

SUPPORTING INFORMATION

FOR

Total synthesis of monosporascone and dihydromonosporascone

Kathryn A. Punch and Matthew J. Piggott*

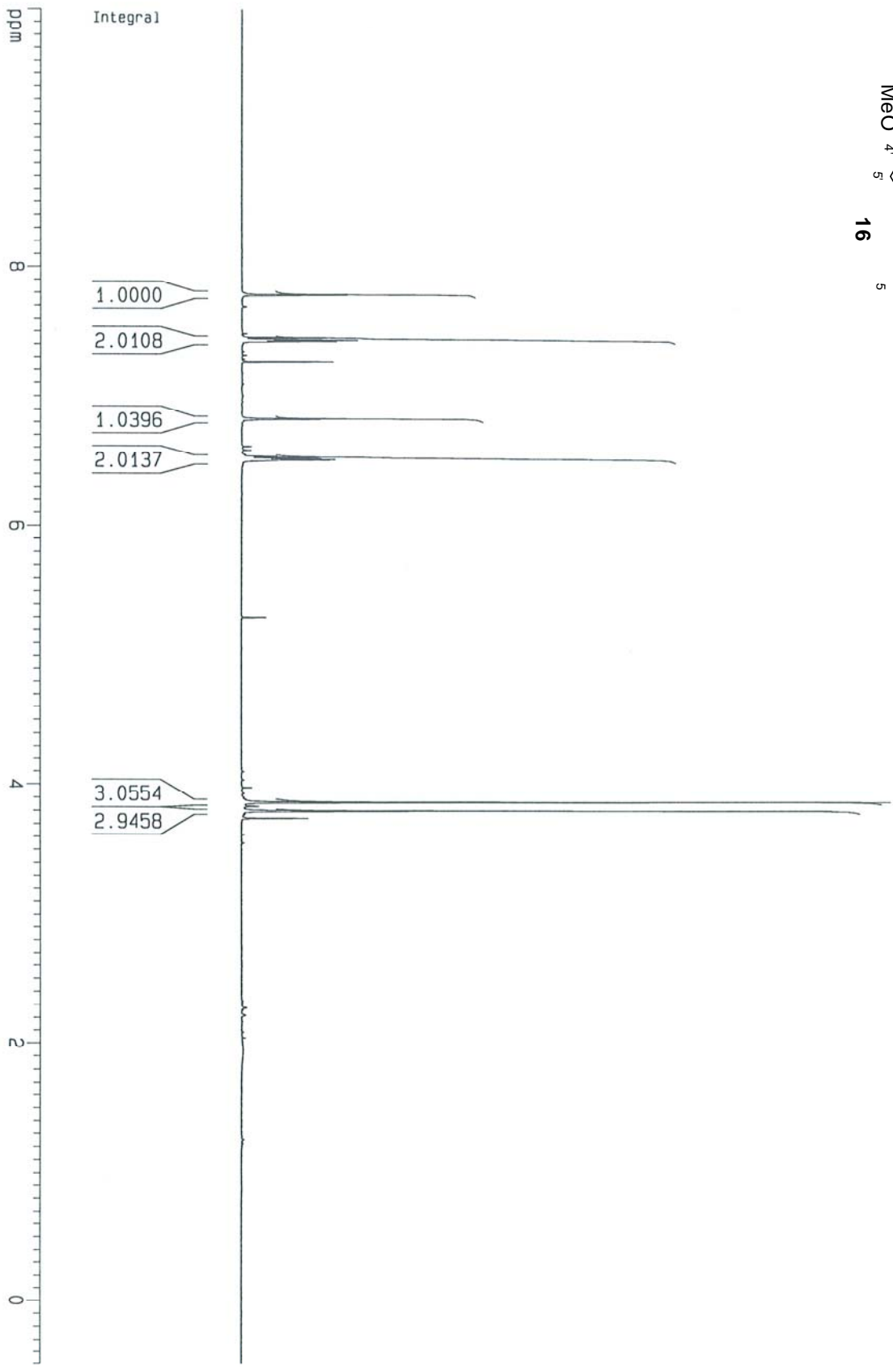
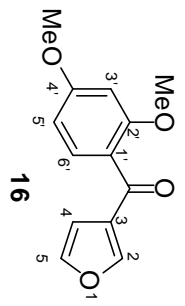
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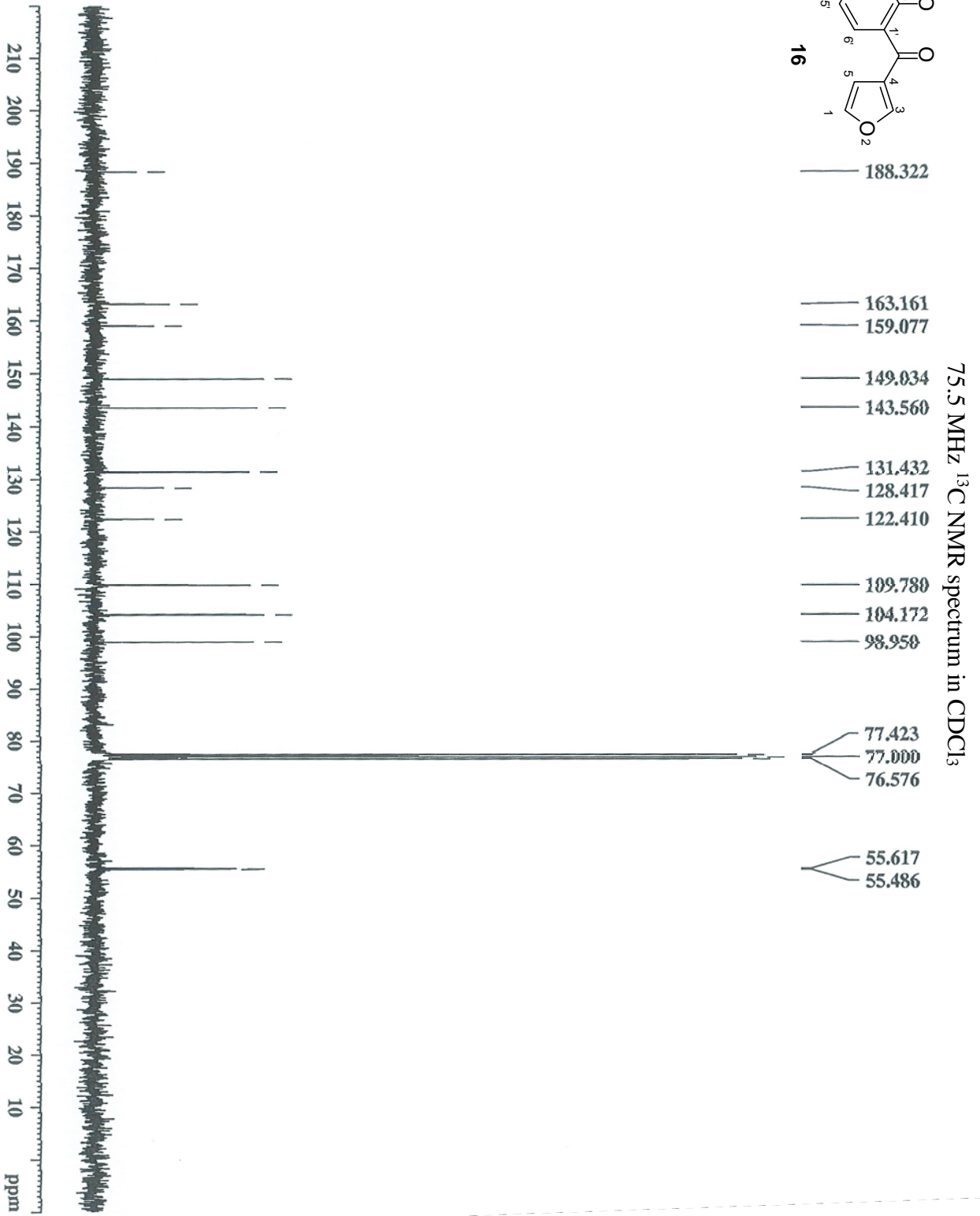
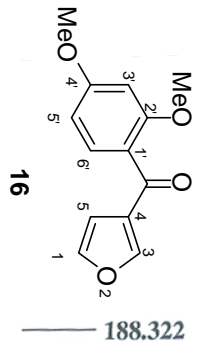
matthew.piggott@uwa.edu.au

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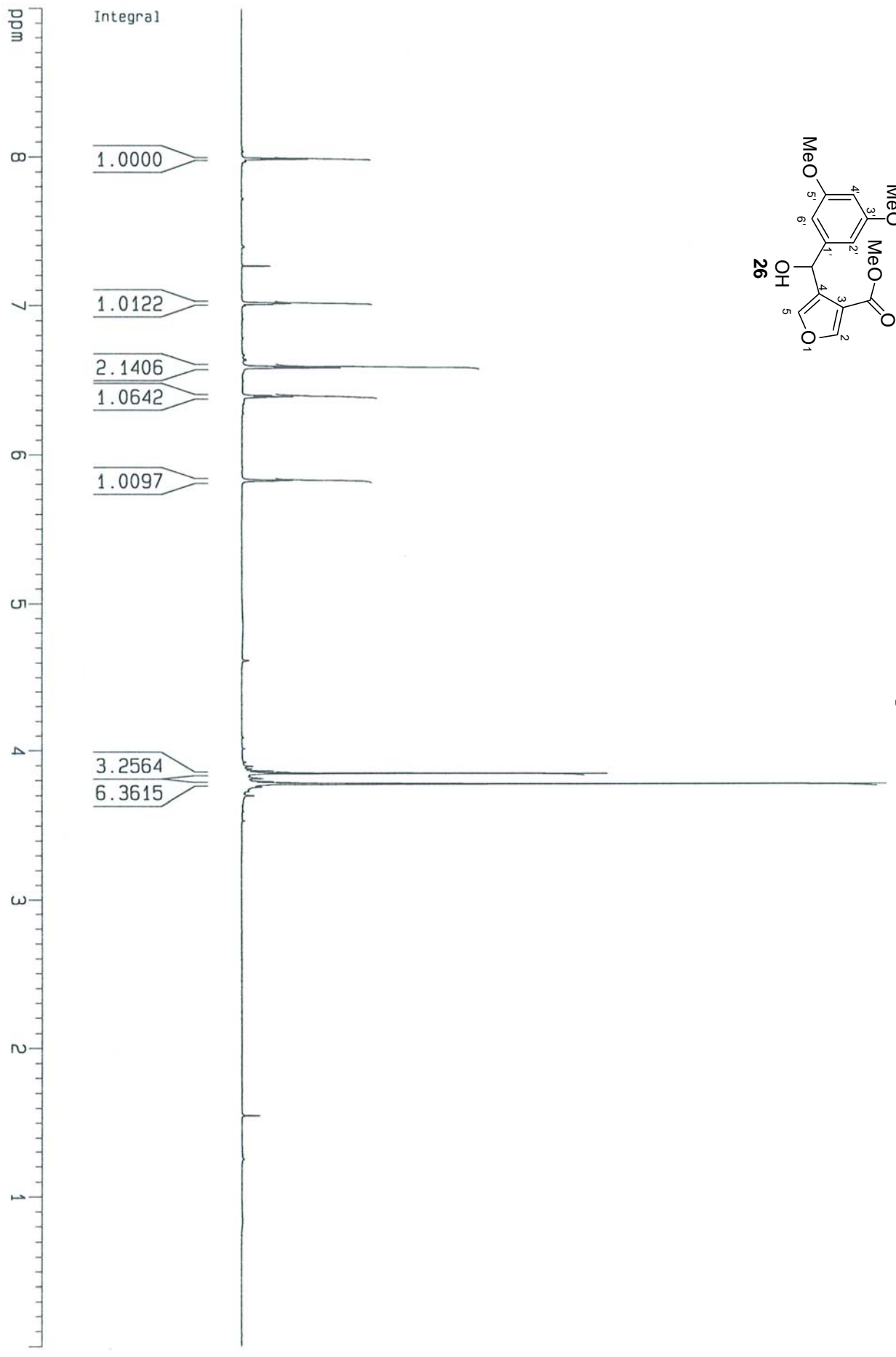
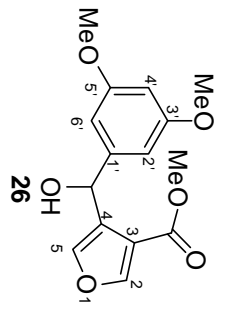
3-(2,4-Dimethoxybenzoyl)furan (16)	2
Methyl 4-[(3,5-dimethoxyphenyl)(hydroxy)methyl]-3-furoate (26)	4
Ethyl 4-(3,5-dimethoxyphenyl)-4-hydroxybut-2-ynoate (29)	6
Ethyl 4-((3,5-dimethoxyphenyl)(hydroxy)methyl)-3-furoate (31)	8
Ethyl 4-(3,5-dimethoxybenzyl)-3-furoate (32)	10
4-(3,5-Dimethoxybenzyl)-3-furoic acid (33)	12
4-(3,5-Dimethoxybenzyl)furan-3-carbonyl chloride (34)	14
8-Chloro-5,7-dimethoxynaphtho[2,3- <i>c</i>]furan-4(9 <i>H</i>)-one (36)	16
Methyl 4-(3,5-dimethoxybenzoyl)-3-furoate (37)	18
4-(3,5-Dimethoxybenzoyl)-3-furoic acid (38)	20
Furo[3,4- <i>c</i>]furan-1,3-dione (41)	22
4-(Benzyl(methyl)carbamoyl)-3-furoic acid (42)	24
(<i>Z</i>)-Ethyl 4-(3,5-dimethoxyphenyl)-4-oxobut-2-enoate (44)	25
Ethyl 4-(3,5-dimethoxyphenyl)-4-oxobut-2-ynoate (43)	27
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4-(3,5-Dimethoxybenzoyl)furan-3-carbonyl chloride (51)	31
5-Hydroxy-7-methoxynaphtho[2,3- <i>c</i>]furan-4,9-dione, (<i>monosporascone</i>) (4)	33
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300 MHz ¹H NMR spectrum in CDCl₃

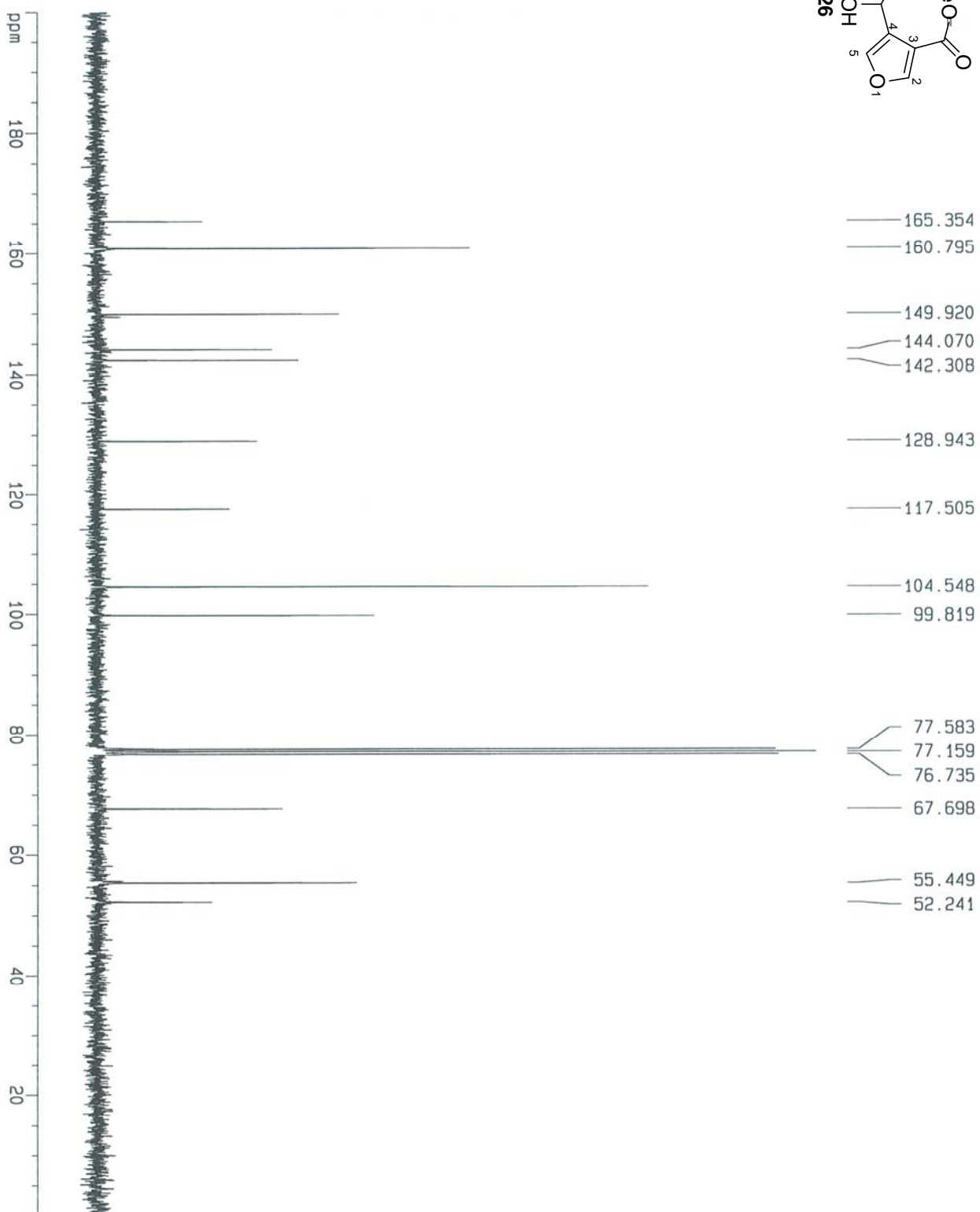
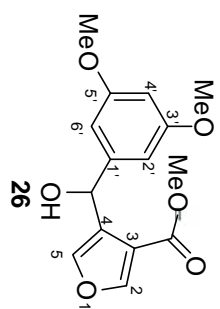




