Electronic Supplementary Material (ESI) for Organic and Biomolecular Chemistry

Supplementary Information for

Unprecedented influence of remote substituents on reactivity and stereoselectivity in Cu(I)-catalyzed [2+2] photocycloaddition reaction. An approach towards the synthesis of tricycloclavulone.

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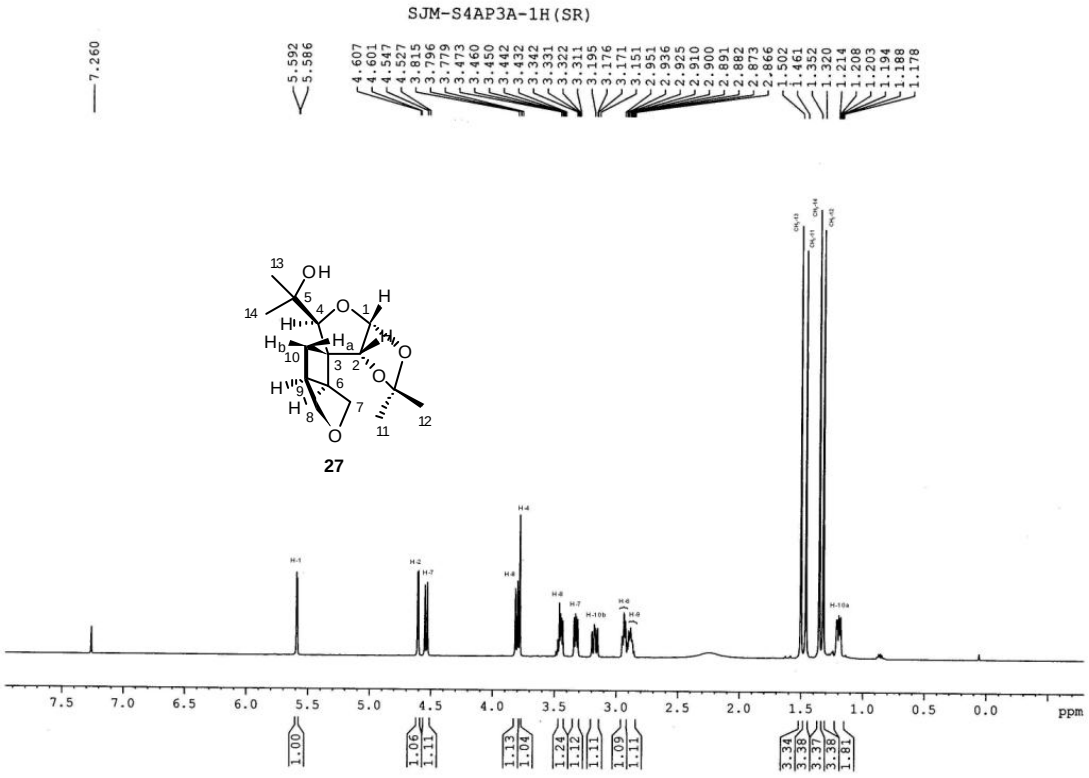
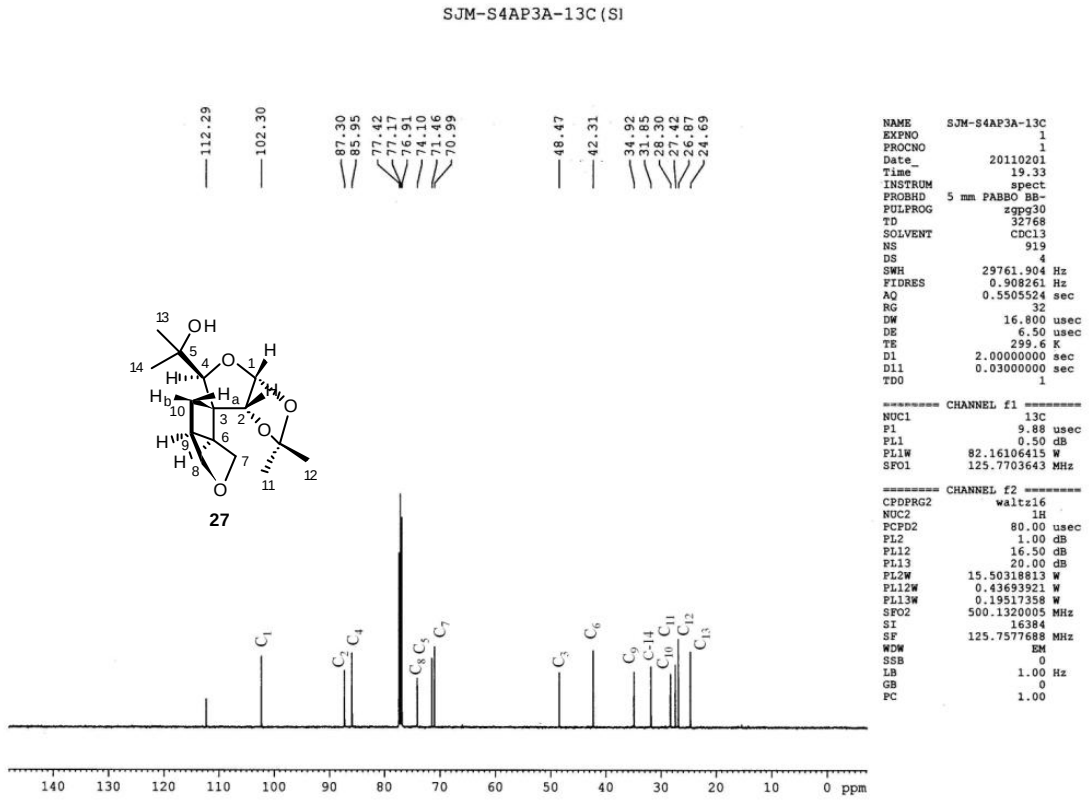
(^{1}H & ^{13}C NMR Spectra for compounds **27-41** and 2D NMR & NOE Spectra for **27** along with DEPT spectrum for **41)**

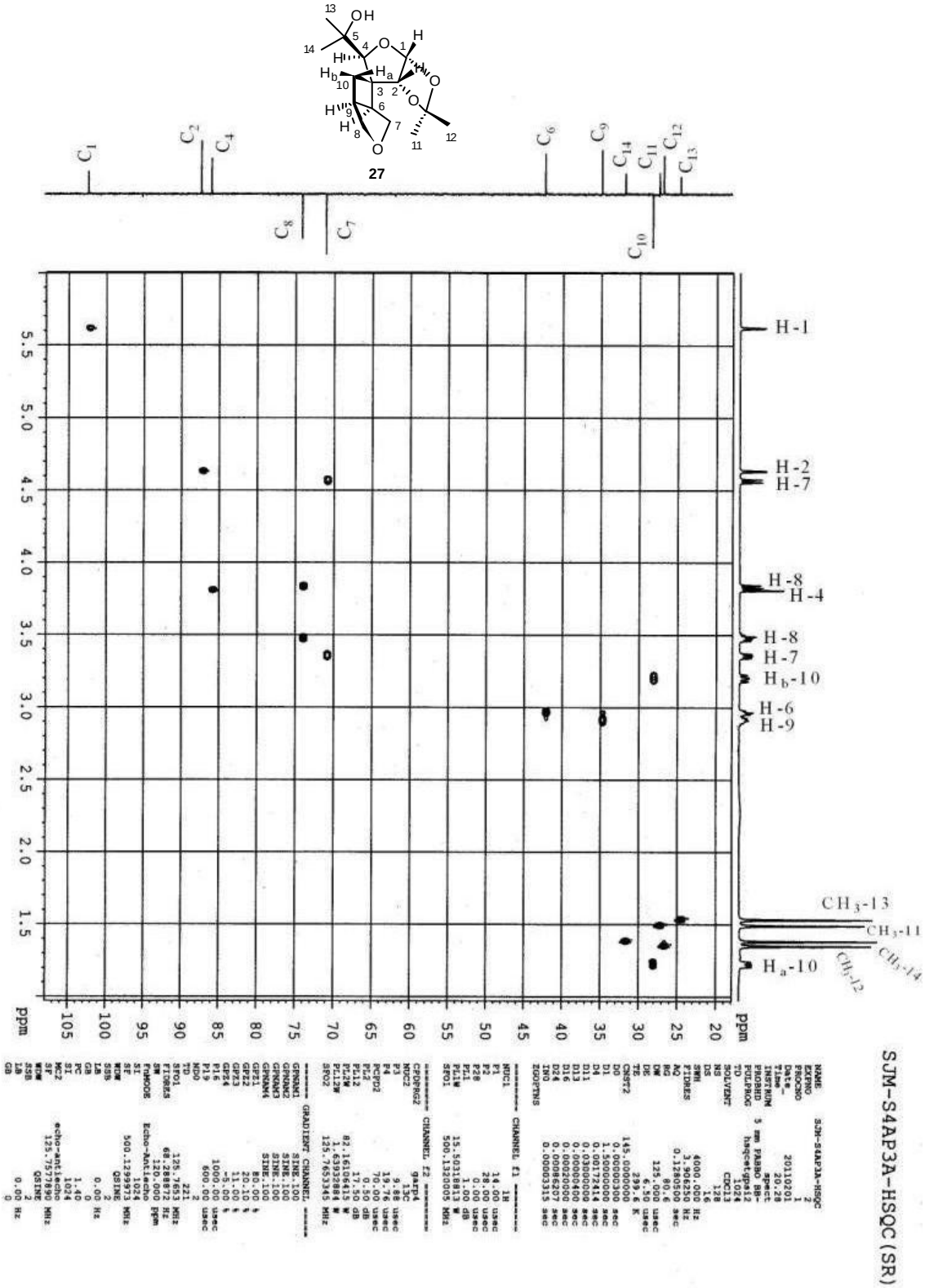
^{1}H NMR of **27** in $CDCl_3$ (500 MHz)



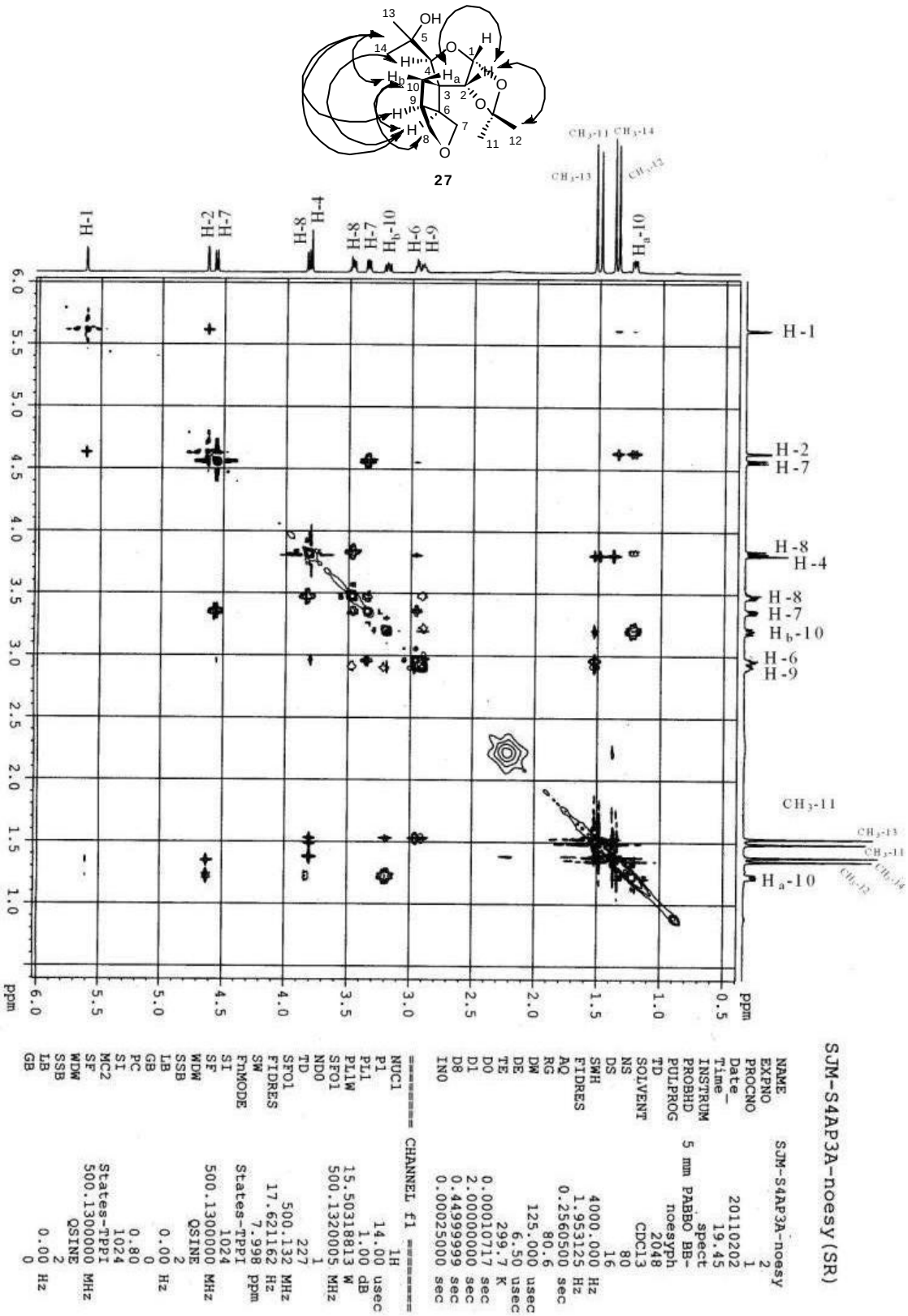
^{13}C NMR of **27** in $CDCl_3$ (125 MHz)

