Electronic Supplementary Information

Total syntheses of five uvacalols: Structural validation of uvacalol A, uvacalol B and uvacalol C and disproval of the structures of uvacalol

E and uvacalol G

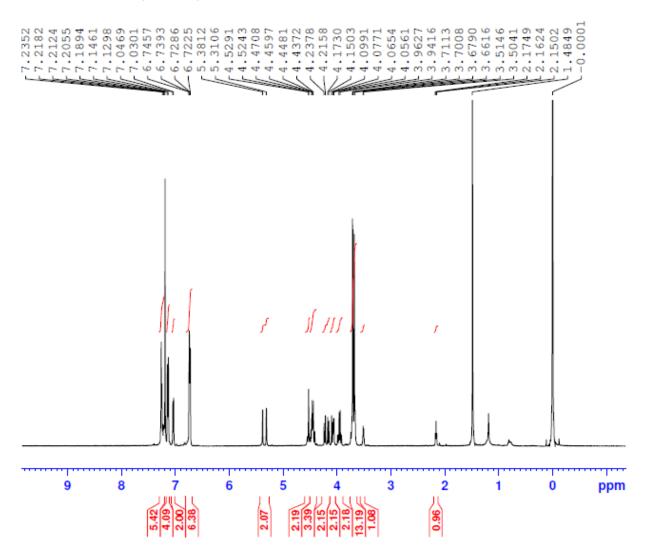
Adiyala Vidyasagar and Kana M. Sureshan* School of Chemistry, Indian Institute of Science Education and Research Thiruvananthapuram, Kerala, 695017.

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¹H NMR, COSY, DEPT, ¹³C NMR and HMQC of all the compounds **4-26**------Page No 2-215

¹H NMR of compound **4**

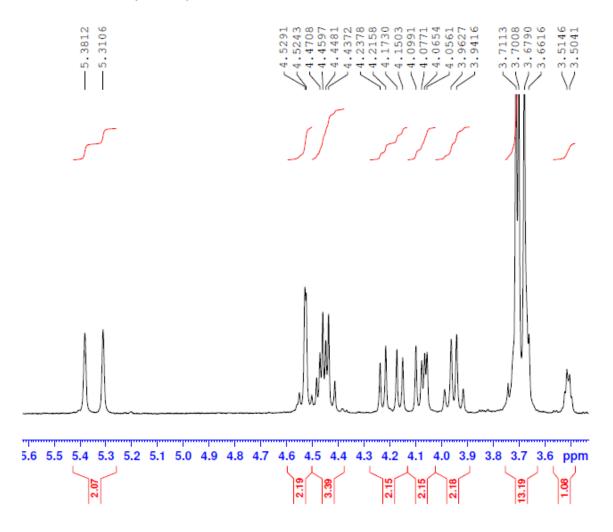
KMS-U-I-18
PROTON CDC13 C:\Bruker\TOPSPIN nmr



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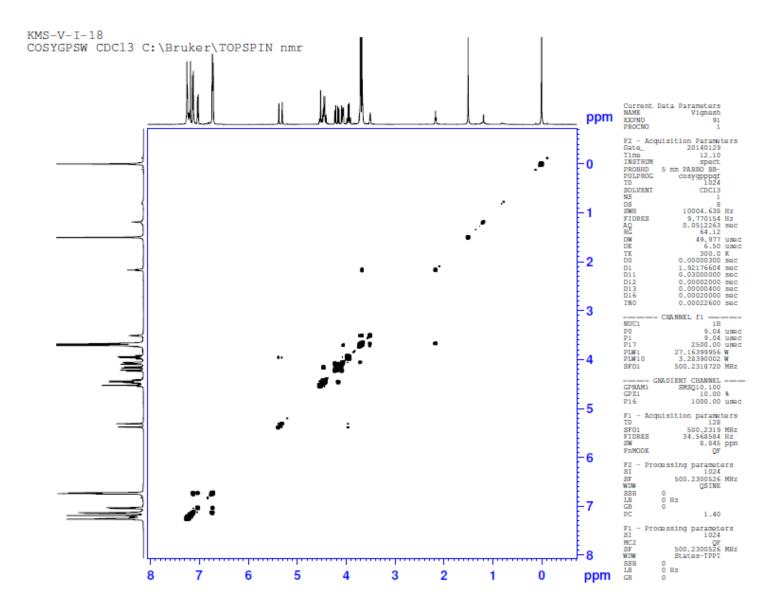
¹H NMR of compound **4** (zoom)

KMS-U-I-18
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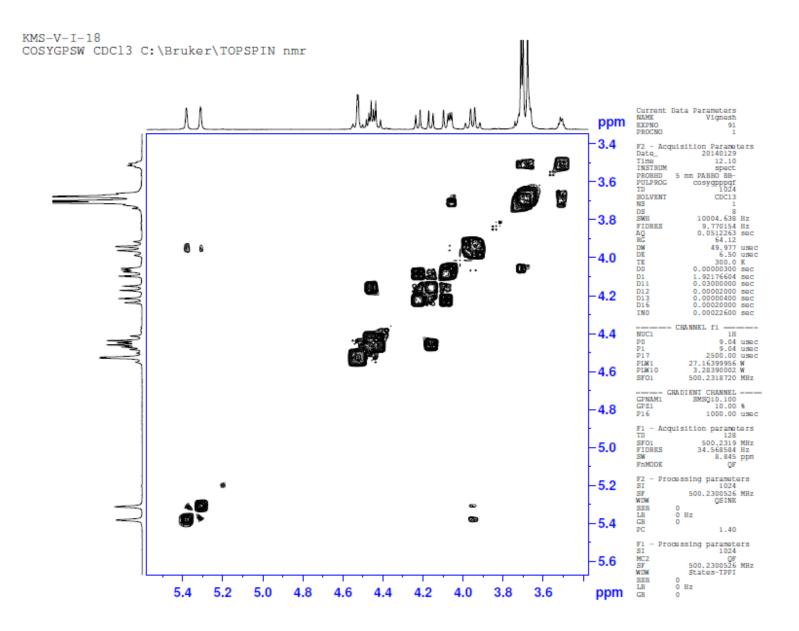


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COSY of compound 4

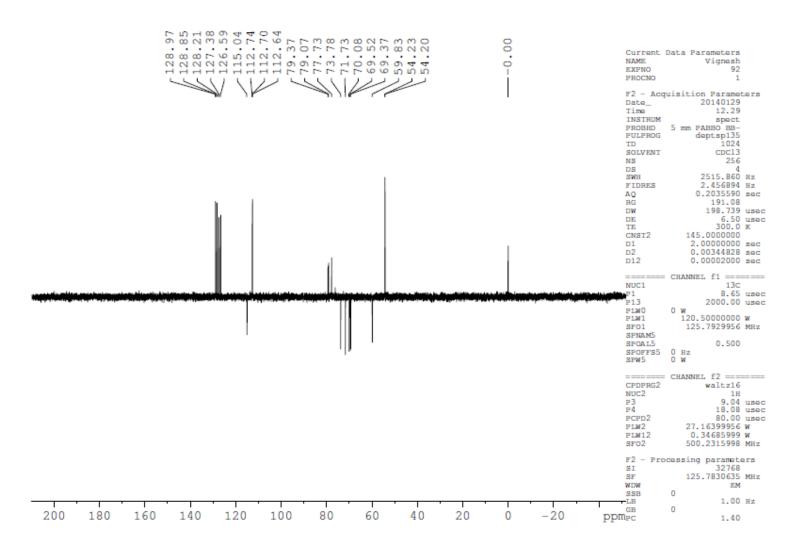


COSY of compound 4 (zoom)



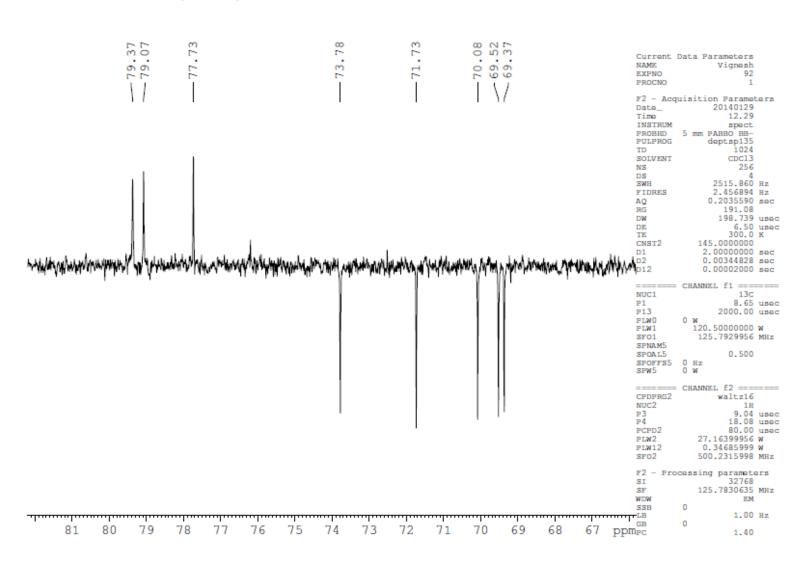
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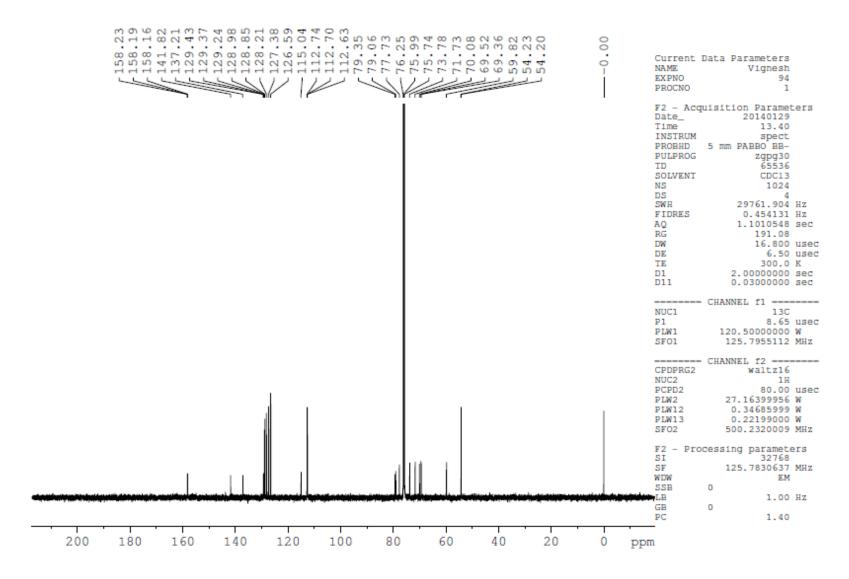
DEPT-135 of compound 4 (zoom)

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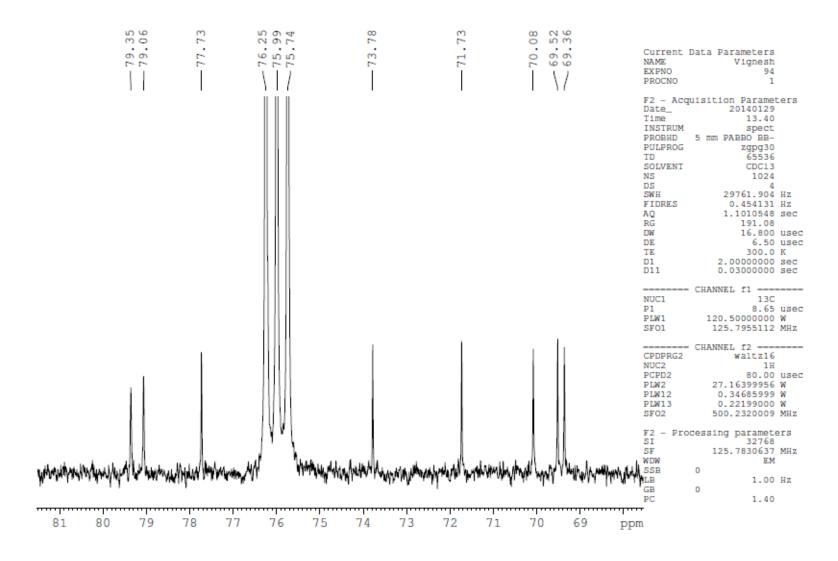
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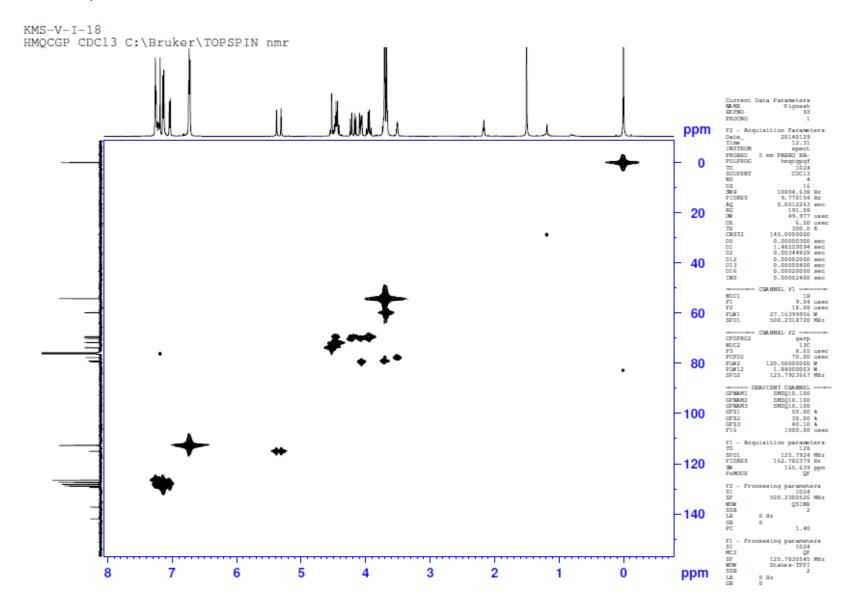


¹³C NMR of compound 4 (zoom)

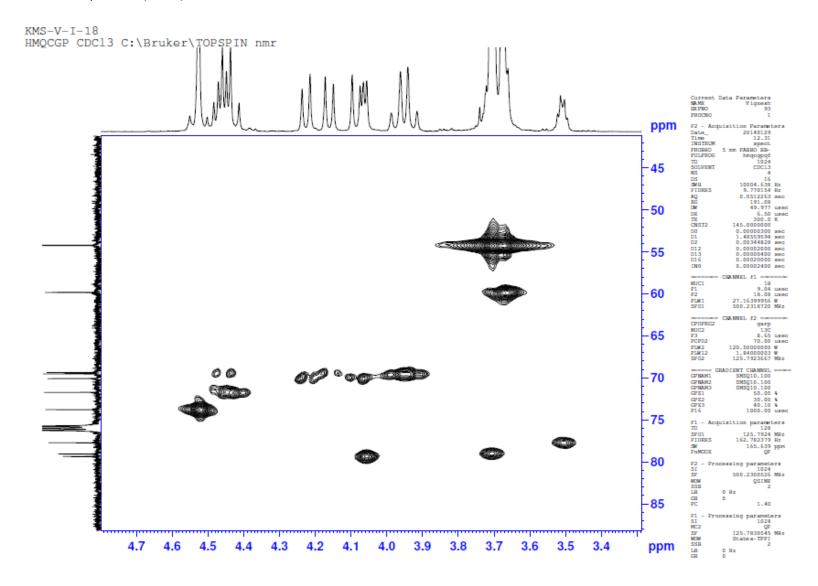
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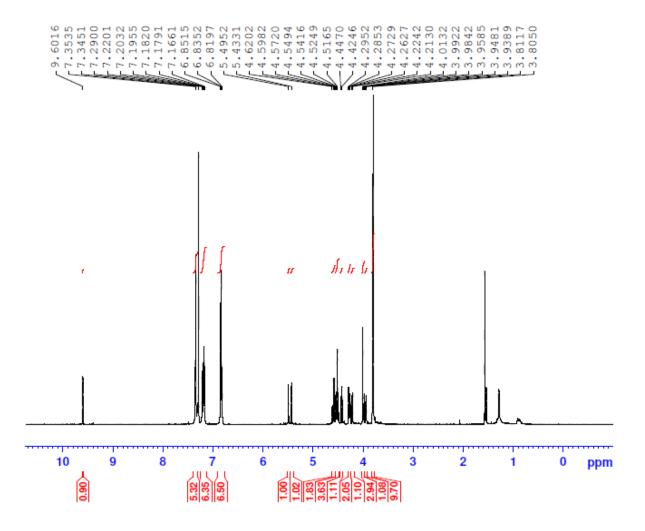


HMQC of compound 4 (zoom)



¹H NMR of compound **5**

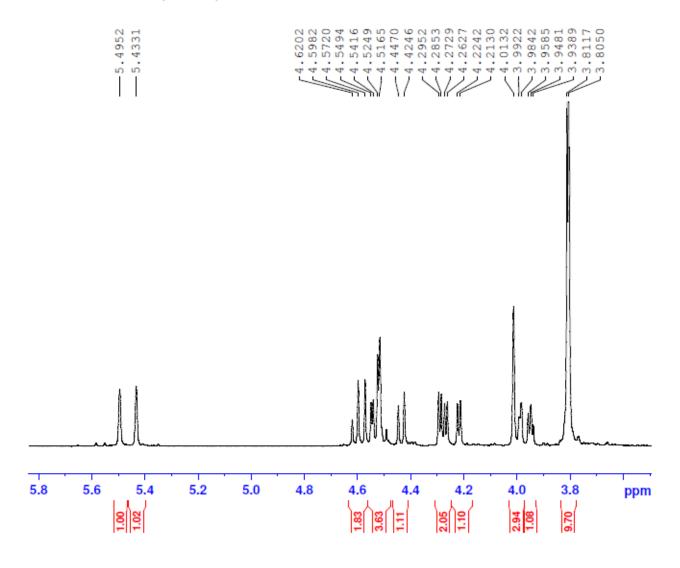
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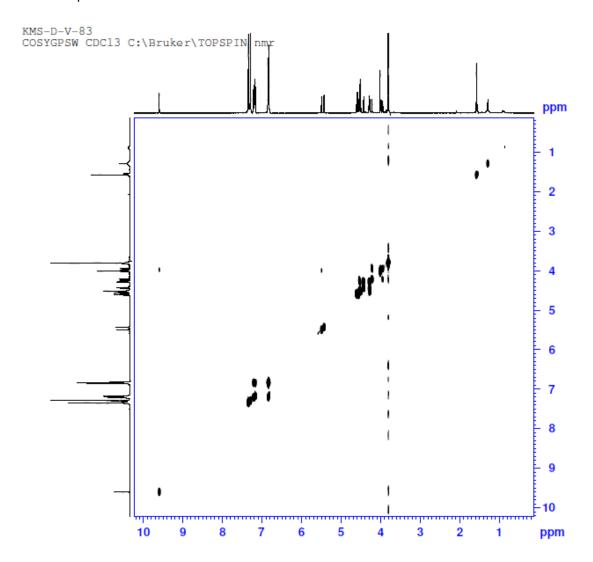
¹H NMR of compound **5** (zoom)

KMS-D-V-83
PROTON CDC13 C:\Bruker\TOPSPIN nmr



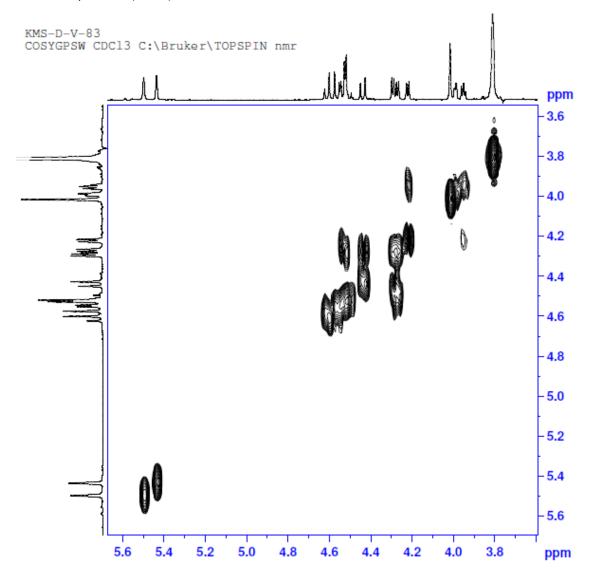
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C	HANNEL fl	
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COSY of compound 5



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D16 IND	0.00020000 0.00019800 CHANNEL f1 ———————————————————————————————————	59C
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GPNAM[1] GPZ1 P16	1000.00	
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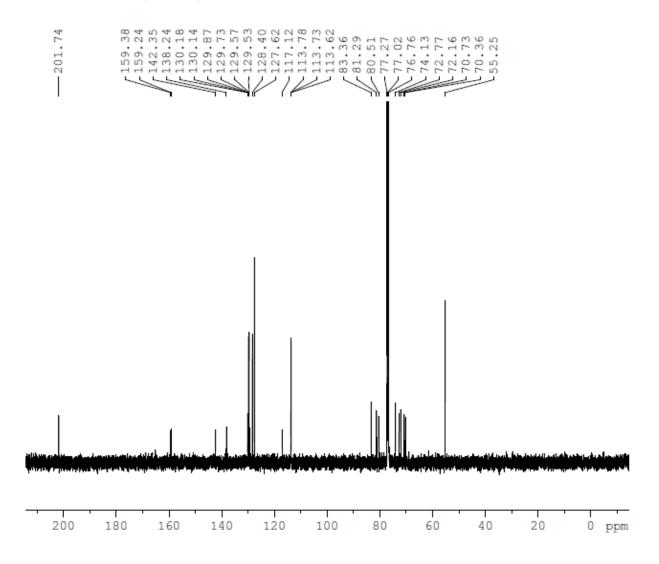
COSY of compound 5 (zoom)



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¹³C NMR of compound **5**

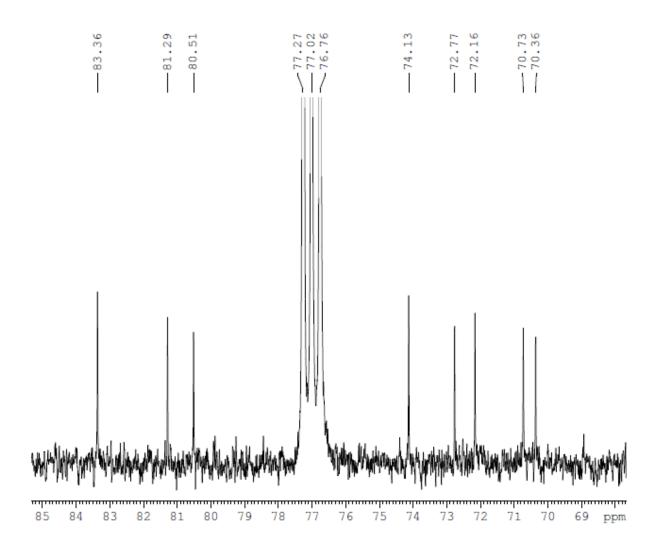
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NUC1 P1 PLW1 SFO1	13C 8.65 120.50000000 125.7955112	usec W MHz
NUC1 P1 PLW1 SFO1 	13C 8.65 120.50000000 125.7955112 CHANNEL f2 waltz16 1H	usec W MHz
NUC1 P1 PLW1 SFO1 CPDPRG[2 NUC2 PCPD2	13C 8.65 120.50000000 125.7955112 CHANNEL f2 —— waltz16 1H 80.00	usec W MHZ
NUC1 P1 PLW1 SFO1 	13C 8.65 120.50000000 125.7955112 CHANNEL f2 Waltz16 1H 80.00 27.16399956	usec W MHz usec W
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NUC1 P1 PLW1 SF01 CPDPRG[2 NUC2 PCPD2 PLW2 PLW2 PLW12 PLW13 SF02	13C 8.65 120.5000000 125.7955112 CHANNEL f2 waltz16 80.00 27.16399956 0.34685999 0.22199000 500.2320009	usec W MHz usec W W W MHz
NUC1 P1 PLW1 SF01 	13C 8.65 120.50000000 125.7955112 CHANNEL f2 waltz16 1H 80.00 27.16399956 0.34685999 0.22199000 500.2320009	usec W MHz usec W W W MHz
NUC1 P1 PLW1 SF01 CPDPRG[2 NUC2 PCPD2 PLW2 PLW2 PLW12 PLW13 SF02	13C 8.65 120.50000000 125.7955112 CHANNEL f2 Waltz16 1H 80.00 27.16399956 0.34685999 0.22199000 500.2320009	usec W MHz usec W W W MHz
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NUC1 P1 P1W1 SF01 CPDPRG[2 NUC2 PCPD2 PLW2 PLW12 PLW13 SF02 F2 - Pro SI SF WDW	13C 8.65 120.5000000 125.7955112 CHANNEL f2 waltz16 80.00 27.16399956 0.34685999 0.22199000 500.2320009 cessing paramet 32768 125.7829340	usec W MHz usec W W MHz ers
NUC1 P1 P1W1 SF01 	13C 8.65 120.50000000 125.7955112 CHANNEL f2 Waltz16 80.00 27.16399956 0.34685999 0.22199000 500.2320009 cessing paramet 32768 125.7829340 EM	usec W MHz usec W W MHz ers
NUC1 P1 P1W1 SF01 CPDPRG[2 NUC2 PCPD2 PLW2 PLW12 PLW13 SF02 F2 - Pro SI SF WDW SSB LB	13C 8.65 120.5000000 125.7955112 CHANNEL f2 Waltz16 80.00 27.16399956 0.34685999 0.22199000 500.2320009 cessing paramet 32768 125.7829340 EM	usec W MHz usec W W MHz ers
NUC1 P1 PLW1 SF01 CPDPRG[2 NUC2 PCPD2 PLW2 PLW12 PLW13 SF02 F2 - Pro SI SF WDW SSB LB GB	13C 8.65 120.5000000 125.7955112 CHANNEL f2	usec W MHz usec W W MHz ers
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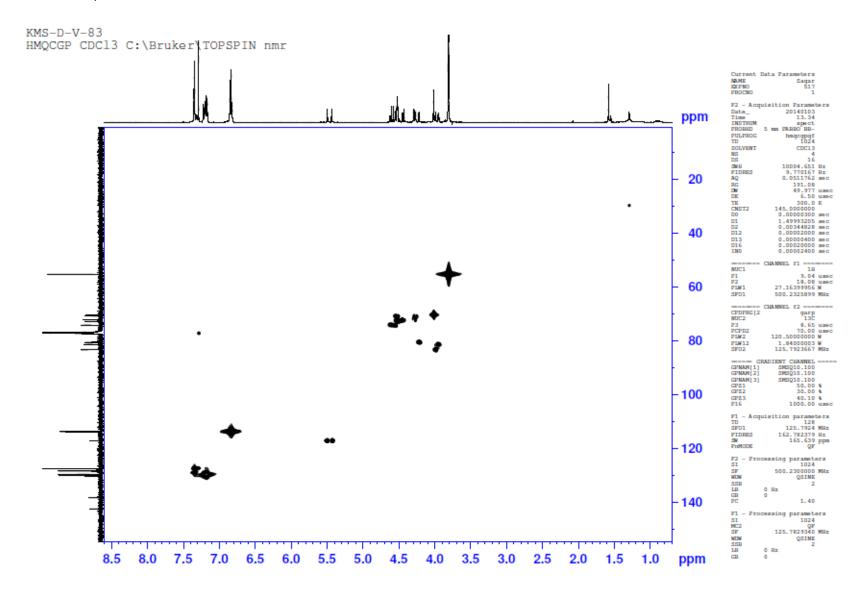
¹³C NMR of compound **5** (zoom)

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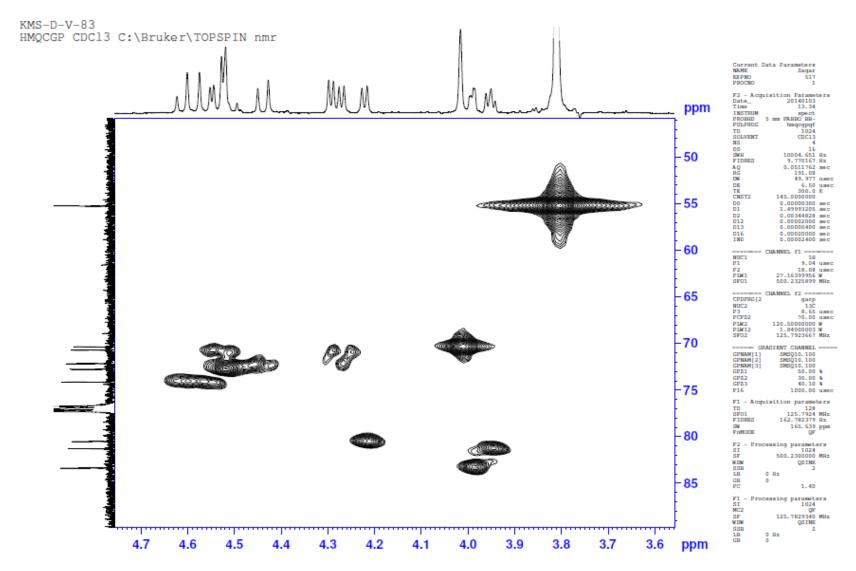


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HMQC of compound 5

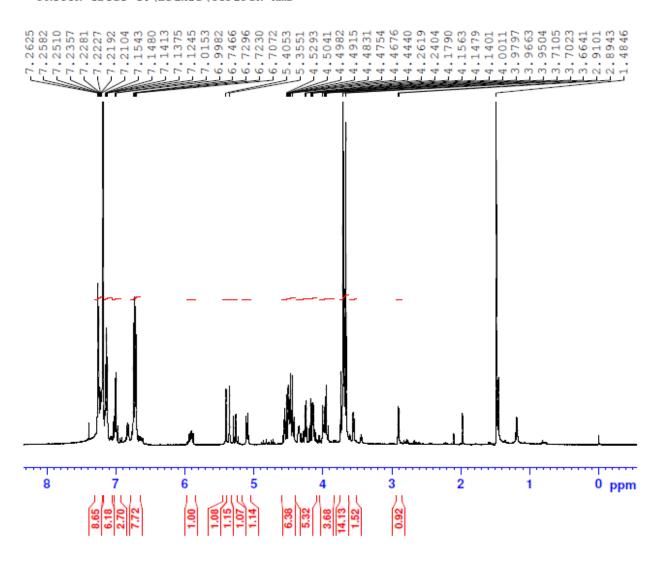


HMQC of compound 5 (zoom)



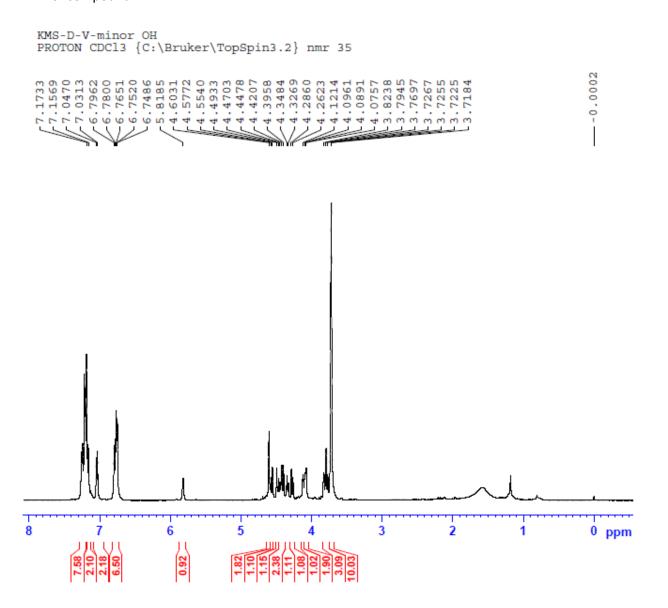
¹H NMR of compound **6**

KMS-D-pmb vinyll PROTON CDC13 C:\Bruker\TOPSPIN nmr



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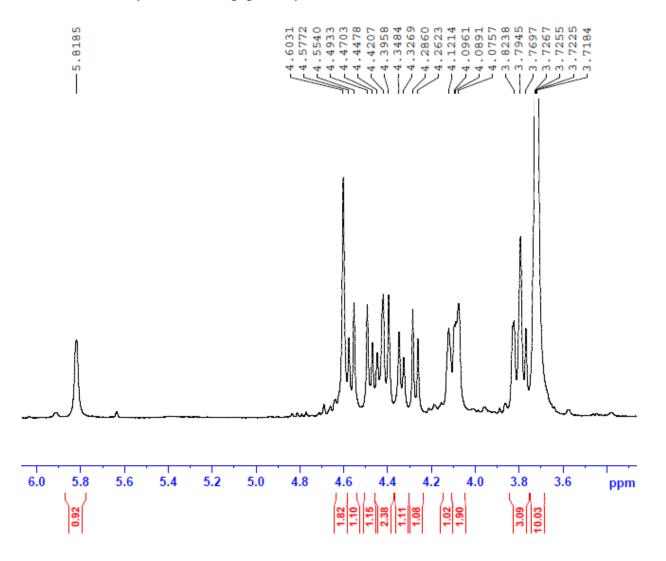
¹H NMR of compound **7**



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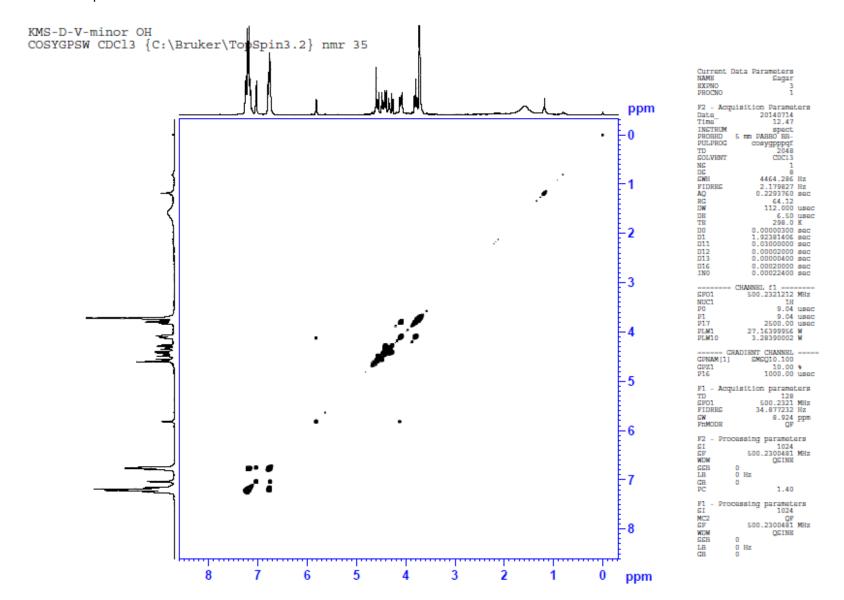
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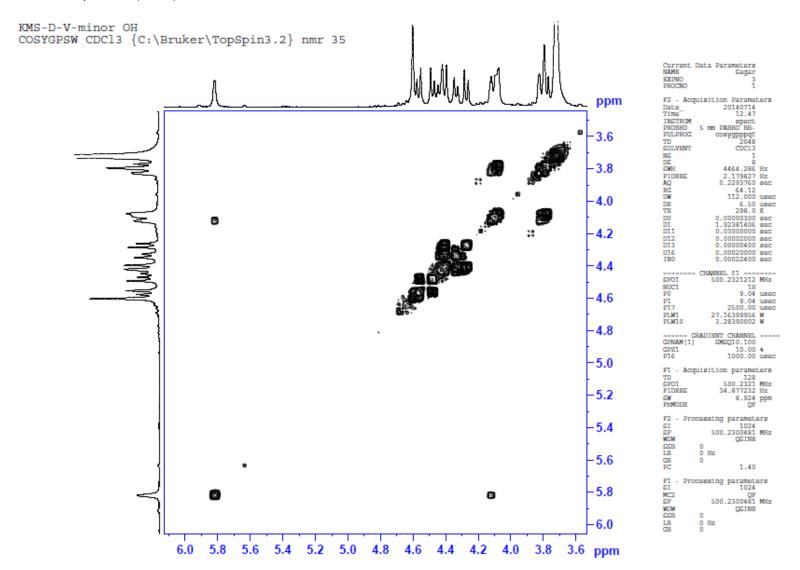


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COSY of compound 7

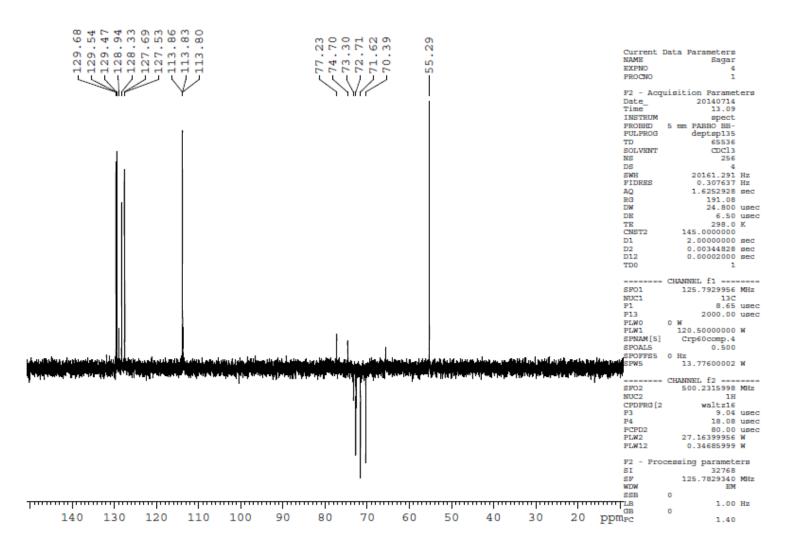


COSY of compound 7 (zoom)



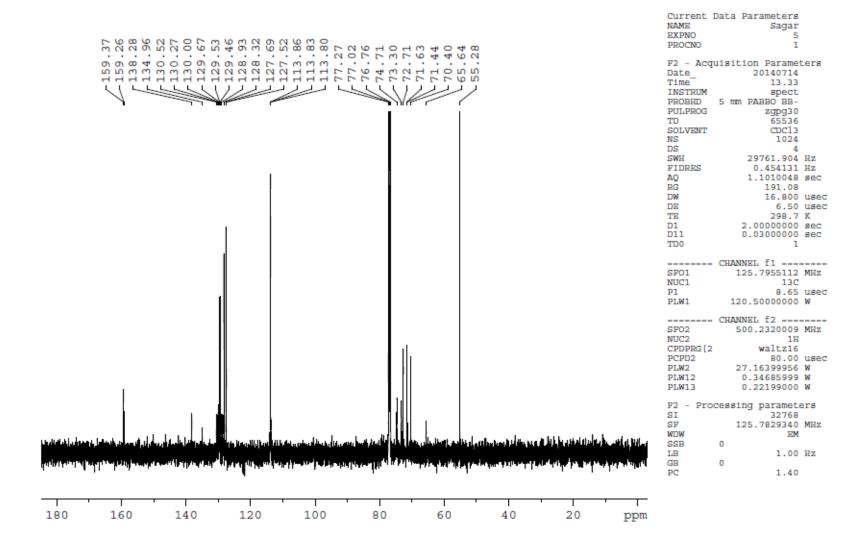
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C13DEPT135 CDCl3 {C:\Bruker\TopSpin3.2} nmr 35



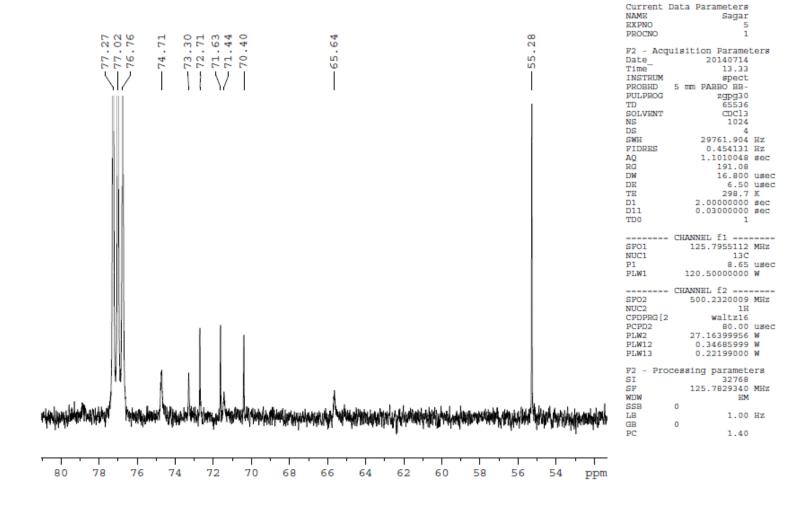
¹³C NMR of compound **7**

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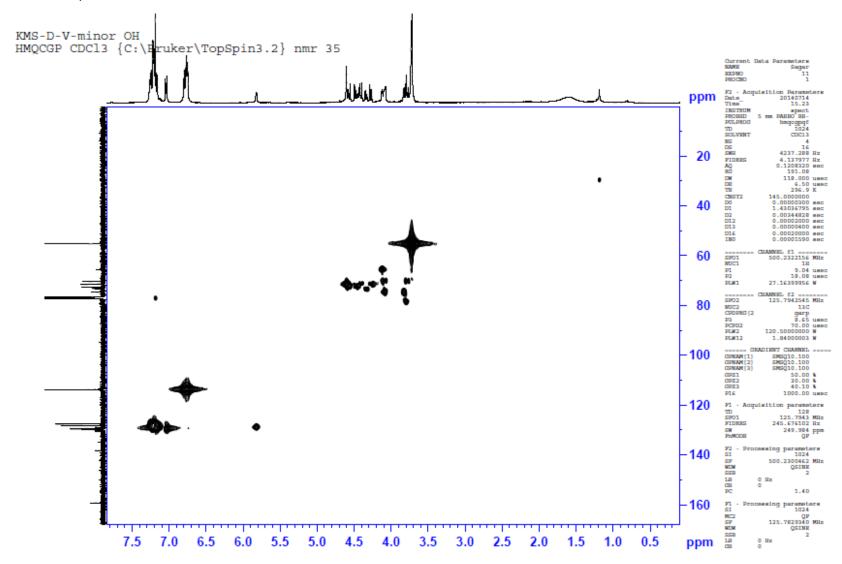


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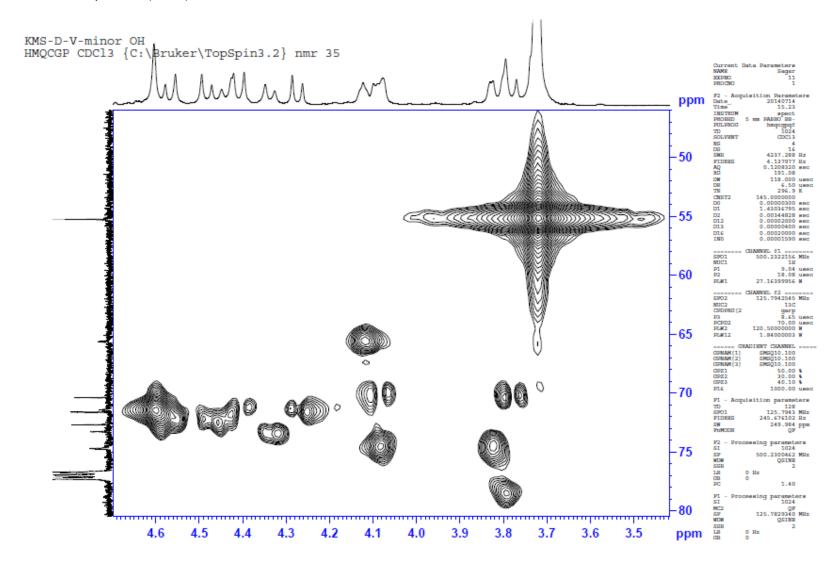
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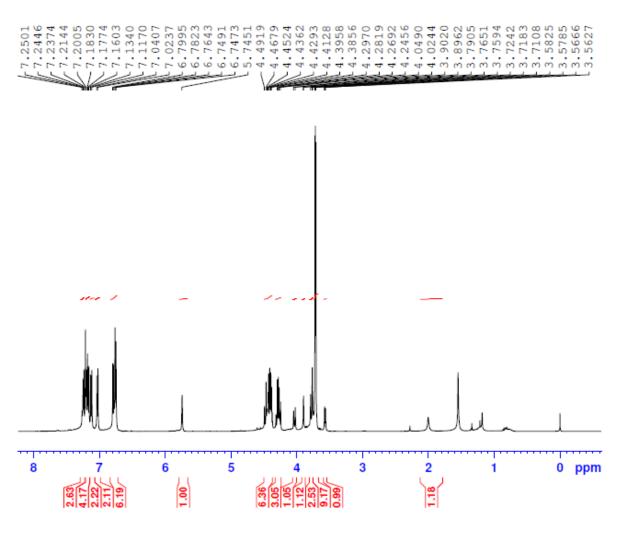


HMQC of compound 7 (zoom)



¹H NMR of compound **8**

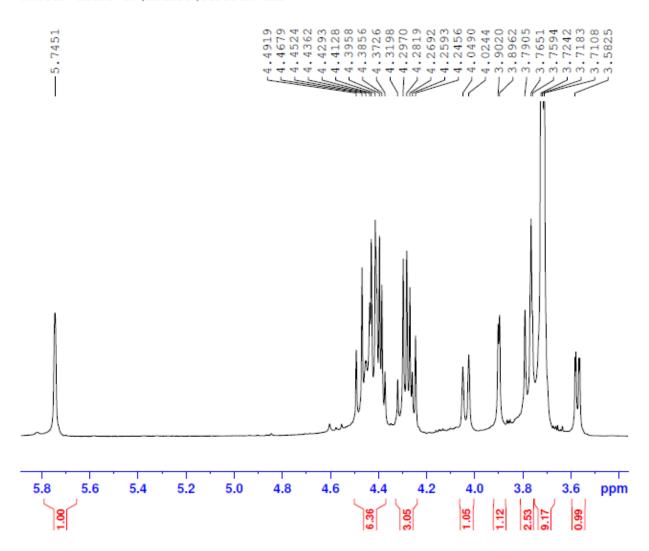
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NS NS			-	16	
DS				2	
SWH		10	220	. 578	
FIDRES				7632	
				9923	
AQ RG		3		7.19	
DW					usec
DE					usec
TE .				98.0	
D1		1 0			sec
DI		1.0	000	0000	sec
	CHA	NNEL	f1		
NUC1				1H	
P1				9.04	usec
PLW1		27.1	639	9956	W
SF01		500.	233	0891	MHZ
F2 - Pro	cess	ing i	na ra	amete	ers
SI				5536	
SF		500.			MHZ
WDW				EM	
SSB	0				
LB				0.30	Hz
GB	0		,		
PC	-			1.00	

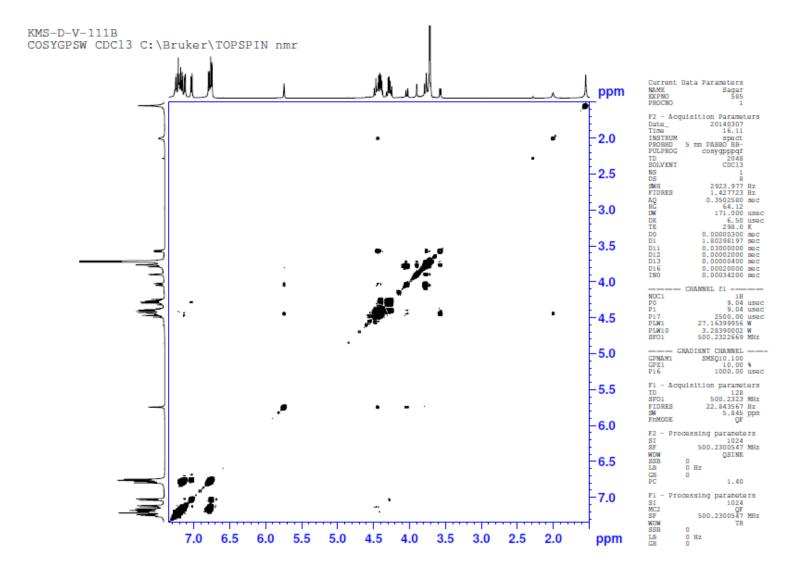
¹H NMR of compound **8** (zoom)

KMS-D-V-111B PROTON CDC13 C:\Bruker\TOPSPIN nmr

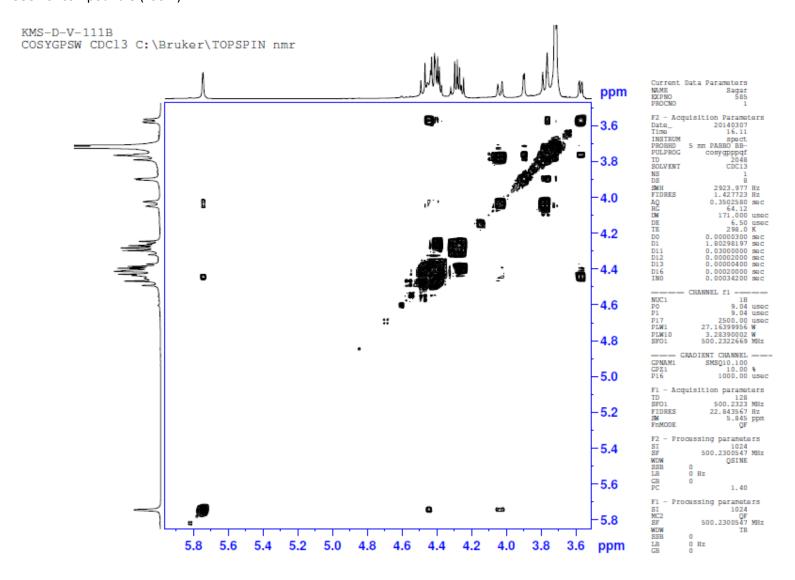


Current D	ata Parameters	
NAME	Sagar	
EXPNO	583	
PROCNO	1	
F2 - Acquisition Parameters		
Date	20140307	
Time	15.18	
INSTRUM	spect	
	5 mm PABBO BB-	
PULPROG	zg30	
TD	65536	
SOLVENT	CDC13	
NS	16	
DS	2	
SWH	10330.578	Uz
FIDRES	0.157632	
AQ	3.1719923	
RG	107.19	
DW	48.400	
DE TE	6.50 298.0	usec
D1	1.00000000	sec
	CHANNEL f1	
NUC1	111	
P1		usec
PLW1	27.16399956	
SF01	500.2330891	MHZ
	essing paramete	
SI	65536	
SF	500.2300547	MHZ
WDW	EM	
SSB	0	
LB	0.30	Hz
GB	0	
PC	1.00	

COSY of compound 8

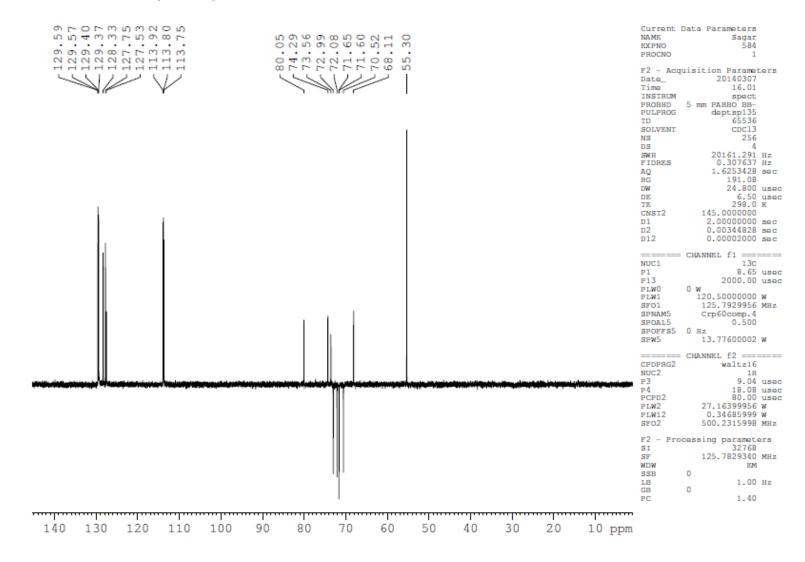


COSY of compound 8 (zoom)



