

Supplementary Material Contents Page

S1: ^1H NMR of **1**

S2: ^{13}C NMR of **1**

S3: ^1H NMR of **major intermediate 4**

S4: ^{13}C NMR of **major intermediate 4**

S5: ^1H NMR of **3**

S6: ^{13}C NMR of **3**

S7: ^1H NMR of **2**

S8: ^{13}C NMR of **2**

1: 25,27-Bis(benzyloxycarbonyloxy)-26,28-dihydroxycalix[4]arene

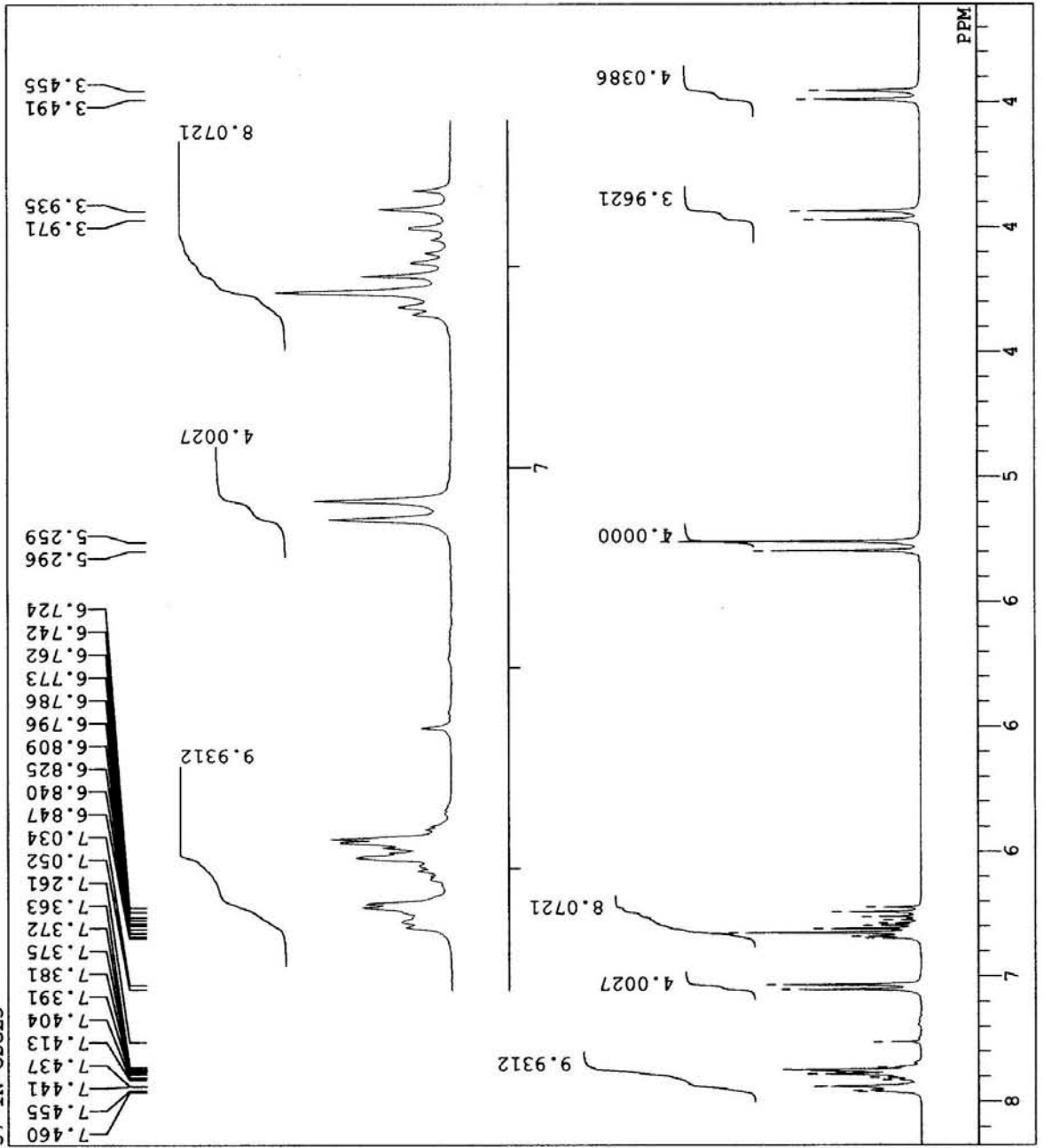
major intermediate 4: 5,17-Dinitro-25,27-bis(benzyloxycarbonyloxy)-26,28-dihydroxycalix[4]arene

2: 5,11-Dinitro-25,26-bis(benzyloxycarbonyloxy)-27,28-bis(tolylsulfonyloxy)calix[4]arene