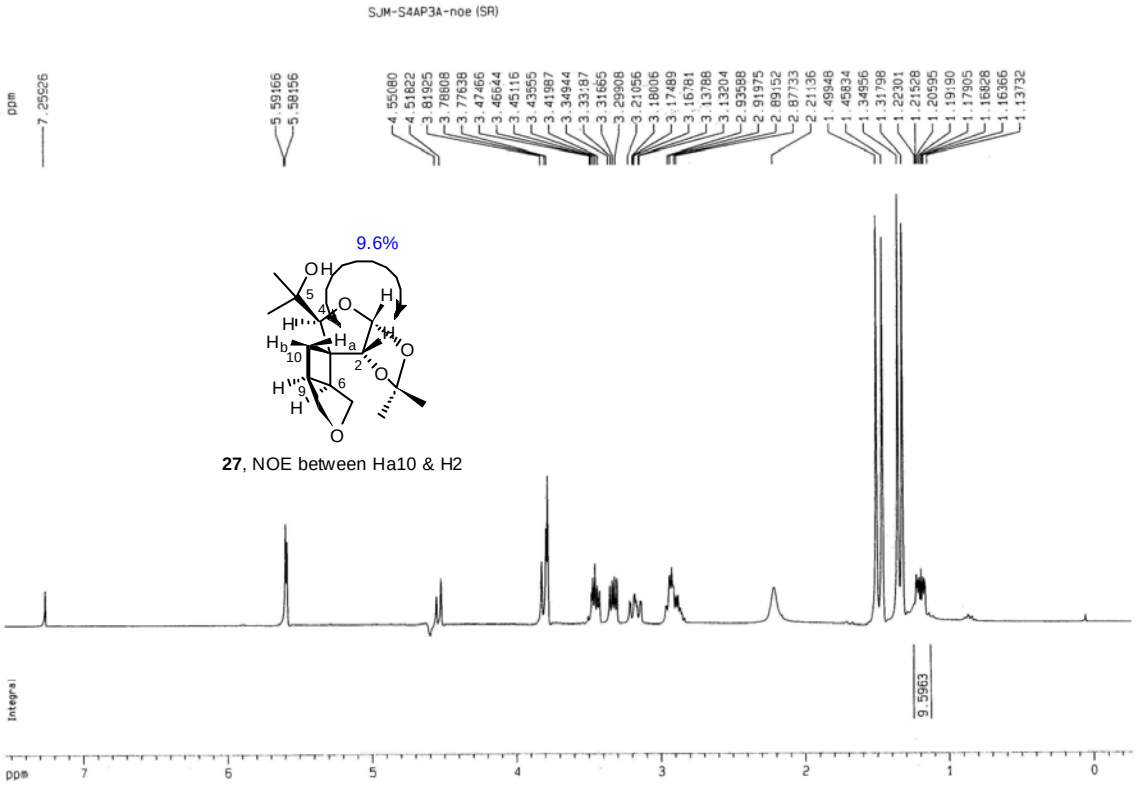


HSQC of **27** in $CDCl_3$

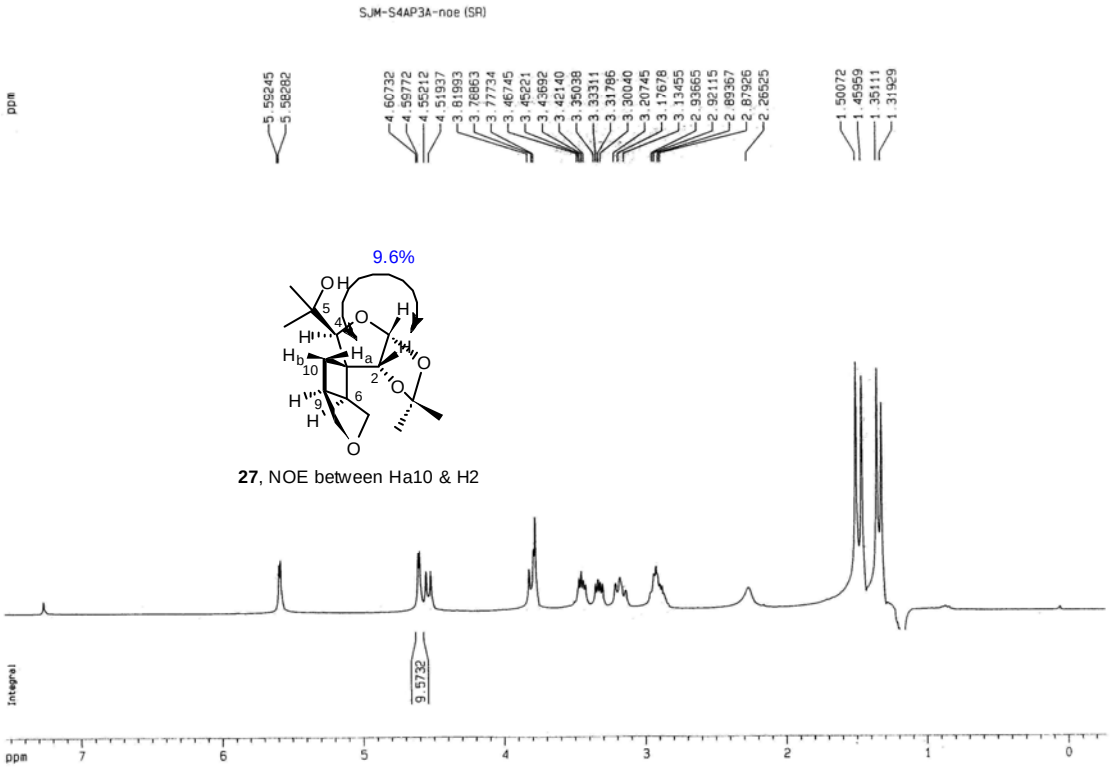


NOESY of **27** in $CDCl_3$

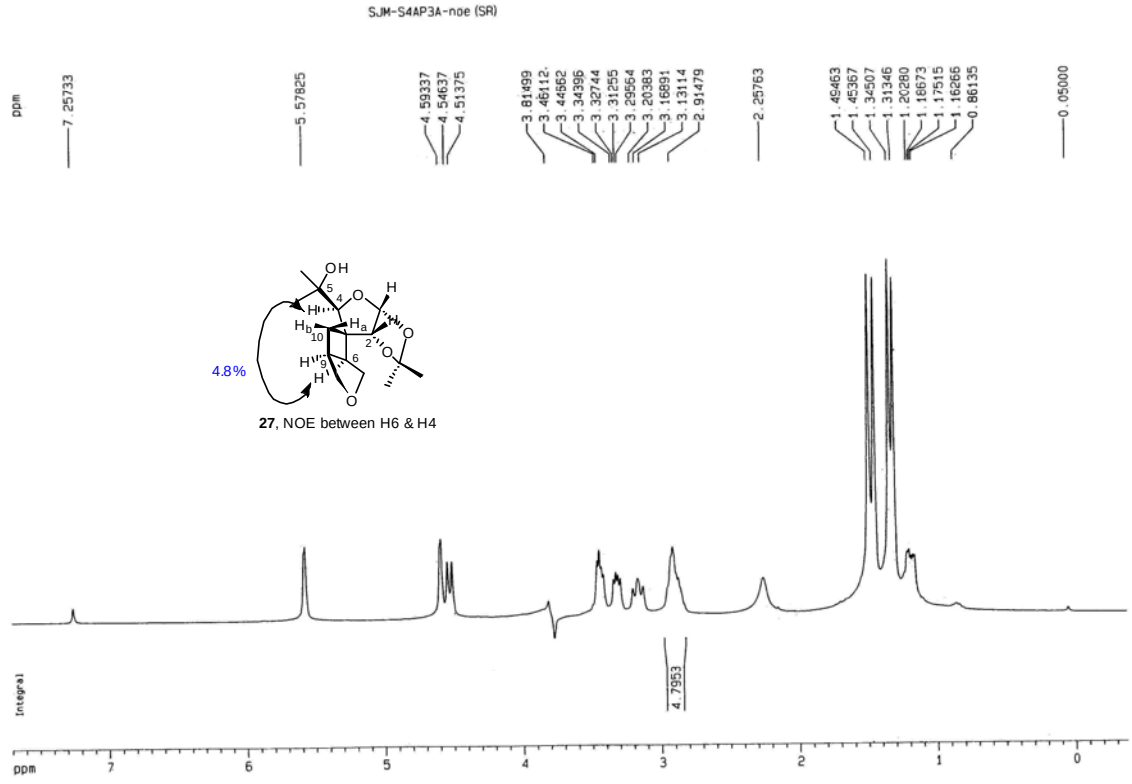




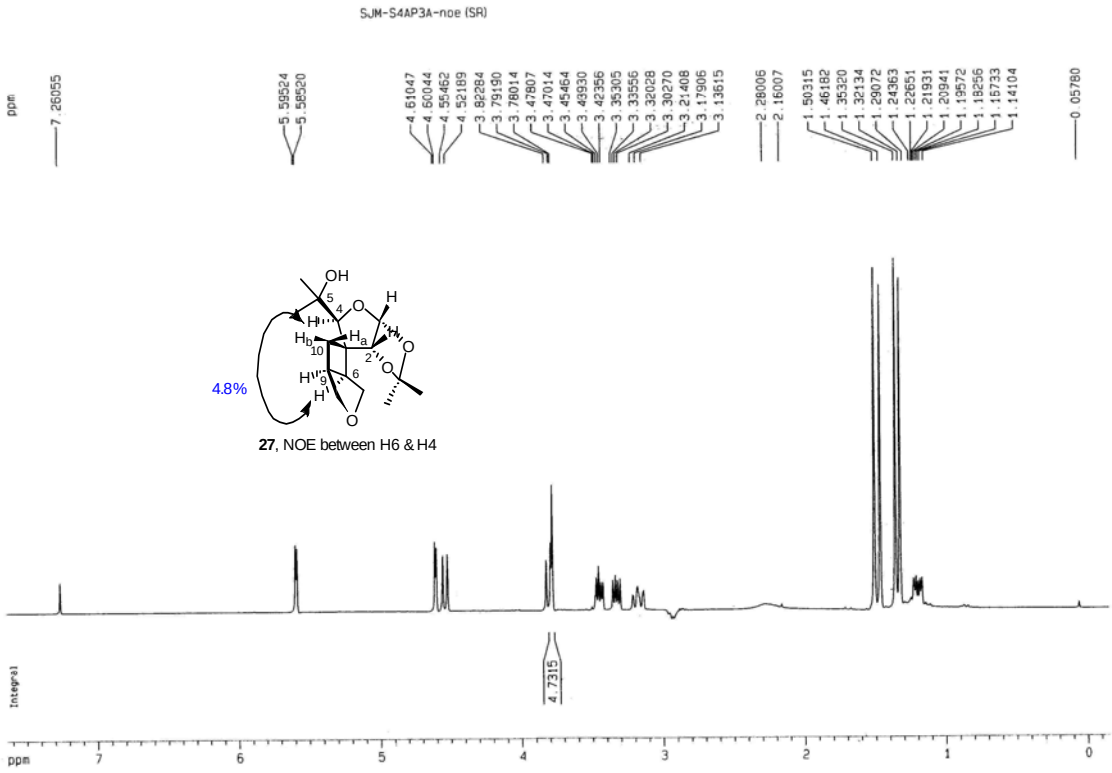
27, NOE between Ha10 & H2



27, NOE between Ha10 & H2

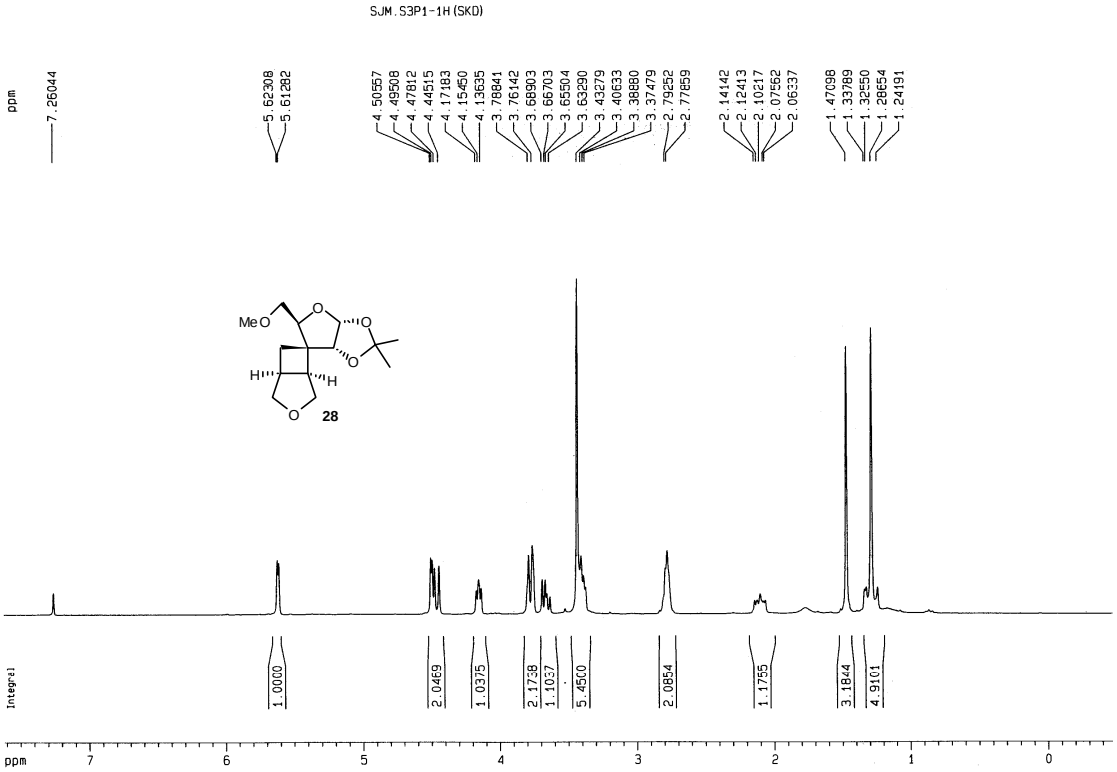


27, NOE between H6 & H4

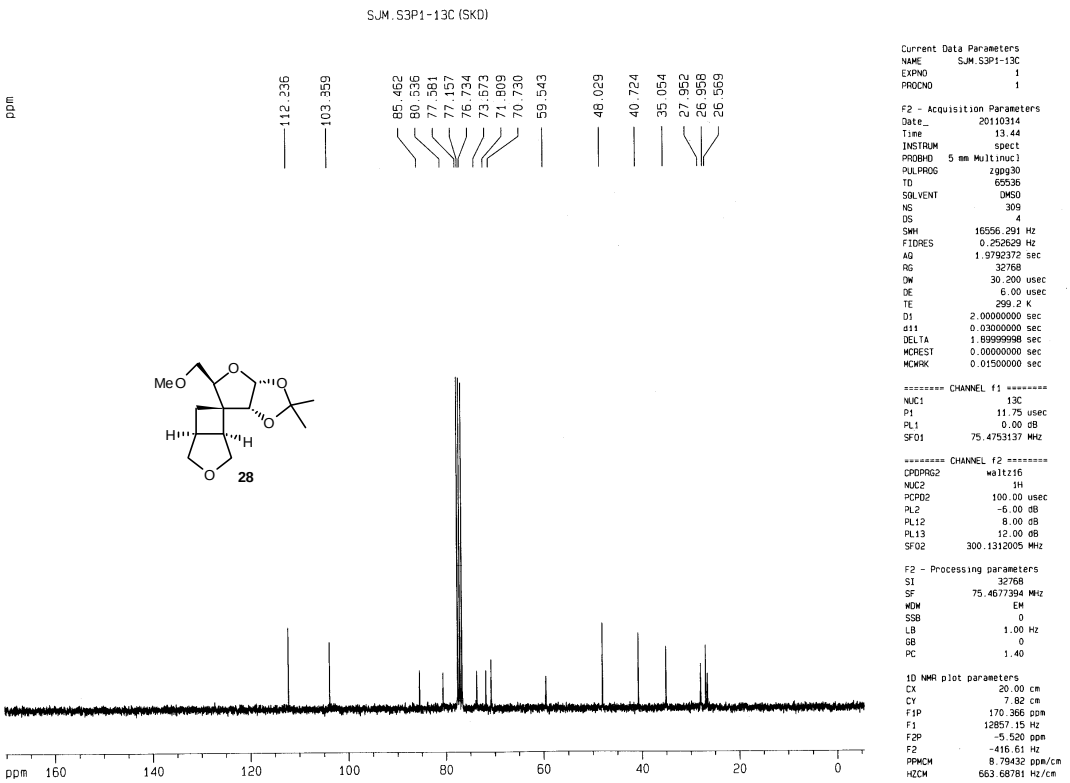


27, NOE between H6 & H4

^{1}H NMR of **28** in $CDCl_3$ (300 MHz)

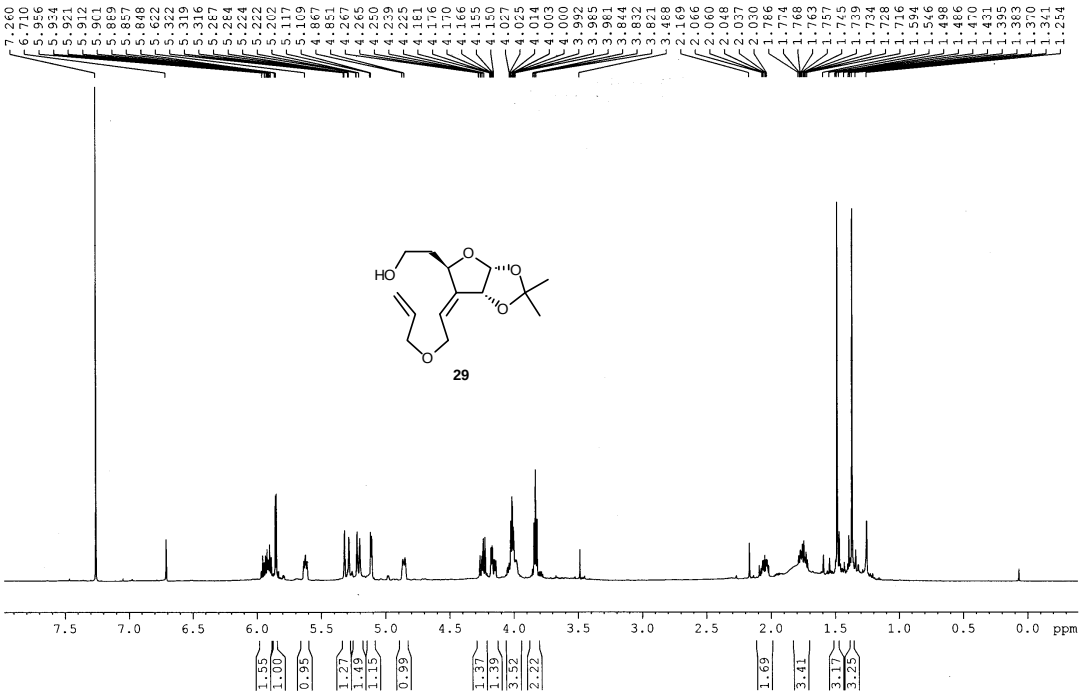


^{13}C NMR of **28** in $CDCl_3$ (75 MHz)



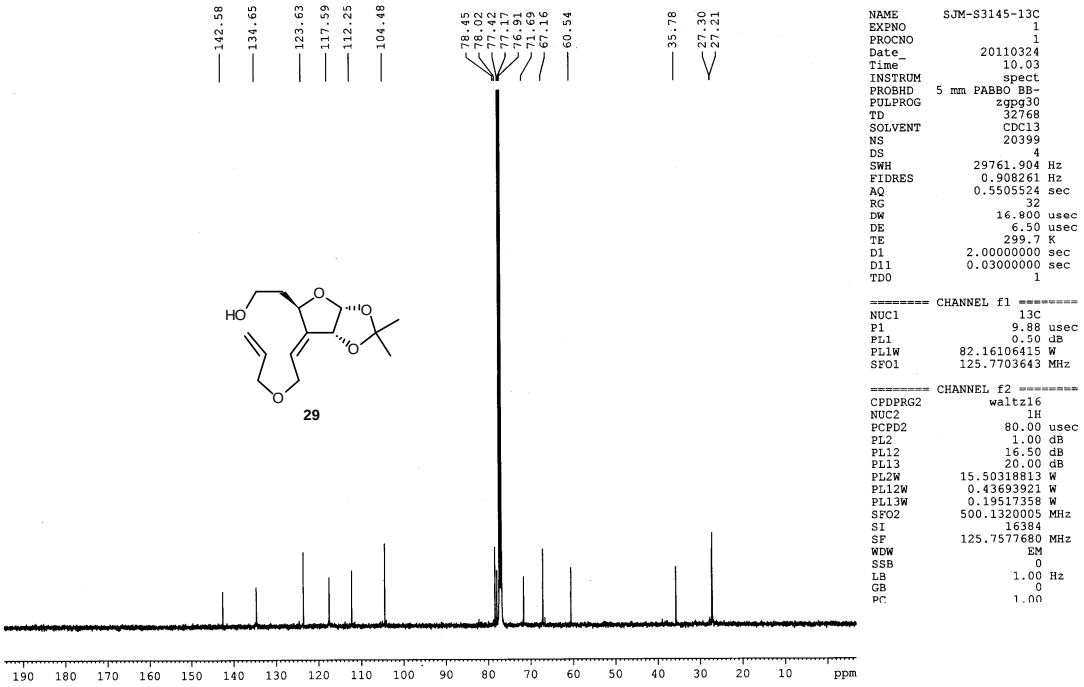
^{1}H NMR of **29** in $CDCl_3$ (500 MHz)

SJM-S3145-1H(SR)



^{13}C NMR of **29** in $CDCl_3$ (125 MHz)

SJM-S3145-13C(SR