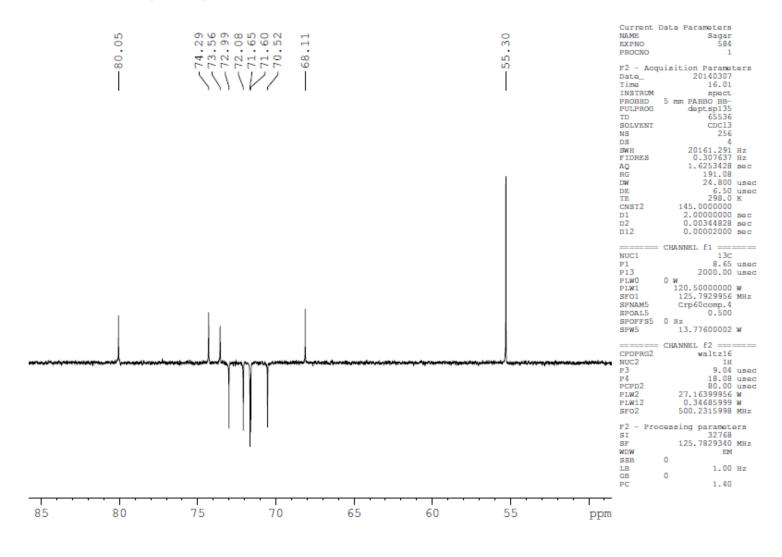
DEPT of compound 8

KMS-D-V-111B C13DEPT135 CDCl3 C:\Bruker\TOPSPIN nmr



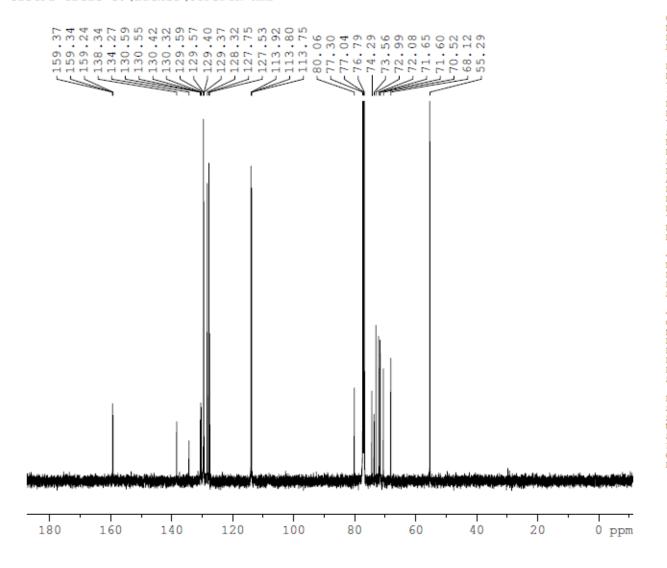
DEPT of compound 8 (zoom)

KMS-D-V-111B C13DEPT135 CDC13 C:\Bruker\TOPSPIN nmr



¹³C NMR of compound **8**

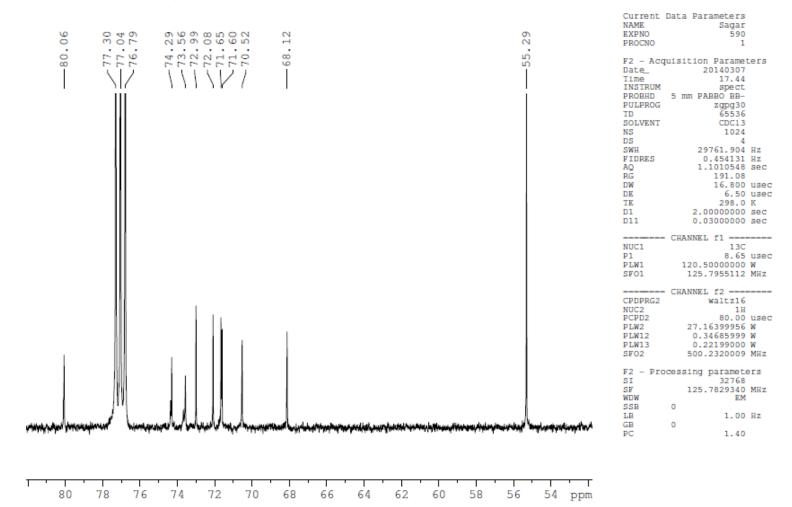
KMS-D-V-111B C13CPD CDC13 C:\Bruker\TOPSPIN nmr



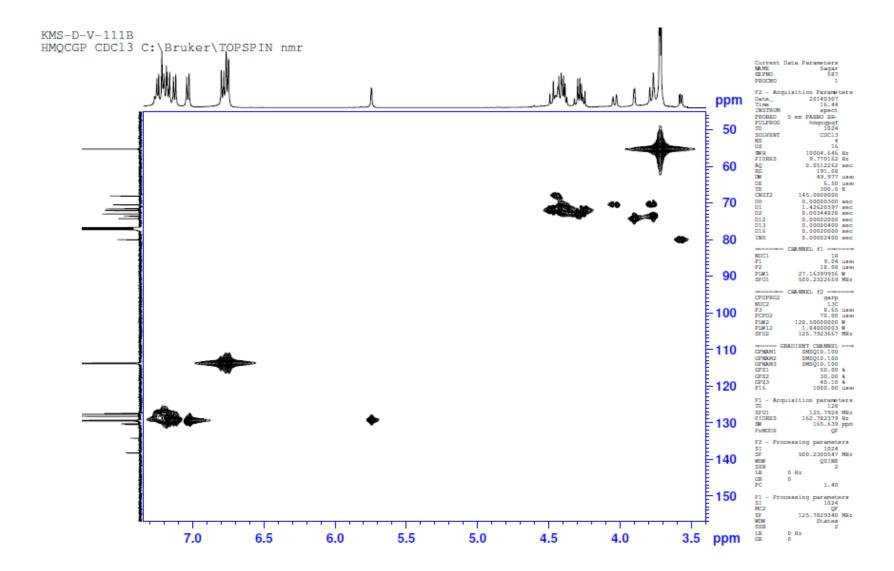
Current	Data	Pa	I	a	m	et	e	rs	
NAME								ar	
EXPNO								90	
PROCNO								1	
								-	
F2 - Acc	ruisit	110	п		P:	ar	a	met	ters
Date_	1							07	
Time			_	_				44	
INSTRUM								ct	
PROBHD	5 m	n P	A	В					
PULPROG								30	
TD								36	
SOLVENT								13	
NS								24	
DS						•	_	4	
SWH		2	9	7	6	١.	9		Hz
FIDRES									HZ
AQ									sec
RG								08	
DW									usec
DE									usec
TE							_	. 0	
D1		2.	0	0	0	00	o	00	sec
D11									sec
	- CHAI	NNE	L		Ē	1	-		
NUC1							1	3C	
P1						8		65	usec
PLW1		20.							
SF01		125	٠.	7	9.	55	1	12	MHZ
	 CHAI 	NNE	Ш		Ī,	2	-		
CPDPRG2				W	a.	lt.	Z	16	
NUC2								1H	
PCPD2									usec
PLW2		27.							
PLW12								99	
PLW13								00	
SFO2		500	١.	2	3.	20	0	09	MHZ
F2 - Pro	cess:	ing	Ţ	p.					ers
SI								68	
SF		125		7	8.	29			MHZ
WDW								EΜ	
SSB	0								
LB						1	•	00	HZ
GB	0								
PC						1	•	40	

¹³C NMR of compound 8 (zoom)

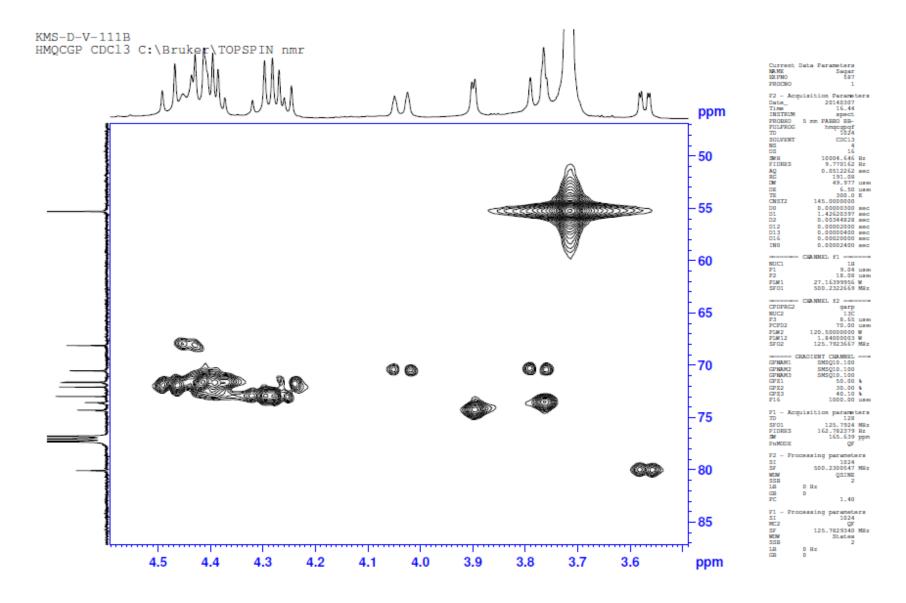
KMS-D-V-111B C13CPD CDC13 C:\Bruker\TOPSPIN nmr



HMQC of compound 8

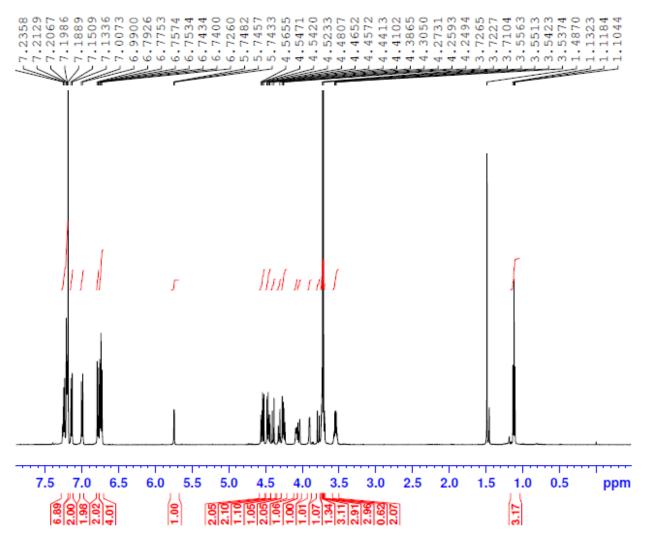


HMQC of compound 8 (zoom)



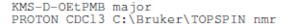
¹H NMR of compound **9**

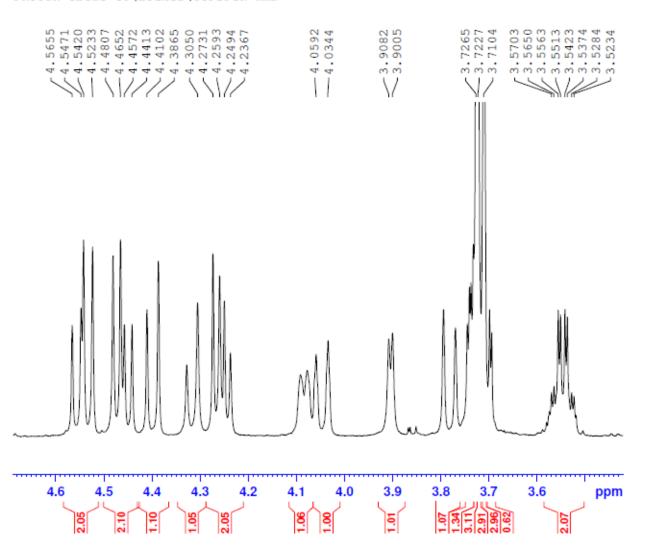
KMS-D-OEtPMB major PROTON CDC13 C:\Bruker\TOPSPIN nmr



Current	Data	Para	met	ers	
NAME			Sa	gar	
EXPNO				533	
PROCNO				1	
F2 - Acc	uisi	t1on	Par	amet	ters
Date_		20	140	204	
Time			23	.41	
INSTRUM			Sp	ect	
PROBHD	5 m	m PAE	BO	BB-	
PULPROG			2	g30	
TD			65	536	
SOLVENT			CE	C13	
NS				16	
DS				2	
SWH		103	330.	578	Hz
FIDRES		0.	157	632	HZ
AQ		3.1	719	923	sec
RG			171	. 32	
DW			48.	400	usec
DE					usec
TE			29	8.0	K
D1		1.00	0000	0000	sec
	CHA	NNEL	f1		
NUC1				1H	
P1			9	.04	usec
PLW1		27.16	399	956	W
SFO1		500.2	2330	891	MHz
F2 - Pro	cess	ing p			ers
SI			65	536	
SF		500.2	2300	510	MHZ
WDW				EΜ	
SSB	0				
LB			0	.30	ΗZ
GB	0				
PC			1	.00	

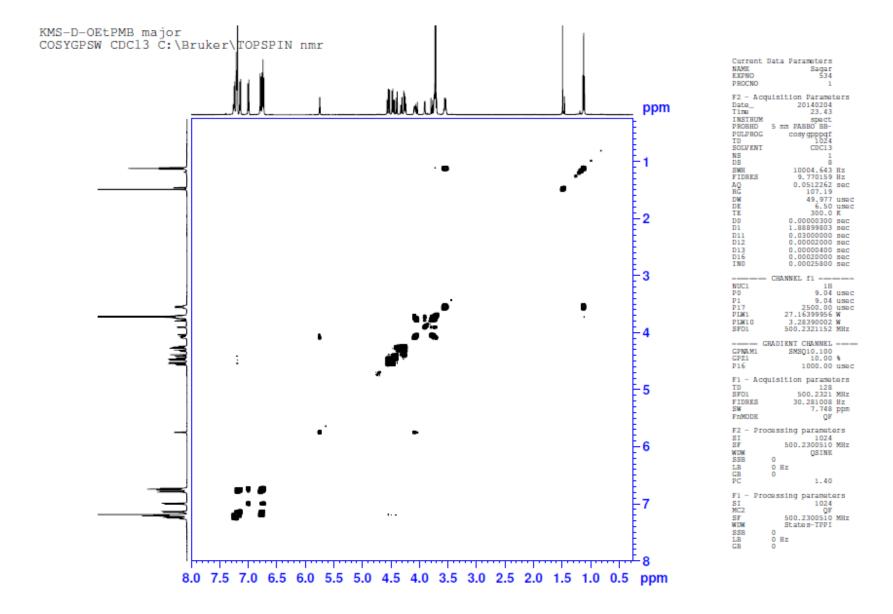
¹H NMR of compound **9** (zoom)



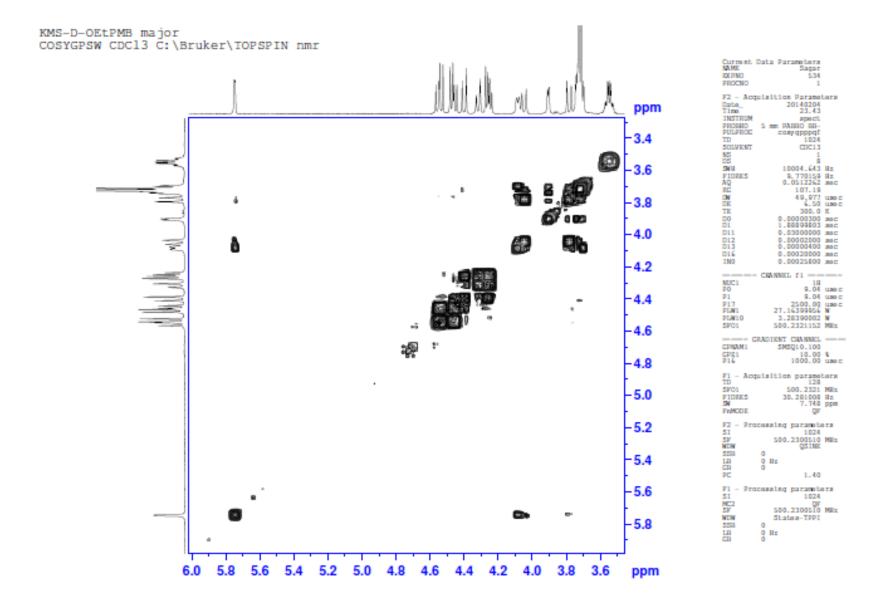


Current Data Parameters Sagar EXPNO 533 PROCNO F2 - Acquisition Parameters 20140204 Date_ Time 23.41 spect INSTRUM PROBHD 5 mm PABBO BB-PULPROG zg30 TD 65536 SOLVENT CDC13 NS 16 DS 10330.578 Hz SWH FIDRES 0.157632 Hz AQ 3.1719923 sec 171.32 RG DW 48.400 usec 6.50 usec DE TE 298.0 K 1.00000000 sec D1 --- CHANNEL fl -----NUC1 1H P1 9.04 usec PLW1 27.16399956 W SF01 500.2330891 MHz F2 - Processing parameters SI 65536 SF 500.2300510 MHz WDW EΜ SSB 0 LB 0.30 Hz GB 1.00

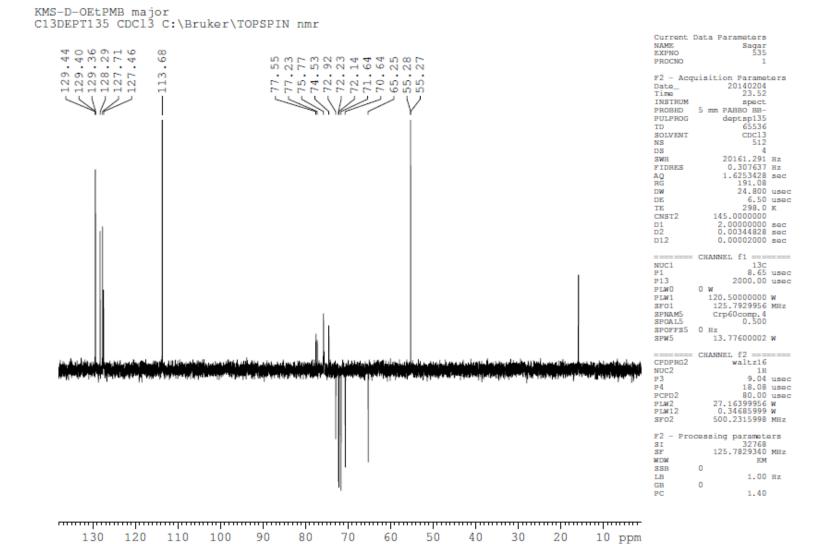
COSY of compound 9

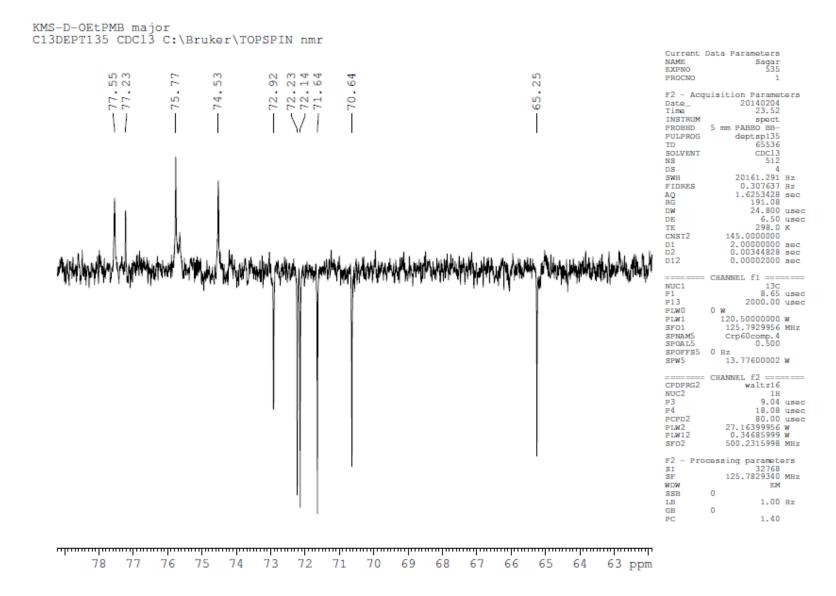


COSY of compound 9 (zoom)



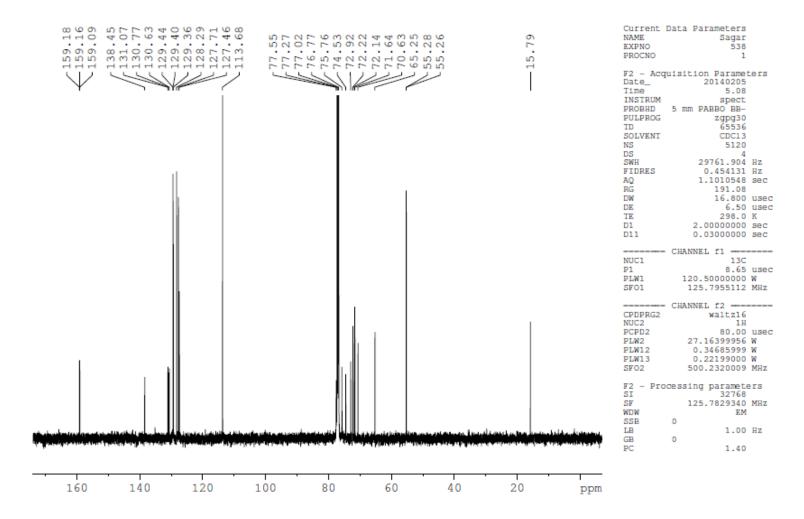
DEPT of compound 9





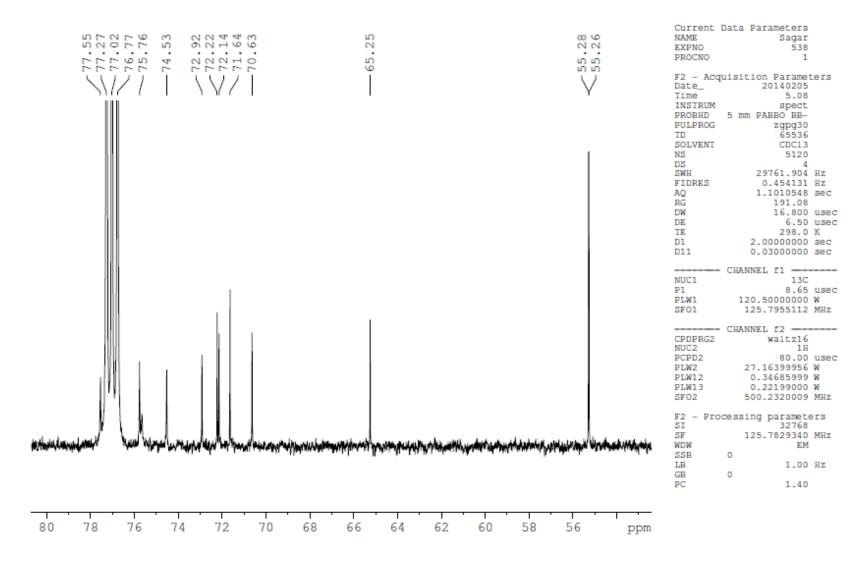
¹³C NMR of compound **9**

KMS-D-OEtPMB major C13CPD CDC13 C:\Bruker\TOPSPIN nmr

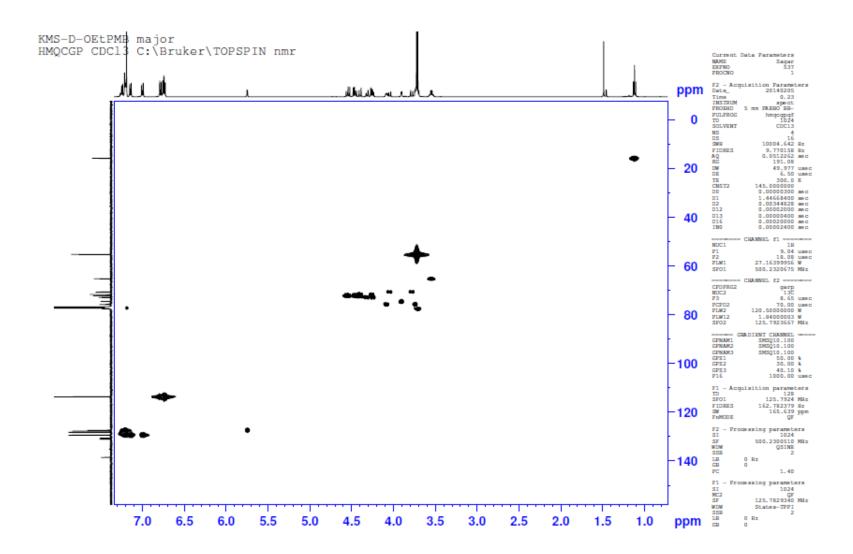


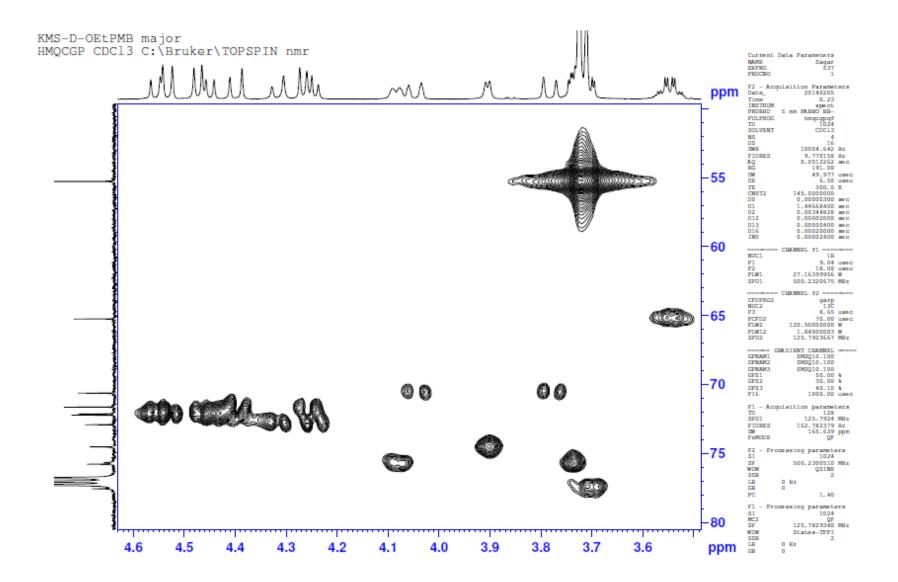
¹³C NMR of compound **9** (zoom)

KMS-D-OEtPMB major C13CPD CDCl3 C:\Bruker\TOPSPIN nmr



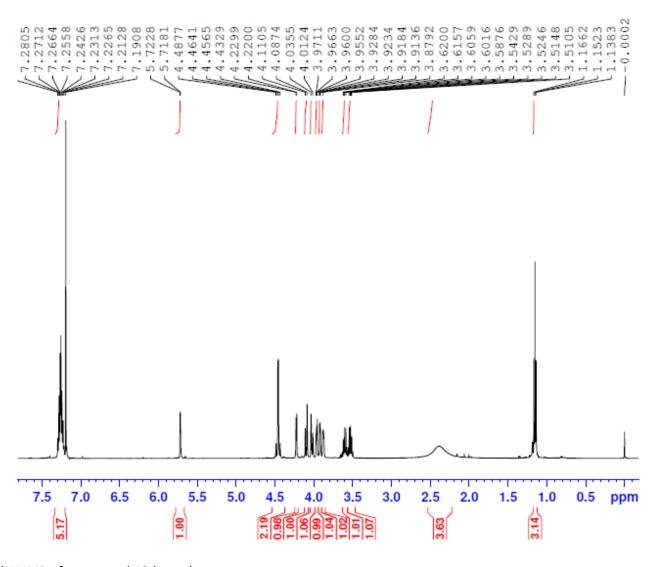
HMQC of compound 9





¹H NMR of compound **10**

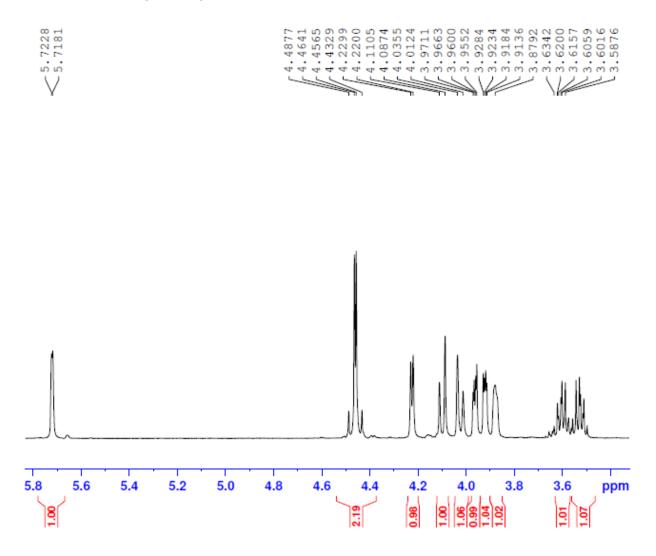
KMS-D-V-115
PROTON CDC13 C:\Bruker\TOPSPIN nmr

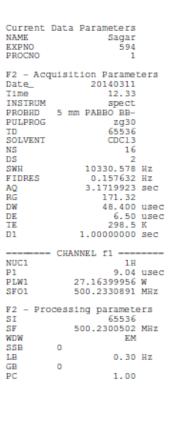


Current	Data	Pa	rai	net	ers	
NAME					gar	
EXPNO					594	
PROCNO					1	
F2 - Acq	u1s1	t10	n I	ar	amet	ters
Date					311	
Time					. 33	
INSTRUM					ect	
	5 m	m P	ABI			
PULPROG	_				g30	
TD					536	
SOLVENT					C13	
NS					16	
DS					2	
SWH		1	03	30.	578	Hz
FIDRES					632	
AQ						sec
RG		-			. 32	5-0
DW						used
DE						used
TE					8.5	
D1		1	nnı			sec
	CHA	NNE	L 1	-1		
NUC1					1H	
P1				9		used
PLW1		27.	163		956	
SFO1						MHZ
F2 - Pro	cess	1ng	Da	ara	mete	ers
SI			•		536	
SF		500	. 23	300	502	MHZ
WDW					EM	
SSB	0					
LB				0	. 30	Hz
GB	0					
PC				1	.00	

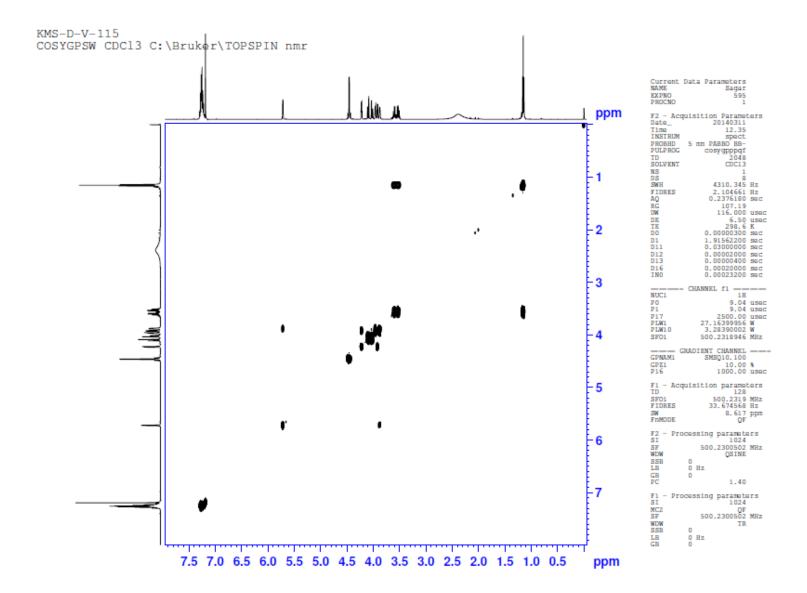
¹H NMR of compound **10** (zoom)

KMS-D-V-115
PROTON CDC13 C:\Bruker\TOPSPIN nmr

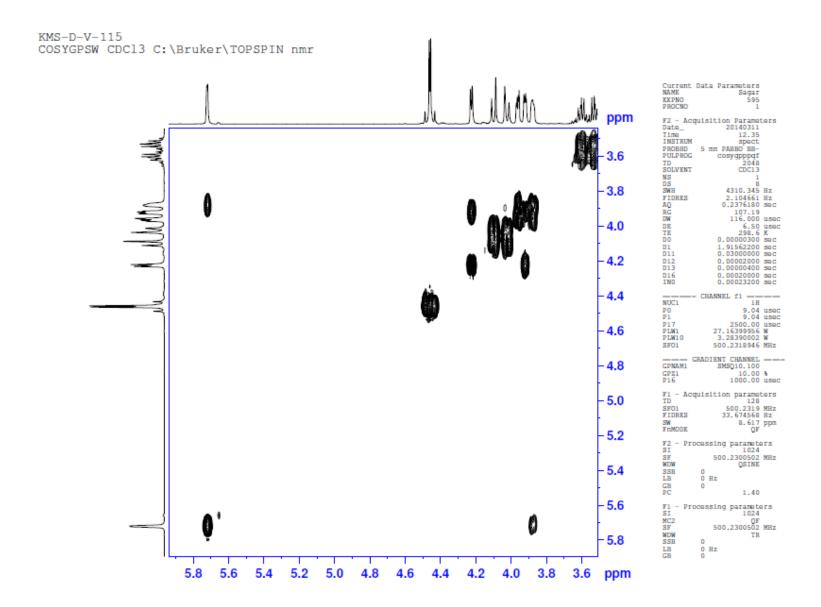




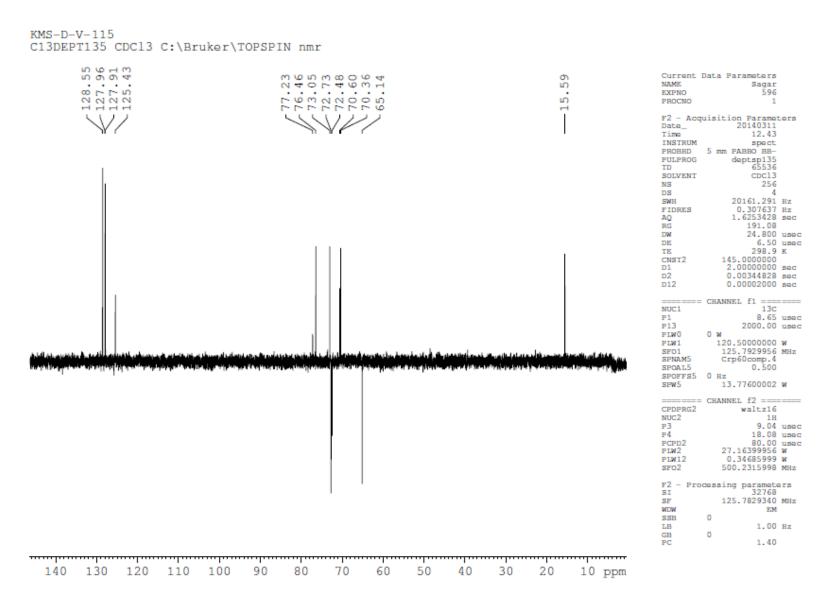
COSY of compound 10



COSY of compound 10 (zoom)



DEPT of compound 10



DEPT of compound 10 (zoom)

KMS-D-V-115 C13DEPT135 CDCl3 C:\Bruker\TOPSPIN nmr 98 Current Data Parameters 0.1.4 NAME EXPNO 596 F2 - Acquisition Parameters Date_ 20140311 Time 12.43 INSTRUM PROBHD 5 mm PABBO BB-PULPROG deptsp135 TD CDC13 SOLVENT NS 256 DS 20161.291 Hz FIDRES 0.307637 Hz 1.6253428 sec AQ 191.08 RG 24.800 usec DW 6.50 usec DE TE 298.9 K 145.0000000 2.00000000 sec CNST2 D2 0.00344828 sec 0.00002000 sec D12 13C NUC1 8.65 usec P1 2000.00 usec P13 PLW0 120.50000000 w PLW1 125.7929956 MHz SFO1 SPNAM5 Crp60comp.4 SPOAL5 0.500 SPOFFS5 0 Hz SPW5 13.77600002 W ====== CHANNEL f2 ====== CPDPRG2 waltz16 NUC2 P3 9.04 usec 18.08 usec P4 80.00 usec 27.16399956 W PCPD2 PLW2 PLW12 0.34685999 W SFO2 500.2315998 MHz F2 - Processing parameters SI 32768 125.7829340 MHz SF WDW EM SSB LB 1.00 Hz GB 1.40

69

68

67

66

¹³C NMR of compound **10**

76

75

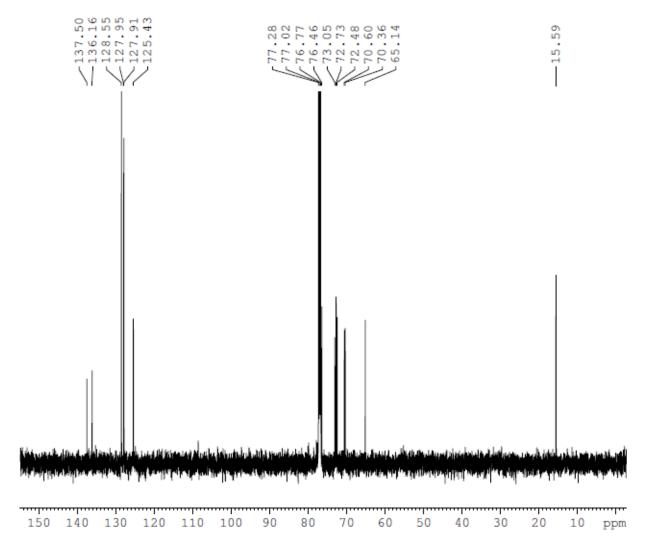
74

73

72

71

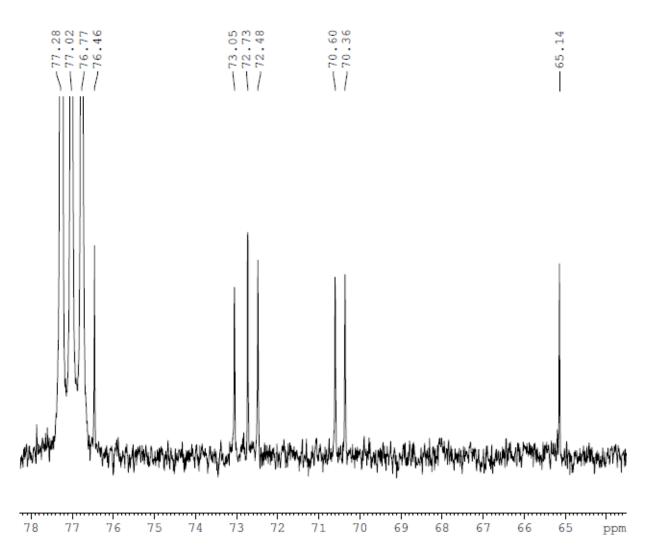
KMS-D-V-115 C13CPD CDCl3 C:\Bruker\TOPSPIN nmr



Data Parameters	
1	
uicition Daramo	tore
	usec
0.03000000	sec
CHANNEL fl	
130	
8.65	usec
120.50000000	W
125.7955112	MHZ
CHANNEL f2	
waltz16	
18	
80.00	usec
27.16399956	W
0.34685999	W
500.2320009	MHZ
cessing paramet	ers
125.7829340	MHZ
	Hz
0	
1.40	
	298.5 2.00000000 0.030000000 CHANNEL f1 130 8.65 120.50000000 125.7955112 CHANNEL f2 Waltz16 0.34685999 0.22199000 500.2320009 Cessing paramet 32768 125.7829340 0 1.00

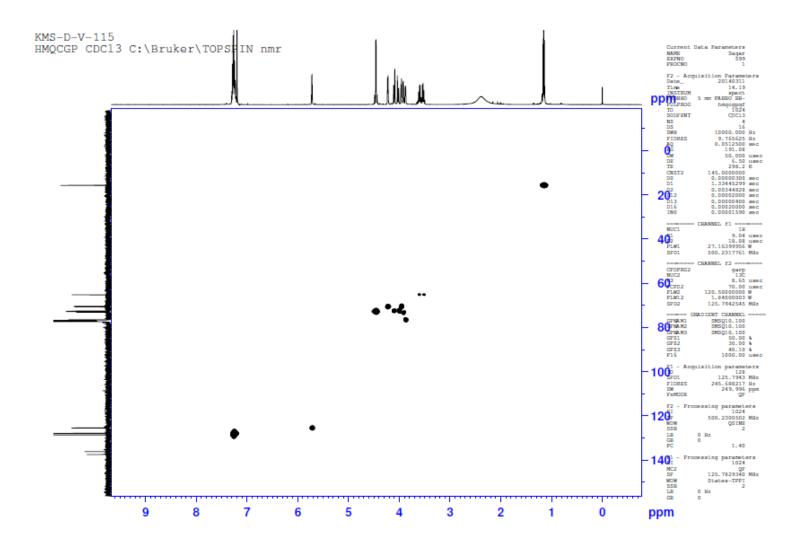
¹³C NMR of compound **10** (zoom)

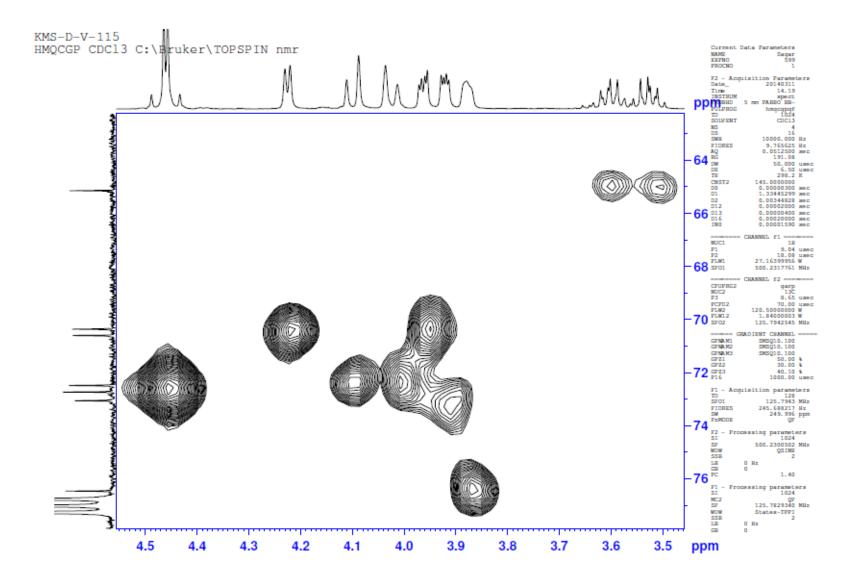
KMS-D-V-115 C13CPD CDC13 C:\Bruker\TOPSPIN nmr



Current	Data Parameters	
NAME	Sagar	
EXPNO	598	
PROCNO	1	
	uisition Paramet	ers
Date_	20140311	
Time	13.52	
INSTRUM	spect	
PROBHD	5 mm PABBO BB-	
PULPROG	zgpg30	
TD SOLVENT	65536 CDC13	
NS	1024	
DS	1024	
SWH	29761.904	Uz
FIDRES	0.454131	
AO	1.1010548	
RG	191.08	sec
DW	16.800	11900
DE	6.50	
TE	298.5	
D1	2.00000000	
D11	0.03000000	
	CHANNEL fl	
NUC1	13C	
P1	8.65	
PLW1	120.50000000	
SF01	125.7955112	MHZ
	CHANNEL f2	
CPDPRG2	waltz16	
NUC2	Walt210	
PCPD2	80.00	11900
PLW2	27.16399956	
PLW12	0.34685999	
PLW13	0.22199000	
SFO2	500.2320009	
	cessing paramete	ers
SI	32768	
SF	125.7829340	MHZ
WDW	EM	
SSB	0	
LB	1.00	ΗZ
GB	0	
PC	1.40	

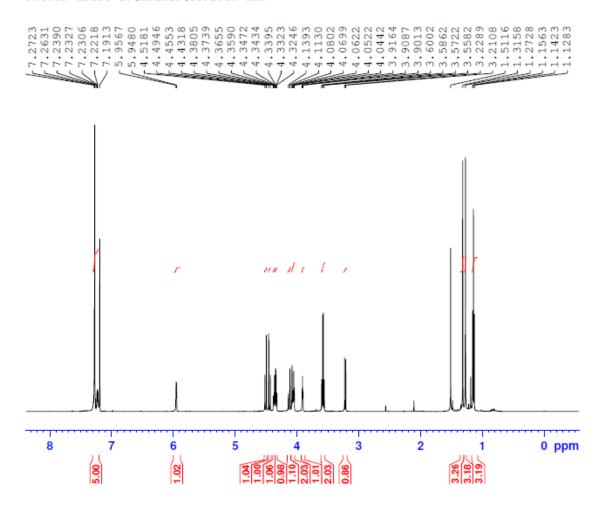
HMQC of compound 10





¹HMR of compound **11**

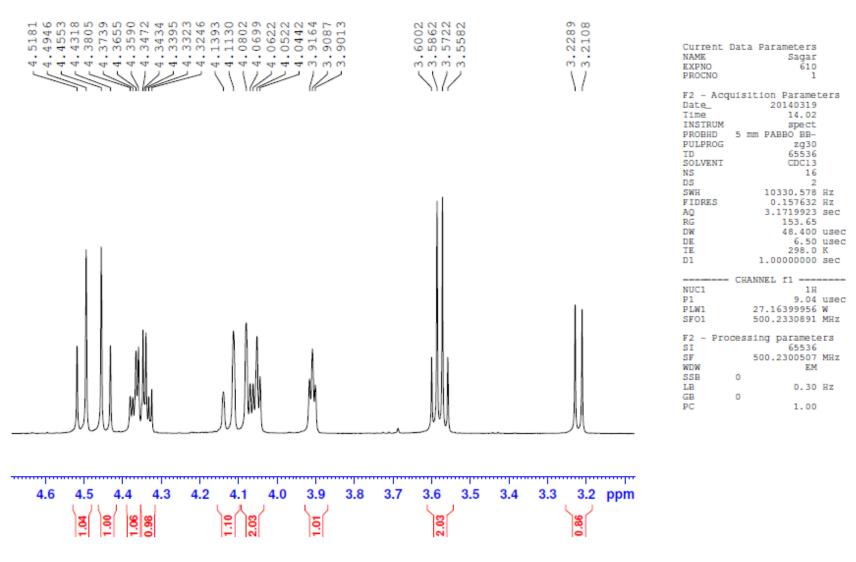
KMS-D-V-121 PROTON CDC13 C:\Bruker\TOPSPIN nmr



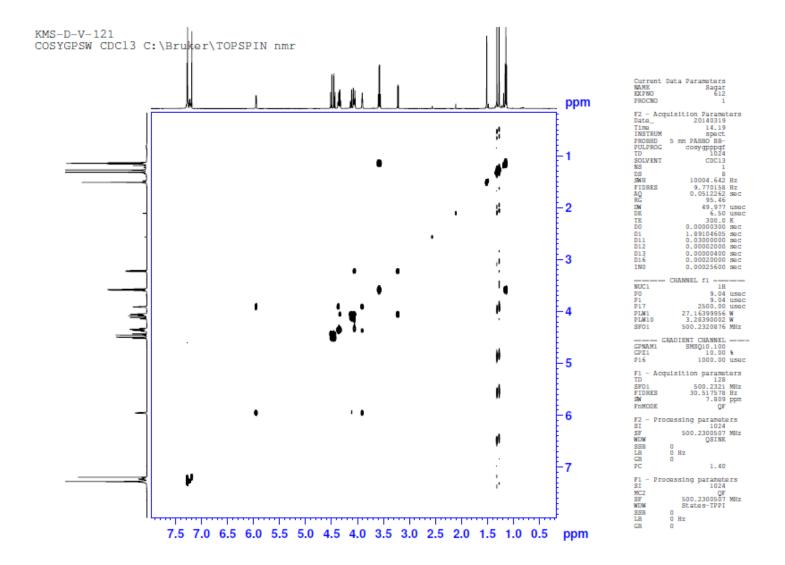
Current D	ata Parameters	
NAME	Sagar	
EXPNO	610	
PROCNO	1	
F2 - Acqu	isition Paramet	ers
Date_ 1	20140319	
Time	14.02	
INSTRUM	spect	
PROBHD	5 mm PABBO BB-	
PULPROG	zq30	
TD	65536	
SOLVENT	CDC13	
NS	16	
DS	2	
SWH	10330.578	Hz
FIDRES	0.157632	Hz
AO	3.1719923	sec
RG	153.65	
DW	48.400	used
DE	6.50	used
TE	298.0	
D1	1.00000000	sec
	CHANNEL fl	
NUC1	1H	
P1	9.04	
PLW1	27.16399956	W
SFO1	500.2330891	MHZ
F2 - Proc	essing paramete	ers
SI	65536	
SF	500.2300507	MHZ
WDW	EM	
SSB	0	
LB	0.30	Hz
GB	0	
PC	1.00	
	1.00	

¹HMR of compound **11** (zoom)

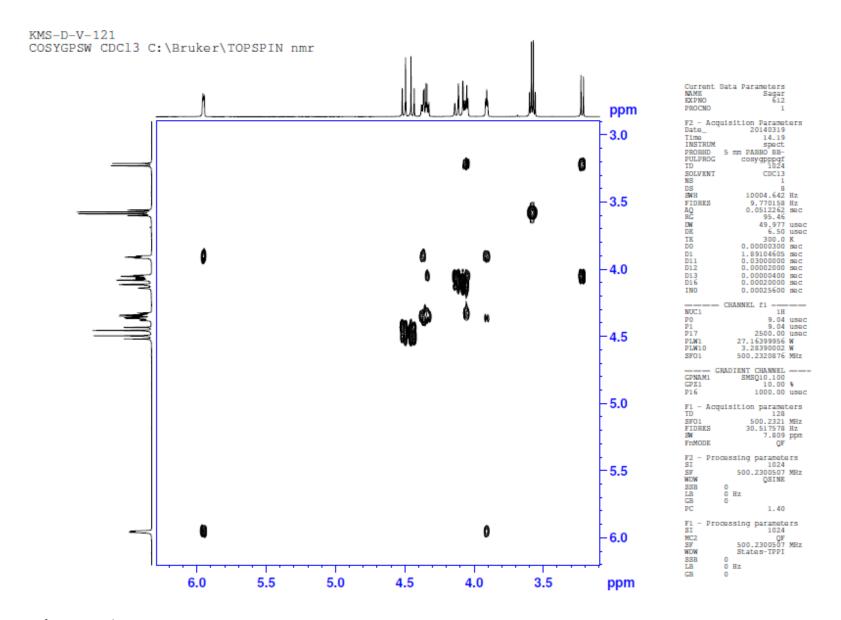
KMS-D-V-121 PROTON CDC13 C:\Bruker\TOPSPIN nmr



COSY of compound 11

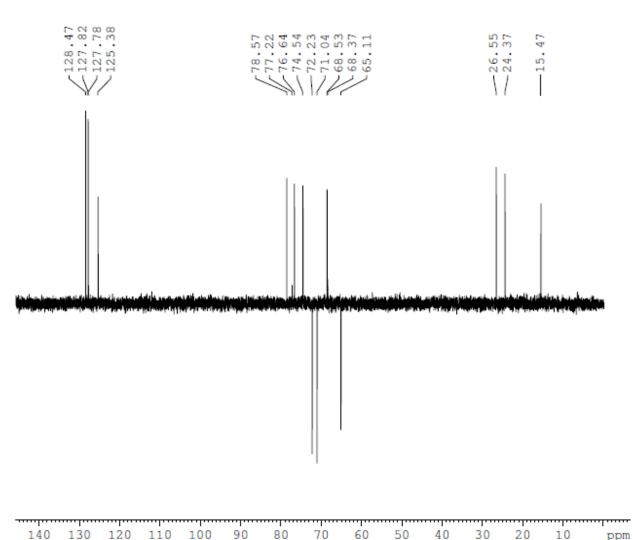


COSY of compound 11 (zoom)



DEPT of compound 11

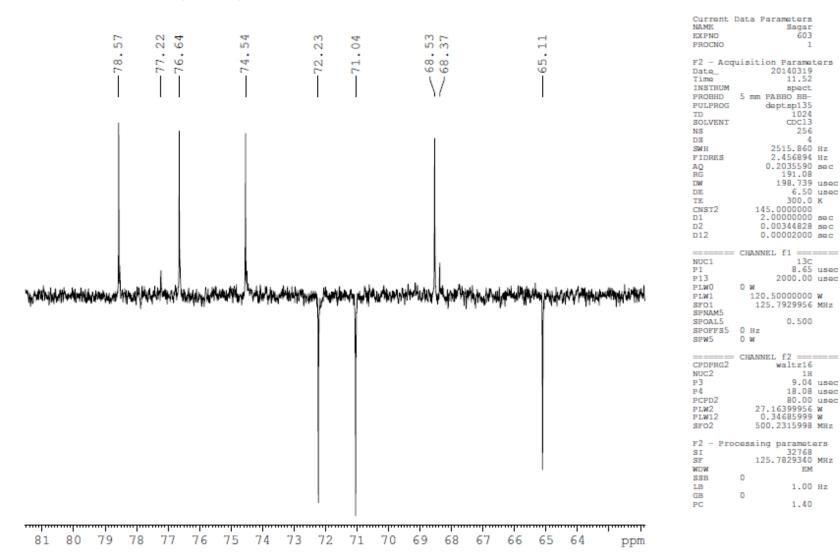
KMS-D-V-121 C13DEPT135 CDC13 C:\Bruker\TOPSPIN nmr



	Data Parameters	
NAME	Sagar	
EXPNO	603	
PROCNO	1	
	_	
m2 - Acc	uisition Paramet	
		ers
Date_	20140319	
Time	11.52	
INSTRUM	spect	
PROBHD	5 mm PABBO BB-	
PULPROG	deptsp135	
TD	1024	
SOLVENT	CDC13	
NS	256	
DS	4	
	2515.860	
SWH		
FIDRES		Hz
AQ	0.2035590	59 C
RG	191.08	
DW	198.739	11800
DE	6.50	
TE	300.0	K
CNST2	145.0000000	
D1	2.00000000	50.0
D2	0.00344828	
D12	0.00002000	59 C
	CHANNEL f1 ====	
NUC1	13C	
P1	8.65	usec
P13	2000.00	
		USANC.
PLW0	0 W	
PLW1	120.50000000	
SFO1	125.7929956	MHz
SPNAM5		
SPOAL5	0.500	
SPOFFS5	0 Hz	
SPW5	0 W	
	CHANNEL f2 ====	
CPDPRG2	waltz16	
NUC2	1H	
P3		usec
P4	18.08	
PCPD2	80.00	usec
PLW2	27.16399956	W
PLW12	0.34685999	107
SFO2	500, 2315998	
SPUZ	500.2315998	MHZ
_		
	cessing paramete	215
SI	32768	
SF	ARE HERRESAN	MHz
	125.7829340	
WITHW		
WDW	EM	
SSB	0 EM	
	0 1.00	
SSB	0 EM	
SSB LB GB	0 1.00	
SSB LB	0 1.00	

