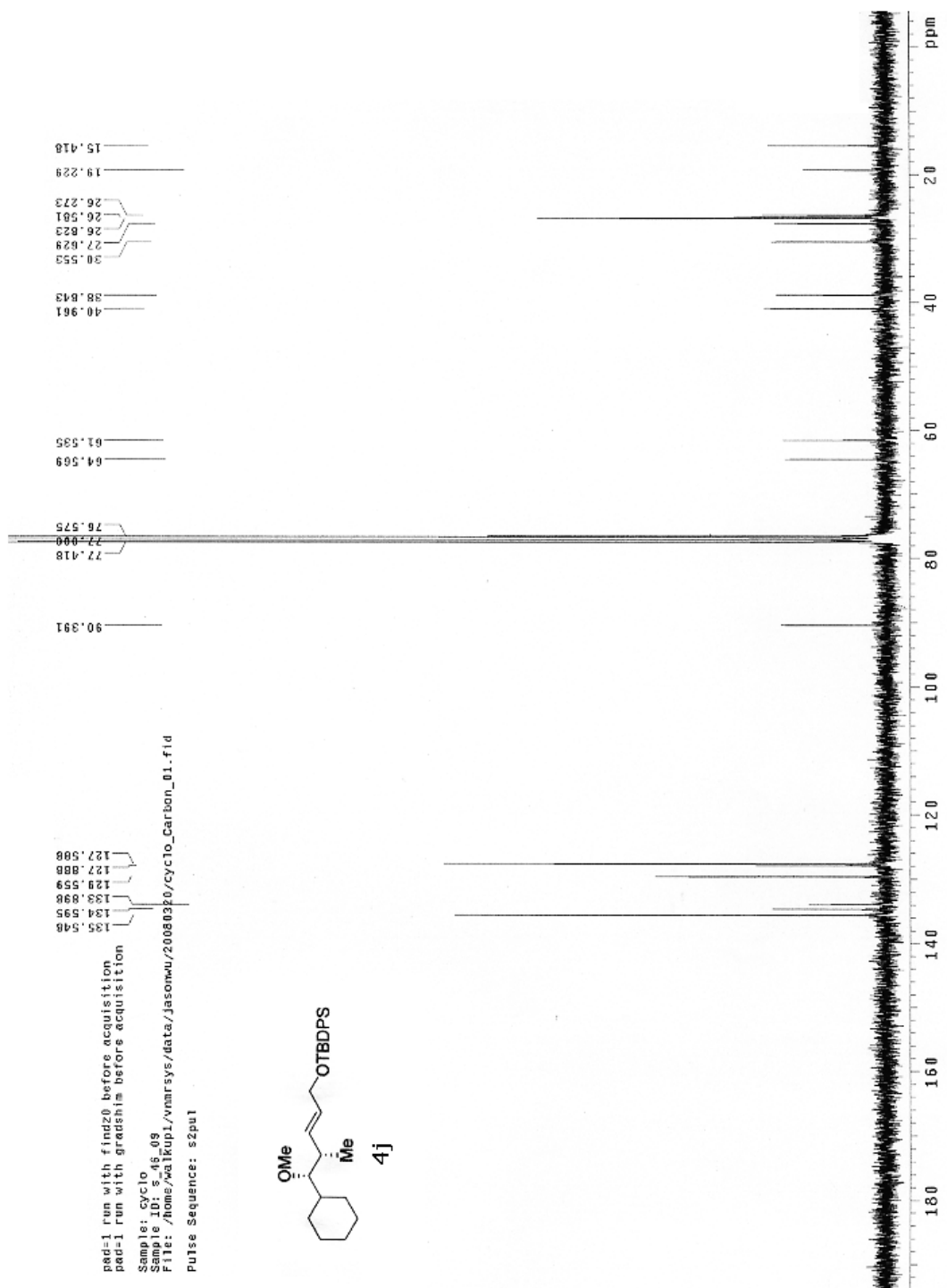


Sample: ph08n
Sample ID: s_1_01
File: home/walkup1/V400/Jasonwu/20081015/ph08n_Carbon_01.fid
Pulse Sequence: s2pu1