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PROCNO	1
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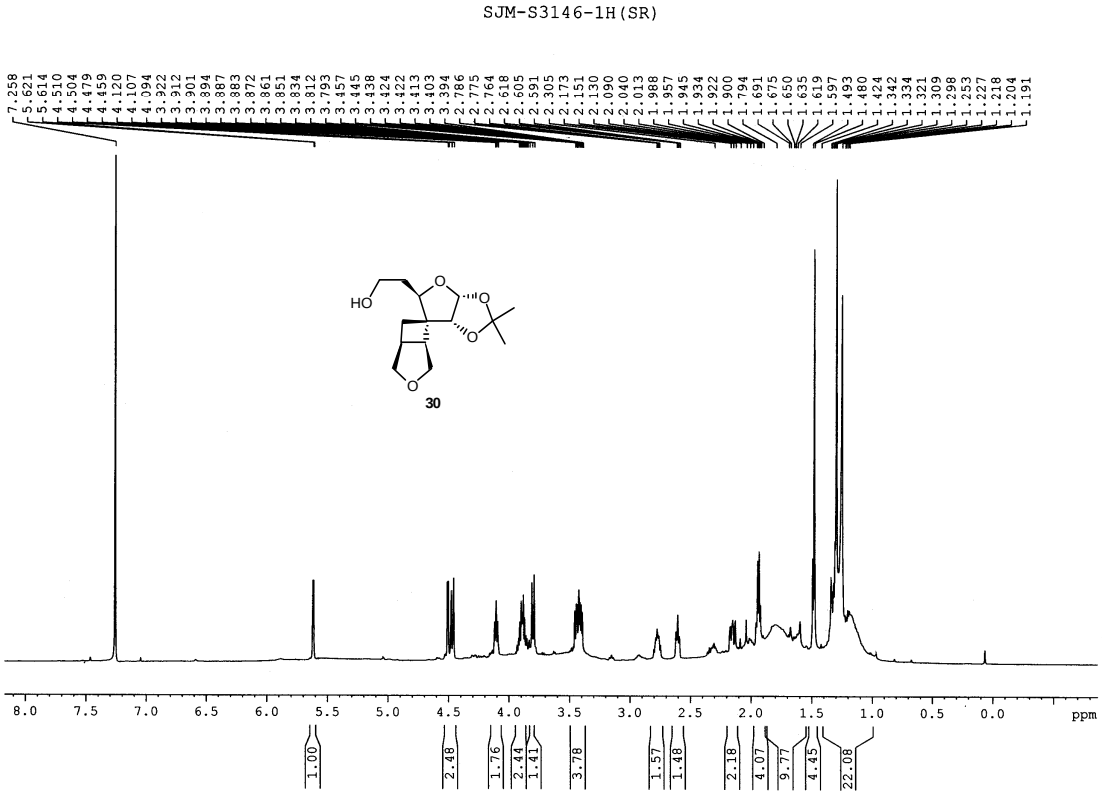
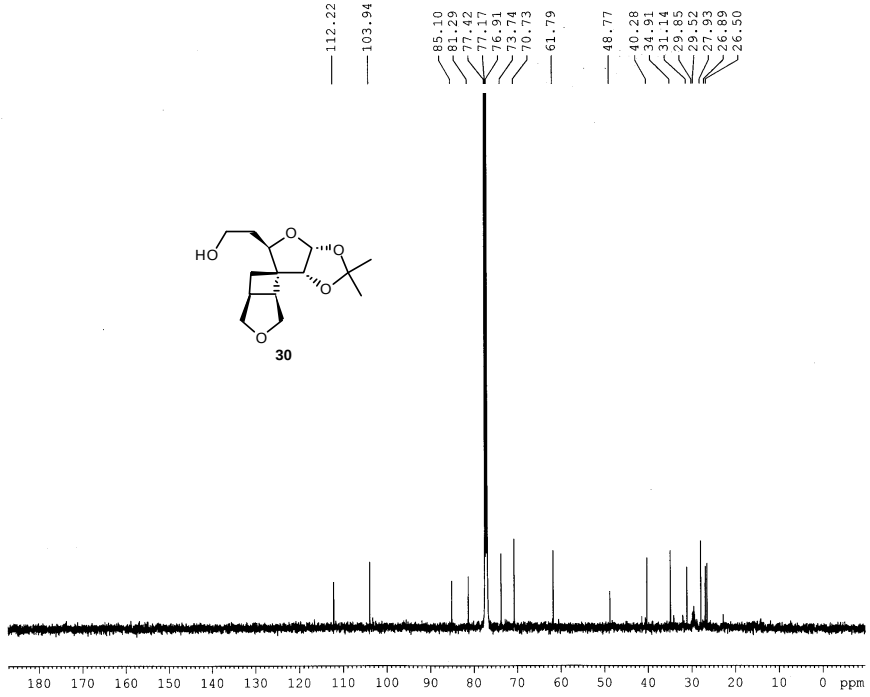
PULPROG	zgpg30
TD	32768
SOLVENT	CDCl3
NS	20399
DS	4
SWH	29761.904 Hz
FIDRES	0.908261 Hz
AQ	0.5505524 sec
RG	32
DW	16.800 usec
DE	6.50 usec
TE	299.7 K
D1	2.00000000 sec
D11	0.03000000 sec
TD0	1
======== CHANNEL f1 ========	
NUC1	13C
P1	9.88 usec
PL1	0.50 dB
PL1W	82.16106415 W
SFO1	125.7703643 MHz
======== CHANNEL f2 ========	
CPDPRG2	waltz16
NUC2	1H
PCPD2	80.00 usec
PL2	1.00 dB
PL12	16.50 dB
PL13	20.00 dB
PL2W	15.50318813 W
PL12W	0.43693921 W
PL13W	0.19517358 W
SFO2	500.1320005 MHz
SI	16384
SF	125.7577680 MHz
WDW	EM
SSB	0
LB	1.00 Hz
GB	0
PC	1.00