300 MHz ¹H NMR spectrum in CDCl₃



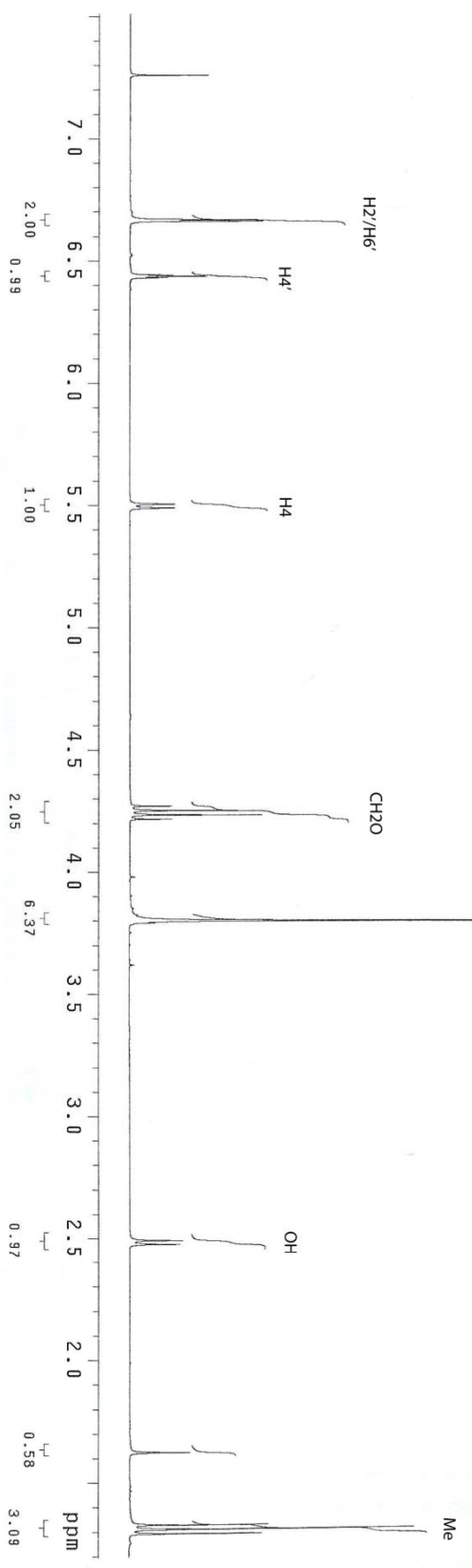
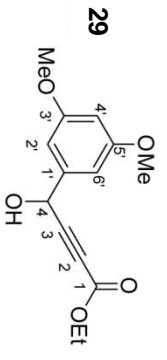
75.5 MHz ^{13}C NMR spectrum in CDCl_3



Automation directory: /home/piggott/nmr/sys/data/au
File : kap03-006-030 /data/mg-Prot_01.f1d
Sample : kap03-006-0301
Sample : kap03-006-03
Pulse Sequence: s2pu1

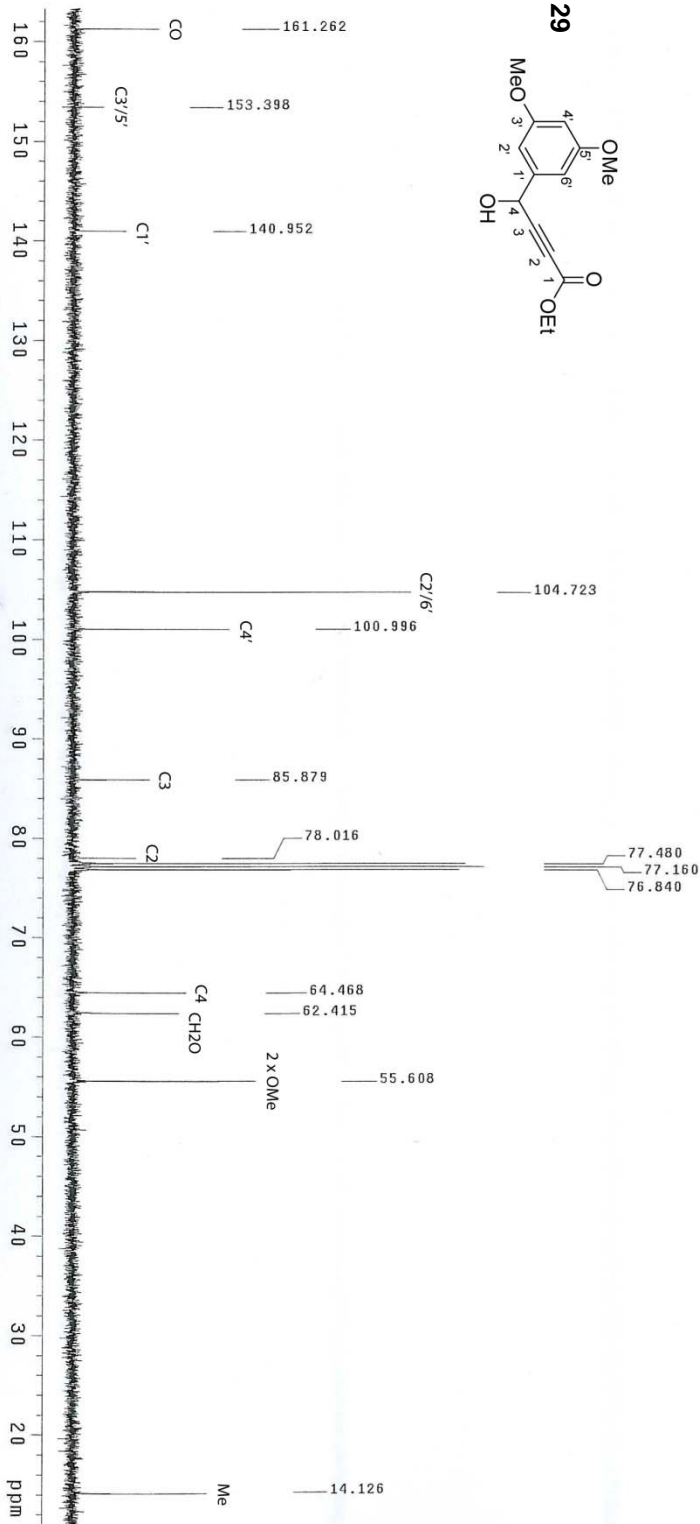
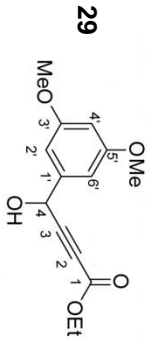
400 MHz ¹H NMR spectrum in CDCl₃

2 x OMe



100 MHz ¹³C NMR spectrum in CDCl₃

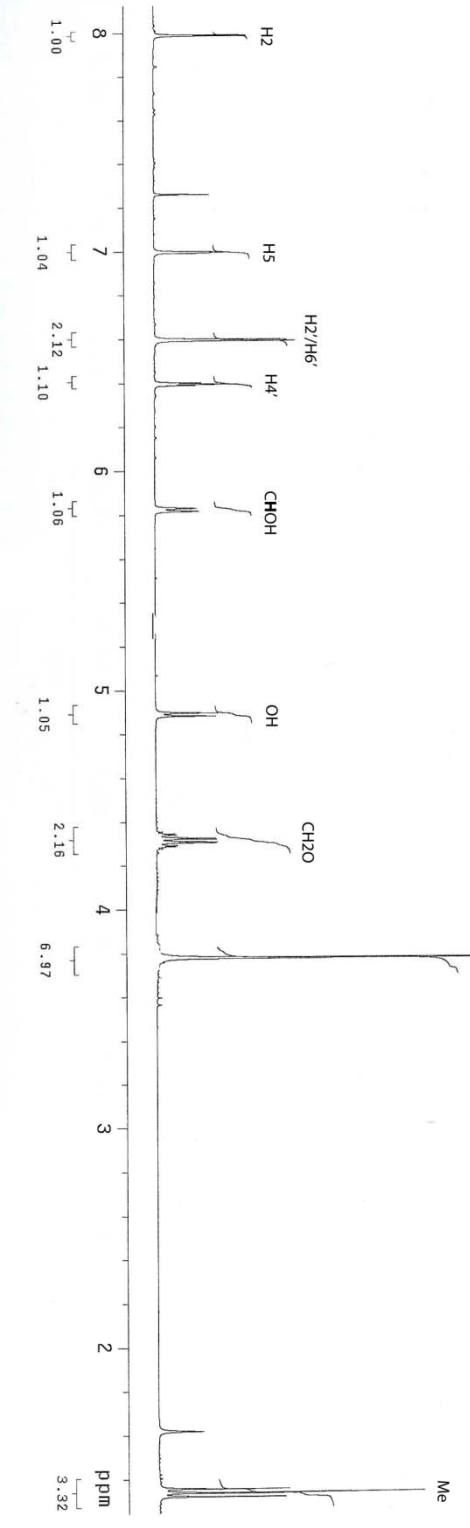
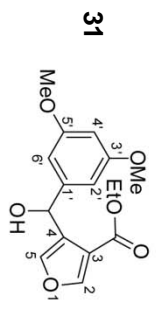
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 File : exp
 Sample id : tmpstudy
 Sample : kap03-006-03
 Pulse Sequence: s2put
 Solvent: cdcl3
 Temp: 25.0 C / 298.1 K
 Operator: pigott
 VNMRS-400 "Var400"
 Relax: delay 1.000 sec
 Pulse 45.0 degrees
 Acq: time 1.300 sec
 Width 24509.8 Hz
 192 repetitions
 OBSERVE G13, 100.5492942 MHz
 OBSERVE H1, 399.5975250 MHz
 Power 43 dB
 continuously on
 WALTZ-16 modulated
 DATA PROCESSING
 Line broadening 0.5 Hz
 FT size 65536
 Total time 38 min, 29 sec



400 MHz ¹H NMR spectrum in CDCl₃

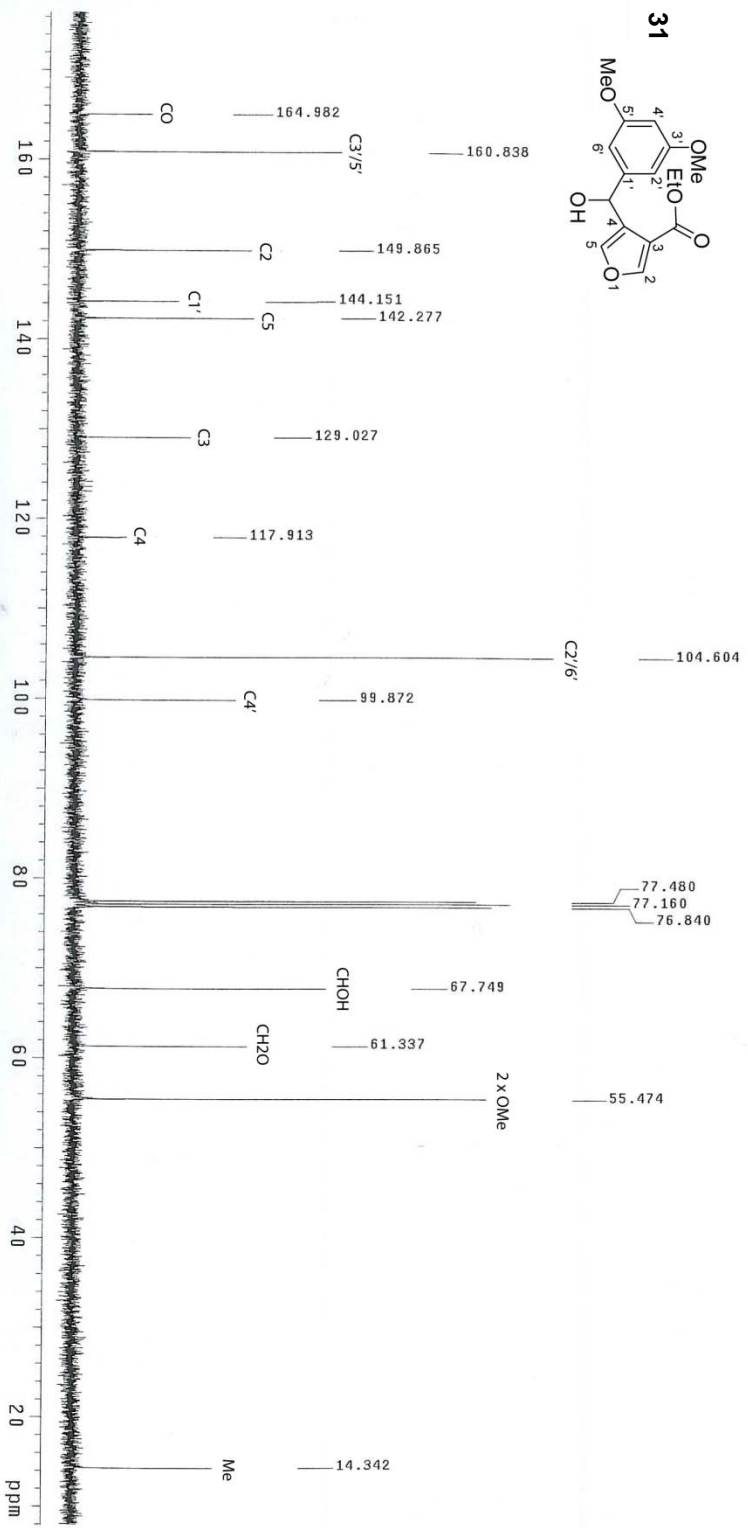
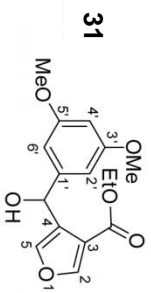
2 x OMe

Automation directory: /home/piiggott/vnmrSYS/data/aut0_2007.11.12.03
 File: /home/piiggott/piiggott/piiggott_nmr_data/kap/kap05-020-03.f1d
 Sample id: kap05-020-03
 Sample: kap05-020-03
 Pulse Sequence: s2pu1
 Solvent: cdcl3
 Temperature: 298.1 K
 Operator: piiggott
 File: kap05-020-03
 VNMRS-400 "Var-400"
 Relax, delay 5.000 sec
 Pulse 45.0 degrees
 Acq. time 4.992 sec
 Width 6410.3 Hz
 16 repetitions
 OBSERVE H1, 399.8555161 MHz
 DATA PROCESSING
 Line broadening 0.5 Hz
 FT size 131072
 Total time 3 min, 0 sec



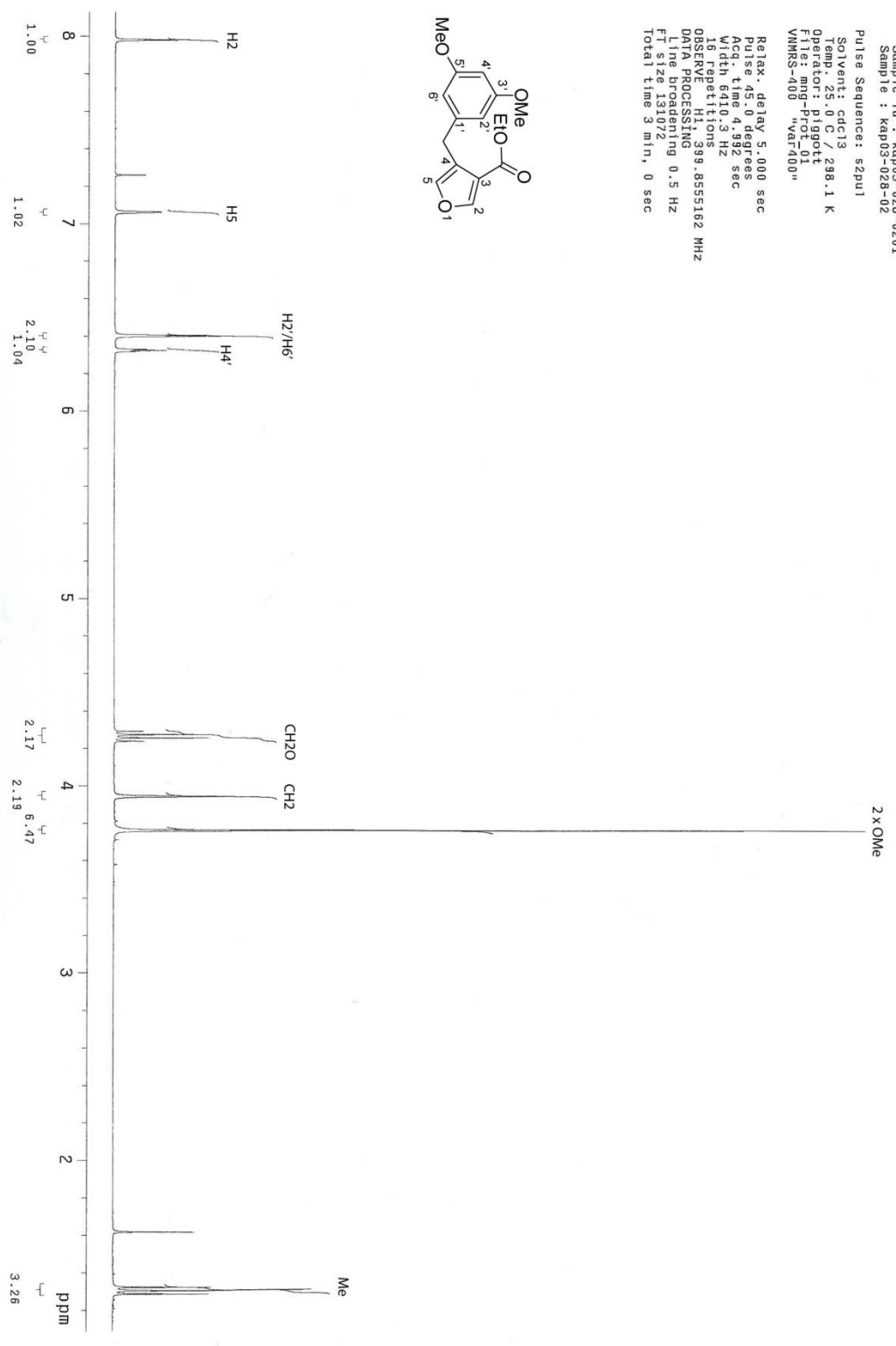
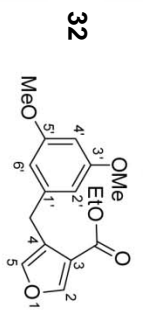
100 MHz ¹³C NMR spectrum in CDCl₃

