Supporting Information for:

Palladium and platinum complexes of tellurium-containing imidodiphosphinate ligands: nucleophilic attack of $Li[(P^iPr_2)(TeP^iPr_2)N]$ on coordinated 1,5-cyclooctadiene

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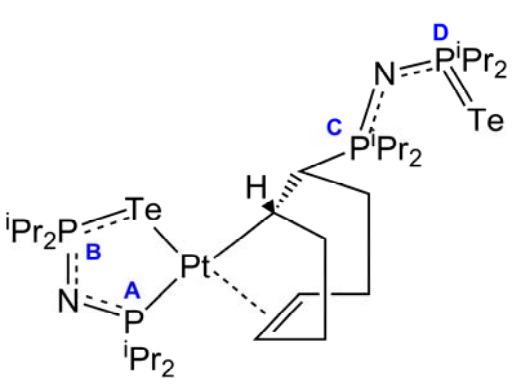
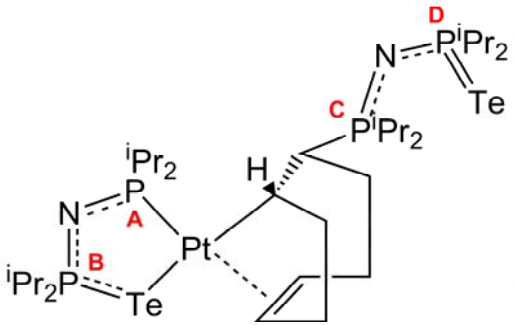
Contents:

^{31}P NMR Spectrum (d_8-THF) of 9



9a



9b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PROCNO                 1

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DE               14.68 usec
TE               296.8 K
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d11         0.03000000 sec
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MCWRK       0.01500000 sec

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P1                6.60 usec
PL1              -2.00 dB
SFO1        161.7102994 MHz

======== CHANNEL f2 ========
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NUC2               1H
PCPD2            80.00 usec
PL2             120.00 dB
PL12             18.00 dB
SFO2        399.4572000 MHz

F2 - Processing parameters
SI              32768
SF         161.7022045 MHz
WDW                EM
SSB                0
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GB                 0
PC              1.40

1D NMR plot parameters
CX              20.00 cm
CY              11.97 cm
F1P            130.000 ppm
F1           21021.29 Hz
F2P            10.000 ppm
F2            1617.02 Hz
PPMCM         6.00000 ppm/cm
HZCM        970.21320 Hz/cm
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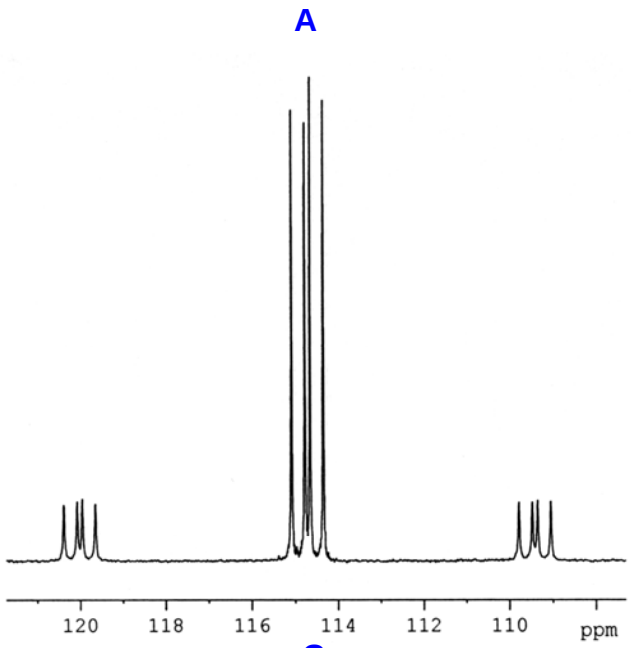
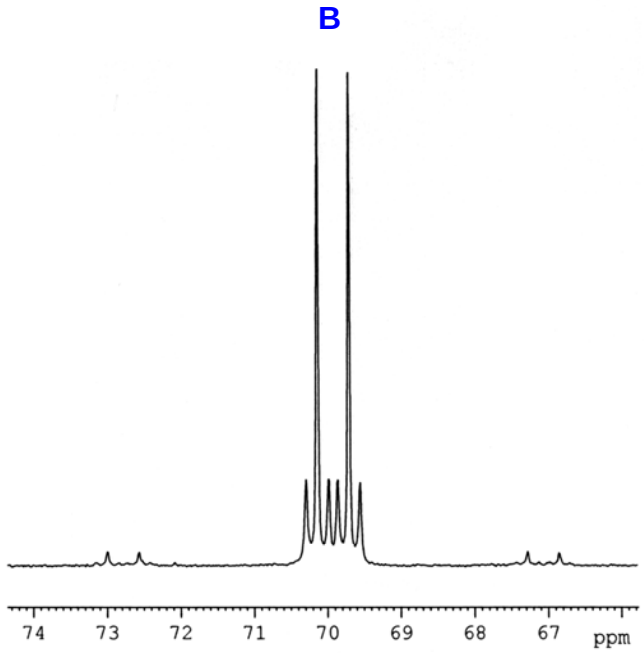
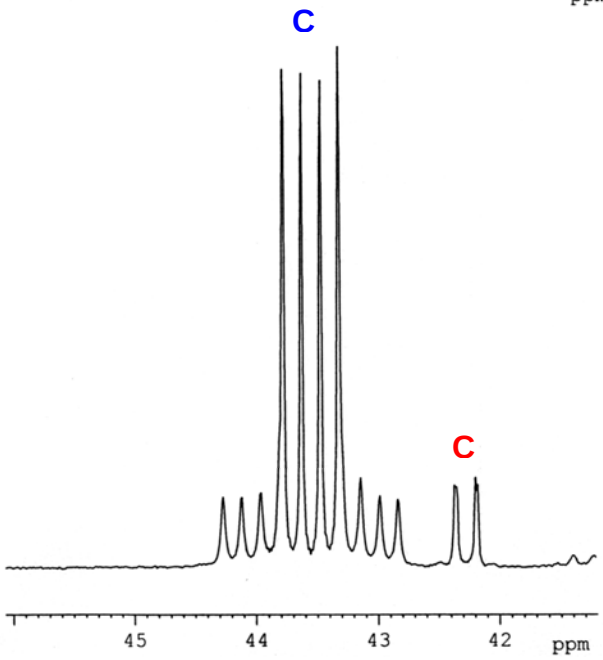
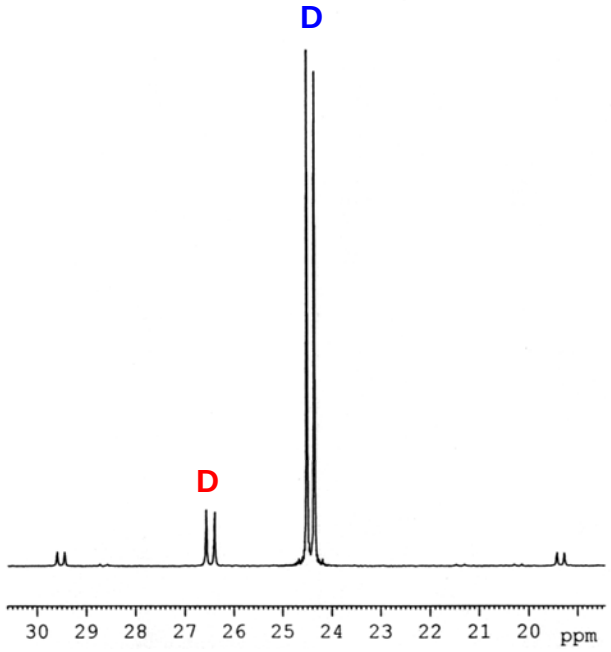
Selected Expansions of the ^{31}P NMR Spectrum (d_8-THF) of 9