^{1}H NMR of **30** in $CDCl_3$ (500 MHz)



^{13}C NMR of **30** in $CDCl_3$ (125 MHz)



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PROCNO	1
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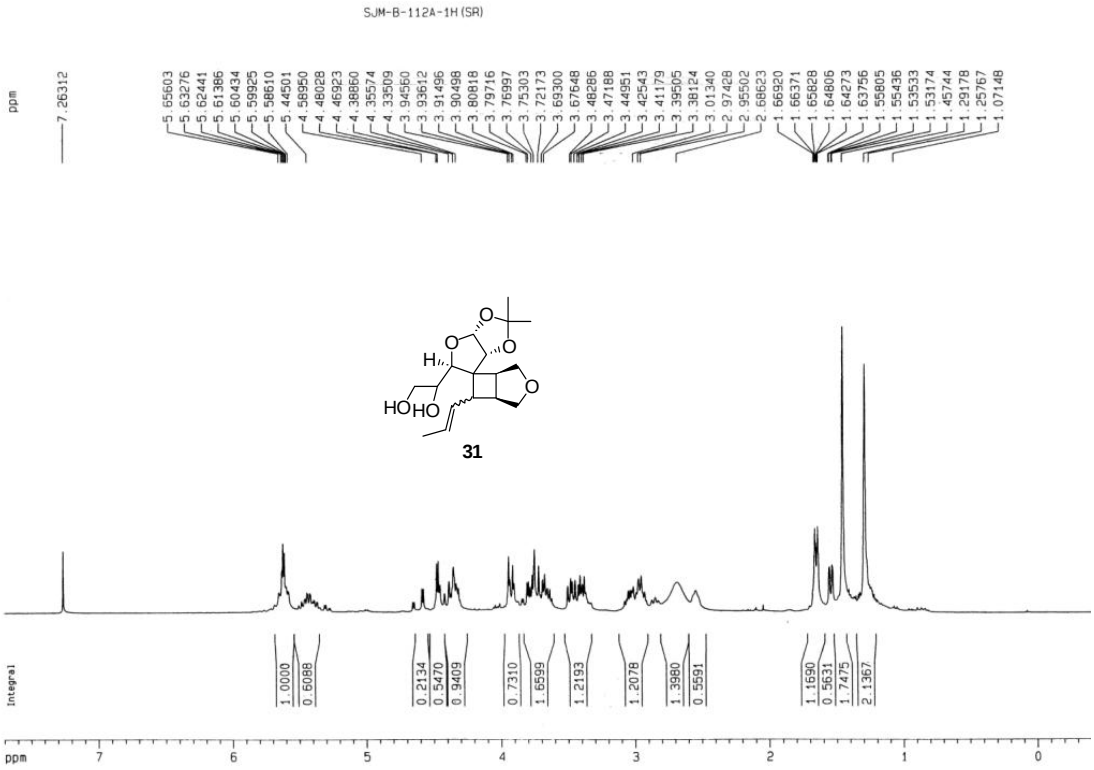
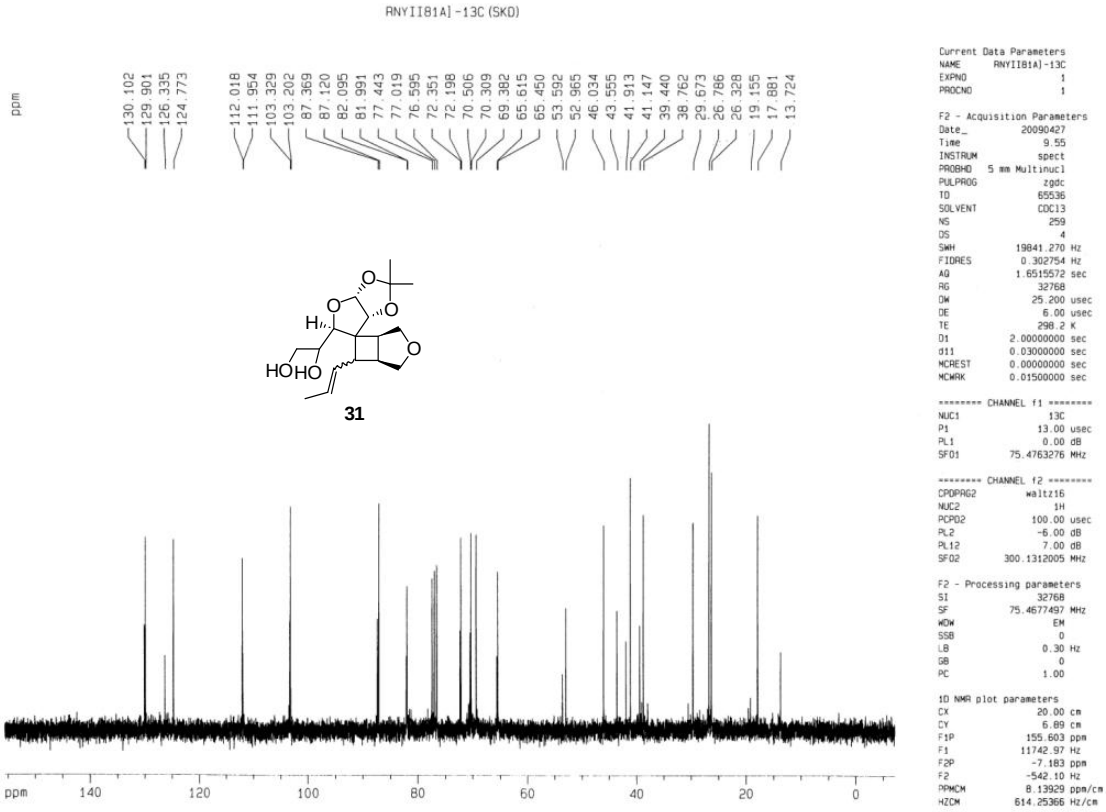
PULPROG	zgpg30
TD	32768
SOLVENT	CDCl3
NS	19980
DS	4
SWH	29761.904 Hz
FIDRES	0.908261 Hz
AQ	0.5505524 sec
RG	32
DW	16.800 usec
DE	6.50 usec
TE	299.8 K
D1	2.00000000 sec
D11	0.03000000 sec
TD0	1
======== CHANNEL f1 ========	
NUC1	13C
P1	9.88 usec
PL1	0.50 dB
PL1W	82.16106415 W
SFO1	125.7703643 MHz
======== CHANNEL f2 ========	
CPDPRG2	waltz16
NUC2	1H
PCPD2	80.00 usec
PL2	1.00 dB
PL12	16.50 dB
PL13	20.00 dB
PL2W	15.50318813 W
PL12W	0.43693921 W
PL13W	0.19517358 W
SFO2	500.1320005 MHz
SI	16384
SF	125.7577681 MHz
WDW	EM
SSB	0
LB	1.00 Hz
GB	0
PC	1.00

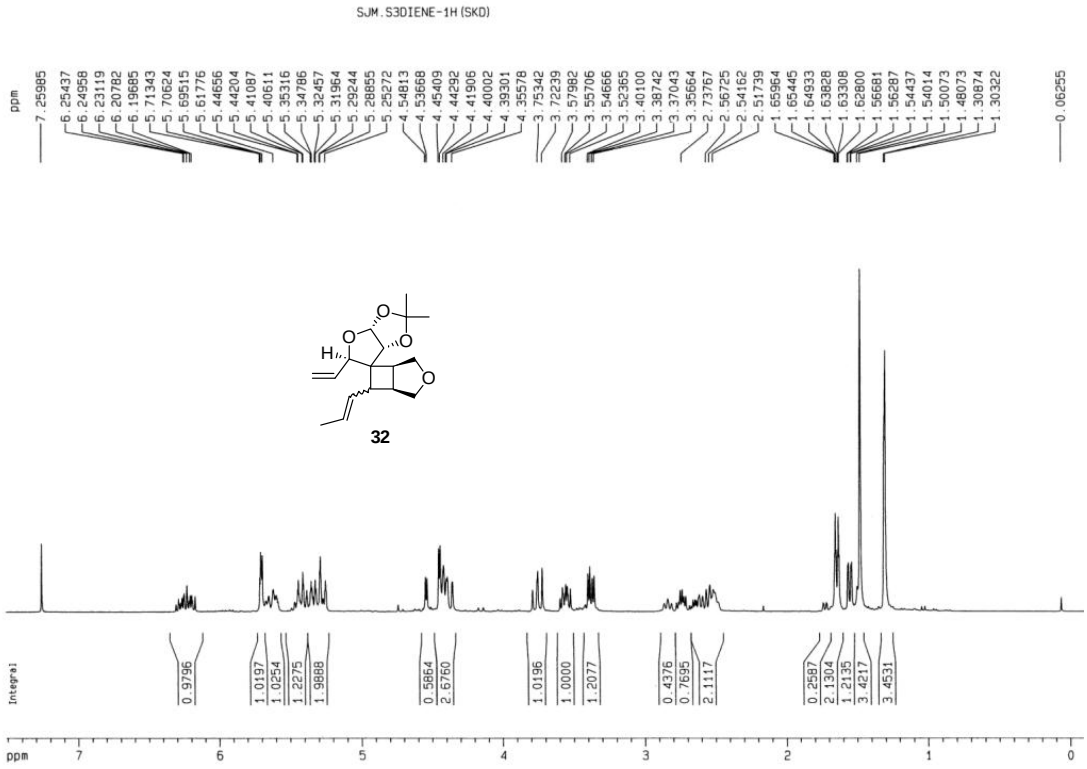
^{1}H NMR of **31** in $CDCl_3$ (300 MHz)



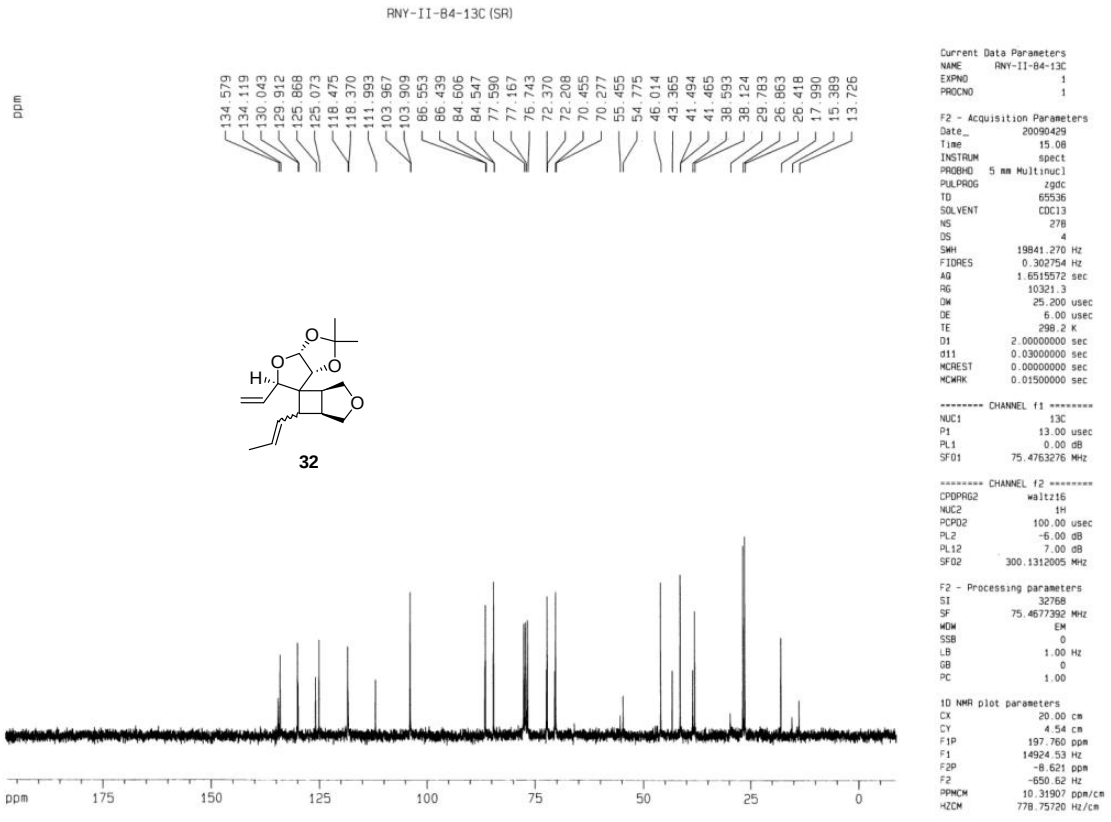
^{13}C NMR of **31** in $CDCl_3$ (75 MHz)