Automation directory: /home/pijgott/vnmrSYS/data/auto_2007.11.12_03
 File : exn
 Sample id : tmpstudy
 Sample : kap03-020-03
 Pulse Sequence: s2pul1
 Solvent: cdcl3
 Temp: 25.0 C / 298.1 K
 Operator: pijgott
 VNMRS-400 "var400"
 Relax: delay 1.000 sec
 Pulse 45.0 degrees
 Acq: time 1.300 sec
 Width 24509.8 Hz
 112 repetitions
 OBSERVE CH3, 100.5497350 MHz
 DECPROG zgpg30, 399.6575230 MHz
 Power 43 dB, continuously on
 WALTZ-16 modulated



400 MHz ¹H NMR spectrum in CDCl₃

Automation directory: /home/pi/gott/vnmr/sy/data/auto_2007.11.14
 File : kap03-028-028 /data/mg-Prot_01.tid
 Sample : kap03-028-028
 Sample : kap03-028-02
 Pulse Sequence: szpu1
 Solvent: cdcl3
 Temp: 25.0 C / 298.1 K
 Operator: pi/gott
 File: mg-Prot_01
 VMRSS-400 "var400"
 Relax: delay 5.000 sec
 Pulse 45.0 degrees
 Acq. time 4.992 sec
 Width 6410.3 Hz
 16 repetitions
 OBSERVE H1, 399.8555162 MHz
 DATA PROCESSING
 Time Broadening 0.5 Hz
 Fz 233172
 Total time 3 min, 0 sec



100 MHz ¹³C NMR spectrum in CDCl₃

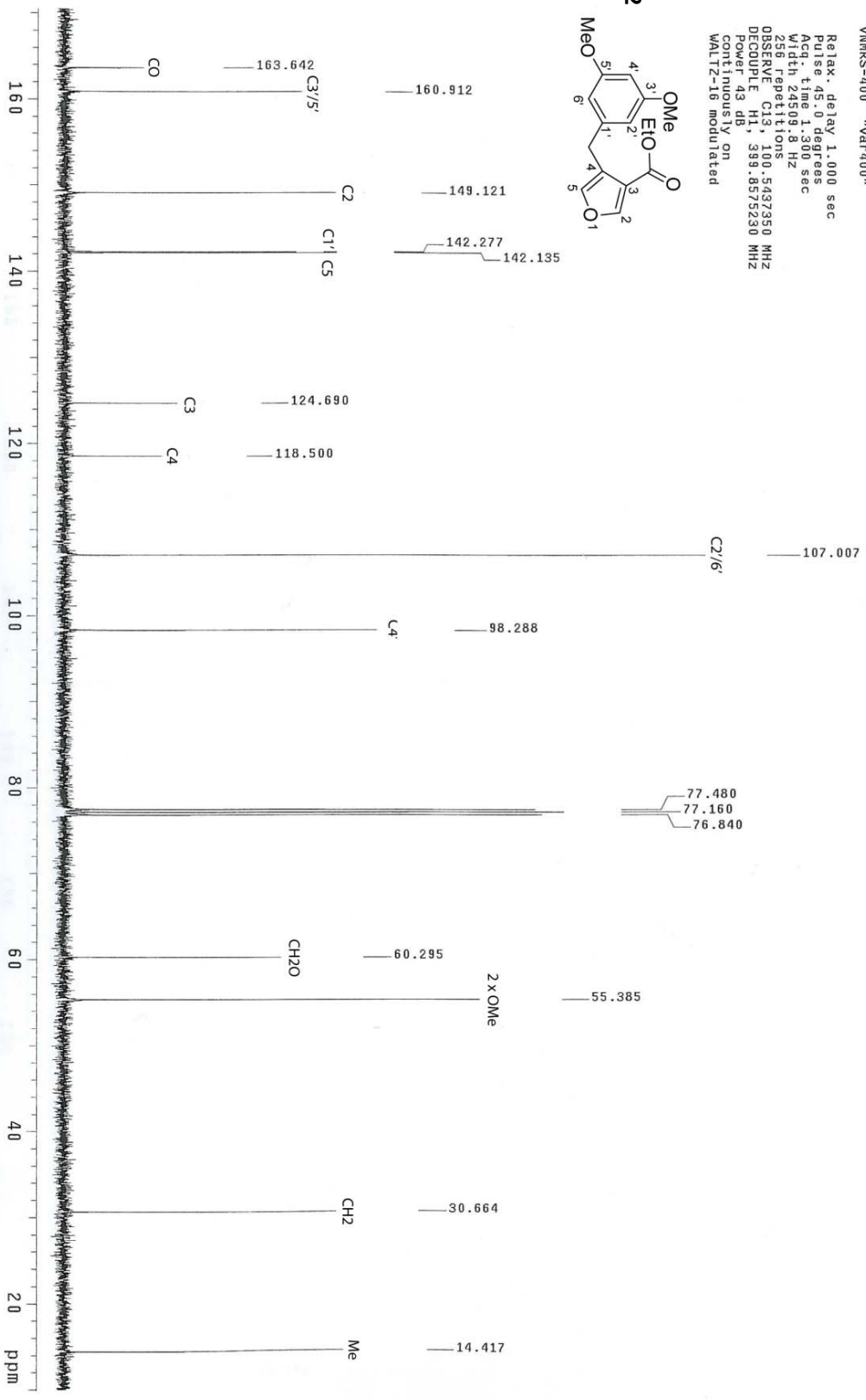
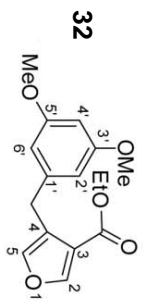
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File : exp
 Sample id : tmpstudy
 Sample : Kap03-028-02

Pulse Sequence: s2pu1

Solvent: cdcl3
 Temp: 25.0 C / 298.1 K
 Operator: pi/gott
 VMRK-400 "Var400"

Relax. delay 1.000 sec
 Pulse 45.0 degrees
 Acq. time 1.300 sec
 Width 24509.8 Hz
 258 repetitions
 OBSERVE C13, 100.5437350 MHz
 DECUPLE H1, 399.8575230 MHz
 Power 43 db
 Continuity on
 WALTZ-16 modulated



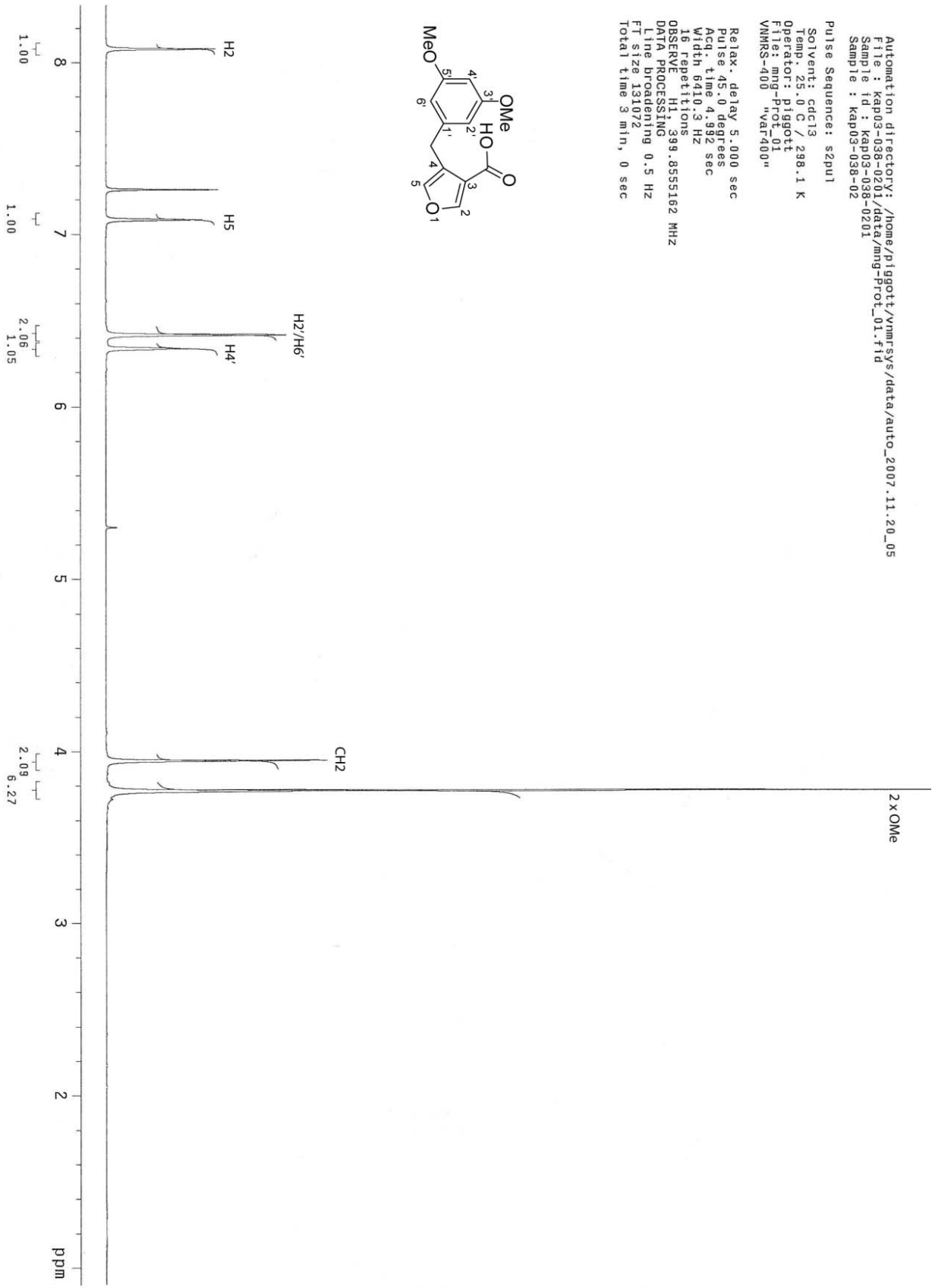
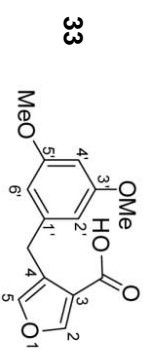
400 MHz ¹H NMR spectrum in CDCl₃

Automation directory: /home/piggott/vnmr/svs/data/auto_2007.11.20_05
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 Sample id : kap03-038-0201
 Sample : kap03-038-02

Pulse Sequence: s2pul

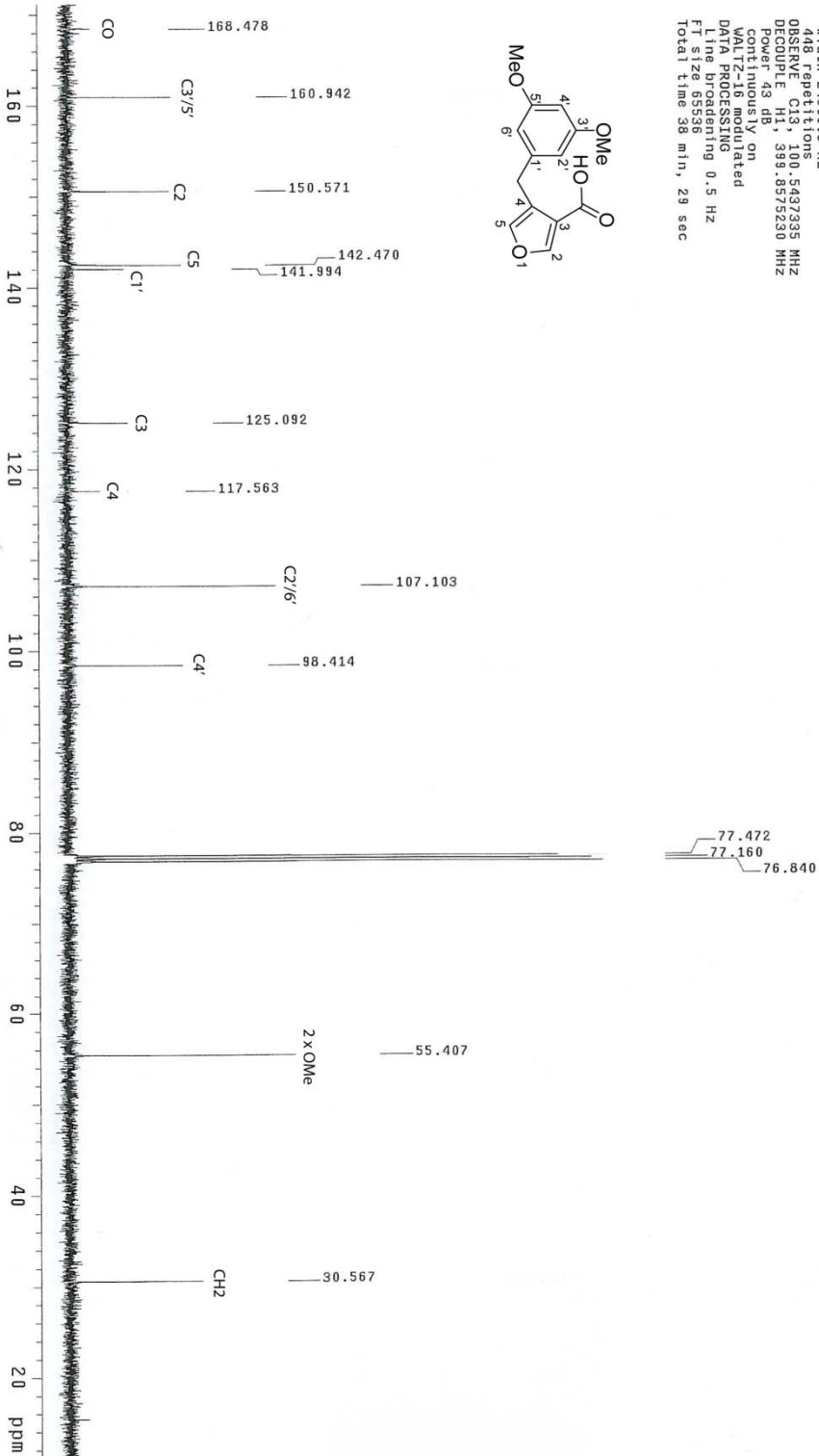
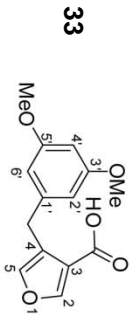
Solvent: cdcl3
 Temp: 25.0 C / 298.1 K
 Operator: piggott
 File: mng-Prot_01
 VNMR-400 "var400"

Relax . delay 5.000 sec
 Pulse 45.0 degrees
 Acq. time 4.992 sec
 Width 6410.3 Hz
 16 repetitions
 OBSERVE H1, 399.8555162 MHz
 DATA PROCESSING
 Line broadening 0.5 Hz
 FT size 131072
 Total time 3 min, 0 sec

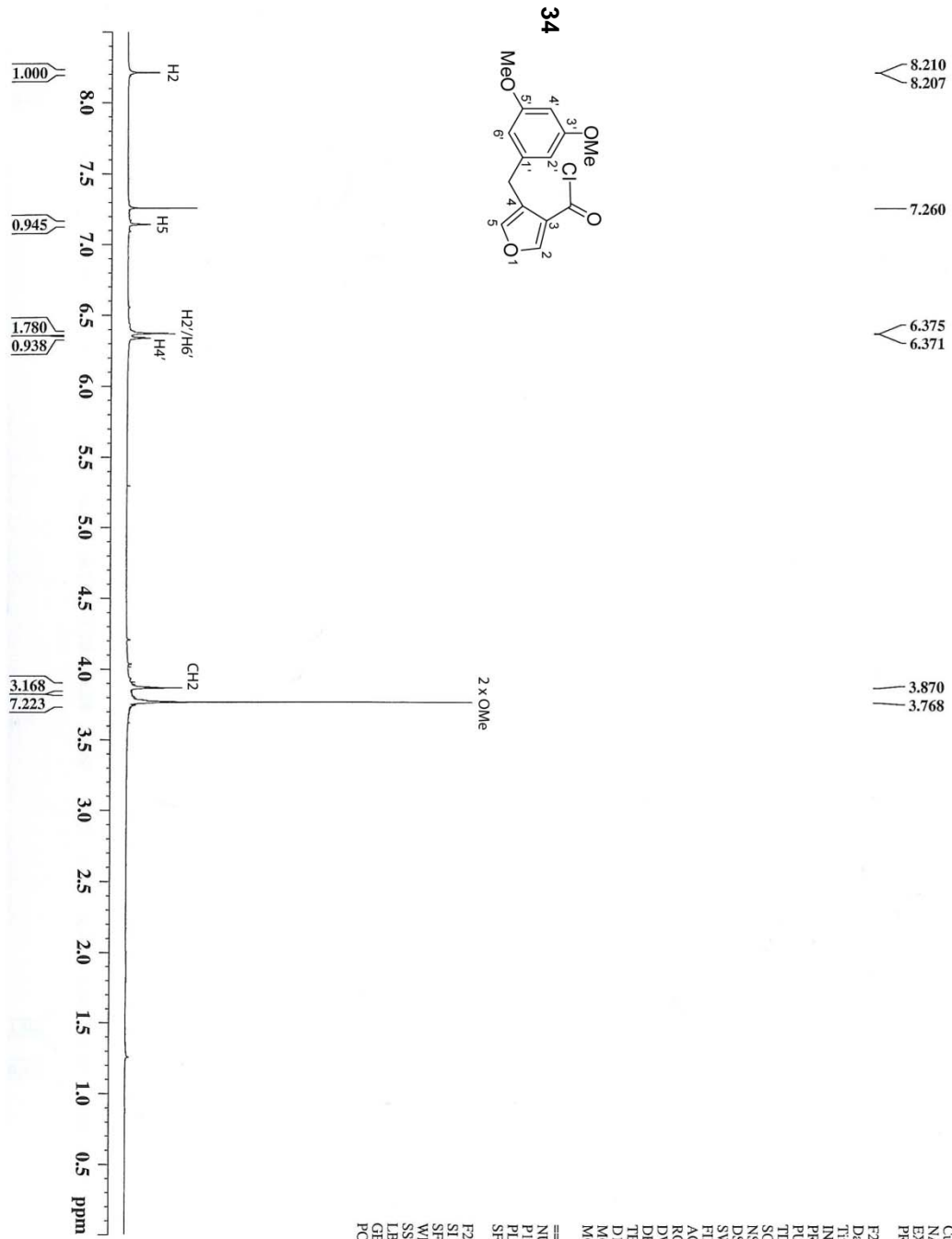


100 MHz ¹³C NMR spectrum in CDCl₃

Automation directory: /home/pigott/vnmrSYS/data/auto_2007.11.20_05
 Exp: 10
 Sample id: tmpstudy
 Sample : kap03-038-02
 Pulse Sequence: szpu1
 Solvent: cdcl3
 Temp: 25.0 C / 298.1 K
 Operator: pigott
 VNMRS-400 "var400"
 Relax. delay 1.000 sec
 Pulse 45.0 degrees
 Acq. time 1.300 sec
 Width 24509.8 Hz
 448 Repetitions
 OBSERVE C13, 100.5437935 MHz
 DECOUPLE H1, 399.8575230 MHz
 Power 43 db
 WALTZ16 only on
 WALTZ16 11000000
 DATA PROCESSING
 Line broadening 0.5 Hz
 FT size 65536
 Total time 38 min, 29 sec



