Supporting Information

In-mediated β -Allylation, β -Propargylation, and β -Allenylation onto α,β -Unsaturated Ketones: Reactions of in Situ Generated 3-*tert*-Butyldimethylsilyloxyalk-2-enylsulfonium Salts with in Situ Generated Organoindium Reagents

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¹H and ¹³C NMR spectra of the compounds
19, 35, 36, 37, 38, 40, 41, 42, 43, 44, and 46 : S2-S25

LKY-922

Current Data Parameters
 NAME oct-02
 EXPNO 192
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20021016
 Time 17:25
 INSTRUM spect
 PROBRW 5 mm Dual 13
 PULPROG zgpg30
 TO 32768
 SOLVENT CDCl3
 NS 20
 DS 0
 SWH 8223.885 Hz
 FIDRES 0.250867 Hz
 AQ 1.5923444 sec
 RG 40.3
 DM 60.800 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec

***** CHANNEL f1 *****
 NUC1 1H
 P1 9.50 usec
 PL1 -2.00 dB
 SF01 400.1324710 MHz

F2 - Processing parameters
 SI 16384
 SF 400.1300594 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 30.00 cm
 FIP 8.100 ppm
 F1 3241.05 Hz
 F2P -0.200 ppm
 F2 -80.03 Hz
 PPM0H 0.27697 ppm/cm
 HZ0H 110.70265 Hz/cm

LKY-922

Current Data Parameters
 NAME: LKY-922
 EXPNO: 193
 PROCNO: 1

F2 - Acquisition Parameters
 Date_: 20021016
 Time: 18.31
 INSTRUM: spect
 PPROG: 5.0m Duij 13
 PULPROG: zgpg30
 TO: 65536
 SOLVENT: CDCl3
 NS: 1261
 DS: 2
 SWH: 31847.113 Hz
 FIDRES: 0.486048 Hz
 AQ: 1.0289562 sec
 RG: 1280.2
 DW: 15.700 usec
 DE: 6.00 usec
 TE: 300.2 K
 D1: 2.0000000 sec
 D11: 0.0300000 sec
 D12: 0.0002000 sec

===== CHANNEL f1 =====
 NUC1: 13C
 P1: 10.50 usec
 PL1: -1.00 dB
 SF01: 100.6254359 MHz

===== CHANNEL f2 =====
 CPDPRG2: waltz16
 NUC2: 1H
 PCPD2: 100.00 usec
 PL2: -2.00 dB
 PL12: 18.00 dB
 PL13: 20.00 dB
 SF02: 400.1324708 MHz

F2 - Processing parameters
 SI: 32768
 SF: 100.6127671 MHz
 WDM: EX
 SSB: 0
 LB: 1.00 Hz
 GB: 0
 PC: 1.40

10 MHz plot parameters
 CX: 30.00 cm
 F1P: 205.000 ppm
 F1: 20625.62 Hz
 F2P: -10.000 ppm
 F2: -1006.13 Hz
 PPMCH: 7.16567 ppm/cm
 HZCH: 721.05811 Hz/cm

Figure 1 is a line graph showing the frequency spectrum of a 3000 Hz tone. The x-axis is labeled 'Hz' and the y-axis represents amplitude. The spectrum shows a series of harmonics. The fundamental frequency is 3000 Hz. The harmonics are labeled with their frequencies: 3028.00, 3026.06, 3019.74, 3018.45, 2989.51, 2988.60, 2981.66, 2980.10, 2974.31, 2972.99, 2966.61, 2959.25, and 2949.34. The 2989.51 Hz component is highlighted with a red line.

2267.26
 2257.11
 2231.01
 2220.91

Figure 1 displays a series of 15 diagrams illustrating the evolution of a crack in a beam under a point load. The diagrams are arranged vertically, showing the crack length increasing from top to bottom. Each diagram is labeled with a crack length in millimeters (mm) on the right side. The crack starts at the bottom left and propagates upwards and to the right. The load is applied at the top center. The diagrams show the crack path and the resulting deflection of the beam.

