**A New Class of Chiral Pyrrolidine-Pyridine Conjugate Base Catalysts
for Use in Asymmetric Michael Addition Reactions**

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**¹H and ¹³C NMR Data of Bromopyridine, 3a-e, and 6-13.
(28 Pages)**

Date : Mon May 3 17:02:41 2004
 FileName : LoadingID.rmda
 Comment : ISI-193
 SliceHistory : non
 EXMODE : non
 POINT : 32768 points
 SAMPO : 32768 points
 FREQ : 7993.6 Hz
 FILTR : 4000 Hz
 DELAY : 50.0 usec
 DEADT : 71.5 usec
 INTVL : 125.1 usec
 TIMES : 4 times
 DUMMY : 1 times
 PD : 2.9007 sec
 ACQTM : 4099.2769 msec
 PREDL : 0.01000 msec
 INIWT : 1000.0000 msec
 RESOL : 0.24 Hz
 PW1 : 7.00 usec
 OBNUC : ¹H
 OBFRQ : 399.65 MHz
 OBSET : 134300.00 Hz
 RGAIN : 20
 SCANS : 4 times
 SLVNT : CDCL₃
 SPINNT : 12 Hz
 TEMP : 25.8 C

¹H NMR
 (400 MHz, CDCl₃)

2.0423
 2.0332
 2.0258
 2.0173
 2.0100
 1.9941
 1.8745
 1.6817

3.2780
 3.2615

6.5163
 6.5016
 6.3296
 6.3149
 6.3058

7.2784
 7.2680

7.9167
 7.9026
 7.8910
 7.8734

4.76

4.23

1.07

1.03

1.00

ppm

2

4

6

8

Date : Mon May 3 17:30:48 2004
FileName : LoadingFID.nmdata
Comment : ISI-
SliceHistory :
EXMODE : bcm

POINT : 32768 points
SAMPD : 32768 points
FREQ : 27100.3 Hz
FILTR : 13550 Hz
DELAY : 14.8 usec
DEADT : 19.4 usec
INVT : 36.9 usec
TIMES : 524 times
DUMM : 1 times
PU : 1.7909 sec
ACQTM : 1209.1393 msec
PREDL : 0.01000 msec
ININT : 1000.0000 msec
RESOL : 0.83 Hz
PW1 : 5.50 usec
13C : 13C
OBNUC : 100.40 MHz
OBFRQ : 135500.00 Hz
RGAIN : 32
TRNUC : 1H
IRFRQ : 399.65 MHz
IRSET : 134300.00 Hz
IRPW : 50.0 usec
IRNS : 0

SCANS : 524 times
SLVNT : CDCL3
SPINNING : 14 Hz
TEMP : 26.7 C

¹³C NMR
(100 MHz, CDCl₃)

Date : Fri Jun 6 13:33:01 2003

File Name : LoadingID mmdata

Comment : ISI-

Slice History :

EXMODE : non

POINT 32768 points
SAMPD 32768 points
FREQ 7993.6 Hz
FILT 4000 Hz
DEAD 50.0 usec
DEAD 71.7 usec
INVL 125.1 usec
TIMES 4 times
DUMY 1 times
PD 2.9007 sec
ACQTM 4099.2769 msec
PREOL 10.0000 msec
ININT 0.5000 msec
RESOL 0.24 Hz
PWI 6.60 usec
OBNUC 1H
OBFRQ 399.65 MHz
OBSET 134300.00 Hz
RGAIN 20
SCANS 4 times
SLVNT CDCL3
SPINNG 14 Hz
TEMP 24.8 C

0.0000
1.4047
1.4236
1.4279
1.4346
1.4468
1.4535
1.4584
1.4724
1.7201
1.7238
1.7336
1.7372
1.7421
1.7445
1.7549
1.7580
1.7622
1.7751
1.7818
1.7891
1.7946
1.7982
1.8007
1.8172
1.8446
1.8605
1.8660
1.8733
1.8776
1.8825
1.8861
1.8910
1.8947
2.2473
2.8179
2.8350
2.8390
2.8435
2.8521
2.8545
2.8600
2.8636
2.8716
2.8807
2.8856
2.9051
2.9344
2.9491
2.9686
2.9826
3.0028
3.0162
3.0217
3.0284
3.0351
3.0418
3.0473
3.0607
3.4568
3.4714
3.4885
7.0954
7.0978
7.1076
7.1106
7.1143
7.1167
7.1265
7.1289
7.1765
7.1960
7.3022
7.5701
7.5744
7.5890
7.5939
7.6079
7.6128
8.5183
8.5202
8.5226
8.5250
8.5305
8.5324
8.5346
8.5372