400 MHz ¹H NMR spectrum in CDCl₃



8.210
8.207
7.260
6.375
6.371
3.870
3.768

H2
H5
H2/H6'
H4'
CH2
2 x OMe

1.000
0.945
1.780
0.938
3.168
7.223

8.0
7.5
7.0
6.5
6.0
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
ppm

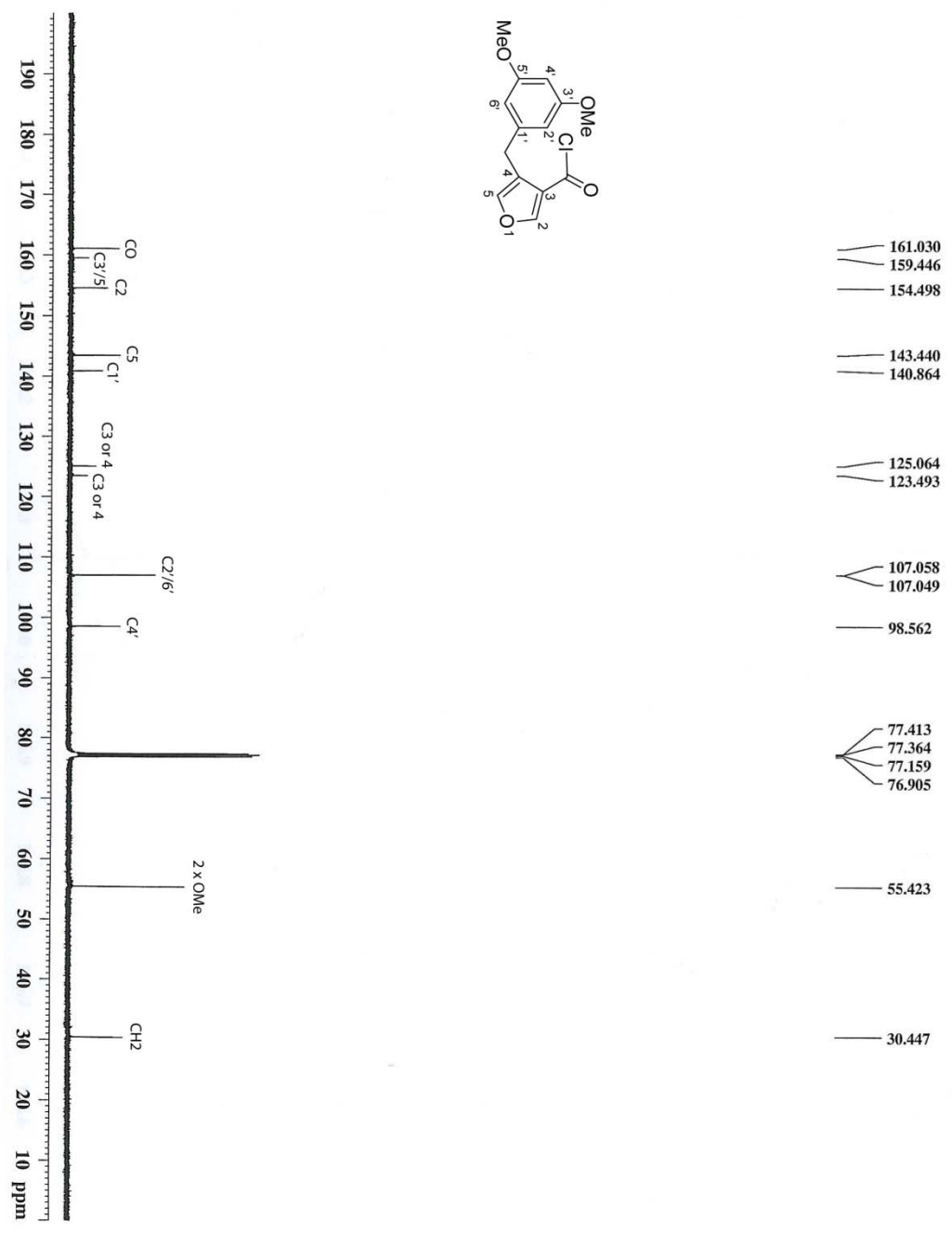
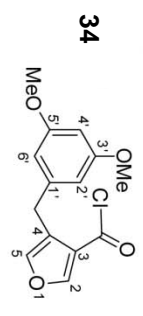
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 NAME kap05-044-02
 EXPNO 2
 PROCNO 1

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 Time 13:32
 INSTRUM spect
 PROBHD 5 mm Dual 13C/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 8
 DS 4
 SWH 7507.507 Hz
 FIDRES 0.114555 Hz
 AQ 4.3648143 sec
 RG 574.7
 DW 66.600 usec
 DE 7.50 usec
 TE 298.0 K
 D1 5.00000000 sec
 MCREST 0.00000000 sec
 MCVW 0.01500000 sec

==== CHANNEL f1 =====
 NUC1 1H
 P1 12.70 usec
 PL1 -1.00 dB
 SFO1 500.1327500 MHz

F2 - Processing parameters
 SI 65536
 SF 500.1300227 MHz
 WDW no
 SSB 0
 LB 0.00 Hz
 GB 0
 PC 1.00

100 MHz ¹³C NMR spectrum in CDCl₃



Current Data Parameters
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 EXPNO 3
 PROCNO 1

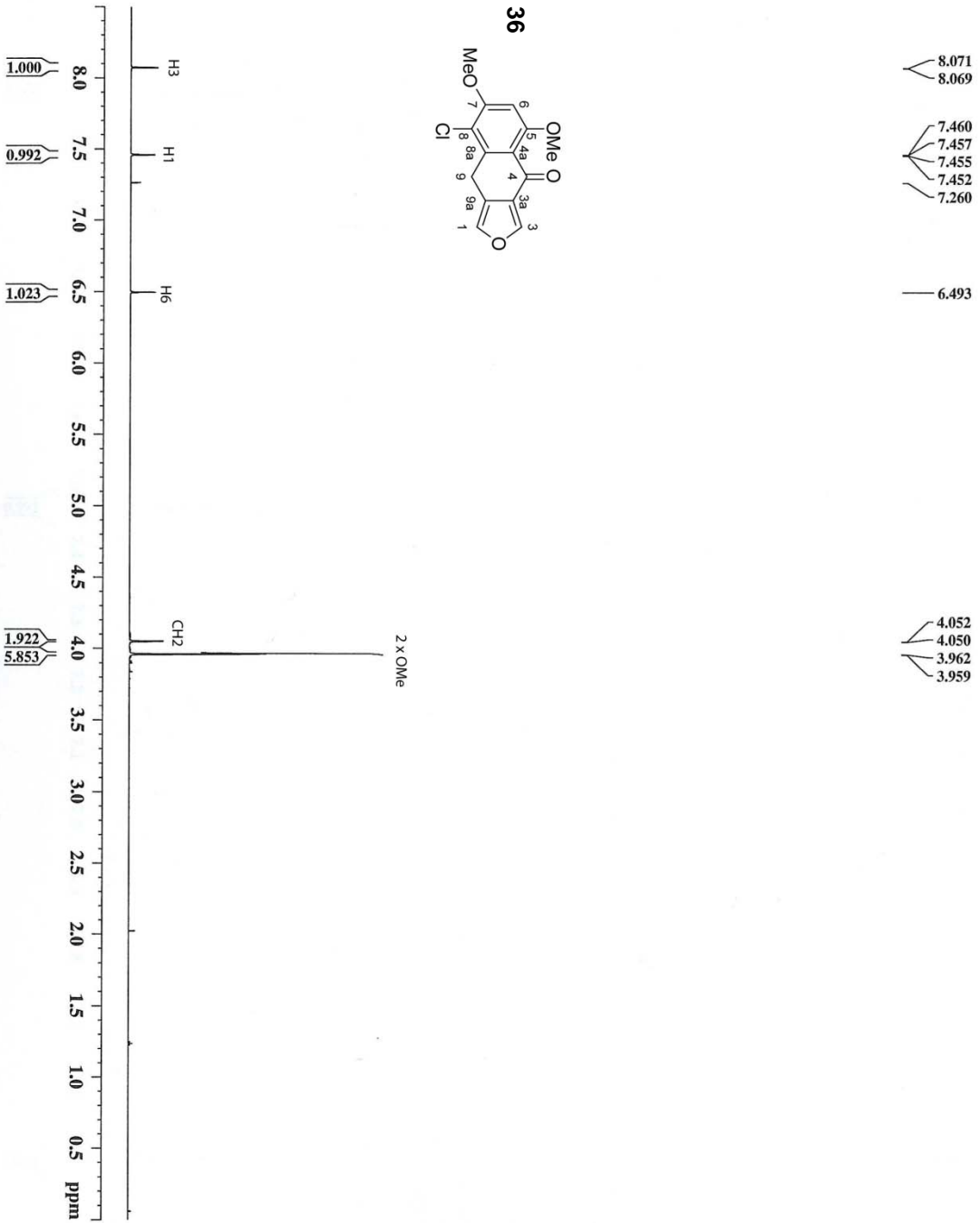
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 Date_ 20100715
 Time 14:00
 INSTRUM spect
 PROBHD 5 mm Dual 13C/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 839
 DS 4
 SWH 31446.541 Hz
 FDRRES 0.479836 Hz
 AQ 1.0420883 sec
 RG 20642.5
 DW 15.900 usec
 DE 20.00 usec
 TE 298.0 K
 D1 2.00000000 sec
 d11 0.03000000 sec
 DELTA 1.89999998 sec
 MCREST 0.00000000 sec
 MCGWIRK 0.01500000 sec

===== CHANNEL f1 =====
 NUC1 13C
 P1 14.00 usec
 PL1 2.00 dB
 SFO1 125.7709890 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 RCPD2 100.00 usec
 PL2 120.00 dB
 PL12 16.00 dB
 PL13 20.00 dB
 SFO2 500.1322500 MHz

F2 - Processing parameters
 SI 65536
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 WDW no
 SSB 0
 LB 0.00 Hz
 GB 0
 PC 1.00