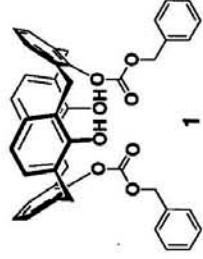
3: 5,17-Dinitro-25,27-bis(benzyloxycarbonyloxy)-26,28-bis(tolylsulfonyloxy)calix[4]arene

57-IN-CDCL3

DFILE D:\NMR199\CALIX\12c57h.
COMNT 57-IN-CDCL3
DATIM 07-JUL-99 11:04:32
OBNUC 1H
EXMOD NON
OBFRQ 399.65 MHz
OBSET 124.00 KHz
OBFIN 10500.0 Hz
POINT 16384
FREQU 8000.0 Hz
SCANS 16
ACQTM 2.048 sec
PD 4.952 sec
PW1 5.4 us
IRNUC 1H
CTEMP 25.1 c
SLVNT CDCL3
EXREF 7.26 ppm
BF 0.12 Hz
RGAIN 20

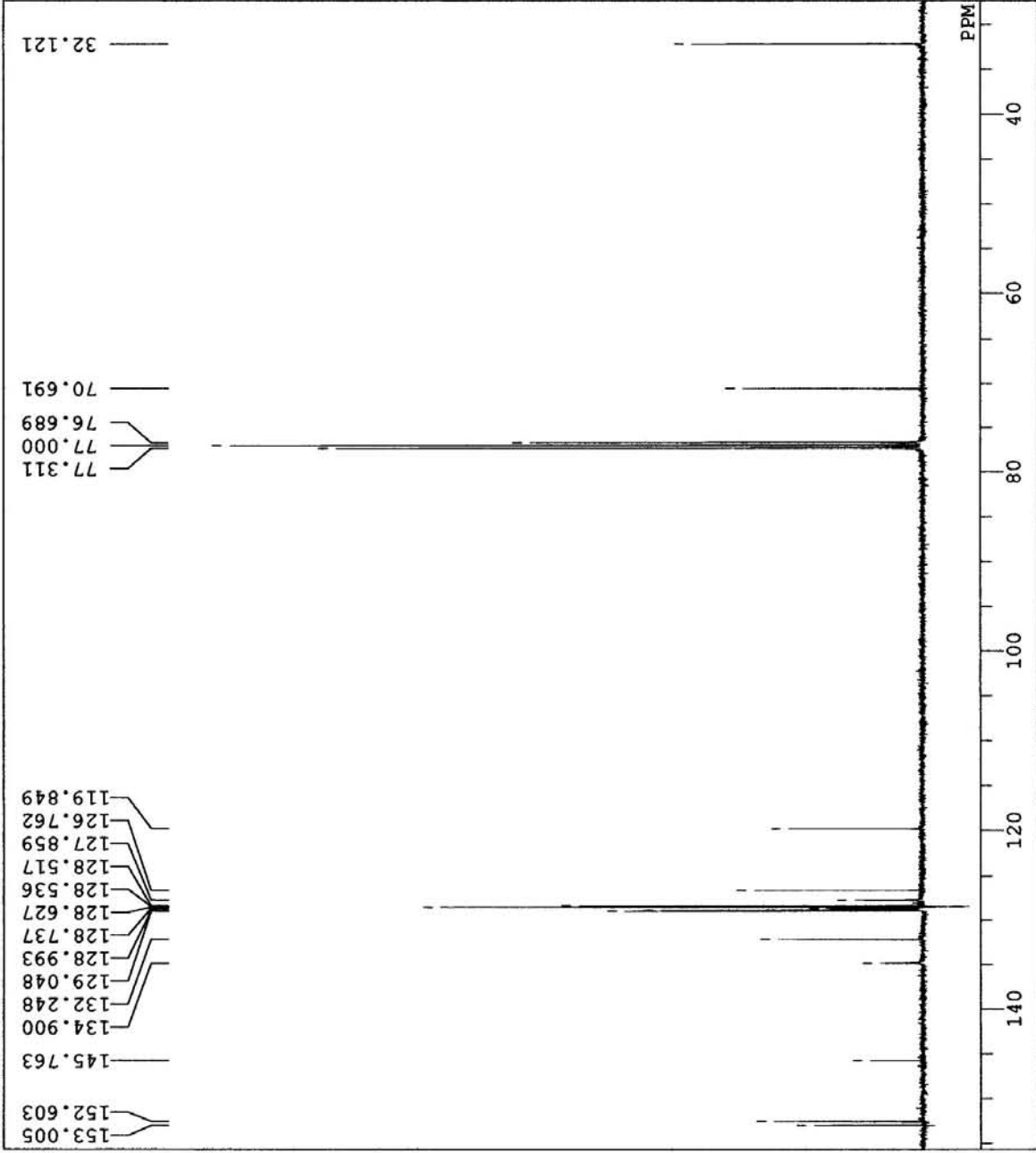


S1

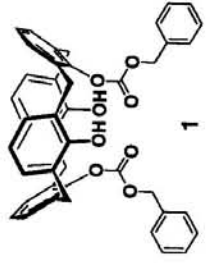


57-IN-CDCL3

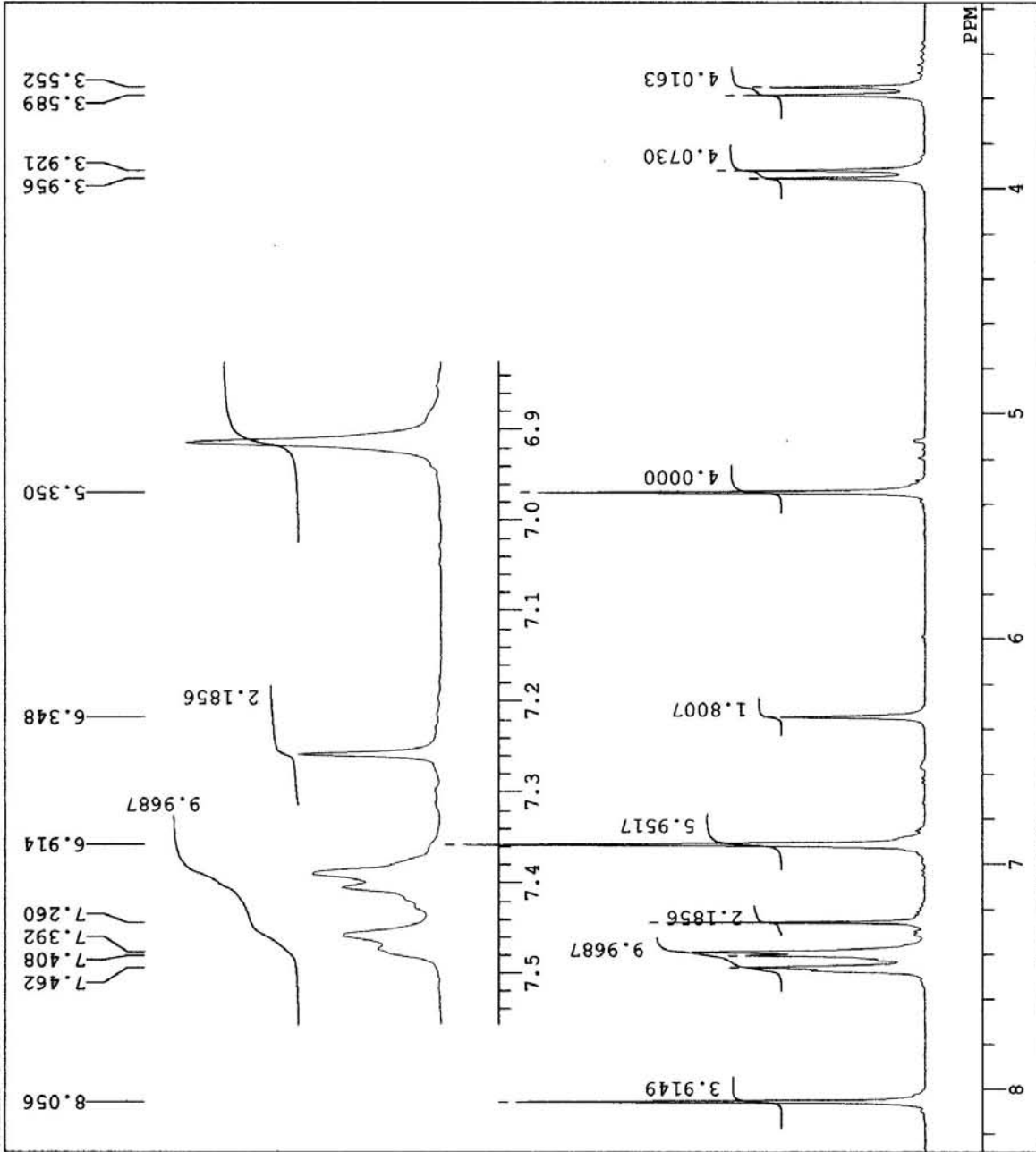
D:\NMR1999\CALIX\12c57c.
57-IN-CDCL3
07-JUL-99 12:55:33
13C
BCM
100.40 MHz
125.00 KHz
10500.0 Hz
16384
30120.5 Hz
1771
0.544 sec
2.456 sec
4.5 us
1H
23.5 c
CDCL3
77.00 ppm
0.12 Hz
28
RGAIN