¹H NMR
(400 MHz, CDCl₃)

Date : Tue Nov 19 23:09:32 2002

File Name : LoadingFID.nmdata
Comment : S60-625
Slice History :
EXMODE : bcm

POINT 32768 points
SAMPD 32768 points
FREQD 27100.3 Hz
FILTR 13550 Hz
DELAY 14.8 usec
DEADT 19.7 usec
INVTL 36.9 usec
TIMES 624 times
DUMMY 1 times
PD 1.7909 sec
ACQTM 1209.1393 msec
PREDL 10.00000 msec
INVTM 0.5000 msec
RESOL 0.83 Hz
PW1 4.90 usec
13C 100.40 MHz
OBNUC 135500.00 Hz
OBFRQ 32
OBSET
RGAIN
IRNUC 399.65 MHz
IRFRQ 134300.00 Hz
IRSET
IRRPW 50.0 usec
IRRNS 0
SCANS 624 times
SLVNT : CDCL3
SPINNT 16 Hz
TEMP 23.0 C

160.110
149.242
136.334
123.533
121.221
77.321
77.000
76.687
58.900
46.165
44.116
31.233
24.955

3a

¹³C NMR
(100 MHz, CDCl₃)

ppm

Date : Mon May 3 18:14:22 2004
FileName : LoadingFID.nmdata
Comment : ISI-140
SliceHistory : bcm
EXMODE : bcm

POINT 32768 points
SAMPD 32768 points
FREQD 27100.3 Hz
FILTR 13550 Hz
DELAY 14.8 usec
DEADT 19.4 usec
INTVL 36.9 usec
TIMES 524 times
DUMMY 1 times
PD 1.7909 sec
ACQTM 1209.1393 msec
PREDL 0.01000 msec
INIWT 1000.0000 msec
RESOL 0.83 Hz
PWI 5.50 usec
OBNUC 13C
OBFRQ 100.40 MHz
OBSET 135500.00 Hz
RGAIN 32
IRNUC 1H
IRFRQ 399.65 MHz
IRSET 134300.00 Hz
IRPW 50.0 usec
IRNS 0

SCANS 524 times
SLWT : CDCL3
SPINNING 10 Hz
TEMP 25.9 C

3b¹³C NMR(100 MHz, CDCl₃)

Date : Tue May 4 22:55:30 2004
 File Name : LoadingID.nmdata
 Comment : ISI-196
 Slice History : non
 EXMODE : non
 POINT : 32768 points
 SAMPD : 32768 points
 FREQ : 7993.6 Hz
 FILTR : 4000 Hz
 DELAY : 50.0 usec
 DE40T : 71.5 usec
 INTVL : 125.1 usec
 TIMES : 4 times
 DUMMY : 1 times
 PD : 2.9007 sec
 ACQTM : 4099.2769 msec
 PREDL : 0.01000 msec
 ININT : 1000.0000 msec
 RESOL : 0.24 Hz
 PW1 : 7.00 usec
 OBNUC : ¹H
 OBFRQ : 399.65 MHz
 OBSET : 134300.00 Hz
 RGAIN : 20
 SCANS : 4 times
 SLVNT : CDCl₃
 SPINNT : 14 Hz
 SPINNT : 25.9 C

¹H NMR
 (400 MHz, CDCl₃)

Date : Tue May 4 23:30:23 2004
 File Name : LoadingFIID.nmdata
 Comment : ISI-196
 Slice History :
 EXMODE : bcm