Crack Length (mm)
1630.80
1625.30
1620.66
1615.16
1607.28
1600.15
1597.18
1590.06
1197.90
1197.23
1190.40
1183.83
1181.42
1176.80
1174.37
1169.75
1167.33
866.83
864.42
857.78
855.33
851.29
860.62
542.71
535.69
533.61
526.59
452.68
449.92
447.33
438.61
431.67
435.81
418.54
411.50
101.98
87.86
83.69
61.26
52.64
3.67
0.88
0.00
-27.10

35

Current Data Parameters		F2 - Acquisition Parameters	
NAME	Value	Date	Time
EDNO	275	20020926	14.35
PROCNO	1		
		INSTRUM	5 mm Dual J3
		PROBHD	2g30
		PULPROG	zgpg30
		SOLVENT	CDCl3
		NS	40
		DS	0
		SWH	8223.685 Hz
		FIDRES	0.250987 Hz
		AQ	1.9923444 sec
		R6	161.3
		DM	60.800 usec
		DE	6.00 usec
		TE	300.0 K
		D1	1.00000000 sec
----- CHANNEL f1 -----			
MU1	1H		
P1	9.50 usec		
PL1	-2.00 dB		
SFO1	400.1324710 MHz		
		F2 - Processing Parameters	
SI	16384		
SF	400.1289648 MHz		
WDW	EM		
SSB	0		
B	0.30 Hz		
GB	0		
PC	1.00		
10 MMH plot parameters:			
CX	8.100 cm		
FLP	30.000 mm		
F1	324.105 Hz		
F2P	-0.200 ppm		
F2	-80.03 Hz		
PRNCH	0.27657 ppm/cm		
QZCN	110.70263 Hz/cm		

35

Chemical structure of compound 35: A chiral molecule with two stereocenters marked with asterisks (*). It features a phenyl (Ph) group, an OTBS group, and an alkyne group.

¹³C NMR spectrum (CDCl₃) showing chemical shifts (ppm) for compound 35:

- 151.070, 150.256, 143.370, 142.314, 139.812, 139.840, 128.636, 128.363, 128.277, 128.117, 128.083, 127.964, 127.875, 127.814, 127.694, 126.651, 126.584, 126.359, 126.253, 112.662, 110.865
- 87.325, 86.928
- 77.327, 77.009, 76.692, 70.205, 70.159, 65.859
- 46.454, 45.951
- 33.282, 32.606, 25.910, 25.745, 25.708, 19.709, 19.214, 18.294, 15.261
- 0.000, -3.674, -3.746, -4.022

```

Current Data Parameters
NAME          Oct-02
EXPNO         157
PROCNO        1

F2 - Acquisition Parameters
Date_         20021015
Time          8.09
INSTRUM       spect
PROBHD        5 mm QNP 1H
PULPROG       zgpg30
TD             65536
SOLVENT       CDCl3
NS            1766
DS            2
SWH           31847.133 Hz
FIDRES        0.465949 Hz
AQ            1.0289952 sec
RG            5160.6
DQ            15.700 usec
DE            5.00 usec
TE            300.0 K
T1            2.0000000 sec
D11           0.0300000 sec
D12           0.0002000 sec

***** CHANNEL f1 *****
NUC1           13C
P1            10.50 usec
PL1           -1.00 dB
SFO1          100.6254358 MHz

===== CHANNEL f2 =====
CPROG2        zgpg30
NUC2           1H
PCPD2         100.00 usec
PL2           -2.00 dB
PL12          18.00 dB
PL13          20.00 dB
SFO2          400.1324208 MHz

F3 - Processing Parameters
SI            32768
MK            100.612700 MHz
NMK           FM
SSB           0
LB            1.00 Hz
GB            0
PC            1.40

10 NMR1 plot parameters
CX            20.00 cm
FAP           205.00 ppm
F1            20655.62 Hz
F2P          -10.000 ppm
F3           -1005.13 Hz
PRGMCM       f716567.prm/cm
HZCM         721.05611 Hz/cm

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LKY-886

Current Data Parameters
 NAME Oct-02
 EXPNO 141
 PROCNO 1
 F2 - Acquisition Parameters
 Date_ 20021015
 Time 7.33
 INSTRUM spect
 PROBHD 5 mm Dual 13
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 13803
 DS 2
 SFO2 31947.133 Hz
 FIDRES 0.485649 Hz
 AQ 1.028952 sec
 RG 3849
 DW 13.700 usec
 DE 6.00 usec
 TE 300.0 K
 D1 2.0000000 sec
 D11 0.0300000 sec
 D12 0.0002000 sec
 ***** CHANNEL f1 *****
 NUC1 13C
 P1 10.50 usec
 PL1 -1.00 dB
 SFO1 100.6254559 MHz
 ***** CHANNEL f2 *****
 CPROG2 waltz16
 NUC2 1H
 PCPD2 100.00 usec
 PL2 -2.00 dB
 PL12 18.00 dB
 PL13 20.00 dB
 SFO2 400.1324708 MHz
 F2 - Processing parameters
 SI 32768
 SF 100.6127290 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40
 ID NMR Plot Parameters
 CX 30.00 cm
 F1P 205.000 ppm
 F1 20625.61 Hz
 F2P -10.000 ppm
 F2 -1006.13 Hz
 PPMCH 7.16657 ppm/cm
 HZCH 721.05786 Hz/cm

LKY-895

H2

2841.48

1822.99
1821.17
1819.35
1817.54
1790.74
1788.86
1786.95
1785.10
1783.41
1769.25
1760.18
1745.60
1743.76

1015.33
1009.54
1008.02
881.09
867.01
862.70
853.34
847.62
846.34
845.15
843.36
752.37
739.14
737.89
735.33
732.33
557.69
404.51
397.56
394.65
392.49
387.69
385.49
309.00