S2



CALIX-58A

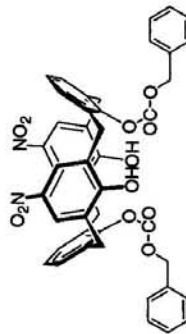


DFILE
COMNT
DATIM
OBNUC
EXMOD
OBFRQ
OBSET
OBFIN
POINT
FREQU
SCANS
ACQTM
PD
PW1
IRNUC
CTEMP
SLVNT
EXREF
BF
RGAIN

D:\NMR1999\CALIX\12c58a
CALIX-58A
24-JUL-99 19:17:48
1H
NON

399.65 MHz
124.00 KHz
10500.0 Hz
16384
8000.0 Hz
16
2.048 sec
4.952 sec
5.4 us
24.4 c
7.26 ppm
0.12 Hz
20

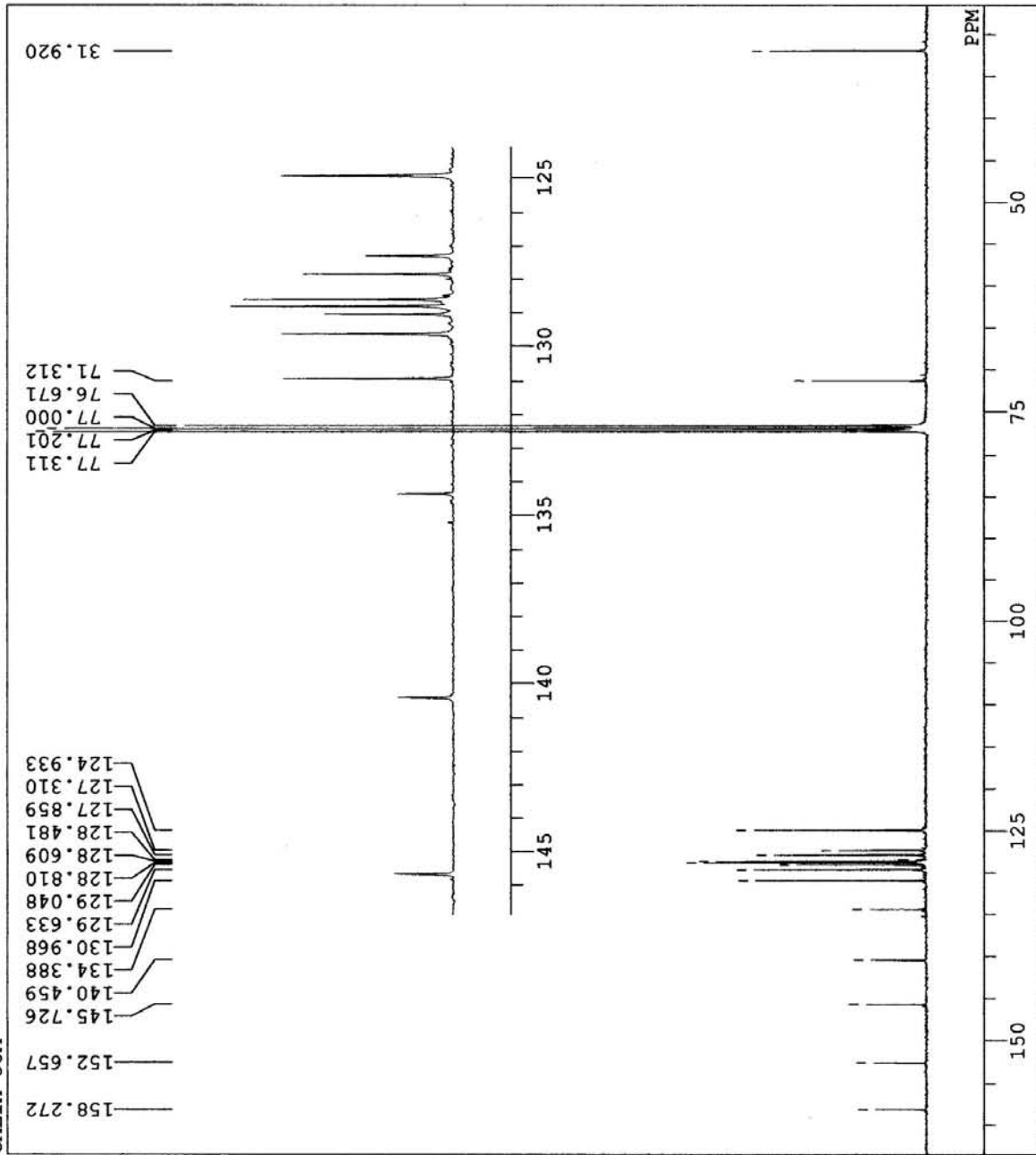
S3



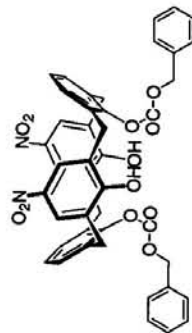
major intermediate

CALIX-58A

DFILE D:\NMR1999\CALIX\12c58ac
COMNT CALIX-58A
DATIM 25-JUL-99 07:09:35
OBNUC 13C
EXMOD BCM
OBFRQ 100.40 MHz
OBSET 125.00 KHz
OBFIN 10500.0 Hz
POINT 16384
FREQU 30120.5 Hz
SCANS 14172
ACQTM 0.544 sec
PD 2.456 sec
PW1 4.5 us
IRNUC 1H
CTEMP 24.5 c
SLVNT CDCL3
EXREF 77.00 ppm
BF 1.20 Hz
RGAIN 29