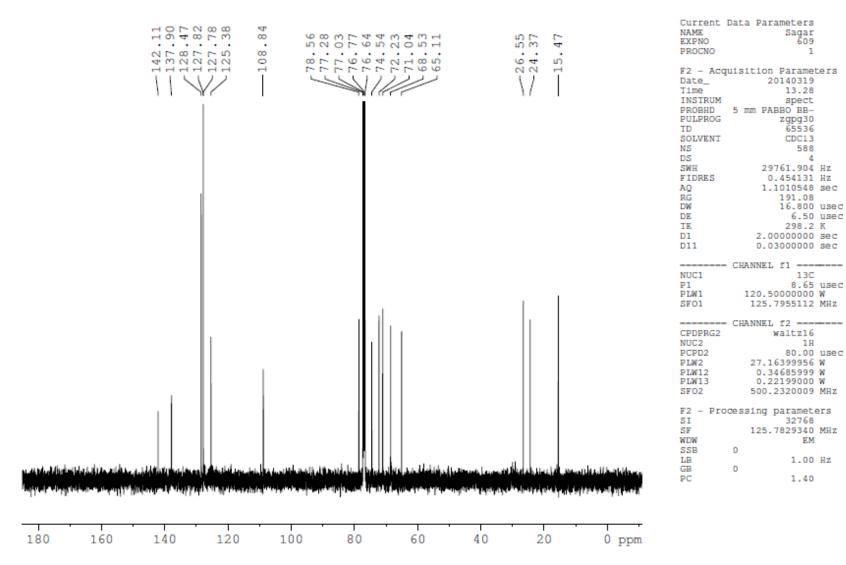
DEPT of compound 11 (zoom)

KMS-D-V-121 C13DEPT135 CDC13 C:\Bruker\TOPSPIN nmr



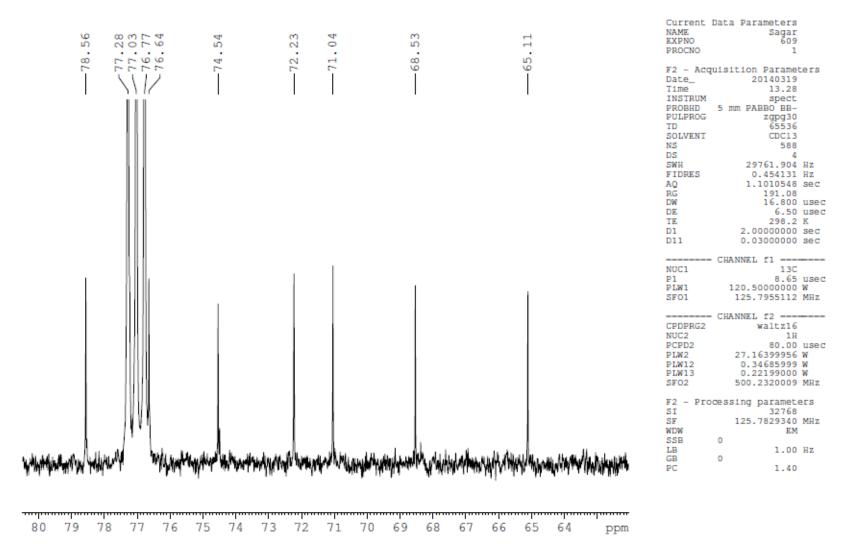
¹³C NMR of compound **11**

KMS-D-V-121 C13CPD CDCl3 C:\Bruker\TOPSPIN nmr

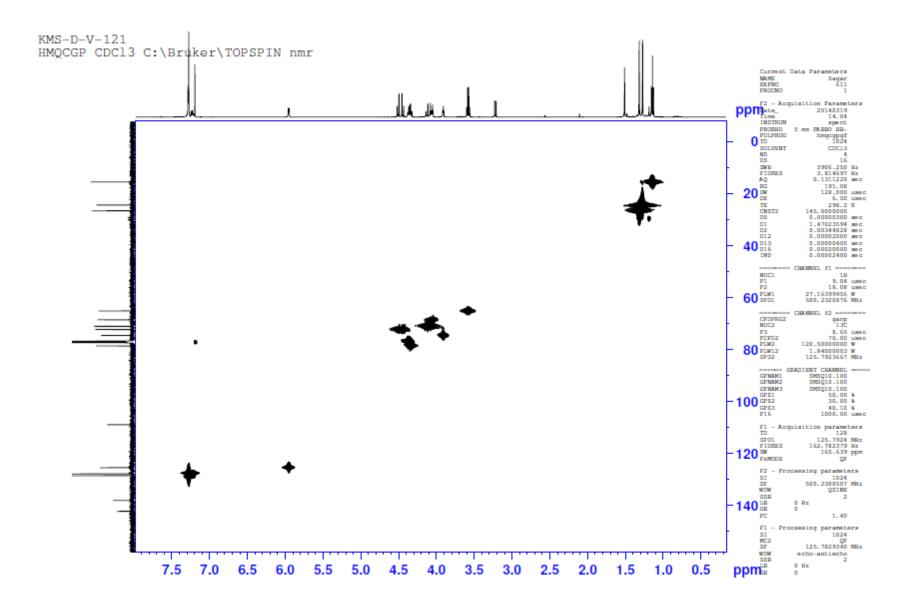


¹³C NMR of compound **11** (zoom)

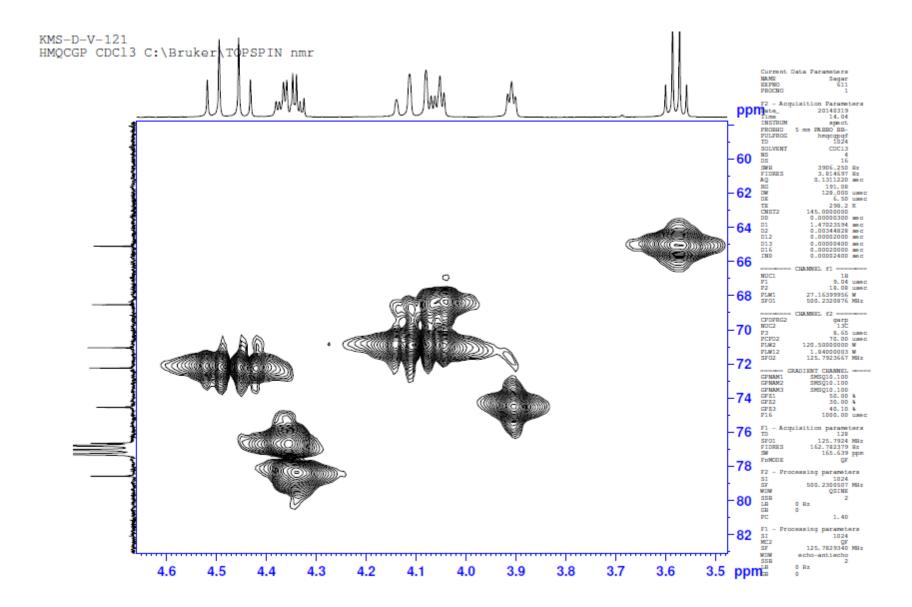
KMS-D-V-121 C13CPD CDC13 C:\Bruker\TOPSPIN nmr



HMQC of compound 11

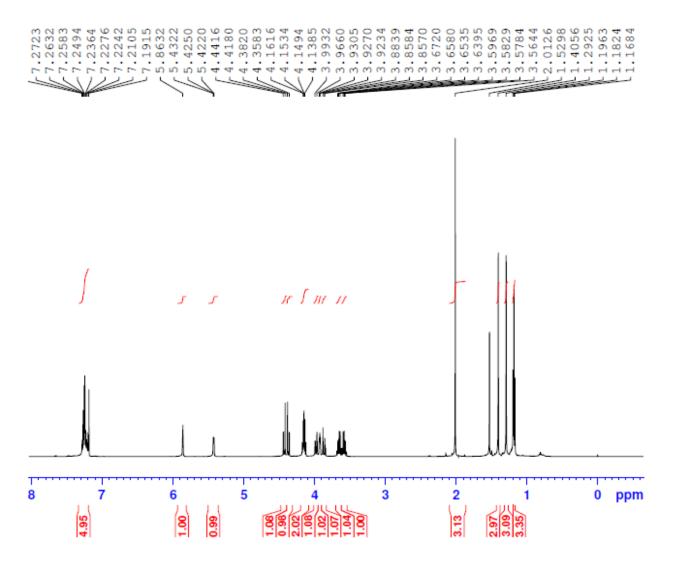


HMQC of compound 11 (zoom)



¹H NMR of compound **12**

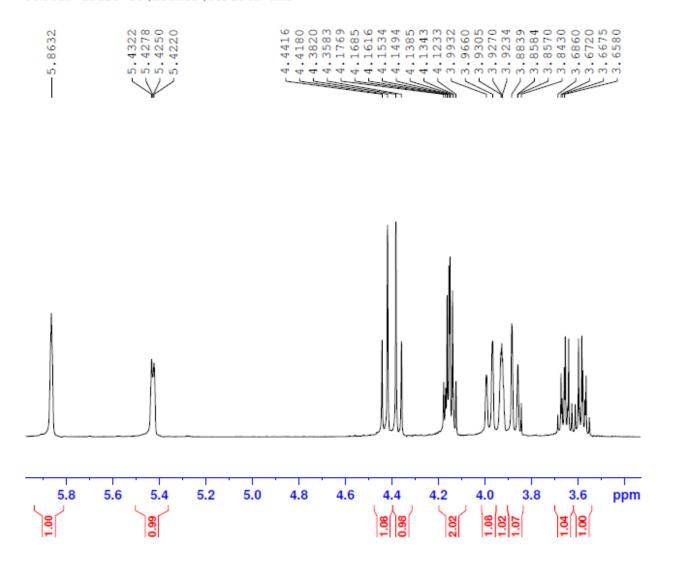
KMS-D-V-125 PROTON CDC13 C:\Bruker\TOPSPIN nmr



Current D	ata	Par	amet	ers	
NAME			Sa	gar	
EXPNO				614	
PROCNO				1	
F2 - Acqu	1131t	1on	Par	amet	ers
Date_				324	
T1me			21	.58	
INSTRUM			SI	ect	
PROBHD	5 mr	n PA	вво	BB-	
PULPROG			2	g30	
TD			65	5536	
SOLVENT			CE	C13	
NS				16	
DS				2	
SWH		10	330.	578	Hz
FIDRES		0	.157	1632	Hz
AQ		3.	1719	923	sec
RG			125	. 62	
DW			48.	400	usec
DE			- 6	. 50	usec
TE			29	8.2	K
D1		1.0	0000	0000	sec
	CHAI	NNEL	fl		
NUC1				1.H	
P1					usec
PLW1	2	27.1	6399	956	W
SFO1	5	500.	2330	891	MHZ
F2 - Proc	essi	ing j	para	mete	ers
SI			65	5536	
SF	5	500.	2300	502	MHz
WDW				EΜ	
SSB	0				
LB			0	.30	Hz
GB	0				
PC			1	.00	

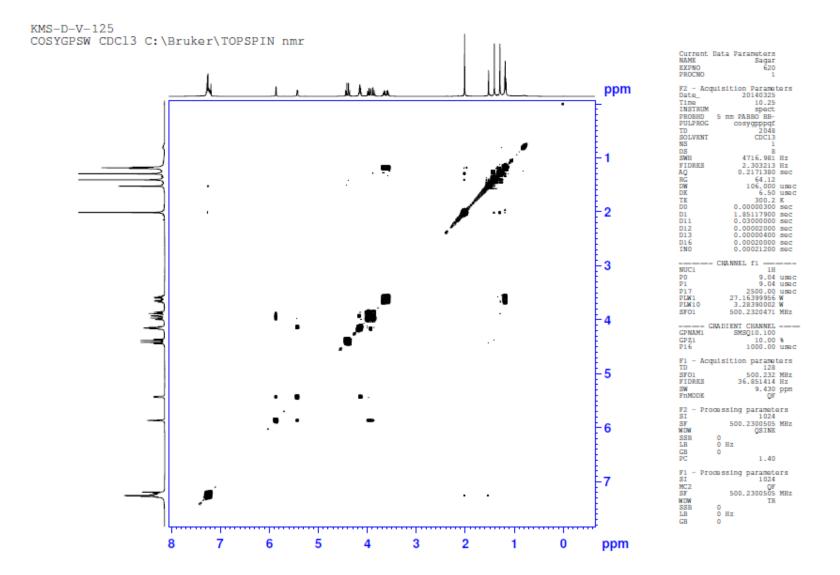
¹H NMR of compound **12** (zoom)

KMS-D-V-125 PROTON CDC13 C:\Bruker\TOPSPIN nmr

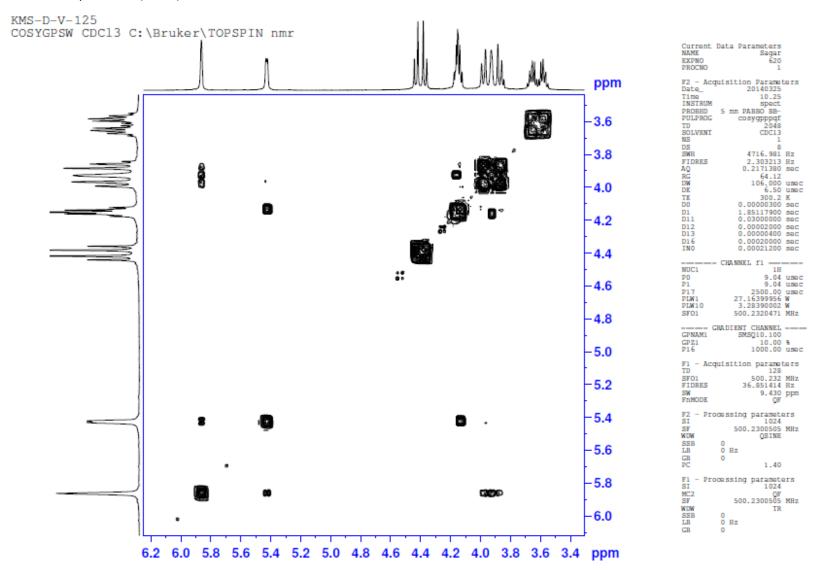


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Time 21.58	
INSTRUM spect	
PROBHD 5 mm PABBO BB-	
PULPROG zg30	
TD 65536	
SOLVENT CDC13	
NS 16	
DS 2	
SWH 10330.578	Hz
FIDRES 0.157632	
AQ 3.1719923	sec
RG 125.62	
DW 48.400	
DE 6.50	
TE 298.2	
D1 1.00000000	
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CHANNEL fl	
NUC1 1H	
	usec
PLW1 27.16399956	
SFO1 500.2330891	MHZ
F2 - Processing paramete	ers
SI 65536	
SF 500.2300502	
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SSB 0	
LB 0.30	Hz.
GB 0	
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1.00	

COSY of compound 12

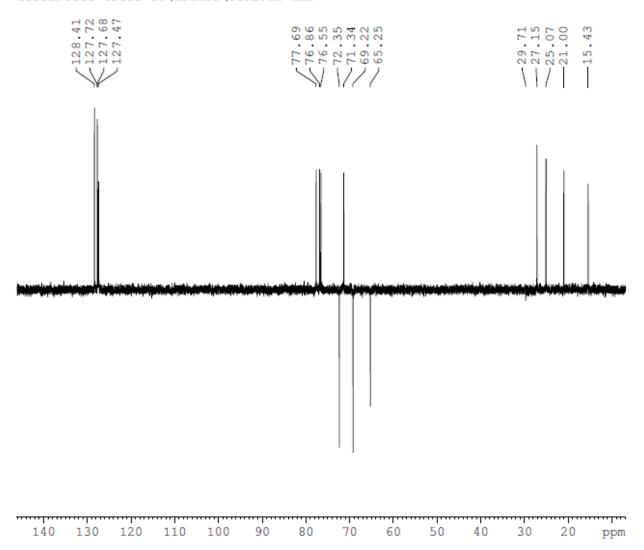


COSY of compound 12 (zoom)



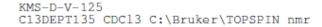
DEPT of compound 12

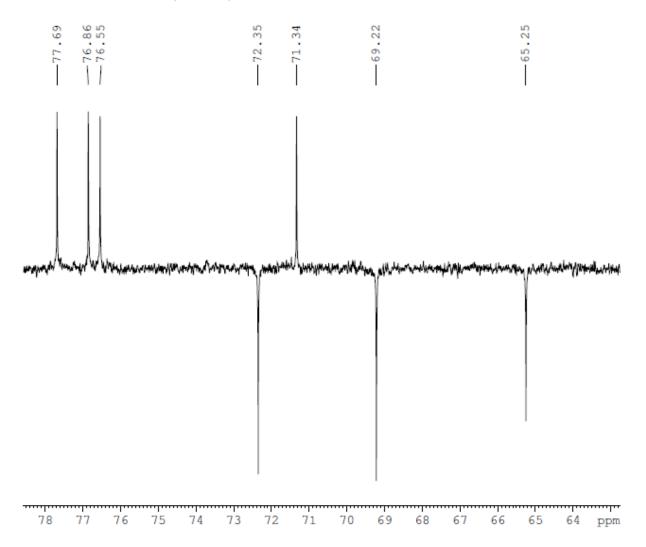
KMS-D-V-125 C13DEPT135 CDC13 C:\Bruker\TOPSPIN nmr



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PROCNO	1	
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Time	23.26	
INSTRUM	spect	
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PULPROG	deptsp135	
TD	65536	
SOLVENT	CDC13	
NS	256	
DS SWH	20161.291	
	0.307637	Hz Hz
FIDRES		
AQ RG	1.6253428 191.08	sec
DW		
DE	24.800 6.50	USec
TE	299.4	
CNST2	145.0000000	P.
D1	2.00000000	sec
D2		sec
D12	0.00002000	
DIZ	0.00002000	Deg C
	CHANNEL f1 ====	
NUC1	130	
P1		1150 C
		usec usec
P1 P13 PLW0	8.65	
P13	8.65 2000.00 0 w 120.50000000	usec W
P13 PLW0	8.65 2000.00 0 w	usec W
P13 PLW0 PLW1 SFO1 SPNAM5	8.65 2000.00 0 w 120.50000000 125.7929956 Crp60comp.4	usec W
P13 PIW0 PIW1 SF01	8.65 2000.00 0 W 120.50000000 125.7929956	usec W
P13 PLW0 PLW1 SF01 SPNAM5 SPOAL5 SPOFFS5	8.65 2000.00 0 w 120.50000000 125.7929956 Crp60comp.4 0.500	usec W MHz
P13 PLW0 PLW1 SFO1 SPNAM5 SPOAL5	8.65 2000.00 0 w 120.50000000 125.7929956 Crp60comp.4 0.500	usec W MHz
P13 PLW0 PLW1 SF01 SPNAM5 SPOAL5 SPOFFS5 SPW5	8.65 2000.00 0 W 120.50000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002	W MHz W
P13 PLW0 PLW1 SF01 SPNAM5 SPOAL5 SPOFFS5 SPW5	8.65 2000.00 0 W 120.50000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2	W MHz W
P13 PLW0 PLW1 SFO1 SPNAM5 SPOAL5 SPOFFS5 SFW5	8.65 2000.00 0 W 120.50000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 ===================================	W MHz W
P13 PLW0 PLW1 SF01 SPNAM5 SPOAL5 SPOFFS5 SPW5 CPDPRG2 NUC2	8.65 2000.00 0 W 120.50000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 ===================================	w MHz W
P13 P1W0 P1W1 SFO1 SPNAM5 SPOAL5 SPOFFS5 SPW5 CPDPRG2 NUC2 P3	8.65 2000.00 0 W 120.50000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 ===================================	W MHz W
P13 PIM0 PIM1 SF01 SP0AL5 SP0AL5 SP0FFS5 SPW5 CPDPRG2 NUC2 P3 P4	8.65 2000.00 0 W 120.50000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 ===================================	W MHz W
P13 P1W0 P1W1 SF01 SF0AL5 SPOAL5 SPOFFS5 SPW5 CPDPRG2 NUC2 P3 P4 PCPD2	8.65 2000.00 0 W 120.50000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 ===================================	W MHZ W USec Usec Usec
P13 PIM0 PIW1 SF01 SP0AL5 SP0AL5 SP0AL5 SP0FFS5 SPW5 ————————————————————————————————————	8.65 2000.00 0 W 120.50000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 ===================================	USEC WMHZ W USEC USEC USEC USEC
P13 PIM0 PIM1 SFOAL5 SPOAL5 SPOFFS5 SPW5 SPW5 SPW5 P1 P1 P2 P3 P4 PCPD2 PIM12	8.65 2000.00 0 W 120.50000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 ===================================	USeC W MHz W
P13 PIM0 PIW1 SF01 SP0AL5 SP0AL5 SP0AL5 SP0FFS5 SPW5 ————————————————————————————————————	8.65 2000.00 0 W 120.50000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 ===================================	USeC W MHz W
P13 PIM0 PIM1 SFO1 SPNAM5 SPOAL5 SPOFFS5 SPW5 SPW5 CPDPRG2 NUC2 P3 P4 PCPD2 P1M2 PIM2 PIM12 SFO2	8.65 2000.00 0 W 120.50009056 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 ===================================	USGC W MHZ W USGC USGC USGC W W MHZ
P13 P1W0 P1W1 SF0AM5 SPOAL5 SPOFFS5 SPW5 SPW5 SPW5 P4 PCPD2 P1W2 P1W12 SF02 F2 P Pro	8.65 2000.00 0 W 120.50000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 ===================================	USGC W MHZ W USGC USGC USGC W W MHZ
P13 P1M0 P1M1 SF01 SP0AL5 SP0AL5 SP0FFS5 SPW5 CPDPRG2 NUC2 P2 P1M2 P1M2 P1M12 SF02 F2 P1M2 F1 P1C2	8.65 2000.00 0 W 120.50000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 ===================================	USEC WMHz W USEC USEC USEC WW WMHz
P13 PIM0 PIM1 SFO1 SPNAM5 SPOAL5 SPOFFS5 SPW5 CPDPRG2 NUC2 P3 P4 PCPD2 PIM2 PIM2 PIM2 PIM2 PIM2 SFO2	8.65 2000.00 0 W 120.50000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 ===================================	USEC WMHz W USEC USEC USEC WW WMHz
P13 PIM0 PIM1 SF01 SP0AL5 SP0AL5 SP0FFS5 SFW5 SPW5 P0FFS2 NUC2 P3 P4 PCPD2 PIM2 PIM2 PIM12 SF02 F2 P Prosi	8.65 2000.00 0 W 120.5000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 ===================================	USEC WMHz W USEC USEC USEC WW WMHz
P13 PIM0 PIM0 PIM1 SFO1 SPNAM5 SPOAL5 SPOFFS5 SPW5 CPDPRG2 NUC2 P1A PCPD2 PIM12 SFO2 F2 - Prosis SF WIDW SSB	8.65 2000.00 0 W 120.5000956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 ===================================	USEC W MHZ W USEC USEC USEC W W MHZ MHZ
P13 P1W0 P1W1 SF01 SP0AL5 SP0FFS5 SPW5 SPW5 P1W12 P1W12 P1W12 P1W12 F1W12 F1 P1W12 F1 P1W12 F	8.65 2000.00 0 W 120.5000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 ===================================	USEC W MHZ W USEC USEC USEC W W MHZ MHZ
P13 PIM0 PIM0 PIM1 SFO1 SPNAM5 SPOAL5 SPOFFS5 SPW5 CPDPRG2 NUC2 P1A PCPD2 PIM12 SFO2 F2 - Prosis SF WIDW SSB	8.65 2000.00 0 W 120.5000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 ===================================	USEC W MHZ W USEC USEC USEC W W MHZ MHZ

DEPT of compound 12 (zoom)

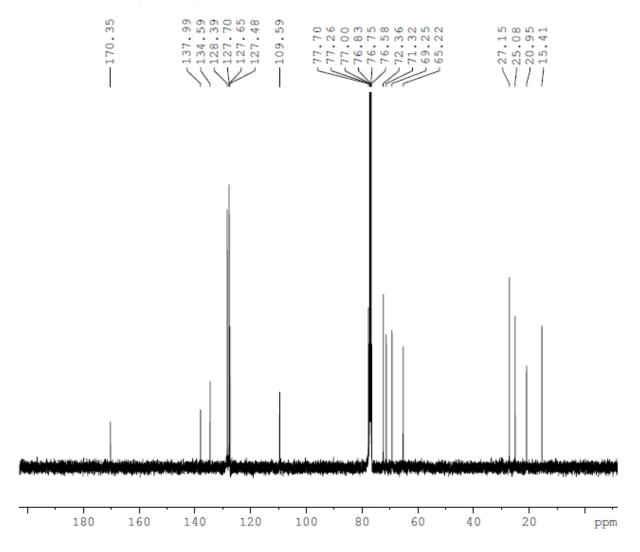




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PROCNO	1	
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Time	23.26	
INSTRUM	spect	
PROBHD	5 mm PABBO BB-	
PULPROG	deptsp135	
TD	65536	
SOLVENT	CDC13	
NS	256	
DS	20151 201	
SWH	20161.291	Hz
FIDRES	0.307637	Hz
AQ	1.6253428	50 C
RG	191.08	
DW	24.800 6.50	1150 C
DE	6.50	1150 C
TE	299.4	
CNST2	145,0000000	
D1		50 C
D2	0.00344828	
D12	0.00002000	
DIZ	0.00002000	Sec
	CHANNEL f1 ===:	
NUC1	13C	
P1		
		usec
P13	2000.00	
P13 PLW0	2000.00 0 w	usec
P13 PLW0 PLW1	2000.00 0 w 120.50000000	usec W
P13 PLW0 PLW1 SF01	2000.00 0 w	usec W
P13 PLW0 PLW1	2000.00 0 W 120.50000000 125.7929956 Crp60comp.4	usec W
P13 PLW0 PLW1 SF01	2000.00 0 W 120.50000000 125.7929956	usec W
P13 PLW0 PLW1 SFO1 SPNAM5	2000.00 0 W 120.50000000 125.7929956 Crp60comp.4 0.500	usec W MHz
P13 PLW0 PLW1 SFO1 SPNAM5 SPOAL5	2000.00 0 W 120.50000000 125.7929956 Crp60comp.4	usec W MHz
P13 PIW0 PIW1 SF01 SPNAM5 SPOAL5 SPOFFS5	2000.00 0 W 120.50000000 125.7929956 Crp60comp.4 0.500	usec W MHz
P13 PLW0 PLW1 SF01 SPNAM5 SPOAL5 SPOFFS5 SPW5	2000.00 0 W 120.50000000 125.7929956 Crp60comp.4 0.500	W MHz W
P13 PLW0 PLW1 SF01 SPNAM5 SPOAL5 SPOFFS5 SPW5	0 W 120.5000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2	W MHz W
P13 PLW0 PLW1 SFO1 SPNAM5 SPOAL5 SPOFFS5 SPW5	2000.00 120.50000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 ===================================	W MHz W
P13 P1W0 P1W1 SF01 SPNAM5 SPOAL5 SPOFFS5 SPW5	0 W 120.5000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 ===================================	w MHz W
P13 PLW0 PLW1 SFO1 SPNAM5 SPOAL5 SPOFFS5 SPW5 CPDPRG2 NUC2 P3	2000.00 0 W 120.50000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 ===================================	W MHz W
P13 PLW0 PLW1 SF01 SFNAM5 SPOAL5 SPOFFS5 SPW5 CPDPRG2 NUC2 P3 P4	0 W 120.50000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 ===================================	W MHz W
P13 PLW0 PLW1 SFO1 SPNAM5 SPOAL5 SPOFFS5 SPW5 CPDPRG2 NUC2 P3 P4 PCPD2	2000.00 0 W 120.50000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 ===================================	W MHZ W usecusecusecusecusecusecusecusecusecusec
P13 PLW0 PLW1 SF01 SF0AL5 SPOAL5 SPOFFS5 SPW5 ————————————————————————————————————	2000.00 120.50000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 ===================================	W MHz W
P13 PLW0 PLW1 SFO1 SFOAL5 SPOFFS5 SPW5 EPDFG2 NUC2 P3 P4 PCED2 PLW12	2000.00 120.50000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 ===================================	W MHZ W USe C USe C USe C USe C W W
P13 PLW0 PLW1 SF01 SF0AL5 SPOAL5 SPOFFS5 SPW5 ————————————————————————————————————	2000.00 120.50000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 ===================================	W MHZ W USe C USe C USe C USe C W W
P13 PLW0 PLW1 SFO1 SPNAM5 SPOAL5 SPOFFS5 SPW5 CPDPRG2 NUC2 P3 P4 PCPD2 PLW2 PLW12 SFO2	0 W 120.50000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 == waltz16 4 18.08 80.00 27.16399956 0.34685999 500.2315998	USEC W MHZ W USEC USEC USEC W W MHZ
P13 PLW0 PLW1 SFO1 SFOAL5 SPOFFS5 SPW5 SPW5 SPW5 P4 PCPD2 PLW1 PCPD2 PLW1 SFO2 F2 P Pro	2000.00 120.50000000 125.7929956 Crp60comp.4 0.500 Hz 13.77600002 CHANNEL f2 ===================================	USEC W MHZ W USEC USEC USEC W W MHZ
P13 PLW0 PLW1 SFO1 SPNAM5 SPOAL5 SPOFFS5 SPW5 CPDPRG2 NUC2 P3 P4 PCPD2 PLW2 PLW12 SFO2	2000.00 120.50000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 ===================================	USGC W MHZ W USGC USGC USGC W W MHZ
P13 PLW0 PLW1 SFO1 SFOAL5 SPOFFS5 SPW5 SPW5 SPW5 P4 PCPD2 PLW1 PCPD2 PLW1 SFO2 F2 P Pro	2000.00 120.50000000 125.7929956 Crp60comp.4 0.500 Hz 13.77600002 CHANNEL f2 ===================================	USGC W MHZ W USGC USGC USGC W W MHZ
P13 PLW0 PLW1 SFO1 SPOAL5 SPOAL5 SPOFFS5 SPW5 CPDPRG2 NUC2 P3 P4 PCPD2 PLW2 PLW12 SFO2 F2 PFO	2000.00 120.50000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 ===================================	USGC W MHZ W USGC USGC USGC W W MHZ
P13 PLW0 PLW1 SFOAL5 SPOAL5 SPOFFS5 SPOFFS5 SPW5 ————————————————————————————————————	2000.00 120.50000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 ===================================	USGC W MHZ W USGC USGC USGC W W MHZ
P13 PLW0 PLW1 SFO1 SFOAL5 SPOAL5 SPOFFS5 SPW5 CPDPRG2 NUC2 P3 P4 PCPD2 PLW2 PLW12 SFO2 F2 P Pro SI SF WDW	2000.00 120.50000000 125.7929956 Crp60comp.4 0.500 Hz 13.77600002 CHANNEL f2 ===================================	USec W MHz W USec USec W W MHz ers
P13 PLW0 PLW1 SFO1 SFOAL5 SFOAL5 SFOFFS5 SPW5 EPDFE2 NUC2 P3 P4 PCFD2 PLW12 SFO2 F2 - Pro SI SF WDW SSB LB	2000.00 120.50000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 ===================================	USec W MHz W USec USec W W MHz ers
P13 PLW10 PLW11 SFO11 SFOAL5 SPOAL5 SPOFFS5 SPOFFS5 SPW5 CPDPRG2 NUC2 P3 P4 PCPD2 PLW12 PLW12 SFO2 F2 - Pro SI SF WDW SSB	2000.00 120.50000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 ===================================	USec W MHz W USec USec W W MHz ers

¹³C NMR of compound **12**

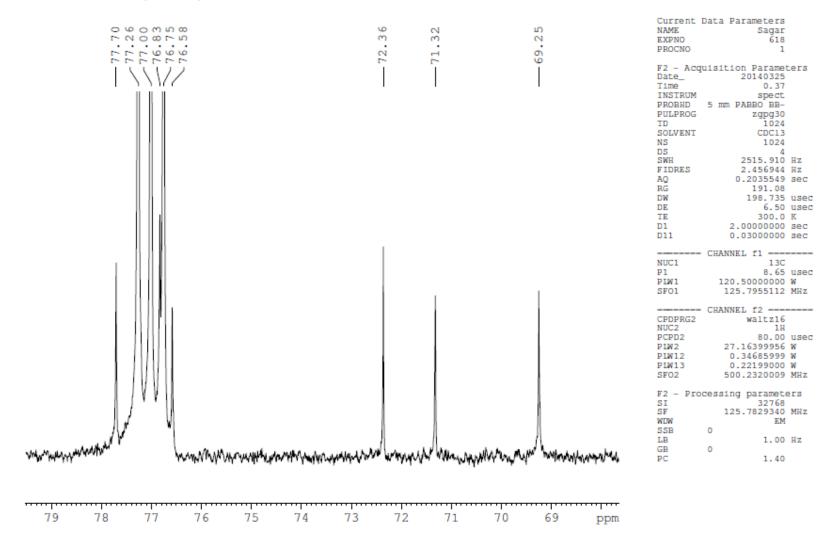
KMS-D-V-125 C13CPD CDCl3 C:\Bruker\TOPSPIN nmr



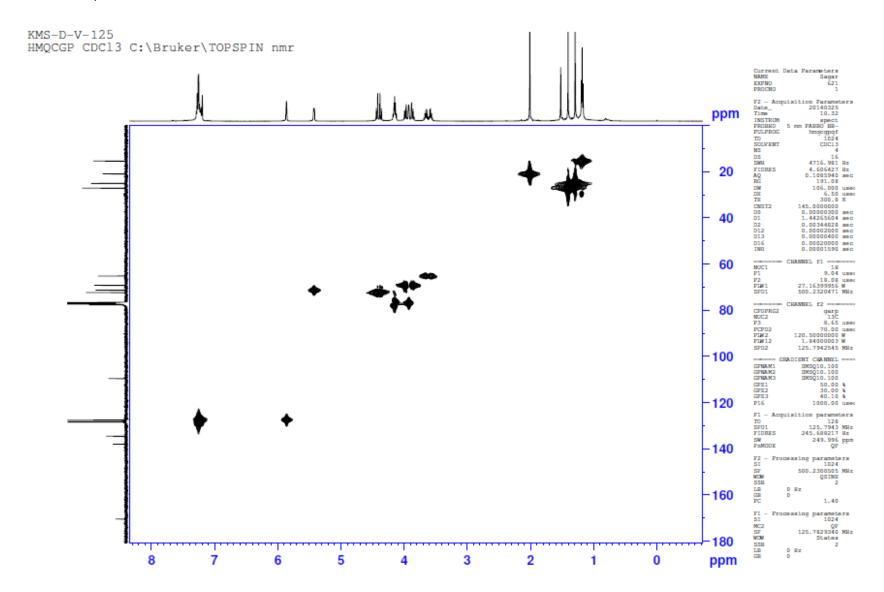
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F2 - Acquisitic Date_ Time INSTRUM PROBHD 5 mm F PULPROG ID SOLVENT	on Parameters 20140325 0.37 spect PABBO BB- zgpg30 1024 CDC13
NS DS SWH FIDRES	1024 4 2515.910 Hz 2.456944 Hz
AQ (RG DW DE	191.08 198.735 usec 6.50 usec
D11 0.	300.0 K .000000000 sec .03000000 sec
NUC1 P1 PLW1 120.	13C 8.65 usec 50000000 W
	L f2 Waltz16
PIW12 0. PIW13 0.	80.00 usec .16399956 W .34685999 W .22199000 W
F2 - Processing	32768
SF 125 WDW SSB 0 LB	5.7829340 MHz EM
GB 0 PC	1.40

¹³C NMR of compound **12** (zoom)

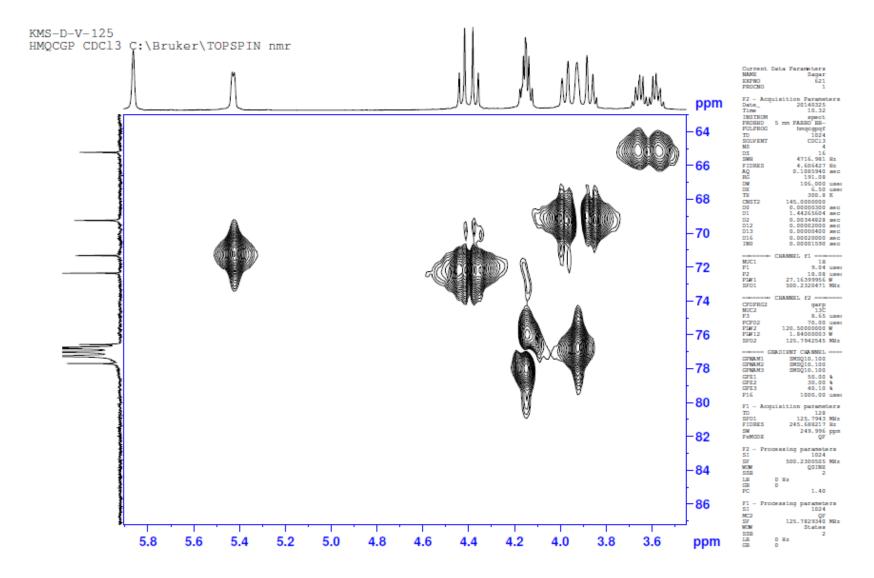
KMS-D-V-125 C13CPD CDC13 C:\Bruker\TOPSPIN nmr



HMQC of compound 12

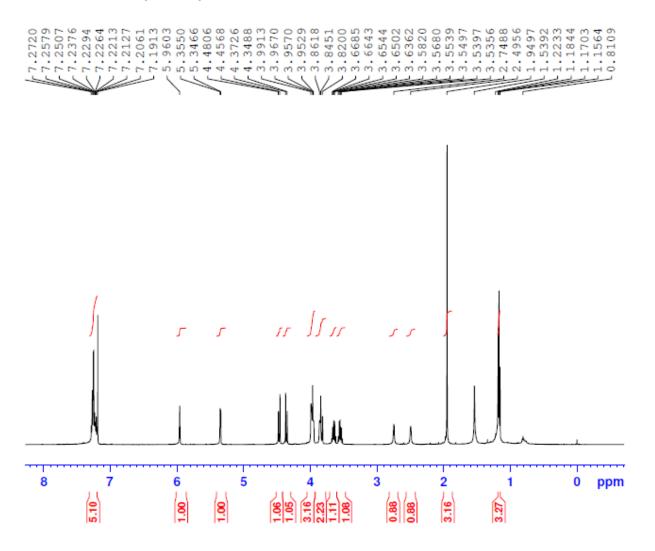


HMQC of compound 12 (zoom)



¹H NMR of compound **13**

KMS-D-V-127 PROTON CDC13 C:\Bruker\TOPSPIN nmr

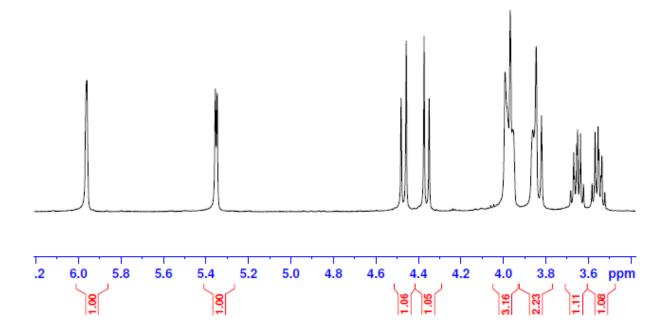


Current DAME NAME EXPNO PROCNO	ata Parameters Sagar 623 1	
F2 - Acqu	isition Paramet	ers
Date_	20140326	
Time	2.27	
INSTRUM	spect	
PROBHD	5 mm PABBO BB-	
PULPROG	zg30	
TD	65536	
SOLVENT	CDC13	
NS	16	
DS	2	
SWH	10330.578	
FIDRES	0.157632	Hz
AQ	3.1719923	sec
RG	153.65	
DW	48.400	usec
DE	6.50	usec
TE	298.0	
D1	1.00000000	sec
	CHANNEL fl	
NUC1	1H	
P1	9.04	usec
PLW1	27.16399956	
SFO1	500.2330891	
21.01		
F2 - Proc	essing paramete	ers
SI	65536	
SF	500.2300500	MHZ
WDW	EM	
SSB	0	
LB	0.30	Hz
GB	0	
PC	1.00	

¹H NMR of compound **13** (zoom)

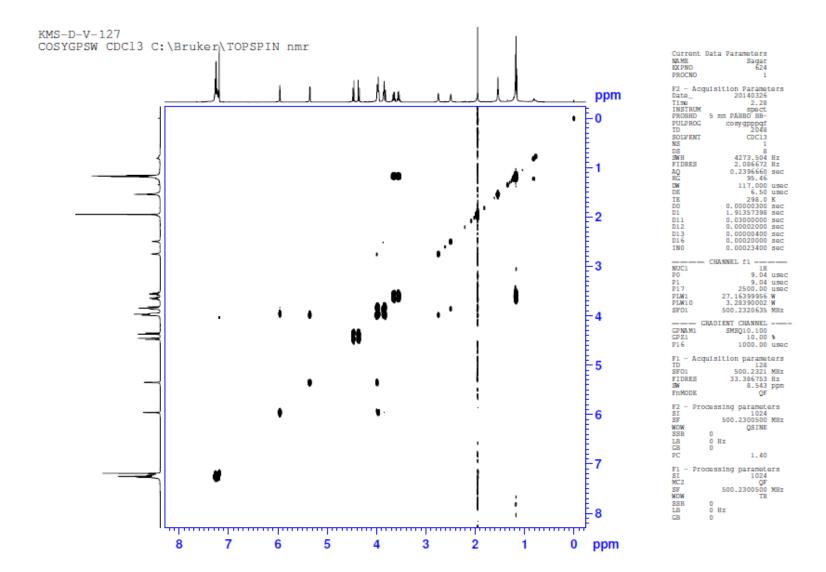
KMS-D-V-127
PROTON CDC13 C:\Bruker\TOPSPIN nmr



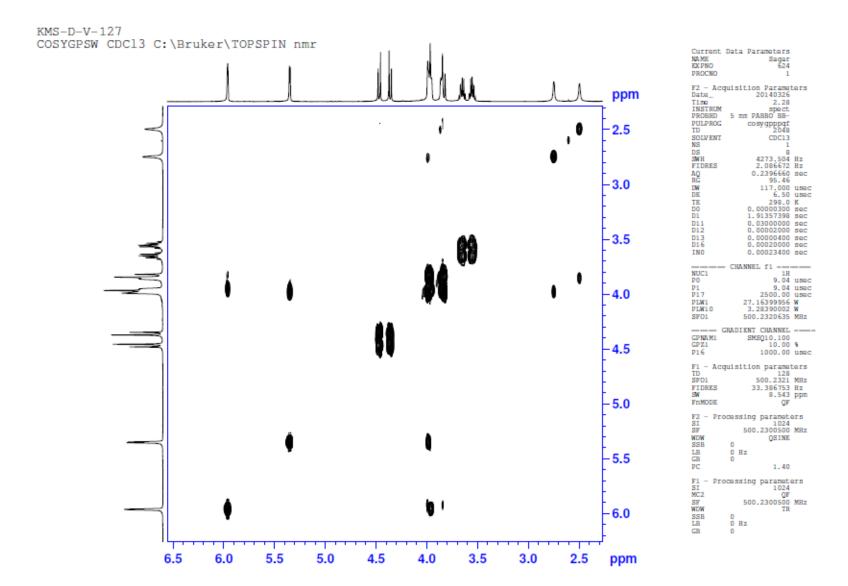


Current	Data	Para	met	ters	3
NAME			S	agar	
EXPNO				623	3
PROCNO				1	L
F2 - Acc	quisit				
Date_		20	140	032€	5
T1me			- 2	2.27	1
INSTRUM				pe ct	
PROBHD	5 mi	n PAE			
PULPROG			- 1	zg30)
TD				553€	
SOLVENT			CI	DC13	
NS				16	
DS				2	
SWH					HZ
FIDRES					Hz
AQ		3.1			sec
RG				3.65	
DW					usec
DE					usec
TE				98.0	-
D1		1.00	000	0000	sec
	- CHAI	NNEL	fl		
NUC1				11	
P1					usec
PLW1		27.16			
SF01		500.2	330	0891	MHZ
F2 - Pro	00000	ing r		amot	are
SI	occus.	ring F		5536	
SF		son a			MHZ
WDW		300.2	. 500	EN	
SSB	0			Est	•
LB				3.0	Hz
GB	0				
PC				1.00	,
FU					

COSY of compound 13

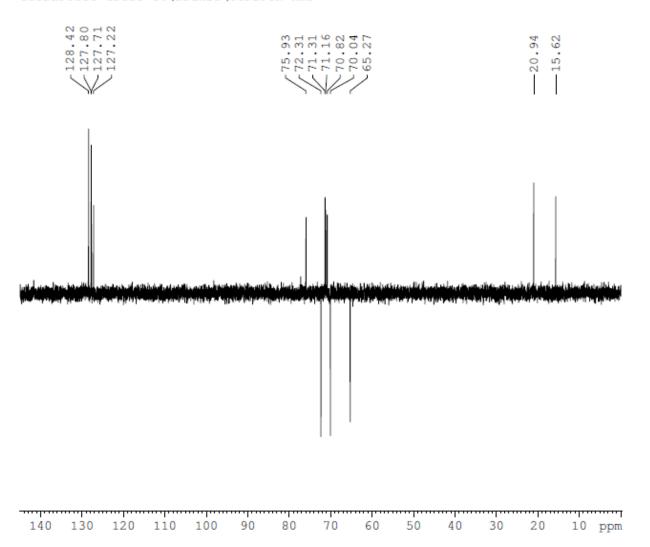


COSY of compound 13 (zoom)



DEPT of compound 13

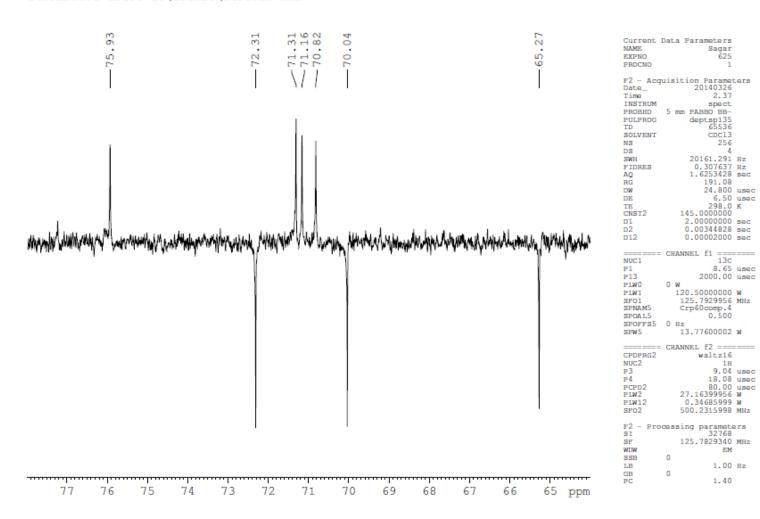
KMS-D-V-127 C13DEPT135 CDC13 C:\Bruker\TOPSPIN nmr



Current	Data	Para	met	ers	
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EXPNO				625	
PROCNO				1	
F2 - Acc	misit	ion	Par	amet	ers
Date_	1			326	
Time			2	. 37	
INSTRUM				ect	
PROBHD	5 mr	n PAE			
PULPROG		dep	tsp	135	
TD				536	
SOLVENT NS			CD	C13 256	
NS DS				4	
SWH		201	61	291	Hz
FIDRES				637	Hz
AQ		1.6	253	428	sec
RG				.08	
DW			24.	800	usec
DE			6	.50	usec
TE			29	8.0	
CNST2	1	145.0			
D1		2.00			
D2 D12		0.00			
DIZ		0.00	002	000	sec
	CHAN	INEL	f1		
NUC1				13C	
P1					usec
P13		2	000	.00	usec
PLWO	0 W				
PLW1		20.50			
SFO1		125.7			MHz
SPNAM5 SPOAL5		Crp60		500	
SPOFFS5	0 11:		٠.	300	
SPW5		13.77	600	002	W
				002	
	CHAI	NEL	£2		
CPDPRG2		W	alt	z16	
NUC2				1H	
P3					usec
P4					usec
PCPD2		27.16			usec
PLW2 PLW12	4	0.34			
SFO2		500.2			MHz
DI UL		,,,,,,		550	PHILE.
F2 - Pro	00855	ing p	ara	mete	ES
SI			32	768	
SF	1	125.7	829		MHz
WDW	_			EM	
SSB	0			0.0	
LB			1	.00	HZ
GB PC	0		4	.40	
a. Sec				- NO	

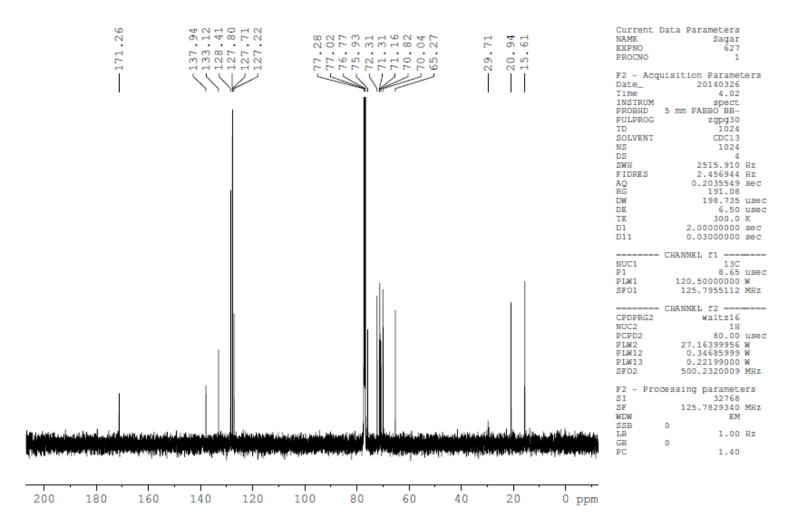
DEPT of compound 13 (zoom)

KMS-D-V-127 C13DEPT135 CDC13 C:\Bruker\TOPSPIN nmr



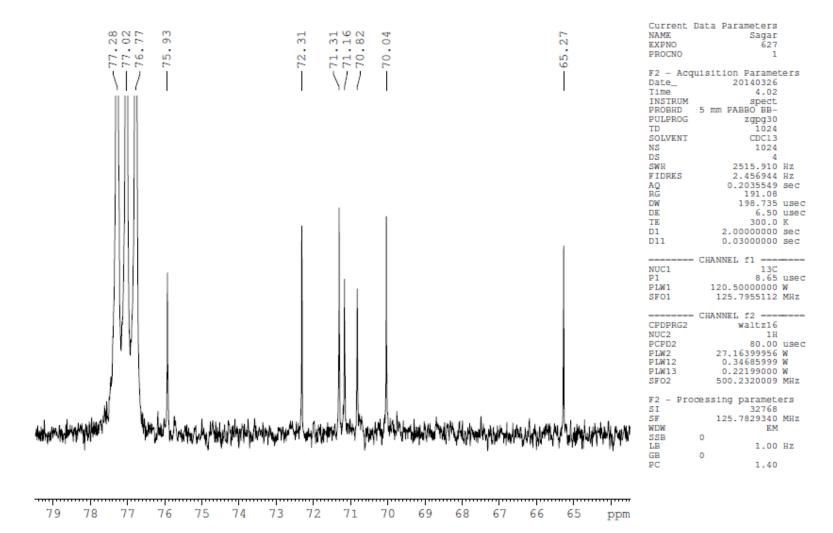
¹⁴C NMR of compound **13**

KMS-D-V-127 C13CPD CDC13 C:\Bruker\TOPSPIN nmr

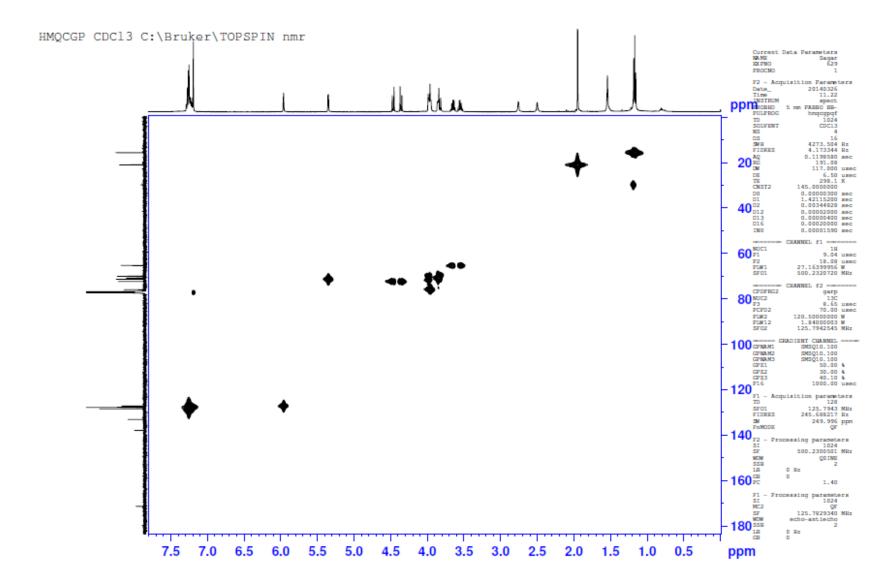


¹⁴C NMR of compound **13** (zoom)