306.13
303.26
298.28
1.97
0.00
-4.43
-8.56
-54.17

Current Data Parameters
NAME sep-02
EXPNO 191
PROCNO 1

F2 - Acquisition Parameters

Date_ 20020918
Time 15.43
INSTRUM spect
PROBHD 5 mm Dual 13
PULPROG zgpg30
TD 32768
SOLVENT CDCl3
NS 40
DS 0
SWH 8223.595 Hz
FIDRES 0.250567 Hz
AQ 1.3923444 sec
RG 287.4
GB 60.800 usec
DE 5.00 usec
TE 300.0 K
D1 1.00000000 sec

***** CHANNEL f1 *****

NUC1 1H
P1 9.50 usec
PL1 -2.00 dB
SFO1 400.1324710 MHz

F2 - Processing parameters

SF 400.1300727 MHz
SI 16384
SF 400.1300727 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

1D NMR plot parameters

CY 30.00 cm
F1P 8.100 ppm
F1 3241.03 Hz
F2P -0.200 ppm
F2 -80.03 Hz
PRGCM 0.27867 ppm/cm
HZCM 110.70865 Hz/cm

LKY-895

Current Data Parameters

NAME	SEP-02
EXPNO	173
PROCNO	1

F2 - Acquisition Parameters

Date_	20020917
Time	17.26
INSTRUM	spect
PROBHD	5 mm QNP 13
PULPROG	zgpg30
TD	65536
SOLVENT	CDCl3
NS	1952
DS	2
SWH	31847.133 Hz
FIDRES	0.465349 Hz
AQ	1.0289652 sec
RG	3649.1
DM	15.700 usfc
DE	6.00 usfc
TE	300.0 K
D1	2.00000000 sec
D11	0.03000000 sec
D12	0.00020000 sec

***** CHANNEL f1 *****

MUCl	13C
P1	10.50 usfc
PL1	-1.00 dB
SFO1	100.6250358 MHz

***** CHANNEL f2 *****

CPOPRG2	zgpg30
NUC2	1H
PCPD2	100.00 usfc
PL2	-2.00 dB
PL12	18.00 dB
PL13	20.00 dB
SFO2	400.1324708 MHz

F2 - Processing parameters

SI	32768
SF	100.612671 MHz
WDW	EM
SSB	0
LB	1.00 Hz
GB	0
PC	1.40

10 NMR plot parameters

CX	30.00 cm
F1P	205.000 ppm
F1	20525.52 Hz
F2P	-10.000 ppm
F2	-1006.13 Hz
PPHCH	7.16667 ppm/cm
HZCH	721.05811 Hz/cm

LKY-887

Current Data Parameters
NAME: sep-02
EXPNO: 124
PROCNO: 1

F2 - Acquisition Parameters
Date_: 20080914
Time: 9.19
INSTRUM: spect
PROBHD: 5 mm QNP 13
PULPROG: zgpg30
TO: 32768
SOLVENT: CDCl3
NS: 20
DS: 0
SWH: 8223.865 Hz
FIDRES: 0.250837 Hz
AQ: 1.9823444 sec
RG: 128
RW: 60.860 usec
DE: 6.00 usec
TE: 300.2 K
D1: 1.00000000 sec

***** CHANNEL f1 *****
NUC1: 1H
P1: 10.80 usec
PL1: -2.00 dB
SFO1: 400.1324710 MHz

F2 - Processing parameters
SI: 16384
SF: 400.1300582 MHz
WDW: EM
SSB: 0
LB: 0.30 Hz
GB: 0
PC: 1.00

1D NMR plot parameters
CX: 30.00 cm
F1P: 8.100 ppm
F1: 3241.05 Hz
F2P: -0.200 ppm
F2: -80.03 Hz
PRGCM: 0.27667 ppm/cm
HZCM: 110.70265 Hz/cm

LKY-906

Current Data Parameters

NAME	EXPNO	PROCNO
NAME	235	1

F2 - Acquisition Parameters

Date_	Time	INSTRUM	PROBHD	P1-PRG	TO	SWH	NS	DS	SWH	FIDRES	RG	DE	TE	D1	D11	D12
20020324	10 41	spect	5 mm Dual 13	zgpg30	65536	31847.133 Hz	1256	2	0.469494 Hz	1.028652 sec	4096	6.00 usec	300.0 K	2.00000000 sec	0.03000000 sec	0.00020000 sec

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

MUCL	P1	PL1	SFO1
13C	10.50 usec	-1.00 dB	100.6254358 MHz

===== CHANNEL f2 =====

MUCL	P1	PL1	SFO1
1H	100.00 usec	-2.00 dB	400.1324708 MHz

F2 - Processing parameters

SI	SF	MDW	SSB	GB	PC
32768	100.6127671 MHz	EM	0	1.00 Hz	1.40

10 MHz plot parameters

CX	F1P	F2P	PPMCM	KZCM