POINT : 32768 points
 SAMPD : 32768 points
 FREQ : 27100.3 Hz
 FILTR : 13550 Hz
 DELAY : 14.8 usec
 DEAT : 19.4 usec
 INTVL : 36.9 usec
 TIMES : 524 times
 DUMMY : 1 times
 PD : 1.7909 sec
 ACQTM : 1209.1393 msec
 PREDL : 0.01000 msec
 INIWT : 1000.0000 msec
 RESOL : 0.83 Hz
 PW1 : 5.50 usec
 DNUC : 13C
 OBFRG : 100.40 MHz
 OBSET : 135500.00 Hz
 RGAIN : 32
 TRNUC : 1H
 TRFRG : 399.65 MHz
 IRSET : 134300.00 Hz
 IRRPW : 50.0 usec
 IRRNS : 0

SCANS : 524 times
 SLVNT : CDCL3
 SPINNING : 14 Hz
 TEMP : 25.9 C

3c

¹³C NMR

(100 MHz, CDCl₃)

Date : Tue Jun 29 11:43:28 2004

File Name : LoadingFile.nmdata
Comment : SGO-658

EXMODE : non

POINT 32768 points
SAMPD 32768 points
FREQ 7993.6 Hz
FILT 4000 Hz
DELT 50.0 usec
DEAD 71.5 usec
INVT 125.7 usec
TIMES 8 times
DUMY 1 times
PO 2.9007 sec
ACQ 4099.2769 msec
PRED 0.01000 msec
INVT 1000.0000 msec
RESOL 0.24 Hz
PW1 7.00 usec
1H
OBNIC 399.65 MHz
OBSFQ 134300.00 Hz
OBSST 20
SCANS 8 times
SLVNT CDCL3
SPINNT 11 Hz
TEMP 24.9 C

3d

¹H NMR(400 MHz, CDCl₃)

Date : Mon Feb 3 01:52:29 2003

File Name : LoadingFID.mdata
 Comment : SGO-685
 Slice History : bcm
 EXMODE :

POINT : 32768 points
 SAMPD : 32768 points
 FREQ : 27100.3 Hz
 FILTR : 13550 Hz
 DELAY : 14.8 usec
 DEADT : 19.7 usec
 INTVL : 36.9 usec
 TIMES : 424 times
 DUMMY : 1 times
 PD : 1.7909 sec
 ACQTM : 1209.1393 msec
 PREDL : 10.0000 msec
 INIWT : 0.5000 msec
 RESOL : 0.83 Hz
 PW1 : 4.90 usec
 13C : 13C
 OBNUC : 100.40 MHz
 OBFRQ : 135500.00 Hz
 OBSET : 32
 RGAIN : 1H
 IRNUC : 399.65 MHz
 IRFRQ : 134363.43 Hz
 IRSET : 50.0 usec
 IRRPW : 0
 IRPNS : 0
 SCANS : 424 times
 SLVNT : CDCL3
 SPINNT : 15 Hz
 TEMP : 22.7 C

¹³C NMR
 (100 MHz, CDCl₃)

Date : Sat Jun 26 19:07:25 2004

File Name : LoadingFID.mdata
 Comment : SGO-681
 Slice History : non
 EXMODE :

POINT 32768 points
 SAMPO 32768 points
 FREQ 7993.6 Hz
 FILTR 4000 Hz
 DELAY 50.0 usec
 DEACT 71.5 usec
 INVL 125.1 usec
 TIMES 4 times
 DUMMY 1 times
 PD 2.9007 sec
 ACQTM 4099.2789 msec
 PREDL 0.01000 msec
 INIWT 1000.0000 msec
 RESOL 0.24 Hz
 PW1 7.00 usec
 1H 399.65 MHz
 OBFRQ 134300.00 Hz
 OBSET 16
 RGAIN 16
 SCANS 4 times
 SLWT COCL3
 SPINNING 11 Hz
 TEMP 25.1 C

Date : Fri Jan 31 09:24:20 2003

FileName : LoadingFID.nmdata
Comment : SG0-681
SlicesHistory :
EXMODE : bcm

POINT : 32768 points
SAMP0 : 32768 points
FREQ0 : 27100.3 Hz
FILT0 : 13550 Hz
DELAY : 14.8 usec
DEAD0 : 19.7 usec
INTVL : 36.9 usec
TIMES : 384 times
DUMMY : 1 times
PD : 1.7909 sec
ACQTM : 1209.1393 msec
PREDL : 10.00000 msec
ININT : 0.5000 msec
RESOL : 0.83 Hz
PWI : 4.90 usec
OBNUC : ¹³C
OBFRQ : 100.40 MHz
OBSET : 135500.00 Hz
RGAIN : 31
IRNUC : ¹H
IRFRQ : 399.65 MHz
IRSET : 134363.43 Hz
IRPWI : 50.0 usec
IRRNS : 0
SCANS : 384 times
SLVNT : CDCL3
SPINNING : 14 Hz
TEMP : 21.6 C