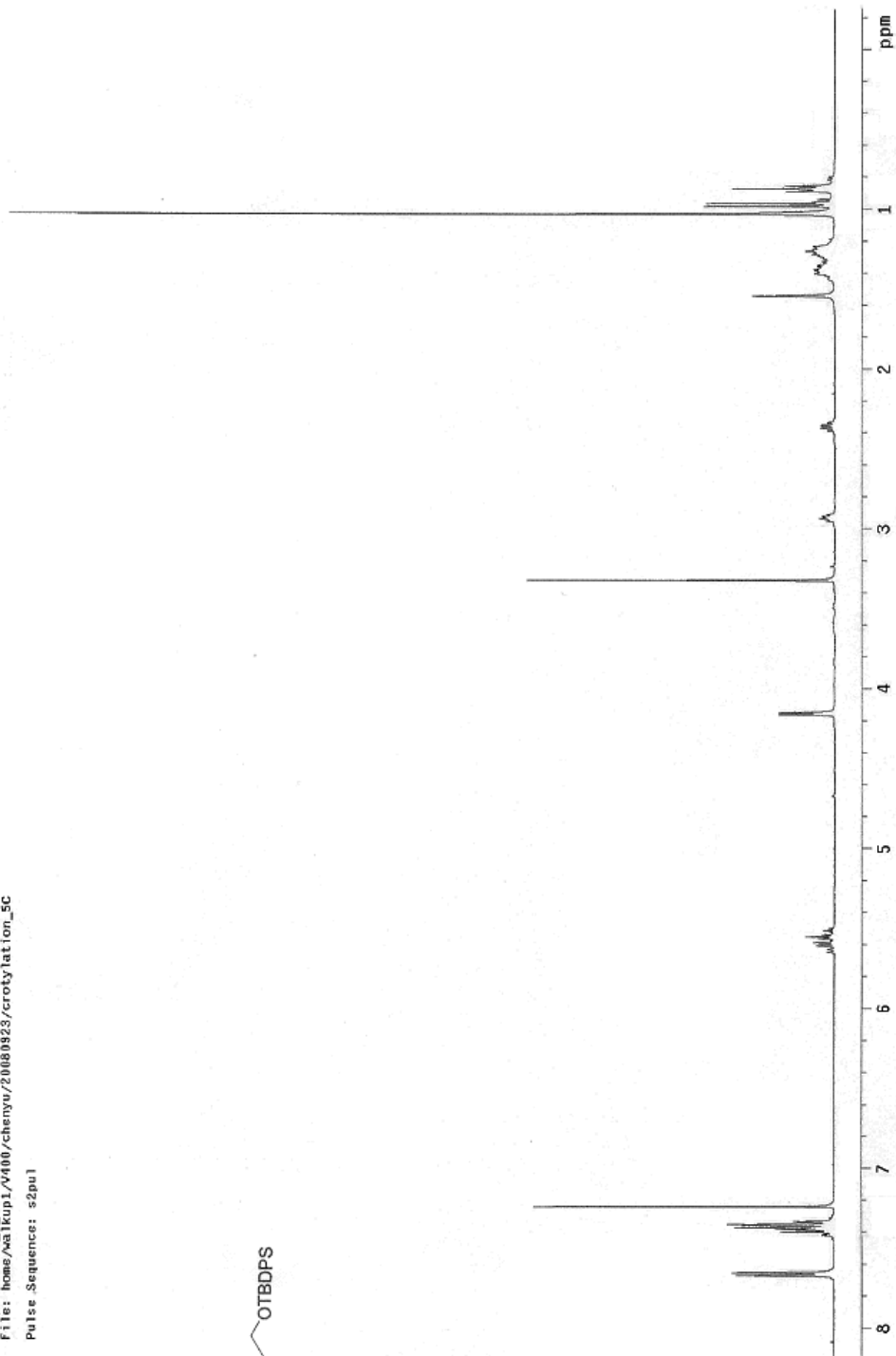
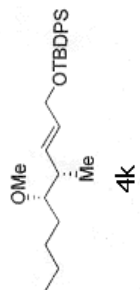


Sample: cyclob
Sample ID: s_42_06
File: home/walakup1/V000/jasonwu/20080223/cyclob_Proton_01.fid
Pulse Sequence: s2pu1





Sample: crotylation_5C_down
Sample ID: 5-5-03
File: home/Walidkopi/V4100/chenyv/20080923/crotylation_5C
Pulse Sequence: s2pu1