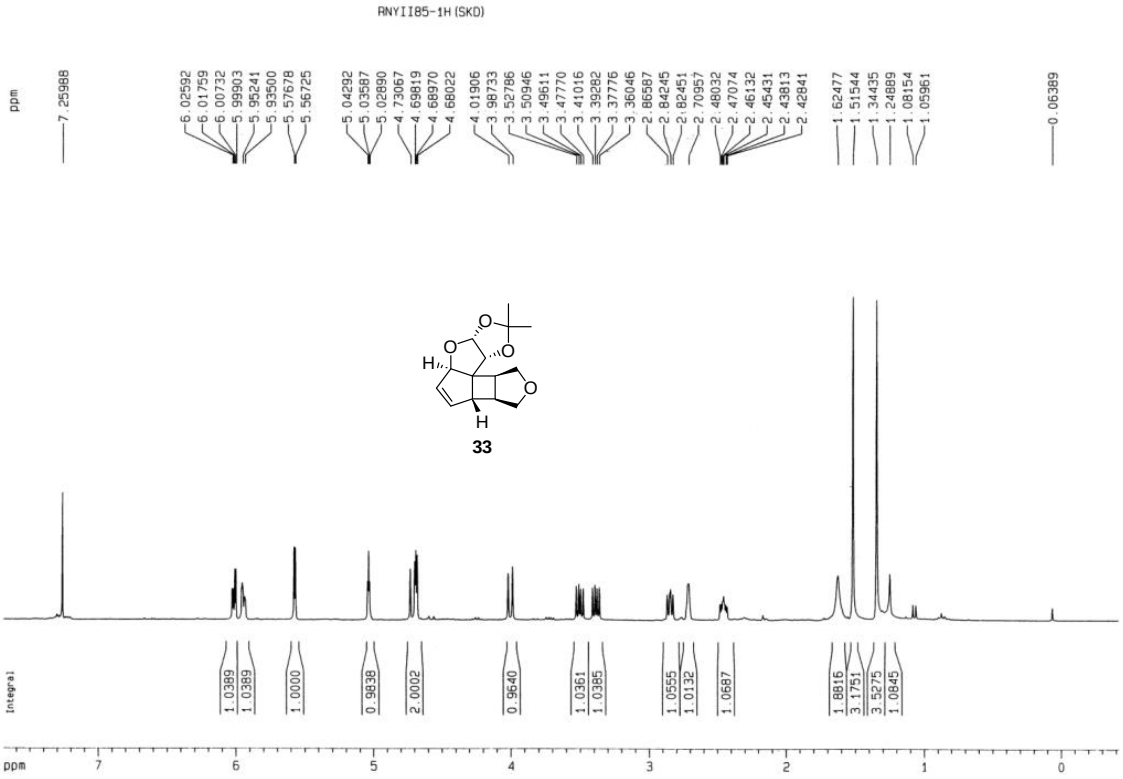
^{1}H NMR of **32** in $CDCl_3$ (300 MHz)



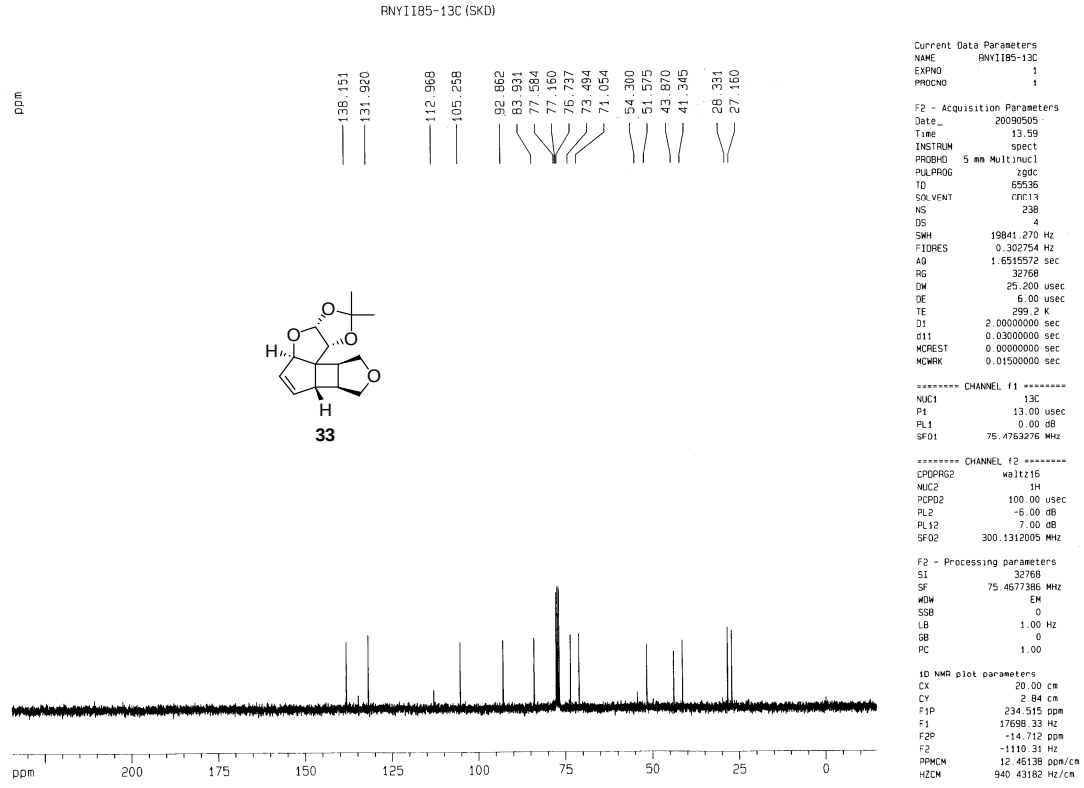
^{13}C NMR of **32** in $CDCl_3$ (75 MHz)



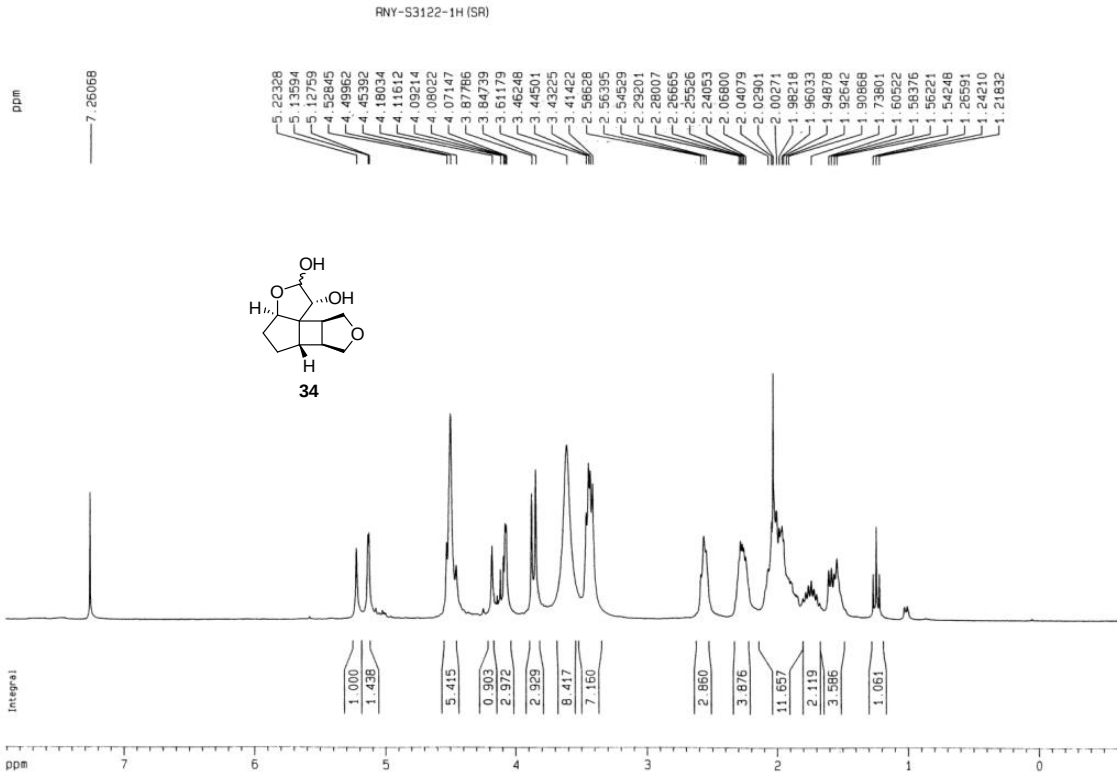
^{1}H NMR of **33** in $CDCl_3$ (300 MHz)



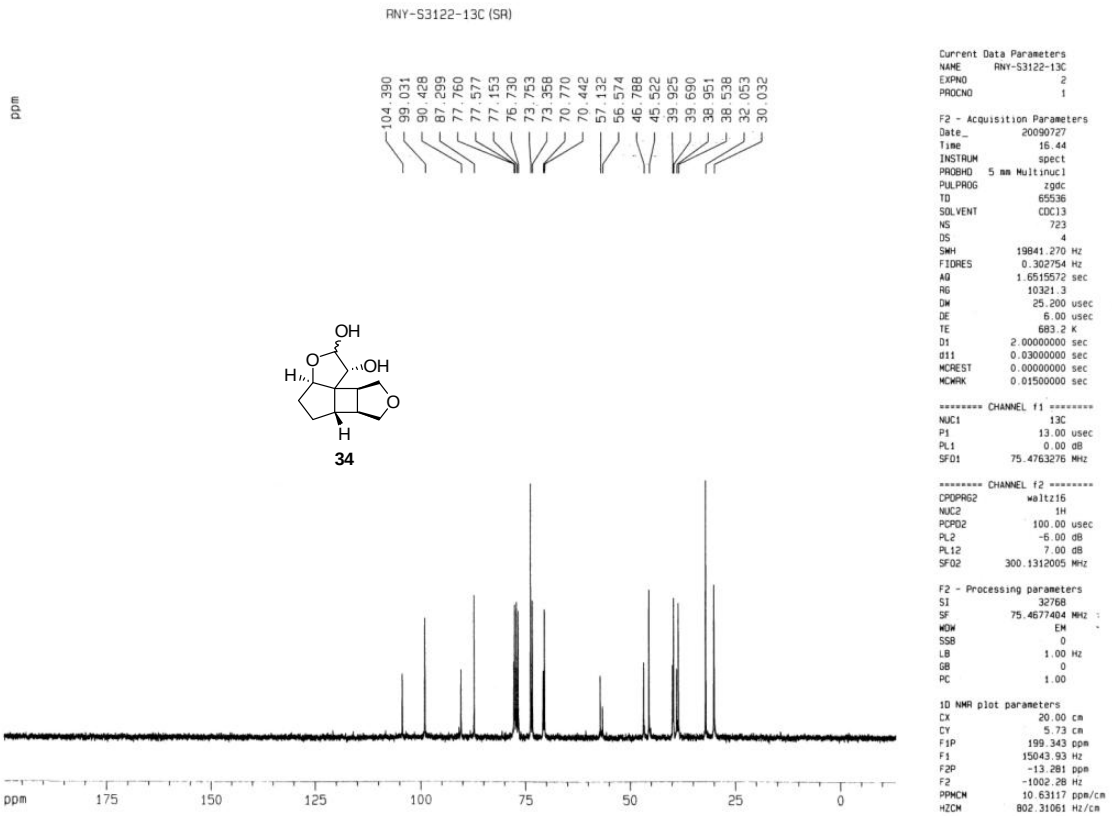
^{13}C NMR of **33** in $CDCl_3$ (75 MHz)



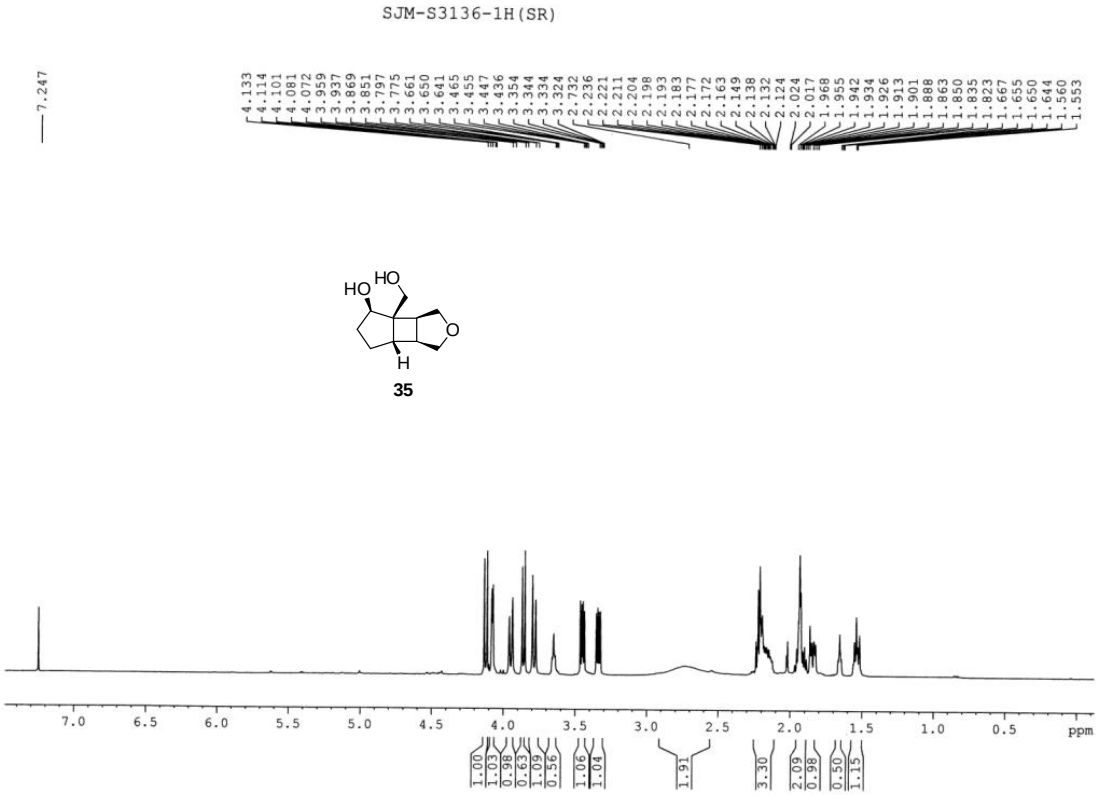
^{1}H NMR of **34** in $CDCl_3$ (300 MHz)