3e**¹³C NMR****(100 MHz, CDCl₃)**

Date : Wed Nov 27 10:50:08 2002

File Name : LoadingFID.mdata
 Comment : S60-634
 Slice History : non
 EXMODE :

POINT : 32768 points
 SAMPO : 32768 points
 FREQ : 7993.6 Hz
 FILTER : 4000 Hz
 DELAY : 50.0 usec
 DEATH : 71.7 usec
 INYLY : 125.1 usec
 TIMES : 4 times
 DUMMY : 1 times
 PD : 2.9007 sec
 ACQTM : 4099.2789 msec
 PREDL : 10.00000 msec
 INIWT : 0.5000 msec
 RESOL : 0.24 Hz
 PH1 : 6.60 usec
 OBNJC : 1H
 OBFRO : 399.85 MHz
 OBFRO : 134300.00 Hz
 RGAIN : 23
 SCANS : 4 times
 SLVNT : CDCL3
 SPINNING : 15 Hz
 TEMP : 21.5 C

500-64-131

Date : Wed Oct 8 23:40:30 2003
 File Name : LoadingID.mdata
 Comment : ISI-41 13C
 Slice History : bcm
 EXMODE :
 POINT 32768 points
 SAMPO 32768 points
 FREQ 27100.3 Hz
 FILTR 13550 Hz
 DELAY 14.8 usec
 DEADT 19.4 usec
 INTVL 36.9 usec
 TIMES 512 times
 DUMMY 1 times
 PD 1.7909 sec
 ACQTM 1209.1393 msec
 PREDL 0.01000 msec
 INIWT 1000.0000 msec
 RESOL 0.83 Hz
 PW1 5.50 usec
 13C 13C
 OBNUC 100.40 MHz
 OBFRQ 135500.00 Hz
 RGAIN 31
 IRNUC 1H
 IRFRQ 399.65 MHz
 IRSET 134300.00 Hz
 IRRPW 50.0 usec
 IRNRS 0
 SCANS 512 times
 SLVNT CDCL3
 SPINNT -13 Hz
 TEMP 26.3 C

¹³C NMR
 (100 MHz, CDCl₃)

Date : Mon Feb 2 09:58:22 2004

File Name : LoadingFID.nmdata

Comment : ISI-154

EXMODE : non

POINT 32768 points
 SAMPD 32768 points
 FREQ 7993.6 Hz
 FILTR 4000 Hz
 DELAY 50.0 usec
 DEAT 71.5 usec
 INVT 125.1 usec
 TIMES 4 times
 DUMY 1 times
 PD 2.9007 sec
 ACQTM 4099.2769 msec
 PRECL 0.01000 msec
 INIWT 1000.0000 msec
 RESOL 0.24 Hz
 PW1 7.00 usec
 OBNUC ¹H
 OBFRQ 399.65 MHz
 OBSET 134300.00 Hz
 RGAIN 20
 SCANS 4 times
 SLVNT CDCl₃
 SPINNT 11 Hz
 TEMP 21.7 C

¹H NMR
 (400 MHz, CDCl₃)

Date : Tue Feb 3 22:58:05 2004

File Name : .loading\ID.mdata
 Comment : ISI-154
 Slice History :
 EXMODE : bcm

POINT : 32768 points
 SAMPO : 32768 points
 FREQU : 27100.3 Hz
 FILTR : 13550 Hz
 DELAY : 14.8 usec
 DEATH : 19.4 usec
 INTVL : 36.9 usec
 TIMES : 520 times
 DUMMY : 1 times
 PD : 1.7909 sec
 ACQTM : 1209.1393 msec
 PREDL : 0.01000 msec
 INIWT : 1000.0000 msec
 RESOL : 0.83 Hz
 PW1 : 5.50 usec
 OBNUC : ¹³C
 OBFRQ : 100.40 MHz
 OBSET : 135500.00 Hz
 RGAIN : 31
 IRNUC : ¹H
 IRFRQ : 399.65 MHz
 IRSET : 134300.00 Hz
 IRRPW : 50.0 usec
 IRRNS : 0