30.00 cm	220.000 ppm	22134.81 Hz	-10.000 ppm	7.136456 Hz/cm

LKY-902

Current Data Parameters

NAME	sep-02
EXPNO	204
PROCNO	1

F2 - Acquisition Parameters

Date_	20020919
Time	11.44
INSTRUM	spect
PROBHD	5 mm Dui 13
PULPROG	zg30
TD	32768
SOLVENT	CDCl3
NS	40
DS	0
SWH	8223.665 Hz
FIDRES	0.250967 Hz
AQ	1.9923444 sec
RG	50.8
DW	60.800 usec
DE	6.00 usec
TE	300.0 K
D1	1.00000000 sec

***** CHANNEL f1 *****

NUC1	1H
P1	9.50 usec
PL1	-2.00 dB
SFO1	400.1324710 MHz

F2 - Processing parameters

SI	16384
SF	400.1300642 MHz
WDW	EM
SSB	0
LB	0.30 Hz
GB	0
PC	1.00

1D NMR plot parameters

CA	30.00 cm
F1P	6.100 ppm
F1	3241.05 Hz
F2P	-80.03 Hz
F2	0.27667 ppm/cm
HZCM	110.7065 Hz/cm

F2 - Acquisition Parameters		
Time	20020918	
Date	16 00	
INSTRUM	SPECT	
PROBHD	5 mm	Dist 13
PULPROG	zgpg30	
TD	1024	
SI	SRVLEN	
MS	1811	
DS	2	
SWH	31647.133 Hz	
FIDRES	0.485045 Hz	
AQ	1.0280682 sec	
RG	3840	
DE	15.700 usec	
DC	6.00 usec	
TE	300.0 K	
DT	2.00000000 sec	
011	0.03500000 sec	
012	0.00020000 sec	
***** CHANNEL f1 *****		
MU1	13C	
NUC1	13C	
P1	10.50 usec	
PL1	-1.00 dB	
SFO1	100.6264359 MHz	
***** CHANNEL f2 *****		
CHPROG2	waltz16	
NUC2	1H	
PCPD2	100.00 usec	
PL2	-2.00 dB	
PL12	18.00 dB	
PL13	20.00 dB	
SFO2	400.1324708 MHz	
F2 - Processing parameters		
SI	32768	
SF	100.6127250 MHz	
MDM	EM	
SSB	0	
LB	1.00 Hz	
GB	0	
PC	1.40	
10 NMR plot parameters		
CY	30.00 cm	
F1P	205.00 cm	
F1	26535.61 Hz	
F2P	10.000 usec	
F2	-1005.13 Hz	
PRWD	7.05652 mm/cm	
WICH	721.05286 Hz/cm

LKY-906

Current Data Parameters
NAME: sep-02
EXPNO: 234
PROCNO: 1

F2 - Acquisition Parameters
Date_: 20020924
Time: 10.34
INSTRUM: spect
PROBHD: 5 mm Dual 13
PULPROG: zgpg30
TD: 32768
SOLVENT: CDCl₃
NS: 20
DS: 0
SWH: 8223.865 Hz
FIDRES: 0.260882 Hz
AQ: 1.9823444 sec
RG: 60.800 usec
DE: 181
TE: 300.2 K
D1: 1.00000000 sec

***** CHANNEL f1 *****
NUC1: 1H
P1: 9.50 usec
PL1: -2.00 dB
SFO1: 400.1324710 MHz

F2 - Processing parameters
SI: 16384
SF: 400.1300572 MHz
WDW: EM
SSB: 0
LB: 0.30 Hz
GB: 0
PC: 1.00

1D NMR plot parameters
CX: 30.00 cm
F1P: 8.100 ppm
F1: 3241.05 Hz
F2P: -0.200 ppm
F2: -80.03 Hz
PNUC1: 0.27657 ppm/cm
HZCM: 110.70685 Hz/cm

LKY-906

Current Data Parameters

NAME	SEP-02
EXPNO	235
PROCNO	1

F2 - Acquisition Parameters

Date_	Time
20020324	10:41
INSTRUM	spect
PROBHD	5 mm Dual 13
PULPROG	zgpg30
TD	65535
SOLVENT	CDCl3
NS	1256
DS	2
SWH	31847.133 Hz
FIDRES	0.485949 Hz
AQ	1.0298652 sec
RG	4096
DM	15.700 usec
DE	6.00 usec
TE	300.0 K
D1	2.00000000 sec
D11	0.03000000 sec
D12	0.00020000 sec

***** CHANNEL f1 *****

NUC1	13C
P1	10.50 usec
PL1	-1.00 dB
SFO1	100.6250590 MHz

***** CHANNEL f2 *****

CPDPRG2	waltz16
NUC2 <td>1H</td>	1H
PCPD2 <td>100.00 usec</td>	100.00 usec
PL2 <td>-2.00 dB</td>	-2.00 dB
PL12 <td>18.00 dB</td>	18.00 dB
PL13 <td>20.00 dB</td>	20.00 dB
SFO2 <td>400.1324708 MHz</td>	400.1324708 MHz

F2 - Processing parameters

SF	32768