600 MHz ¹H NMR spectrum in CDCl₃



```

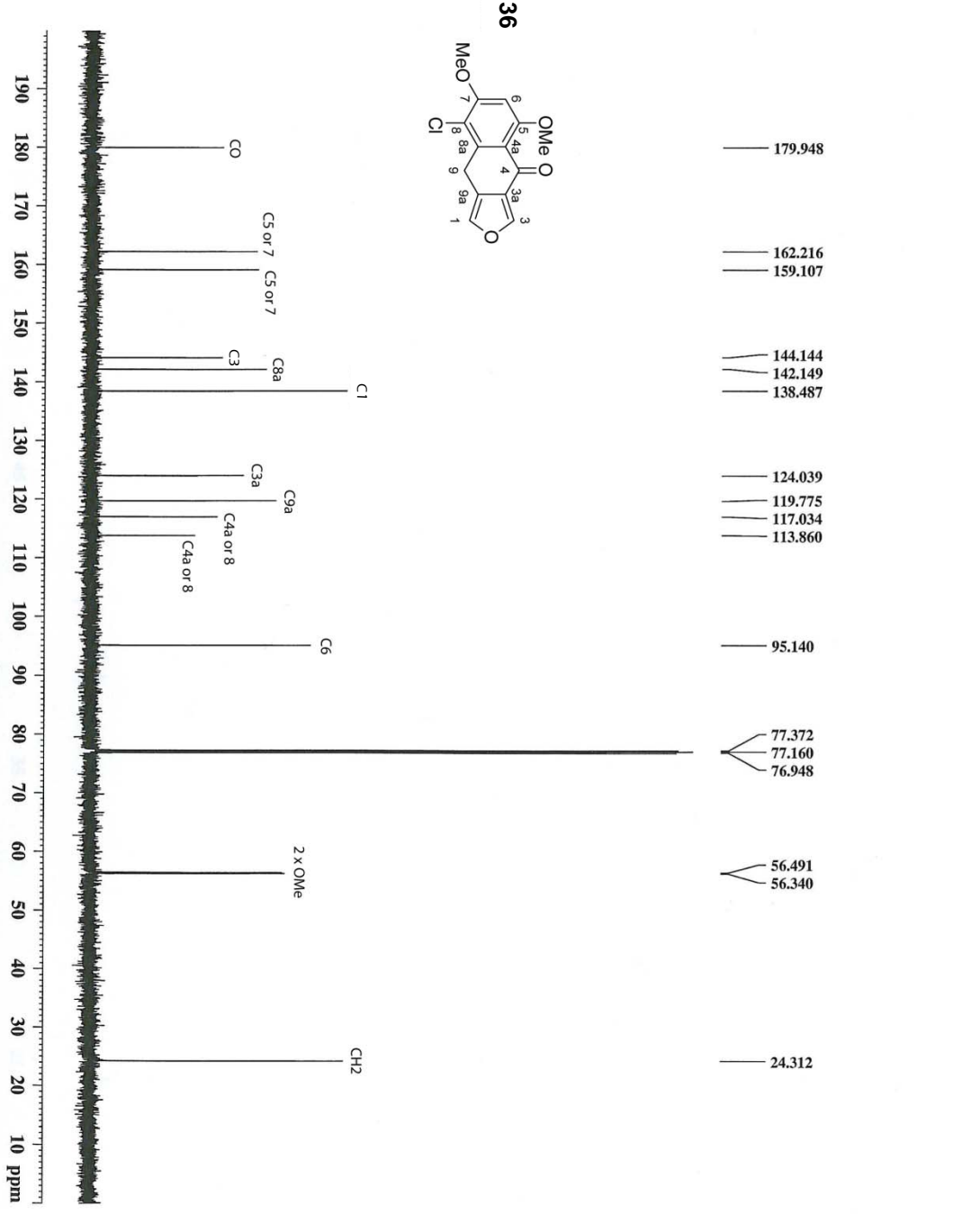
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EXPNO    2
PROCNO   1
PROCNO   1

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Time     13:30
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PULPROG  zg
TD        65536
SOLVENT  CDCl3
NS        16
DS         4
SWH       8992.318 Hz
FIDRES    0.137220 Hz
AQ        3.6439018 sec
RG         256
DE        55.600 usec
TE        298.0 K
D1        5.00000000 sec
MCREST    0.00000000 sec
MCCWRRK   0.01500000 sec

===== CHANNEL f1 =====
NUC1      1H
P1        5.00 usec
PL1       -3.00 dB
SFO1      600.1332688 MHz

F2 - Processing parameters
SI         65536
SF         600.1300162 MHz
WDW        no
SSB        0
LB         0.00 Hz
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PC         0.50
    
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151 MHz ¹³C NMR spectrum in CDCl₃



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EXPNO    3
PROCNO   1

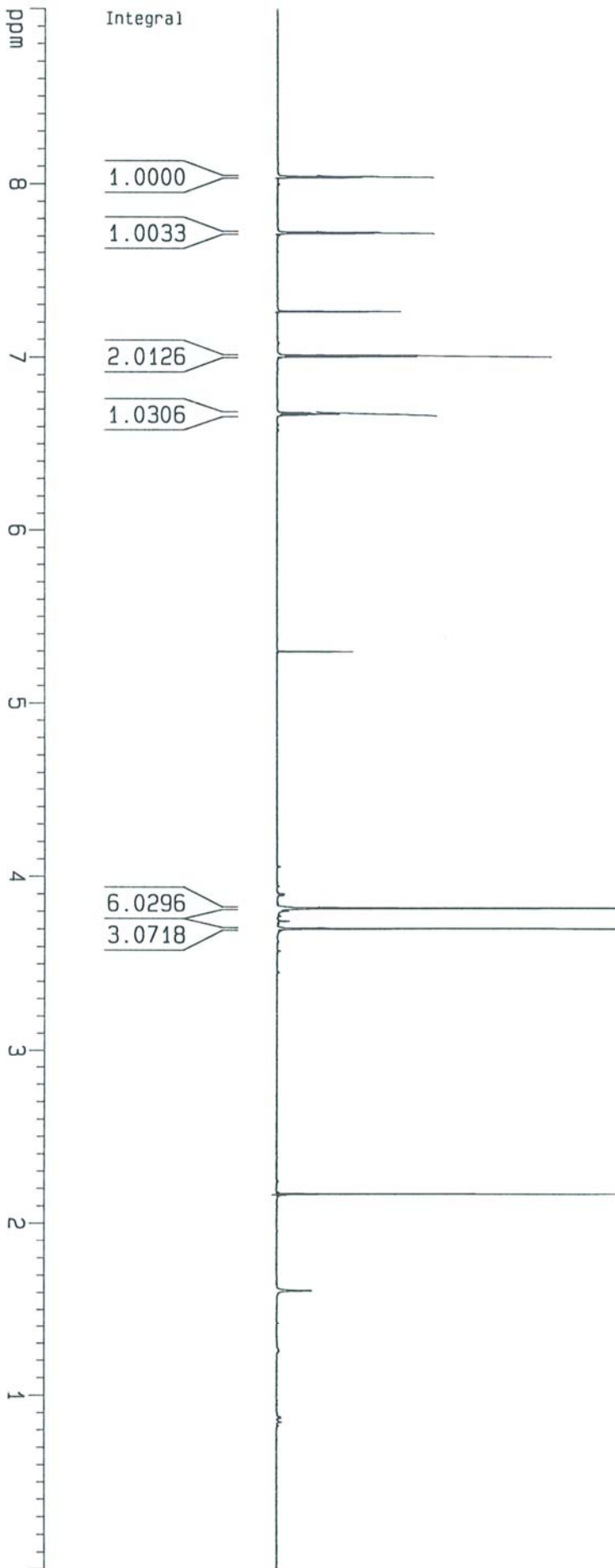
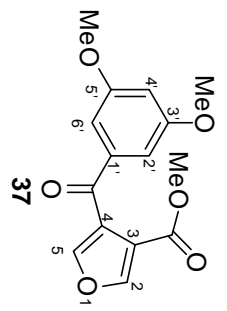
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PULPROG  zgpg
TD        65536
SOLVENT  60 CDCl3
NS        4
DS        4
SWH      37593.984 Hz
FIDRES   0.573639 Hz
AQ        0.8716921 sec
RG        16384
DW        13.300 usec
DE        7.00 usec
TE        298.0 K
D1        2.0000000 sec
d11       0.0300000 sec
DELTA    1.89999998 sec
MCREST   0.00000000 sec
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PL1       -3.00 dB
SFO1     150.9147813 MHz

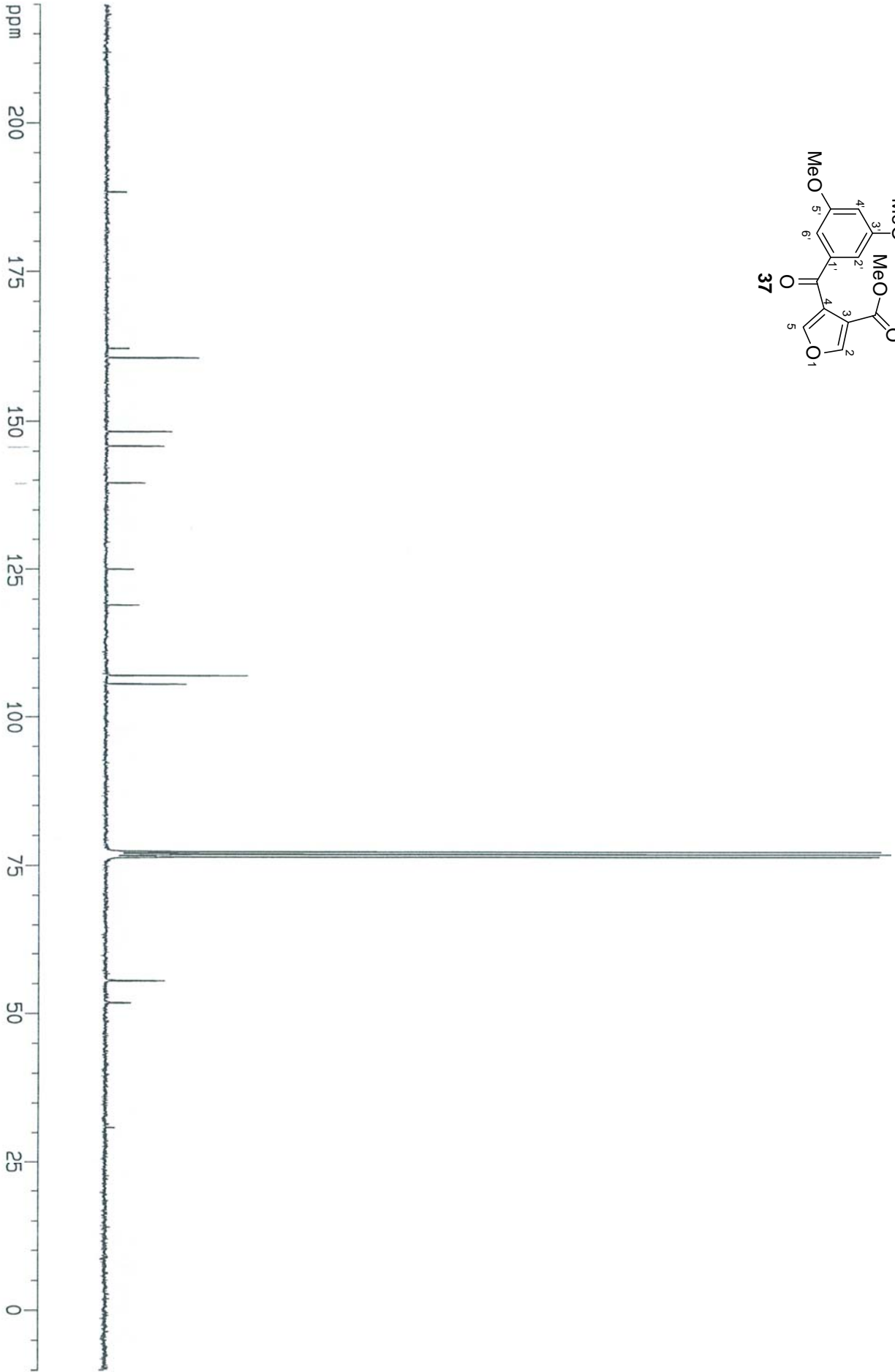
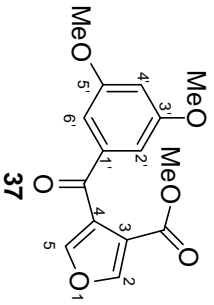
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NUC2      1H
PCPD2     100.00 usec
PL2       120.00 dB
PL12      12.70 dB
PL13      22.00 dB
SFO2     600.1324500 MHz

F2 - Processing parameters
SI        65536
SF        150.9077963 MHz
WDW       EM
SSB       0
LB        1.00 Hz
GB        0
PC        0.50
    
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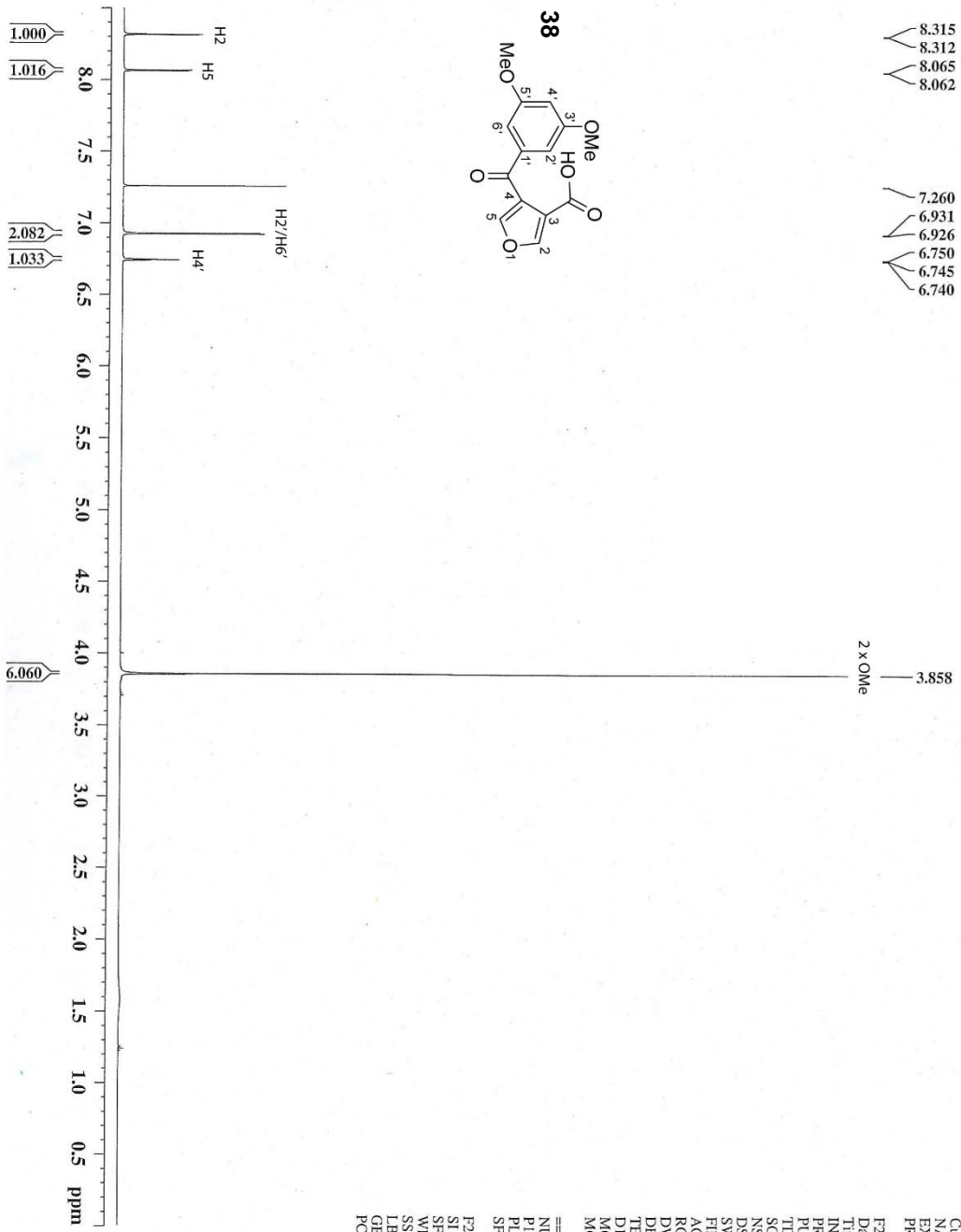
300 MHz ¹H NMR spectrum in CDCl₃



75.5 MHz ¹H NMR spectrum in CDCl₃



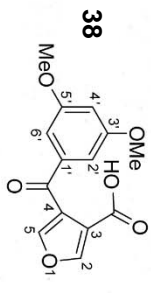
500 MHz ¹H NMR spectrum in CDCl₃



8.315
8.312
8.065
8.062
7.260
6.931
6.926
6.750
6.745
6.740

2 x OMe
3.858

1.000
1.016
2.082
1.033
6.060



```

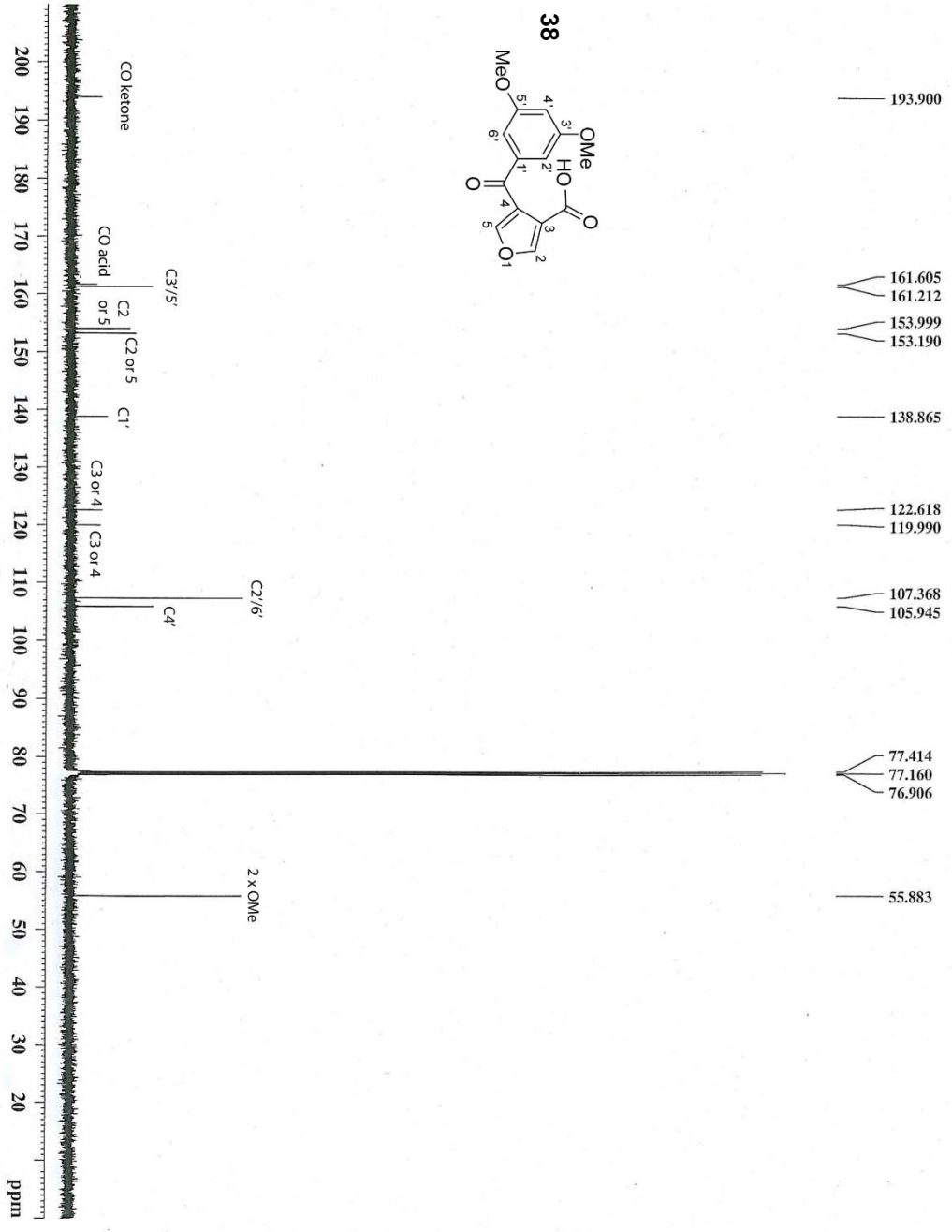
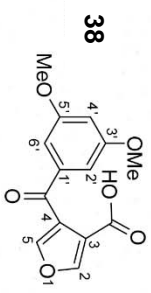
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NAME      Kap04-016-02
EXPNO    2
PROCNO   1

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Time     15:32
INSTRUM  spect
PROBHD   5 mm Dual 13C/
PULPROG  zg30
TD        65536
SOLVENT  CDCl3
NS        16
DS        4
SWH       7507.507 Hz
FIDRES    0.114555 Hz
AQ        4.3648143 sec
RG        1290.2
DE        66.600 usec
TE        298.0 K
D1        5.000000000 sec
MCREST    0.000000000 sec
MCVWRK    0.015000000 sec

===== CHANNEL f1 =====
NUC1      1H
P1        12.70 usec
PL1       -1.00 dB
SFO1      500.1327500 MHz

F2 - Processing parameters
SI        65536
SF        500.1300226 MHz
WDW       no
SSB       0
LB        0.00 Hz
GB        0
PC        1.00
    
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125.7 MHz ¹³C NMR spectrum in CDCl₃



Current Data Parameters
 NAME kap04-016-02
 EXPNO 3
 PROCNO 1

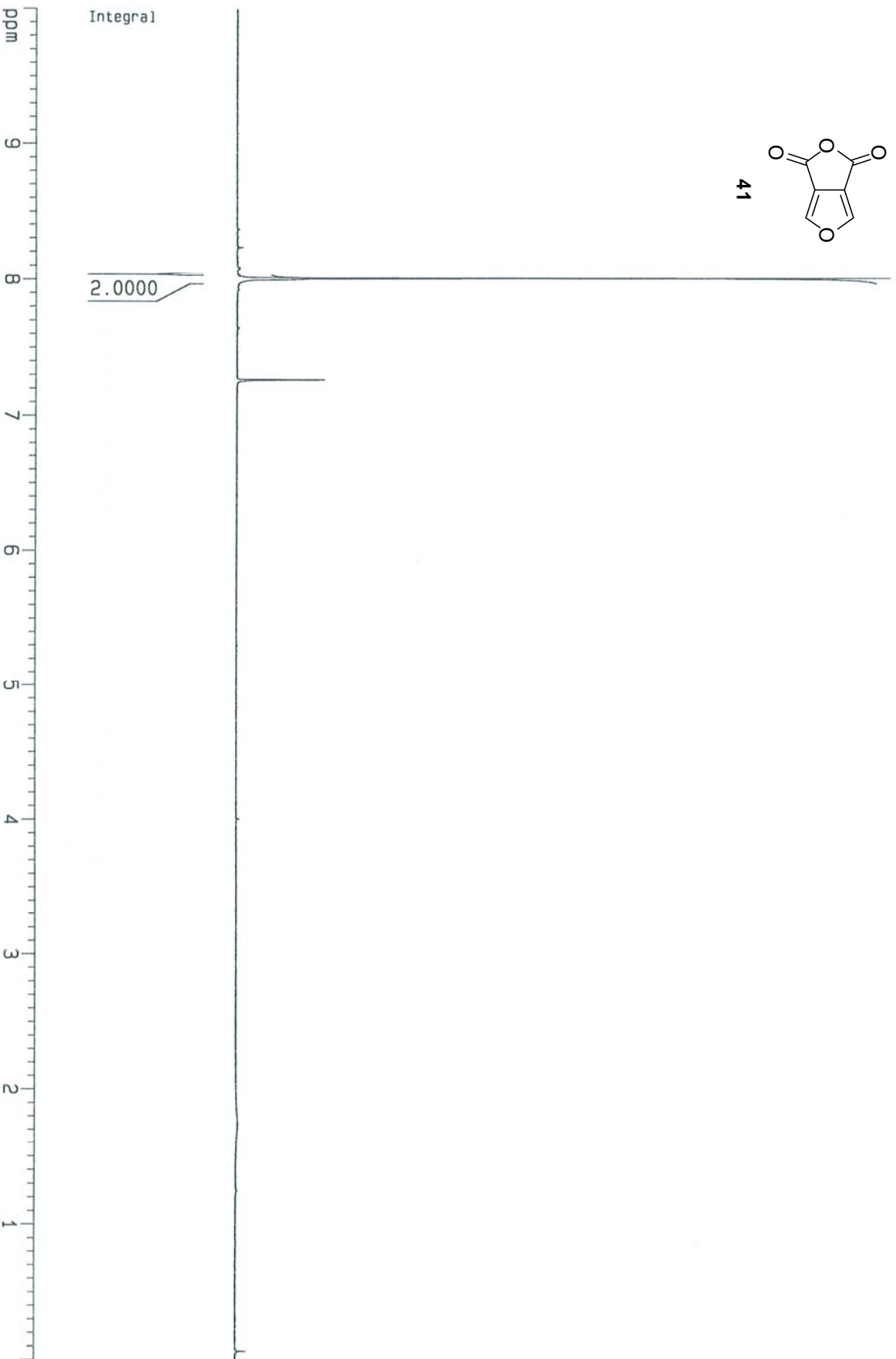
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 Time 15:37
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 PULPROG zgpg30
 TD 65536
 SOLVENT 205 CDCl3
 NS 4
 DS 4
 SWH 31446.541 Hz
 FIDRES 0.479836 Hz
 AQ 1.0420883 sec
 RG 18390.4
 DW 15.900 usec
 DE 20.00 usec
 TE 298.0 K
 D1 2.00000000 sec
 d11 0.03000000 sec
 DELTA 1.89999998 sec
 MCREST 0.00000000 sec
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===== CHANNEL f1 =====
 NUC1 ¹³C
 P1 14.00 usec
 PL1 2.00 dB
 SFO1 125.7709890 MHz