Sample: penty1
 Sample ID: s_37_02
 File: home\NalKup1\4400\Jasonwu\2000223\penty_Carbon_01.fid
 Pulse Sequence: zgpg30

133.0
 133.0
 133.0
 133.0
 129.4
 128.4
 127.5
 127.5

85.179

77.312
77.000
76.680

84.708
84.678

57.643
57.591

39.327

30.760
27.749
26.841
26.812

22.922

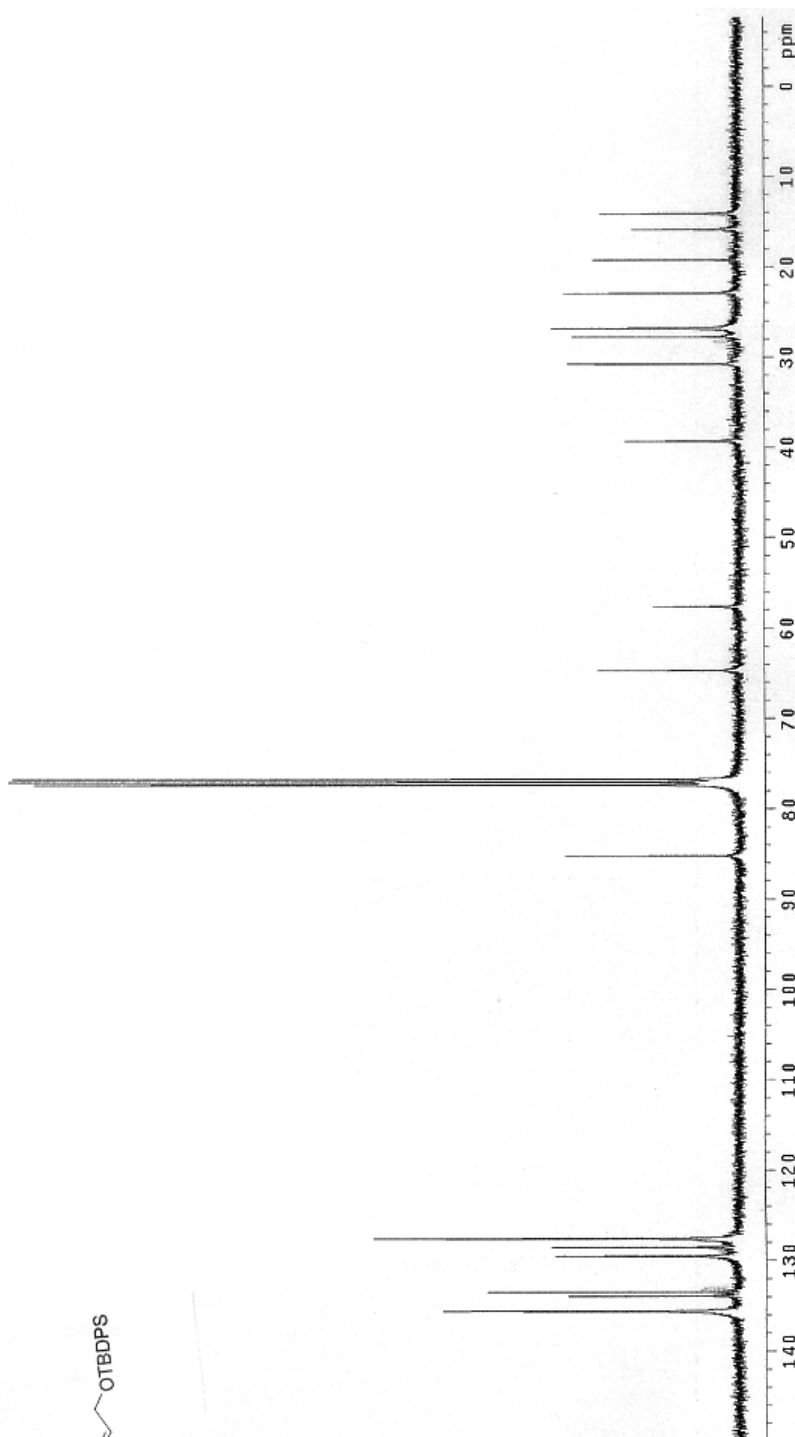
19.219

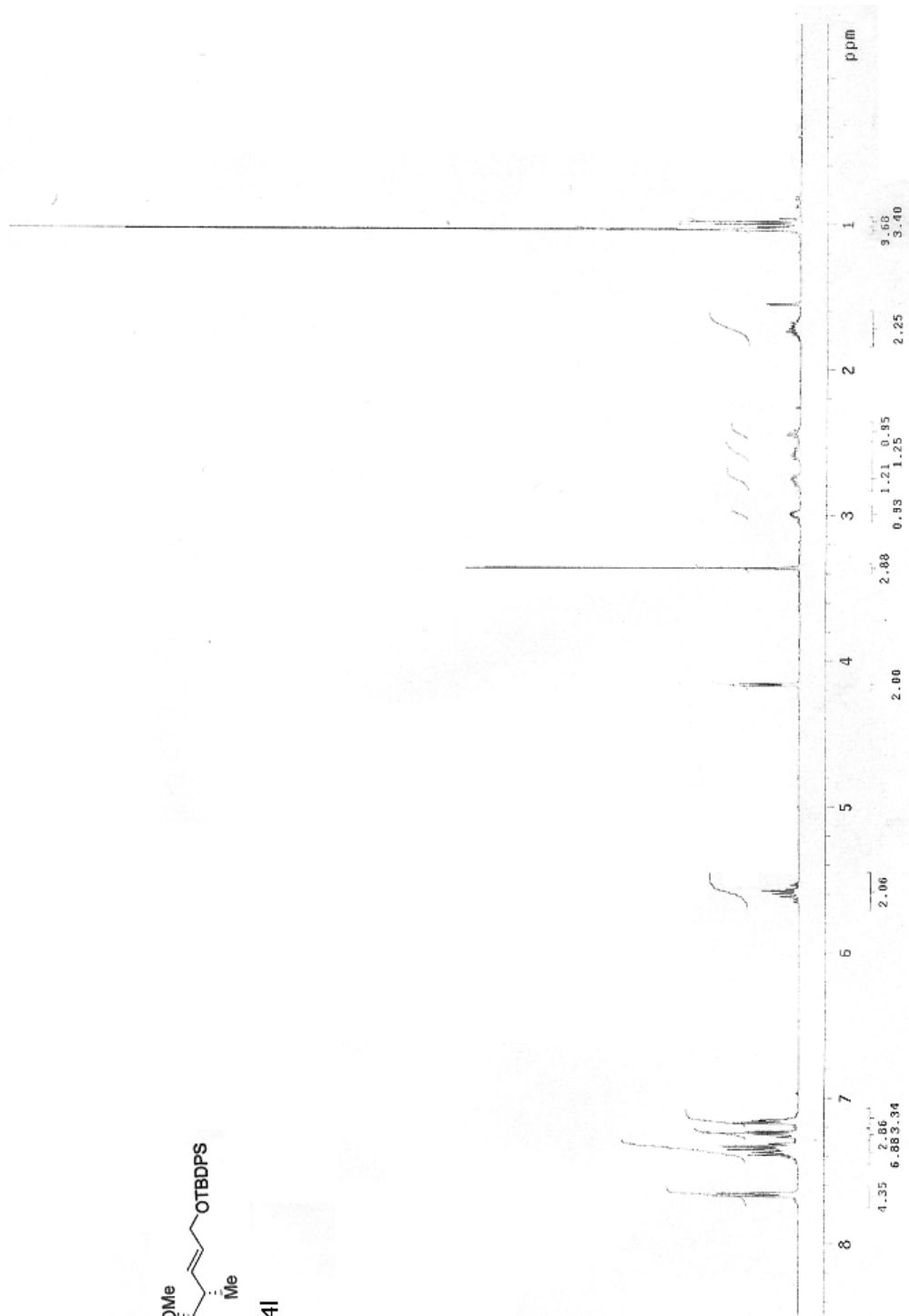
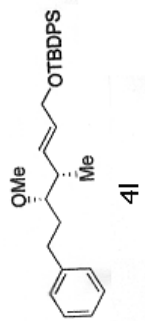
15.028