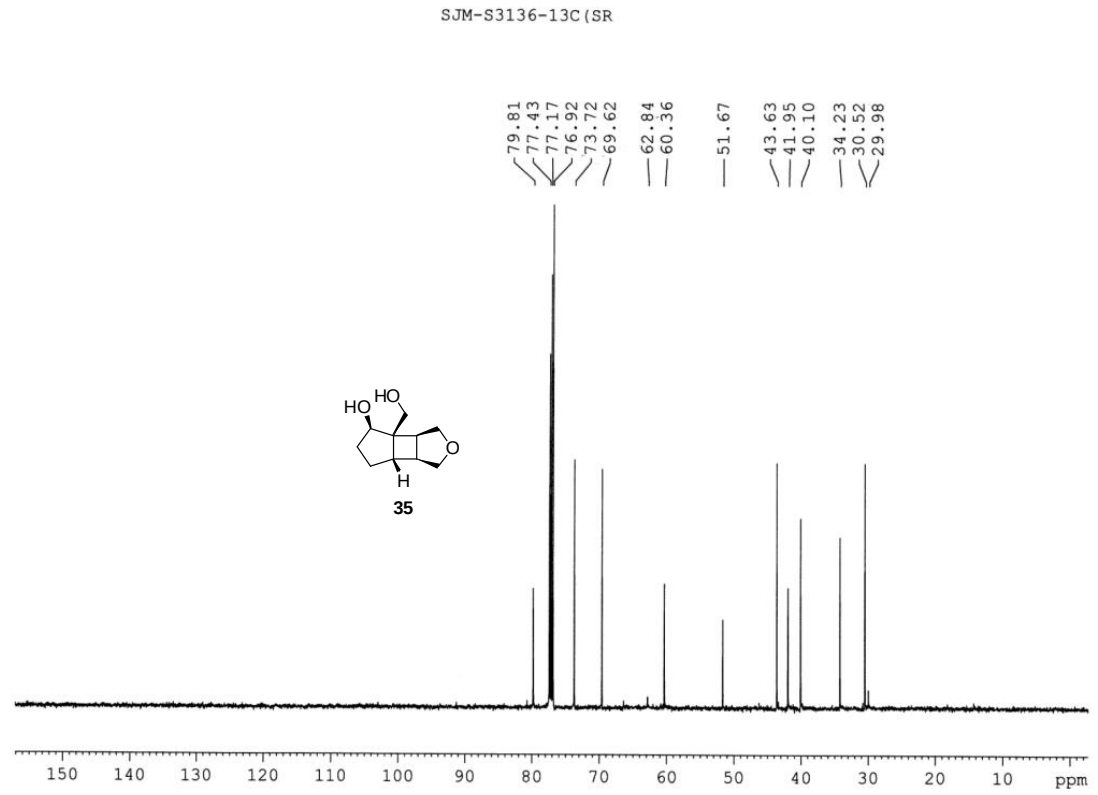
^{13}C NMR of **34** in $CDCl_3$ (75 MHz)



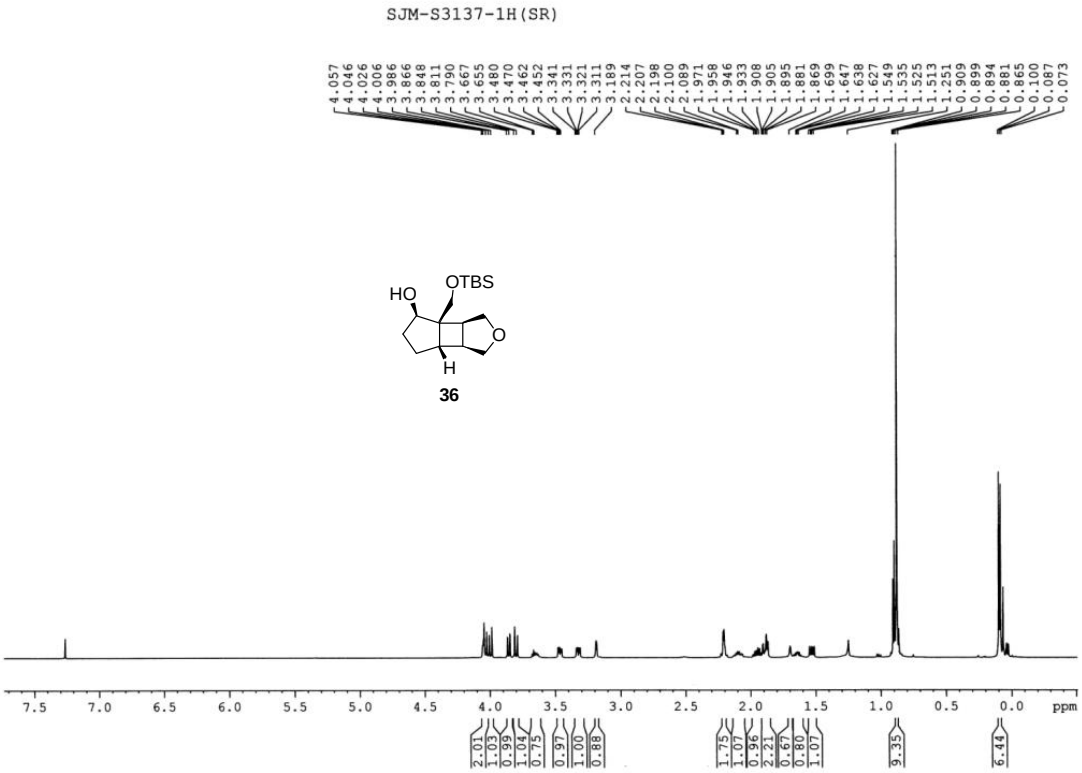
^{1}H NMR of **35** in $CDCl_3$ (500 MHz)



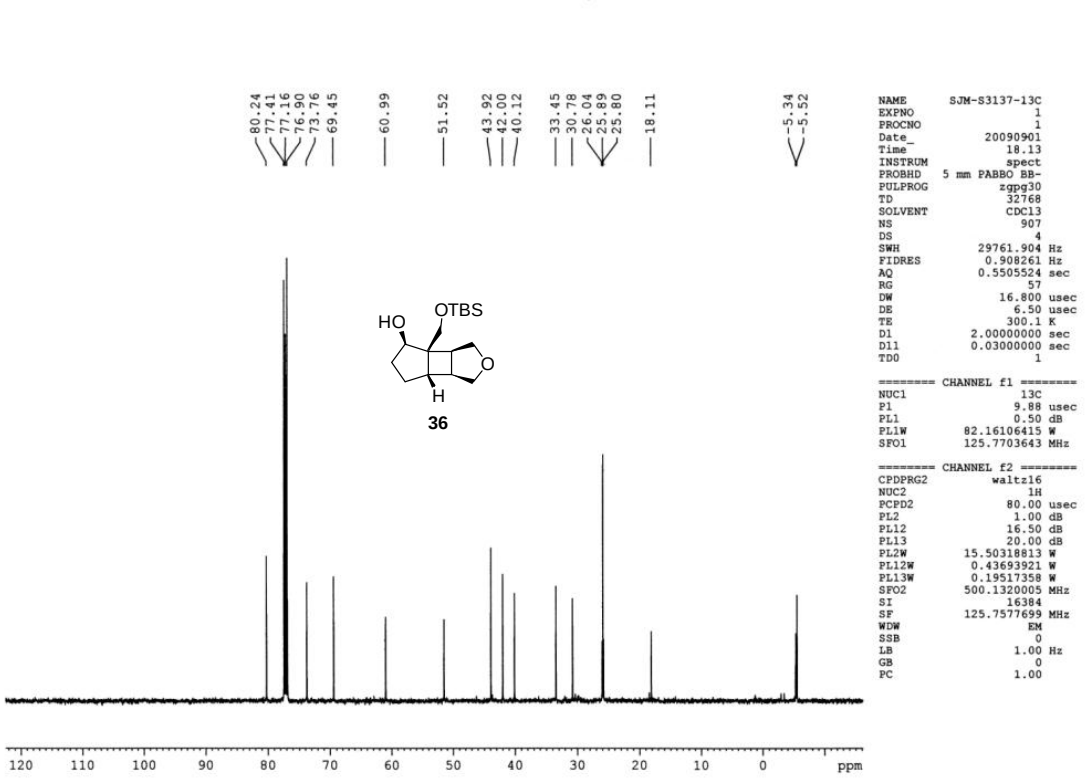
^{13}C NMR of **35** in $CDCl_3$ (125 MHz)



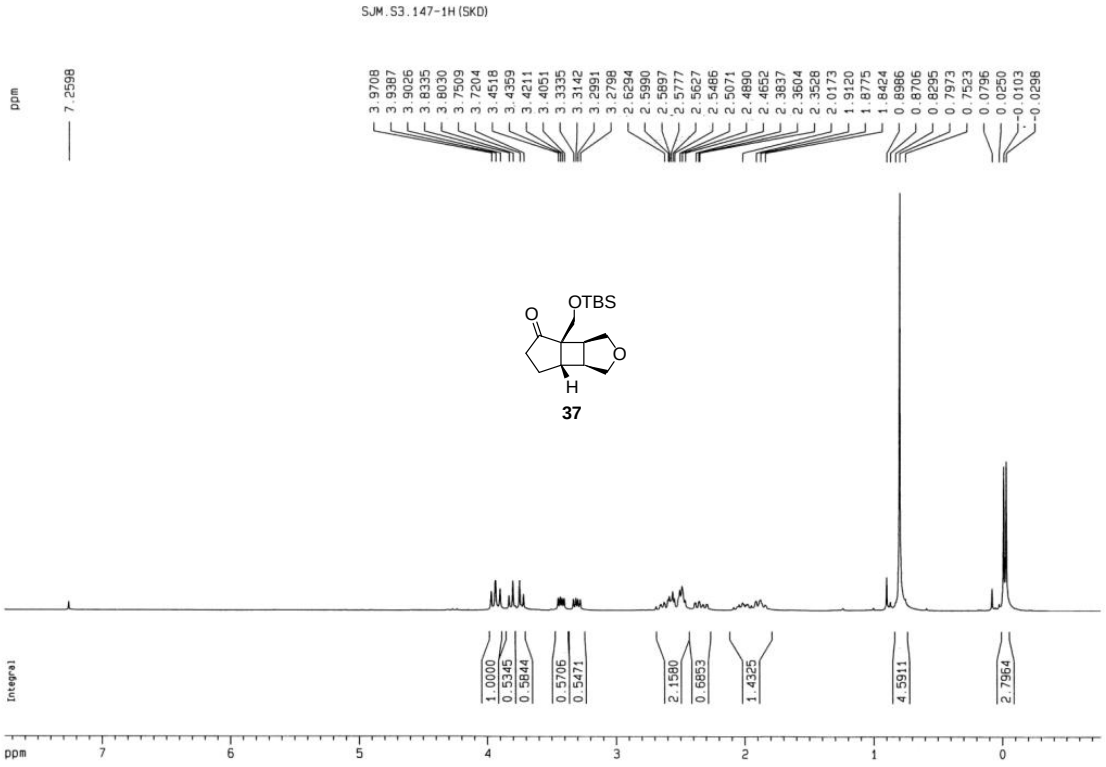
^{1}H NMR of **36** in $CDCl_3$ (500 MHz)



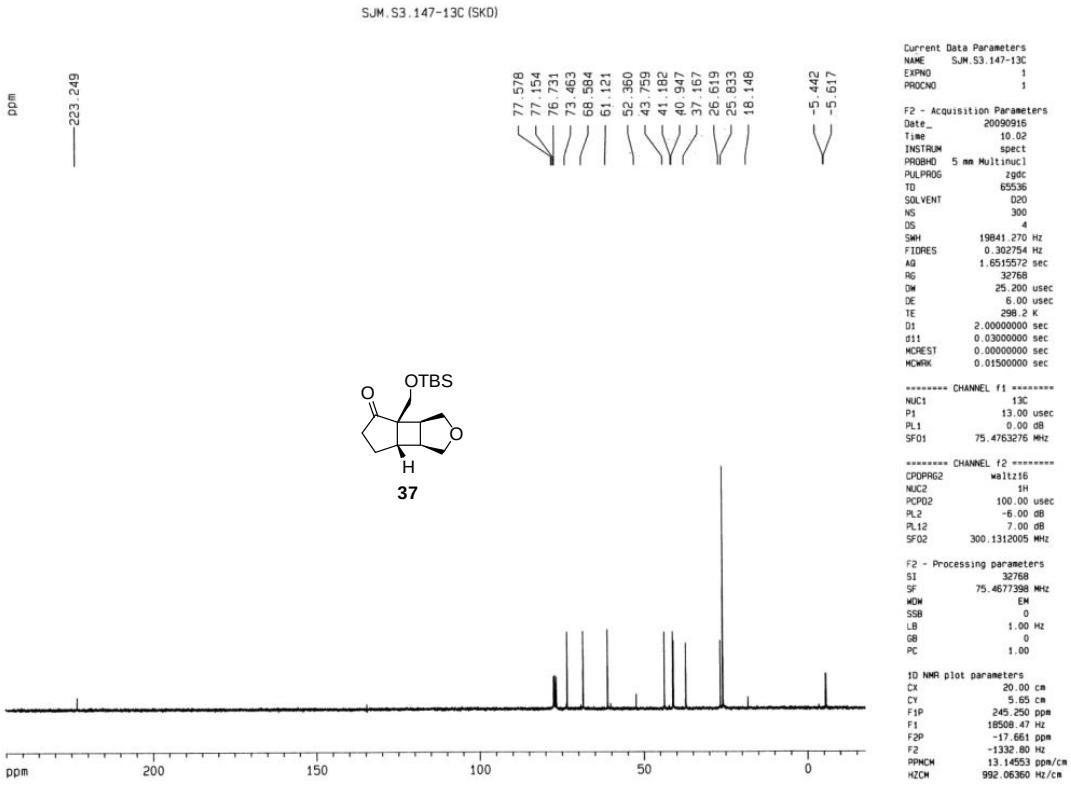
^{13}C NMR of **36** in $CDCl_3$ (125 MHz)