SCANS : 520 times
 SLVNT : CDCL₃
 SPINNING : 10 Hz
 TEMP : 22.7 C

7

¹³C NMR
(100 MHz, CDCl₃)

Date : Fri Jun 25 21: 49: 37 2004

Filename : LoadingFID nmdata
Comment : ISI-157

SliceHistory : non
EXMODE

POINT 32768 points
SAMPD 32768 points
FREQU 7993.6 Hz
FILTR 4000 Hz
DELAY 50.0 usec
DEACT 71.5 usec
INVTL 125.1 usec
TIMES 4 times
DUMMY 1 times
P0 2.9007 sec
ACQTM 4099.2769 msec
PREDL 0.01000 msec
ININT 1000.0000 msec
RESOL 0.24 Hz
PW1 7.00 usec
OBNUC 1H
OBFRQ 399.65 MHz
OBSET 134300.00 Hz
RGAIN 19
SCANS 4 times
SLVNT CDCL3
SPINNING 10 Hz
TEMP 25.0 C

8

¹H NMR
(400 MHz, CDCl₃)

Date :
FileName : LoadingFID.nmdata
Comment : ISI-
SliceHistory :
EXMODE : bcm

212.509
157.585
130.970
128.897
125.351
120.867
110.994
77.477
77.321
77.206
77.000
76.687
55.346
50.599
42.676
41.253
33.248
28.501
25.120

POINT 32768 points
SAMP0 32768 points
FREQ0 27100.3 Hz
FILT0 13550 Hz
DELAY 14.8 usec
DEAD0 19.4 usec
INTE0 36.9 usec
TIMES 1024 times
DUMY 1 times
PO 1.7909 sec
ACQ0 1209.1393 msec
PREDL 0.01000 msec
INWT 1000.0000 msec
RESOL 0.83 Hz
PW1 5.50 usec
13C 13C
OBNUC 100.40 MHz
OBFRQ 135500.00 Hz
OBSET 19
RGAIN 1H
IRNUC 399.65 MHz
IRFRQ 134300.00 Hz
IRSET 50.0 usec
IRBPW 0
IRRS 0
SCANS 283 times
SLVNT CDCL3
SPINNT 11 Hz
TEMP 26.3 C

8

¹³C NMR
(100 MHz, CDCl₃)

ppm

Date : Wed Jun 30 00:10:27 2004

File Name Loading: ID: nmdata
 Comment ISI-168
 Slice History non
 EXMODE

POINT 32768 points
 SAMPD 32768 points
 FREQU 7993.6 Hz
 FILTR 4000 Hz
 DELAY 50.0 usec
 DEATD 71.5 usec
 INIPL 125.1 usec
 TIMES 4 times
 DUMMY 1 times
 PD 2 9007 sec
 ACQTM 4099.2769 msec
 PREDL 0.01000 msec
 INIPL 1000.0000 msec
 RESOL 0.24 Hz
 PW1 7.00 usec
 OBNUC 1H
 OBFRQ 399.65 MHz
 OBSET 134300.00 Hz
 RGAIN 23
 SCANS 4 times
 SLVNT CDCl3
 SPINNING 9 Hz
 TEMP 25.2 C

9

¹H NMR
 (400 MHz, CDCl₃)

Date : Sat Feb 28 21: 49: 50 2004

File Name : .LoadingFID.nmdata
 Comment : ISI-168
 Slice History : bcm
 EXMODE :

POINT 32768 points
 SAMPD 32768 points
 FREQU 27100.3 Hz
 FILTR 13550 Hz
 DELAY 14.8 usec
 DEAT 19.4 usec
 INTVL 36.9 usec
 TIMES 644 times
 DUMMY 1 times
 PD 1.7909 sec
 ACQTM 1209.1393 msec
 PREDL 0.01000 msec
 INIWT 1000.0000 msec
 RESOL 0.83 Hz
 PW1 5.50 usec
 13C 100.40 MHz
 OBFRQ 135500.00 Hz
 OBSET 31
 RGAIN
 IRNUC 399.85 MHz
 IRFRQ 134300.00 Hz
 IRSET 50.0 usec
 IRRPW 0
 IRRNS