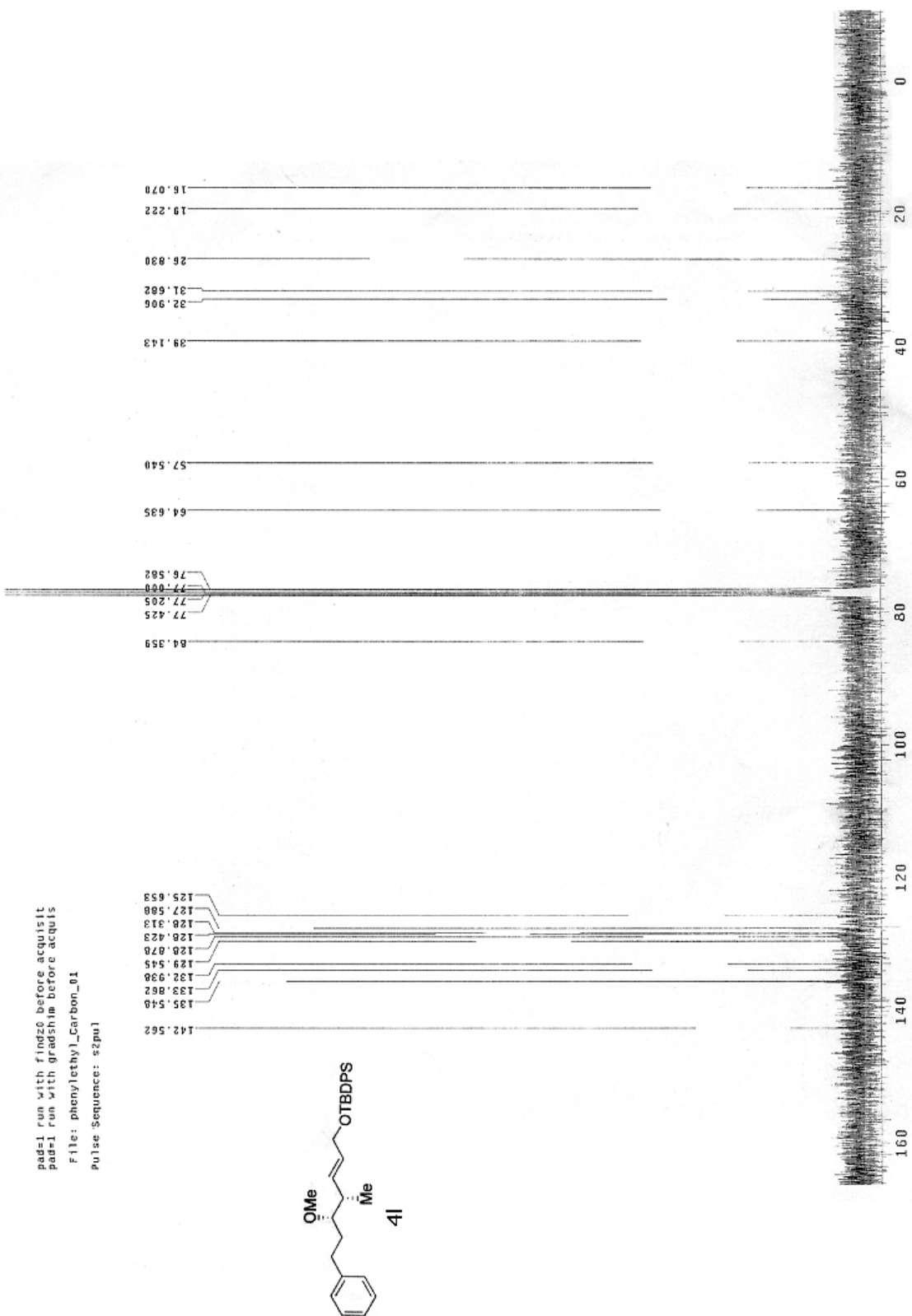
14.118



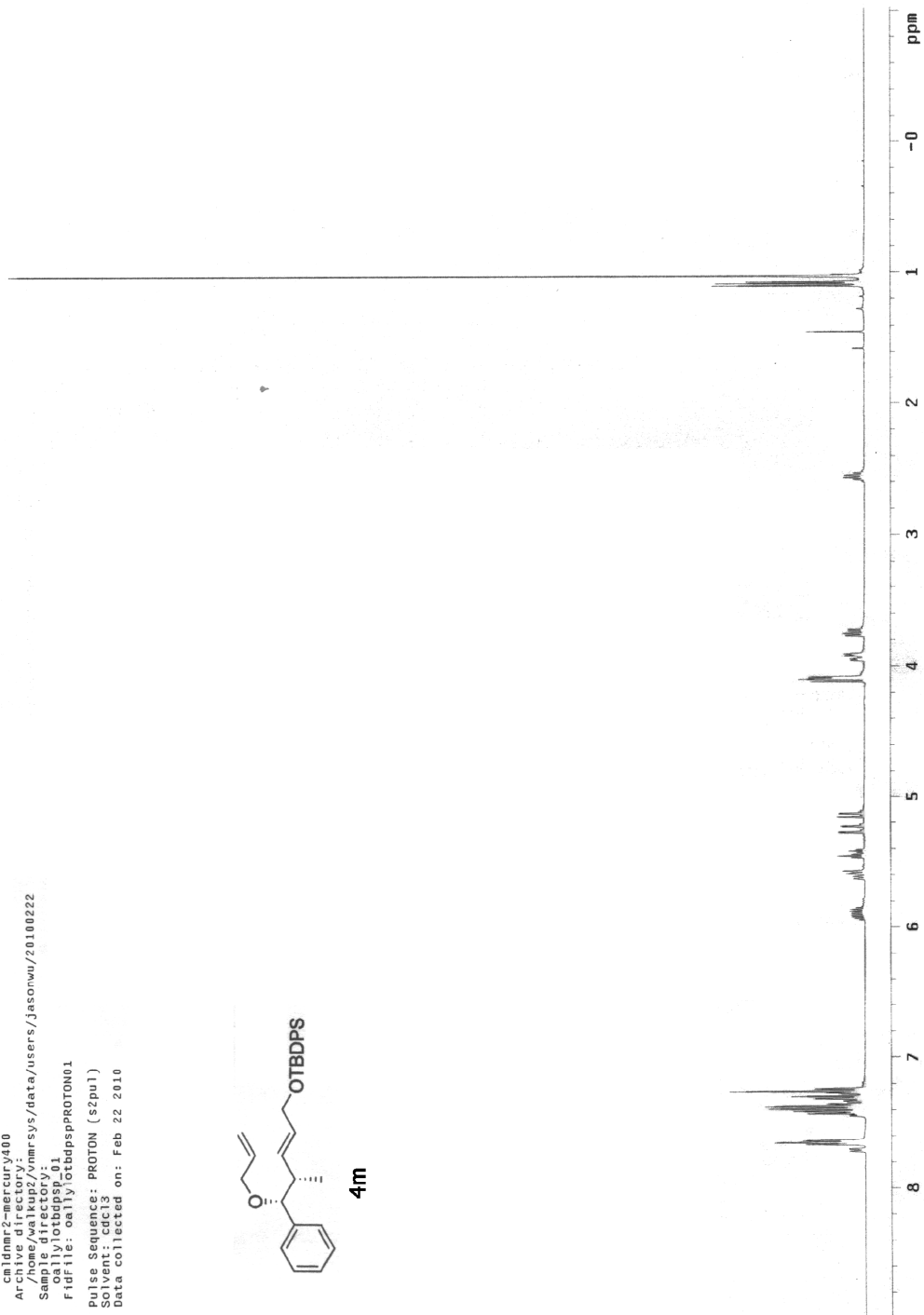
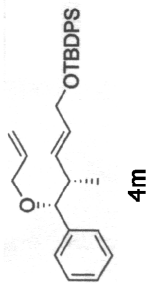
4k







oallylotbdpsp
Sample Name: oallylotbdpsp
Data collected on: 2/22/2010 12:40:40
Archive directory: /home/walkup2/vnmrSYS/data/users/jasonwu/20100222
Sample directory: oallylotbdpsp_01
Fid file: oallylotbdpspPROTON01
Pulse Sequence: PROTON (szpul)
Solvent: cdcl3
Data collected on: Feb 22 2010