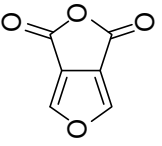
===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 ¹H
 P1 100.00 usec
 PCPD2 120.00 dB
 PL2 16.00 dB
 PL12 20.00 dB
 PL13 500.1322500 MHz
 SFO2 500.1322500 MHz

F2 - Processing parameters
 SI 65536
 SF 125.7577741 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.00

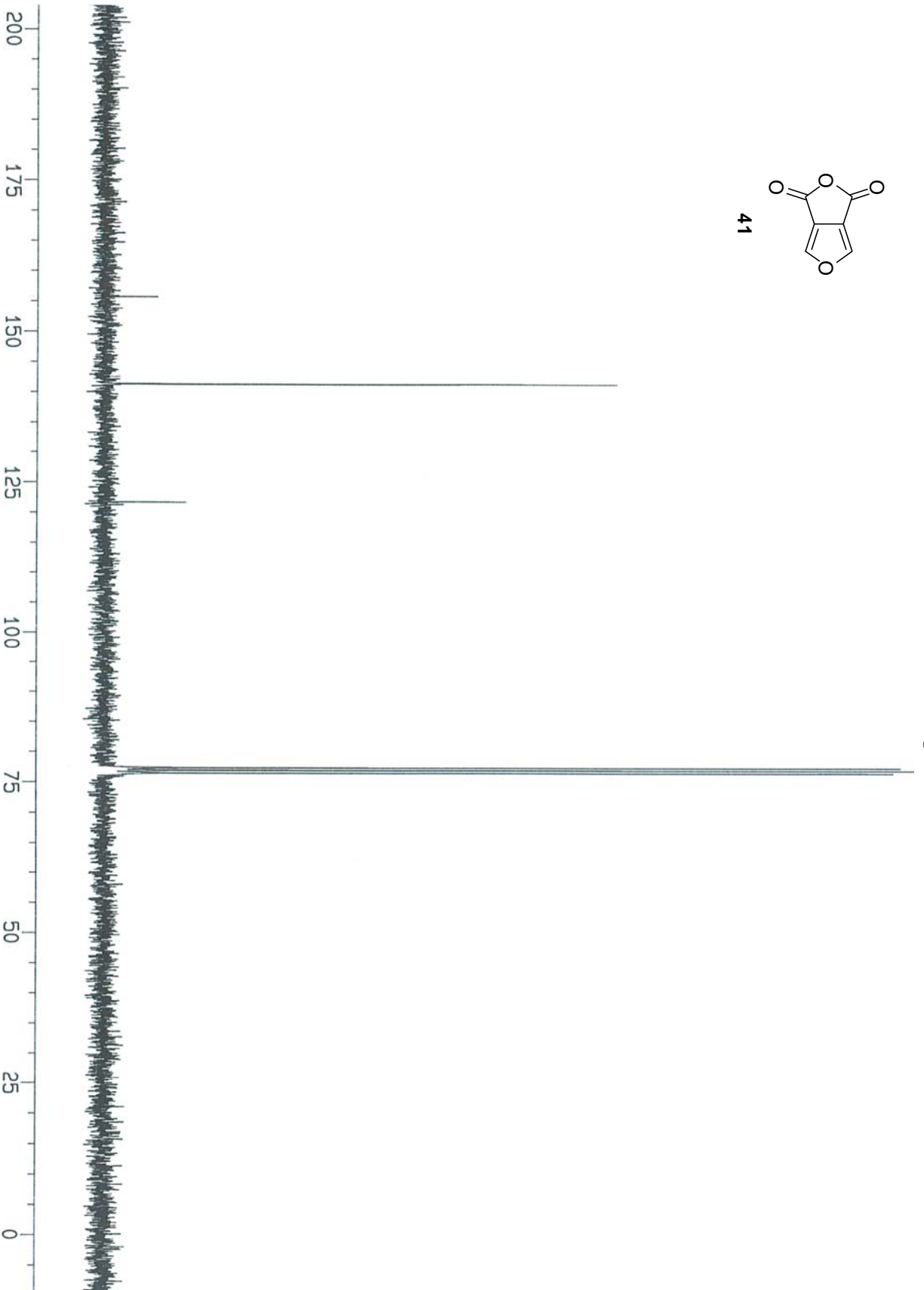
300 MHz ¹H NMR spectrum in CDCl₃



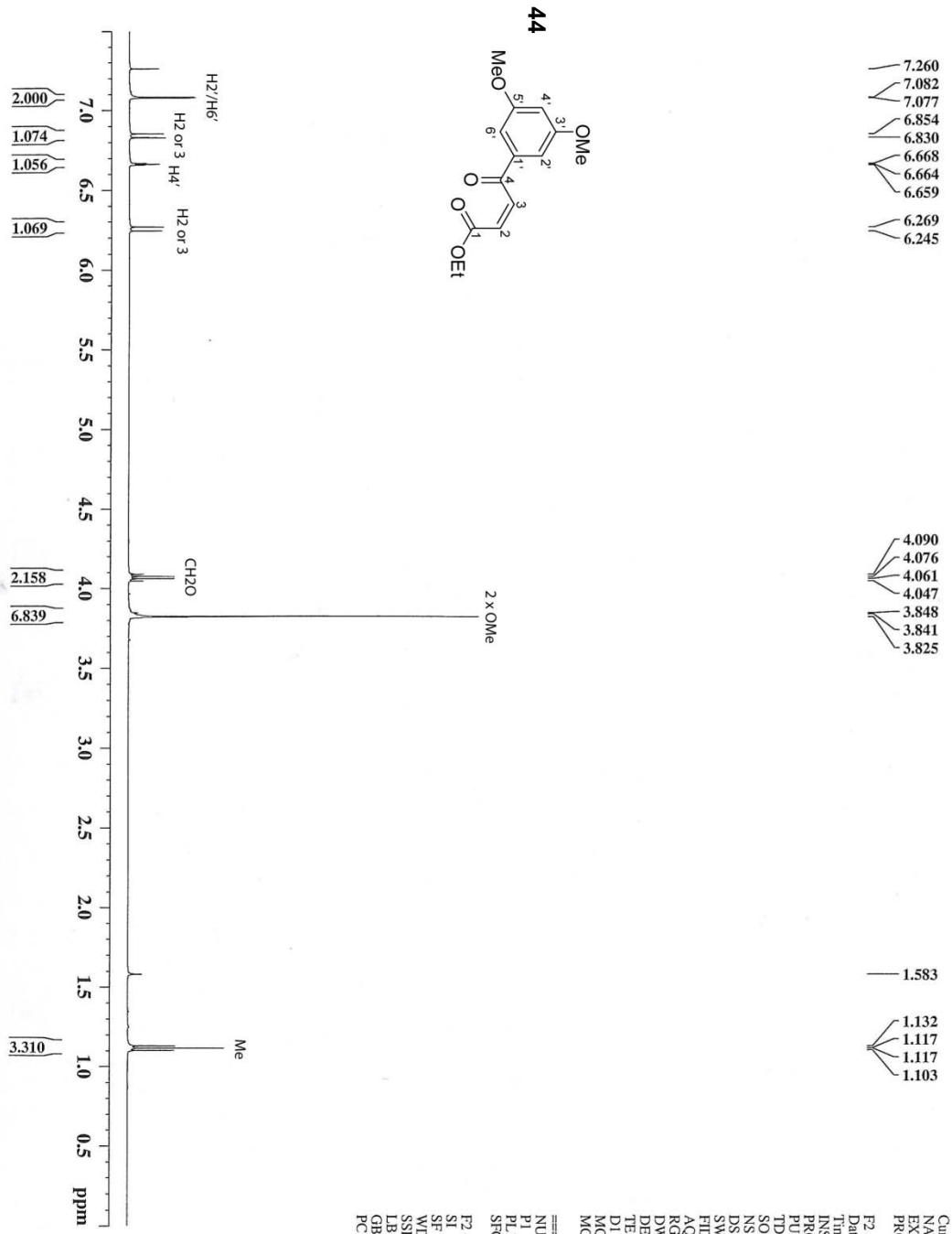
75.5 MHz ^{13}C NMR spectrum in CDCl_3



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500 MHz ¹H NMR spectrum in CDCl₃



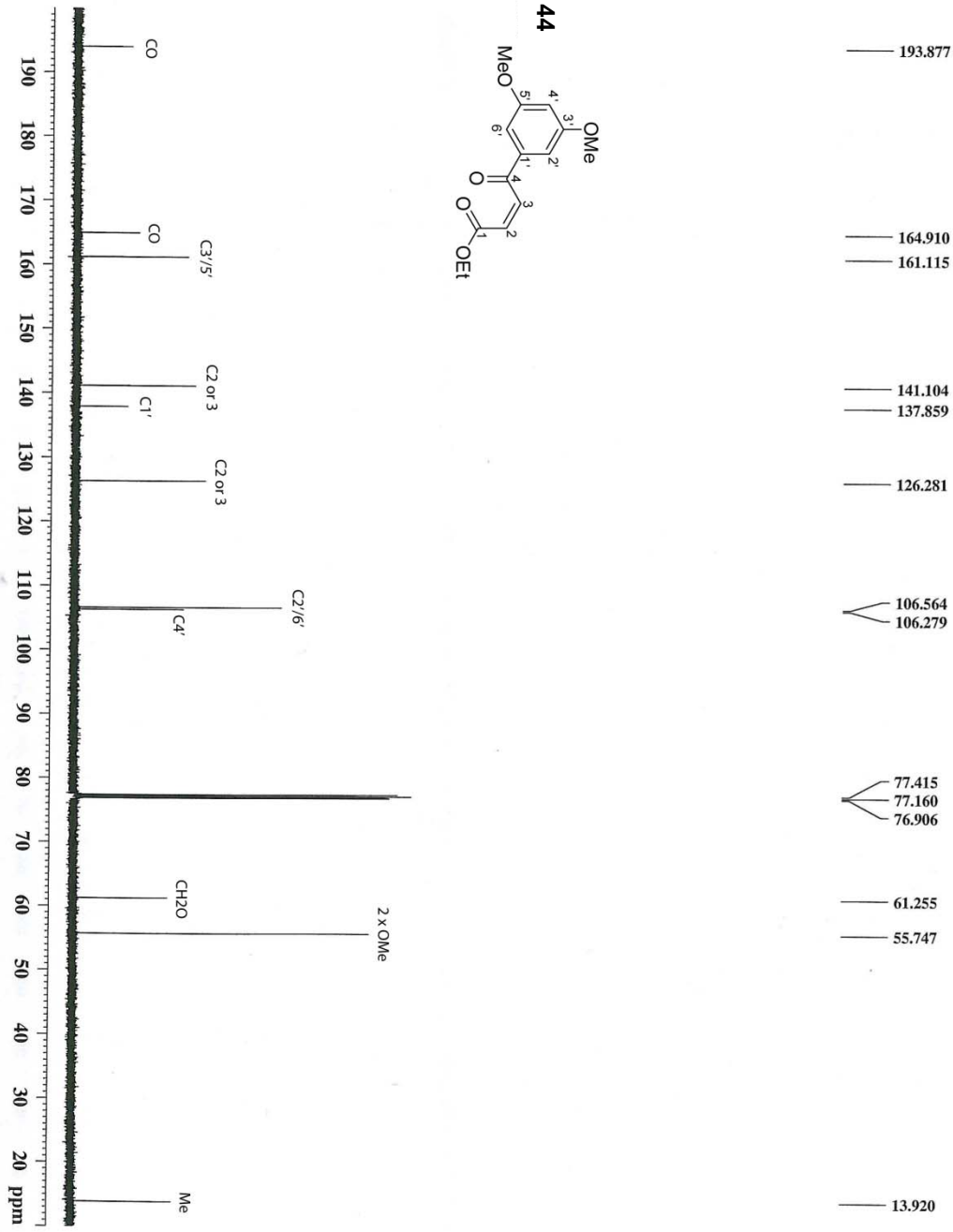
Current Data Parameters
 NAME kapalkem02
 EXPNO 2
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20101030
 Time 12.12
 INSTRUM spect
 PROBHD 5 mm Dual 13C/
 PULPROG zg30
 TD 65536
 SOLVENT 8 CDCl3
 NS 4
 DS 4
 SFO1 7501.507 Hz
 FIDRES 0.114555 Hz
 AQ 4.3648143 sec
 RG 645.1
 DE 66.600 usec
 DW 7.50 usec
 TE 298.0 K
 D1 5.00000000 sec
 MCREST 0.00000000 sec
 MCW/RK 0.01500000 sec

===== CHANNEL f1 =====
 NUC1 1H
 P1 12.70 usec
 PL1 -1.00 dB
 SFO1 500.1327500 MHz

F2 - Processing parameters
 SI 65536
 SF 500.1300231 MHz
 WDW no
 SSB 0
 LB 0.00 Hz
 GB 0
 PC 1.00

125.8 MHz ¹³C NMR spectrum in CDCl₃



Current Data Parameters
 NAME kapalkenc02
 EXPNO 3
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20101030
 Time 11.56
 INSTRUM spect
 PROBHD 5 mm Dual 13C/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 362
 DS 4
 SWH 31446.541 Hz
 FIDRES 0.479836 Hz
 AQ 1.0420883 sec
 RG 20642.5
 DW 15.900 usec
 DE 20.00 usec
 TE 298.0 K
 D1 2.00000000 sec
 d11 0.03000000 sec
 DELTA 1.89999998 sec
 MCREST 0.00000000 sec
 MCWRRK 0.01300000 sec

==== CHANNEL f1 =====
 NUC1 ¹³C
 P1 14.00 usec
 PL1 2.00 dB
 SFO1 125.7709890 MHz

==== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 ¹H
 NU2 100.00 usec
 PCPD2 120.00 dB
 PL2 16.00 dB
 PL12 16.00 dB
 PL13 20.00 dB
 SFO2 500.1322500 MHz

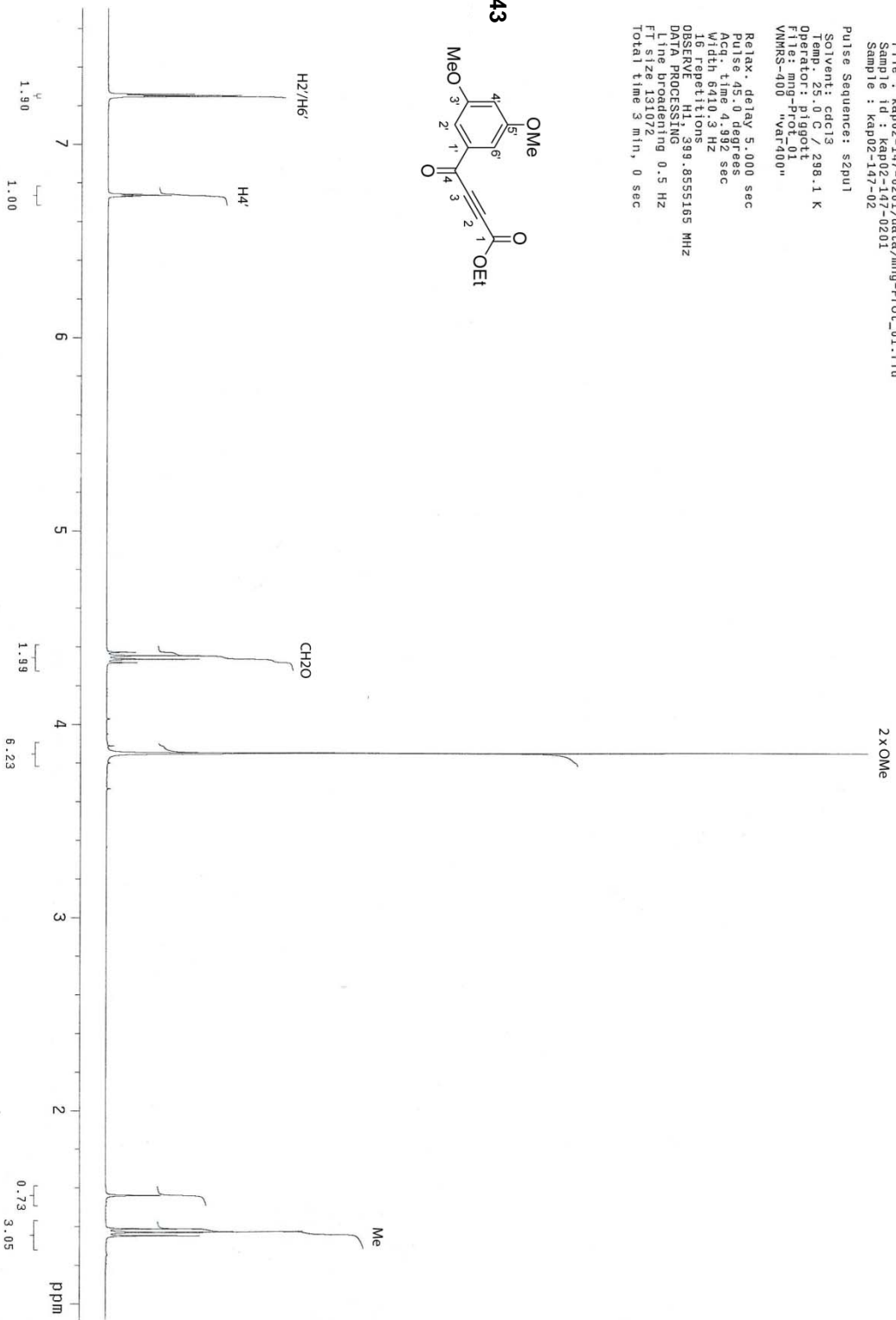
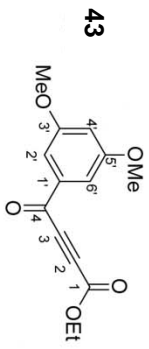
F2 - Processing parameters
 SI 65536
 SF 125.7577750 MHz
 WDW no
 SSB 0
 LB 0.00 Hz
 GB 0
 PC 1.00