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EXPNO                  2
PROCNO                 1

F2 - Acquisition Parameters
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Time              13.01
INSTRUM           spect
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PULPROG          zgdc30
TD                32768
SOLVENT             D2O
NS                  326
DS                    0
SWH           48661.801 Hz
FIDRES         1.485040 Hz
AQ             0.3367412 sec
RG                4597.6
DW                10.275 usec
DE                14.68 usec
TE                296.8 K
D1           1.00000000 sec
d11          0.03000000 sec
MCREST       0.00000000 sec
MCWRK        0.01500000 sec

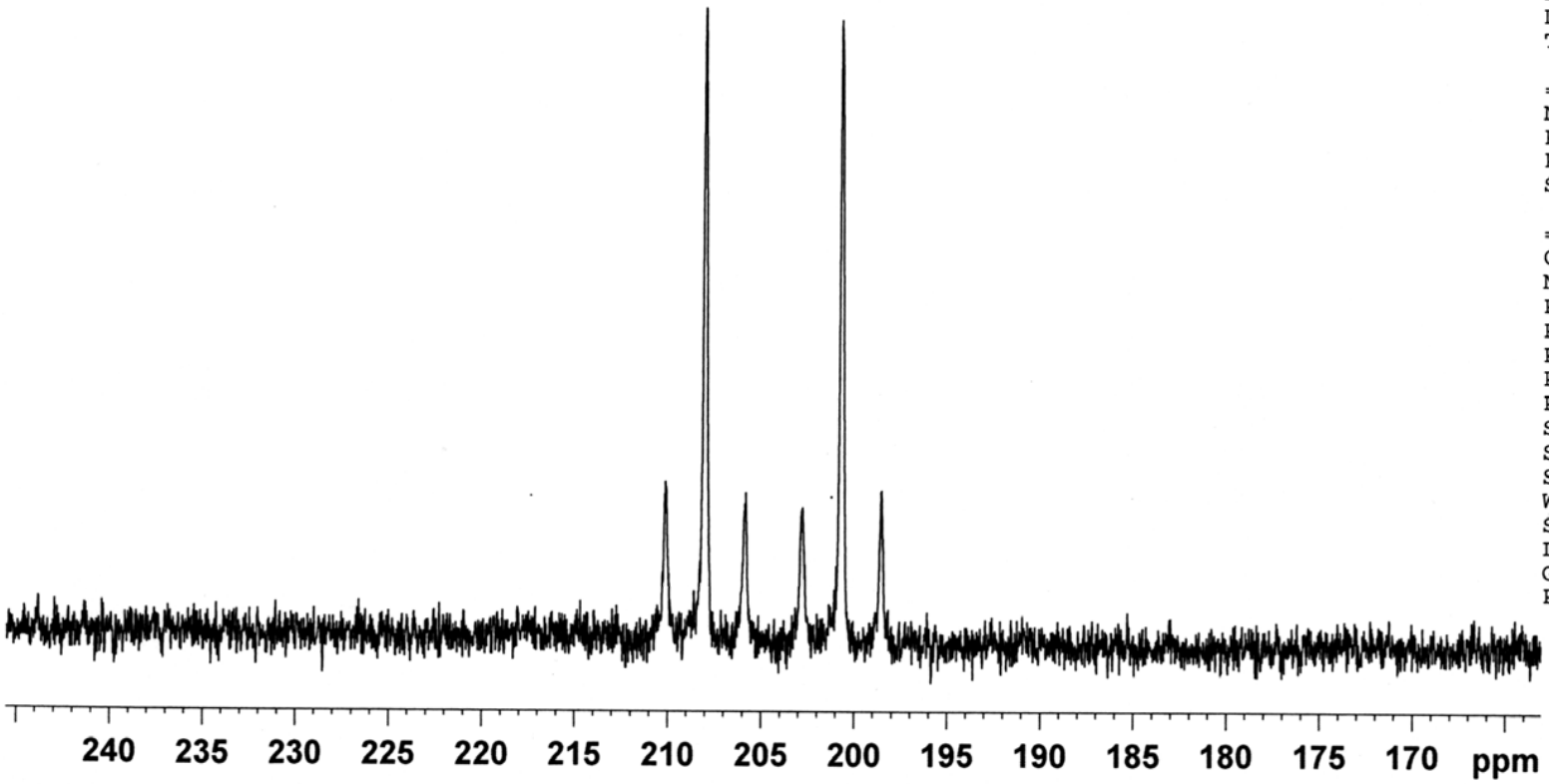
======== CHANNEL f1 ========
NUC1               31P
P1                6.60 usec
PL1              -2.00 dB
SFO1        161.7102994 MHz

======== CHANNEL f2 ========
CPDPRG2         waltz16
NUC2                1H
PCPD2            80.00 usec
PL2             120.00 dB
PL12             18.00 dB
SFO2        399.4572000 MHz

F2 - Processing parameters
SI                32768
SF          161.7022045 MHz
WDW                EM
SSB                   0
LB                1.00 Hz
GB                    0
PC                1.40