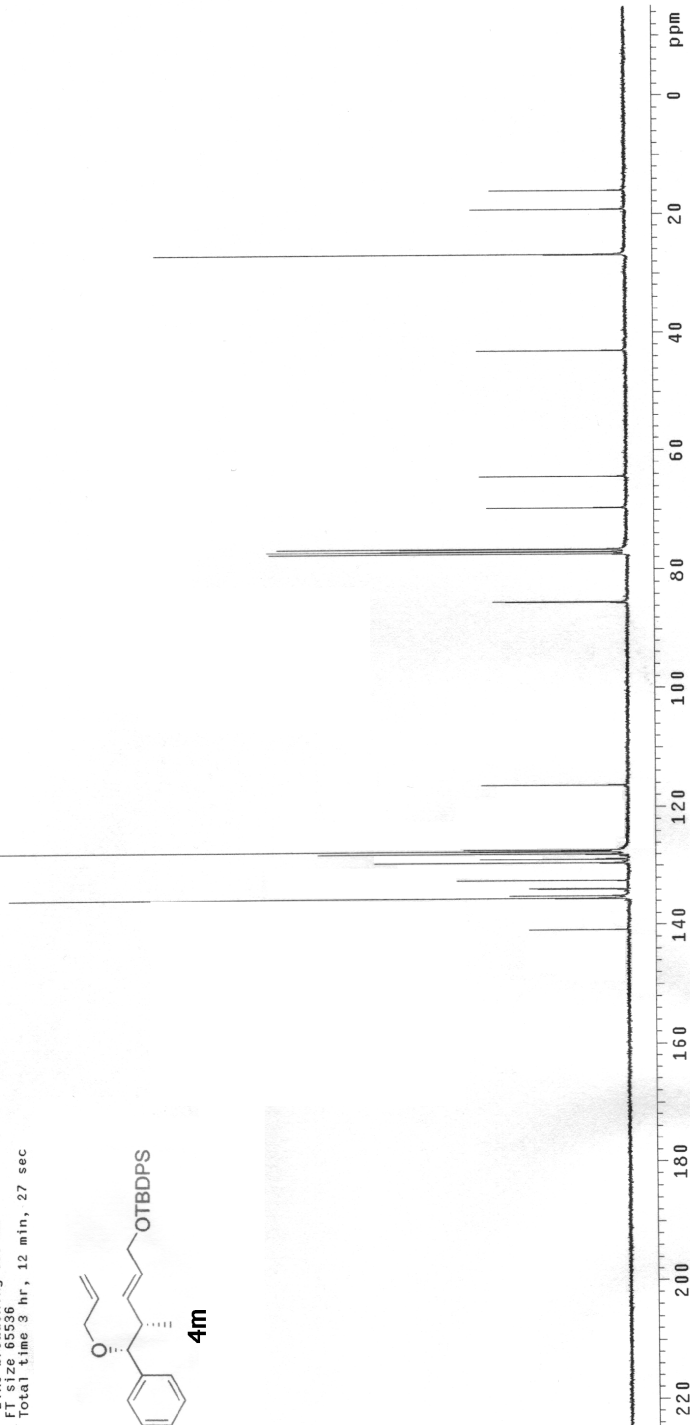
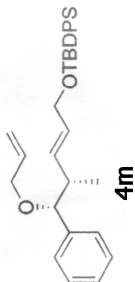


Sample: minorp
Scan ID: 39_02
File: /home/walkup3/vnmrSYS/data/jasonwu/20100223/minorp_Carbon_01
Automation directory: /home/walkup3/vnmrSYS/data/auto_2010-02-19_01