400 MHz ¹H NMR spectrum in CDCl₃

Automation directory: /home/piggott/vmrcsys/data/auco_2007.11.18_02
 File: kap02-147-0201 /data/mrg-Prot_01.f1d
 Sample id: kap02-147-0201
 Sample: kap02-147-02

Pulse Sequence: s2pul
 Solvent: cdcl3
 Temp: 25.0 C / 298.1 K
 Operator: piggott
 File: mrg-Prot_01
 VNMRS-400 "var/400"

Relax. delay 5.000 sec
 Pulse 45.0 degrees
 Acq. time 4.992 sec
 Width 6410.3 Hz
 16 Repetitions
 OBSERVE: H1, 399.8555185 MHz
 PULPROG: zgpg30
 FT size: 131072
 Total time 3 min, 0 sec



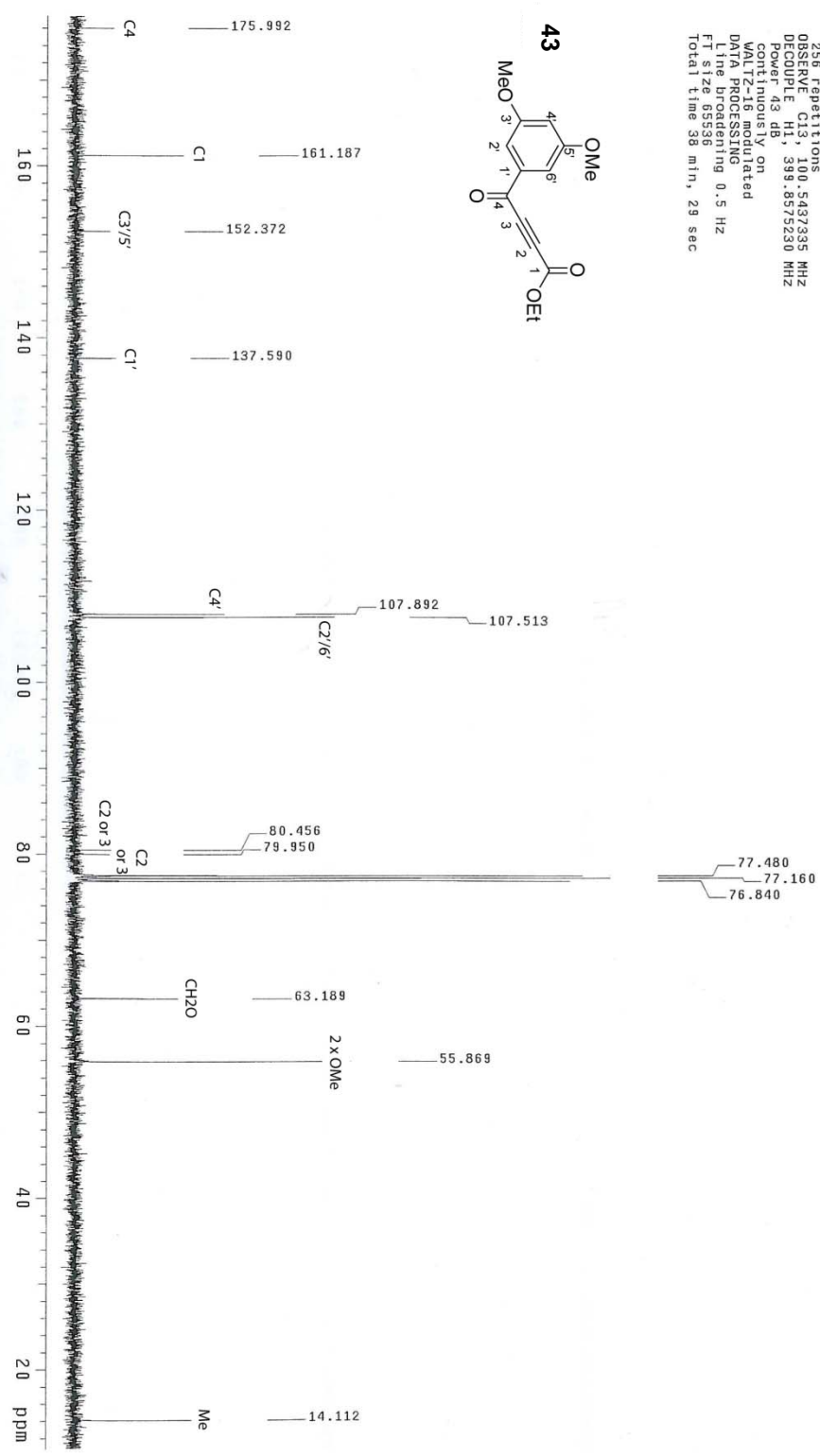
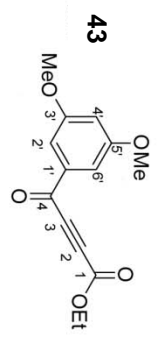
100 MHz ¹³C NMR spectrum in CDCl₃

Automation directory: /home/piggett/vnmr/sys/data/auto_2007.11.18_02

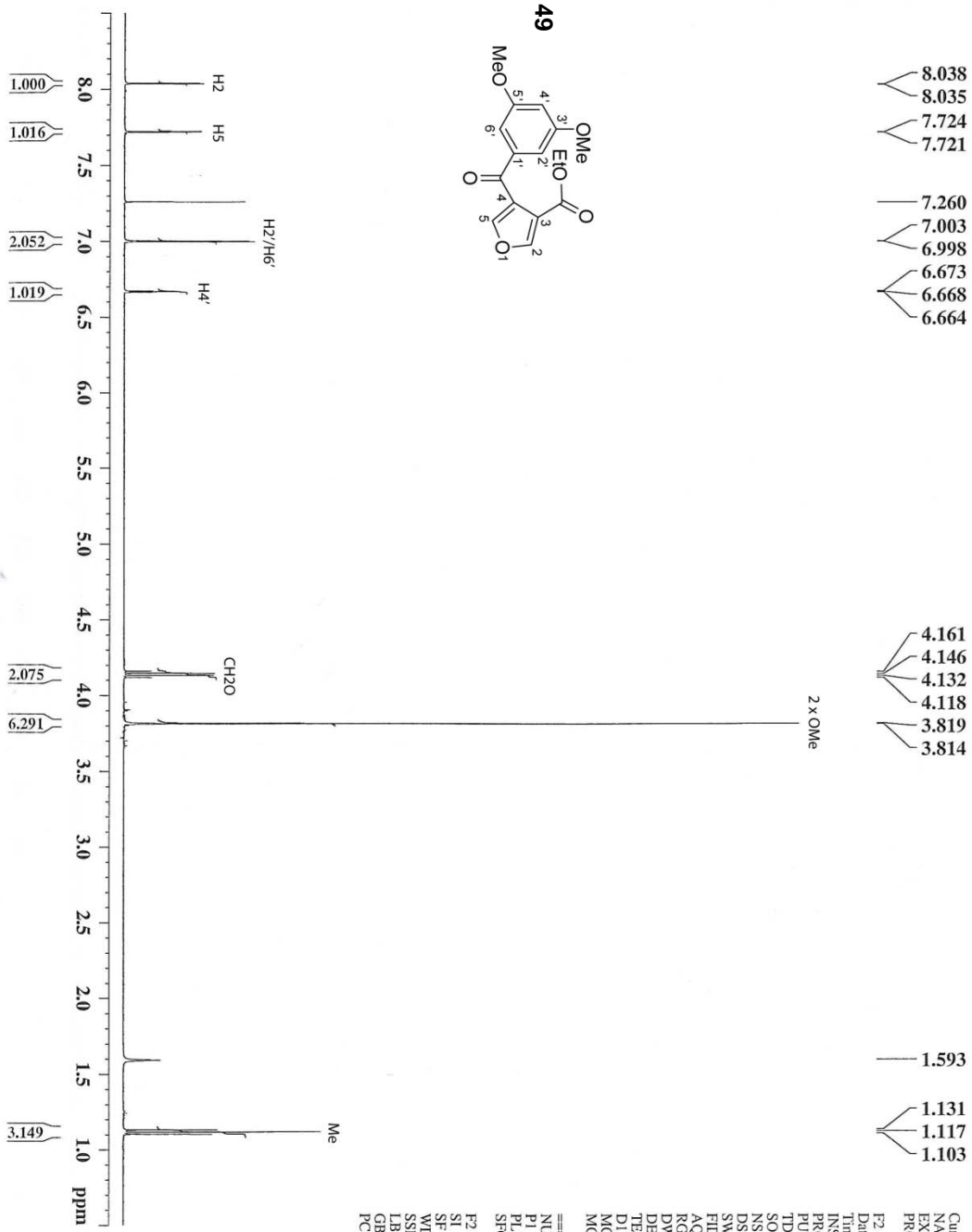
File exp
 Sample id : tmpstudy
 Sample : kap02-147-02

Pulse Sequence: s2pul
 Solvent: cdcl3
 Temp: 25.0 C / 298.1 K
 Operator: piggett
 VNMRS-400 "var400"

Relax. delay 1.000 sec
 Pulse 45.0 degrees
 Acq. time 1.300 sec
 Width 24509.8 Hz
 256 repetitions
 OBSERVE C13, 100.5437335 MHz
 DECOUPLE H1, 399.8575230 MHz
 continuously on
 WALTZ-16 modulated
 DATA PROCESSING
 Line broadening 0.5 Hz
 FT size 65536
 Total time 38 min, 29 sec



500 MHz ¹H NMR spectrum in CDCl₃



8.038
8.035
7.724
7.721
7.260
7.003
6.998
6.673
6.668
6.664

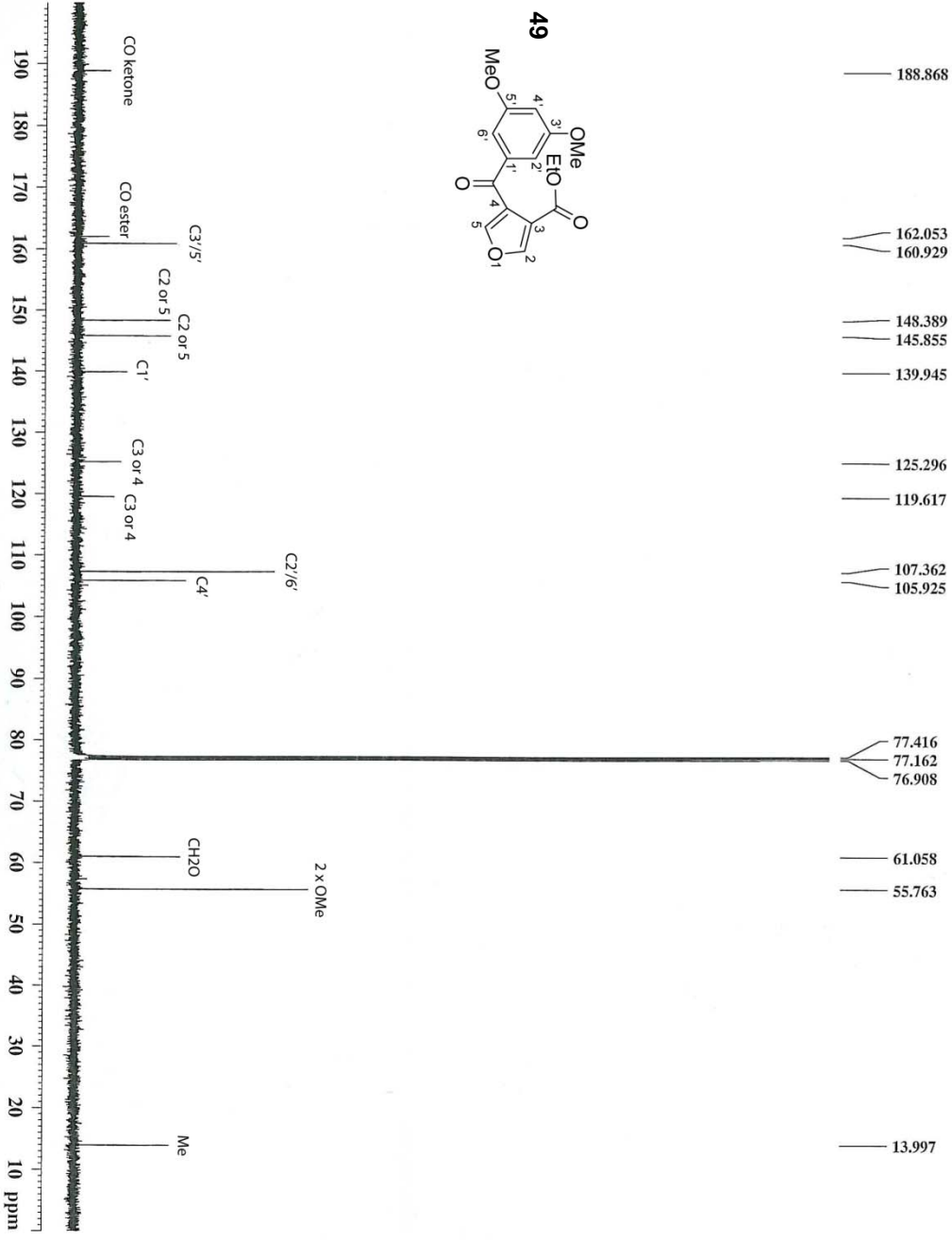
4.161
4.146
4.132
4.118
3.819
3.814

1.593

1.131
1.117
1.103

Current Data Parameters
 NAME karp03-40-02
 EXPNO 2
 PROCNO 1
 F2 - Acquisition Parameters
 Date_ 20080326
 Time_ 11.26
 INSTRUM spect
 PROBHD 5 mm DAI 13C/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 8
 DS 4
 SWH 7507.507 Hz
 FIDRES 0.114555 Hz
 AQ 4.3648143 sec
 RG 1024
 DE 66.600 usec
 DW 7.50 usec
 TE 298.0 K
 D1 5.00000000 sec
 MCREST 0.00000000 sec
 MCVW 0.01500000 sec
 MCVW2 0.01500000 sec
 ===== CHANNEL f1 =====
 NUC1 1H
 P1 12.70 usec
 PL1 -1.00 dB
 SFO1 500.1327500 MHz
 F2 - Processing parameters
 SI 65536
 SF 500.1300229 MHz
 WDW EM
 SSB 0
 LB 0.00 Hz
 GB 0
 PC 1.00