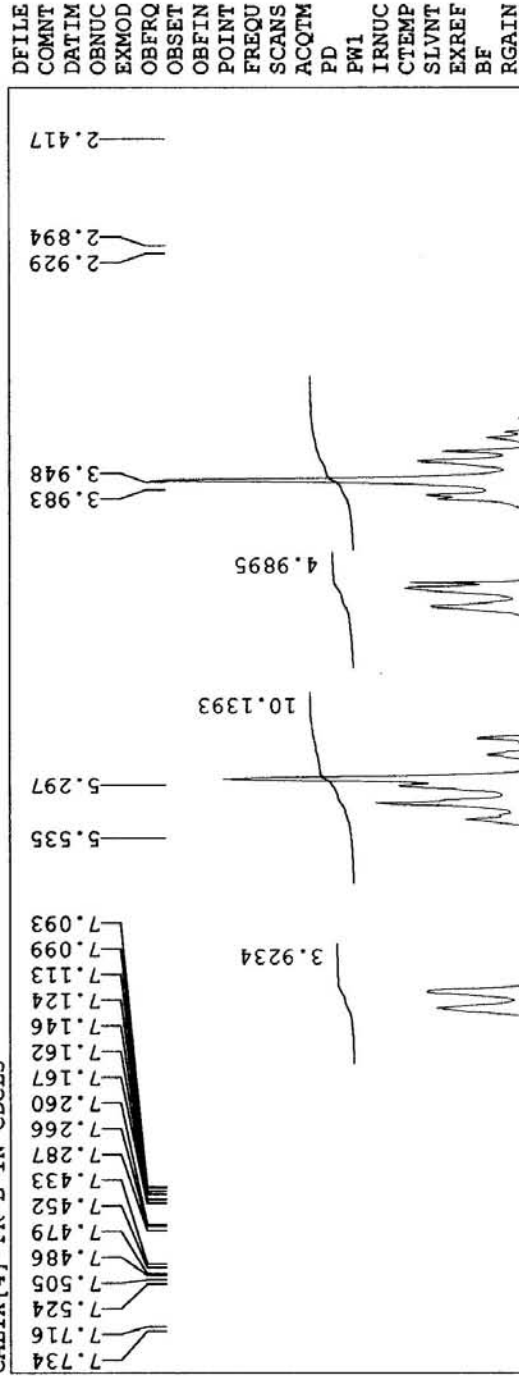


S4



major intermediate

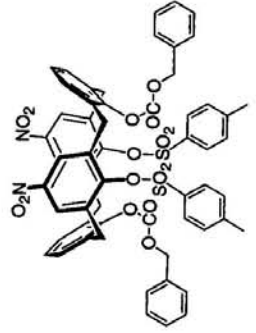
CALIX[4]-FR-B-IN-CDCL3



DFILE D:\NMR1999\CALIX\12c61bf:
COMNT CALIX[4]-FR-B-IN-CDCL3
DATIM 07-JUL-99 13:01:48
OBNUC 1H
EXMOD NON

399.65 MHz
124.00 KHz
10500.0 Hz
16384
8000.0 Hz
16