SF <td>100.6127671 MHz</td>	100.6127671 MHz
MDM <td>EM</td>	EM
SSB <td>0</td>	0
LB <td>1.00 Hz</td>	1.00 Hz
GB <td>0</td>	0
PC <td>1.40</td>	1.40

1D NMR plot parameters

CX	30.00 cm
F1P <td>220.000 ppm</td>	220.000 ppm
F1 <td>223.14, 81 Hz</td>	223.14, 81 Hz
F2P <td>-10.000 ppm</td>	-10.000 ppm
F2 <td>-1006.13 Hz</td>	-1006.13 Hz
PRMCH <td>7.66567 ppm/cm</td>	7.66567 ppm/cm
HZCM <td>771.36456 Hz/cm</td>	771.36456 Hz/cm

LKY-918

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Chemical Shift (ppm)	Integration
897.40	
894.04	
807.56	
804.86	
800.52	
797.88	
743.42	
739.36	
737.66	
736.72	
735.06	
732.61	
729.00	
726.44	
723.85	
665.90	
661.68	
656.30	
654.78	
651.58	
570.87	
448.30	
439.92	
315.31	
312.60	
309.95	
305.87	
0.00	
-55.03	

Current Data Parameters
NAME: LKY-918
EXPNO: 1
PROCNO: 1

F2 - Acquisition Parameters

Date_: 20021010
Time: 13.52
INSTRUM: spect
PROBHD: 5 mm QNP 1H
PULPROG: zgpg30
TO: 32768
SOLVENT: CDCl3
NS: 60
DS: 0
SWH: 8323.685 Hz
FIDRES: 0.250827 Hz
AQ: 1.9923444 sec
RG: 64
DM: 60.800 usec
DE: 6.00 usec
TE: 300.2 K
D1: 1.00000000 sec

***** CHANNEL f1 *****
NUC1: 1H
P1: 9.50 usec
PL1: -2.00 dB
SFO1: 400.1324710 MHz

F2 - Processing parameters

SI: 16384
SF: 400.130630 MHz
KOH: EM
SSB: 0
LB: 0.30 Hz
GB: 0
PC: 1.00

1D NMR plot parameters

CX: 30.00 cm
F1P: 8.100 ppm
F1: 3241.05 Hz
F2P: -0.200 ppm
F2: -80.03 Hz
PPM0H: 0.27667 ppm/cm
HZ0H: 110.76865 Hz/cm

LKY-918

Current Data Parameters

NAME	VALUE
EXPNO	115
PROCNO	1

F2 - Acquisition Parameters

Date_	Time
20021010	15.13

INSTRUM spect

PROBHD 5 mm Dual 13

PULPROG zgpg30

TD 65536

SOLVENT CDCl3

NS 2399

DS 2

SWH 3184.133 Hz

FIDRES 0.485949 Hz

AQ 1.0298652 sec

RG 3648

DE 15.700 usec

TE 300.0 K

D1 2.0000000 sec

D11 0.0300000 sec

D12 0.0002000 sec

***** CHANNEL f1 *****

NUC1	13C
P1	10.50 usec
PL1	-1.00 dB
SFO1	100.6254358 MHz

***** CHANNEL f2 *****

CPDPRG2	NAME2	VALUE2
NUC2	1H	
PCPD2	100.00 usec	
PL2	-2.00 dB	
PL12	18.00 dB	
PL13	20.00 dB	
SFO2	400.1324708 MHz	

F2 - Processing parameters

SI	32768
SF	100.6127673 MHz
WDW	EM
SSB	0
LB	1.00 Hz
GB	0
PC	1.40

10 MHz plot parameters

CX	30.00 cm
F1P	205.000 ppm
F1	20625.62 Hz
F2P	-10.000 ppm
F2	-1005.13 Hz
PPMCH	7.16567 ppm/c
HZCM	721.05811 Hz/cm

Current Data Parameters	
NAME	set-02
EXPO	167
PRCNO	1
F2 - Acquisition Parameters	
Date=	20020917
Time	15.09
INSTPRG	Spect
PROBID	5 mm Dm1 J3
PULPROG	zg30
TD	32768
SOLVENT	CDCl3
NS	16
DS	0
SWH	8223.685 Hz
F1FREQS	0.250957 Hz
AQ	1.9923444 sec
RG	90.5
DM	60.800 usec
DE	6.00 usec
TE	300.0 K
D1	1.00000000 sec
***** CHANNEL f1 *****	
MUC1	3H
P1	9.50 usec
PL1	-2.00 dB
SFO1	400.1324710 MHz
F1 - Processing parameters	
SI	16384
SF	400.1300648 MHz
WDW	EM
SSB	0
B	0.30 Hz
GB	0
PC	1.00
10 MHz plot parameters	
CX	8.100 cm
F1P	8.100 ppm
F1	3241.05 Hz
F2P	0.200 ppm
F2	-90.03 Hz
PRCNO	0.27657 ppm/cm
HZCN	110.70265 Hz/cm