1D NMR plot parameters
CX               20.00 cm
F1P             130.000 ppm
F1            21021.29 Hz
F2P             10.000 ppm
F2             1617.02 Hz
PPMCM           6.00000 ppm/cm
HZCM          970.21320 Hz/cm
```

^{125}Te NMR Spectrum (d_8-THF) of 9 (first window)



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PROCNO	1	
Date_	20090313	
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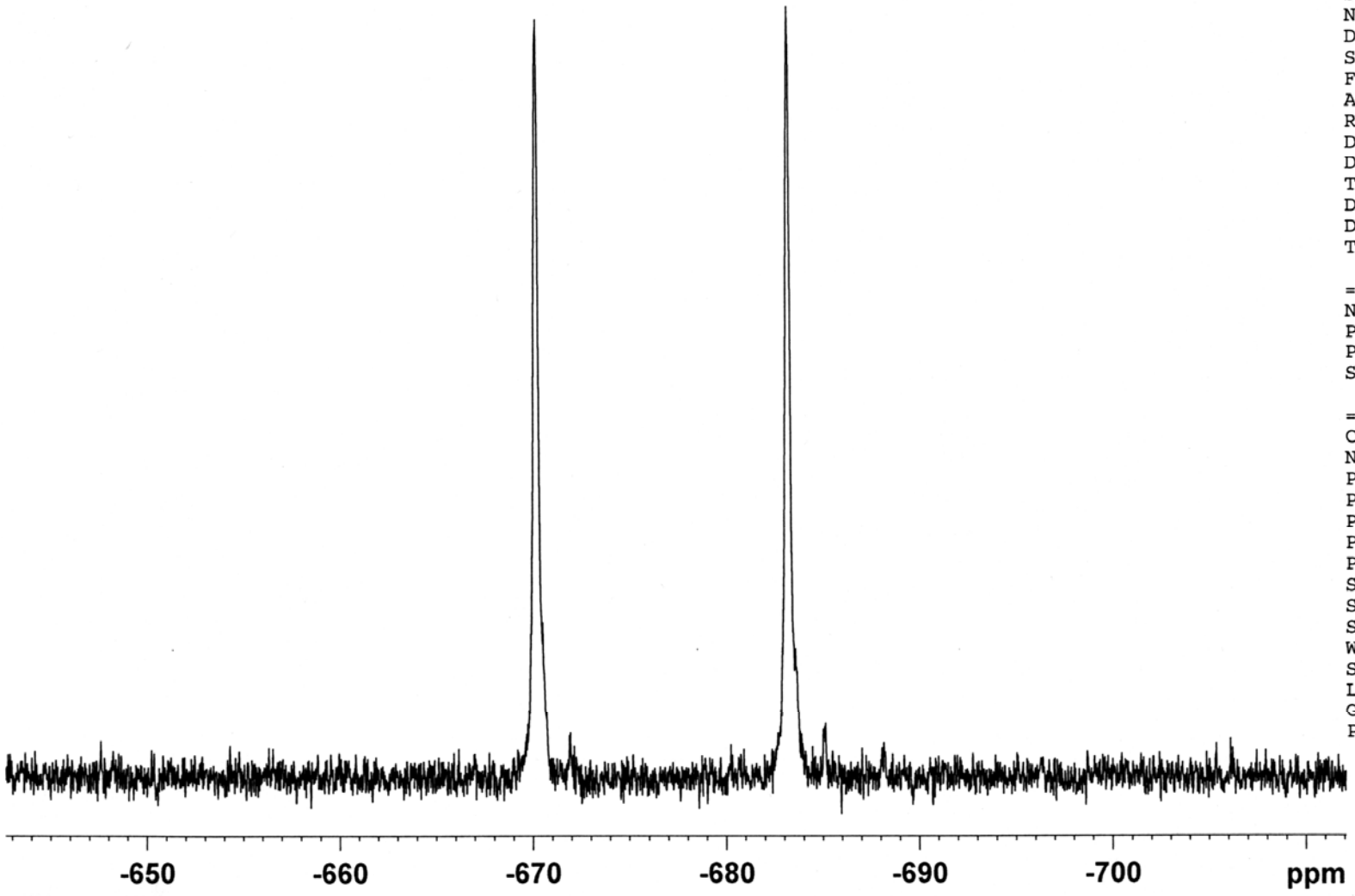
INSTRUM	spect	
PROBHD	5 mm PABBO BB-	
PULPROG	zgdc30	
TD	32768	
SOLVENT	THF	
NS	36053	
DS	4	
SWH	75187.969	Hz
FIDRES	2.294555	Hz
AQ	0.2179572	sec
RG	32768	
DW	6.650	usec
DE	50.00	usec
TE	298.5	K
D1	1.00000000	sec
D11	0.03000000	sec
TD0	1	
======== CHANNEL f1 ========		
NUC1	125Te	
P1	5.50	usec
PL1	3.00	dB
SFO1	126.2748044	MHz
======== CHANNEL f2 ========		
CPDPRG2	waltz16	
NUC2	1H	
PCPD2	80.00	usec
PL2	0.00	dB
PL12	15.00	dB
PL2W	15.07131863	W
PL12W	0.47659695	W
SFO2	400.1816007	MHz
SI	32768	
SF	126.2557224	MHz
WDW	EM	
SSB	0	
LB	1.00	Hz
GB	0	
PC	1.40	

^{125}Te NMR Spectrum (d_8-THF) of 9 (second window)



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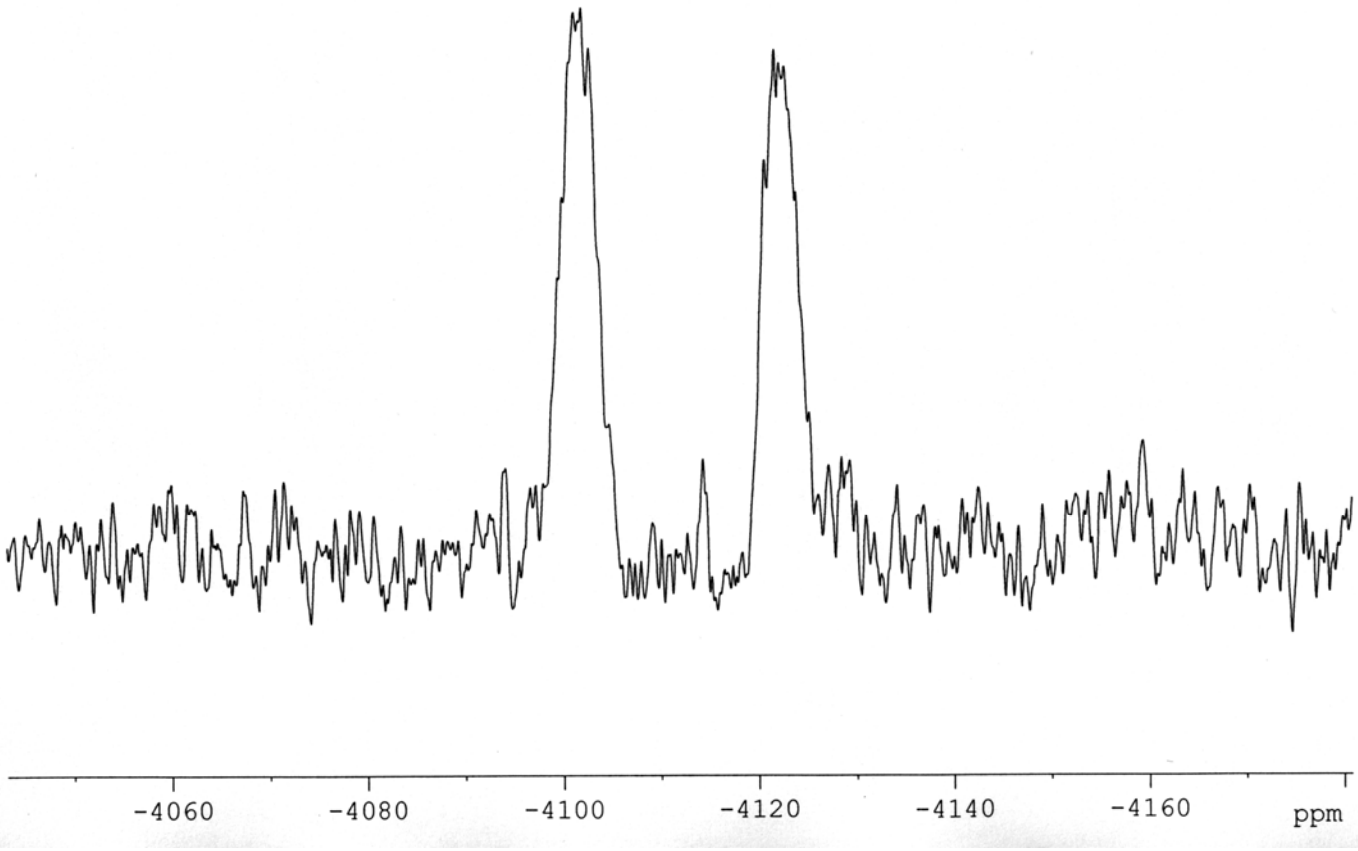
PROCNO	1
Date_	20090316
Time	19.58
INSTRUM	spect
PROBHD	5 mm PABBO BB-
PULPROG	zgdc30
TD	32768
SOLVENT	THF
NS	36414
DS	4
SWH	75187.969 Hz
FIDRES	2.294555 Hz
AQ	0.2179572 sec
RG	32768
DW	6.650 usec
DE	50.00 usec
TE	298.2 K
D1	1.00000000 sec
D11	0.03000000 sec
TD0	1
======== CHANNEL f1 ========	
NUC1	125Te
P1	5.50 usec
PL1	3.00 dB
SFO1	126.2003134 MHz
======== CHANNEL f2 ========	
CPDPRG2	waltz16
NUC2	1H
PCPD2	80.00 usec
PL2	0.00 dB
PL12	15.00 dB
PL2W	15.07131863 W
PL12W	0.47659695 W
SFO2	400.1816007 MHz
SI	32768
SF	126.2557224 MHz
WDW	EM
SSB	0
LB	1.00 Hz
GB	0
PC	1.40

^{195}Pt NMR Spectrum (d_8-THF) of 9

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Current Data Parameters
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EXPNO                 15
PROCNO                 1

F2 - Acquisition Parameters
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Time                4.10
INSTRUM            spect
PROBHD   5 mm BBO BB-1H
PULPROG             zg30
TD                 32768
SOLVENT              THF
NS                 17000
DS                     2
SWH            70422.539 Hz
FIDRES          2.149125 Hz
AQ             0.2327028 sec
RG                 32768
DW                 7.100 usec
DE                 50.00 usec
TE                 298.0 K
D1            1.00000000 sec
MCREST        0.00000000 sec
MCWRK         0.01500000 sec

======== CHANNEL f1 ========
NUC1               195Pt
P1                  9.30 usec
PL1                -2.00 dB
SFO1          85.4920237 MHz

F2 - Processing parameters
SI                 32768
SF            85.8710429 MHz
WDW                   EM
SSB                    0
LB                 30.00 Hz
GB                     0
PC                  4.00

1D NMR plot parameters
CX                 20.00 cm
F1P              -599.724 ppm
F1              -51498.96 Hz
F2P              -1800.275 ppm
F2             -154591.52 Hz
PPMCM            60.02755 ppm/
HZCM           5154.62793 Hz/c
```