SCANS 644 times
 SLVNT CDCL3
 SPINNING 11 Hz
 TEMP 22.8 C

9

¹³C NMR
(100 MHz, CDCl₃)

ISI-156

Date : Sat Jan 31 00:12:27 2004

File Name : LoadingID.nmdata
 Comment : ISI-156
 Slice History : non
 EXMODE :

POINT 32768 points
 SAMP 32768 points
 FREQ 7993.6 Hz
 FILTR 4000 Hz
 DELAY 50.0 usec
 DEAT 71.5 usec
 INTVL 125.1 usec
 TIMES 4 times
 DUMMY 1 times
 PD 2.9007 sec
 ACQTM 4099.2769 msec
 PREDL 0.01000 msec
 ININT 1000.0000 msec
 RESOL 0.24 Hz
 PM1 7.00 usec
 OBNUC 1H
 OBFREQ 399.65 MHz
 OSET 134300.00 Hz
 RGAIN 22
 SCANS 4 times
 SLVNT CDCL3
 SPINNT 13 Hz
 TEMP 21.7 C

10

¹H NMR
 (400 MHz, CDCl₃)

Date : Mon May 3 01:21:20 2004

File Name : .LoadingID.nmdata

Comment : ISI-160

Slice History : bcm

EXMODE :

POINT : 32768 points

SAMPO : 32768 points

FREQ : 27100.3 Hz

FILTR : 13550 Hz

DELT : 14.8 usec

DEADT : 19.4 usec

INTVL : 36.9 usec

TIMES : 524 times

DUMMY : 1 times

PD : 1.7909 sec

ACQTM : 1209.1393 msec

PREDL : 0.01000 msec

INWT : 1000.0000 msec

RESOL : 0.83 Hz

PH1 : 5.50 usec

OBNUC : ¹³C

OBFRQ : 100.40 MHz

OBSET : 135500.00 Hz

RGAIN : 32

IRNUC : ¹H

IRFRQ : 399.65 MHz

IRSET : 134300.00 Hz

IRPW : 50.0 usec

IRRS : 0

SCANS : 524 times

SLVNT : CDCL₃

SPINNING : 14 Hz

TEMP : 26.8 C

10

¹³C NMR
(100 MHz, CDCl₃)

Date : Wed Oct 29 14: 03: 14 2003

File Name : LoadingID.mdata
 Comment : ISI-105-2-syn
 Slice History : non
 EXMODE :

POINT 32768 points
 SAMPO 32768 points
 FREQU 7593.6 Hz
 FILTR 4000 Hz
 DELAY 50.0 usec
 DEADT 71.5 usec
 INTVL 125.1 usec
 TIMES 4 times
 DUMMY 1 times
 PD 2.9007 sec
 ACQTM 4099.2769 msec
 PREDL 0.01000 msec
 INIWT 1000.0000 msec
 RESOL 0.24 Hz
 PW1 7.00 usec
 1H 399.65 MHz
 OBFRQ 134300.00 Hz
 OBSET 20
 RGAIN 4 times
 SCANS 4 times
 SLVNT CDCl3
 SPINNING 13 Hz
 TEMP 25.9 C

11

¹H NMR
 (400 MHz, CDCl₃)

Date : Wed Oct 29 14:30:44 2003
 FileName : LoadingID.mdata
 Comment : ISI-105-2-syn
 SliceHistory :
 EXMODE : bcm

POINT 32768 points
 SAMPD 32768 points
 FREQ 27100.3 Hz
 FILTR 13550 Hz
 DELAY 14.8 usec
 DEADT 19.4 usec
 INVT 36.9 usec
 TIMES 512 times
 DUMMY 1 times
 PD 1.7909 sec
 ACQT 1209.1393 msec
 PREDL 0.01000 msec
 INVT 1000.0000 msec
 RESOL 0.83 Hz
 PM1 5.50 usec
 13C 13C
 OBNUC 100.40 MHz
 OBFRQ 135500.00 Hz
 RGAIN 31
 1H 1H
 IRNUC 399.65 MHz
 IRFRO 134300.00 Hz
 IRPWR 50.0 usec
 IRNRS 0