2.048 sec
4.952 sec
5.4 us
1H
23.4 C
CDCL3
7.26 ppm
1.20 Hz
21

S5



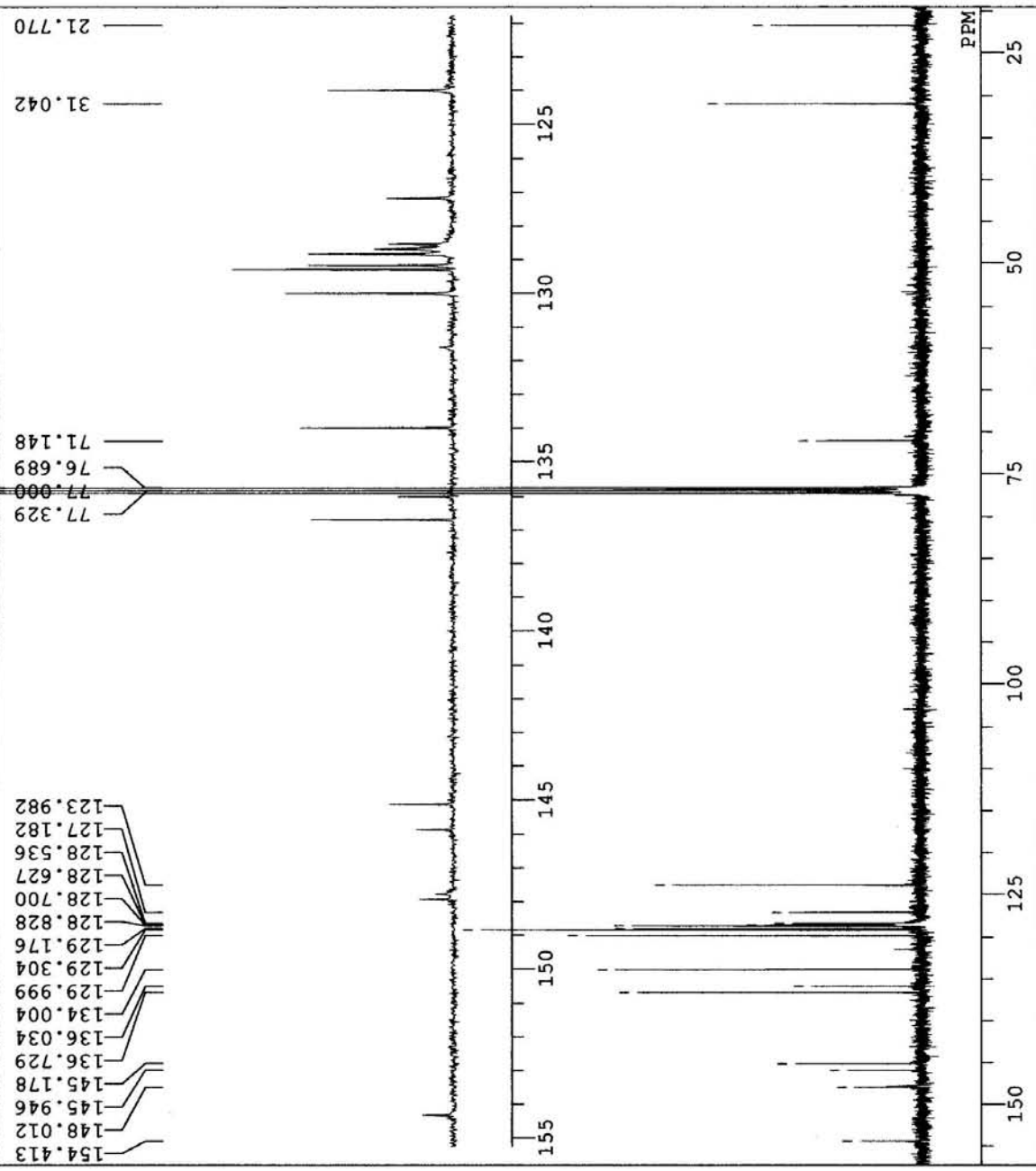
3

CALIX[4]-FR-B-IN-CDCL3

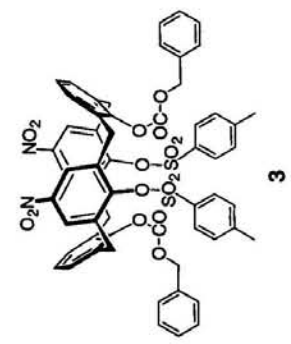
DFILE
COMNT
DATIM
OBNUC
EXMOD
OBFRQ
OBSET
OBFIN
POINT
FREQU
SCANS
ACQTM
PD
PW1
IRNUC
CTEMP
SLVNT
EXREF
BF
RGAIN