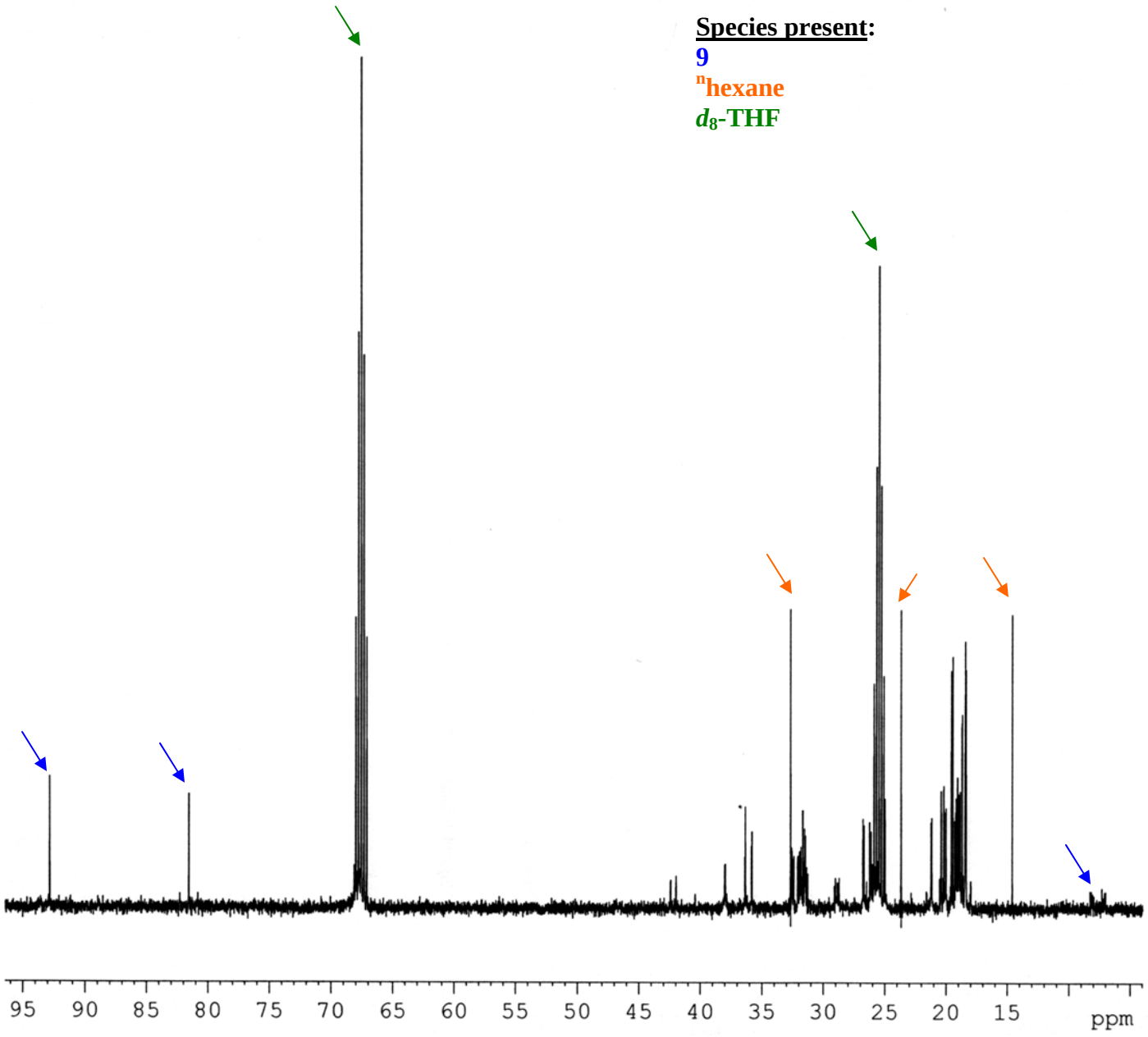
^{13}C NMR Spectrum (d_8-THF) of 9

Species present:

9

^{n}hexane

d_8-THF

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Current Data Parameters
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EXPNO                  3
PROCNO                 1

F2 - Acquisition Parameters
Date_           20090401
Time                13.31
INSTRUM             spect
PROBHD   5 mm BBO BB-1H
PULPROG           zgdc30
TD                 32768
SOLVENT             CDCl3
NS                  2150
DS                     2
SWH            27662.518 Hz
FIDRES          0.844193 Hz
AQ             0.5923316 sec
RG                 32768
DW                18.075 usec
DE                50.00 usec
TE                297.1 K
D1           2.00000000 sec
d11          0.03000000 sec
MCREST       0.00000000 sec
MCWRK        0.01500000 sec

======== CHANNEL f1 ========
NUC1                13C
P1                 8.50 usec
PL1               -2.00 dB
SFO1         100.4530843 MHz

======== CHANNEL f2 ========
CPDPRG2          waltz16
NUC2                1H
PCPD2              80.00 usec
PL2               120.00 dB
PL12               17.80 dB
SFO2         399.4572000 MHz

F2 - Processing parameters
SI                 32768
SF           100.4429251 MHz
WDW                   EM
SSB                    0
LB                  0.20 Hz
GB                     0
PC                  4.00

1D NMR plot parameters
CX                 20.00 cm
F1P               100.000 ppm
F1              10044.29 Hz
F2P                0.000 ppm
F2                 0.00 Hz
PPMCM              5.00000 ppm/cm
HZCM             502.21463 Hz/cm
```

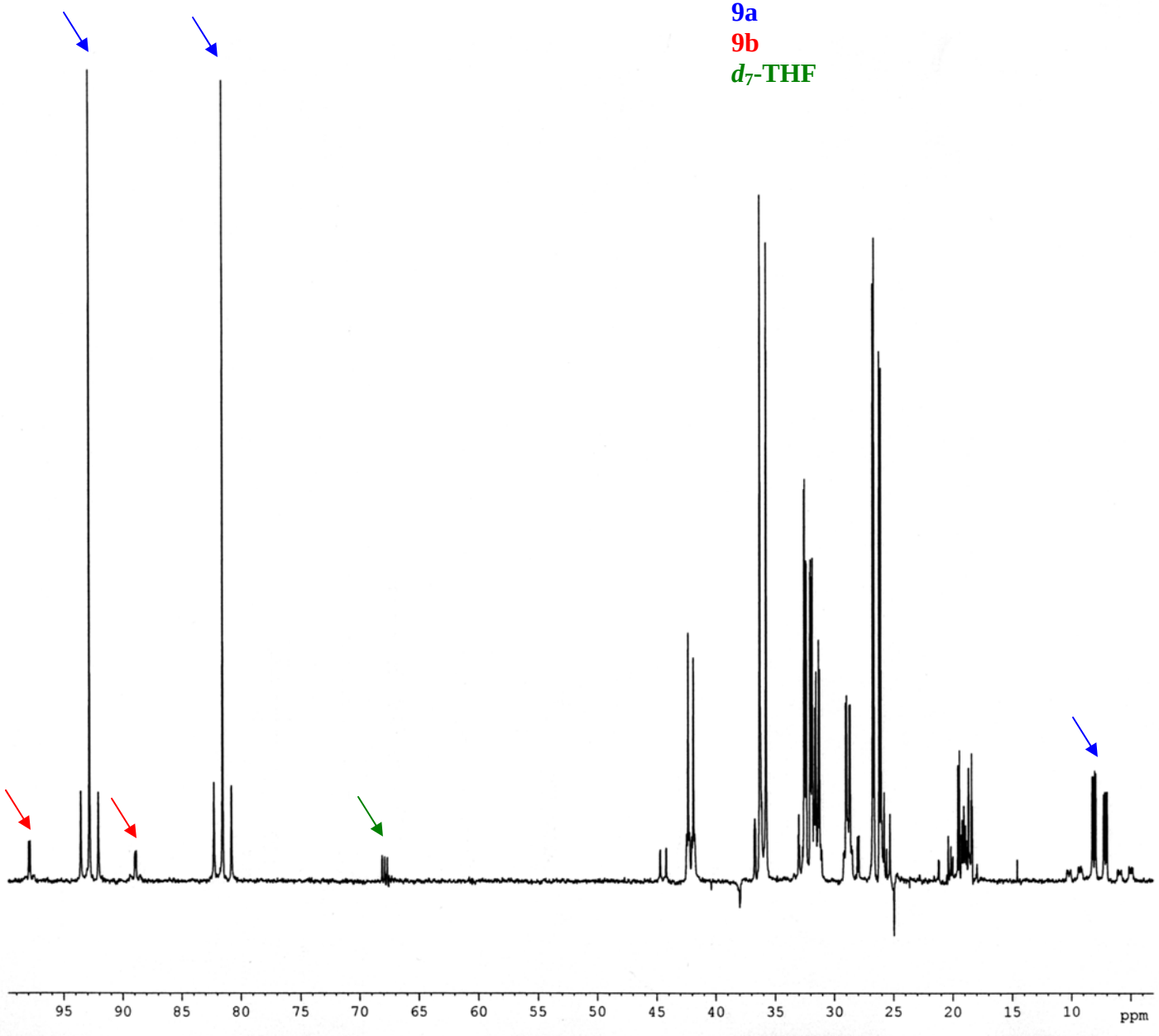
DEPT-90 NMR Spectrum (d_8-THF) of 9

Species present:

9a

9b

***d*$_7$-THF**

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Current Data Parameters
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EXPNO                       4
PROCNO                      1

F2 - Acquisition Parameters
Date_               20090401
Time                   15.10
INSTRUM                spect
PROBHD    5 mm BBO BB-1H
PULPROG              dept90
TD                    32768
SOLVENT               CDCl3
NS                    37411
DS                        0
SWH               25125.629 Hz
FIDRES             0.766773 Hz
AQ                0.6521332 sec
RG                    32768
DW                   19.900 usec
DE                   29.00 usec