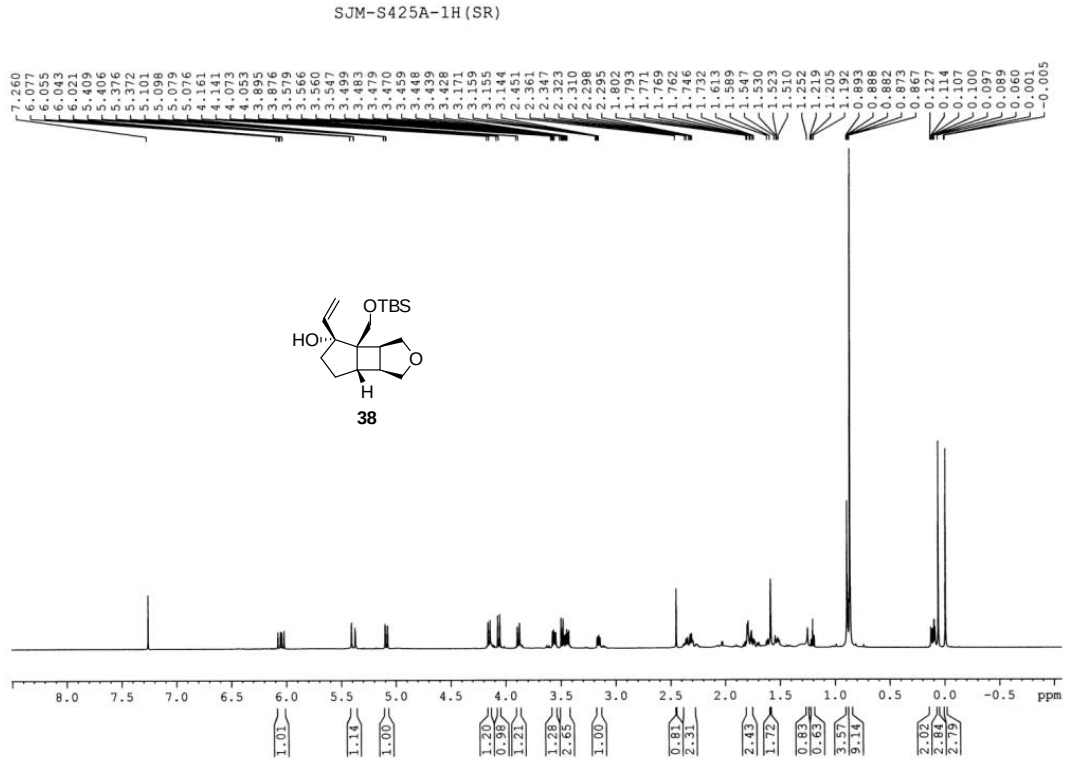
^{1}H NMR of **37** in $CDCl_3$ (300 MHz)



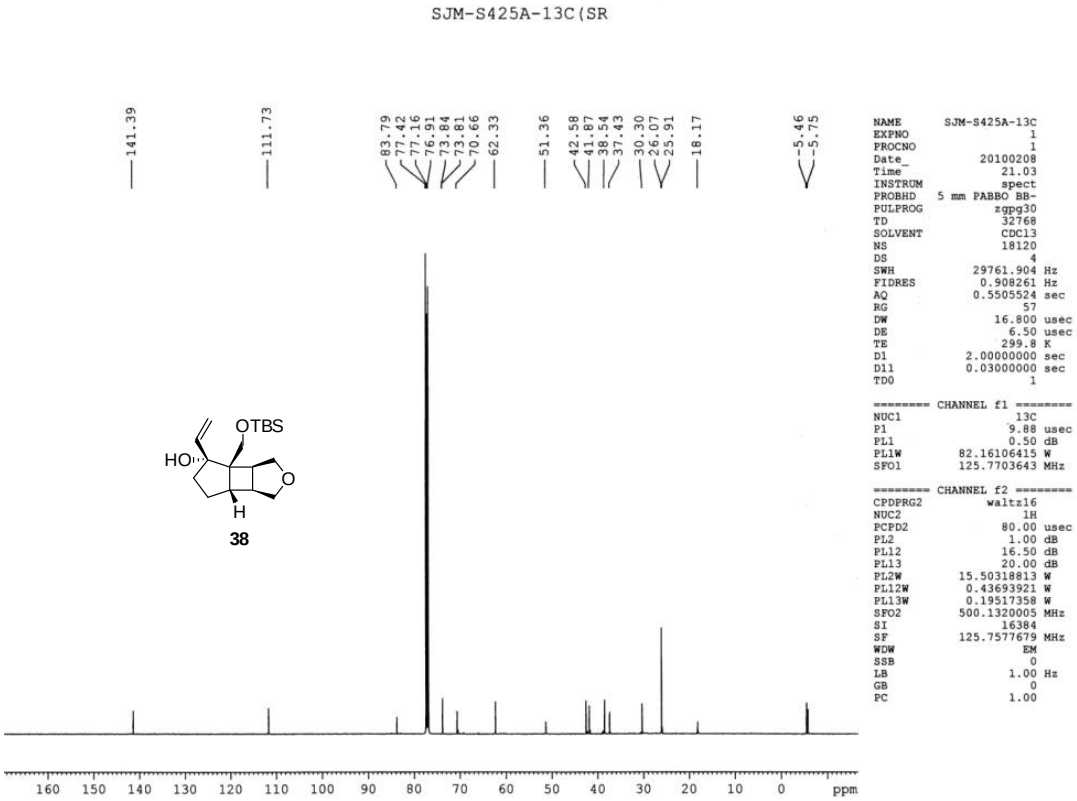
^{13}C NMR of **37** in $CDCl_3$ (75 MHz)



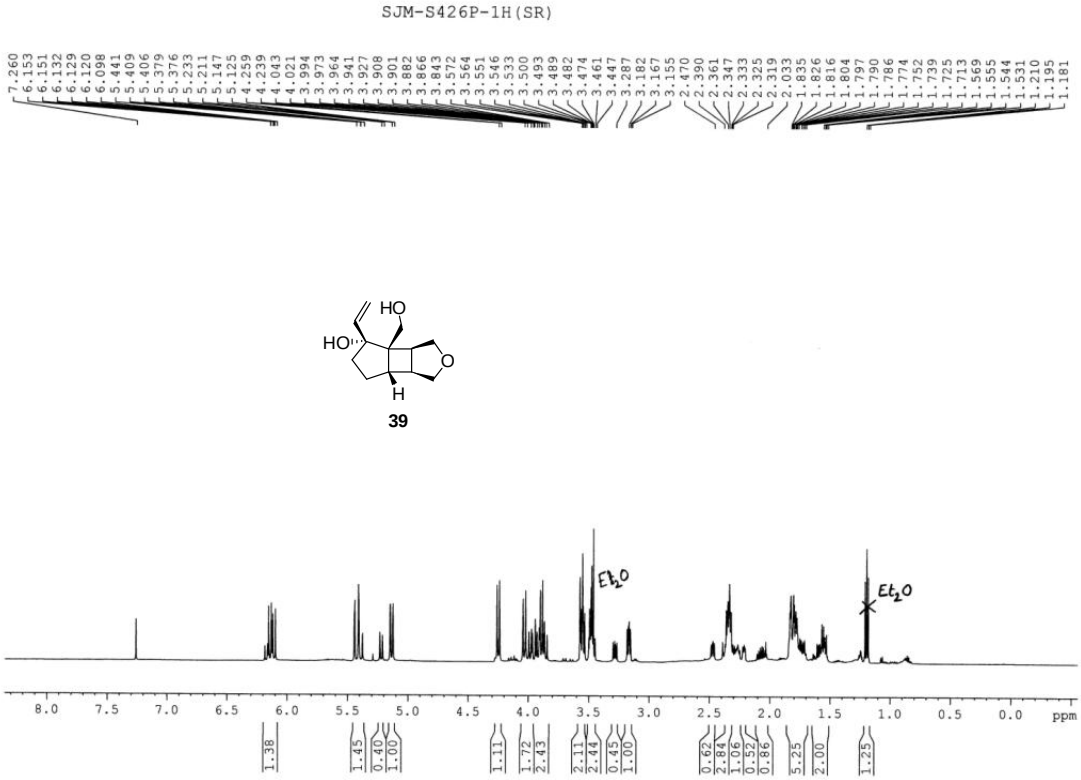
^{1}H NMR of **38** in $CDCl_3$ (500 MHz)



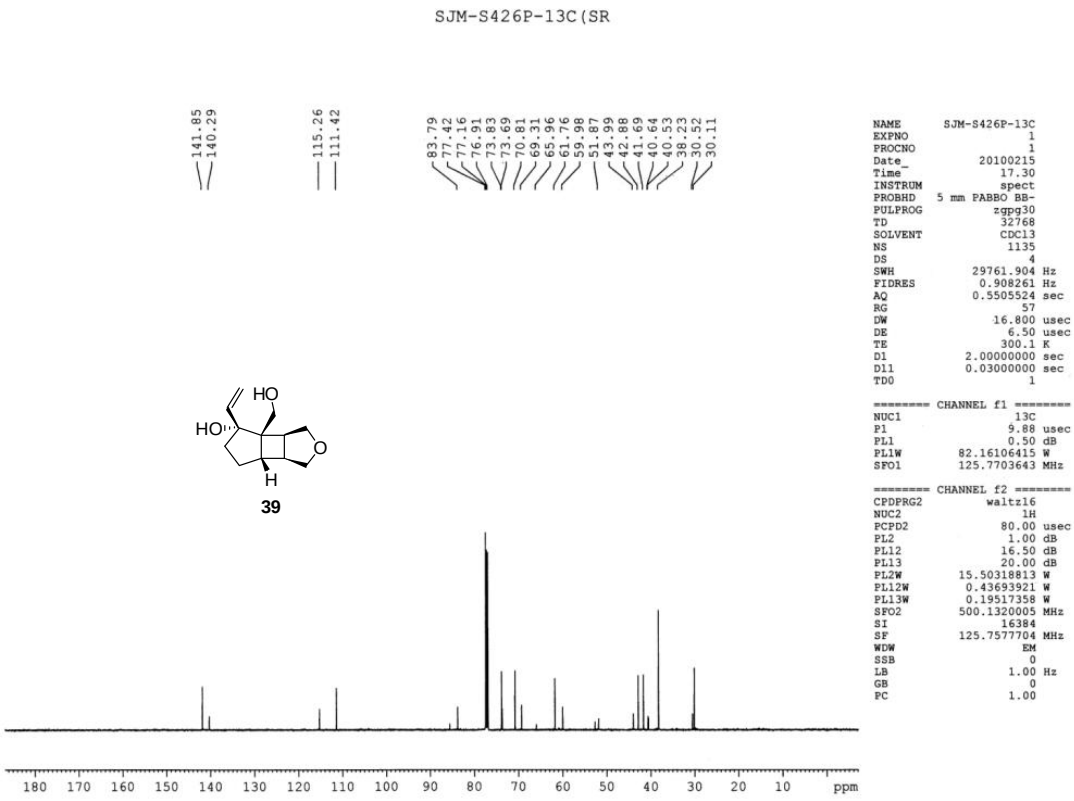
^{13}C NMR of **38** in $CDCl_3$ (125 MHz)



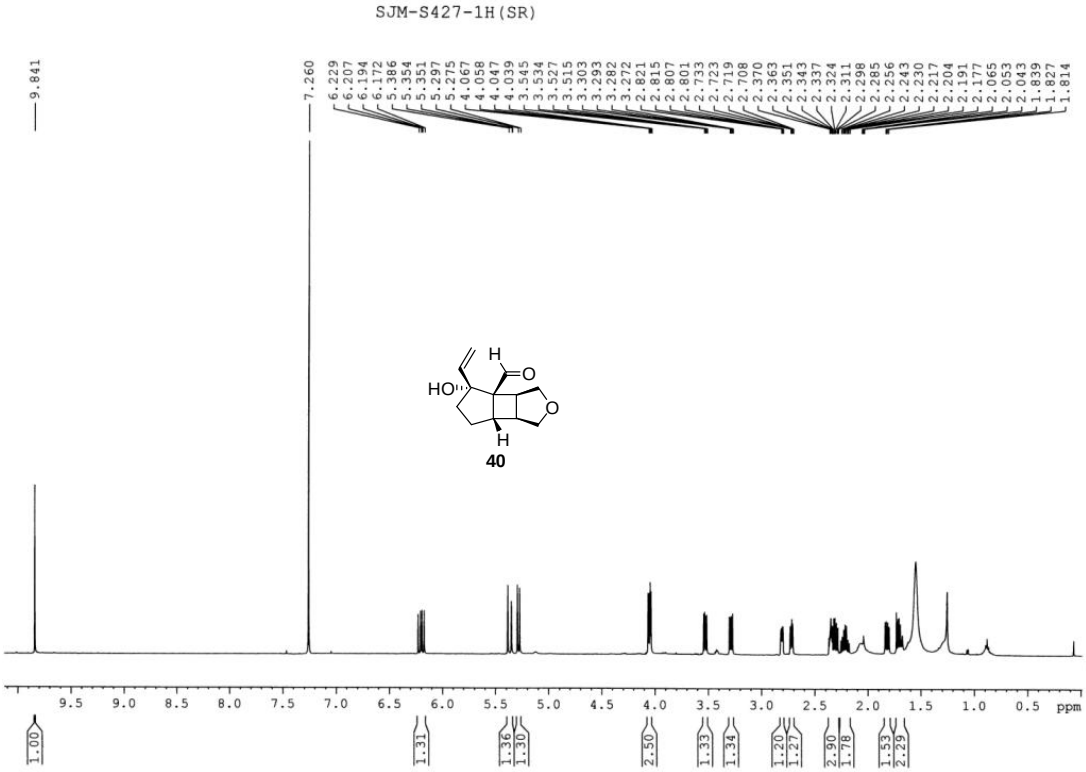
^{1}H NMR of **39** in $CDCl_3$ (500 MHz)