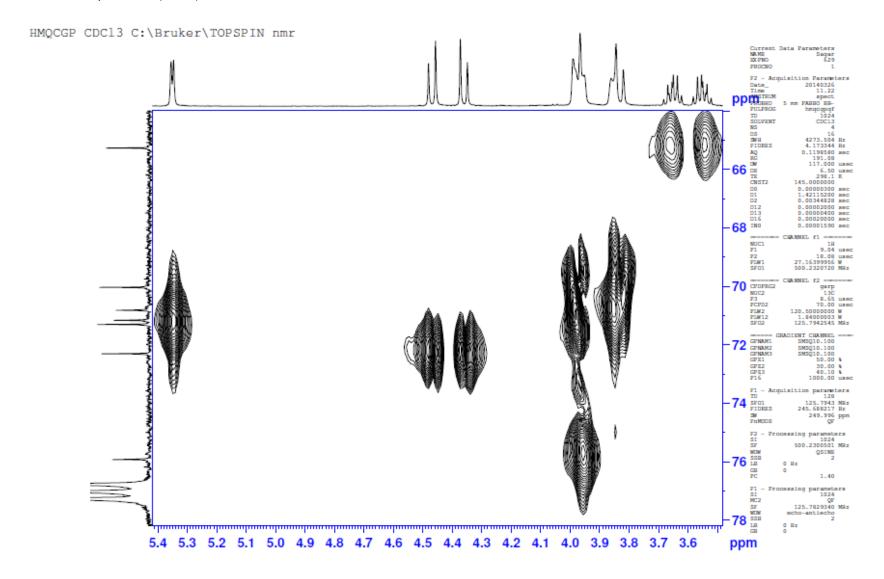
KMS-D-V-127 C13CPD CDCl3 C:\Bruker\TOPSPIN nmr



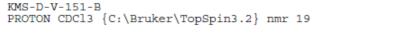
HMQC of compound 13

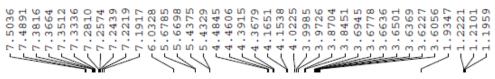


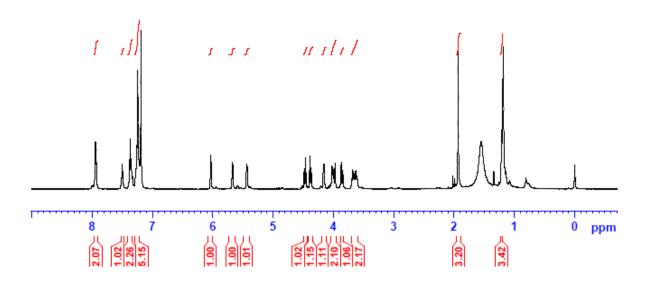
HMQC of compound 13 (zoom)



¹H NMR of compound **14**



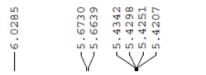


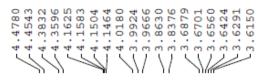


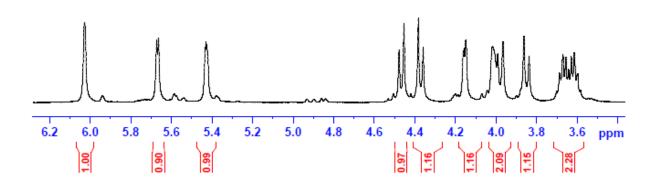
	ata Parameters	
NAME	Sagar	
EXPNO	14	
PROCNO	1	
	isition Paramet	ers
Date	20140715	
Time	14.07	
INSTRUM	spect	
PROBHD 5	5 mm PABBO BB-	
PULPROG	zg30	
TD	65536	
SOLVENT	CDC13	
NS	16	
DS	2	
SWH	10000.000	Hz
FIDRES	0.152588	
AO	3.2767999	
RG	171.32	
DW	50.000	
DE	6.50	
TE	298.0	
D1	1.00000000	
TDO	1.00000000	bec
100	1	
	CHANNEL f1	
SFO1	500.2330891	MHz
NUC1	1H	
P1		usec
PLW1	27.16399956	W
	essing paramete	
SI	65536	
SF	500.2300439	MHz
WDW	EM	
)	
LB	0.30	Hz
)	
PC	1.00	

¹H NMR of compound **14** (zoom)

KMS-D-V-Obz below
PROTON CDCl3 {C:\Bruker\TopSpin3.2} nmr 59







NAME	Sagar	
EXPNO	12	
PROCNO	1	
	isition Paramet	ers
Date	20140714	
Time	20.46	
INSTRUM	spect	
PROBHD	5 mm PABBO BB-	
PULPROG	zg30	
TD	65536	
SOLVENT	CDC13	
NS	16	
DS	2	
SWH	10000.000	Hz
FIDRES	0.152588	Hz
AQ	3.2767999	sec
RG	138.93	
DW	50.000	used
DE	6.50	used
TE	295.0	K
D1	1.00000000	sec
TDO	1	
	CHANNEL f1	
SFO1	500.2330891	MHz
NUC1	1H	
P1	9.04	used
PLW1	27.16399956	W

F2 - Processing parameters SI 65536

0

500.2300472 MHz

EM

1.00

0.30 Hz

SF

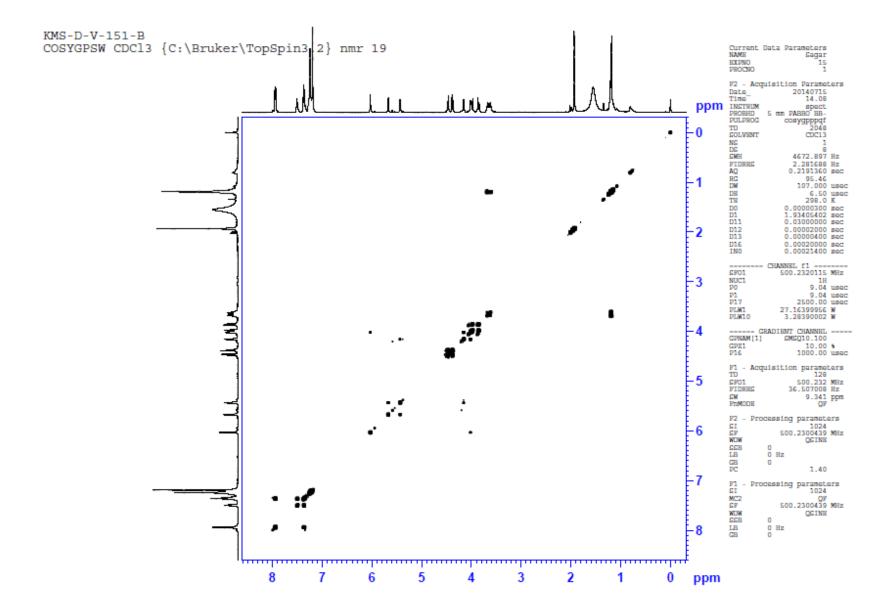
WDW SSB

LB

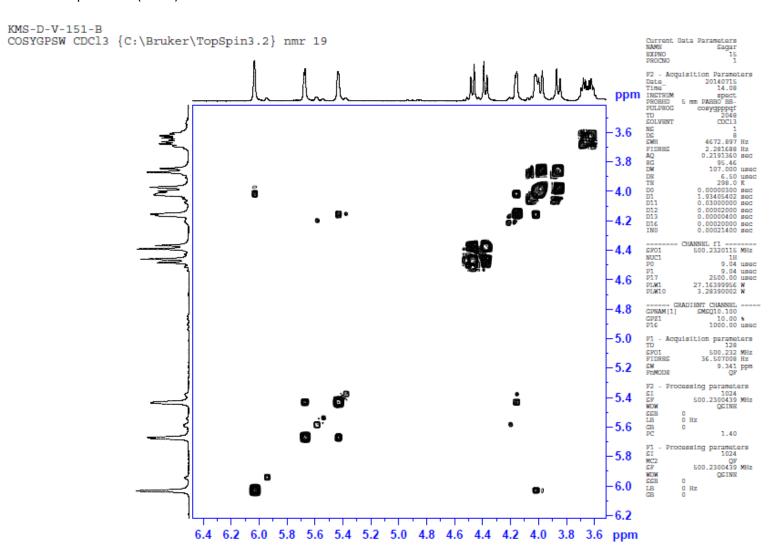
GB PC

Current Data Parameters

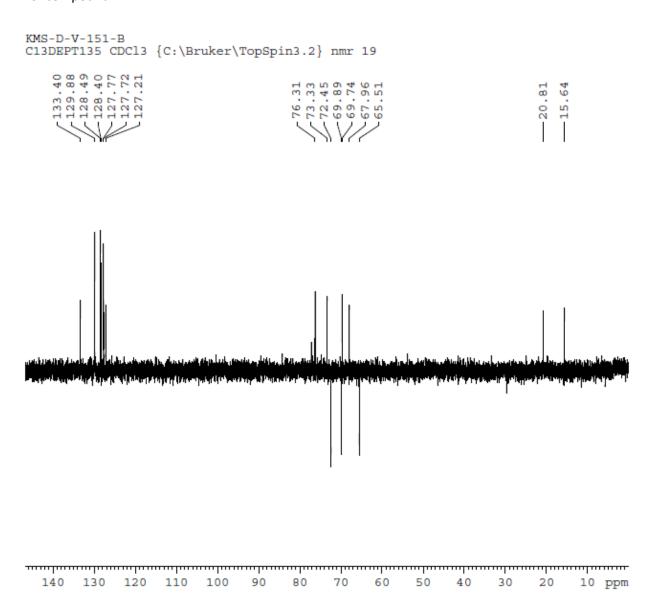
COSY of compound 14



COSY of compound 14 (zoom)

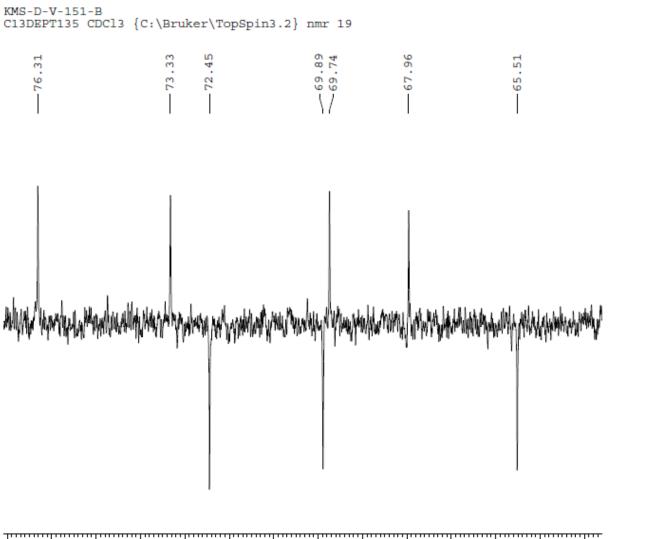


DEPT of compound 14



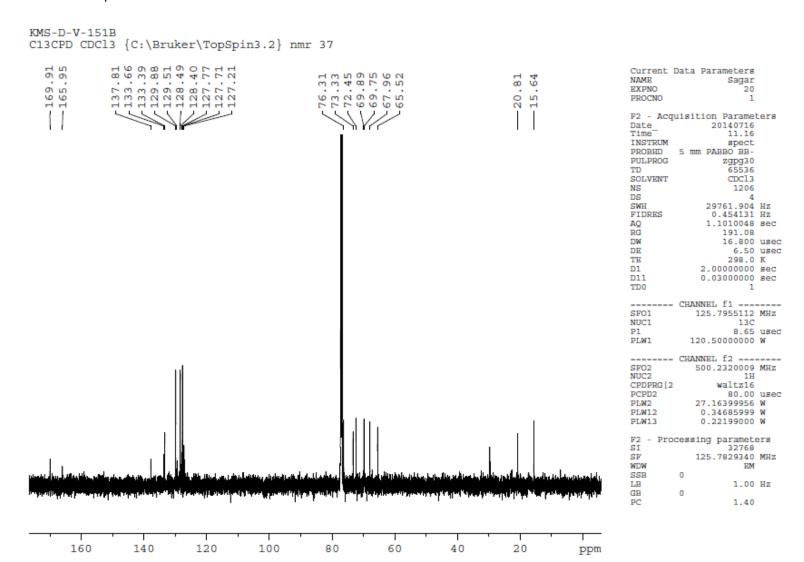
Current Dat	a Parameters	
NAME	Sagar	
EXPNO	16	
PROCNO	1	
110000	-	
F2 - Acquie	ition Paramet	ere
Date	20140715	
Time	14.18	
INSTRUM	spect	
	mm PABBO BB-	
PULPROG	deptsp135	
TD	65536	
SOLVENT	CDC13	
NS	256	
DS	4	
SWH	20161.291	He
FIDRES	0.307637	
AQ	1.6252928	
RG	191.08	arto-to-
DW	24.800	11000
DE		usec
TE	298.0	
CNST2	145.0000000	r.
D1	2.00000000	man
D2	0.00344828	
D12	0.00002000	
TDO	1	
	-	
CF	MANNEL fl	
SFO1	125.7929956	MHz
NUC1	130	
P1	8.65	usec
P13	2000.00	
PLWO 0	W	
PLW1	120.50000000	W
SPNAM[5]	Crp60comp.4	
SPOAL5	0.500	
	Hz	
SPW5	13.77600002	W
CE	MANNEL f2	
SFO2	500.2315998	MHz
NUC2	1H	
CPDPRG[2	waltz16	
P3	9.04	usec
P4	18.08	usec
PCPD2	80.00	usec
PLW2	27.16399956	W
PLW12	0.34685999	W
F2 - Proces	sing paramete	rs
SI	32768	
SF	125.7829340	MHz
WDW	EM	
SSB 0		
LB	1.00	Hz
GB 0		
PC	1.40	

DEPT of compound 14 (zoom)

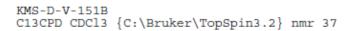


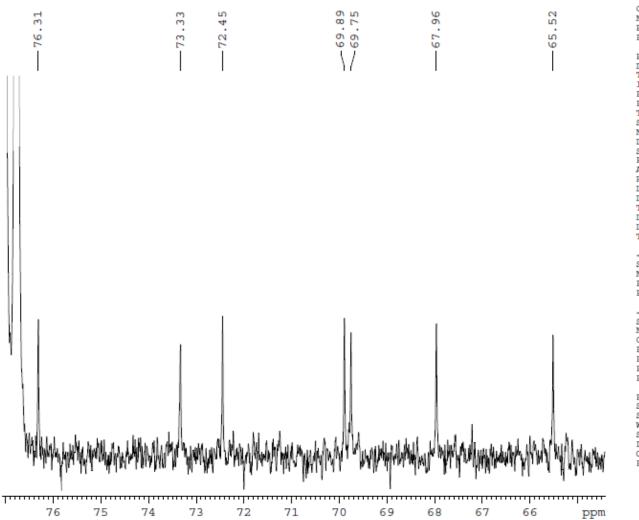
Current I	Oata Parameters	
NAME	Sagar	
EXPNO	16	
PROCNO	1	
F2 - Acqu	isition Paramet	ers
Date_	20140715	
Time	14.18	
INSTRUM	spect	
PROBHD	5 mm PABBO BB-	
PULPROG	deptsp135	
TD SOLVENT	65536 CDC13	
NS	256	
DS	4	
SWH	20161.291	He
FIDRES	0.307637	
AQ	1.6252928	
RG	191.08	
DW	24.800	usec
DE	6.50	usec
TE	298.0	K
CNST2	145.0000000	
D1	2.00000000	
D2	0.00344828	
D12	0.00002000	sec
TD0	1	
	CHANNEL f1	
SPO1	125.7929956	
NUC1	130	Piriz
P1		usec
P13	2000.00	
PLWO	0 W	
PLW1	120.50000000	W
SPNAM[5]	Crp60comp.4	
SPOALS	0.500	
SPOFFS5	0 Hz	
SPW5	13.77600002	W
	CHANNEL f2	
SPO2	500.2315998	
NUC2	500.2315998 1H	mnz
CPDPRG [2	waltz16	
P3	9.04	usec
P4	18.08	
PCPD2	80.00	
PLW2	27.16399956	W
PLW12	0.34685999	W
	cessing paramete	115
SI	32768	
SF	125.7829340	MHz
WDW	EM	
ESB	0	W-
GB	0 1.00	HZ
PC	1.40	
2.42	2.40	

¹⁴C NMR of compound **14**



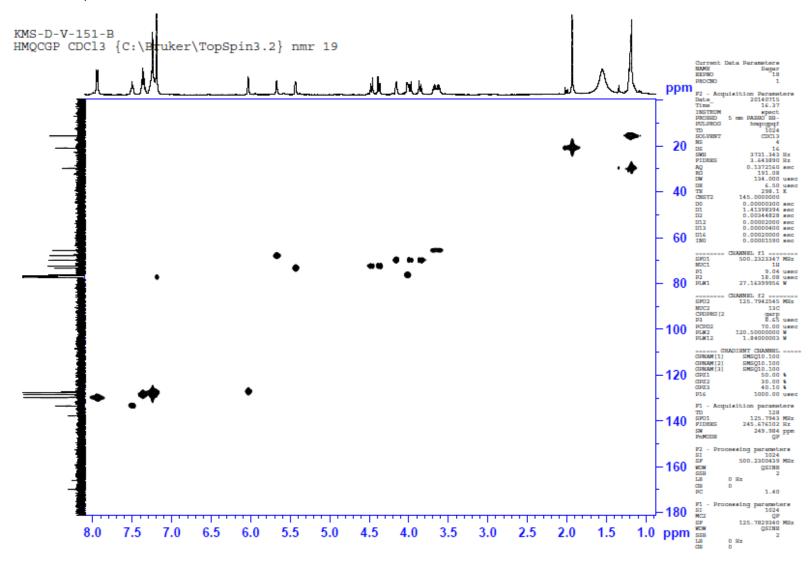
¹⁴C NMR of compound **14** (zoom)



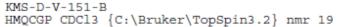


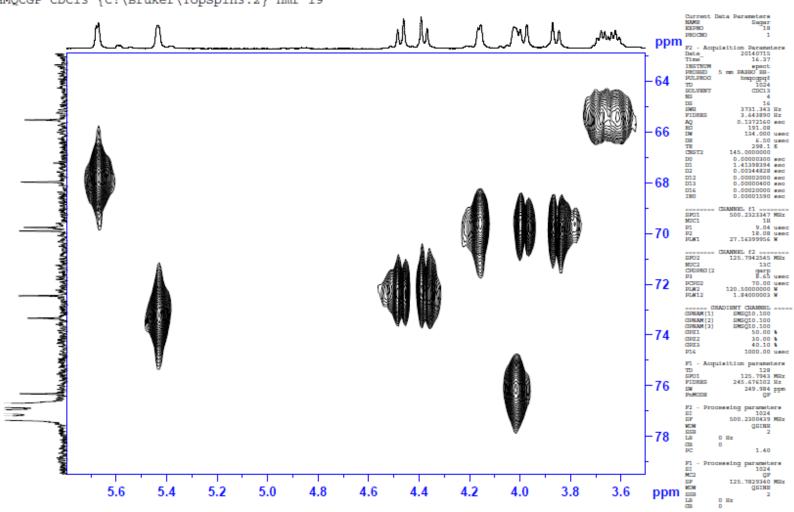
a Parameters	
Sagar	
1	
	ers
	$_{\rm Hz}$
	Hz
	sec
16.800	usec
6.50	usec
298.0	K
2.00000000	sec
0.03000000	sec
1	
_	
	MHz
120.50000000	W
MANNEL f2	
500.2320009	
500.2320009 1H	
500.2320009 1H waltz16	MHz
500.2320009 1H waltz16 80.00	MHz usec
500.2320009 1H waltz16 80.00 27.16399956	MHz usec W
500.2320009 1H waltz16 80.00 27.16399956 0.34685999	MHz usec W
500.2320009 1H waltz16 80.00 27.16399956	MHz usec W
500.2320009 1H waltz16 80.00 27.16399956 0.34685999 0.22199000	MHz usec W W
500.2320009 1H waltz16 80.00 27.16399956 0.34685999 0.22199000 ssing paramete	MHz usec W W
500.2320009 1H waltz16 80.00 27.16399956 0.34685999 0.22199000 ssing paramete 32768	MHz usec W W W
500.2320009 1H waltz16 80.00 27.16399956 0.34685999 0.22199000 ssing paramete 32768 125.7829340	MHz usec W W W
500.2320009 1H waltz16 80.00 27.16399956 0.34685999 0.22199000 ssing paramete 32768	MHz usec W W W
500.2320009 1H waltz16 80.00 27.16399956 0.34685999 0.22199000 ssing paramete 32768 125.7829340 EM	MHz usec W W W ers
500.2320009 1H waltz16 80.00 27.16399956 0.34685999 0.22199000 ssing paramete 32768 125.7829340	MHz usec W W W ers
500.2320009 1H waltz16 80.00 27.16399956 0.34685999 0.22199000 ssing paramete 32768 125.7829340 EM	MHz usec W W W ers
	20 1 sition Paramet 20140716 11.16 8pect mm PABBO BB- 2gpg30 65536 CDCl3 1206 4 29761.904 0.454131 1.1010048 191.08 16.800 6.50 298.0 2.00000000 0.03000000 1 HANNEL f1 === 125.7955112 13C 8.65

HMQC of compound 14



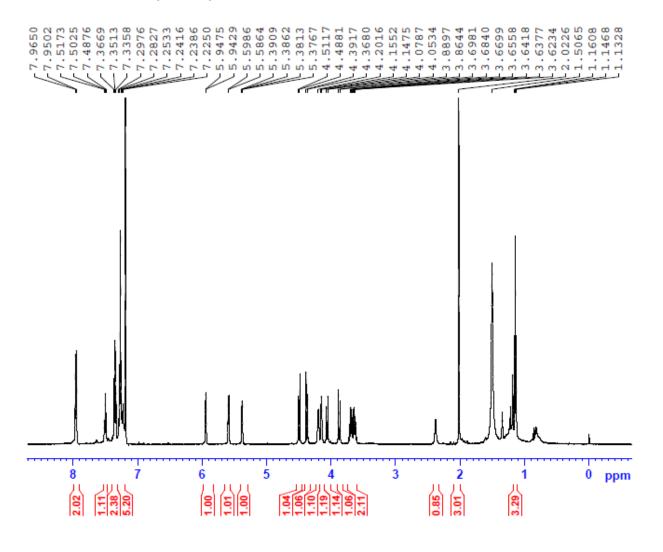
HMQC of compound 14 (zoom)





¹H NMR of compound **15**

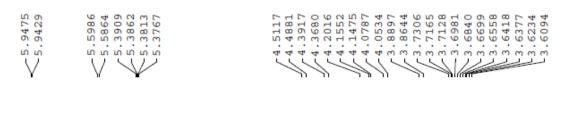
KMS-D-V-151A PROTON CDCl3 C:\Bruker\TOPSPIN nmr

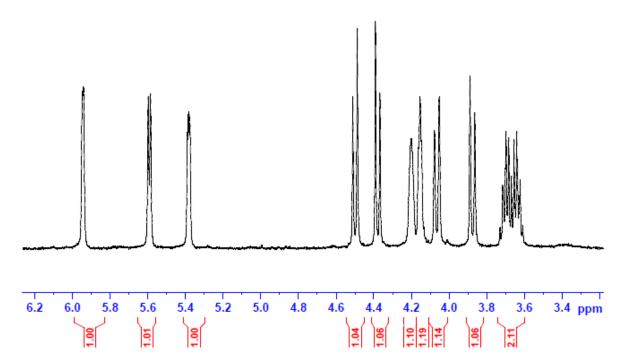


Current	Data	Paramet	ers	
NAME		Sa	agar	
EXPNO			710	
PROCNO			1	
ricociro			-	
F2 - Ac	quisit	tion Par	camet	ers
Date	-	20140	0517	
Time_		(1.12	
INSTRUM		SI	pect	
PROBHD	5 m	n PABBO	BB-	
PULPROG		2	zq30	
TD		65	5536	
SOLVENT		CI	DC13	
NS			16	
DS			2	
SWH		10330	578	Hz
FIDRES		0.15		
AQ		3.1719	9425	sec
RG		191	1.08	
DW		48	400	usec
DE			5.50	usec
TE			99.0	
D1		1.00000	0000	sec
	 CHAI 	NNEL fl		
NUC1			1H	
P1				usec
PLW1		27.16399		
SFO1		500.2330	0891	MHz
F2 - Pr	ocess:			ers
SI			5536	
SF		500.2300		MHZ
WDW			EM	
SSB	0			
LB		(0.30	HZ
GB	0			
PC			1.00	

¹H NMR of compound **15** (zoom)

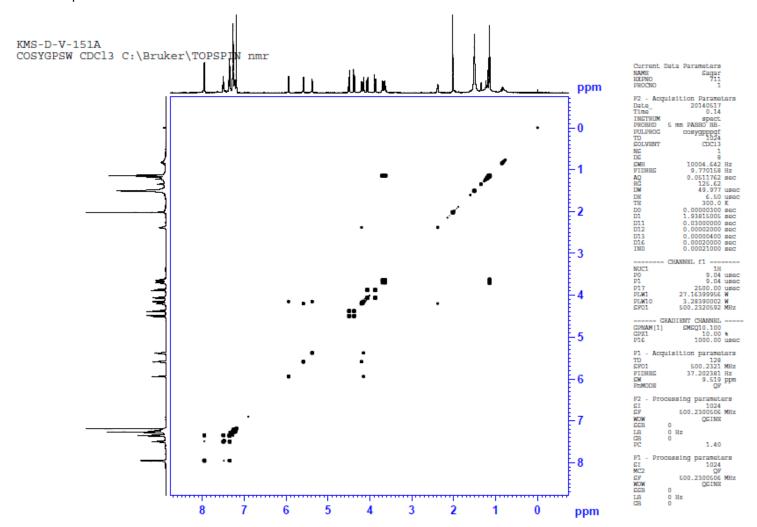
KMS-D-V-151A PROTON CDCl3 C:\Bruker\TOPSPIN nmr





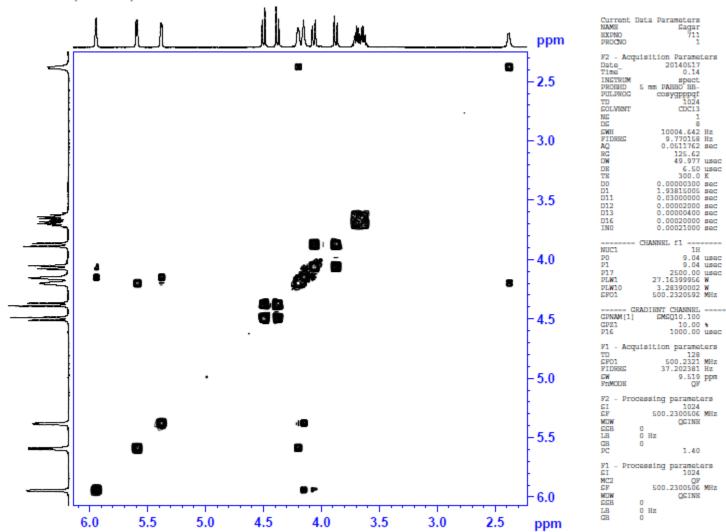
Current D	ata Parameters	
NAME	Sagar	
EXPNO	710	
PROCNO	1	
F2 - Acqui	isition Paramet	ers
Date	20140517	
Time	0.12	
INSTRUM	spect	
PROBHD	5 mm PABBO BB-	
PULPROG	zg30	
TD	65536	
SOLVENT	CDC13	
NS	16	
DS	2	
SWH	10330.578	Hz
FIDRES	0.157632	Hz
AQ	3.1719425	sec
RG	191.08	
DW	48.400	usec
DE	6.50	usec
TE	299.0	K
D1	1.00000000	sec
	CHANNEL f1	
NUC1	1H	
P1	9.04	usec
PLW1	27.16399956	W
SFO1	500.2330891	MHz
F2 - Proc	essing paramete	ers
SI	65536	
SF	500.2300506	MHz
WDW	EM	
SSB	0	
LB	0.30	Hz
GB	0	
PC	1.00	

COSY of compound 15

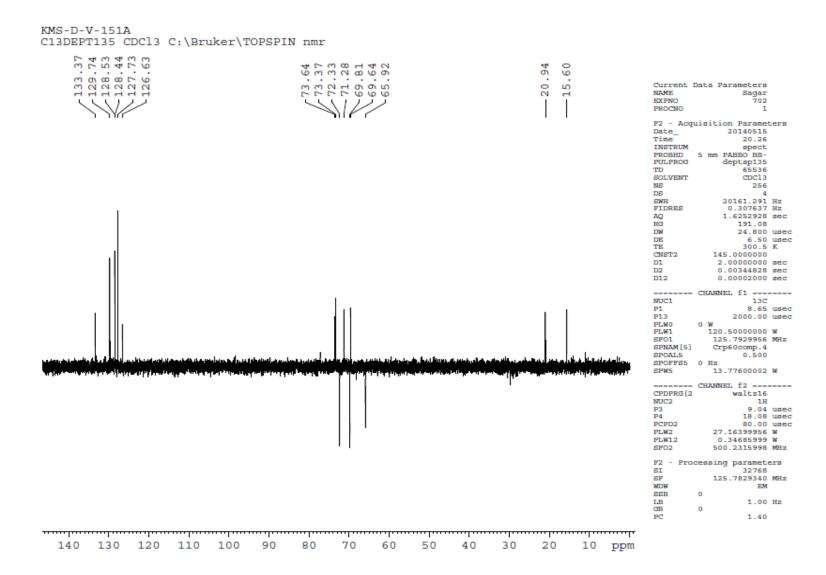


COSY of compound 15 (zoom)

KMS-D-V-151A COSYGPSW CDCl3 C:\Bruker\TOPSPIN nmr



DEPT of compound 15



CPDPRG[2

NUC2

PCPD2

PLW12 SFO2

PLW2

P3 P4

SI

SF WDW

SSB

GB PC waltz16

27.16399956 W

0.34685999 W

F2 - Processing parameters

500.2315998 MHz

32768 125.7829340 MHz

EM

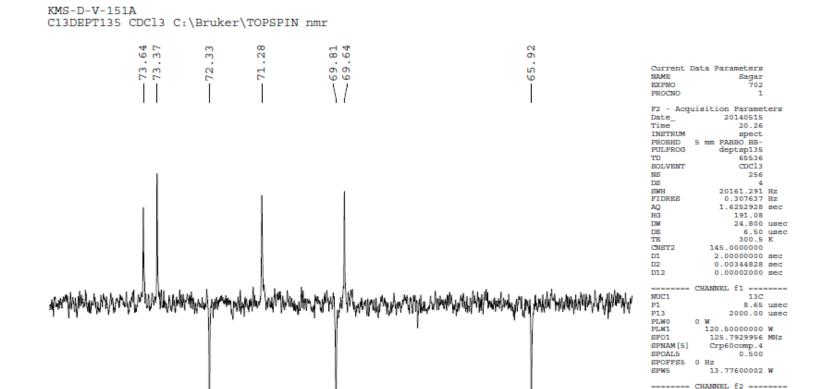
1.00 Hz

1.40

1H 9.04 usec 18.08 usec

80.00 usec

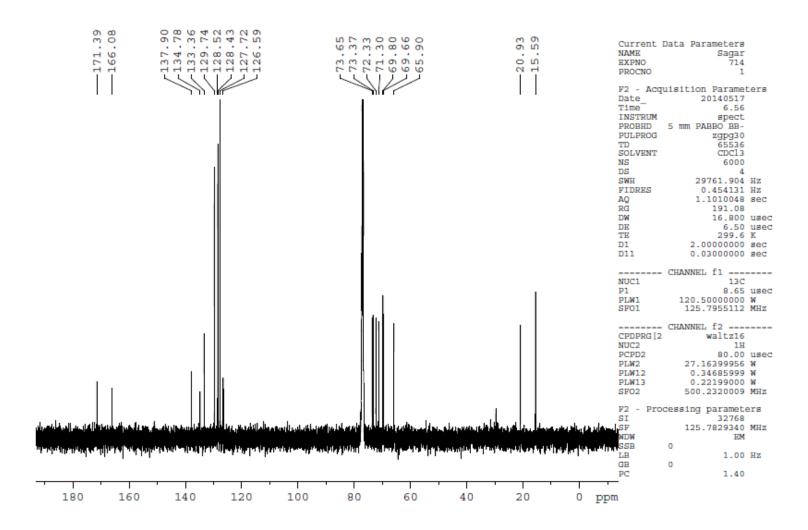
DEPT of compound 15 (zoom)



											
75	74	73	72	71	70	69	68	67	66	65	ppm

¹⁴C NMR of compound **15**

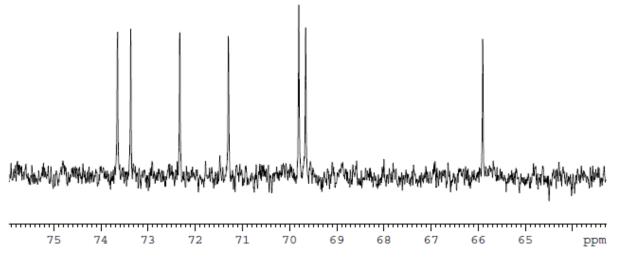
KMS-D-V-151A C13CPD CDCl3 C:\Bruker\TOPSPIN nmr



¹⁴C NMR of compound **15** (zoom)

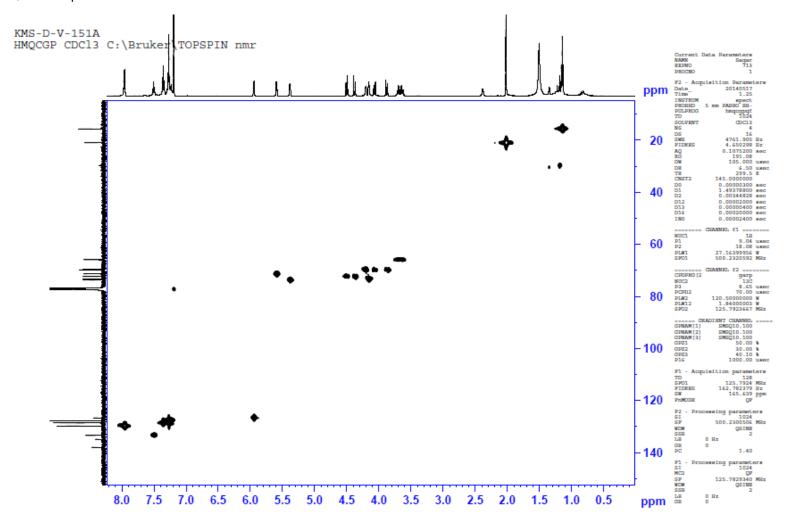




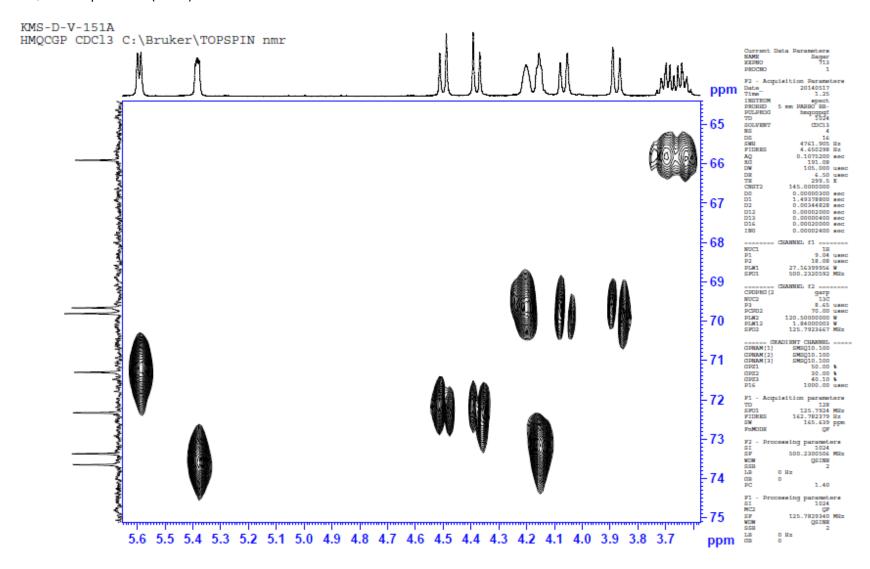


Current I	Data Parameters	
NAME	Sagar	
EXPNO	714	
PROCNO	1	
72 - Acm	uisition Paramet	tore
Date	20140517	rero
Time_	6.56	
INSTRUM	spect	
PROBHD	5 mm PABBO BB-	
PULPROG	zgpg30	
TD	65536	
SOLVENT	CDC13	
NS	6000	
DS	4	
SWH	29761.904	Her
FIDRES	0.454131	
AO	1.1010048	
RG	191.08	
DW	16.800	
DE	6.50	
TE	299.6	
D1	2.00000000	
D11	0.03000000	
DII	0.03000000	eec.
NUC1	13C	
P1	8.65	usec
PLW1	120.50000000	
SF01	125.7955112	MHZ
	CHANNEL f2	
CPDPRG[2	waltz16	
NUC2	wartzio 1H	
PCPD2	80.00	
PLW2	27.16399956	
PLW12	0.34685999	
PLW13	0.22199000	
SFO2	500.2320009	
5.02	500.2520005	
F2 - Proc	cessing paramete	ers
SI	32768	
SF	125.7829340	MHZ
WDW	EM	
SSB	0	
LB	1.00	Hz
GB	0	
PC	1.40	

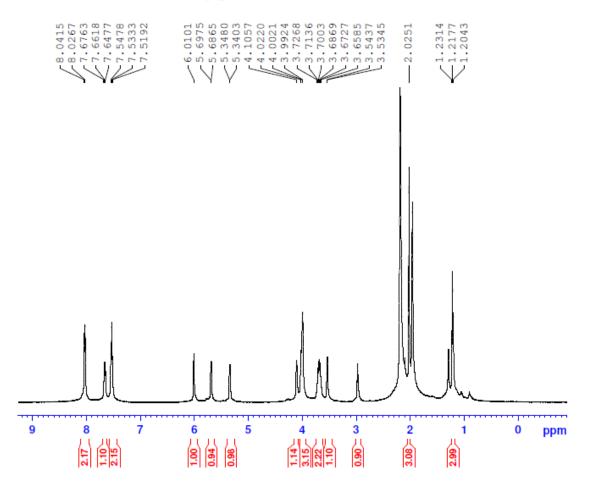
HMQC of compound 15



HMQC of compound 15 (zoom)

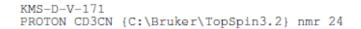


¹H NMR of compound **16**

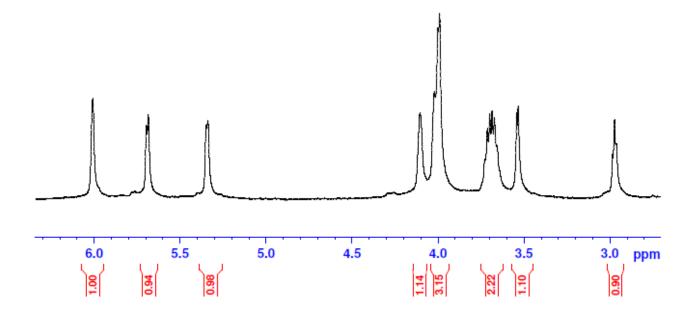


Current Date	a Parameters	
NAME	Sagar	
EXPNO	28	
PROCNO	1	
F2 - Acquis	ition Paramet	ers
Date	20140718	
Time	3.31	
INSTRUM	spect	
PROBHD 5 r	nm PABBO BB-	
PULPROG	zq30	
TD	65536	
SOLVENT	CD3CN	
NS	16	
DS	2	
SWH	10000.000	11-
FIDRES	0.152588	
AQ	3.2767999	
RG	153.65	
DW	50.000	
DE	6.50	
TE	295.4	usec
D1	1.00000000	
		sec
TD0	1	
	ANNEL fl	
SF01	500.2330891	MHz
NUC1	1H	
P1	9.04	usec
PLW1	27.16399956	W
F2 - Process	sing paramete	ers
SI	65536	
SF	500.2300000	MHz
WDW	EM	
SSB 0		
LB	0.30	Hz
GB 0	0.20	
PC	1.00	
	1.00	

¹H NMR of compound **16** (zoom)

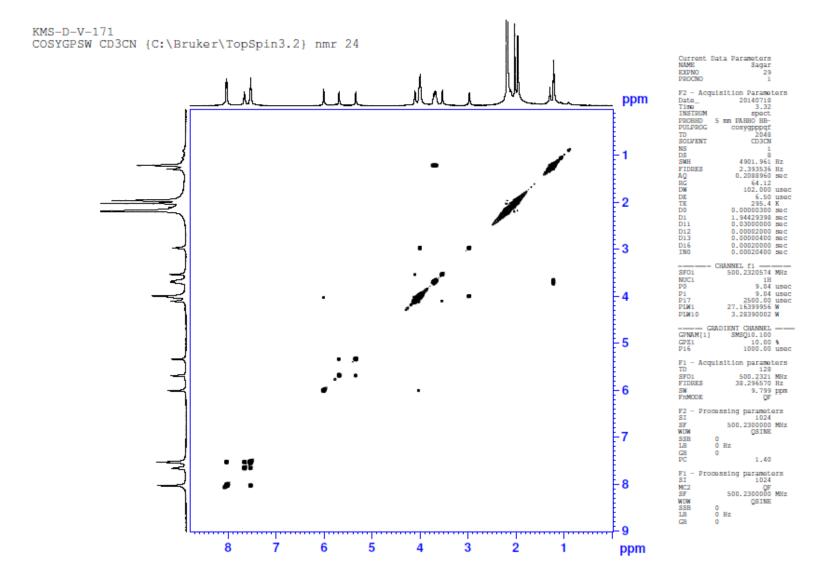




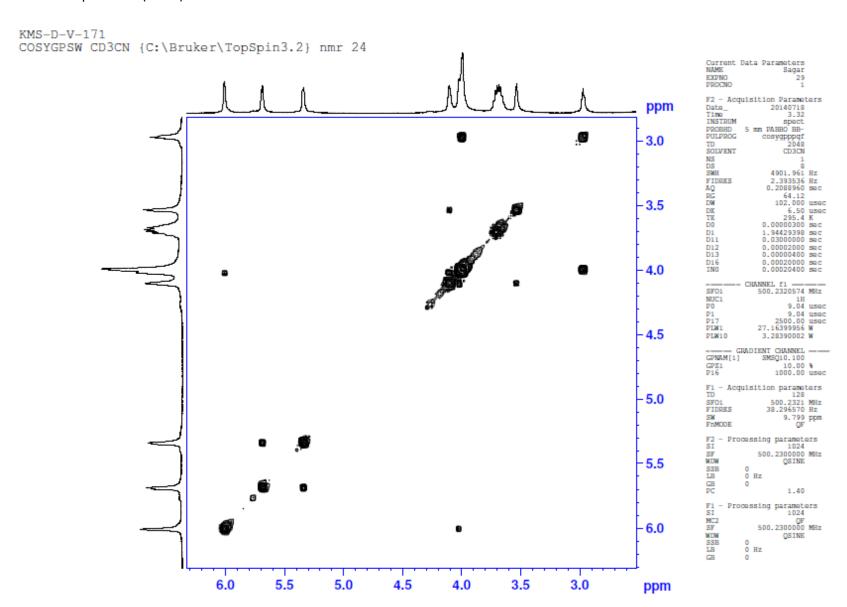


Current I	Data Parameters	
NAME	Sagar	
EXPNO	28	
PROCNO	1	
F2 - Accu	isition Parame	ters
Date_	20140718	
Time	3.31	
INSTRUM	spect	
	5 mm PABBO BB-	
PULPROG	ZQ30	
TD	65536	
SOLVENT	CD3CN	
	16	
NS		
DS	2	
SWH	10000.000	
FIDRES	0.152588	
AQ	3.2767999	
RG	153.65	
DW	50.000	
DE		usec
TE	295.4	
D1	1.00000000	
TD0	1	
	CHANNEL fl	
SFO1	500.2330891	
NUC1	18	
P1		usec
PLW1	27.16399956	W
F2 - Proc	essing paramet	ers
SI	65536	
SF	500.2300000	MHZ
WDW	EM	1
SSB	0	
LB	0.30	Hz
GB	0	_
PC	1.00	
	1.00	

COSY of compound 16

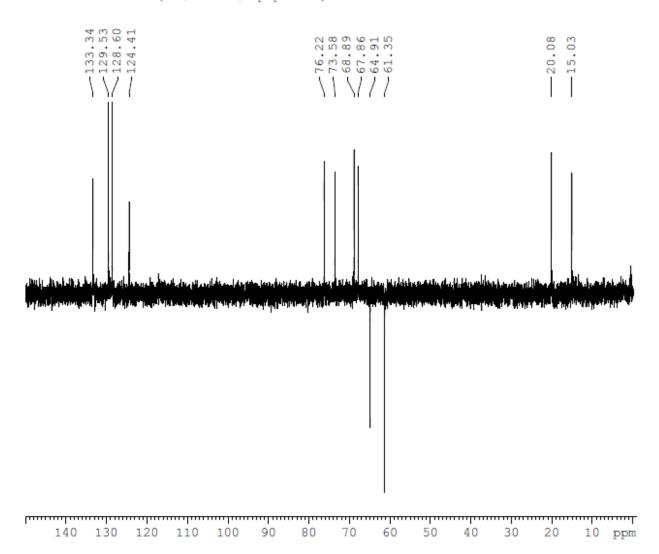


COSY of compound 16 (zoom)



DEPT of compound 16

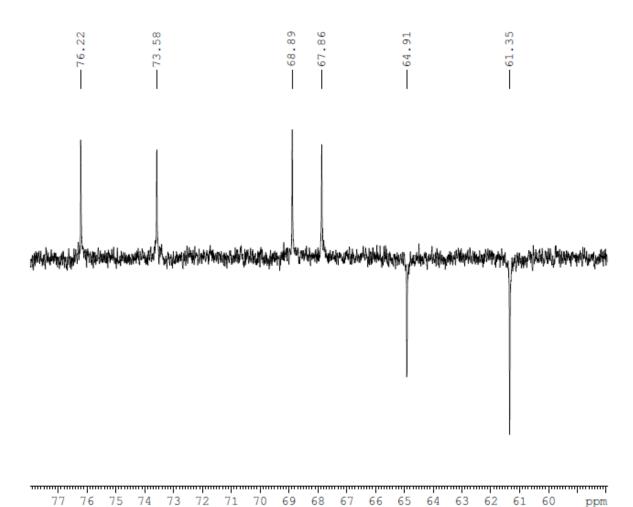
KMS-D-V-171 C13DEPT135 CD3CN {C:\Bruker\TopSpin3.2} nmr 24



Current D NAME EXPNO PROCNO	ata Parameters Sagar 32	
F2 - Acquester Time INSTRUM PROBED PULPROG TD SOLVENT NS SWH FIDRES AQ RG DW DE TE CNST2 D1 D2 D12	20140718 8.27 5 mm PABBB BB- deptsp135 65536 CD3CN 1000 4 20161.291 0.307637 1.6252928 191.08 24.800 6.50 295.3 145.0000000 0.00344828 0.0000200	Hz Hz Sec
TD0	1	Det C
SFO1 NUC1 P1 P13 PLW0 PLW1 SPNAM[5] SPOAL5 SPOFFS5 SPW5	CHANNEL f1 ===================================	
SFO2 NUC2 CPDPRG[2 P3 P4 PCPD2 PLW2 PLW12	CHANNEL f2 ==== 500.2315998 1H waltz16 9.04 18.08 80.00 27.16399956 0.34685999	usec usec usec
SI SF WDW SSB LB	0 1.00	MHz
GB PC	1.40	

DEPT of compound 16 (zoom)

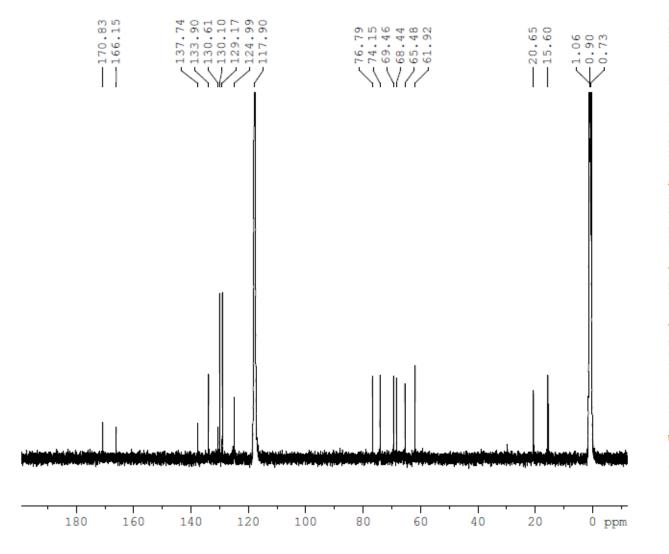
KMS-D-V-171 C13DEPT135 CD3CN {C:\Bruker\TopSpin3.2} nmr 24



Current 1	Data Parameters	
NAME	Sagar	
EXPNO	32	
PROCNO	1	
11100110	-	
F2 - Acc	uisition Paramet	OTS
Date_	20140718	
Time	8.27	
INSTRUM	spect	
PROBHD	5 mm PABBO BB-	
PULPROG	deptsp135	
TD	65536	
SOLVENT	CD3CN	
NS	1000	
	1000	
DS		
SWH	20161.291	Hz
FIDRES	0.307637	Hz
AQ	1.6252928	58 C
RC	191.08	
DW	24.800	1150 C
DE		usec
TE	295.3	K
CNST2	145.0000000	
D1	2.00000000	58 C
D2	0.00344828	58 C
D12	0.00002000	59 C
TD0	1	
	CHANNEL f1 ====	
SFO1		MHz
NUC1	130	
P1	8,65	usec
P13	2000.00	usec
PLW0	0 W	
PLW1	- "	W
SPNAM[5]	Crp60comp.4	
SPOAL5	0.500	
SPOFFS5	0.500	
SPW5	13.77600002	W
SEWS	13.77600002	
	CHANNEL f2 ===	
SFO2	500.2315998	MHz
NUC2	1H	MILE
CPDPRG[2	waltz16	
P3		usec
P4 PCPD2	18.08 80.00	
PLW2		W
PLW12	0.34685999	W
	cessing paramete	215
SI	32768	
SF	125.7829340	MHz
WDW	EM	
SSB	0	
LB	1.00	Hz
GB	0	
PC	1.40	

¹⁴C NMR of compound **16**

KMS-D-V-171 C13CPD CD3CN {C:\Bruker\TopSpin3.2} nmr 24

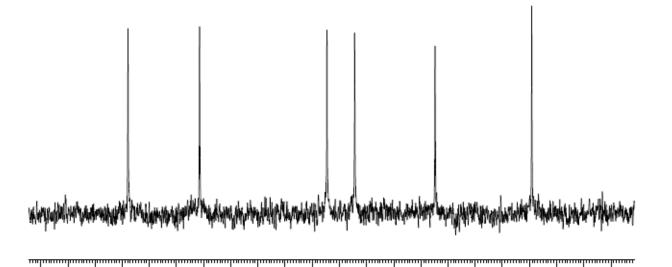


Current I	Data	Pa	Γē	300	et	e	ГS	
NAME					Sa	q	ar	
EXPNO							31	
PROCNO							1	
F2 - Acqu	11811	10	п	p	aı	a	met	ers
Date							18	
Time			-	-			08	
INSTRUM								
							ct	
PROBHD PULPROG	5 mm	I P	n.					
							30	
TD							36	
SOLVENT							CN	
NS					4	10	00	
DS							4	
SWH		2	91	76	1,	. 9	04	HZ
FIDRES			0.	4	54	11	31	Ηz
AQ		1	. 1	10	10	00	48	sec
RG				1	91	١.	08	
DW				1			00	
DE					(5.	50	usec
TE					29	95	. 5	K
D1		2.	00	00	00	00	00	sec
D11		0.						sec
TDO			_	_			1	
	CHAN	INE	L	f	1	_		
SF01						51	12	MHz
NUC1						1	3C	
P1					5	3	65	usec
PLW1	1.2	20.	50	10				
	CHAN	INE	T.	f	2	_		
SFO2								MHz
NUC2			•	_	-		1H	
CPDPRG[2					1+		16	
PCPD2								usec
PLW2		27.	17					W
PLW12	-	0.						W
PLW13		o.						W
PLWIS		٠.		-	9:	,,,	UU	
F2 - Proc	20001	na					ate	100
SI FIO	Jeaa.	ing	ŀ				68	110
SF		25						MHz
MDM		25	•	0	20		Z5 EM	MHZ
SSB	0						EIT	
LB	0						0.0	Hz
	0						UU	HZ
GB	U						4.0	
PC							40	

¹⁴C NMR of compound **16** (zoom)