TE                   296.9 K
CNST2            145.0000000
D1                1.00000000 sec
d2                0.00344828 sec
d12               0.00002000 sec
DELTA             0.00000993 sec
MCREST            0.00000000 sec
MCWRK             0.01500000 sec

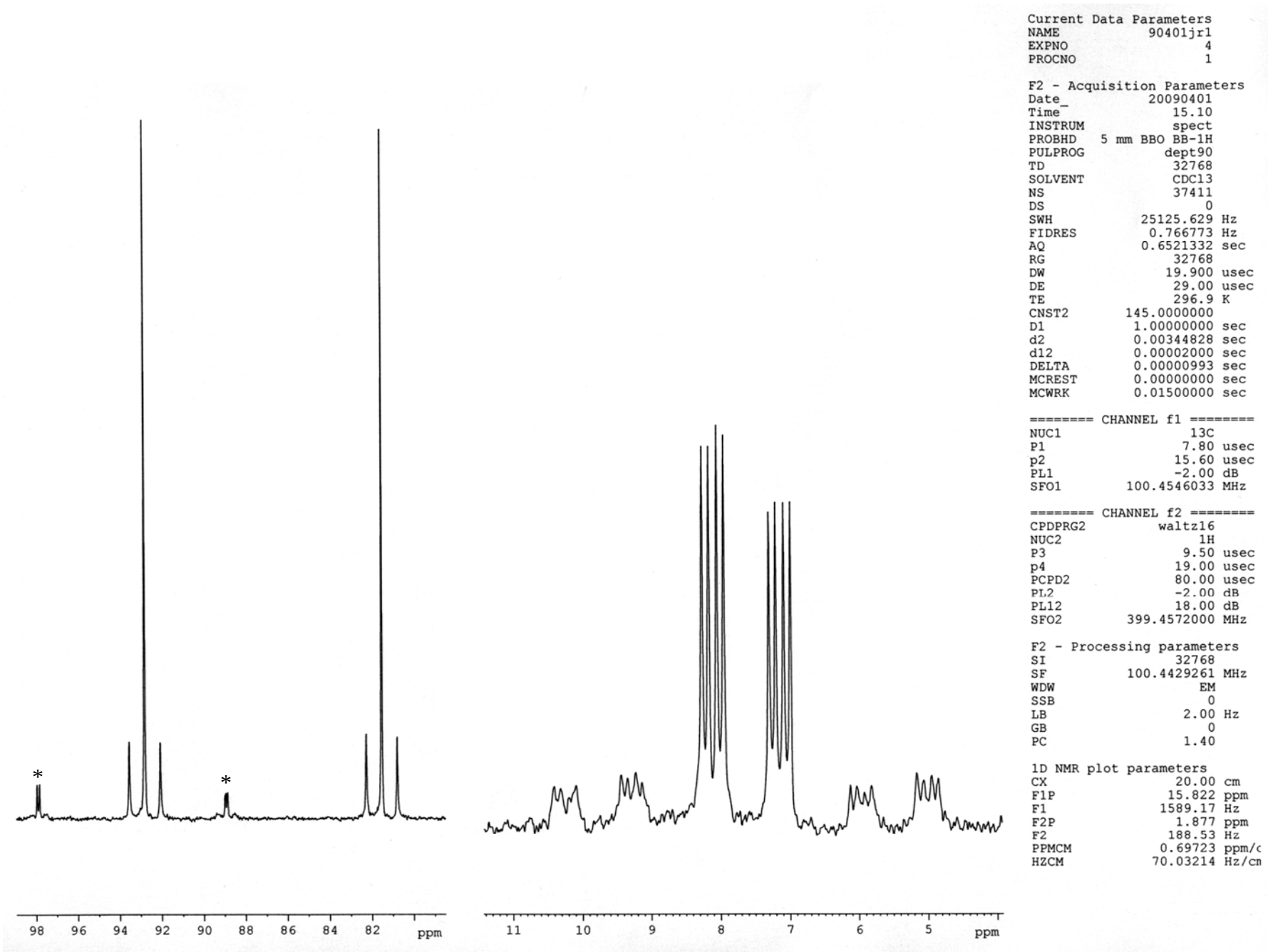
======== CHANNEL f1 ========
NUC1                    13C
P1                    7.80 usec
p2                   15.60 usec
PL1                  -2.00 dB
SFO1            100.4546033 MHz

======== CHANNEL f2 ========
CPDPRG2              waltz16
NUC2                    1H
P3                    9.50 usec
p4                   19.00 usec
PCPD2                80.00 usec
PL2                  -2.00 dB
PL12                 18.00 dB
SFO2            399.4572000 MHz

F2 - Processing parameters
SI                    32768
SF              100.4429261 MHz
WDW                      EM
SSB                       0
LB                    2.00 Hz
GB                        0
PC                     1.40

1D NMR plot parameters
CX                   20.00 cm
F1P                 15.822 ppm
F1                 1589.17 Hz
F2P                  1.877 ppm
F2                  188.53 Hz
PPMCM              0.69723 ppm/c
HZCM              70.03214 Hz/cn
```

Selected Expansions of the DEPT-90 NMR Spectrum (d_8-THF) of 9a (asterisks denote 9b)

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Current Data Parameters
NAME                 90401jr1
EXPNO                       4
PROCNO                      1

F2 - Acquisition Parameters
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Time                   15.10
INSTRUM                spect
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PULPROG              dept90
TD                      32768
SOLVENT                 CDCl3
NS                      37411
DS                          0
SWH                25125.629 Hz
FIDRES                 0.766773 Hz
AQ                     0.6521332 sec
RG                      32768
DW                     19.900 usec
DE                     29.00 usec
TE                     296.9 K
CNST2              145.0000000
D1                   1.00000000 sec
d2                   0.00344828 sec
d12                  0.00002000 sec
DELTA                0.00000993 sec
MCREST               0.00000000 sec
MCWRK                0.01500000 sec