```

F2 - Acquisition Parameters
Date: 20020917
Time: 15:29
INSTRUM spect
PROBHD 5 mm Dual 13
PULPROG zgpg30
TD 260030
FIDRES 0.000000
SOLVENT CDCl3
NS 1555
DS 2
SWH 31847.133 Hz
F1F2RES 0.4658543 Hz
AQ 1.028652E sec
RG 3843.1
DE 151.700 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
D12 0.00002000 sec

***** CHANNEL f1 *****
NUC1 13C
P1 10.50 usec
PL1 -1.00 dB
SFO1 100.6254358 MHz

***** CHANNEL f2 *****
CHPROG2 zgpg30
NUC2 1H
PCPD2 100.00 usec
PL2 -2.00 dB
PL12 18.00 dB
PL13 20.00 dB
SFO2 400.1324708 MHz

F2 - Processing parameters
SI 32768
SF 180.6127574 MHz
FIDRES 0.000000
SOLVENT EM
NS 0
DS 1.00 Hz
PC 1.40

ID NMR Plot parameters
CX 30.00 cm
CY 205.000 ppm
F1 20625.52 Hz
F2 400.000 ppm
F2 -2012.23 Hz
P1 1.30000 00a/cm
P2 1.30000 00a/cm
P3 1.30000 00a/cm
P4 1.30000 00a/cm
P5 1.30000 00a/cm
P6 1.30000 00a/cm
P7 1.30000 00a/cm
P8 1.30000 00a/cm
P9 1.30000 00a/cm
P10 1.30000 00a/cm
P11 1.30000 00a/cm
P12 1.30000 00a/cm
P13 1.30000 00a/cm
P14 1.30000 00a/cm
P15 1.30000 00a/cm
P16 1.30000 00a/cm
P17 1.30000 00a/cm
P18 1.30000 00a/cm
P19 1.30000 00a/cm
P20 1.30000 00a/cm
P21 1.30000 00a/cm
P22 1.30000 00a/cm
P23 1.30000 00a/cm
P24 1.30000 00a/cm
P25 1.30000 00a/cm
P26 1.30000 00a/cm
P27 1.30000 00a/cm
P28 1.30000 00a/cm
P29 1.30000 00a/cm
P30 1.30000 00a/cm
P31 1.30000 00a/cm
P32 1.30000 00a/cm
P33 1.30000 00a/cm
P34 1.30000 00a/cm
P35 1.30000 00a/cm
P36 1.30000 00a/cm
P37 1.30000 00a/cm
P38 1.30000 00a/cm
P39 1.30000 00a/cm
P40 1.30000 00a/cm
P41 1.30000 00a/cm
P42 1.30000 00a/cm
P43 1.30000 00a/cm
P44 1.30000 00a/cm
P45 1.30000 00a/cm
P46 1.30000 00a/cm
P47 1.30000 00a/cm
P48 1.30000 00a/cm
P49 1.30000 00a/cm
P50 1.30000 00a/cm
P51 1.30000 00a/cm
P52 1.30000 00a/cm
P53 1.30000 00a/cm
P54 1.30000 00a/cm
P55 1.30000 00a/cm
P56 1.30000 00a/cm
P57 1.30000 00a/cm
P58 1.30000 00a/cm
P59 1.30000 00a/cm
P60 1.30000 00a/cm
P61 1.30000 00a/cm
P62 1.30000 00a/cm
P63 1.30000 00a/cm
P64 1.30000 00a/cm
P65 1.30000 00a/cm
P66 1.30000 00a/cm
P67 1.30000 00a/cm
P68 1.30000 00a/cm
P69 1.30000 00a/cm
P70 1.30000 00a/cm
P71 1.30000 00a/cm
P72 1.30000 00a/cm
P73 1.30000 00a/cm
P74 1.30000 00a/cm
P75 1.30000 00a/cm
P76 1.30000 00a/cm
P77 1.30000 00a/cm
P78 1.30000 00a/cm
P79 1.30000 00a/cm
P80 1.30000 00a/cm
P81 1.30000 00a/cm
P82 1.30000 00a/cm
P83 1.30000 00a/cm
P84 1.30000 00a/cm
P85 1.30000 00a/cm
P86 1.30000 00a/cm
P87 1.30000 00a/cm
P88 1.30000 00a/cm
P89 1.30000 00a/cm
P90 1.30000 00a/cm
P91 1.30000 00a/cm
P92 1.30000 00a/cm
P93 1.30000 00a/cm
P94 1.30000 00a/cm
P95 1.30000 00a/cm
P96 1.30000 00a/cm
P97 1.30000 00a/cm
P98 1.30000 00a/cm
P99 1.30000 00a/cm
P100 1.30000 00a/cm

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-S20-

LKY-8916

Current Data Parameters

NAME	EXPNO	PROCNO
NAME	194	1

F2 - Acquisition Parameters

DATE_	TIME	INSTRUM	PROBHD	PULPROG	TD	SOLVENT	NS	DS	SWH	FIDRES	AQ	RG	DW	DE	TE	D1	D12
20020918	10 09	SPECT	5 mm Dui1 13	zgpg30	65536	CDCl3	1754	2	31947.133 Hz	0.485949 Hz	1.0288652 sec	10321.3	15.700 usec	6.00 usec	300.0 K	2.00000000 sec	0.03000000 sec

***** CHANNEL f1 *****

NUC1	P1	PL1	SFO1
13C	10.50 usec	-1.00 dB	100.6254356 MHz

***** CHANNEL f2 *****

CPDPRG2	NUC2	POPO2	PL2	PL12	PL13	SFO2
WALTZ16	1H	100.00 usec	-2.00 dB	18.00 dB	20.00 dB	400.1324708 MHz

F2 - Processing Parameters

SI	SF	WDW	SSB	LB	GB	PC
32758	100.6127654 MHz	EM	0	1.00 Hz	0	1.40

1D NMR Plot Parameters

CX	F1P	F2P	PPMCH	HZCH
30.00 cm	220.000 cm	27134.81 Hz	-1005.13 Hz	7.6667 ppm/cm
				771.36456 Hz/cm