KMS-D-V-171 C13CPD CD3CN {C:\Bruker\TopSpin3.2} nmr 24

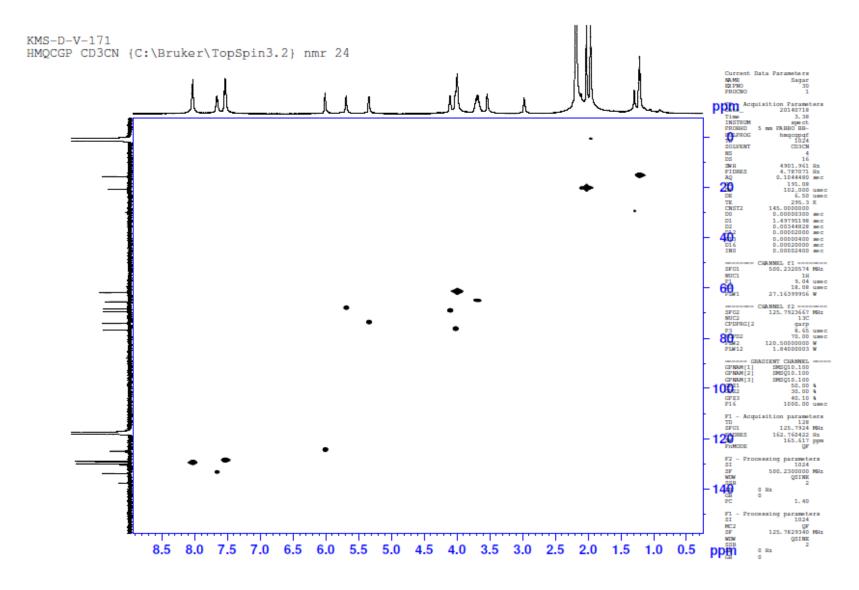
9	15	46	4	8	6
.97	74.	. 69	. 68	65.	5
ĺ	Ì	Ĭ	Ĭ	Ĭ	Ì



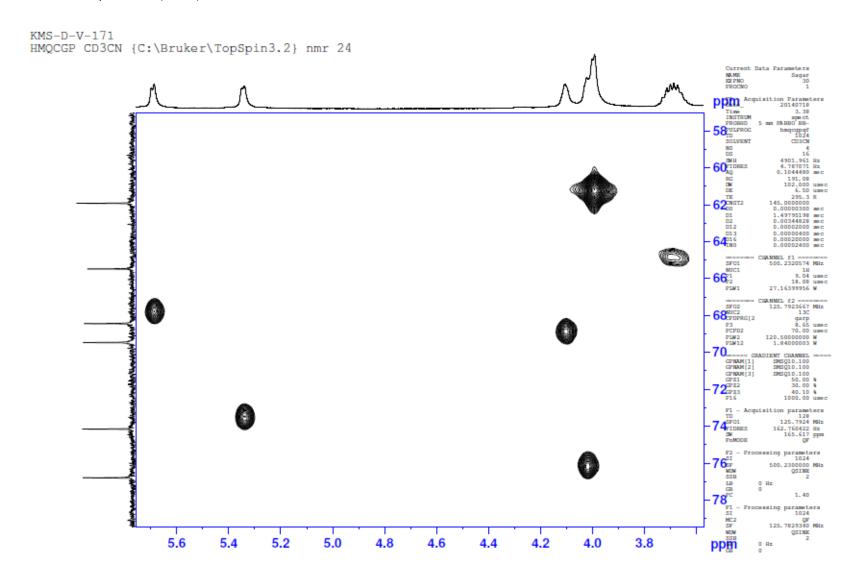
80 79 78 77 76 75 74 73 72 71 70 69 68 67 66 65 64 63 62 61 60 ppm

Current 1	Data Parameters
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EXPNO	31
PROCNO	1
FO Age	ulaition Doromotors
Date	uisition Parameters 20140718
Time	4.08
INSTRUM	spect
PROBHD	5 mm PABBO BB-
PULPROG	zgpg30
TD	65536
SOLVENT	CD3CN
NS	4000
DS	4
SWH	29761.904 Hz
FIDRES	0.454131 Hz
AO	1.1010048 sec
RG	191.08
DW	16.800 usec
DE	6.50 usec
TE	295.5 K
D1	2.00000000 sec
D11	0.03000000 sec
TDO	1
	-
	CHANNEL fl
SF01	CHANNEL f1 125.7955112 MHz
SFO1 NUC1	CHANNEL f1 125.7955112 MHz 13C
SFO1 NUC1 P1	CHANNEL f1
SFO1 NUC1	CHANNEL f1 125.7955112 MHz 13C
SF01 NUC1 P1 PLW1	CHANNEL f1
SF01 NUC1 P1 PLW1	CHANNEL f1 125.7955112 MHz 13C 8.65 Usec 120.50000000 W
NUC1 P1 PLW1	CHANNEL f1 125.7955112 MHz 13C 8.65 usec 120.50000000 W
SFO1 NUC1 P1 PLW1	CHANNEL f1 125.7955112 MHz 13C 8.65 usec 120.50000000 W
SFO1 NUC1 P1 PLW1 SFO2 NUC2	CHANNEL f1 125.7955112 MHz 13C 8.65 USEC 120.50000000 W CHANNEL f2 500.2320009 MHz 1H
SF01 NUC1 P1 PLW1 SF02 NUC2 CPDPRG[2	CHANNEL f1 125.7955112 MHz 13C 8.65 USEC 120.50000000 W CHANNEL f2 500.2320009 MHz 1H Waltz16 80.00 USEC 27.16399956 W
SF01 NUC1 P1 PLW1 SF02 NUC2 CPDPRG[2 PCPD2 PLW2 PLW2 PLW12	CHANNEL f1 125.7955112 MHz 13C 8.65 USEC 120.50000000 W CHANNEL f2 500.2320009 MHz 1H Waltz16 80.00 USEC 27.16399956 W 0.34685999 W
SF01 NUC1 P1 PLW1 SF02 NUC2 CPDPRG[2 PCPD2 PLW2	CHANNEL f1 125.7955112 MHz 13C 8.65 USEC 120.50000000 W CHANNEL f2 500.2320009 MHz 1H Waltz16 80.00 USEC 27.16399956 W
SFO1 NUC1 P1 PLW1 SFO2 NUC2 CPDPRG[2 PCPD2 PCPD2 PLW2 PLW12 PLW13	CHANNEL f1 125.7955112 MHz 13C 8.65 USEC 120.50000000 W CHANNEL f2 500.2320009 MHz 1H Waltz16 80.00 USEC 27.16399956 W 0.34685999 W 0.22199000 W
SF01 NUC1 P1 PLW1 SF02 NUC2 CPDPRG[2 PCPD2 PLW2 PLW12 PLW13 F2 - Pro	CHANNEL f1 125.7955112 MHz 13C 8.65 USEC 120.50000000 W CHANNEL f2 500.2320009 MHz 1H Waltz16 80.00 USEC 27.16399956 W 0.34685999 W 0.22199000 W Dessing parameters
SF01 NUC1 P1 P1W1 SF02 NUC2 CPDPRG[2 PCPD2 PLW12 PLW13 F2 - Pro	CHANNEL f1 125.7955112 MHz 13C 8.65 USEC 120.500000000 W CHANNEL f2 500.2320009 MHz 1 Waltz16 80.00 USEC 27.16399956 W 0.34685999 W 0.22199000 W Dessing parameters 32768
SFO1 NUC1 P1 P1W1 SFO2 NUC2 CPDPPRG[2 PCPD2 PLW2 PLW12 PLW13 F2 - Pros	CHANNEL f1
SF01 NUC1 P1 P1W1 SF02 NUC2 CPDPRG[2 PCPD2 PLW2 PLW12 PLW13 F2 - Pros SI SF WDW	CHANNEL f1 125.7955112 MHz 13C 8.65 USEC 120.50000000 W CHANNEL f2 500.2320009 MHz 1H Waltz16 80.00 USEC 27.16399956 W 0.34685999 W 0.22199000 W Dessing parameters 32768 125.7828625 MHz EM
SFO1 NUC1 P1 P1W1 SFO2 NUC2 CPDPRG[2 PCPD2 PLW12 PLW13 F2 - Prof SI SF WDW SSB	CHANNEL f1 125.7955112 MHz 13C 8.65 USEC 120.500000000 W CHANNEL f2 500.2320009 MHz 1H Waltz16 80.00 USEC 27.16399956 W 0.34685999 W 0.22199000 W Cessing parameters 32768 125.7828625 MHz EM
SF01 NUC1 P1 P1W1 SF02 NUC2 CPDPRG[2 PCPD2 PLW12 PLW13 F2 - Pros SI SF WDW SSB LB	CHANNEL f1 125.7955112 MHz 13C 8.65 USEC 120.50000000 W CHANNEL f2 500.2320009 MHz 1H waltz16 80.00 USEC 27.16399956 W 0.3468599 W 0.22199000 W Dessing parameters 32768 125.7828625 MHz EM 0 1.00 Hz
SFO1 NUC1 P1 P1W1 SFO2 NUC2 CPDPRG[2 PCPD2 PLW12 PLW13 F2 - Prof SI SF WDW SSB	CHANNEL f1 125.7955112 MHz 13C 8.65 USEC 120.500000000 W CHANNEL f2 500.2320009 MHz 1H Waltz16 80.00 USEC 27.16399956 W 0.34685999 W 0.22199000 W Cessing parameters 32768 125.7828625 MHz EM

HMQC of compound 16

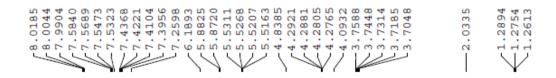


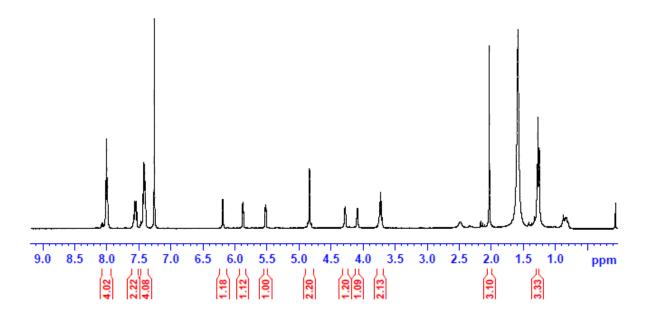
HMQC of compound 16 (zoom)



¹H NMR of compound **17**

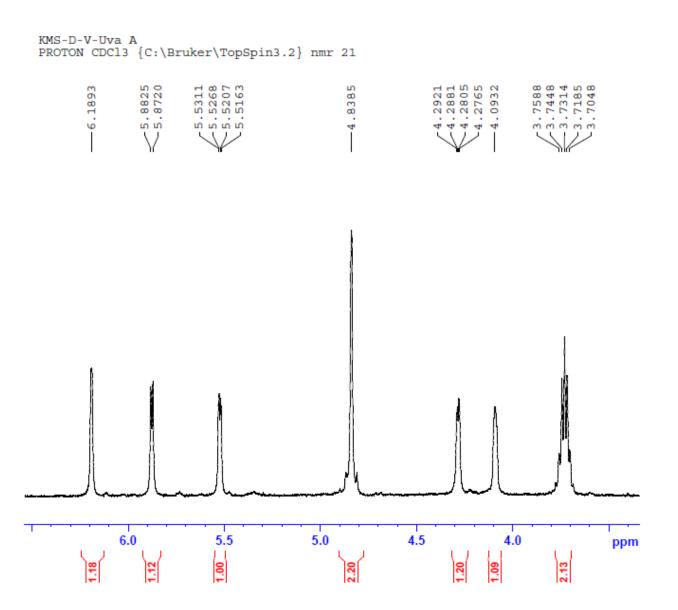
KMS-D-V-Uva A
PROTON CDCl3 {C:\Bruker\TopSpin3.2} nmr 21





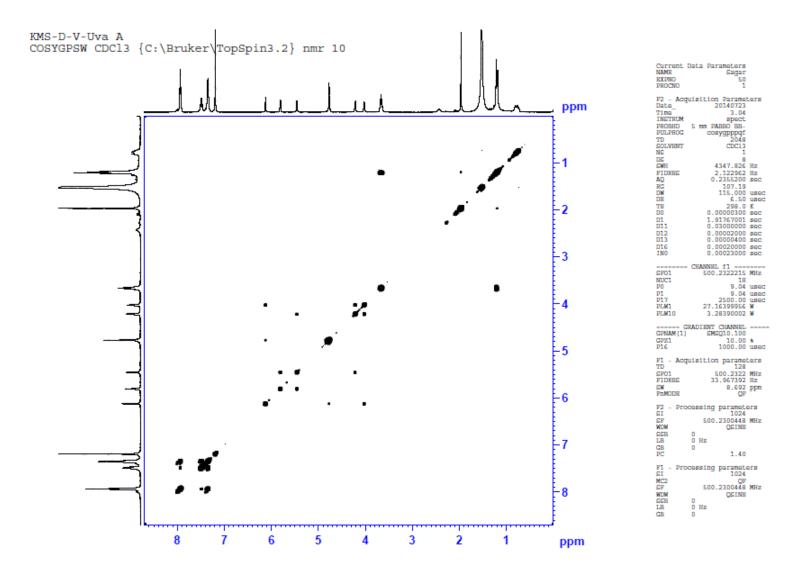
Current Da NAME EXPNO PROCNO	ata Parameters Sagar 57 1	
Date_ Time INSTRUM	Sition Paramet 20140723 13.19 spect 5 mm PABBO BB- 2g30 65536 CDCl3 16	ters
SWH FIDRES AQ RG DW DE TE D1 TD0	10000.000 0.152588 3.2767999 171.32 50.000 6.50 298.0 1.00000000	Hz sec usec usec K
SFO1 NUC1 P1 PLW1	HANNEL f1 === 500.2330891 1H 9.04 27.16399956	MHz usec
F2 - Processi SI SF WDW SSB (LB GB (PC	0.30	MHz

¹H NMR of compound **17** (zoom)

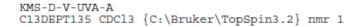


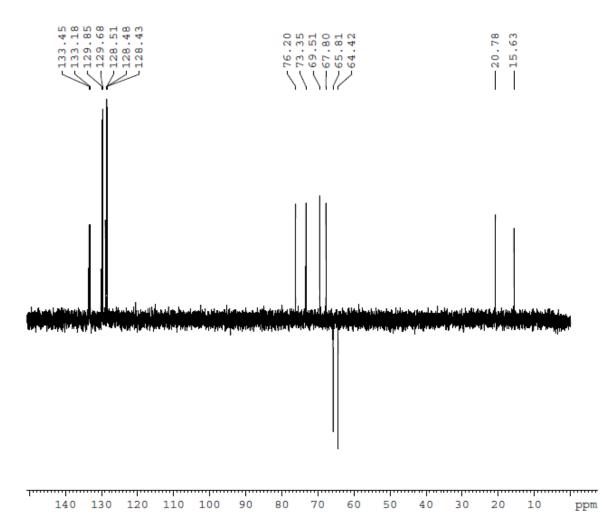
Current Data	Parameters	
NAME	Sagar	
EXPNO	57	
PROCNO	1	
F2 - Acquisi	tion Paramet	ers
Date	20140723	
Time	13.19	
INSTRUM	spect	
PROBHD 5 TI	m PABBO BB-	
PULPROG	zq30	
TD	65536	
SOLVENT	CDC13	
NS	16	
DS	2	
SWH	10000.000	Hz
FIDRES	0.152588	
AO	3.2767999	
RG	171.32	
DW	50.000	usec
DE	6.50	
TE	298.0	
D1	1.00000000	sec
TDO	1	
	_	
CHA	NNEL fl	
	500.2330891	
NUC1	1H	
P1	9.04	usec
PLW1	27.16399956	
F2 - Process	ing paramete	ers
SI	65536	
SF	500.2300094	
WDW	EM	
SSB 0		
LB	0.30	Hz
GB 0		
PC	1.00	
	2.00	

COSY of compound 17



DEPT of compound 17

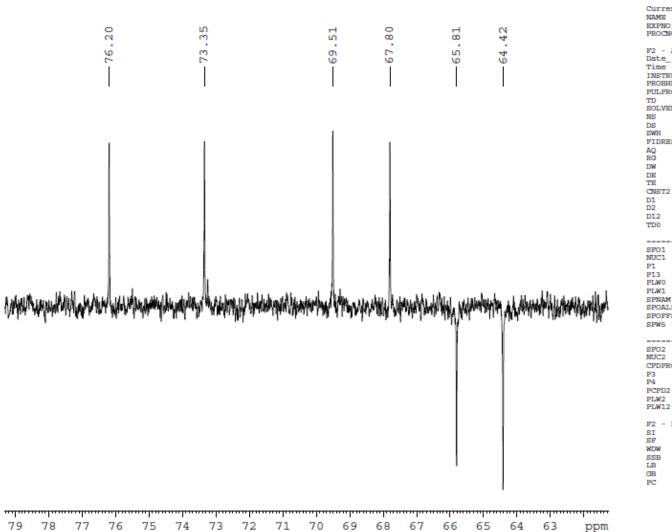




Current 1	Data Parameters	
NAME	Sagar	
EXPNO	43	
PROCNO	1	
LINGUING	-	
P2 - Acm	uisition Paramet	ere
Date	20140721	
Time	11.00	
INSTRUM	spect	
PROBHD	5 mm PABBO BB-	
PULPROG	deptsp135	
TD	65536	
SOLVENT	CDC13	
NE	256	
DS	4 2 2 5 6	
SWH	20161.291	Hz
FIDRES	0.307637	
AQ		sec
RG	191.08	
DW	24.800	
DE	6.50	usec
TE	298.4	K
CNST2	145.0000000	
D1	2.00000000	
D2	0.00344828	
D12	0.00002000	sec
TDO	1	
	CHANNEL fl	
SFO1	125.7929956	MHz
NUC1	13C	
P1	8.65	usec
P13		usec
PLWO	0 W	
PLW1	120.50000000	W
SPNAM[5]	Crp60comp.4	
SPOALS	0.500	
SPOFFS5	0 Hz	
SPW5	13.77600002	W
	CHANNEL f2	
SFO2	500.2315998 1H	MHz
NUC2		
CPDPRG[2	waltz16	
P3		usec
P4	18.08	
PCPD2	80.00	
PLW2	27.16399956	
PLW12	0.34685999	W
	cessing paramete	rs
SI	32768	
SF	125.7829340	MHZ
WDW	EM	
SSB	0	
LB	1.00	Hz
GB	0	
PC	1.40	

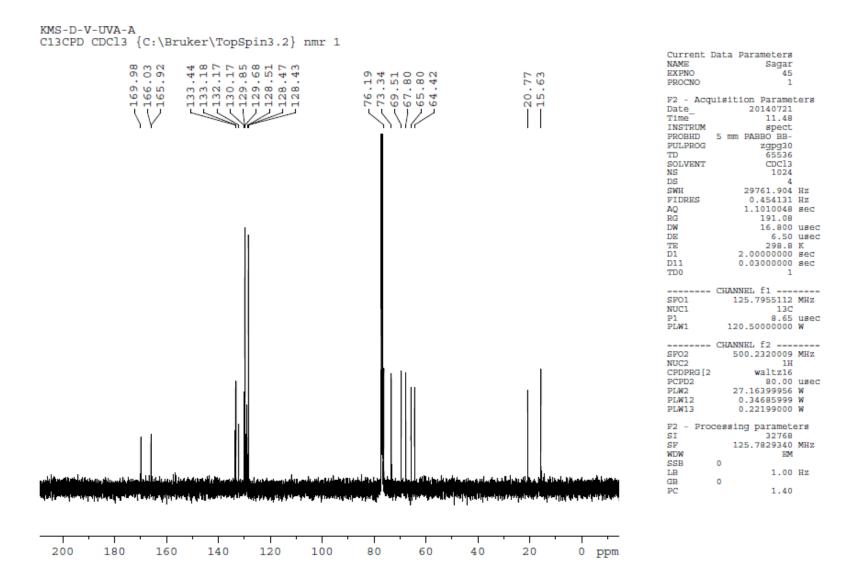
DEPT of compound 17 (zoom)

KMS-D-V-UVA-A
C13DEPT135 CDCl3 {C:\Bruker\TopSpin3.2} nmr 1

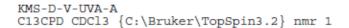


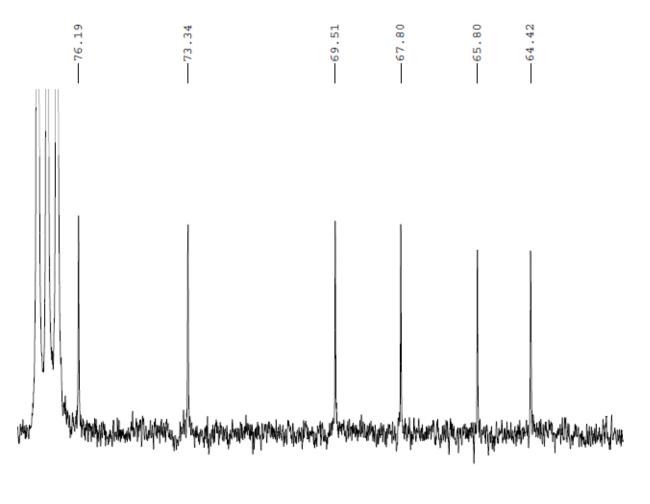
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PROCNO	1	
11000110	-	
F2 - Acc	uisition Paramet	ers
Date	20140721	
Time	11.00	
INSTRUM	spect	
PROBHD	5 mm PABBO BB-	
PULPROG	deptsp135	
TD	65536	
SOLVENT	CDC13	
NB	256	
DS	4	
SWH	20161.291	Hz
FIDRES	0.307637	Hz
AQ		sec
RG	191.08	
DW	24.800	usec
DE	6.50	usec
TE	298.4	K
CNST2	145.0000000	
D1	2.00000000	
D2	0.00344828	
D12	0.00002000	sec
TD0	1	
	CHANNEL fl	
SFO1	125.7929956	MHz
NUC1	13C	
P1		usec
P13	2000.00	usec
PLWO	0 W	
PLW1	120.50000000	W
SPNAM[5] SPOAL5	Crp60comp.4 0.500	
SPOFFS5		
SPW5	13.77600002	
SPWS	13.77600002	M
	CHANNEL f2	
SFO2	500.2315998	
NUC2	1H	
CPDPRG[2	waltz16	
P3	9.04	usec
P4	18.08	
PCPD2	80.00	usec
PLW2	27.16399956	W
PLW12	0.34685999	
F2 - Pro	cessing paramete	ers
SI	32768	
SF	125.7829340	MHz
WDW	EM	
SSB	0	
LB	1.00	Hz
GB	0	
PC	1.40	

¹⁴C NMR of compound **17**



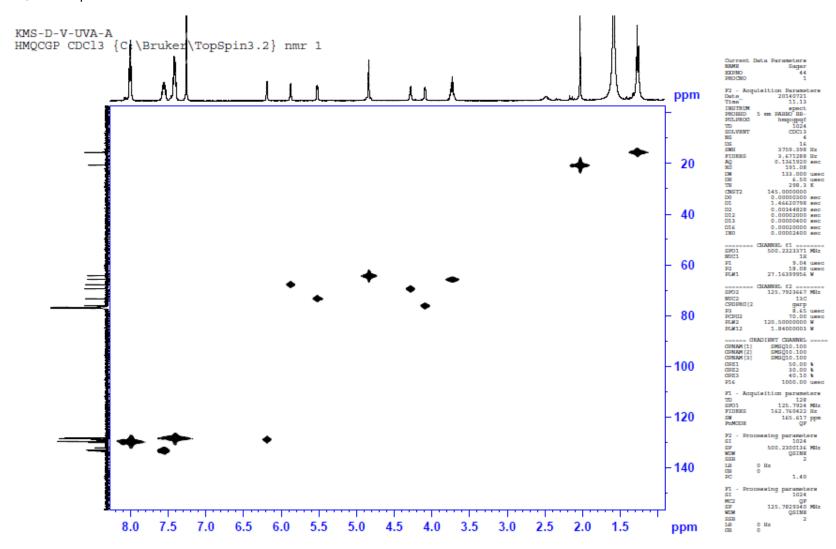
¹⁴C NMR of compound **17** (zoom)



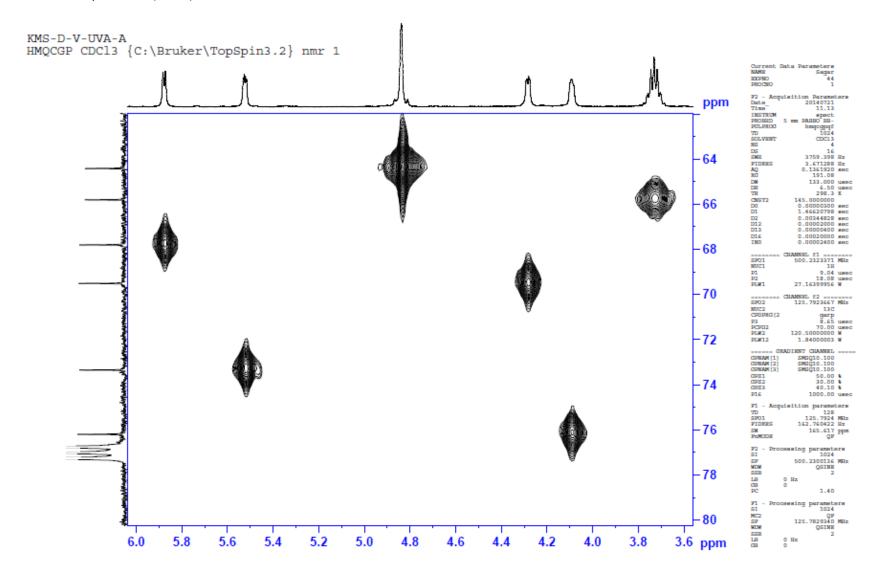


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	Data Parameters	
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PROCNO	1	
PROCNO	1	
F2 - Acm	uisition Paramet	ers
Date	20140721	
Time_	11.48	
INSTRUM	spect	
PROBHD	5 mm PABBO BB-	
PULPROG	zgpg30	
TD	2gpg30 65536	
SOLVENT	CDC13	
NS	1024	
DS	1024	
SWH	29761.904	****
FIDRES		
	0.454131	
AQ	1.1010048	sec
RG	191.08	
DW	16.800	
DE	6.50	
TE	298.8	
D1	2.00000000	
D11	0.03000000	sec
TD0	1	
	CHANNEL EX	
	CHANNEL fl	
CDO1	100 7000110	
SFO1	125.7955112	
NUC1	13C	MHZ
NUC1 P1	13C 8.65	MHz
NUC1	13C	MHz
NUC1 P1 PLW1	13C 8.65 120.50000000	MHZ usec W
NUC1 P1 PLW1	13C 8.65 120.50000000 CHANNEL f2	MHZ usec W
NUC1 P1 PLW1 SFO2	13C 8.65 120.50000000 CHANNEL f2 500.2320009	MHZ usec W
NUC1 P1 PLW1 SFO2 NUC2	13C 8.65 120.50000000 CHANNEL f2 500.2320009 1H	MHZ usec W
NUC1 P1 PLW1 SFO2 NUC2 CPDPRG[2	13C 8.65 120.50000000 CHANNEL f2 500.2320009 1H waltz16	MHz usec W MHz
NUC1 P1 PLW1 SFO2 NUC2 CPDPRG[2 PCPD2	13C 8.65 120.50000000 CHANNEL f2 500.2320009 1H waltz16 80.00	MHz usec W MHz
NUC1 P1 PLW1 SFO2 NUC2 CPDPRG[2 PCPD2 PLW2	13C 8.65 120.50000000 CHANNEL f2 500.2320009 1H waltz16 80.00 27.16399956	MHZ usec W MHZ usec W
NUC1 P1 PLW1 SFO2 NUC2 CPDPRG [2 PCPD2 PLW2 PLW2 PLW12	13C 8.65 120.50000000 CHANNEL f2 500.2320009 1H waltz16 80.00 27.16399956 0.34685999	MHZ USEC W MHZ USEC W
NUC1 P1 PLW1 SFO2 NUC2 CPDPRG[2 PCPD2 PLW2	13C 8.65 120.50000000 CHANNEL f2 500.2320009 1H waltz16 80.00 27.16399956	MHZ USEC W MHZ USEC W
NUC1 P1 PLW1 SFO2 NUC2 CPDPRG[2 PCPD2 PLW2 PLW12 PLW13	13C 8.65 120.50000000 CHANNEL f2 500.2320009 1H waltzl6 80.00 27.16399956 0.34685999 0.22199000	MHz usec W MHz usec W W
NUC1 P1 PLW1 SF02 NUC2 CPDPRG[2 PCPD2 PLW2 PLW12 PLW13 F2 - Pro	13C 8.65 120.50000000 CHANNEL f2 500.2320009 1H waltz16 80.00 27.16399956 0.34685999 0.22199000	MHz usec W MHz usec W W
NUC1 P1 PLW1 SF02 NUC2 CPDPRG[2 PCPD2 PLW2 PLW12 PLW13 F2 - Pro	13C 8.65 120.50000000 CHANNEL f2 500.2320009 1H waltz16 80.00 27.16399956 0.34685999 0.22199000 cessing paramete	MHz usec W MHz usec W W W
NUC1 P1 PLW1 SFO2 NUC2 CPDPRG[2 PCPD2 PLW2 PLW12 PLW13 F2 - Pro	13C 8.65 120.50000000 CHANNEL f2 500.2320009 1H waltz16 80.00 27.16399956 0.34685999 0.22199000 cessing paramete 32768 125.7829340	MHz usec W MHz usec W W W
NUC1 P1 PLW1 SFO2 NUC2 CPDPRG[2 PCPD2 PLW2 PLW12 PLW13 F2 - Prosis SI SF WDW	13C 8.65 120.50000000 CHANNEL f2 500.2320009 1H waltz16 80.00 27.16399956 0.34685999 0.22199000 cessing paramete 32768 125.7829340 EM	MHz usec W MHz usec W W W
NUC1 P1 PLW1 SF02 NUC2 CPDPRG[2 PCPD2 PLW2 PLW12 PLW13 F2 - Pro SI SF WDW SSB	13C 8.65 120.50000000 CHANNEL f2 500.2320009 1H waltz16 80.00 27.16399956 0.34685999 0.22199000 Cessing paramete 32768 125.7829340 EM	MHZ USEC W MHZ USEC W W W W W MHZ
NUC1 P1 PLW1 PLW1 SF02 CPDPRG[2 PCPD2 PLW12 PLW12 PLW13 F2 - Pros SI SF WDW SSB LB	13C 8.65 120.50000000 CHANNEL f2 500.2320009 1H waltz16 80.00 27.16399956 0.34685999 0.22199000 cessing paramete 32768 125.7829340 EM	MHZ USEC W MHZ USEC W W W W W MHZ
NUC1 P1 PLW1 SF02 NUC2 CPDPRG[2 PCPD2 PLW2 PLW12 PLW13 F2 - Pro SI SF WDW SSB	13C 8.65 120.50000000 CHANNEL f2 500.2320009 1H waltz16 80.00 27.16399956 0.34685999 0.22199000 Cessing paramete 32768 125.7829340 EM	MHZ USEC W MHZ USEC W W W W W MHZ

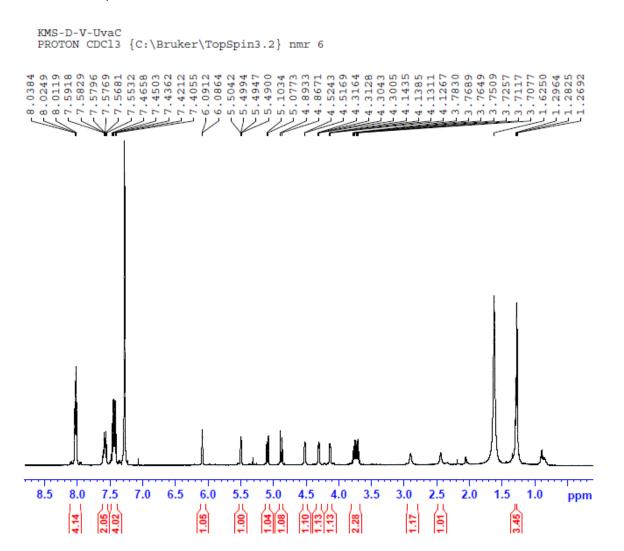
HMQC of compound 17



HMQC of compound 17 (zoom)



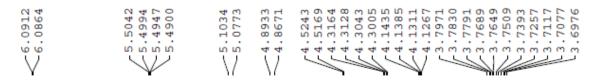
¹H NMR of compound **18**

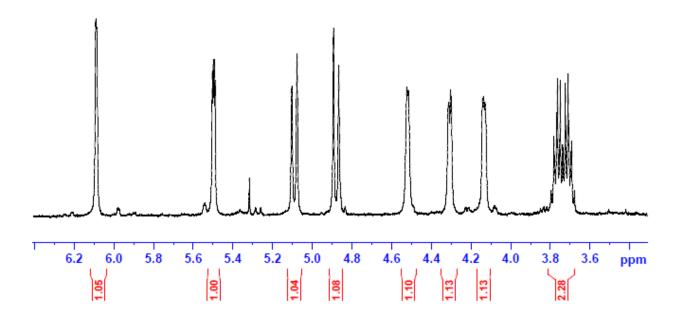


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PROCNO	1	
F2 - Acquis	ition Paramet	ers
Date	20140818	
Time_	11.55	
INSTRUM	spect	
PROBHD 5	mm PABBO BB-	
PULPROG	zg30	
TD	65536	
SOLVENT	CDC13	
NS	16	
DS	2	
SWH	10000.000	Hz
FIDRES	0.152588	Hz
AQ	3.2767999	sec
RG	171.32	
DW	50.000	usec
DE		usec
TE	296.7	K
D1	1.00000000	sec
TDO	1	
CH	ANNEL fl	
SFO1	500.2330891	MHz
NUC1	1H	
P1	9.04	usec
PLW1	27.16399956	W
F2 - Proces	sing paramete	ers
SI	65536	
SF	500.2300000	MHz
WDW	EM	
SSB 0		
LB	0.30	$_{\rm Hz}$
GB 0		
PC	1.00	

¹H NMR of compound **18** (zoom)

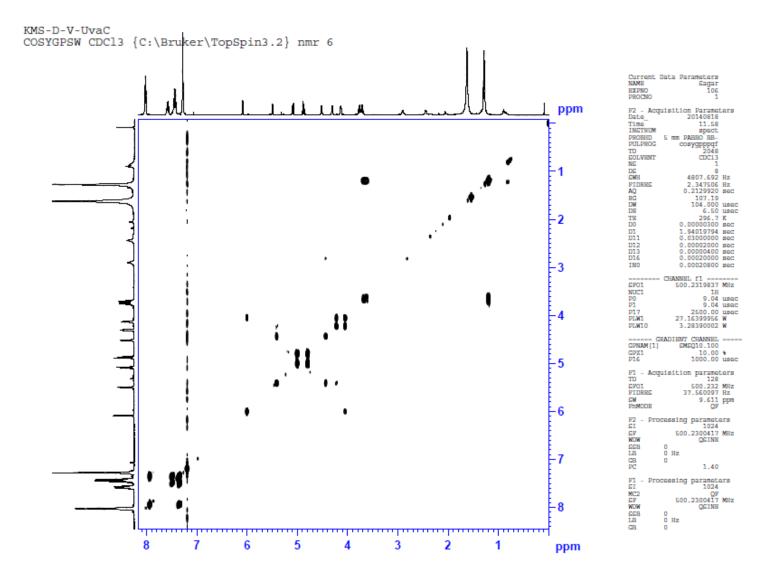






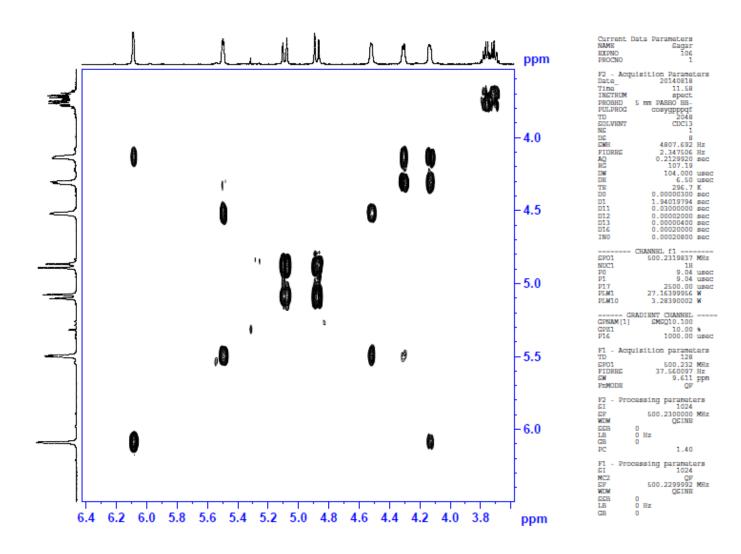
Current Dat	a Parameters	
NAME	Sagar	
EXPNO	105	
PROCNO	1	
Litouno	-	
F2 - Acquis	ition Paramet	ters
Date	20140818	
Time_	11.55	
INSTRUM	spect	
PROBHD 5	mm PABBO BB-	
PULPROG	zg30	
TD	65536	
SOLVENT	CDC13	
NS	16	
DS	2	
SWH	10000.000	Hz
FIDRES	0.152588	
AQ	3.2767999	sec
RG	171.32	
DW	50.000	usec
DE	6.50	usec
TE	296.7	K
D1	1.00000000	sec
TD0	1	
	ANNEL f1	
SF01	500.2330891	MHZ
NUC1	1H	
P1		usec
PLW1	27.16399956	W
	sing paramete	ers
SI	65536	
SF	500.2300000	MHZ
WDW	EM	
SSB 0		
LB	0.30	HZ
GB 0		
PC	1.00	

COSY of compound 18

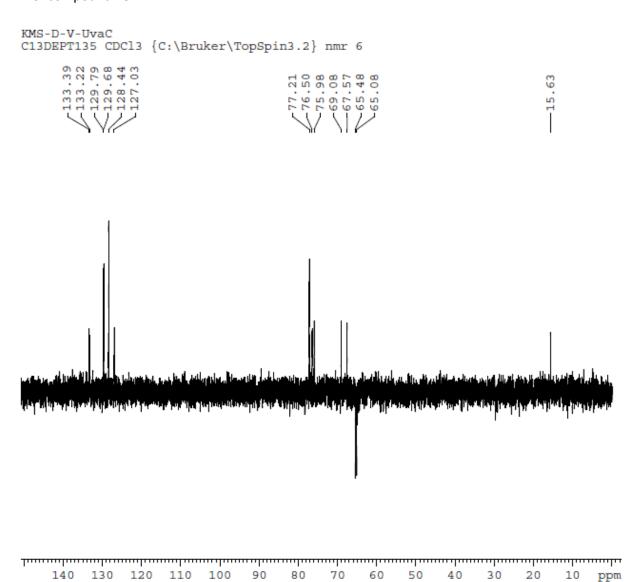


COSY of compound 18 (zoom)

KMS-D-V-UvaC
COSYGPSW CDC13 {C:\Bruker\TopSpin3.2} nmr 6



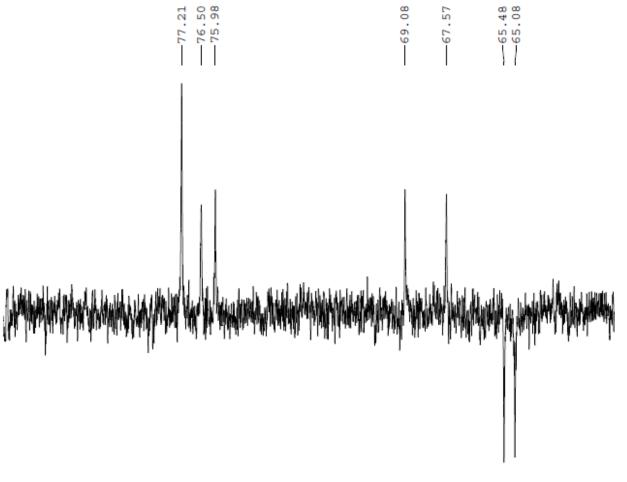
DEPT of compound 18



Current 1	Data Parameters	
NAME	Sagar	
EXPNO	97	
PROCNO	1	
F2 - Acqu	isition Paramet	ers
Date_	20140815	
Time	22.35	
INSTRUM	spect	
PROBHD	5 mm PABBO BB-	
PULPROG	deptsp135	
TD	65536	
SOLVENT	CDC13	
NS DS	1024	
SWH	20161.291	T.
FIDRES	0.307637	Hz
AQ		sec
RG	191.08	
DW	24.800	usec
DE	6.50	
TE	298.0	
CNST2	145.0000000	
D1	2.00000000	sec
D2	0.00344828	sec
D12	0.00002000	sec
TD0	1	
	CHANNEL f1	
SFO1	125.7929956	MHz
NUC1	13C	
P1 P13	8.65	usec
PLWO	2000.00 0 W	usec
PLW1	120.50000000	w
SPNAM[5]	Crp60comp.4	
SPOALS	0.500	
SPOFFS5	0 Hz	
SPW5	13.77600002	W
	CHANNEL f2	
SFO2		MHz
NUC2	111	
CPDPRG [2	waltz16	
P3		usec
P4	18.08	
PCPD2	80.00	
PLW2 PLW12	27.16399956 0.34685999	W
PLMIZ	0.34003333	-
F2 - Pro	cessing paramete	ere.
SI	32768	
SF	125.7829340	MHz
WDW	EM	
SSB	0	
LB	1.00	Hz
GB	0	
PC	1.40	

DEPT of compound 18 (zoom)

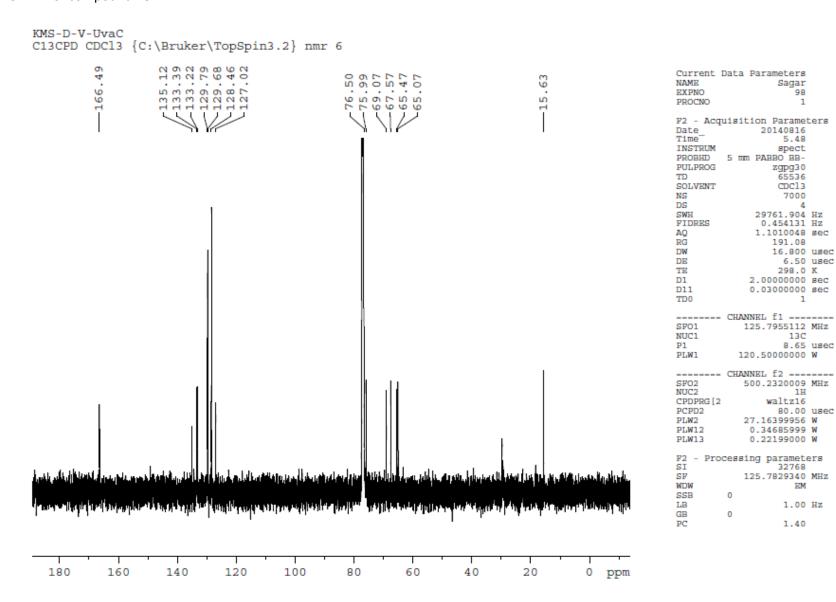
KMS-D-V-UvaC
C13DEPT135 CDCl3 {C:\Bruker\TopSpin3.2} nmr 6



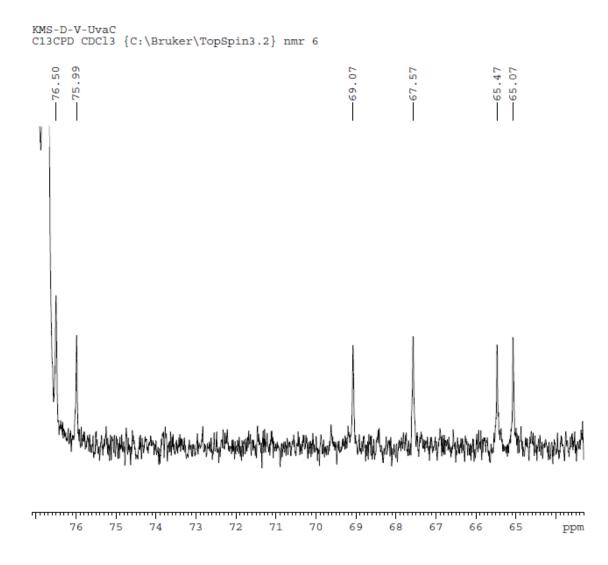
Current	Data Parameters	
NAME	Sagar	
EXPNO	97	
PROCNO	1	
F2 - Ac	quisition Paramet	ers
Date	20140815	
Time	22.35	
INSTRUM		
PROBHD	5 mm PABBO BB-	
PULPROG		
TD	65536	
SOLVENT	CDC13	
NS	1024	
DS	4	
SWH	20161.291	Hz
FIDRES	0.307637	Hz
AQ	1.6252928	sec
RG	191.08	
DW	24.800	usec
DE	6.50	
TE	298.0	K
CNST2	145.0000000	
D1	2.00000000	
D2		sec
D12	0.00002000	sec
TD0	1	
	- CHANNEL fl	
SFOI	125.7929956	MHz
SFO1 NUC1	125.7929956 13C	MHz
NUC1	13C	
NUC1 P1	13C 8.65	usec
NUC1 P1 P13	13C 8.65 2000.00	usec
NUC1 P1 P13 PLW0	13C 8.65 2000.00 0 W	usec usec
NUC1 P1 P13 PLW0 PLW1	13C 8.65 2000.00 0 W 120.50000000	usec usec
NUC1 P1 P13 PLW0 PLW1 SPNAM[5	13C 8.65 2000.00 0 W 120.50000000 i] Crp60comp.4	usec usec
NUC1 P1 P13 PLW0 PLW1 SPNAM[5 SPOAL5	13C 8.65 2000.00 0 W 120.50000000 i] Crp60comp.4 0.500	usec usec
NUC1 P1 P13 PLW0 PLW1 SPNAM[S SPOALS SPOFFSS	13C 8.65 2000.00 0 W 120.50000000 i] Crp60comp.4 0.500	usec usec W
NUC1 P1 P13 PLW0 PLW1 SPNAM[5 SPOAL5	13C 8.65 2000.00 0 W 120.50000000 i] Crp60comp.4 0.500	usec usec W
NUC1 P1 P13 PLW0 PLW1 SPNAM[5 SPOAL5 SPOFFS5 SPW5	13C 8.65 2000.00 0 W 120.50000000 i) Crp60comp.4 0.500 i O Hz 13.77600002	usec usec w
NUC1 P1 P13 PLW0 PLW1 SPNAM[5 SPOAL5 SPOFFS5 SPW5	13C 8.65 2000.00 0 W 120.50000000 i] Crp60comp.4 0.500	usec usec w
NUC1 P1 P13 PLW0 PLW1 SPNAM[5 SPOAL5 SPOFFS5 SPW5	13C 8.65 2000.00 0 W 120.50000000 i) Crp60comp.4 0.500 i O Hz 13.77600002	usec usec w
NUC1 P1 P13 PLW0 PLW1 SPNAM[5 SPOAL5 SPOFFS5 SPW5	13C 8.65 2000.00 0 W 120.50000000 i] Crp60comp.4 0.500 i O Hz 13.77600002	usec usec w
NUC1 P1 P13 PLW0 PLW1 SPNAM[S SPOAL5 SPOFFS5 SPW5	13C 8.65 2000.00 0 W 120.50000000 i] Crp60comp.4 0.500 i 0 Hz 13.77600002 - CHANNEL f2 500.2315998	usec usec w
NUC1 P1 P13 PLW0 PLW1 SPNAM[5 SPOAL5 SPOFFS5 SPW5	13C 8.65 2000.00 0 W 120.50000000 i] Crp60cmp.4 0.500 i 0 Hz 13.77600002 CHANNEL f2 500.2315998 1H 2 waltzi6	usec usec W W
NUC1 P1 P13 PLW0 PLW1 SPNAM[5 SPOAL5 SPOFFS5 SPW5 SPW5 SPW5 SPW5	13C 8.65 2000.00 120.50000000 6] Crp60comp.4 0.500 6 O Hz 13.77600002 	usec usec W W MHz
NUC1 P1 P13 PLW0 PLW1 SPNAM[5 SPOAL5 SPOFFSS SPW5 SPU5 NUC2 CPDPRG[P3 P4	13C 8.65 2000.00 0 W 120.50000000 120.50000000 6] Crp60comp.4 0.500 6 0 Hz 13.77600002 	usec usec W W MHz
NUC1 P1 P13 P1W0 PLW1 SPOALS SPOALS SPOFSS SPW5 SPW5 SFO2 NUC2 CPDPRG (P3 P4 PCPD2	13C 8.65 2000.00 0 W 120.50000000 i] Crp60comp.4 0.500 i O Hz 13.77600002 CHANNEL f2 500.2315998 1H 2 Waltzl6 9.04 18.08 80.00	wsec usec W W MHz usec usec usec usec
NUC1 P1 P13 PLW0 PLW1 SPOAM[S SPOAMS SPOFFSS SPW5 SFO2 NUC2 CPDPRG [P3 P4 PCPD2 PLW2	13C 8.65 2000.00 0 W 120.50000000 6] Crp60comp.4 0.500 6 Hz 13.77600002 CHANNEL f2 500.2315998 12 waltz16 9.04 18.08 80.00 27.16399956	wsec usec w
NUC1 P1 P13 P1W0 PLW1 SPOALS SPOALS SPOFSS SPW5 SPW5 SFO2 NUC2 CPDPRG (P3 P4 PCPD2	13C 8.65 2000.00 0 W 120.50000000 i] Crp60comp.4 0.500 i O Hz 13.77600002 CHANNEL f2 500.2315998 1H 2 Waltzl6 9.04 18.08 80.00	wsec usec w
NUC1 P1 P13 PLW0 PLW1 SPNAM[5 SPOAL5 SPOAL5 SPOFFSS SPW5 SPO2 CPDPRG[P3 P4 PCPD2 PLW2 PLW12	13C 8.65 2000.000 0 W 120.50000000 i] Crp60comp.4 0.500 i O Hz 13.77600002 CHANNEL f2 500.2315998 1H 2 waltzl6 9.04 18.08 80.00 27.16399956 0.34685999	usec usec W W MHz usec usec usec w W
NUC1 P1 P13 PLW0 PLW1 SPNAM[S SPOALS SPOFFSS SFW5 NUC2 CPDFRG[P3 P4 PCPD2 PLW2 PLW12 F2 - PI	13C 8.65 2000.00 0 W 120.50000000 120.50000000 6] Crp60comp.4 0.500 6 0 Hz 13.77600002 	usec usec W W MHz usec usec usec w W
NUC1 P1 P13 PLW0 PLW1 SPNAM[S SPOALS SPOALS SPOFSS SPW5 SF02 NUC2 CPDPRG[P3 P4 PCPD2 PLW12 PLW12 PLW12 PLW12 F12 - Pr	13C 8.65 2000.00 0 W 120.50000000 120.50000000 6] Crp60comp.4 0.500 6 Hz 13.77600002	wsec www. www. MHz usec usec usec www. www.
NUC1 P1 P1 P1W0 P1W0 P1W1 SPNAM[S SPOALS SPOFSS SPW5 SFO2 CPDPPG[P3 P4 PCPD2 PLW2 PLW12 PIW12 FF2 - Pr SF	13C 8.65 2000.00 0 W 120.50000000 120.50000000 6] Crp60comp.4 0.500 13.77600002	wsec www. www. MHz usec usec usec www. www.
NUC1 P1 P13 PLW0 PLW1 SPNAM[5 SPOAL5 SPOFS5 SPW5 SPOFS5 SPW5 P1	13C 8.65 2000.00 0 W 120.50000000 120.50000000 6] Crp60comp.4 0.500 6 O Hz 13.77600002 	wsec www. www. MHz usec usec usec www. www.
NUC1 P1 P1 P1W0 P1W0 P1W1 SPNAM[S SPOALS SPOFSS SPW5 SFO2 CPDPPG[P3 P4 PCPD2 PLW2 PLW12 PIW12 FF2 - Pr SF	13C 8.65 2000.00 0 W 120.50000000 120.50000000 6] Crp60comp.4 0.500 13.77600002	wsec www. www. MHz usec usec usec www. www.
NUC1 P1 P13 PLW0 PLW1 SPNAM[5 SPOAL5 SPOFS5 SPW5 SPOFS5 SPW5 P1	13C 8.65 2000.00 0 W 120.50000000 120.50000000 6] Crp60comp.4 0.500 6 O Hz 13.77600002 	usec W W MHz usec usec w W W MHz

1.40

¹⁴C NMR of compound **18**

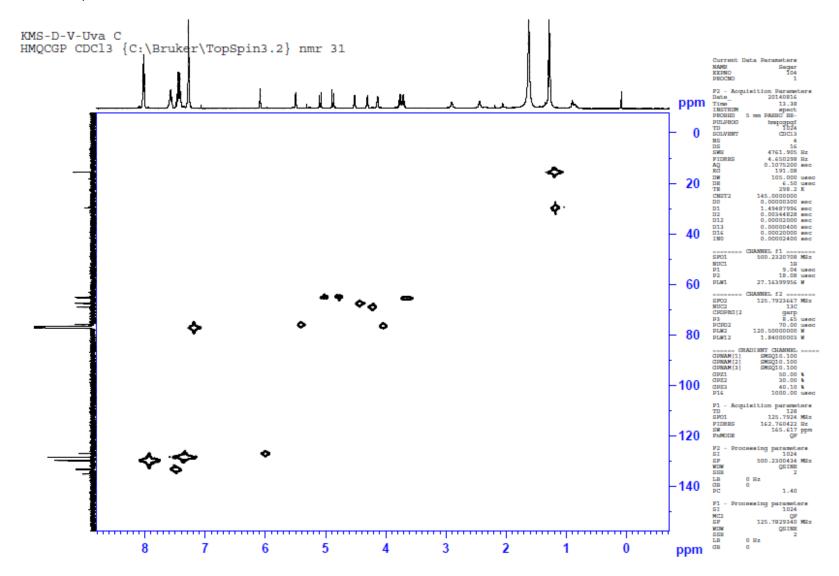


¹⁴C NMR of compound **18** (zoom)