SCANS : 512 times
 SLVNT : CDCL3
 SPINNT : 14 Hz
 TEMP : 26.9 C

11

¹³C NMR
 (100 MHz, CDCl₃)

```

: LoadingFID.nmdata
:
: ISI-
:
: SliceHistory
:
: EXMODE
: non

```

POINT	32768 points
SAMPO	32768 points
FREQU	7993.6 Hz
FLTR	4000 Hz
DELAY	50.0 usec
DEAD	71.7 usec
INTVL	125.1 usec
TIMES	4 times
DUMMY	1 times
PD	2 9007 sec
ACQTM	4099.2769 msec
PREDL	10.00000 msec
ININT	0.5000 msec
RESOL	0.24 Hz
PM1	6.60 usec
OBNUC	1H
OBFRQ	399.65 MHz
OBSET	134300.00 Hz
RGAIN	24
SCANS	4 times
SVLNT	COCL3
SPINNING	16 Hz
TEMP	22.0 C

12

¹H NMR
(400 MHz, CDCl₃)

Date : Mon Oct 27 22:06:52 2003

File Name : LoadingFID.nmdata
Comment : ISI-84
SIlice history : bcm
EXMODE :POINT : 32768 points
SAMPD : 32768 points
FREQ : 27100.3 Hz
FILT : 13550 Hz
DELT : 14.8 usec
DEAD : 19.4 usec
INVT : 36.9 usec
TIMES : 512 times
DUMY : 1 times
PD : 1.7909 sec
ACQTM : 1209.1393 msec
PREDL : 0.01000 msec
ININT : 1000.0000 msec
RESOL : 0.83 Hz
PW1 : 5.50 usec
13C : 100.40 MHz
OBFRQ : 135500.00 Hz
OBSET : 31
RGAIN : 31
IRNUC : 399.65 MHz
IRFRQ : 134300.00 Hz
IRSET : 50.0 usec
IRPW : 0
IRNS :

SCANS : 512 times

SLVNT : CDCL3
SPINNING : 10 Hz
TEMP : 26.2 C54.976
44.511
43.474
35.099
31.57078.588
77.321
77.000
76.687136.482
129.300
128.288
128.140

209.473

12

¹³C NMR
(100 MHz, CDCl₃)

ppm

50

100

150

200

Date : Mon May 3 01:45:01 2004

File Name : LoadingID.mdata
 Comment : ISI-203
 Slice History : non
 EXMODE : non

POINT 32768 points
 SAMP0 32768 points
 FREQ0 7993.6 Hz
 FID TR 4000 Hz
 DELAY 50.0 usec
 DEAD 71.5 usec
 INTVL 125.1 usec
 TIMES 16 times
 DUMMY 1 times
 PD 0.0300 sec
 ACQTM 4099.2789 msec
 PREDL 0.01000 msec
 INIWT 1000.0000 msec
 RESOL 0.24 Hz
 PW1 7.00 usec
 OBNUC 1H
 OBFRQ 399.65 MHz
 OBSET 134300.00 Hz
 RGAIN 25
 SCANS 16 times
 SLVNT CDCl3
 SPINNING 13 Hz
 TEMP 26.0 C

Date: Mon May 3 02:38:59 2004
File Name: LoadingID.nmdata
Comment: ISI-
Slice History: bcm
EXMODE: bcm

POINT 32768 points
SAMPD 32768 points
FREQ 27100.3 Hz
FILTR 13550 Hz
DELAY 14.8 usec
DEADT 19.4 usec
INTVL 36.9 usec
TIMES 1024 times
DUMY 1 times
PD 1.7909 sec
ACQTM 1209.1393 msec
PREDL 0.01000 msec
ININT 1000.0000 msec
RESOL 0.83 Hz
PWI 5.50 usec
PWI 13C
OBNUC 100.40 MHz
OBFRQ 135500.00 Hz
OBSET 32
RGAIN 1H
IRNUC 399.65 MHz
IFRQ 134300.00 Hz
IRSET 50.0 usec
IRPW 0
IRRS 0

SCANS 1024 times
SLVNT CDCL3
SPINNING 14 Hz
TEMP 26.9 C