125.7 MHz ¹³C NMR spectrum in CDCl₃



```

Current Data Parameters
NAME      kap03--40-02
EXPNO    3
PROCNO   1

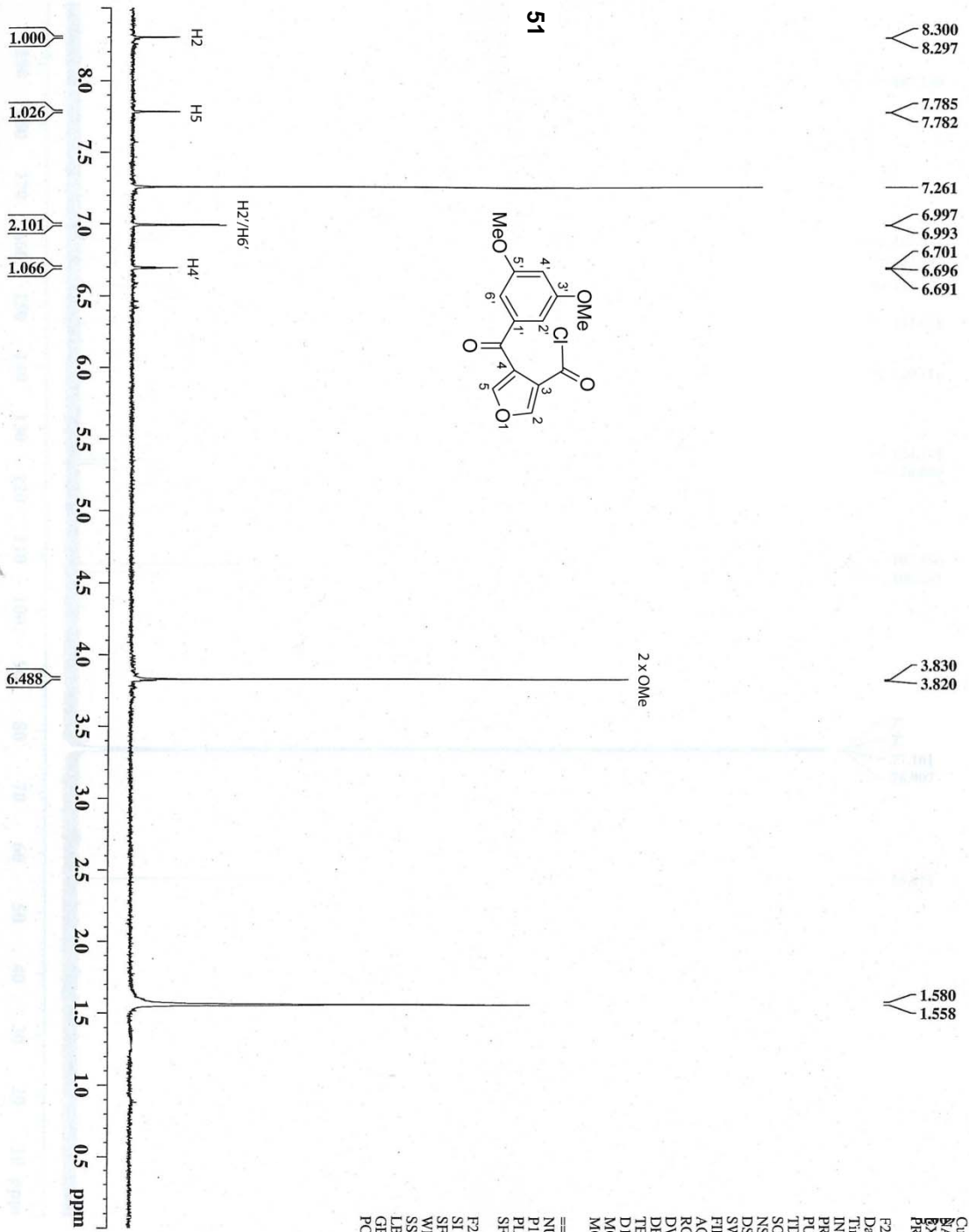
F2 - Acquisition Parameters
Date_    20080326
Time     10:48
INSTRUM  spect
PROBHD   5 mm Dual 13C/
PULPROG  zgpg30
TD        65536
SOLVENT  CDCl3
NS        288
DS        4
SWH       31446.541 Hz
FIDRES   0.479836 Hz
AQ        1.0420883 sec
RG        23170.5
DW        15.900 usec
DE        20.00 usec
TE        298.0 K
D1        2.000000000 sec
d11       0.030000000 sec
DELTA    1.899999998 sec
MCREST   0.000000000 sec
MCWRRK   0.015000000 sec

===== CHANNEL f1 =====
NUC1      13C
P1        14.00 usec
PL1       2.00 dB
SFO1     125.7709890 MHz

===== CHANNEL f2 =====
GPDPRG2   waltz16
NUC2      1H
PCPD2     100.00 usec
PL2       120.00 dB
PL12      16.00 dB
PL13      20.00 dB
SFO2     500.1322500 MHz

F2 - Processing parameters
SI        65536
SF        125.7577741 MHz
WDW       EM
SSB       0
LB        1.00 Hz
GB        0
PC        1.00
    
```

500 MHz ¹H NMR spectrum in CDCl₃



Current Data Parameters
 NAME ksp04-142-02
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20100506
 Time 17.45
 INSTRUM spect
 PROBHD 5 mm Dual 13C/
 PULPROG zg30
 TD 32768
 SOLVENT CDCl3
 NS 1
 DS 0
 SWH 8992.806 Hz
 FIDRES 0.274439 Hz
 AO 1.822063 sec
 RG 2298.8
 DW 55.600 usec
 DE 7.50 usec
 TE 298.0 K
 D1 0.50000000 sec
 MCREST 0.00000000 sec
 MCWRRK 0.01500000 sec

==== CHANNEL f1 =====
 NUC1 1H
 P1 12.70 usec
 PL1 -1.00 dB
 SFO1 500.1327500 MHz

F2 - Processing parameters
 SI 16384
 SF 500.1300231 MHz
 WDW no
 SSB 0
 LB 0.00 Hz
 GB 0
 PC 0.20

125.7 MHz ¹³C NMR spectrum in CDCl₃

Current Data Parameters
 NAME kap04-142-02
 EXPNO 3
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20100506
 Time 17:51

INSTRUM spect
 PROBHD 5 mm Dual 13C/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 17313

DS 4
 SWH 31446.541 Hz
 FIDRES 0.479836 Hz
 AQ 1.0420883 sec

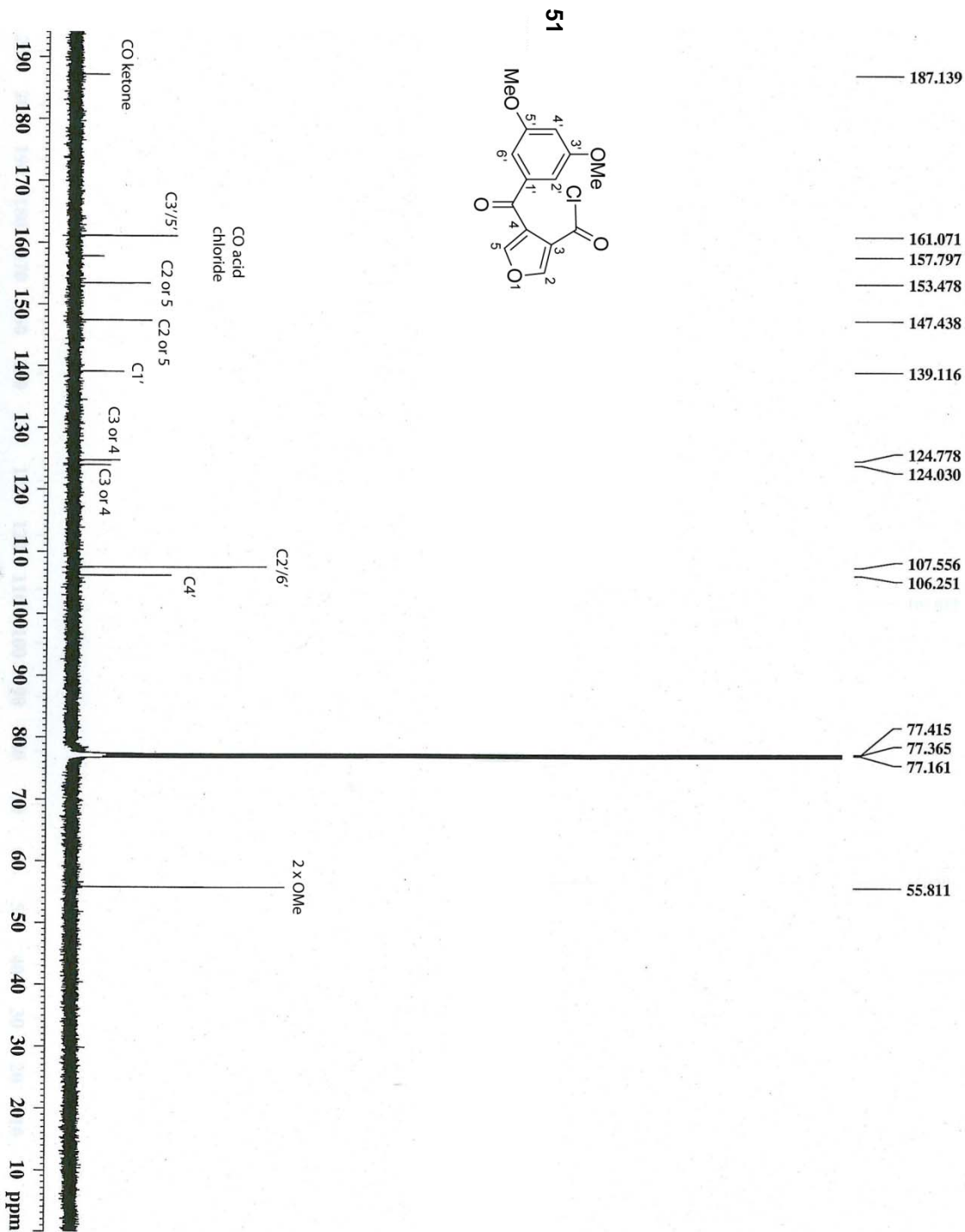
RG 23170.5
 DW 15.900 usec
 DE 20.00 usec
 TE 298.0 K

D1 2.00000000 sec
 d11 0.03000000 sec
 DELTA 1.89999998 sec
 MCREST 0.00000000 sec
 MCWRRK 0.01500000 sec

==== CHANNEL f1 =====
 NUC1 ¹³C
 P1 14.00 usec
 PL1 2.00 dB
 SFO1 125.7709890 MHz

==== CHANNEL f2 =====
 CPDPRG2 walz16
 NUC2 ¹H
 PCPD2 100.00 usec
 PL2 120.00 dB
 PL12 16.00 dB
 PL13 20.00 dB
 SFO2 500.1322500 MHz

F2 - Processing parameters
 SI 65556
 SF 125.7577736 MHz
 WDW no
 SSB 0
 LB 0.00 Hz
 GB 0
 PC 1.00

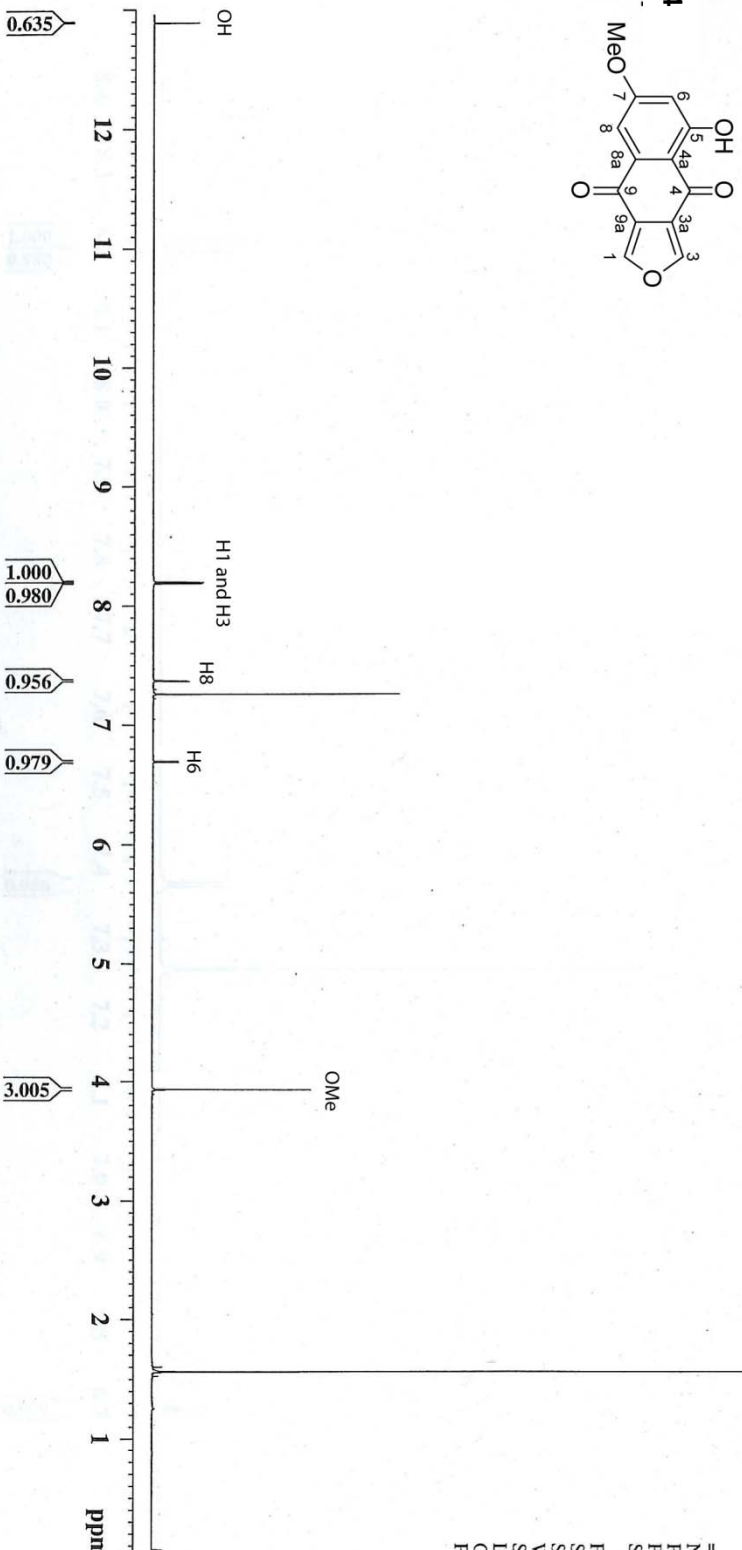
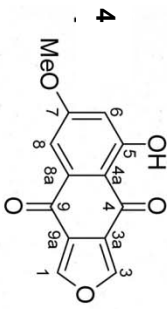


500 MHz ¹H NMR spectrum in CDCl₃

8.203
8.200
8.187
8.185
7.372
7.367
7.260
7.259
6.694
6.689

3.933

1.563



Current Data Parameters
NAME kap04-144-04
EXPNO 2
PROCNO 1

F2 - Acquisition Parameters
Date_ 20100528
Time 9.03

INSTRUM spect
PROBHD 5 mm Dual 13C/
PULPROG zg30

TD 65536
SOLVENT CDCl3
NS 8
DS 4

SWH 7507.507 Hz
FIDRES 0.114555 Hz
AQ 4.3648143 sec
RG 3251
DW 66.600 usec
DE 7.50 usec
TE 298.0 K

D1 5.00000000 sec
MCREST 0.00000000 sec
MCVPRK 0.01500000 sec

===== CHANNEL f1 =====
NUC1 1H
P1 12.70 usec
PL1 -1.00 dB
SFO1 500.1327500 MHz

F2 - Processing parameters
SI 65536
SF 500.1300235 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 1.00

125.7 MHz ¹³C NMR spectrum in CDCl₃

Current Data Parameters
 NAME Kap04-144-04
 EXPNO 3
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20100527
 Time 17.32

INSTRUM spect
 PROBD 5 mm Dual 13C/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3

NS 4
 DS 4
 SWH 31446.541 Hz
 FDRRES 0.47836 Hz

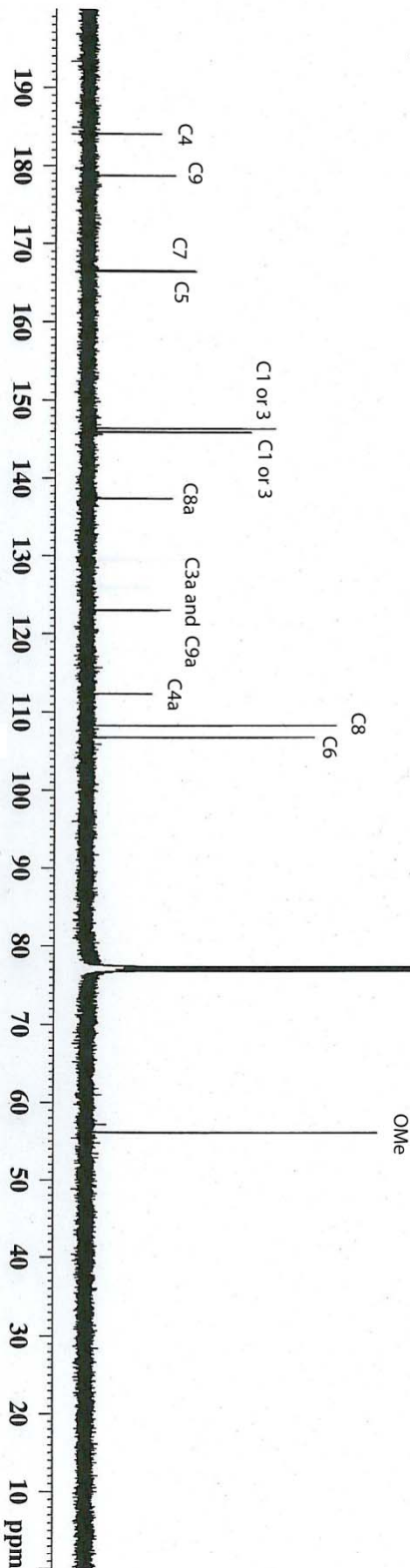
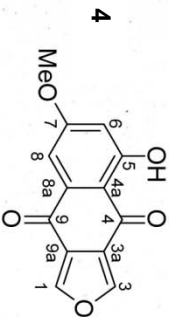
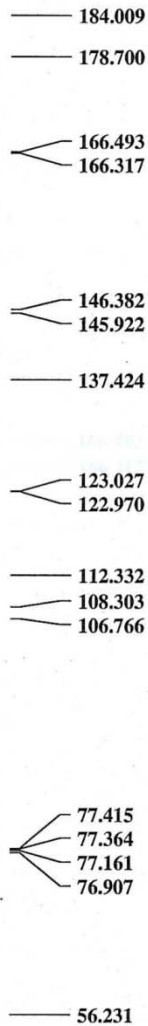
AQ 1.0420883 sec
 RG 20642.5
 DW 15.900 usec
 DE 20.00 usec
 TE 298.0 K

D1 2.00000000 sec
 d11 0.03000000 sec
 DELTA 1.89999998 sec
 MCREST 0.00000000 sec
 MCWRR 0.01500000 sec

==== CHANNEL f1 =====
 NUC1 13C
 P1 14.00 usec
 PL1 2.00 dB
 SFO1 125.7709890 MHz

==== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 100.00 usec
 PL2 120.00 dB
 PL12 16.00 dB
 PL13 20.00 dB
 SFO2 500.1322500 MHz

F2 - Processing parameters
 SI 65536
 SF 125.7577736 MHz
 WDW no
 SSB 0
 LB 0.00 Hz
 GB 0
 PC 1.00



500 MHz ¹H NMR spectrum in CDCl₃