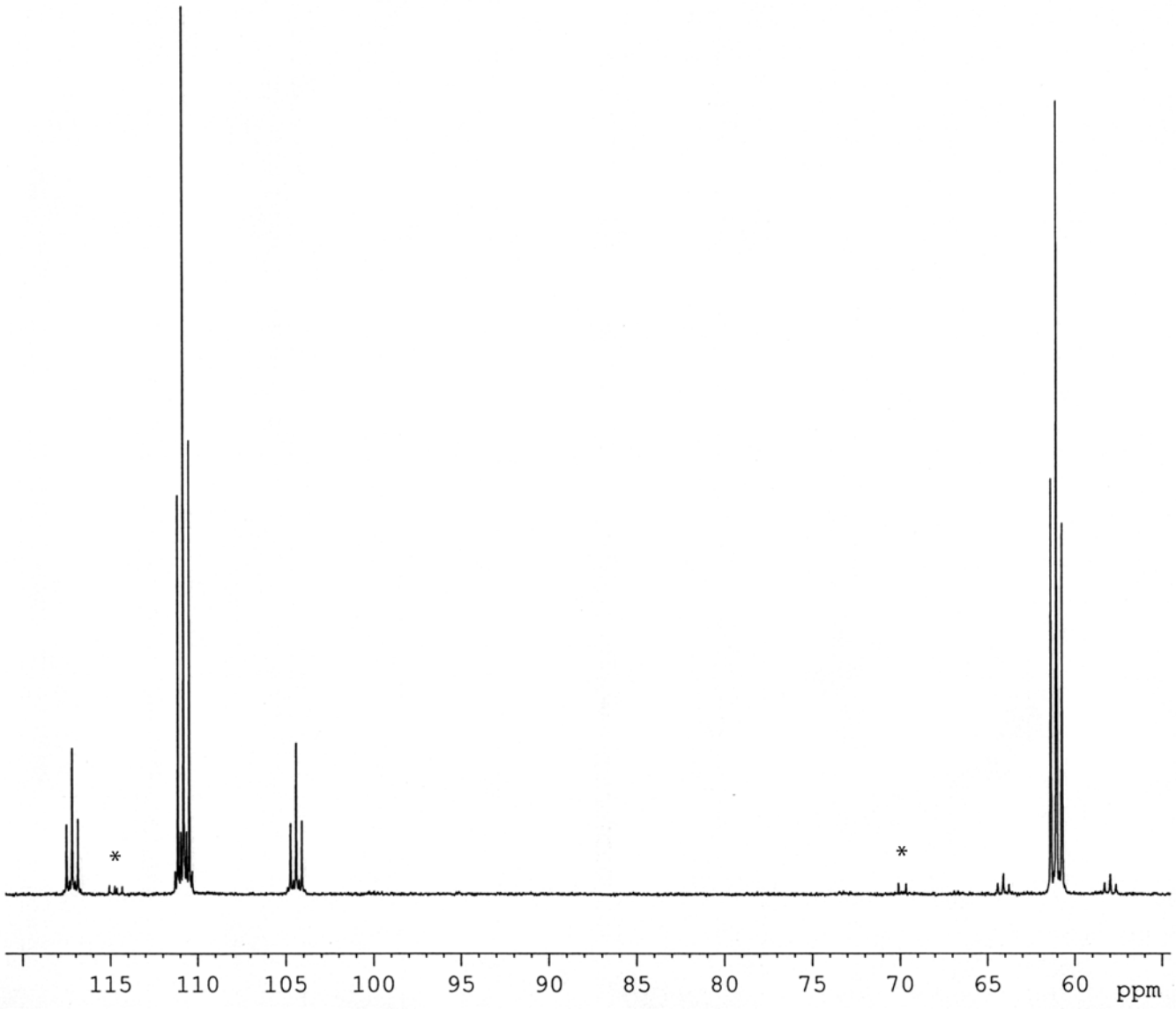
======== CHANNEL f1 ========
NUC1                       13C
P1                        7.80 usec
p2                       15.60 usec
PL1                      -2.00 dB
SFO1               100.4546033 MHz

======== CHANNEL f2 ========
CPDPRG2                waltz16
NUC2                       1H
P3                        9.50 usec
p4                       19.00 usec
PCPD2                    80.00 usec
PL2                      -2.00 dB
PL12                     18.00 dB
SFO2               399.4572000 MHz

F2 - Processing parameters
SI                      32768
SF                 100.4429261 MHz
WDW                        EM
SSB                         0
LB                       2.00 Hz
GB                          0
PC                       1.40