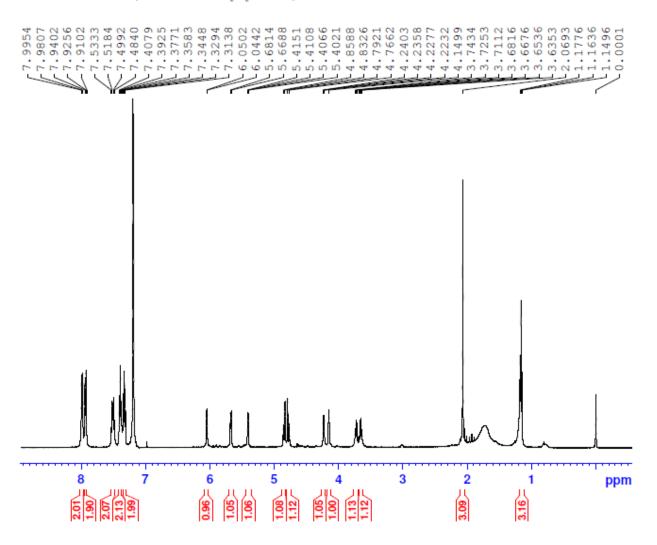
Current I	Data Parameters	
NAME	Sagar	
EXPNO	98	
PROCNO	1	
F2 - Acqu	isition Paramet	ters
Date	20140816	
Time_	5.48	
INSTRUM	spect	
PROBHD	5 mm PABBO BB-	
PULPROG	zgpg30	
TD	65536	
SOLVENT	CDC13	
NS	7000	
DS	4	
SWH	29761.904	Hz
FIDRES	0.454131	Hz
AQ	1.1010048	sec
RG	191.08	
DW	16.800	usec
DE	6.50	usec
TE	298.0	K
D1	2.00000000	sec
D11	0.03000000	sec
TD0	1	
	CHANNEL f1	
SFO1	125.7955112	MHZ
NUC1	13C	
P1		usec
PLW1	120.50000000	W
	CHANNEL f2	
SFO2	500.2320009	MHZ
NUC2	111	
CPDPRG [2		
PCPD2	80.00	
PLW2	27.16399956	
PLW12	0.34685999	
PLW13	0.22199000	W
TO Dece		
SI PIO	cessing paramete 32768	218
SF	125.7829340	MILLER
WDW	EM	- artis
SSB	0	
LB	1.00	Hz
GB	0	
PC	1.40	
	1.40	

HMQC of compound 18



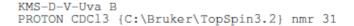
¹H NMR of compound **19**

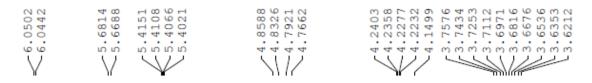
KMS-D-V-Uva B
PROTON CDC13 {C:\Bruker\TopSpin3.2} nmr 31

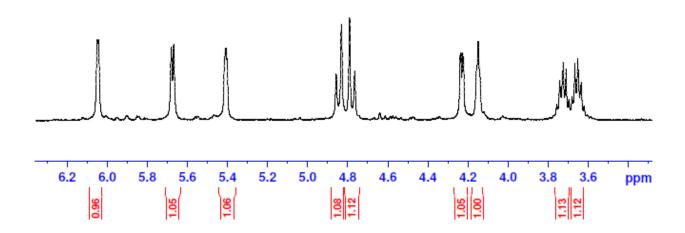


Current :	Data	Par	ame	ete	IS	
NAME				Saq	ar	
EXPNO					92	
PROCNO					1	
					-	
F2 - Acq	u1s11	tion	ı Pa	ara	met	ers
Date_		2	201	408	14	
Time				16.	39	
INSTRUM				spe	ct	
PROBHD	5 mr	n PA				
PULPROG				ZQ	30	
TD				655	36	
SOLVENT			(CDC	13	
NS					16	
DS					2	
SWH		10	000	0.0	00	Hz
FIDRES		0	0.1	525	88	Hz
AQ		3.	27	679	99	sec
RG			1	71.	32	
DW			50	0.0	00	usec
DE				6.	50	usec
TE				298	. 0	K
D1		1.0	000	000	00	sec
TDO					1	
	CHAI	NNEI	ı fi	1 -		
SF01		500.	233	308	91	MHZ
NUC1					1H	
P1				9.	04	usec
PLW1		27.1	63	999	56	W
F2 - Pro	cess:	ing				ers
SI				655		
SF		500.	230	004		MHz
WDW					EΜ	
SSB	0					
LB				0.	30	Hz
GB	0					
PC				1.	00	

¹H NMR of compound **19** (zoom)





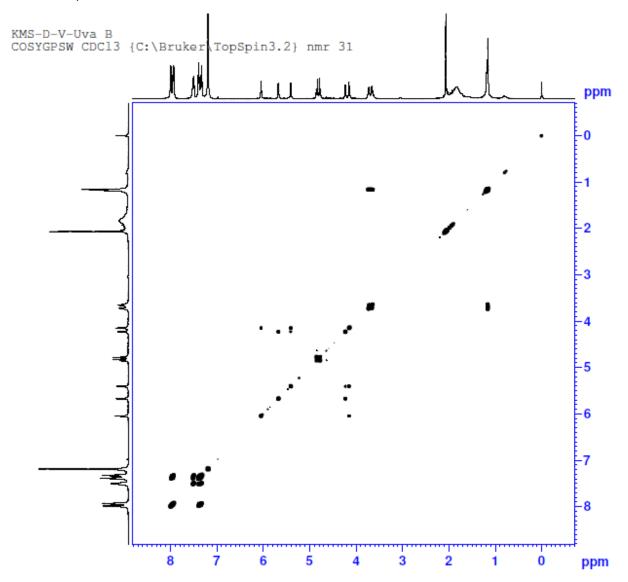


Current Data Parameters	
NAME Sagar	
EXPNO 92	
PROCNO 1	
F2 - Acquisition Parame	ters
Date_ 20140814	
Time 16.39	
INSTRUM spect	
PROBHD 5 mm PABBO BB-	
PULPROG zg30	
TD 65536	
SOLVENT CDC13	
NS 16	
DS 2	
SWH 10000.000	Hz
FIDRES 0.152588	Hz
AQ 3.2767999	sec
RG 171.32	
DW 50.000	usec
DE 6.50	usec
TE 298.0	K
D1 1.00000000	sec
TD0 1	
CHANNEL fl	
SF01 500.2330891	
NUC1 1H	
	usec
PLW1 27.16399956	W
F2 - Processing paramet	
SI 65536	
SF 500.2300438	
WDW EM	
SSB 0	
LB 0.30	HZ

1.00

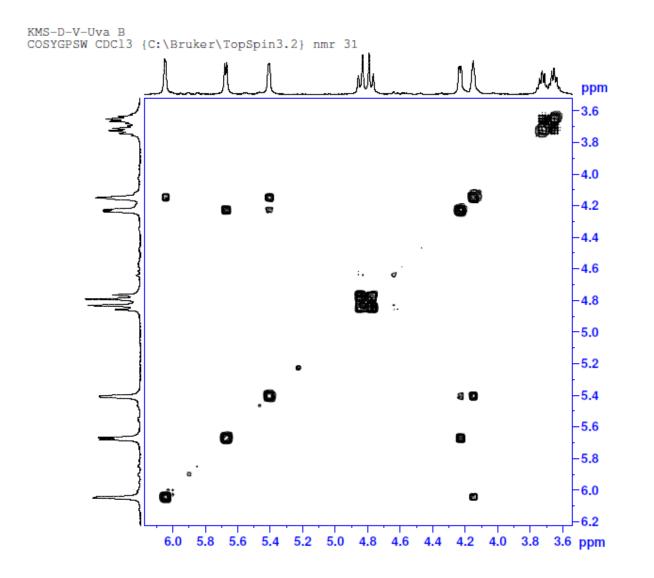
GB

COSY of compound 19



Current D: NAME EXPNO PROCNO	ata Parameters Sagar 89	
Date_ Time INSTRUM	Isition Parame 20140814 9.20 spect 5 mm PABBO BB- cosygpppqf 2048 CDC13 1 8	
FIDRES AQ RG DW DK TK DO D1 D11 D11 D12 D13 D16	2.325149 0.2150400 107.19 105.000 6.50 298.4 0.00003300 1.9381500 0.0300000 0.00002000 0.0000400 0.0002000	Hz sec usec K sec sec sec sec sec
SFO1 NUC1 PO P1 P17 PIW1 PIW1	0.00021000 CHANNEL f1 = 500.2320708 H 9.04 9.04 2500.00 27.16399956 3.28390002	MHz usec usec usec
GPNAM[1] GPZ1 P16	ADIENT CHANNEL SMSQ10.100 10.00 1000.00	
F1 - Acqui TD SF01 FIDRES SW FnMODE	128 500.2321 37.202381 9.519 QF	MHz Hz
SI SF WDW SSB (LB (assing parametr 1024 500.2300434 QSINE 0 Hz	
SI MC2 SF WDW SSB (LB (essing parameth 1024 GF 500.2300434 QSINE 0 Hz	MHz

COSY of compound 19 (zoom)



Current D NAME EXPNO PROCNO	ata Parameters Sagar 89 1
F2 - Acqu Datq Time INSTRUM PROBHD PRUPPROG TD SOLVENT NS DS SSH FIDRES AQ RG DW DE TE DD D11 D12 D13	### STATES OF THE PROPERTY OF
D16 INO	0.00020000 sec 0.00021000 sec
SFO1 NUC1 PO P1 P17 PIW1 PIW1	CHANNEL f1 - 500.2320708 MHz 1H 9.04 USec 9.04 USec 2500.00 USec 27.16399956 W 3.28390002 W
GPNAM[1] GPZ1 P16	ADIENT CHANNEL SMSQ10.100 10.00 % 1000.00 usec
F1 - Acqu TD SF01 FIDRES SW FnMODE	181tion parameters 128 500.2321 MHz 37.202381 Hz 9.519 ppm QF
SI SF WDW SSB LB	0 0 1.40
SI MC2 SF WDW SSB LB	ossing parameters 1024 OF 500.2300434 MHz QSINE 0 0 Hz

spect

65536

CDC13 512

20161.291 Hz

0.307637 Hz 1.6252928 sec

191.08 24,800 usec

145.0000000 2.00000000 sec

0.00344828 sec

0.00002000 sec

125.7929956 MHz

13C

0.500

500.2315998 MHz

waltz16

27.16399956 W

0.34685999 W

125.7829340 MHz

EM

1.00 Hz

1.40

9.04 usec

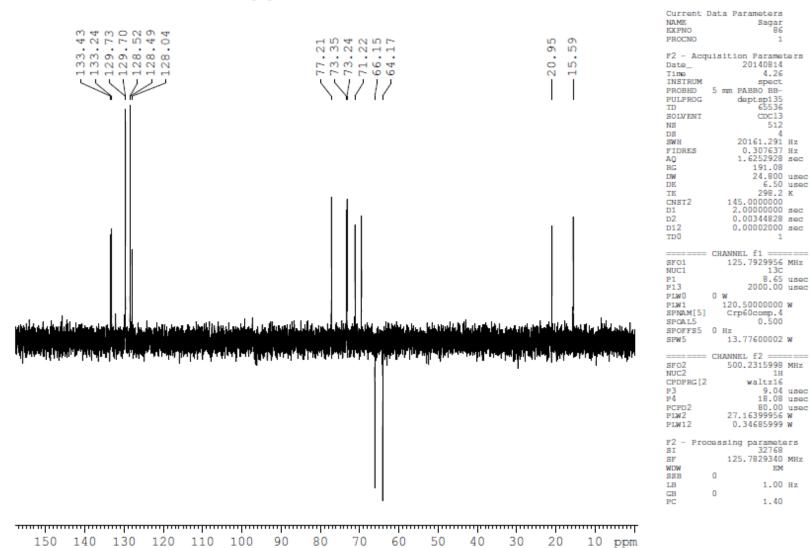
18.08 usec 80.00 usec

8.65 usec 2000.00 usec

6.50 usec 298.2 K

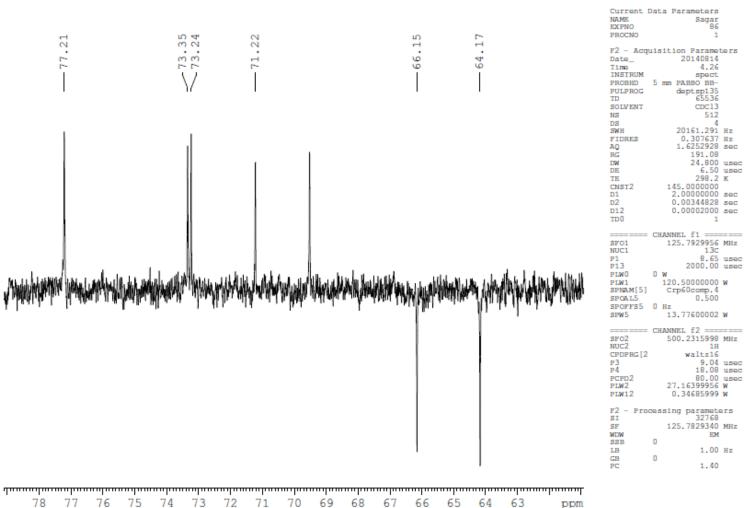
DEPT of compound 19

KMS-D-V-Uva B C13DEPT135 CDCl3 {C:\Bruker\TopSpin3.2} nmr 31



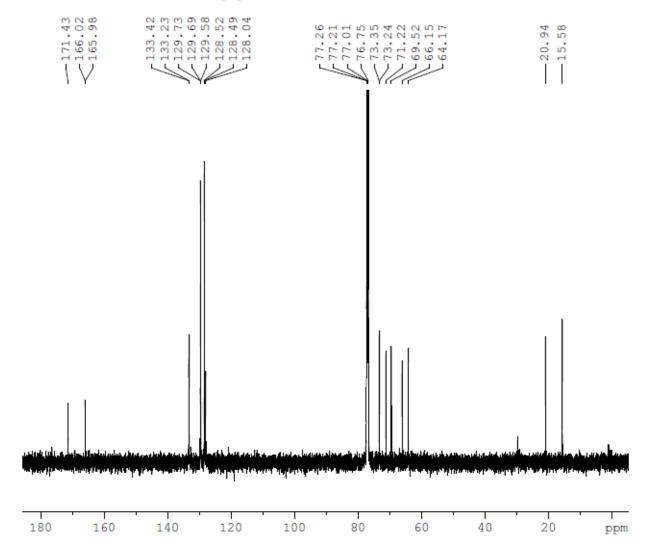
DEPT of compound 19 (zoom)





¹⁴C NMR of compound **19**

KMS-D-V-Uva B
C13CPD CDC13 {C:\Bruker\TopSpin3.2} nmr 31

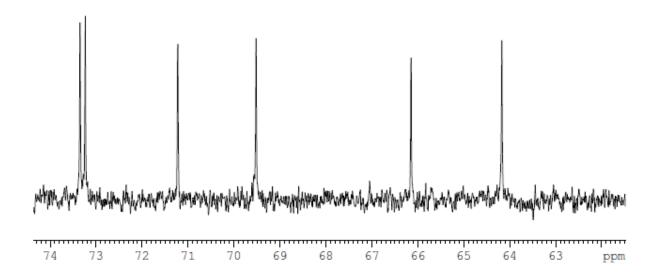


Current D	ata Parameters	
NAME	Sagar	
EXPNO	87	
PROCNO	i	
	-	
F2 - Acqu	isition Paramet	ers
Date_	20140814	
Time	8.58	
INSTRUM		
	spect 5 mm PABBO BB-	
PROBHD		
PULPROG TD	zgpg30 65536	
SOLVENT	CDC13	
NS	5000	
DS	4	
SWH	29761.904	HZ
FIDRES	0.454131	ΗZ
AQ	1.1010048	sec
RG	191.08	
DW	16.800	usec
DE	6.50	usec
TE	298.5	K
D1	2.00000000	sec
D11	0.03000000	sec
TD0	1	
	CHANNEL fl	
	CHANNEL f1	MHz
SF01	CHANNEL f1 125.7955112 13C	MHz
SFO1 NUC1	125.7955112 13C	
SFO1 NUC1 P1	125.7955112 13C 8.65	usec
SFO1 NUC1	125.7955112 13C	usec
SFO1 NUC1 P1 PLW1	125.7955112 13C 8.65 120.50000000	usec
SFO1 NUC1 P1 PLW1	125.7955112 13C 8.65 120.50000000 CHANNEL f2	usec W
SFO1 NUC1 P1 PLW1 SFO2	125.7955112 13C 8.65 120.50000000 CHANNEL f2 500.2320009	usec W
SF01 NUC1 P1 PLW1 SF02 NUC2	125.7955112 13C 8.65 120.50000000 CHANNEL f2 500.2320009 1H	usec W
SF01 NUC1 P1 PLW1 SF02 NUC2 CPDPRG[2	125.7955112 13C 8.65 120.5000000 CHANNEL f2 500.2320009 1H waltz16	usec W MHz
SF01 NUC1 P1 PLW1 SF02 NUC2 CPDPRG[2 PCPD2	125.7955112 13C 8.65 120.50000000 CHANNEL f2 500.2320009 1H Waltz16 80.00	usec W MHz usec
SF01 NUC1 P1 PLW1 SF02 NUC2 CPDPRG[2 PCPD2 PLW2	125.7955112 13C 8.65 120.50000000 CHANNEL f2	usec W MHz usec
SF01 NUC1 P1 PLW1 SF02 NUC2 CPDPRG[2 PCPD2 PLW2 PLW12	125.7955112 13C 8.65 120.50000000 CHANNEL f2 500.2320009 1H Waltz16 80.00 27.16399956 0.34685999	usec W MHz usec W
SF01 NUC1 P1 PLW1 SF02 NUC2 CPDPRG[2 PCPD2 PLW2	125.7955112 13C 8.65 120.50000000 CHANNEL f2 500.2320009 1H Waltz16 80.00 27.16399956 0.34685999	usec W MHz usec
SF01 NUC1 P1 PLW1 SF02 NUC2 CPDPRG[2 PCPD2 PLW2 PLW12 PLW13	125.7955112 13C 8.65 120.50000000 CHANNEL f2	usec W MHz usec W W
SFO1 NUC1 P1 PLW1 SFO2 NUC2 CPDPRG[2 PCPD2 PLW2 PLW12 PLW13 F2 - Proc	125.7955112 13C 8.65 120.50000000 CHANNEL f2	usec W MHz usec W W
SFO1 NUC1 P1 P1W1 SFO2 NUC2 CPDPRG[2 PCPD2 PLW12 PLW13 F2 - Proc	125.7955112 8.65 120.50000000 CHANNEL f2	usec W MHz usec W W W
SFO1 NUC1 P1 P1 PLW1 SFO2 NUC2 CPDPRG[2 PCPD2 PLW2 PLW12 PLW13 F2 - Proc SI SF	125.7955112 13C 8.65 120.50000000 CHANNEL f2 500.2320009 1H Waltz16 80.00 27.16399956 0.34685999 0.22199000 cessing paramete 32768 125.7829340	usec W MHz usec W W W
SFO1 NUC1 P1 PLW1 SFO2 NUC2 CPDPRG[2 PCPD2 PLW2 PLW12 PLW13 F2 - Proc SI SF WDW	125.7955112 13C 8.65 120.50000000 CHANNEL f2 500.2320009 1H Waltz16 80.00 27.16399956 0.34685999 0.22199000 cessing paramete 32768 125.7829340 EM	usec W MHz usec W W W
SFO1 NUC1 P1 P1W1 SFO2 NUC2 CPDPRG[2 PCPD2 P1W2 PLW12 PLW13 F2 - Proc SI SF WDDW SSB	125.7955112 13C 8.65 120.50000000 CHANNEL f2 500.2320009 1H Waltz16 80.00 27.1639995 0.34685999 0.22199000 cessing paramete 32768 125.7829340 EM	usec W MHZ usec W W W
SFO1 NUC1 P1 P1 PLW1 SFO2 NUC2 CPDPRG[2 PCPD2 PLW2 PLW12 PLW13 F2 - Proc SI SF WDW SSB LB	125.7955112 13C 8.65 120.50000000 CHANNEL f2 500.2320009 1H Waltz16 80.00 27.16399956 0.34685999 0.22199000 cessing paramete 32768 125.7829340 EM	usec W MHZ usec W W W
SFO1 NUC1 P1 P1W1 SFO2 NUC2 CPDPRG[2 PCPD2 P1W2 PLW12 PLW13 F2 - Proc SI SF WDDW SSB	125.7955112 13C 8.65 120.50000000 CHANNEL f2 500.2320009 1H Waltz16 80.00 27.1639995 0.34685999 0.22199000 cessing paramete 32768 125.7829340 EM	usec W MHZ usec W W W

¹⁴C NMR of compound **19** (zoom)

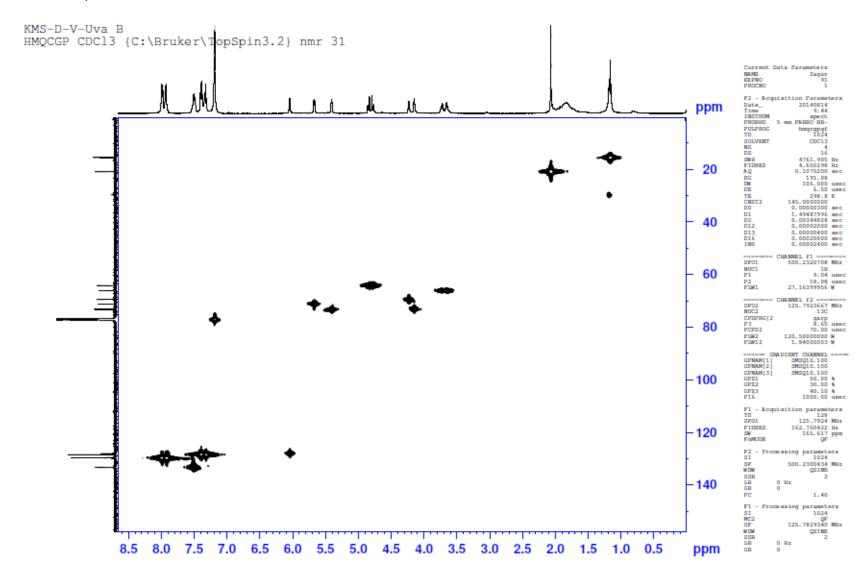
KMS-D-V-Uva B
C13CPD CDCl3 {C:\Bruker\TopSpin3.2} nmr 31





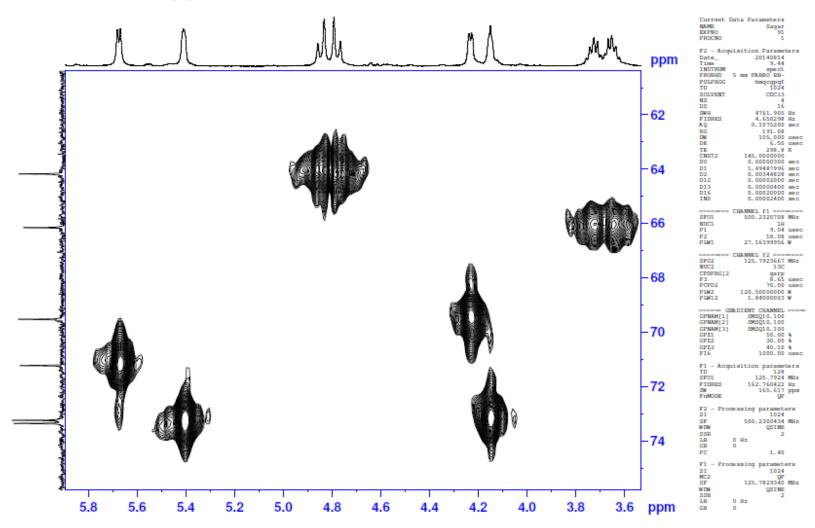
Current	Data	Pa	ra	me	te	IS	
NAME				S	ag	ar	
EXPNO						87	
PROCNO						1	
F2 - Acq	111 0 11	-10	m	Do	-	mat	are
Date_	GISI					14	CLS
Time			_			58	
INSTRUM				9		ct	
PROBHD	5 m	n F	AF				
PULPROG						30	
TD						36	
SOLVENT				C	DC	13	
NS					50	00	
DS						4	
SWH		2	97	61	. 9	04	Hz
FIDRES			Ο.	45	41	31	Hz
AQ		1	. 1	01	00	48	sec
RG				19	1.	80	
DW							usec
DE							usec
TE						. 5	
D1							sec
D11		Ο.	03	00	00		sec
TDO						1	
	CHAI	ATRATE					
SF01							MHZ
NUC1		120		30		3C	Pinz
P1							usec
PLW1	1.5	20.	50	000		00	
						-	
	CHAI	NNE	L	f2	-		
SFO2		500	. 2	32	00	09	MHZ
NUC2						1H	
CPDPRG[2			W			16	
PCPD2							usec
PLW2		27.	16	39	99	56	W
PLW12						99	
PLW13		0.	22	119	90	00	W
F2 - Pro	-000	ine		137	211	ote	are.
SI	cess.					68	110
SF		125	. 7				MHZ
WDW				-	-	EM	
SSB	0						
LB	-				1.	00	Hz
GB	0				_	_	
PC					1.	40	

HMQC of compound 19



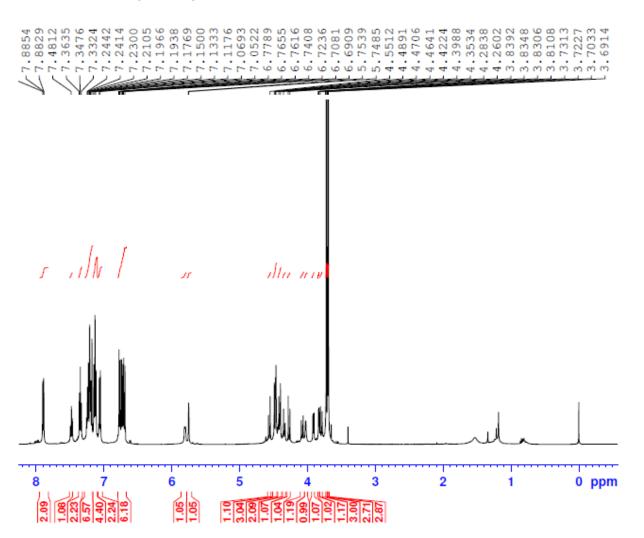
HMQC of compound 19 (zoom)

KMS-D-V-Uva B
HMQCGP CDC13 {C:\Bruker\TopSpin3.2} nmr 31



¹H NMR of compound **20**

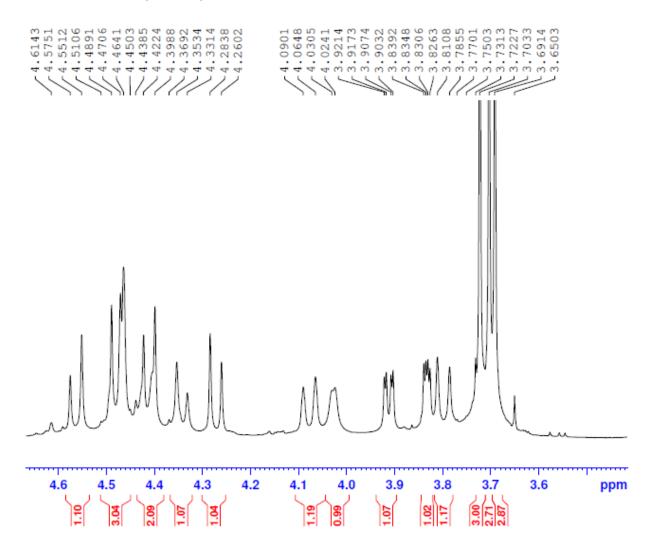
KMS-D-V-137 PROTON CDC13 C:\Bruker\TOPSPIN nmr



Current	Data	Para	met	ers	
NAME			Sa	gar	
EXPNO				649	
PROCNO				1	
F2 - Acc	ru1s1	t1on	Par	amet	ters
Date	•			415	
Time			20	. 36	
INSTRUM			SD	ect	
PROBHD	5 m	m PAE			
PULPROG			Z	g30	
TD				536	
SOLVENT				C13	
NS				16	
DS				2	
SWH		103	30.	578	Hz
FIDRES		0.	157	632	Hz
AQ		3.1	719	923	sec
RG			95	. 46	
DW			48.	400	usec
DE			6	. 50	usec
TE			29	9.7	K
D1		1.00	0000	000	sec
	- CHA	NNEL	f1		
NUC1				1H	
P1			9	.04	usec
PLW1		27.16	399	956	W
SFO1		500.2	330	891	MHZ
F2 - Pro	cess	ing p	ara	mete	ers
SI			65	536	
SF		500.2	300	570	MHZ
WDW				EΜ	
SSB	0				
LB			0	.30	Hz
GB	0				
PC			1	.00	

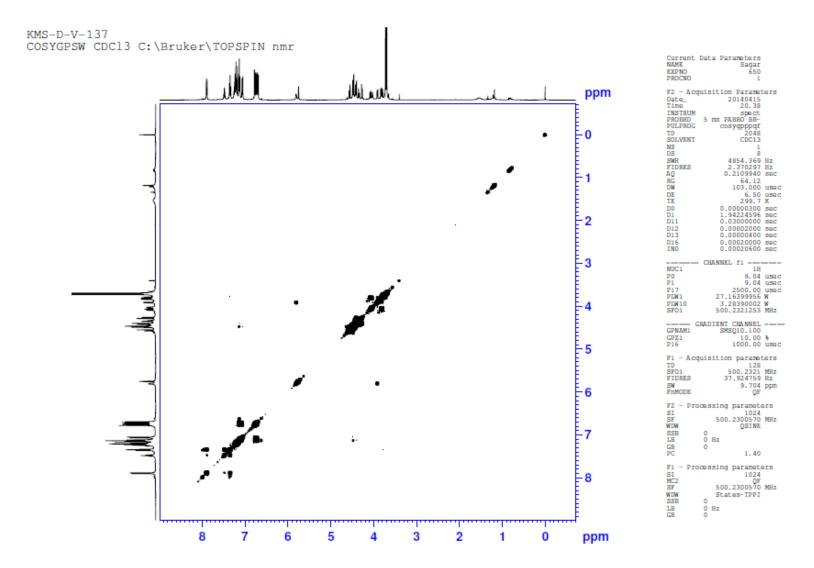
¹H NMR of compound **20** (zoom)

KMS-D-V-137
PROTON CDC13 C:\Bruker\TOPSPIN nmr

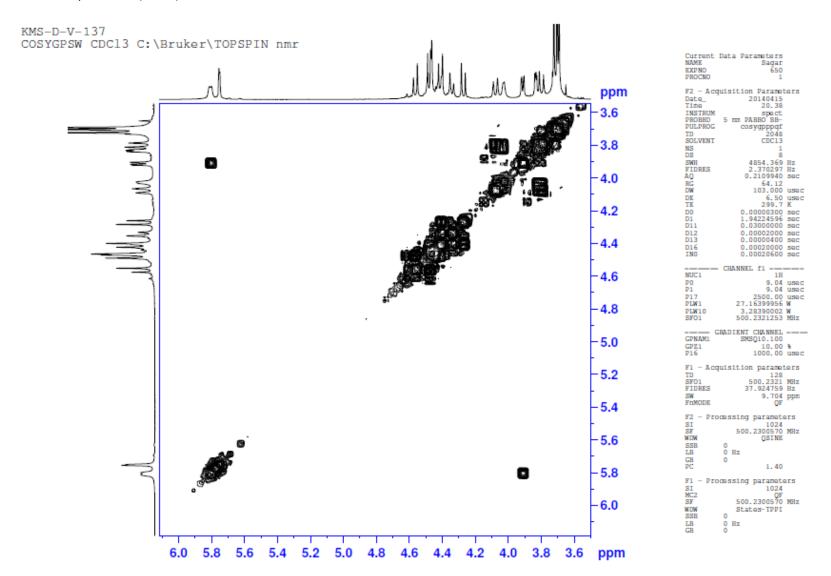


Current Data	a Parameters	
NAME	Sagar	
EXPNO	649	
PROCNO	1	
F2 - Acquis	ition Paramet	ers
Date_	20140415	
Time	20.36	
INSTRUM	spect	
PROBHD 5:	mm PABBO BB-	
PULPROG	zg30	
TD	65536	
SOLVENT	CDC13	
NS	16	
DS	2	
SWH	10330.578	Hz
FIDRES	0.157632	Hz
AQ	3.1719923	sec
RG	95.46	
DW	48.400	usec
DE	6.50	usec
TE	299.7	
D1	1.00000000	sec
CH	ANNEL fl	
NUC1	1H	
P1	9.04	usec
PLW1	27.16399956	W
SFO1	500.2330891	MHz
F2 - Proces	sing paramete	ers
SI	65536	
SF	500.2300570	MHZ
WDW	EM	
SSB 0		
LB	0.30	Hz
GB 0		
PC	1.00	

COSY of compound 20

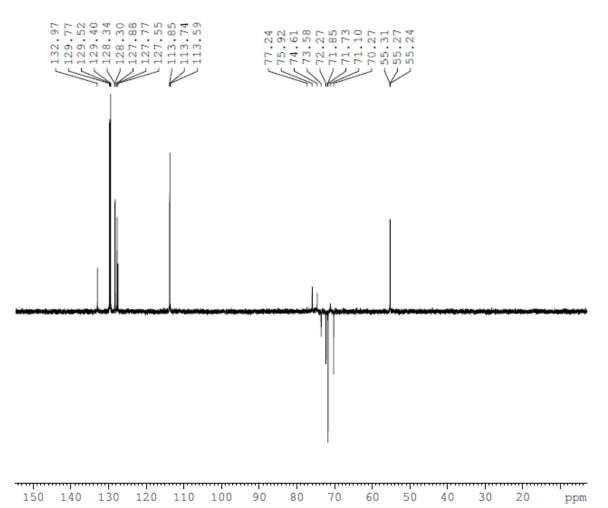


COSY of compound 20 (zoom)



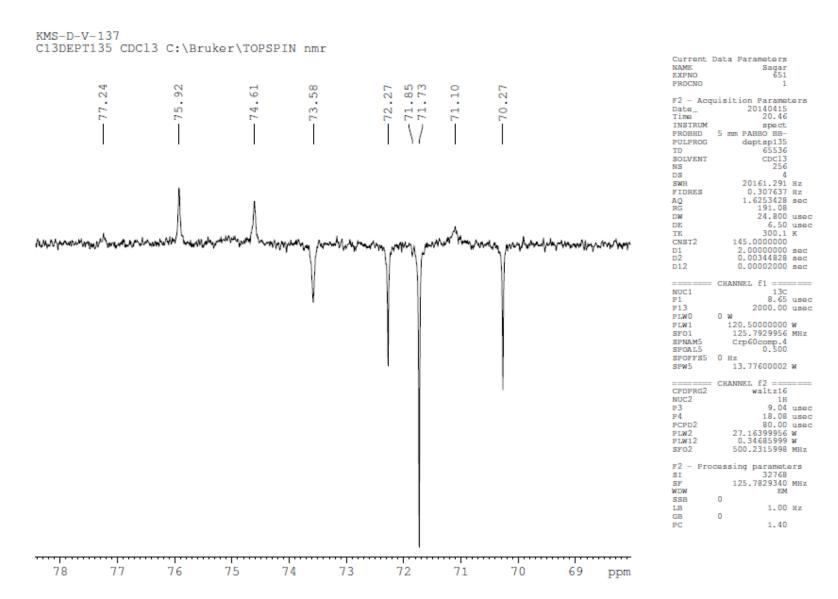
DEPT of compound 20

KMS-D-V-137 C13DEPT135 CDC13 C:\Bruker\TOPSPIN nmr



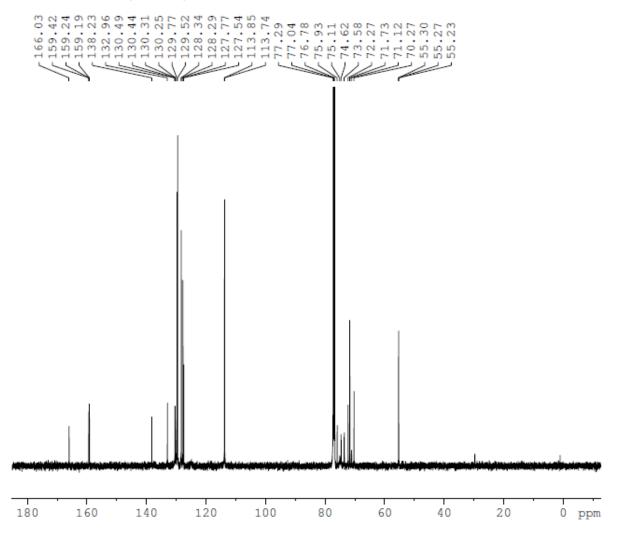
Current I	Data Parameters	
EXPNO	Sagar 651	
PROCNO	1	
PROCNO	1	
m2 - Acces	uisition Paramet	
Date_	20140415	ALD
Time	20.46	
INSTRUM	spect	
PROBHD	5 mm PABBO BB-	
PULPROG	deptsp135	
TD	65536	
SOLVENT	CDC13	
NS	256	
DS	4	
SWH	20161.291	Hz
FIDRES	0.307637	Hz
AQ	1,6253428	sec
RG	191.08	
DW	24.800	usec
DE	6.50	usec
TE	300.1	K
CNST2	145.0000000	
D1		sec
D2	0.00344828	sec
D12	0.00002000	sec
	CHANNEL f1 ====	
NUC1	13c	
P1		usec
P13	2000.00	usec
PLW0	0 W	
PLW1	120.50000000	
SFO1	125.7929956	MHz
SPNAM5	Crp60comp.4	
SPOAL5	0.500	
SPOFFS5	0 Hz	
SPW5	13.77600002	W
CPDPRG2	CHANNEL f2 ==== waltz16	
NUC2	Waltzie 1H	
P3	9.04 18.08	usec
PCPD2	80.00	
		W
PLW2 PLW12	27.16399956 0.34685999	W
SFO2	500.2315998	MHz
20.20	500.2313998	Partic
m2 - Brow	cessing paramete	
SI FIG	32768	1.0
SF	125.7829340	MUT
WDW	123.7029340 EM	Part &
SSB	0	
LB	1.00	Hz
GB	0	
PC	1.40	

DEPT of compound 20 (zoom)



¹⁴C NMR of compound **20**

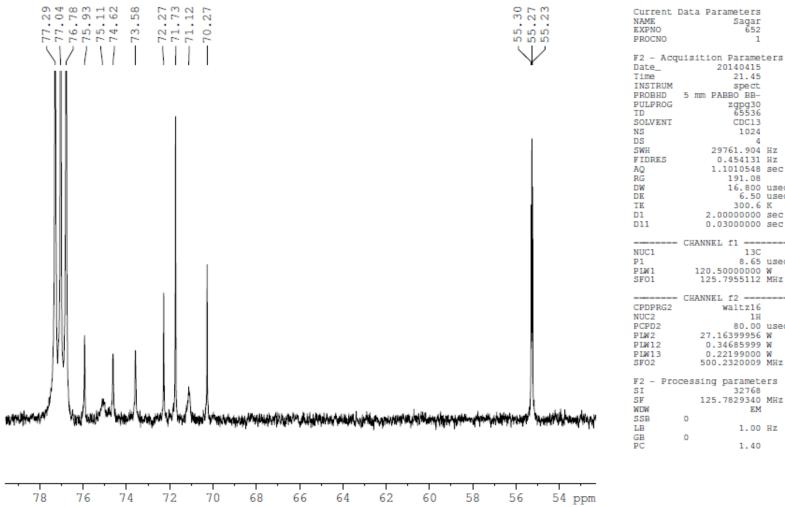
KMS-D-V-137 C13CPD CDC13 C:\Bruker\TOPSPIN nmr



Current	Data	Par	cam	et	ers	
NAME					gar	
EXPNO					652	
PROCNO					1	
F2 - Acc	ru1s1t	101	n P	ar	amet	ers
Date					415	
Time					. 45	
INSTRUM					ect	
PROBHD	5 m	n PA				
PULPROG					g30	
TD			-	65	536	
SOLVENT				CD	C13	
NS					024	
DS					4	
SWH		29	976	1.	904	Hz
FIDRES					131	Hz
AQ						sec
RG					. 08	
DW						usec
DE						usec
TE				30	0.6	K
D1		2.0	000	00	000	sec
D11		0.0	030	00	000	sec
	 CHAIL 	INE	l f	1		
NUC1					13C	
P1				8	. 65	usec
PLW1					000	
SF01	1	125.	.79	55	112	MHZ
	- CHAI	INE				
CPDPRG2			wa	1t	z16	
NUC2					1H	
PCPD2						usec
PLW2	2					W
PLW12					999	
PLW13					000	
SFO2		500.	. 23	20	009	MHZ
F2 - Pro						
SI - PIC	iceaa.	ing	ра		768	:13
SF		25	70			MHZ
WDW SF		125.	. /0	29	EM	Pinz
SSB	0				EM	
LB LB	U			7	. 00	U v
GB	0			1	. 00	22
PC	0			1	. 40	
-						

¹⁴C NMR of compound **20** (zoom)

KMS-D-V-137 C13CPD CDCl3 C:\Bruker\TOPSPIN nmr



Current	Data	Para	meter
NAME			Sagar
EXPNO			652
PROCNO			1
			-

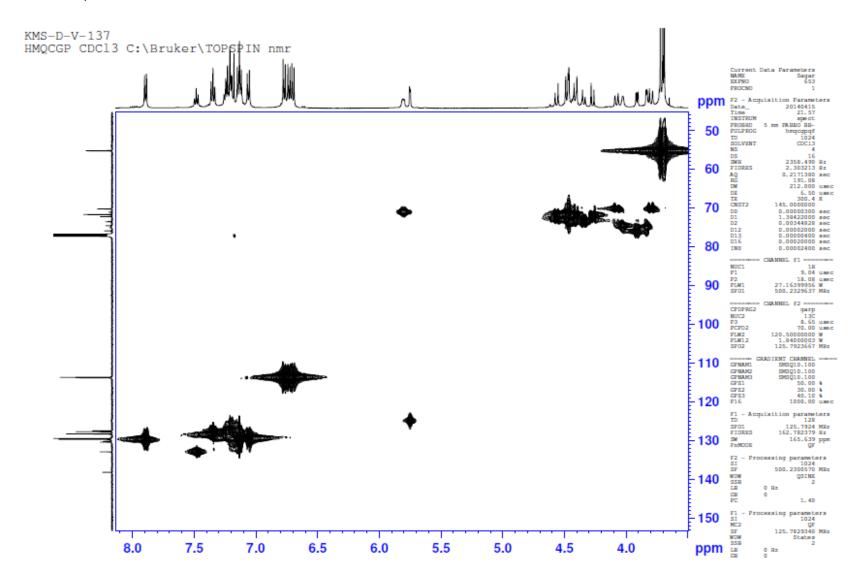
rz – ncy	uraition raramet	CLO
Date_	20140415	
Time	21.45	
INSTRUM	spect	
PROBHD	5 mm PABBO BB-	
PULPROG	zgpg30	
TD	65536	
SOLVENT	CDC13	
NS	1024	
DS	4	
SWH	29761.904	ΗZ
FIDRES	0.454131	ΗZ
AQ	1.1010548	sec
RG	191.08	
DW	16.800	
DE	6.50	usec
TE	300.6	K
D1	2.00000000	sec
D11	0.03000000	sec

	CHANNEL fl	
NUC1	13C	
P1	8.65	usec
PLW1	120.50000000	W
SF01	125.7955112	MHz

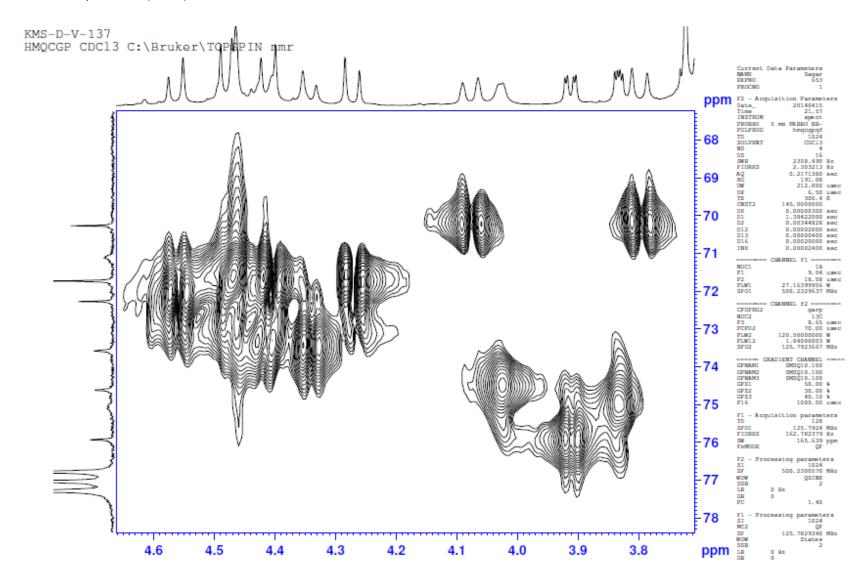
	CHANN	EL IZ		
CPDPF	RG2	walt	z16	
NUC2			1H	
PCPD2	2	80	.00	usec
PLW2		.16399		
PLW12	2 0	.34685	999	W
PLW13		.22199		
SF02	50	0.2320	009	MHZ

F2 -	Processing	paramete	rs
SI	_	32768	
SF	125	.7829340	MHz
WDW		EM	
SSB	0		
LB		1.00	ΗZ
GB	0		
PC		1.40	

HMQC of compound 20

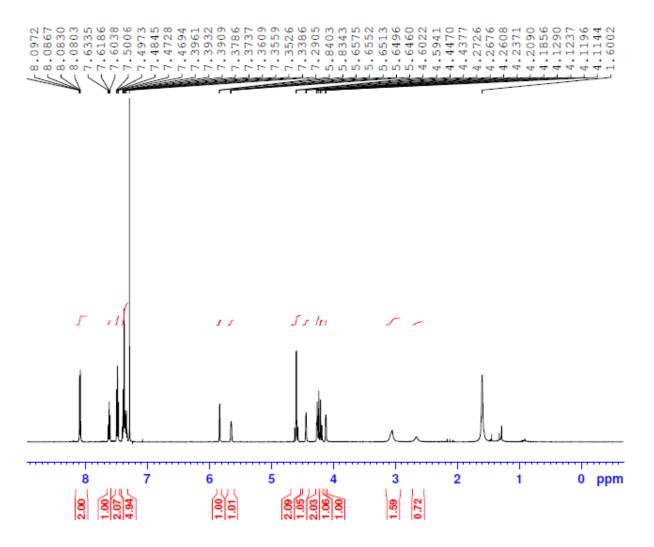


HMQC of compound 20 (zoom)



¹H NMR of compound **21**

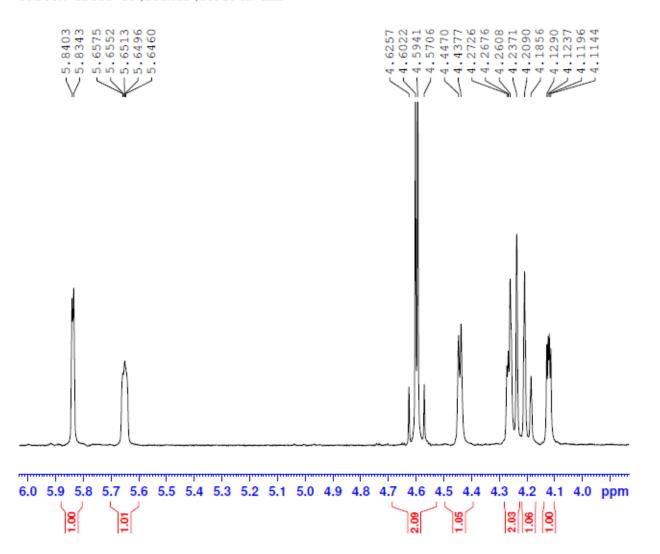
KMS-D-V-139
PROTON CDC13 C:\Bruker\TOPSPIN nmr



Current	Data	Par	amet	ers	
NAME			Sa	agar	
EXPNO				654	
PROCNO				1	
F2 - Acc	uisi	tion	Par	camet	ters
Date_		2	0140	0416	
T1me			14	1.41	
INSTRUM			S	oe ct	
PROBHD	5 m	n PA	BBO	BB-	
PULPROG			2	zg30	
TD				5536	
SOLVENT			CI	C13	
NS				16	
DS				2	
SWH				578	
FIDRES				7632	
AQ		3.	1719	9923	sec
RG				1.08	
DW					usec
DE			(5.50	usec
IE				99.5	
D1		1.0	0000	0000	sec
	CHAI	NNEL	fl		
NUC1				1.11	
P1					usec
PLW1				9956	
SFO1		500.	2330	0891	MHZ
F2 - Pro	cess:	ing			ers
SI				5536	
SF		500.	2300	0000	MHZ
WDW				EΜ	
SSB	0				
LB			().30	Hz
GB	0				
PC			1	1.00	

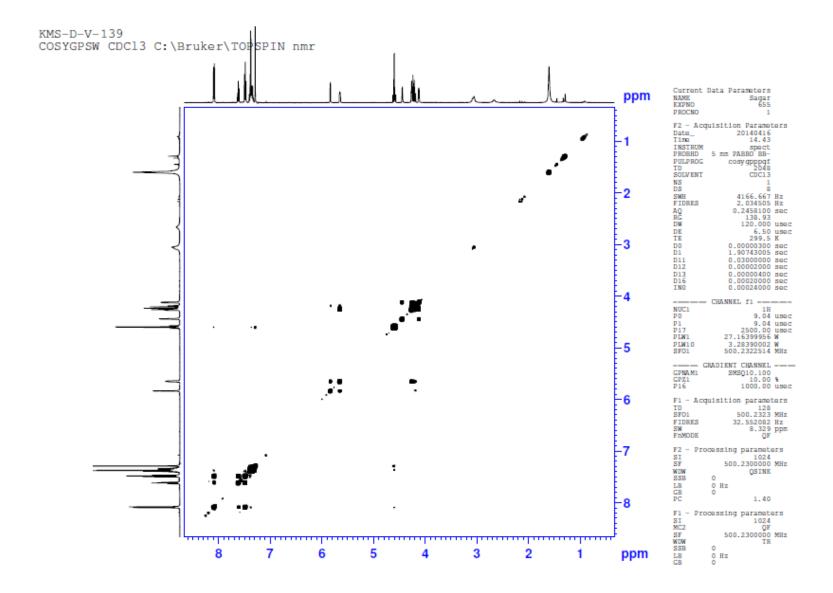
¹H NMR of compound **21** (zoom)

KMS-D-V-139 PROTON CDC13 C:\Bruker\TOPSPIN nmr



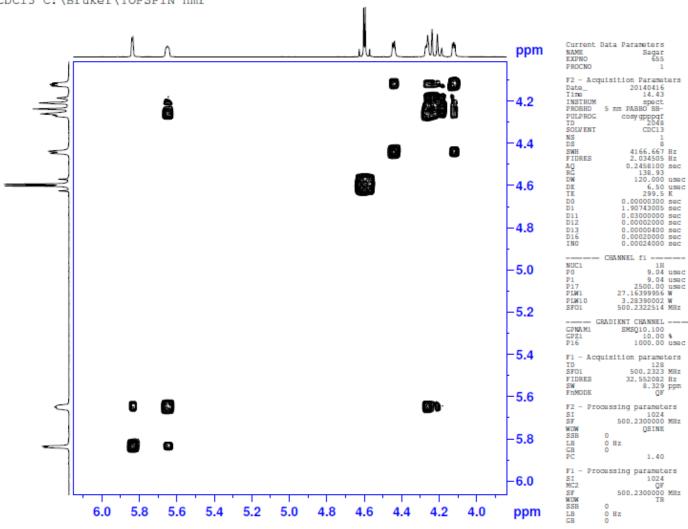
Current D	ata Parameters	
NAME	Sagar	
EXPNO	654	
PROCNO	1	
F2 - Acqu	isition Paramet	ers
Date	20140416	
Time	14.41	
INSTRUM	spect	
	5 mm PABBO BB-	
PULPROG	zg30	
TD	65536	
SOLVENT	CDC13	
NS	16	
DS	2	
SWH	10330.578	Hz
FIDRES	0.157632	Hz
AQ	3.1719923	sec
RG	191.08	
DW	48.400	usec
DE	6.50	usec
TE	299.5	K
D1	1.00000000	sec
	CHANNEL fl	
NUC1	1H	
P1	9.04	usec
PLW1	27.16399956	W
SF01	500.2330891	MHZ
F2 - Proc	essing paramete	ers
SI	65536	
SF	500.2300000	MHZ
WDW	EM	
SSB	0	
LB	0.30	Hz
GB	0	
PC	1.00	