D:\NMR1999\CALIX\12c61bc
CALIX[4]-FR-B-IN-CDCL3
07-JUL-99 14:47:43
13C
BCM

100.40 MHz
125.00 KHz
10500.0 Hz
16384
30120.5 Hz
2053
0.544 sec
2.456 sec
4.5 us
1H
23.8 c
CDCL3
77.00 ppm
1.20 Hz
29



S6



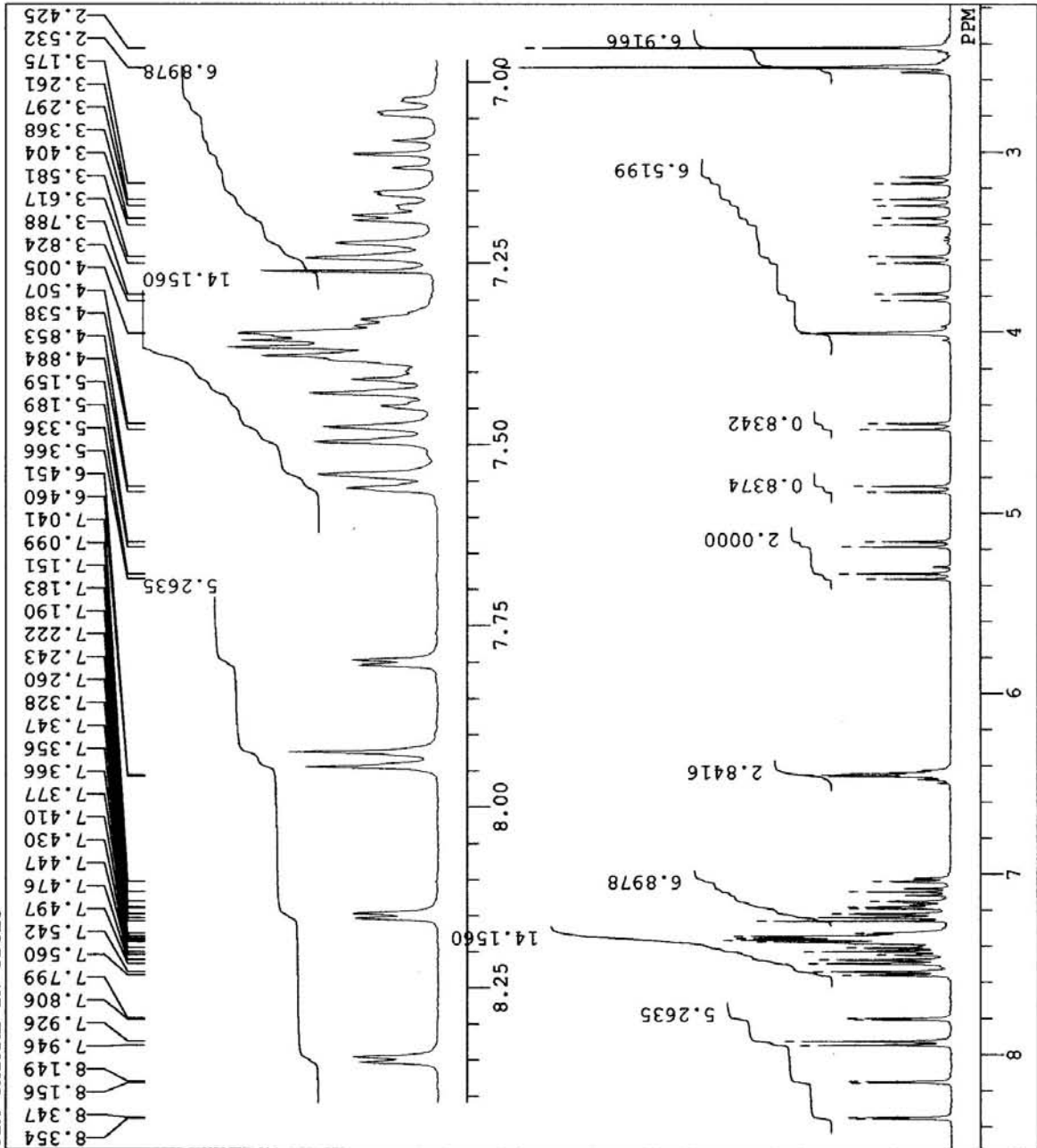
3

61A-CHIRAL-IN-CDCL3

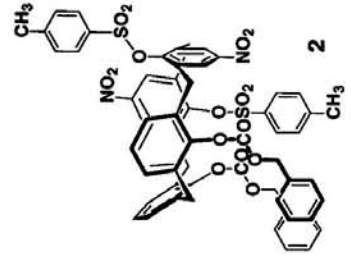
DFILE
COMNT
DATIM
OBNUC
EXMOD
OBFRO
OBSER
OBFIN
POINT
FREQU
SCANS
ACQTM
PD
PW1
IRNUC
CTEMP
SLVNT
EXREF
BF
RGAIN