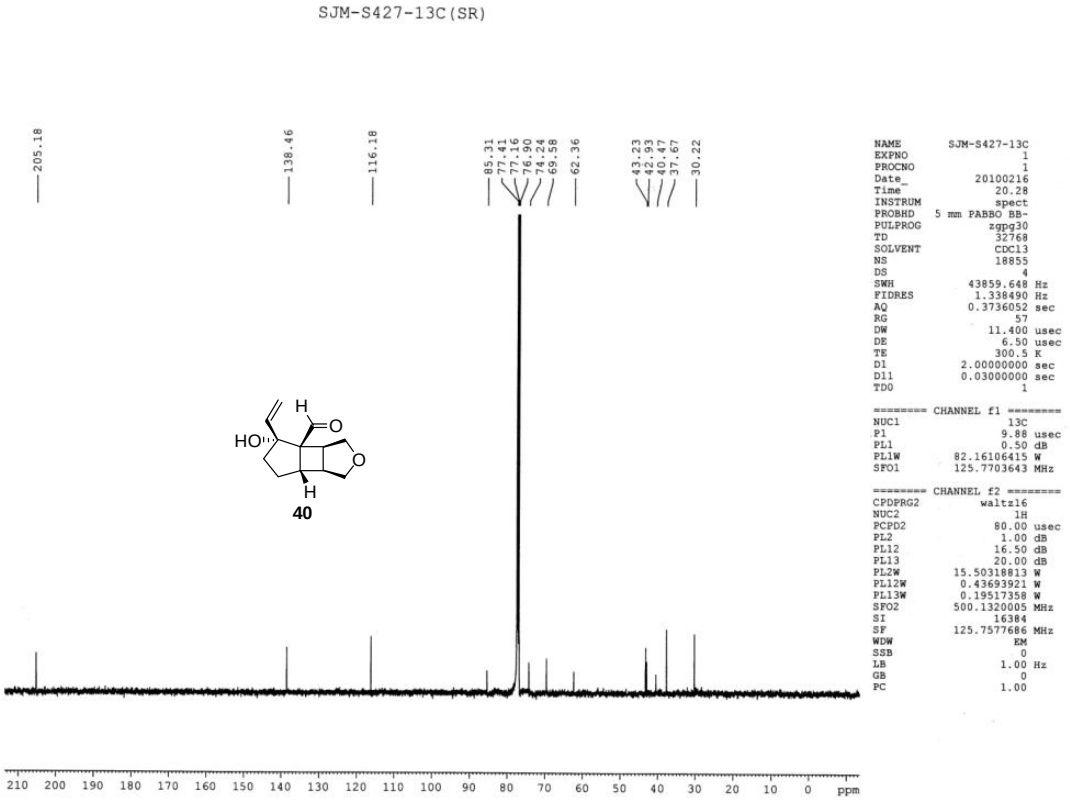
^{13}C NMR of **39** in $CDCl_3$ (125 MHz)



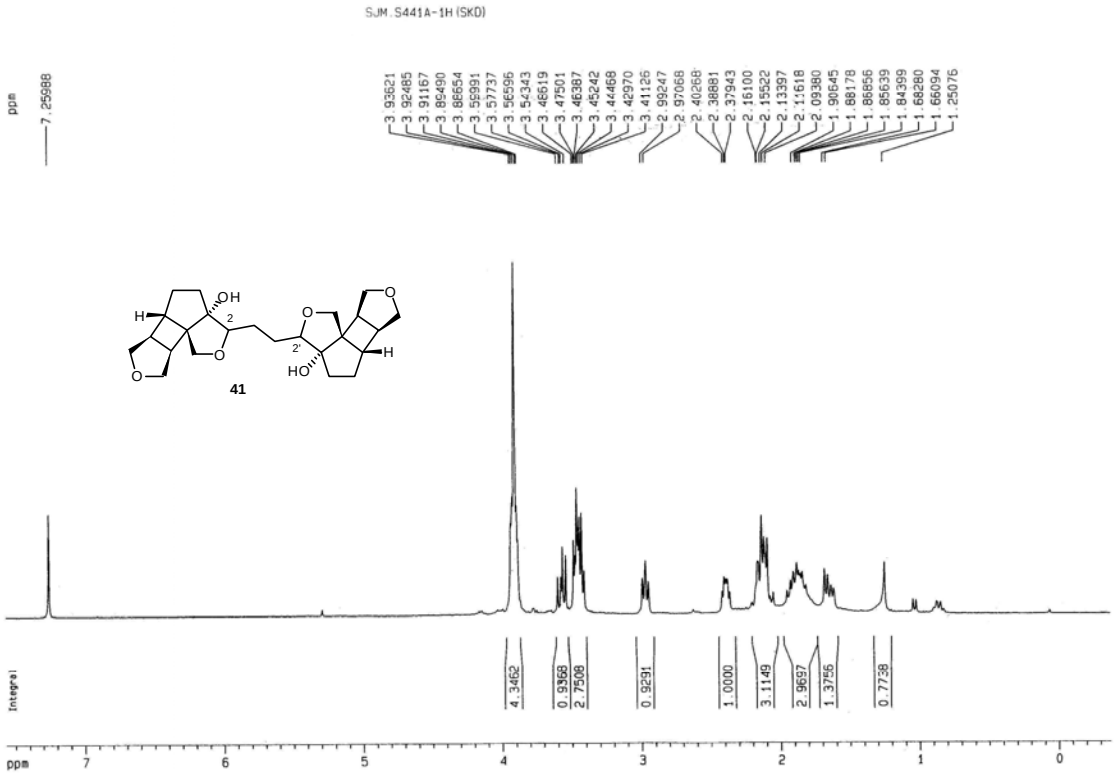
^{1}H NMR of **40** in $CDCl_3$ (500 MHz)



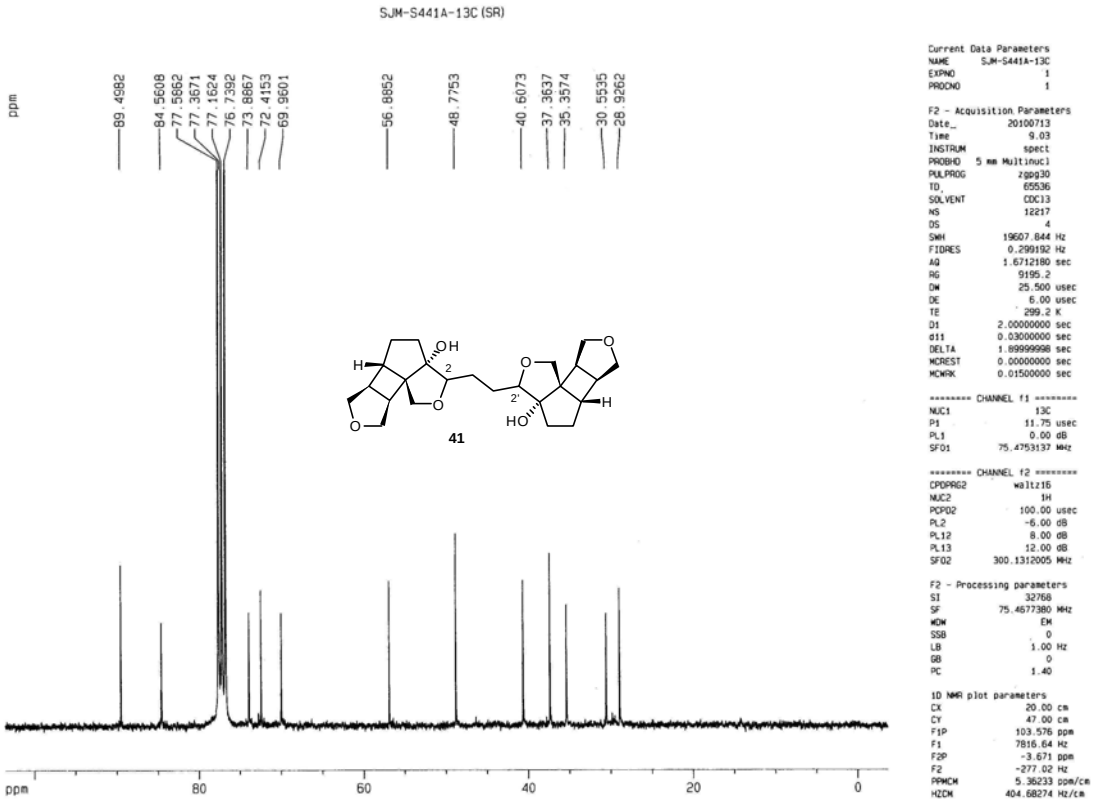
^{13}C NMR of **40** in $CDCl_3$ (125 MHz)



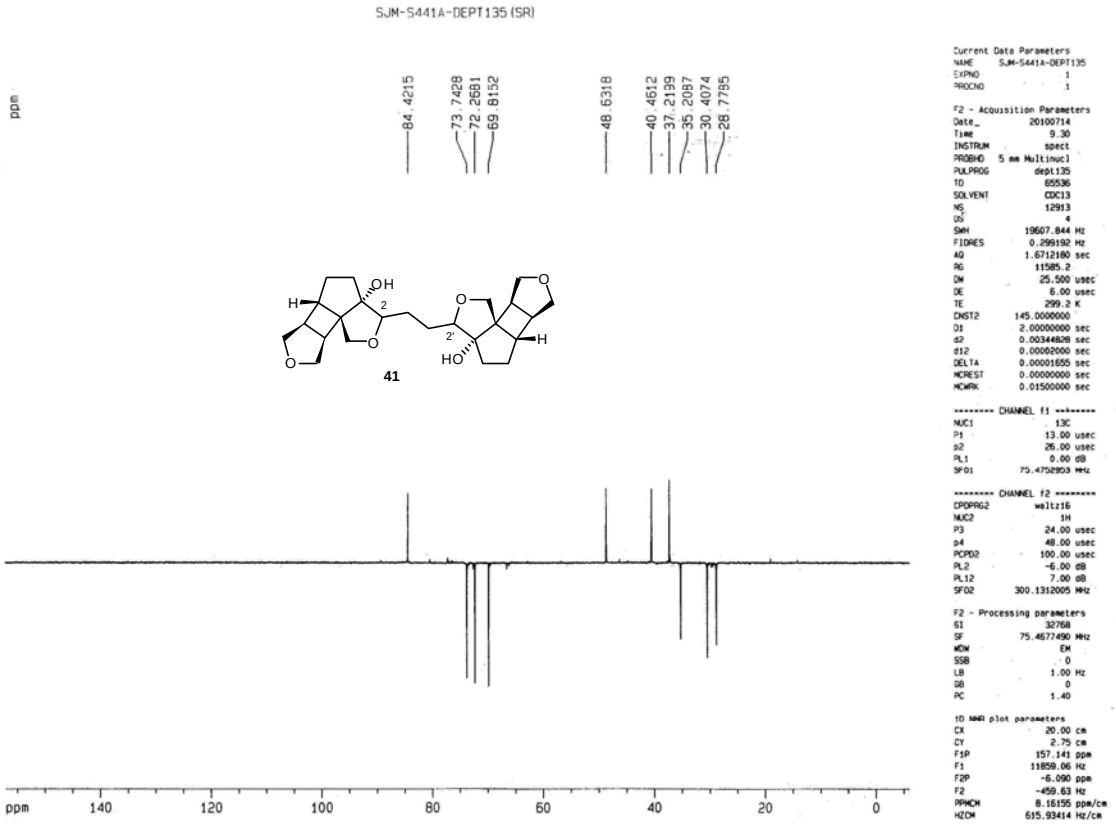
^{1}H NMR of **41** in $CDCl_3$ (300 MHz)



^{13}C NMR of **41** in $CDCl_3$ (75 MHz)



DEPT-135 of **41** in $CDCl_3$ (75 MHz)



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EXPNO 1
PROCNO 1

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TD 65536
SOLVENT CDCl3
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SWH 19607.844 Hz
FIDRES 0.299192 Hz
AQ 1.6712180 sec
RG 11585.2
DW 25.500 usec
DE 6.00 usec
TE 299.2 K
CNST2 145.0000000
D1 2.00000000 sec
d2 0.00344828 sec
d12 0.00002000 sec
DELTA 0.00001655 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 13C
P1 13.00 usec
p2 26.00 usec
PL1 0.00 dB
SF01 75.4752853 MHz

======== CHANNEL f2 ========
CPDPRG2 waltz16
NUC2 1H
P3 24.00 usec
p4 48.00 usec
PCPD2 100.00 usec
PL2 -6.00 dB
PL12 7.00 dB
SF02 300.1312005 MHz

F2 - Processing parameters
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SF 75.4677490 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

1D NMR plot parameters
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CY 2.75 cm
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F1 11859.06 Hz
F2P -6.090 ppm
F2 -459.63 Hz
PPMCM 8.16155 ppm/cm
HZCM 615.93414 Hz/cm