1D NMR plot parameters
CX                      20.00 cm
F1P                    15.822 ppm
F1                   1589.17 Hz
F2P                    1.877 ppm
F2                   188.53 Hz
PPMCM                 0.69723 ppm/c
HZCM                 70.03214 Hz/cm
```

^{31}P NMR Spectrum (d_8-THF) of *trans*-8 (asterisks denote 9a as a minor impurity)

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EXPNO                  2
PROCNO                 1

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Time                10.46
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PULPROG           zgdc30
TD                 32768
SOLVENT              D2O
NS                  1007
DS                     0
SWH           48661.801 Hz
FIDRES         1.485040 Hz
AQ            0.3367412 sec
RG                  8192
DW               10.275 usec
DE                14.68 usec
TE                298.0 K
D1           1.00000000 sec
d11          0.03000000 sec
MCREST       0.00000000 sec
MCWRK        0.01500000 sec

======== CHANNEL f1 ========
NUC1                  31P
P1                   6.60 usec
PL1                 -2.00 dB
SFO1         161.7102994 MHz

======== CHANNEL f2 ========
CPDPRG2          waltz16
NUC2                  1H
PCPD2              80.00 usec
PL2               120.00 dB
PL12               18.00 dB
SFO2         399.4572000 MHz

F2 - Processing parameters
SI                 32768
SF           161.7022045 MHz
WDW                   EM
SSB                    0
LB                  1.00 Hz
GB                     0
PC                  1.40

1D NMR plot parameters
CX                 20.00 cm
CY                  7.99 cm
F1P              130.000 ppm
F1              21021.29 Hz
F2P               20.000 ppm
F2               3234.04 Hz
PPMCM            5.50000 ppm/cm
HZCM           889.36212 Hz/cm
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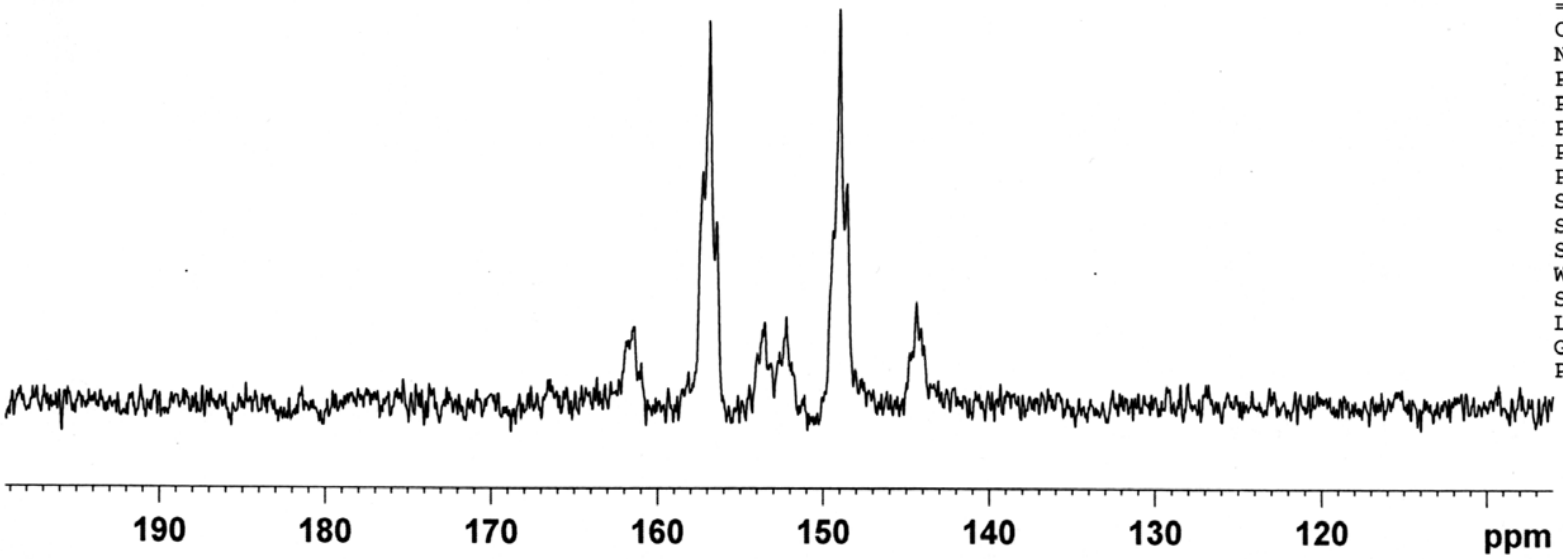
^{125}Te NMR Spectrum (d_8-THF) of *trans*-8



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PROCNO	1
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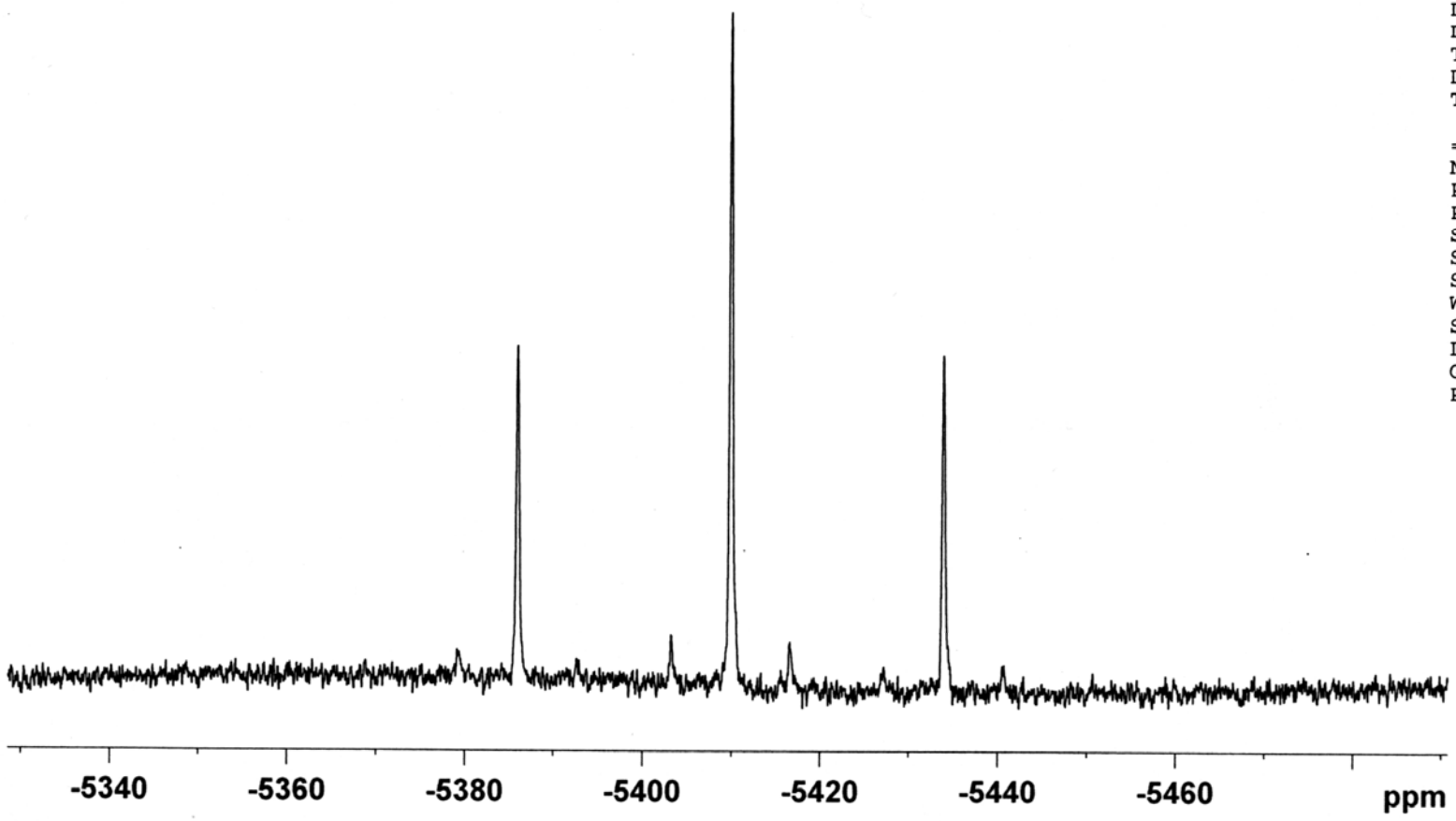
PULPROG	zgdc30
TD	32768
SOLVENT	THF
NS	35000
DS	4
SWH	75187.969 Hz
FIDRES	2.294555 Hz
AQ	0.2179572 sec
RG	32768
DW	6.650 usec
DE	50.00 usec
TE	298.2 K
D1	1.00000000 sec
D11	0.03000000 sec
TD0	1
======== CHANNEL f1 ========	
NUC1	125Te
P1	5.50 usec
PL1	3.00 dB
SFO1	126.2748044 MHz
======== CHANNEL f2 ========	
CPDPRG2	waltz16
NUC2	1H
PCPD2	80.00 usec
PL2	0.00 dB
PL12	15.00 dB
PL2W	15.07131863 W
PL12W	0.47659695 W
SFO2	400.1816007 MHz
SI	32768
SF	126.2557224 MHz
WDW	EM
SSB	0
LB	8.00 Hz
GB	0
PC	1.40

^{195}Pt NMR Spectrum (d_8-THF) of *trans*-8



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EXPNO	3	
PROCNO	1	
Date_	20081221	
Time	17.57	
INSTRUM	spect	
PROBHD	5 mm PABBO BB-	
PULPROG	zg30	
TD	65536	
SOLVENT	THF	
NS	33160	
DS	4	
SWH	42735.043	Hz
FIDRES	0.652085	Hz
AQ	0.7668212	sec
RG	32768	
DW	11.700	usec
DE	50.00	usec
TE	297.2	K
D1	1.00000000	sec
TD0	1	
======== CHANNEL f1 ========		
NUC1	195Pt	
P1	8.00	usec
PL1	-2.00	dB
SFO1	85.5612905	MHz
SI	32768	
SF	86.0268594	MHz
WDW	EM	
SSB	0	
LB	5.00	Hz
GB	0	
PC	1.40	