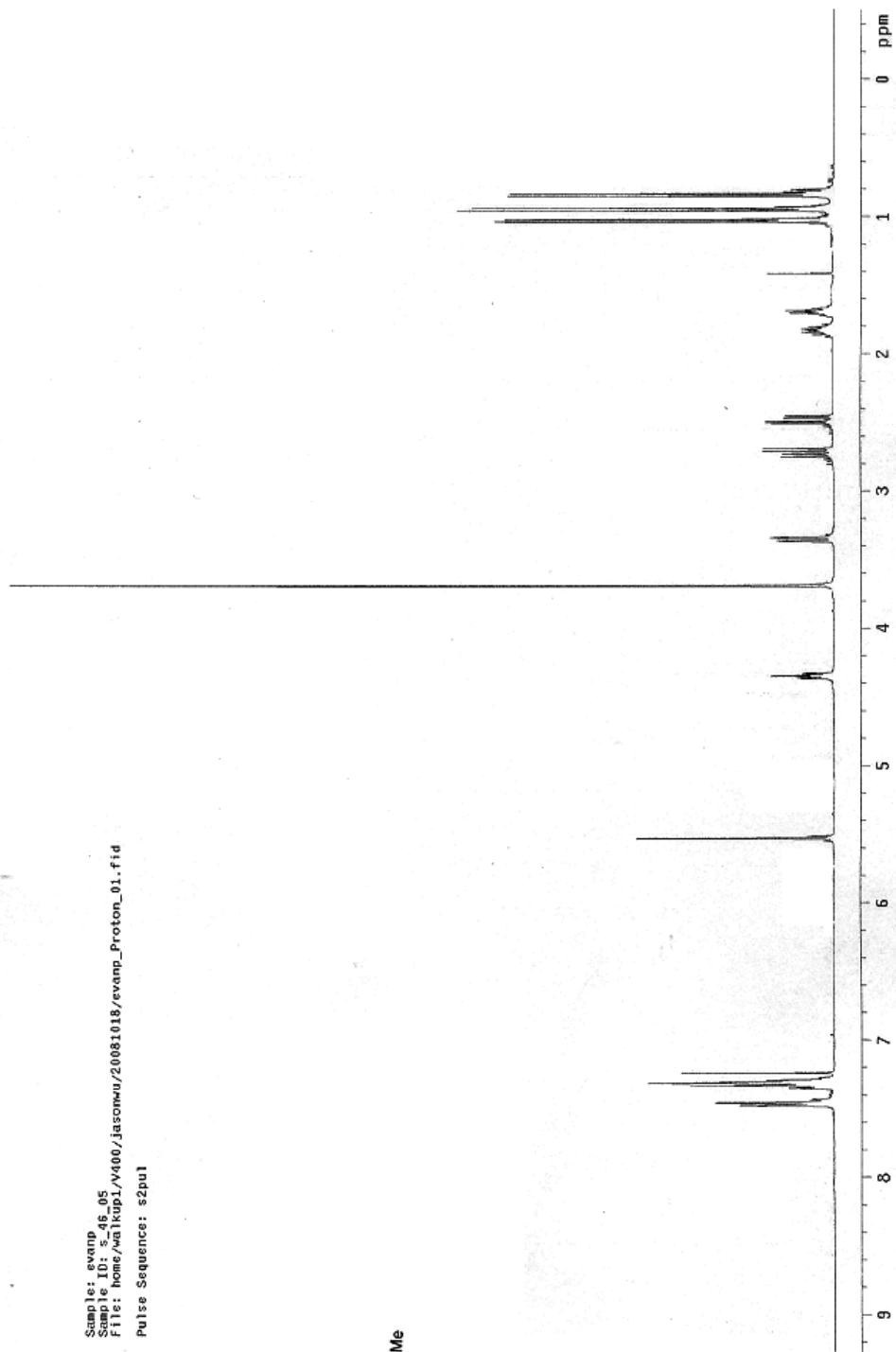
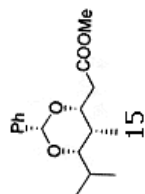
Pulse Sequence: sZpu1

Solvent: cdCl3
Ambient temperature
Sample #39, Operator: jasonwu
File: minorp_Carbon_01
VNMRS-300 43000

Relax. delay 1.000 sec
Pulse delay 0.000 sec
Acq. time 1.301 sec
Width 18115.9 Hz
5000 repetitions
OBSERVE C13, 75.4293946 MHz
DECOUPLE H1, 299.9789690 MHz
Power 37.000 dB
SOLVENT on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 0.5 Hz
FT size 65536
Total time 3 hr, 12 min, 27 sec

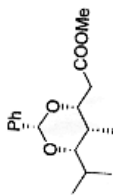


Sample: evamp
Sample ID: 45_05
File: home\m\kdp1\400\jasomw\20081018\evamp_Proton_01.fid
Pulse Sequence: s2pu1



pad-1 run with gradshim before acquisition
pad-1 run with gradshim before acquisition

Sample: ep
Sample ID: 5_29_02
File: home/vikup1/V300/Jasonwu/20081018/ep_Noesy1d_01.fid
Pulse Sequence: NOESY1D



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