D:\NMR1999\CALIX\12c61a1
61A-CHIRAL-IN-CDCL3
06-JUL-99 12:28:08
1H
NON

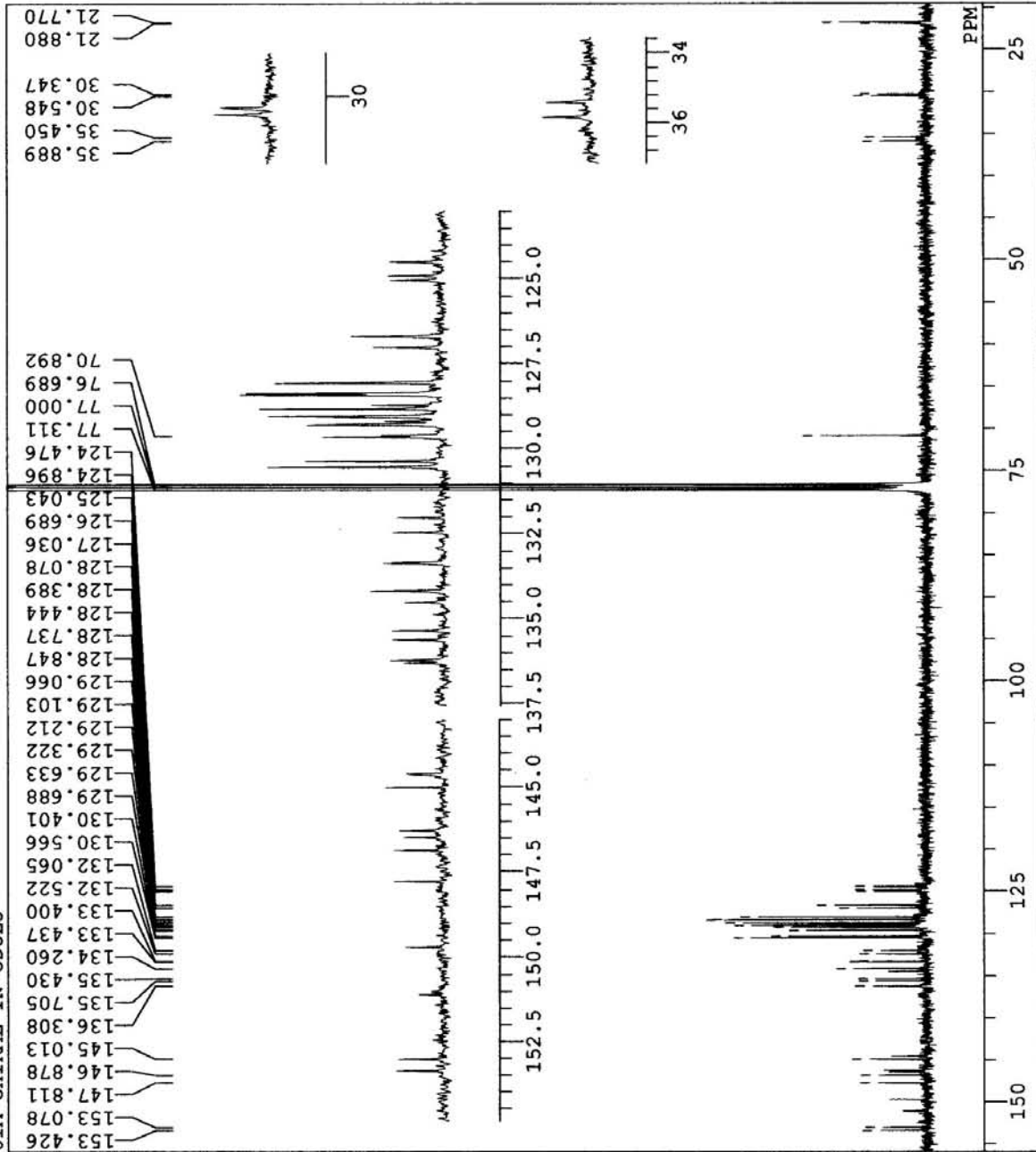
399.65 MHz
124.00 KHz
10500.0 Hz
16384
8000.0 Hz
32
2.048 sec
4.952 sec
5.4 us
24.2 c
7.26 ppm
1.20 Hz
21



S7



61A-CHIRAL-IN-CDCL3



DFILE
COMNT
DATIM
OBNUC
EXMOD
OBFRQ
OBSET
OBFIN
POINT
FREQU
SCANS
ACQTM
PD
PW1
IRNUC
CTEMP
SLVNT
EXREF
BF
RGAIN

D:\NMR1999\CALIX\12c61ac
61A-CHIRAL-IN-CDCL3
06-JUL-99 14:16:31
13C
BCM

100.40 MHz
125.00 KHz
10500.0 Hz
16384
30120.5 Hz
2103
0.544 sec
2.456 sec
4.5 us
1H
23.7 c
CDCL3
77.00 ppm
1.20 Hz
29

S8