LKY-919-2

Current Data Parameters
NAME oct-02
EXPNO 119
PROCNO 1

F2 - Acquisition Parameters
Date_ 20021011
Time 14.20
INSTRUM spect
PROBHD 5 mm QNP1 13
PULPROG zg30
TD 32768
SOLVENT CDCl3
NS 20
DS 0
SWH 8223.685 Hz
FIDRES 0.250967 Hz
AQ 1.9923444 sec
RG 181
DW 60.800 usec
DE 6.00 usec
TE 300.0 K
D1 1.00000000 sec

***** CHANNEL f1 *****
NUC1 1H
P1 9.50 usec
PL1 -2.00 dB
SFO1 400.1324710 MHz

F2 - Processing parameters
SI 16384
SF 400.130085 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

1D NMR plot parameters
CX 30.00 cm
F1P 8.100 ppm
F1 3241.05 Hz
F2P -0.200 ppm
F2 -80.03 Hz
P0PCMA 0.27667 DPM/cm
HZCM 110.70264 Hz/cm

LKY-919-2

Current Data Parameters

NAME	EXPNO	PROCNO
NAME	136	1

F2 - Acquisition Parameters

Date_	Time
20021014	19:45

INSTRUM spect

PROBHD 5 mm Dual 13

PULPROG zgpg30

TD 65536

SOLVENT CDCl3

NS 7051

DS 2

SWH 31847.133 Hz

FIDRES 0.465949 Hz

AQ 1.0288652 sec

RG 1625.5

DM 15.700 usec

DE 6.00 usec

TE 300.0 K

D1 2.0000000 sec

D11 0.0300000 sec

D12 0.0002000 sec

***** CHANNEL f1 *****

NUC1	P1	PL1	ST1
13C	10.50 usec	-1.00 dB	100.6254358 MHz

***** CHANNEL f2 *****

CPDPRG2	NAME2	PCPD2	PL2	ST2
waitz16	1H	100.00 usec	-2.00 dB	400.1327708 MHz

F2 - Processing parameters

SF	SI
100.6127672 MHz	32758

MDW EM

SSB 0

LB 1.00 Hz

GB 0

PC 1.40

10 MHz plot parameters

EX	F1P	F2P
30.00 cm	205.000 ppm	-10.000 ppm
	205.25.62 Hz	-1006.13 Hz
		7.16667 ppm/cm
		721.0581 Hz/cm

LKY-1000

Current Data Parameters
NAME Jan-03
EXPNO 170
PROCNO 1

F2 - Acquisition Parameters
Date_ 20030115
Time 14.02
INSTRUM spect
PROBHD 5 mm Dui 13
PULPROG zgpg30
TD 32768
SOLVENT CDCl3
NS 20
DS 0
SWH 8223.608 Hz
FIDRES 0.250861 Hz
AQ 1.592344 sec
RG 20.2
RG 60.800 usec
DE 6.00 usec
TE 300.0 K
D1 1.00000000 sec

***** CHANNEL f1 *****
NUC1 31P
P1 11.50 usec
PL1 -2.00 dB
SFO1 400.1324710 MHz

F2 - Processing parameters
SI 16384
SF 400.1259487 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

1D NMR plot parameters
CX 30.00 cm
F1P 8.100 ppm
F1 3241.05 Hz
F2P -40.01 Hz
F2 0.27333 ppm/cv
PPMCH 109.36866 Hz/cv
HZCH

LXY-1000 (-20 °C)

(at -20 °C)

Current Data Parameters
NAME: Jan-03
EXPNO: 171
PROCNO: 1

F2 - Acquisition Parameters
Date_: 20030115
Time: 14.07
INSTRUM: spect
PROBHD: 5 mm QNP 13
PULPROG: zgpg30
TD: 32768
SOLVENT: CDCl3
NS: 20
DS: 0
SWH: 6323.885 Hz
FIDRES: 0.23887 Hz
AQ: 1.802344 sec
RG: 28.2
GB: 64.000 Hz
PC: 6.00 Hz
TE: 300.2 K
D1: 1.0000000 sec

===== CHANNEL f1 =====
NUC1: 1H
P1: 11.20 uSec
PL1: -2.00 dB
SFO1: 400.136410 MHz

F2 - Processing parameters
SI: 16384
SF: 400.125905 MHz
WDW: EM
SSB: 0
LB: 0.36 Hz
GB: 0
PC: 1.00

1D NMR plot parameters
CX: 30.00 cm
F1P: 8.100 cm
F1: 3241.05 Hz
F2P: 8.100 cm
F2: -40.51 Hz
PNUC1: 0.27133 pmol/mol
NUC1: 100.62687 Hz/cm