COSY of compound 21



COSY of compound 21 (zoom)

KMS-D-V-139 COSYGPSW CDC13 C:\Bruker\TOPSPIN nmr



Sagar

spect

65536

CDC13

20161.291 Hz

0.307637 Hz

1.6253428 sec

6.50 usec 299.5 K

13C 8.65 usec

2000.00 usec

191.08 24.800 usec

2.00000000 sec 0.00344828 sec

0.00002000 sec

125.7929956 MHz

0.500

waltz16 1H 9.04 usec 18.08 usec

27.16399956 W 0.34685999 W 500.2315998 MHz

125.7829340 MHz

EM

1.00 Hz

1.40

80.00 usec

Crp60comp. 4

13.77600002 W

145.0000000

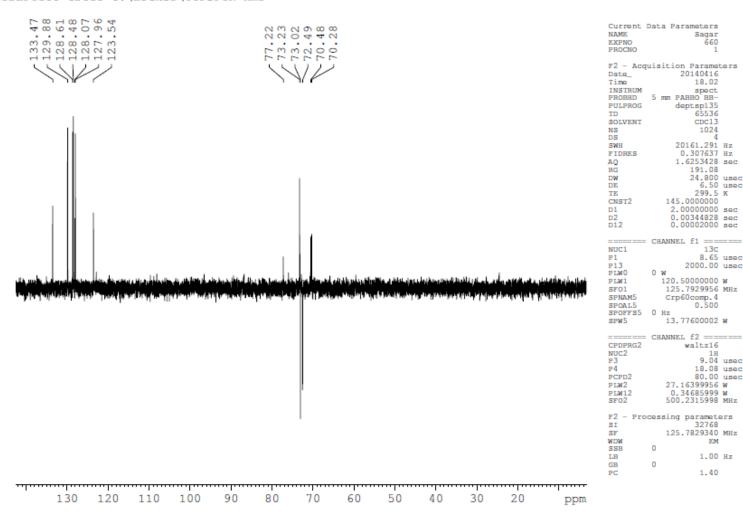
1024

deptsp135

660

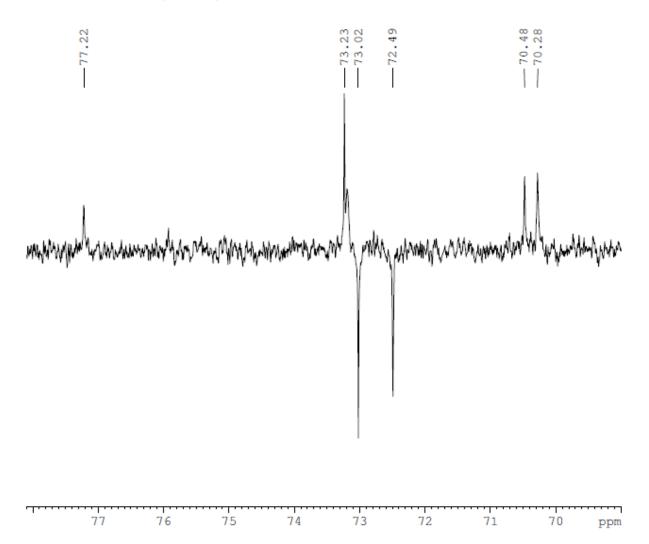
DEPT of compound 21

KMS-D-V-139 C13DEPT135 CDC13 C:\Bruker\TOPSPIN nmr



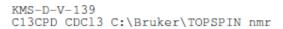
DEPT of compound 21 (zoom)

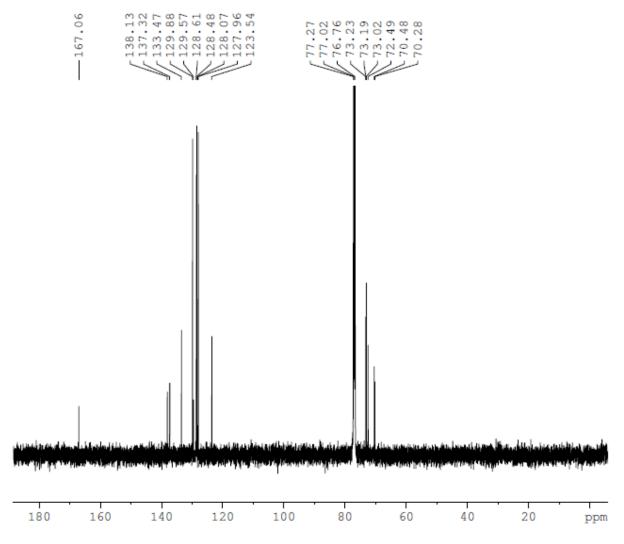
KMS-D-V-139 C13DEPT135 CDC13 C:\Bruker\TOPSPIN nmr



Current I	Data Parameters	
NAME	Sagar	
EXPNO	660	
PROCNO	1	
	-	
W2 - Acc	uisition Paramet	
Date	20140416	
Time	18.02	
INSTRUM	spect	
PROBHD	5 mm PABBO BB-	
PULPROG	deptsp135	
TD	65536	
SOLVENT	CDC13	
NS	1024	
DS	4	
SWH	20161.291	Hz
FIDRES	0.307637	Hz
AQ	1.6253428	500
RG	191.08	
DW	24.800	usec
DE	6.50	usec
TE	299.5	
		n.
CNST2	145.0000000	
D1	2.00000000	
D2	0.00344828	500
D12	0.00002000	50C
	CHANNEL f1 ===	
NUC1	13C	
P1	8.65	usec
P13	2000.00	usec
PLW0	0 W	
PLW1	120,50000000	W
SFO1	125,7929956	MHz
SPNAM5	Crp60comp. 4	
SPOAL5	0.500	
SPOFFS5	0 Hz	
SPW5	13.77600002	507
arwa	13.77600002	n
	CHANNEL f2 ===	
CPDPRG2	waltz16	
NUC2	1H	
P3		usec
P4	18.08	
PCPD2	80.00	usec
PLW2	27.16399956	W
PLW12	0.34685999	W
SFO2	500.2315998	MHz
F2 - Pro	cessing paramete	ers
SI	3276R	
SI	32768 125.7829340	MHz
SF	125.7829340	MHz
SF WDW	125.7829340 EM	MHz
SF WDW SSB	125.7829340 EM	
SF WDW SSB LB	125.7829340 EM 0 1.00	
SF WDW SSB LB GB	125.7829340 EM 0 1.00	
SF WDW SSB LB	125.7829340 EM 0 1.00	

¹⁴C NMR of compound **21**

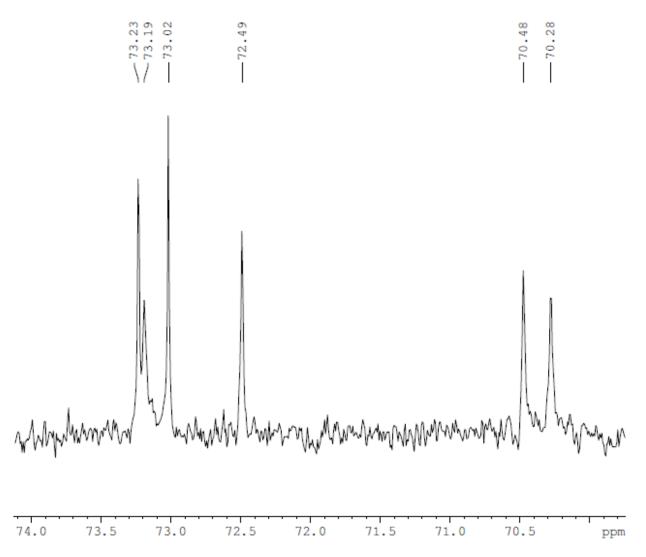




Current	Data Parameters	
NAME	Sagar	
EXPNO	663	
PROCNO	1	
	uisition Parame	ters
Date_	20140416	
Time	19.46	
INSTRUM	spect	
PROBHD	5 mm PABBO BB-	
PULPROG	zgpg30	
TD	65536	
SOLVENT	CDC13	
NS	4096	
DS	4	
SWH	29761.904	
FIDRES	0.454131	
AQ	1.1010548	
RG	191.08	
DW	16.800	
DE		usec
TE	299.5	
D1	2.00000000	
D11	0.03000000	sec
	CHAMMET 61	
	CHANNEL fl	
NUC1	13C	
NUC1 P1	13C 8.65	usec
NUC1 P1 PLW1	13C 8.65 120.50000000	usec W
NUC1 P1	13C 8.65	usec W
NUC1 P1 PLW1 SFO1	13C 8.65 120.50000000	usec W MHz
NUC1 P1 PLW1 SFO1	13C 8.65 120.50000000 125.7955112	usec W MHz
NUC1 P1 PLW1 SFO1	13C 8.65 120.50000000 125.7955112 CHANNEL f2	usec W MHz
NUC1 P1 PLW1 SFO1 CPDPRG2	13C 8.65 120.50000000 125.7955112 CHANNEL f2 Waltz16	usec W MHz
NUC1 P1 PLW1 SFO1 	13C 8.65 120.5000000 125.7955112 CHANNEL f2 Waltz16 80.00 27.16399956	usec W MHZ usec W
NUC1 P1 PIW1 SFO1 CPDPRG2 NUC2 PCPD2	13C 8.65 120.50000000 125.7955112 CHANNEL f2 waltz16 1H 80.00 27.16399956 0.34685995	usec W MHz usec W
NUC1 P1 PLW1 SF01 	13C 8.65 120.5000000 125.7955112 CHANNEL f2 Waltz16 80.00 27.16399956	usec W MHz usec W
NUC1 P1 PLW1 SFO1 	13C 8.65 120.50000000 125.7955112 CHANNEL f2 waltz16 1H 80.00 27.16399956 0.34685995	usec W MHz usec W W
NUC1 P1 PLW1 SF01 CPDPRG2 NUC2 PCPD2 PLW2 PLW2 PLW12 PLW13 SF02	13C 8.65 120.5000000 125.7955112 CHANNEL f2 Waltz16 1H 80.00 27.1639956 0.34685999 0.22199000 500.2320009	usec W MHz usec W W W MHz
NUC1 P1 PLW1 SF01 	13C 8.65 120.50000000 125.7955112 CHANNEL f2 waltz16 1H 80.00 27.16399956 0.34685999 0.22199000 500.2320009	usec W MHz usec W W W MHz
NUC1 P1 P1W1 SF01 	13C 8.65 120.5000000 125.7955112 CHANNEL f2	usec W MHZ usec W W W MHZ
NUC1 P1 PLW1 SF01 CPDPRG2 NUC2 PCPD2 PLW2 PLW12 PLW13 SF02 F2 - Proc	13C 8.65 120.5000000 125.7955112 CHANNEL f2 Waltz16 1H 80.00 27.1639956 0.34685999 0.22199000 500.2320009 cessing paramet. 32768 125.7829340	usec W MHZ usec W W W MHZ
NUC1 P1 PLW1 SF01 	13C 8.65 120.50000000 125.7955112 CHANNEL f2	usec W MHZ usec W W W MHZ
NUC1 P1 P1W1 SF01 	13C 8.65 120.5000000 125.7955112 CHANNEL f2	usec W MHz usec W W W MHz ers
NUC1 P1 P1W1 SF01 CPDPRG2 NUC2 PCPD2 PLW2 PLW12 PLW13 SF02 F2 - Prot SI SF WDW SSB LB	13C 8.65 120.5000000 125.7955112 CHANNEL f2	usec W MHz usec W W W MHz ers
NUC1 P1 PLW1 SF01 	13C 8.65 120.5000000 125.7955112 CHANNEL f2	usec W MHz usec W W W MHz ers
NUC1 P1 P1W1 SF01 CPDPRG2 NUC2 PCPD2 PLW2 PLW12 PLW13 SF02 F2 - Prot SI SF WDW SSB LB	13C 8.65 120.5000000 125.7955112 CHANNEL f2	usec W MHz usec W W W MHz ers

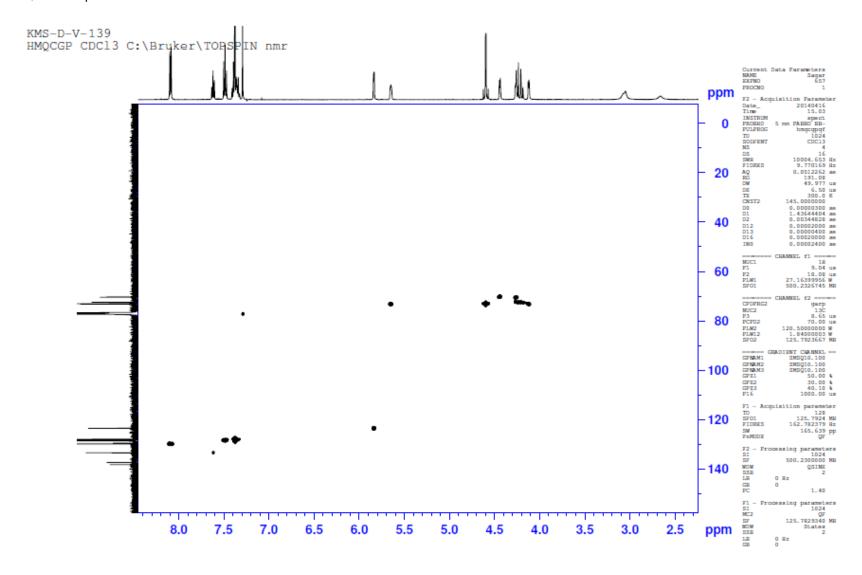
¹⁴C NMR of compound **21** (zoom)



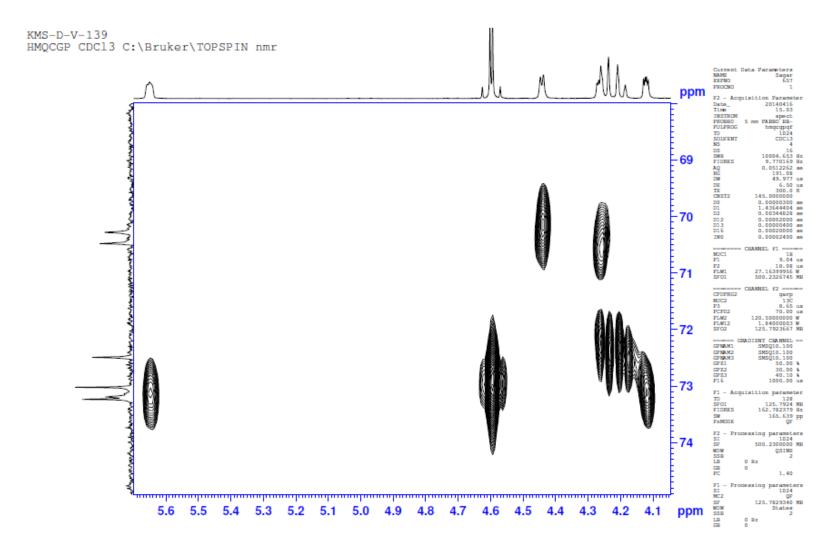


Current Da	ta Parameters	
NAME	Sagar	
	663	
EXPNO		
PROCNO	1	
F2 - Acqui	sition Paramet	ers
Date	20140416	
Time	19.46	
INSTRUM	spect	
	mm PABBO BB-	
PULPROG	zgpg30	
TD	65536	
SOLVENT	CDC13	
NS	4096	
DS	4	
SWH	29761.904	II ee
FIDRES	0.454131	
AQ	1.1010548	sec
RG	191.08	
DW	16.800	usec
DE	6.50	usec
TE	299.5	
D1	2.00000000	
D11	0.03000000	sec
_		
	HANNEL fl	
NUC1	13C	
	13C 8.65	usec
NUC1	13C	usec
NUC1 P1	13C 8.65	usec W
NUC1 P1 PLW1	13C 8.65 120.50000000	usec W
NUC1 P1 PLW1 SFO1	13C 8.65 120.50000000 125.7955112	usec W MHz
NUC1 P1 PLW1 SFO1	13C 8.65 120.50000000 125.7955112	usec W MHz
NUC1 P1 PLW1 SF01	13C 8.65 120.50000000 125.7955112 CHANNEL f2 waltz16	usec W MHz
NUC1 P1 PLW1 SF01 	13C 8.65 120.50000000 125.7955112 CHANNEL f2	usec W MHz
NUC1 P1 PLW1 SF01	13C 8.65 120.50000000 125.7955112 CHANNEL f2	usec W MHz
NUC1 P1 PLW1 SF01 	13C 8.65 120.50000000 125.7955112 CHANNEL f2 Waltz16 1H 80.00 27.16399956	usec W MHz usec W
NUC1 P1 PLW1 SF01	13C 8.65 120.5000000 125.7955112 HANNEL f2 waltz16 1H 80.00 27.16399956 0.34685999	usec W MHz usec W
NUC1 P1 PLW1 SF01 	13C 8.65 120.50000000 125.7955112 CHANNEL f2 Waltz16 1H 80.00 27.16399956	usec W MHz usec W
NUC1 P1 PLW1 SF01 	13C 8.65 120.5000000 125.7955112 CHANNEL f2	usec W MHZ usec W W
NUC1 P1 PLW1 SF01 	13C 8.65 120.5000000 125.7955112 HANNEL f2 waltz16 1H 80.00 27.16399956 0.34685999	usec W MHZ usec W W
NUC1 P1 PLW1 SF01 	13C 8.65 120.5000000 125.7955112 CHANNEL f2	USEC W MHZ USEC W W W MHZ
NUC1 P1 PLW1 SF01 	13C 8.65 120.5000000 125.7955112 HANNEL f2	USEC W MHZ USEC W W W MHZ
NUC1 P1 PLW1 SF01 	13C 8.65 120.5000000 125.7955112 HANNEL f2	USEC W MHZ USEC W W W MHZ
NUC1 P1 PLW1 SF01 	13C 8.65 120.5000000 125.7955112 CHANNEL f2	USEC W MHZ USEC W W W MHZ
NUC1 P1 PLW1 SF01 	13C 8.65 120.5000000 125.7955112 CHANNEL f2	USEC W MHZ USEC W W W MHZ
NUC1 P1 PLW1 SF01	13C 8.65 120.5000000 125.7955112 HANNEL f2	USEC W MHZ USEC W W W MHZ
NUC1 P1 PLW1 SF01 	13C 8.65 120.5000000 125.7955112 CHANNEL f2	USEC W MHZ USEC W W W MHZ
NUC1 P1 PLW1 SF01	13C 8.65 120.5000000 125.7955112 HANNEL f2	USEC W MHZ USEC W W W MHZ
NUC1 P1 PLW1 SF01 CCPDPRG2 NUC2 PCPD2 PLW2 PLW12 PLW13 SF02 F2 - Proce SI SF WDW SSB LB	13C 8.65 120.5000000 125.7955112 HANNEL f2	USEC W MHZ USEC W W W MHZ
NUC1 P1 PLW1 SF01	13C 8.65 120.5000000 125.7955112 CHANNEL f2	USEC W MHZ USEC W W W MHZ

HMQC of compound 21

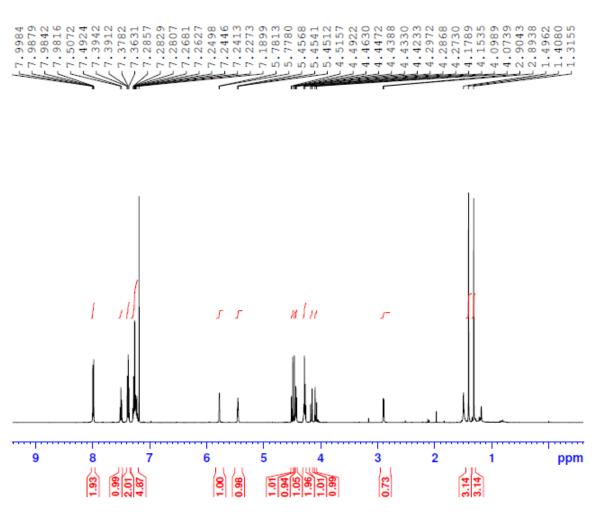


HMQC of compound 21 (zoom)



¹H NMR of compound **22**

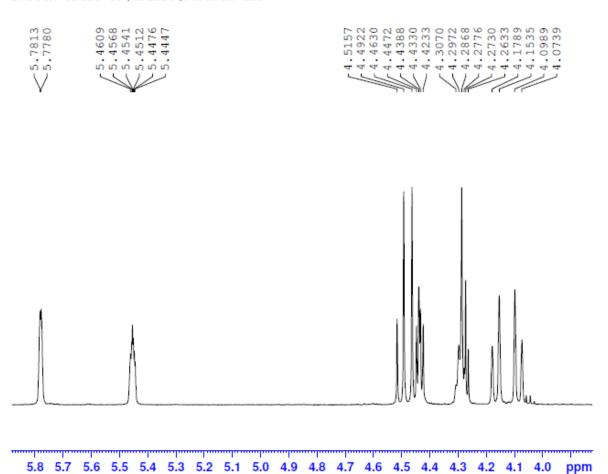
KMS-D-V-141
PROTON CDC13 C:\Bruker\TOPSPIN nmr



Current I	Data	Par	am	ete	rs	
NAME				Sag	jar	
EXPNO					664	
PROCNO					1	
F2 - Acqu	1131					ters
Date_		2	201	404		
Time				1.	31	
INSTRUM				spe	ct	
PROBHD	5 m	m PA	\BB	O E	3B-	
PULPROG				ZÇ	130	
TD				655	36	
SOLVENT				CDC	:13	
NS					16	
DS					2	
SWH		10	33	0.5	578	HZ
FIDRES		0	.1	576	32	Hz
AQ		3.	17	199	923	sec
RG			1	71.	32	
DW			4	8.4	100	used
DE				6.	50	used
TE				298	3.0	K
D1		1.0	000	000	000	sec
	CHA	NNEI	í	1 -		
NUC1					1H	
P1				9.	04	use
PLW1		27.1	63	999	956	W
SF01		500.	23	308	91	MHZ
F2 - Pro	cess	1ng				ers
SI					536	
SF		500.	23	005	502	MHZ
WDW					EΜ	
SSB	0					
LB				0.	30	Ηz
GB	0					
PC				1.	00	

¹H NMR of compound **22** (zoom)

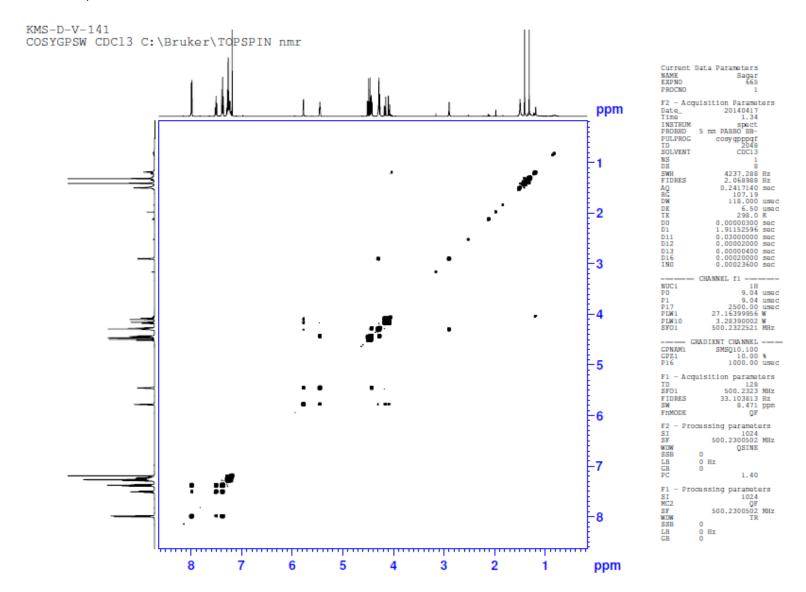
KMS-D-V-141 PROTON CDC13 C:\Bruker\TOPSPIN nmr



1.01

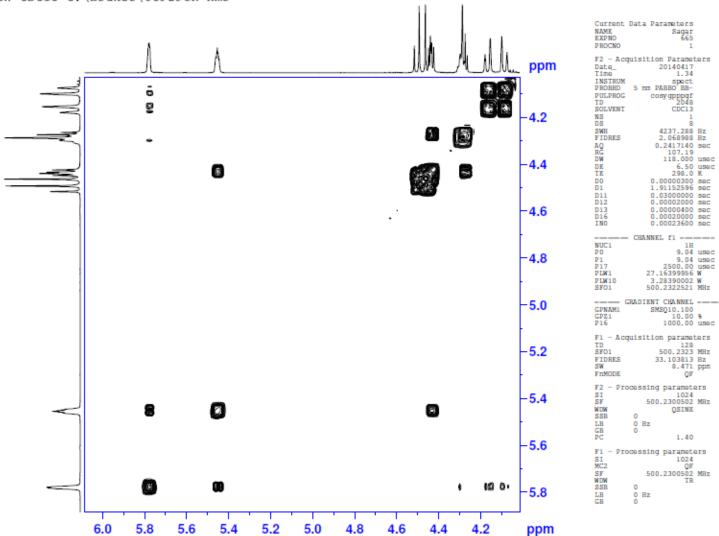
Current Da NAME EXPNO PROCNO	ata Parameters Sagar 664 1	
	isition Paramet	ters
Date_	20140417	
Time	1.31	
INSTRUM	spect	
	5 mm PABBO BB-	
PULPROG	zg30	
TD	65536	
SOLVENT	CDC13	
NS	16	
DS	2	
SWH	10330.578	
FIDRES	0.157632	
AQ	3.1719923	
RG	171.32	
DW	48.400	
DE	6.50	
TE	298.0	
D1	1.00000000	sec
	CHANNEL fl	
NUC1	1H	
P1	9.04	
PLW1	27.16399956	
SF01	500.2330891	MHZ
F2 - Proce	essing paramete	ers
SI	65536	
SF	500.2300502	MHZ
WDW	EM	
SSB ()	
LB	0.30	Hz
GB ()	
PC	1.00	

COSY of compound 22



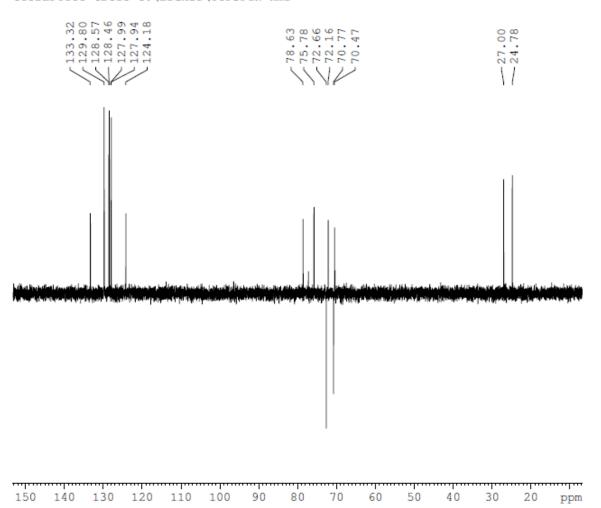
COSY of compound 22 (zoom)

KMS-D-V-141 COSYGPSW CDC13 C:\Bruker\TOPSPIN nmr



DEPT of compound 22

KMS-D-V-141 C13DEPT135 CDC13 C:\Bruker\TOPSPIN nmr

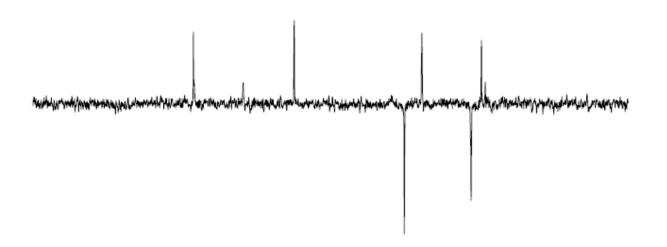


Current I	ata Parameters	
NAME	Sagar	
EXPNO	666	
PROCNO	1	
PROCNO	-	
102 - Acom	isition Paramet	
Date	20140417	
Time	1.56	
INSTRUM	spect	
PROBHD	5 mm PABBO BB-	
PULPROG	deptsp135	
TD	65536	
SOLVENT	CDC13	
NS	256	
DS	4	
SWH	20161.291	Hz
FIDRES	0.307637	Hz
AQ	1.6253428	Sec
RG	191.08	EME C
DW	24.800	
DE		usec
TE	298.3	
CNST2	145.0000000	R.
D1	2.00000000	
D2		sec
D12	0.00002000	
DIZ	0.00002000	sec
	CHANNEL f1 ===	
NUC1	130	
P1		usec
P13	2000.00	
PLW0	0 W	usec
PLW1	120.50000000	507
SFO1	125.7929956	Militar
SPNAM5	Crp60comp.4	20112
SPOAL5	0.500	
	0.500 0 Hz	
SPW5	13.77600002	107
SENS	13.77600002	
	CHANNEL f2 ====	
CPDPRG2	waltz16	
NUC2	1H	
P3	9.04	usec
P4	18.08	
PCPD2	80.00	
PLW2	27.16399956	W
PLW12	0.34685999	
SFO2	500.2315998	
	essing paramete	ers
SI	32768	
SF	125.7829340	MHz
WDW	EM	
SSB	0	
LB	1.00	Hz
GB	0	
PC	1.40	

DEPT of compound 22 (zoom)

KMS-D-V-141 C13DEPT135 CDC13 C:\Bruker\TOPSPIN nmr



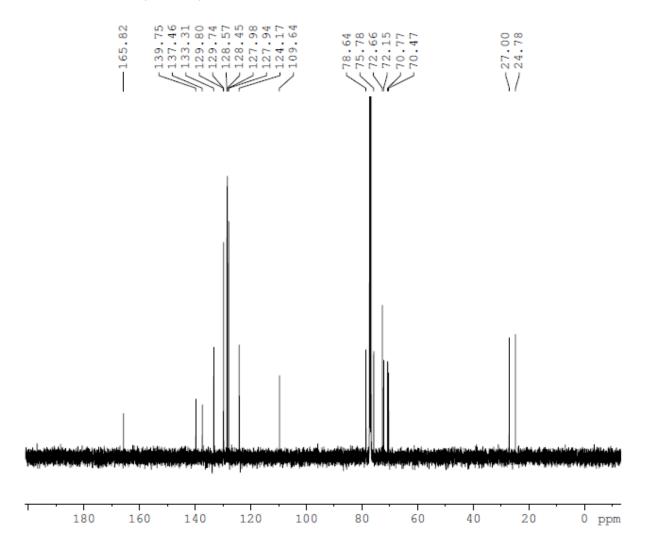


82 81 80 79 78 77 76 75 74 73 72 71 70

NAME	Data Parameters Sagar	
EXPNO PROCNO	666 1	
Date_	isition Paramet	ers
Time	1.56	
INSTRUM	spect	
PROBHD	5 mm PABBO BB-	
PULPROG	deptsp135 65536	
SOLVENT	CDC13	
NS	256	
DS	4	
SWH	20161.291	Hz
FIDRES	0.307637	Hz
AQ	1.6253428	500
RG	191.08	
DW	24.800	usec
DE	6.50 298.3	usec
TE CNST2	145.0000000	K
D1	2.00000000	sec
D2	0.00344828	sec
D12	0.00002000	sec
NUC1	CHANNEL f1 ====	
P1		usec
P13	2000.00	
PLW0	0 W	
PLW1	120.50000000	W
SFO1	125.7929956	MHz
SPNAM5	Crp60comp.4	
SPOAL5	0.500	
SPOFFS5 SPW5	0 Hz 13.77600002	
SPW5	13.77600002	w
	CHANNEL f2 ====	
CPDPRG2	waltz16	
NUC2	1H	
P3		usec
P4 PCPD2	18.08 80.00	
PLW2	27.16399956	w
PLW12	0.34685999	
SFO2	500.2315998	
	oessing paramete 32768	ers
SI	125.7829340	MUT
WDW	125.7829340 EM	Ama
SSB	0	
LB	1.00	Hz
GB	0	
PC	1.40	

¹⁴C NMR of compound **22**

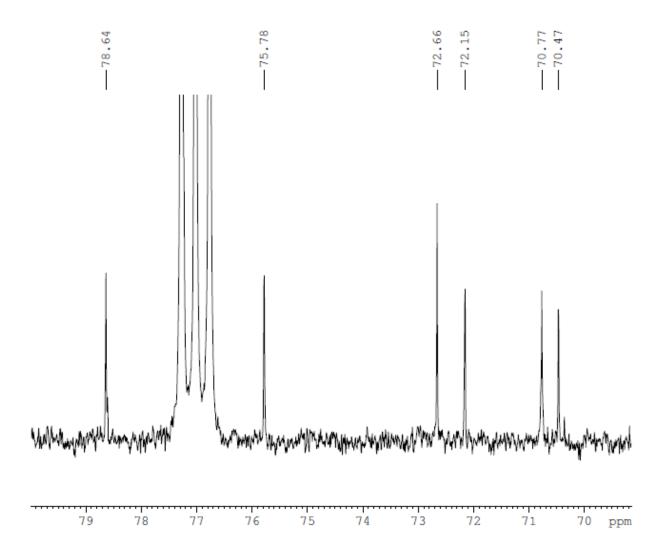
KMS-D-V-141 C13CPD CDC13 C:\Bruker\TOPSPIN nmr



Current Da NAME EXPNO PROCNO	ta Parameters Sagar 667 1	
F2 - Acqui Date_ Time INSTRUM	sition Parameters 20140417 2.26 spect	
PROBHD 5 PULPROG TD	mm PABBO BB- zgpg30 65536	
SOLVENT NS DS SWH	CDC13 1024 4 29761.904 Hz	
FIDRES AQ RG	0.454131 Hz 1.1010548 sec 191.08	
DW DE TE D1	16.800 use 6.50 use 298.7 K 2.00000000 sec	C
D11	0.03000000 sed	
	HANNEL fl	_
NUC1 P1 PLW1 SF01	HANNEL f1 13C 8.65 use 120.50000000 W 125.7955112 MHz	
NUC1 P1 PLW1 SF01	13C 8.65 use 120.50000000 W 125.7955112 MHz HANNEL f2 Waltz16	
NUC1 P1 PLW1 SF01 CPDPRG2 NUC2 PCPD2 PLW2 PLW12	13C 8.65 use 120.50000000 W 125.7955112 MHz HANNEL f2	_
NUC1 P1 P1W1 SF01 CCPDPRG2 NUC2 PCPD2 PLW2 PLW2 PLW12 PLW13 SF02	13C 8.65 use 120.5000000 W 125.7955112 MHz HANNEL f2 Waltz16 1H 80.00 use 27.16399956 W 0.34685999 W 0.22199000 W 500.2320009 MHz	: :-
NUC1 P1 P1W1 SF01 CPDPRG2 NUC2 PCPD2 PLW2 PLW12 PLW12 PLW13 SF02 F2 - Proce SI SF WDW	13C 8.65 use 120.5000000 W 125.7955112 MHz 125.7955112 MHz 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	
NUC1 P1 P1W1 SF01 CCPDPRG2 NUC2 PCPD2 PLW2 PLW12 PLW13 SF02 F2 - Proce	13C 8.65 use 120.5000000 W 125.7955112 MHz HANNEL f2	

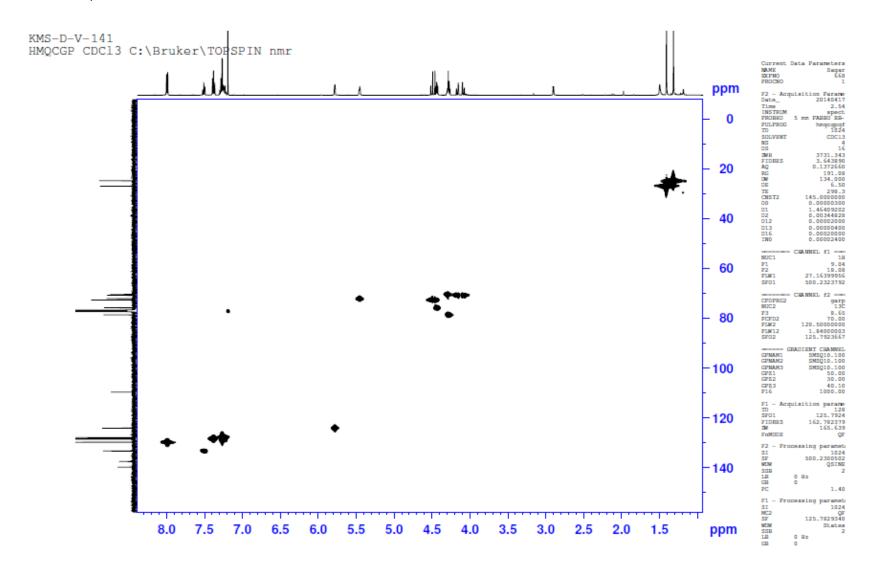
¹⁴C NMR of compound **22** (zoom)

KMS-D-V-141 C13CPD CDC13 C:\Bruker\TOPSPIN nmr

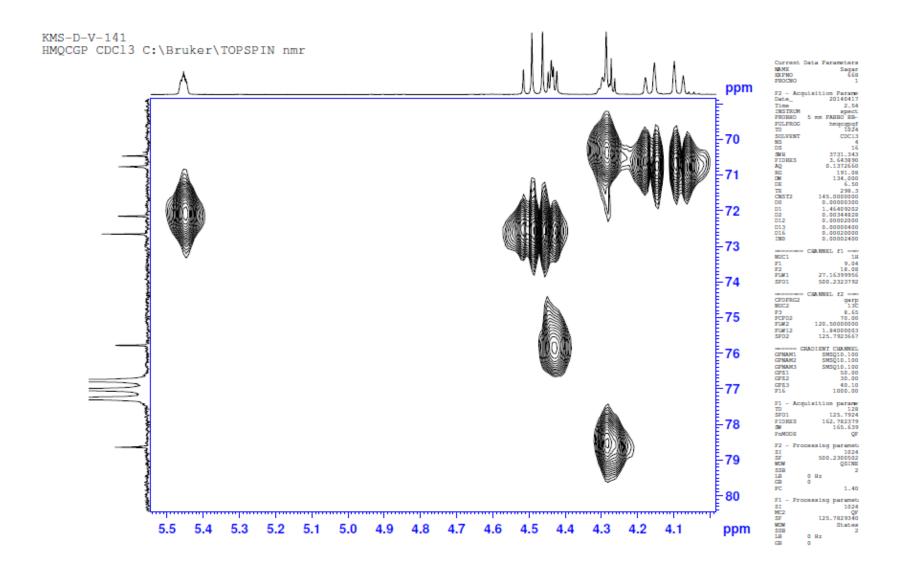


Current D	ata Par	rameters	
NAME		Sagar	
EXPNO		667	
PROCNO		1	
LIIOOIIO		-	
F2 - Acqu	1911101	Daramet	are
Date_		20140417	
Time		2.26	
INSTRUM		spect	
PROBHD	5 mm P2	ABBO BB-	
PULPROG	J 22	zgpq30	
TD		65536	
SOLVENT		CDC13	
NS		1024	
DS		1024	
SWH	2.0		Hz
FIDRES		0.454131	HZ
AQ		.1010548	
RG	1.	191.08	sec
DW		16.800	11000
DE		6.50	
TE		298.7	
D1		290.7	
D11		3000000	
DII	0.1	3000000	sec
	CHANNE	. fl	
NUC1	CHANNE	13C	
P1			usec
PLW1	120	50000000	
SFO1		7955112	
3501	125	. /933112	Ann
	CHANNE	L f2	
CPDPRG2	CHANNE	waltz16	
NUC2		Waltzio 1H	
PCPD2		80.00	11000
PLW2	27 1		W
PLW12		34685999	
PLW13		22199000	
SFO2		2320009	
SF 02	500.	2320009	PHE
F2 - Proc	occina	paramete	
SI Proc	essing	32768	:13
SF	125	.7829340	MILT
WDW	125.	. 7829340 EM	MHZ
		E.M.	
SSB LB	0	1.00	Пи
GB	0	1.00	HZ
PC	U	1 40	
PC		1.40	

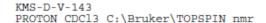
HMQC of compound 22

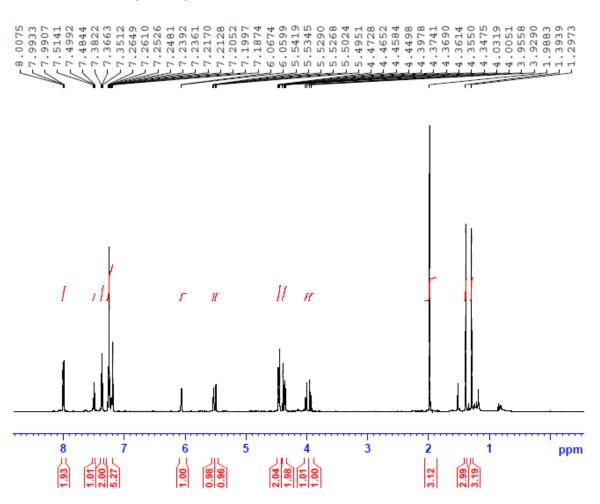


HMQC of compound 22 (zoom)



¹H NMR of compound **23**



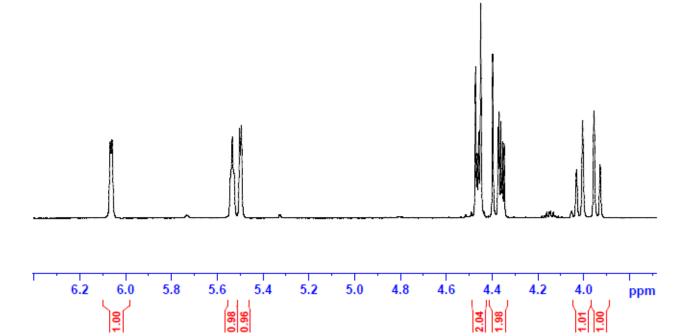


Current 1	Data	Paramet	ers	
NAME		Sa	gar	
EXPNO			669	
PROCNO			1	
PROCNO			-	
F2 - Acq	uisit	tion Par	amet	ers
Date		20140	418	
Time		13	.57	
INSTRUM		Sp	ect	
PROBHD	5 m	n PABBO	BB-	
PULPROG		Z	q30	
TD		1	024	
SOLVENT		CD	C13	
NS			16	
DS			2	
SWH		10004.	662	Hz
FIDRES		9.770		
AQ		0.0511	761	sec
RG		107	.19	
DW		49.	977	usec
DE		6	.50	usec
TE		30	0.0	K
D1		1.00000	000	sec
	CHAI	NNEL f1		
NUC1			1H	
P1		9	.04	usec
PLW1		27.16399	956	W
SFO1		500.2330	891	MHz
F2 - Pro	cess:			ers
SI			536	
SF		500.2300		MHZ
WDW			EM	
SSB	0			
LB		0	.30	HZ
GB	0			
PC		1	.00	

¹H NMR of compound **23** (zoom)

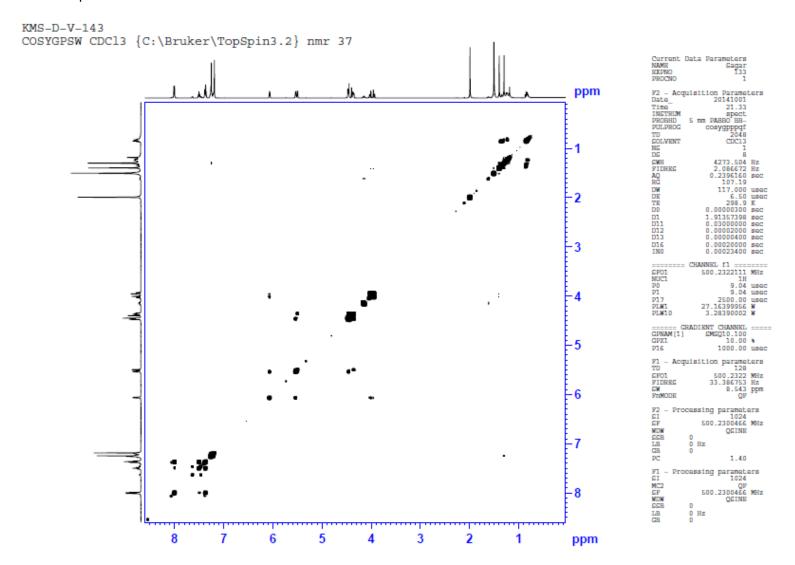
KMS-D-V-143
PROTON CDCl3 C:\Bruker\TOPSPIN nmr





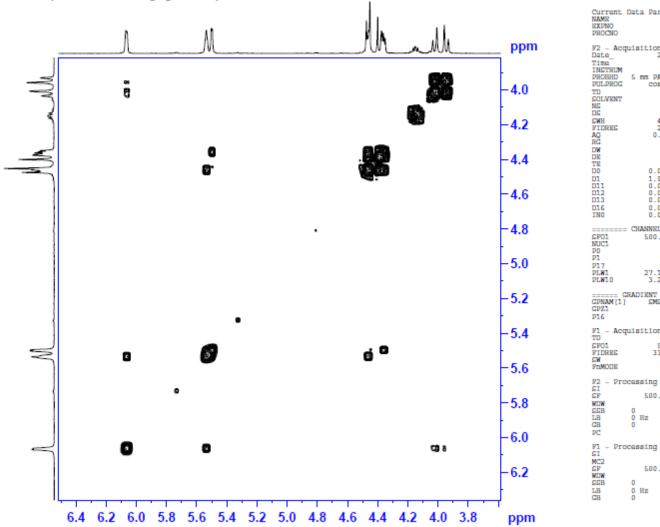
Current	Data	Para	met	ers	
NAME			Sa	agar	
EXPNO				669	
PROCNO				1	
F2 - Acq	uisi	tion	Par	camet	ters
Date				0418	
Time_			13	3.57	
INSTRUM			SI	pect	
PROBHD	5 m	n PAE	BO	BB-	
PULPROG			2	zg30	
TD				1024	
SOLVENT			CI	C13	
NS				16	
DS				2	
SWH		100	04.	662	Hz
FIDRES		9.	770	178	Hz
AQ		0.0	513	1761	sec
RG			10	7.19	
DW			49.	.977	usec
DE			(5.50	usec
TE				0.00	
D1		1.00	000	0000	sec
	CHAI	NNEL	f1		
NUC1				1H	
P1			9	9.04	usec
PLW1		27.16	399	9956	W
SF01	!	500.2	33(0891	MHZ
F2 - Pro	cess:	ing p	ara	amete	ers
SI			65	5536	
SF		500.2	300	0516	MHz
WDW				EM	
SSB	0				
LB			(0.30	Hz
GB	0				
PC				1.00	

COSY of compound 23



COSY of compound 23 (zoom)

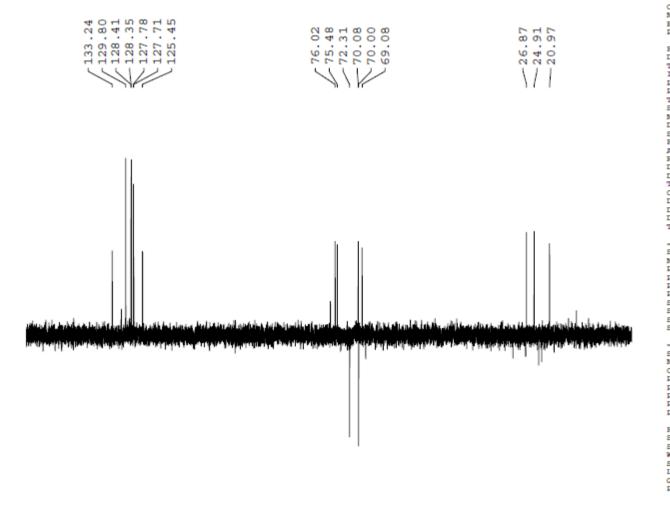
KMS-D-V-143 COSYGPSW CDCl3 {C:\Bruker\TopSpin3.2} nmr 37



Current I NAME EXPNO PROCNO	Data Parameters Sagar 133 1	
F2 - Acq Date_ Time INSTRUM PROBHD PULPROG TD SOLVENT NS DS	20141001 21.33 spect 5 mm PABBO BB- cosygpppqf 2048 CDC13	
FIDRES AQ RG	4273.504 2.086672 0.2396160 107.19	Hz Hz sec
DW DE TE D0 D1 D11 D12 D13 D16 INO	117.000	USEC K SEC SEC SEC SEC SEC SEC
SPO1 NUC1 PO P1 P17 PLW1 PLW10	CHANNEL f1 === 500.2322111 1H 9.04 9.04 2500.0 27.16399956 3.28390002	MHz usec usec usec w
GPNAM[1] GPZ1 P16	RADIENT CHANNEL SMSQ10.100 10.00 1000.00	
F1 - Acq TD SF01 FIDRES SW FnMODE	uisition parame 128 500.2322 33.386753 8.543 QF	MHz Hz ppm
F2 - Prod SI SF WDW SSB LB GB PC	0 Hz 0 1.40	
F1 - Proc SI MC2 SF WDW SSB LB GB	cessing paramet. 1024 QF 500.2300466 QSINE 0 0 Hz	MHz

DEPT of compound 23

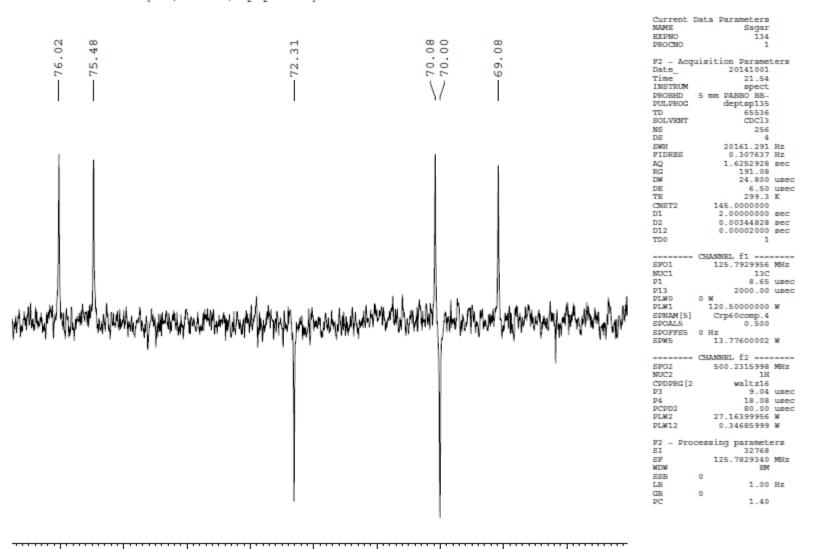
KMS-D-V-143
C13DEPT135 CDCl3 {C:\Bruker\TopSpin3.2} nmr 37



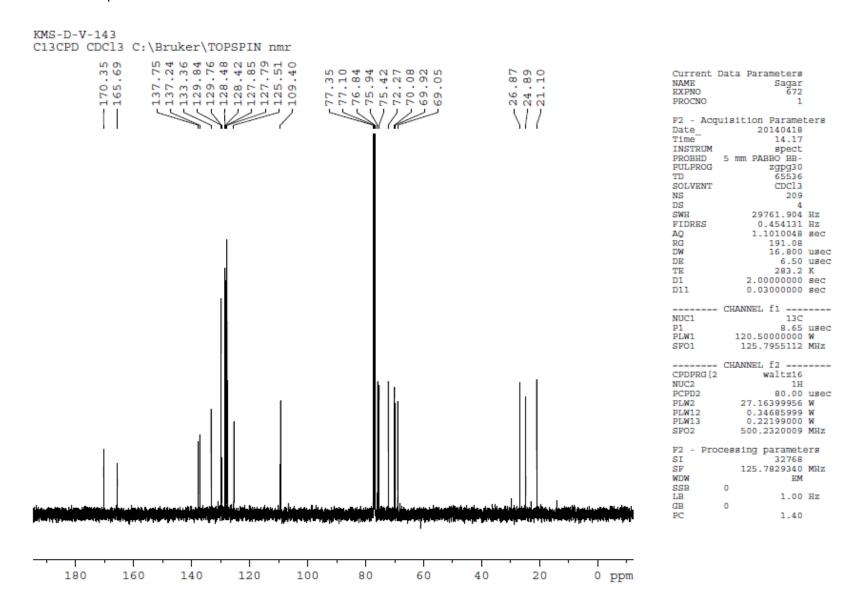
Current 1	Data Parameters	
MAME	Sagar	
EXPNO	134	
PROCNO	1	
72 - Acq	uisition Paramet	ers
Date_	20141001	
rime	21.54	
INSTRUM	spect	
PROBHD	5 mm PABBO BB-	
PULPROG	deptsp135	
TD CT	65536	
SOLVENT	CDC13	
NS	256	
08	4	
WH	20161.291	Hz
FIDRES	0.307637	Hz
NO.	1.6252928	sec
SC	191.08	
W	24.800	usec
DE C	6.50	usec
TE.	299.3	
NST2	145.0000000	
01	2.00000000	
02	0.00344828	
012	0.00002000	
rD0	1	
	_	
	CHANNEL fl	
3F01	125.7929956	MHz
WC1	13C	
71	8.65	usec
213	2000.00	usec
PLWO	0 W	
ZLW1	120.50000000	W
SPNAM[5]	Crp60comp.4	
SPOAL5	0.500	
SPOFFS5	0 Hz	
SPW5	13.77600002	W
	CHANNEL f2	
SF02	500.2315998	MHz
rUC2	111	
CPDPRG [2	waltz16	
73	9.04	usec
24	18.08	usec
PCPD2	80.00	
PLW2	27.16399956	W
PLW12	0.34685999	W
72 - Pro	cessing paramete	100
SI	32768	
SF	125.7829340	MHz
WDW	EM	
SSB	0	
AB	1.00	Hz
BB .	0	
2C	1.40	

DEPT of compound 23 (zoom)

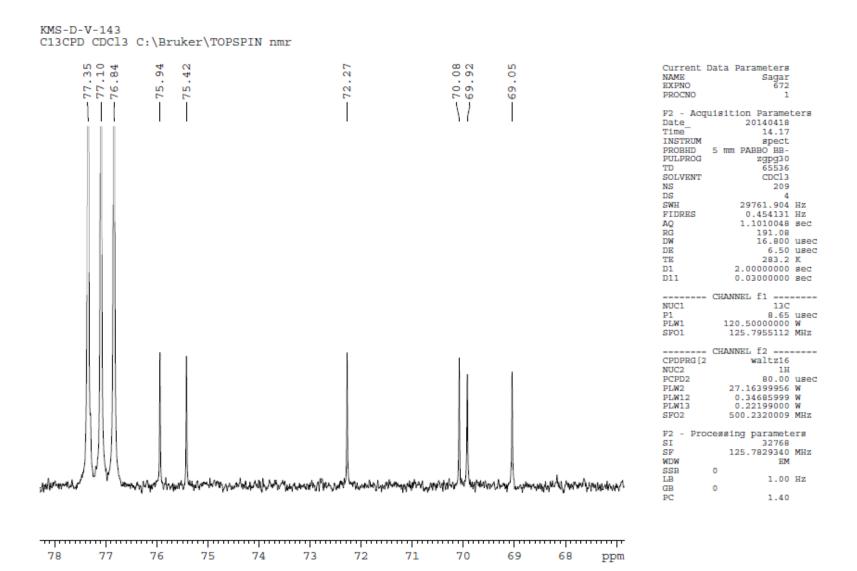
KMS-D-V-143
C13DEPT135 CDCl3 {C:\Bruker\TopSpin3.2} nmr 37



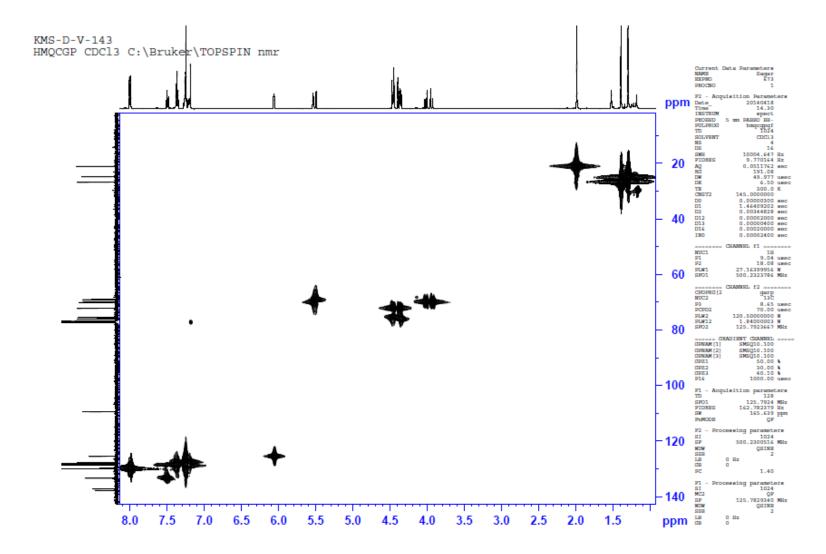
¹⁴C NMR of compound **23**



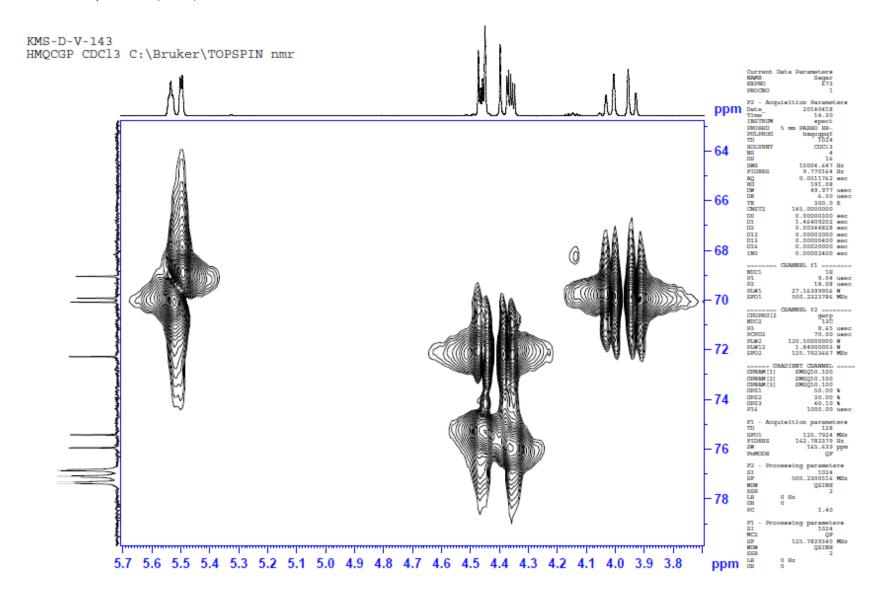
¹⁴C NMR of compound 23 (zoom)



HMQC of compound 23

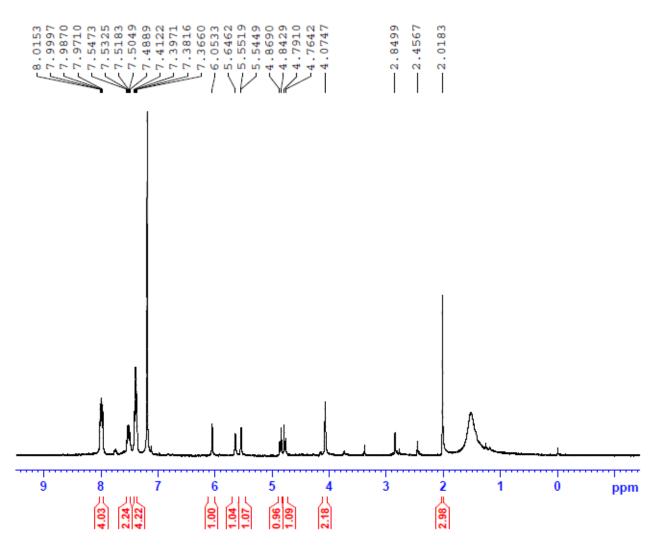


HMQC of compound 23 (zoom)



¹H NMR of compound **24**



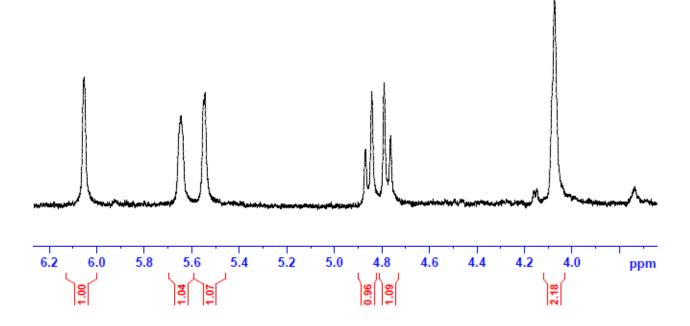


Curre	nt	Data	Par	amet	ters	
NAME				Sa	agar	
EXPNO)				742	
PROCN	Ю				1	
F2 -	T.com		Hon	Day	camo	tora
Date		uror			0602	rere
Time	-		-		1.28	
INSTR	MITT				ect.	
PROBE		E me	n DA			
PULPE		5 111	II PA		zq30	
TD					1024	
SOLVE	TREET				DC13	
NS	14.1				16	
DS					2	
SWH			10	004	.662	Uт
FIDRE	re.				0178	
AQ					1761	
RG			٠.		1.08	
DW						usec
DE						usec
TE					00.0	
D1			1.0			sec
		CHAI	NNEL	f1		
NUC1					1H	
P1						usec
PLW1					9956	
SF01			500.	2330	0891	MHZ
F2 -	Pro	cess:	ing	para	amete	ers
SI			_		5536	
SF			500.	2300	0500	MHz
WDW					EM	
SSB		0				
LB				(0.30	Hz
GB		0				
PC					1.00	

¹H NMR of compound **24** (zoom)

KMS-D-V-Uva E PROTON CDCl3 C:\Bruker\TOPSPIN nmr

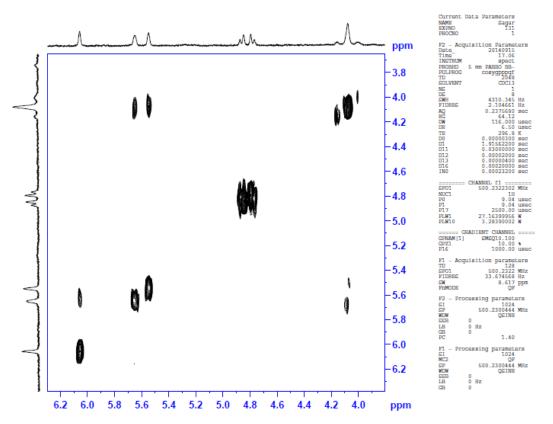




	Data Parameter	
NAME	Saga	
EXPNO	743	-
PROCNO		1
F2 - Ac	quisition Parame	eters
Date	2014060	2
Time_	21.2	В
INSTRUM	spect	Ł
PROBHD	5 mm PABBO BB	-
PULPROG	zg3	0
TD	102	4
SOLVENT	CDC1:	3
NS	10	6
DS		2
SWH	10004.66	2 Hz
FIDRES	9.77017	8 Hz
AO	0.051176	
RG	191.0	8
DW	49.97	7 usec
DE		0 usec
TE	300.	0 K
D1	1.0000000	
	- CHANNEL fl	
NUC1	11	
P1	9.0	4 usec
PLW1	27.1639995	
SFO1	500.233089	1 MHz
P2 - Pr	ocessing paramet	ters
SI	6553	
SF	500.230050	_
WDW	E	
SSB	0	78
LB		0 Hz
GB	0	
PC	1.0	n
4. %	1.0	Marie Control

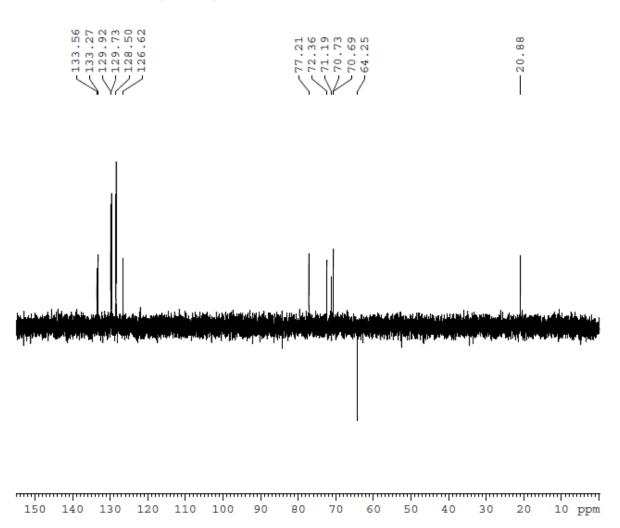
COSY of compound 24

KMS-D-V-uVA e
COSYGPSW CDCl3 {C:\Bruker\TopSpin3.2} nmr 57



DEPT of compound 24

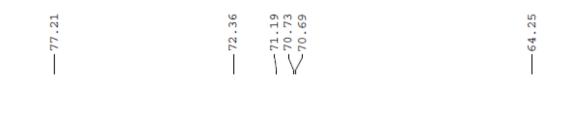
KMS-D-V-Uva E C13DEPT135 CDCl3 C:\Bruker\TOPSPIN nmr

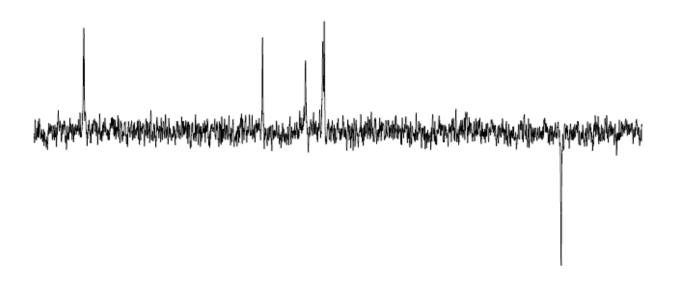


Current Da	ta Parameters	
NAME	Sagar	
EXPNO	750	
PROCNO	1	
P2 - Accusi	sition Paramet	
Date	20140610	CLB
Time	23.02	
INSTRUM	spect	
	mm PABBO BB-	
PULPROG	deptsp135	
TD	65536	
SOLVENT	CDC13 1024	
DS	4	
SWH	20161.291	Hz
FIDRES	0.307637	Hz
AQ	1.6252928	sec
RG	191.08	
DW	24.800	
DE		usec
TE	300.4	K
CNST2	145.0000000	
D1 D2	2.00000000 0.00344828	
D12	0.00344828	
	0.00002000	
C	HANNEL fl	
NUC1	13C	
P1		usec
P13	2000.00	usec
	W	
PLW1 SFO1	120.50000000	MHz
SPNAM[5]	Crp60comp.4	MAZ
SPOAL5	0.500	
SPOFFS5 0	Hz	
SPW5	13.77600002	W
	HANNEL f2	
CPDPRG[2 NUC2	waltz16	
P3		usec
P4	18.08	
PCPD2	80.00	
PLW2	27.16399956	W
PLW12	0.34685999	
SFO2	500.2315998	MHZ
	:	
F2 - Proce	ssing paramete 32768	1.0
SF	125.7829340	MHz
WDW	EM	
SSB 0		
LB	1.00	Hz
GB 0		
PC	1.40	

DEPT of compound 24 (zoom)

KMS-D-V-Uva E C13DEPT135 CDCl3 C:\Bruker\TOPSPIN nmr



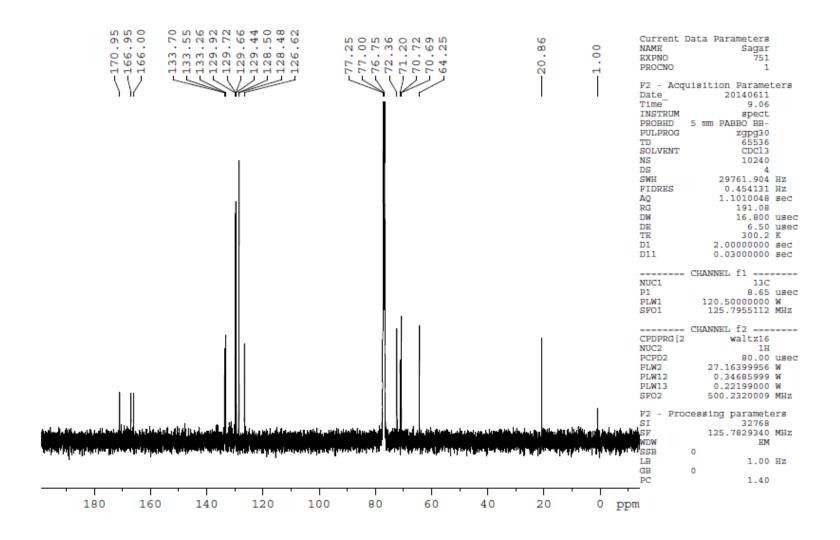


	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				 1111			 11111				 1111			
78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	ppm

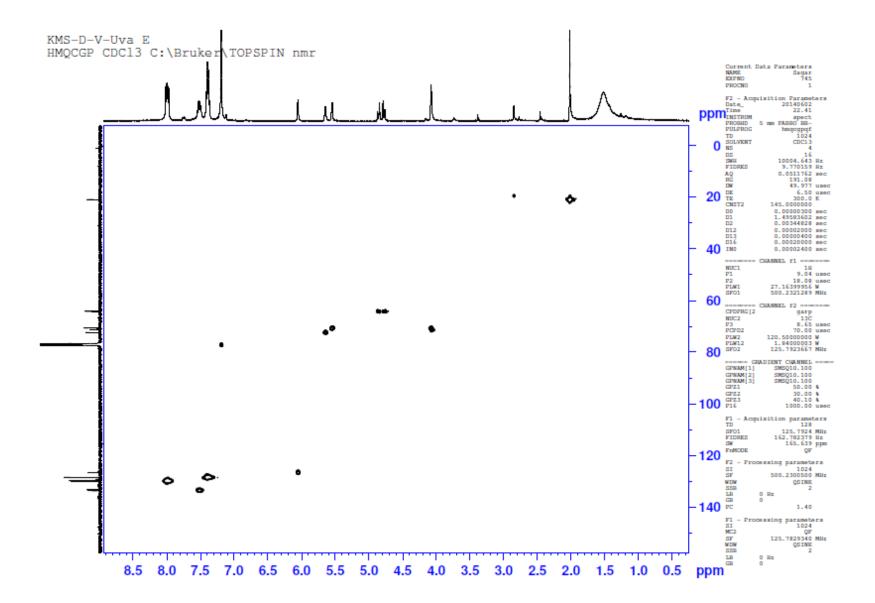
	B-1- B	
	Data Parameters	
NAME	Sagar	
EXPNO	750	
PROCNO	1	
F2 - Acq	uisition Paramet	ers
Date	20140610	
Time	23.02	
INSTRUM	spect	
PROBHD	5 mm PABBO BB-	
PULPROG	deptsp135	
TD	65536	
SOLVENT	CDC13	
NS	1024	
DS	4	
SWH	20161.291	Hz
FIDRES	0.307637	
	1.6252928	
AQ		sec
RG	191.08	
DW	24.800	
DE	6.50	
TE	300.4	K
CNST2	145.0000000	
D1	2.00000000	sec
D2	0.00344828	
D12	0.00002000	
DIZ	0.00002000	acc
	CHANNEL f1	
NUC1	13C	
P1	8.65	
P13	2000.00	usec
PLWO	0 W	
PLW1	120.50000000	W
SFO1	125.7929956	MHz
SPNAM[5]	Crp60comp.4	
SPOAL5	0.500	
SPOFF85		
SPW5	13.77600002	
SPW5	13.77600002	W
	CHANNEL f2	
CPDPRG[2	waltz16	
NUC2	1H	
P3	9.04	usec
P4	18.08	usec
PCPD2	80.00	11/0/2007
PLW2	27.16399956	
PLW12	0.34685999	
SFO2	500.2315998	
5202	500.2315998	MMZ
	cessing paramete	TS
SI	32768	
SF	125.7829340	MHz
WDW	EM	
SSB	0	
LB	1.00	Hz
GB	0	
PC	_	
2.0	1.40	

¹⁴C NMR of compound **24**

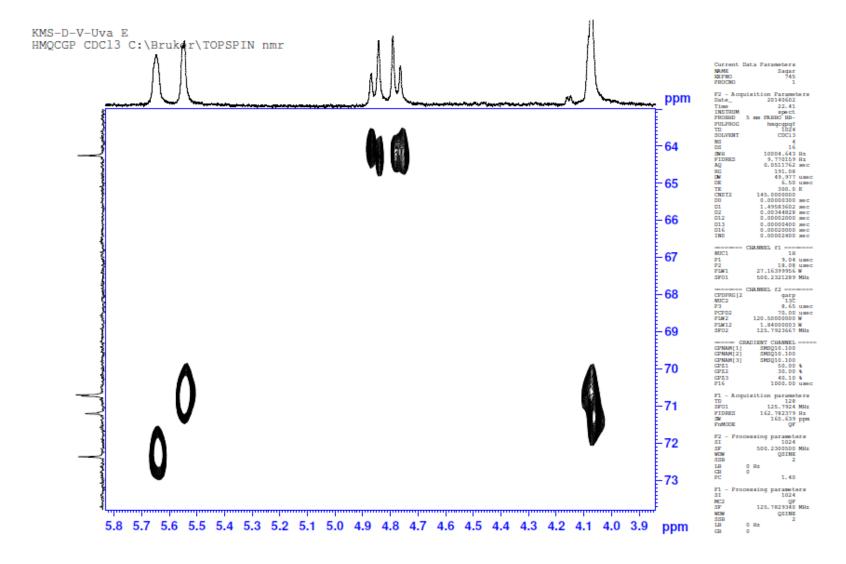
KMS-D-V-Uva E C13CPD CDC13 C:\Bruker\TOPSPIN nmr



HMQC of compound 24

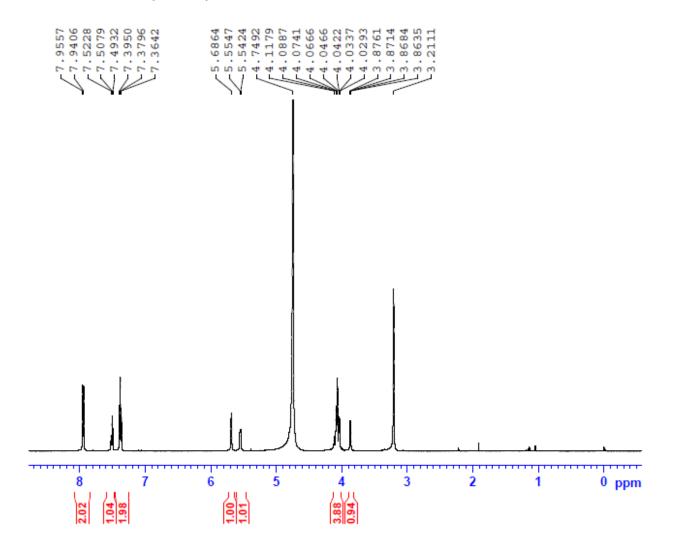


HMQC of compound 24 (zoom)



¹H NMR of compound **25**

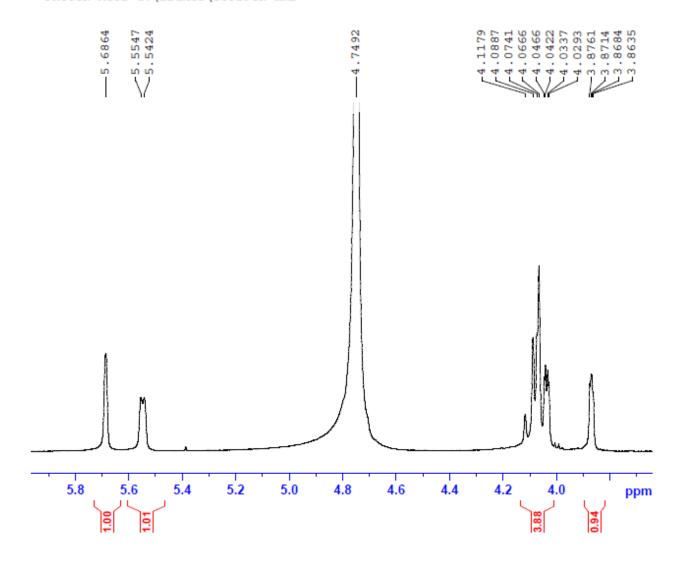
KMS-D-V-31 PROTON MeOD C:\Bruker\TOPSPIN nmr



Current Da NAME EXPNO PROCNO	ta Parameters Sagar 332 1	
Date Time INSTRUM PROBHD 5 PULPROG TD SOLVENT NS	sition Paramet 20130511 15.09 spect mm PABBO BB- zg30 65536 MeOD 16	ers
DS SWH FIDRES AQ RG DW DE TE D1	2 10330.578 0.157632 3.1719425 125.62 48.400 6.50 299.1 1.00000000	Hz sec usec usec K
NUC1 P1 PLW1 SFO1	HANNEL fl 1H 9.04 27.16399956 500.2330891	usec W
F2 - Proce SI SF WDW SSB 0 LB GB 0	0.30	MHz

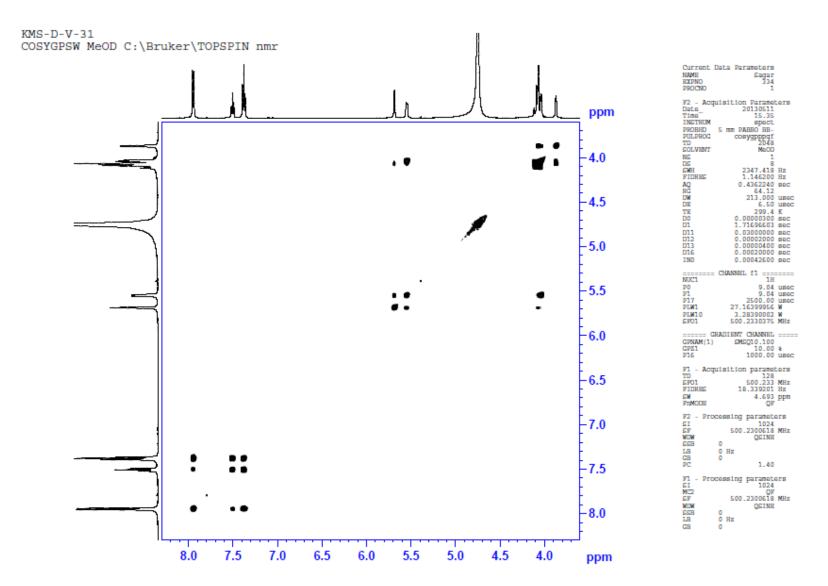
¹H NMR of compound **25** (zoom)

KMS-D-V-31 PROTON MeOD C:\Bruker\TOPSPIN nmr

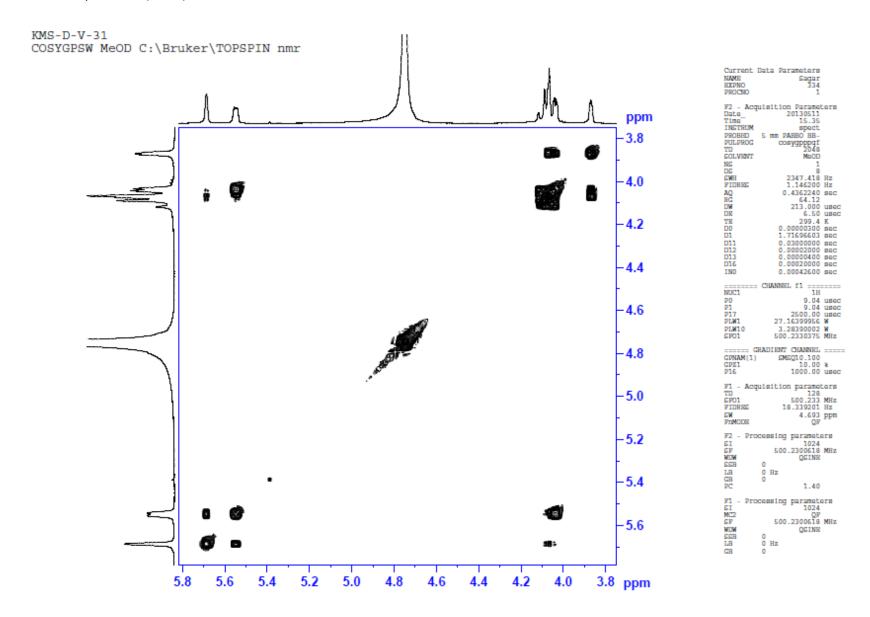


Current	Data	Par	ате	te	T S	
NAME				ag		
EXPNO					32	
PROCNO				_	1	
LICUITO						
F2 - Acq	uisi	tion	Pa	ra	met	ters
Date			013			
Time_				5.		
INSTRUM				pe		
PROBHD	5 m	m PA				
PULPROG				zq	30	
TD			6	555		
SOLVENT				Me	OD	
NS					16	
DS					2	
SWH		10	330).5	78	Hz
FIDRES		0	.15	76	32	Hz
AQ		3.	171	94	25	sec
RG			12	25.	62	
DW						usec
DE						usec
TE					.1	
D1		1.0	000	000	00	sec
	CHA	NNEL	f)			
NUC1					1н	
P1						usec
PLW1		27.1				
SF01		500.	233	808	91	MHz
F2 - Pro	cess	1ng				ers
SI					36	
SF		500.	230			MHz
WDW	0				EΜ	
SSB	0					
LB				υ.	30	HZ
GB PC	0				00	
PC				٠.	UU	

COSY of compound 25



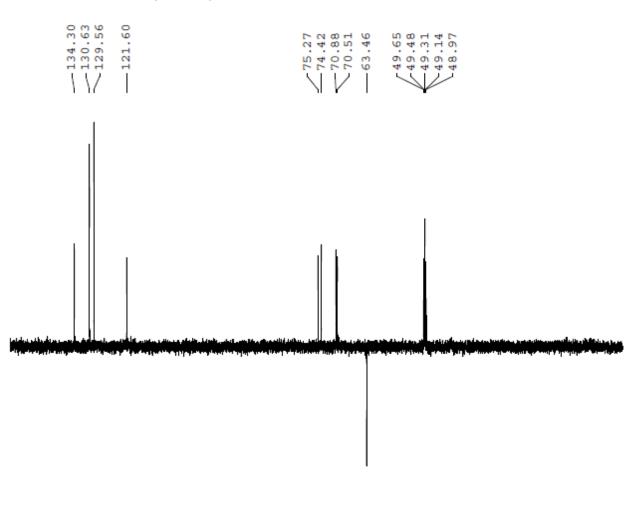
COSY of compound 25 (zoom)



DEPT of compound 25

KMS-D-V-31 C13DEPT135 MeOD C:\Bruker\TOPSPIN nmr

140 130 120 110 100



60

EXPNO	333	
PROCNO	1	
	isition Paramet	ers
Date_	20130511	
Time	15.33	
INSTRUM	spect	
PROBHD	5 mm PABBO BB-	
PULPROG	deptsp135	
TD	65536	
SOLVENT	MeOD	
NS	256 4	
DS	20161.291	**
FIDRES	0.307637	
	1.6252928	
AQ RG	1.6252528	
DW	24.800	
DE	6.50	
TE	299.7	K.
CNST2	145.0000000	
D1	2.00000000	
D2	0.00344828	
D12	0.00002000	sec
	CHANNEL fl	
NUC1	130	
PI		usec
P13	2000.00	
PLWO	0 W	usec
PLW1	120.50000000	W
SFO1	125.7929956	
SPNAM [5]	Crp60comp.4	Pina
SPOALS	0.500	
SPOFFSS	0.500	
SPW5	13.77600002	w
DEND	13.77000002	
	CHANNEL f2	
CPDPRG[2	waltz16	
NUC2	111	
P3	9.04	usec
P4	18.08	usec
PCPD2	80.00	
PLW2	27.16399956	
PLW12	0.34685999	
SFO2	500.2315998	
F2 - Proc	cessing paramete	ers
SI	32768	
SF	125.7827554	MHz
WDW	EM	
SSB	0	
LB	1.00	Hz
GB	0	
PC	1.40	

Current Data Parameters NAME Sagar

333

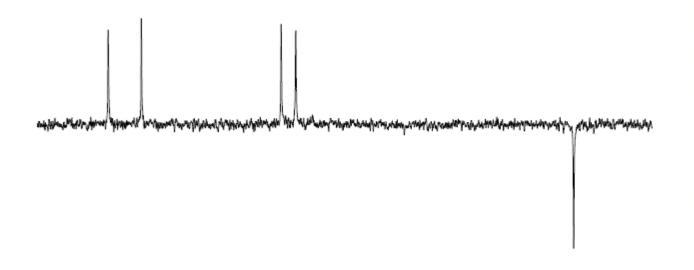
EXPNO

ppm

DEPT of compound 25 (zoom)







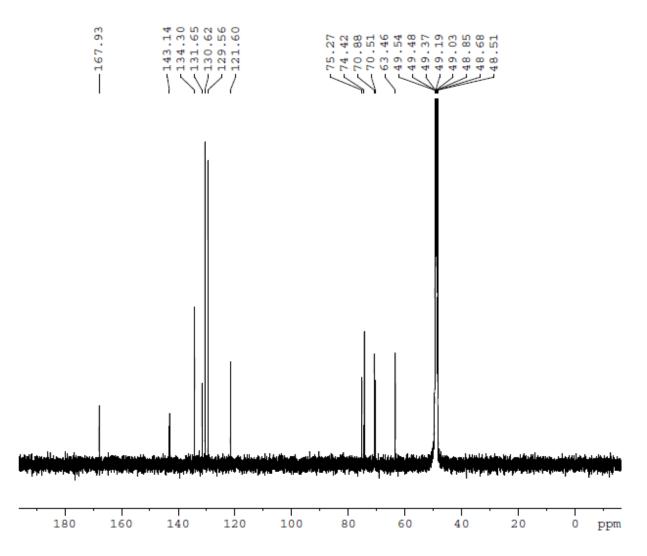
Current I	Data Parameters	
(AME	Sagar	
EXPNO	333	
PROCNO	1	
72 - Acqu Date	isition Paramet	ers
	20130511	
l'ime	15.33	
ROBHD	spect 5 mm PABBO BB-	
ULPROG	deptsp135	
TD CT	65536	
SOLVENT	MeOD	
ØS	256	
OS	4	
HWE	20161.291	Hz
FIDRES	0.307637	Hz
NQ.	1.6252928	sec
2G	191.08	
W	24.800	usec
DE C	6.50	usec
LE.	299.7	K
NST2	145.0000000	
01	2.00000000	sec
02	0.00344828	sec
012	0.00002000	sec
	CHANNEL f1	
WC1	13C	
71	8.65	
713	2000.00	usec
PLWO	0 W	
ZLW1	120.50000000	W
SF01		MHz
EDNAM[5]	Crp60comp.4	
SPOAL5	0.500	
POFFS5	0 Hz 13.77600002	100
SPMS	13.77600002	w.
	CHANNEL f2	
PDPRG[2	waltz16	
rUC2	1H	
73	9.04	usec
74	18.08	usec
PCPD2	80.00	usec
PLW2	27.16399956	W
PLW12	0.34685999	W
FO2	500.2315998	MHz
72 - Proc	cessing paramete	rs
SI	32768	
SF.	125.7827554	MHZ
VDW	EM	
SSB	0	
AB	1.00	Hz
3B	0	

1.40

т.															
	76	75	74	73	72	71	70	69	68	67	66	65	64	63	mqq

¹⁴C NMR of compound **25**

KMS-D-V-31 C13CPD MeOD C:\Bruker\TOPSPIN nmr

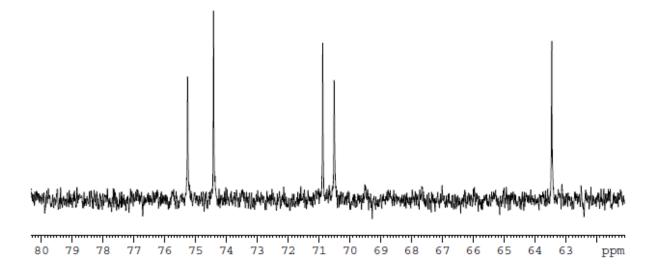


Current I	Data Parameters	
NAME	Sagar	
EXPNO	336	
PROCNO	1	
P2 - Acm	isition Paramet	ers
Date	20130511	
Time	16.00	
INSTRUM	spect	
PROBHD	5 mm PABBO BB-	
PULPROG	zgpg30	
TD	65536	
SOLVENT	MeOD	
NS	1024	
DS	4	
SWH	29761.904	
FIDRES	0.454131	
AQ	1.1010048	
RG	191.08	
DW	16.800	
DE	6.50	
TE D1	300.2 2.00000000	
D11	0.03000000	
DII	0.03000000	sec
	CHANNEL fl	
NUC1	CHANNEL fl ====	
	13C 8.65	usec
NUC1 P1 PLW1	13C 8.65 120.50000000	usec W
NUC1 P1	13C 8.65	usec W
NUC1 P1 PLW1 SFO1	13C 8.65 120.50000000 125.7955112	usec W MHz
NUC1 P1 PLW1 SFO1	13C 8.65 120.50000000 125.7955112 CHANNEL f2	usec W MHz
NUC1 P1 PLW1 SF01 CPDPRG [2	13C 8.65 120.50000000 125.7955112 CHANNEL f2 waltz16	usec W MHz
NUC1 P1 PLW1 SF01 CPDPRG [2 NUC2	13C 8.65 120.50000000 125.7955112 CHANNEL f2 waltz16 1H	usec W MHz
NUC1 P1 PLW1 SFO1 CPDPRG[2 NUC2 PCPD2	13C 8.65 120.50000000 125.7955112 CHANNEL f2 Waltz16 1H 80.00	usec W MHz
NUC1 P1 PLW1 SF01 CPDPRG [2 NUC2	13C 8.65 120.50000000 125.7955112 CHANNEL f2 waltz16 1H	usec W MHz usec
NUC1 P1 PLW1 SP01 CPDPRG [2 NUC2 PCPD2 PCPD2 PLW2	13C 8.65 120.50000000 125.7955112 CHANNEL f2 waltz16 1H 80.00 27.16399956	usec W MHz usec W
NUC1 P1 PLW1 SF01 CPDPRG [2 NUC2 PCPD2 PLW2 PLW12	13C 8.65 120.50000000 125.7955112 CHANNEL f2 ===- waltz16 1H 80.00 27.16399956 0.34685999	usec W MHz usec W W
NUC1 P1 PLW1 SFO1 CPDPRG[2 NUC2 PCPD2 PLW2 PLW2 PLW12 PLW13 SFO2	13C 8.65 120.50000000 125.7955112 CHANNEL f2 waltz16 1H 80.00 27.16399956 0.34685999 0.22199000 500.2320009	usec W MHz usec W W W MHz
NUC1 P1 PLW1 SFO1 	13C 8.65 120.50000000 125.7955112 CHANNEL f2 waltz16 1H 80.00 27.16399956 0.34685999 0.22199000 500.2320009	usec W MHz usec W W W MHz
NUC1 P1 PLW1 SF01 CPDPRG[2 NUC2 PCPD2 PLW12 PLW12 PLW13 SF02 F2 - Proc	13C 8.65 120.50000000 125.7955112 CHANNEL f2 waltz16 1H 80.00 27.16399956 0.34685999 0.22199000 500.2320009 cessing paramete 32768	usec W MHZ usec W W W MHZ
NUC1 P1 PLW1 SF01 CPDPRG[2 NUC2 PCPD2 PLW2 PLW12 PLW13 SF02 F2 - Proc SI SF	13C 8.65 120.50000000 125.7955112 CHANNEL f2 waltz16 80.00 27.16399956 0.34685999 0.22199000 500.2320009 cessing paramete 32768 125.7827554	usec W MHZ usec W W W MHZ
NUC1 P1 PLW1 SFO1 CPDPRG[2 NUC2 PCPD2 PLW2 PLW12 PLW13 SFO2 F2 - Proc SI SF WDW	13C 8.65 120.50000000 125.7955112 CHANNEL f2 waltz16 80.00 27.16399956 0.34685999 0.22199000 500.2320009 cessing paramete 32768 125.7827554 EM	usec W MHZ usec W W W MHZ
NUC1 P1 PLW1 SF01 CPDPRG[2 NUC2 PCPD2 PLW12 PLW12 PLW13 SF02 F2 - Proc SI SF WDW SSB	13C 8.65 120.50000000 125.7955112 CHANNEL f2	usec W MHz usec W W W MHz ers
NUC1 P1 PLW1 SF01 CPDPRG[2 NUC2 PCPD2 PLW12 PLW13 SF02 F2 - Proc SI SF WDW SSB LB	13C 8.65 120.50000000 125.7955112 CHANNEL f2	usec W MHz usec W W W MHz ers
NUC1 P1 PLW1 SF01 CPDPRG[2 NUC2 PCPD2 PLW12 PLW12 PLW13 SF02 F2 - Proc SI SF WDW SSB	13C 8.65 120.50000000 125.7955112 CHANNEL f2	usec W MHz usec W W W MHz ers

¹⁴C NMR of compound **25** (zoom)

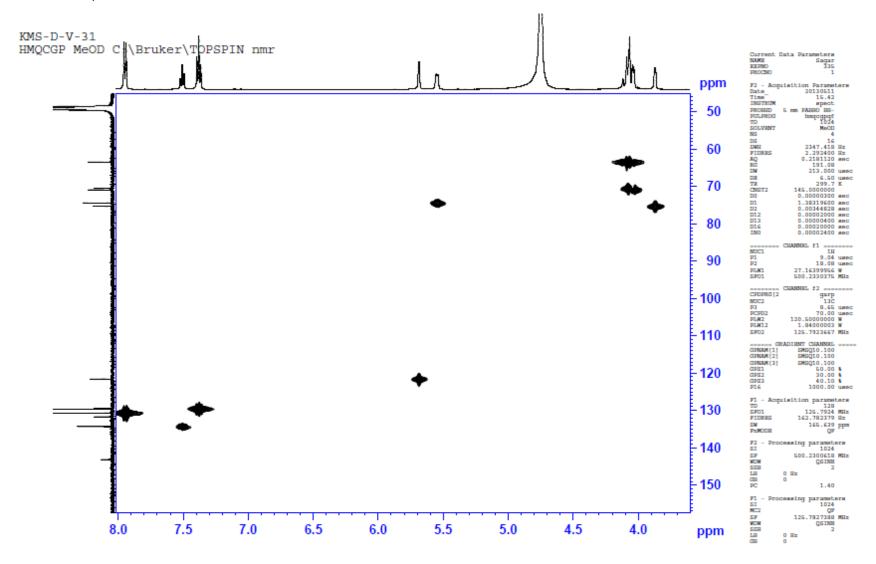
KMS-D-V-31 C13CPD MeOD C:\Bruker\TOPSPIN nmr



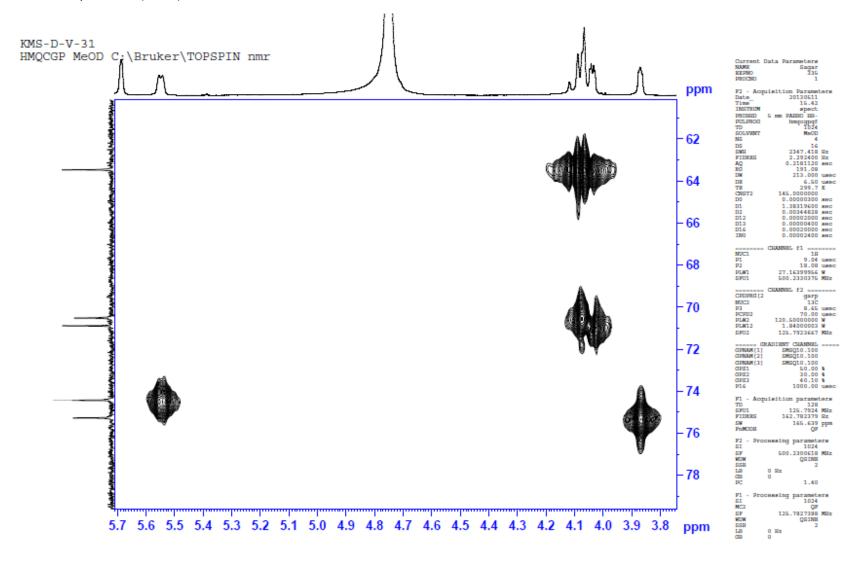


Current I	Data Parameters	
NAME	Sagar	
EXPNO	336	
PROCNO	1	
F2 - Acqu	iisition Paramet	ters
Date	20130511	
Time	16.00	
INSTRUM	spect	
	5 mm PABBO BB-	
PULPROG	zgpg30	
TD	65536	
SOLVENT	MeOD	
NS	1024	
DS	4	
SWH	29761.904	Hz
FIDRES	0.454131	
	1.1010048	
AQ		
RG	191.08	
DW	16.800	
DE	6.50	
TE	300.2	
D1	2.00000000	sec
D11	0.03000000	sec
	CHANNEL fl	
NUC1	130	
P1		
		usec
PLW1	120.50000000	
SFO1	125.7955112	MHZ
	CHANNEL f2	
CPDPRG [2		
NUC2	1H	
PCPD2	80.00	usec
PLW2	27.16399956	W
PLW12	0.34685999	W
PLW13	0.22199000	
SFO2	500.2320009	
SFUE	500.2320009	Pilita
P2 - Drov	cessing paramete	200
SI FIO		EL O
	32768	
SF	125.7827554	MHZ
WDW	EM	
SSB	0	
LB	1.00	Hz
GB	0	
PC	1.40	
	2.40	

HMQC of compound 25

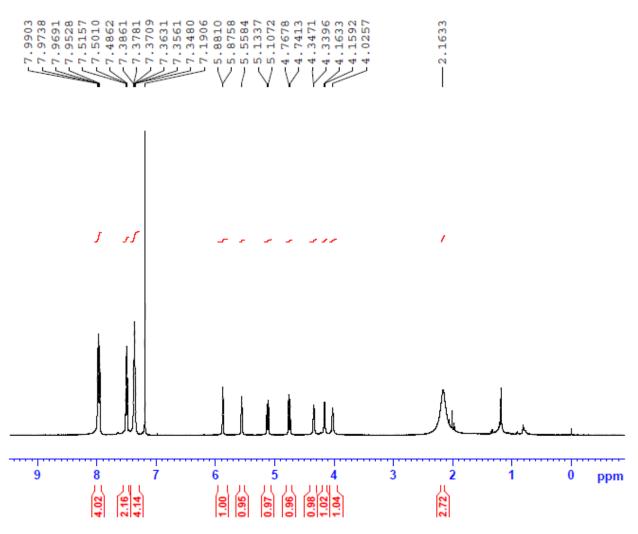


HMQC of compound 25 (zoom)



¹H NMR of compound **26**



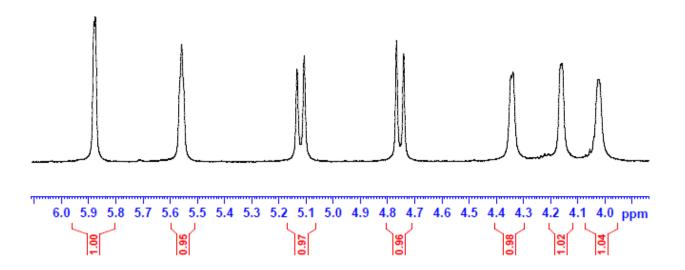


Current Data Parameters NAME Sagar EXPNO 347 PROCNO 1	
P2 - Acquisition Parameter	8
DS 2 SWH 10330.578 Hz FIDRES 0.157632 Hz AQ 3.1719425 se RG 171.32 DW 48.400 Us DE 6.50 Us TE 299.6 K D1 1.00000000 se	c ec ec
NUC1 1H P1 9.04 US PLW1 27.16399956 W SF01 500.2330891 MH	ec
F2 - Processing parameters SI 65536 SF 500.2300504 MH WDW EM SSB 0 LB 0.30 Hz GB 0 PC 1.00	Z

¹H NMR of compound **26** (zoom)

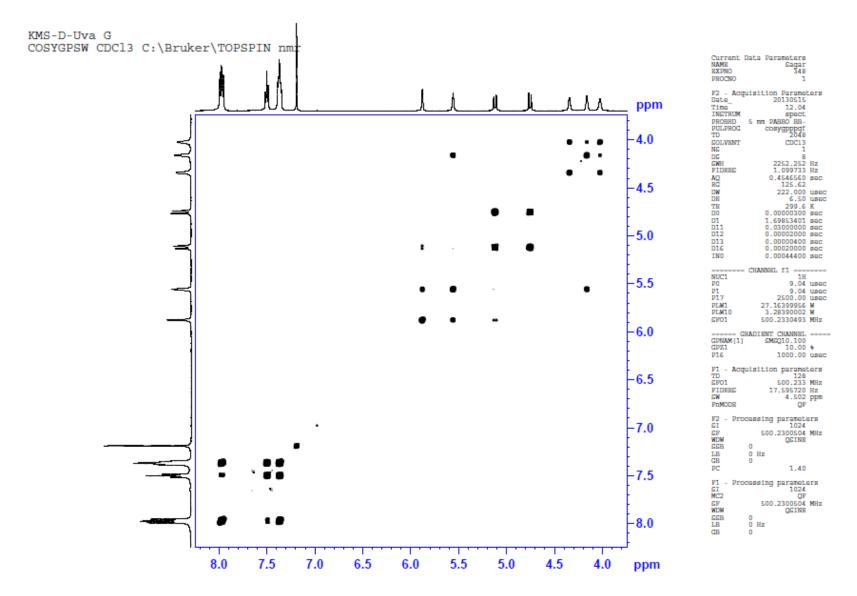
KMS-D-Uva G PROTON CDCl3 C:\Bruker\TOPSPIN nmr

8810	5584	1337	7678	3471	1633	0257
 	ις. -	20	4 4	4 4	4 4	4
\vee		17	\/	V	V	



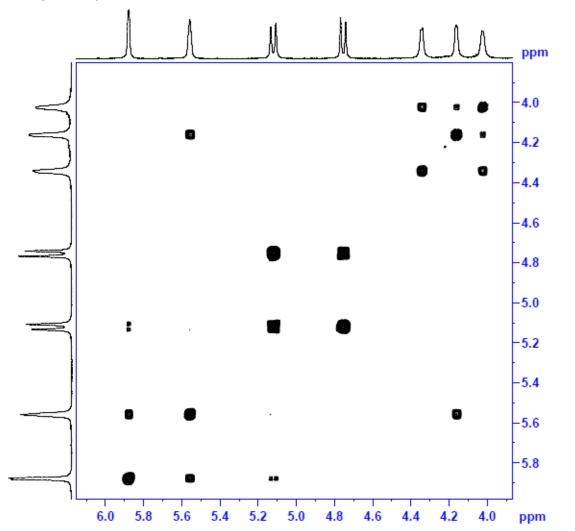
Current Da	ata Parameters	
NAME	Sagar	
EXPNO	347	
PROCNO	1	
riceiro	-	
F2 - Acqui	sition Paramet	ters
Date	20130515	
Time	11.56	
INSTRUM	spect	
PROBHD 5	mm PABBO BB-	
PULPROG	zg30	
TD	65536	
SOLVENT	CDC13	
NS	16	
DS	2	
SWH	10330.578	Hz
FIDRES	0.157632	Hz
AQ	3.1719425	sec
RG	171.32	
DW	48.400	usec
DE	6.50	usec
TE	299.6	K
D1	1.00000000	sec
	CHANNEL f1	
NUC1	111	
P1		usec
PLW1	27.16399956	
SF01	500.2330891	MHz
	essing paramete	ers
SI	65536	
SF	500.2300504	MHz
WDW	EM	
SSB 0		
LB	0.30	$_{\rm Hz}$
GB 0	•	
PC	1.00	

COSY of compound 26



COSY of compound 26 (zoom)

KMS-D-Uva G
COSYGPSW CDCl3 C:\Bruker\TOPSPIN nmr



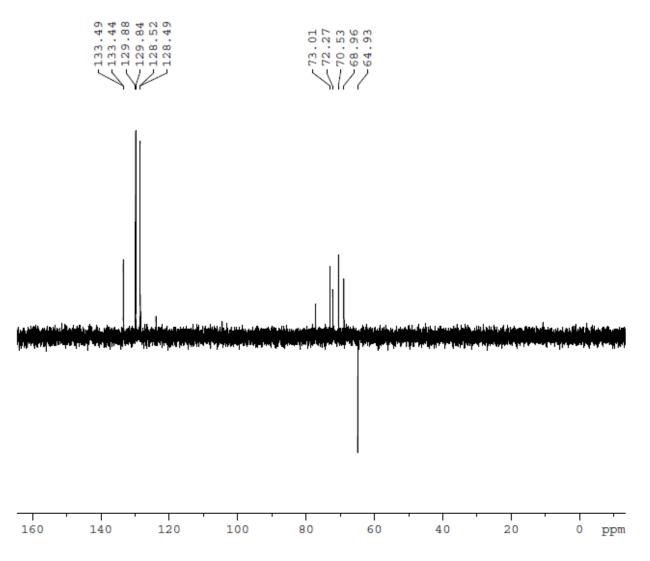
277.3477	t Data Varameters	
NAME EXPNO	Sagar 348	
PROCNO	1	
	oquisition Paramet	ers
Date_	20130515	
Time	12.04	
INSTRU	M spect	
PROBHD	E mm DARRO RR	
PULPRO		
TD	2048	
SOLVEN		
NE	1	
DG	8	

FIDERS	2252.252 1.099733	Hz
AQ	0.4546560	sec
RC	125.62	
DW.	222.000 6.50	USEC
DR	6.50	1158C
TR	299.6	K
DO	0.00000300	Sec
D1	1.69853401	
D11	0.03000000	more.
D12	0.00002000	and a
D13	0.00000400	sec
D16	0.00020000	
INO	0.00044400	sec
	CHANNEL fl	
NUC1	1H	
PO		USEC
P1		usec
P17	2500.00	
		W
PLW1	27.16399956 3.28390002	
PLW10	3.28390002	W
SFOI	500.2330493	MHZ
CONAM [1] SMSQ10.100	
	GRADIENT CHANNEL 1] SMSQ10.100 10.00	
CONAM [1] SMSQ10.100 10.00	
GPNAM [1] SMSQ10.100	
GPNAM[GPZ1 P16	1] SMSQ10.100 10.00 1000.00	usec
GPNAM[GPZ1 P16 F1 - A	1] SMSQ10.100 10.00 1000.00 cquisition paramet	usec
GPNAM[GPZ1 P16 F1 - A	1] SMSQ10.100 10.00 1000.00 cquisition paramet	usec
GPNAM[GPZ1 P16 F1 - A TD SF01	1] SMSQ10.100 10.00 1000.00 cquisition paramet 128 500.233	usec ters MHz
GPNAM[GPZ1 P16 F1 - A TD SF01 FIDRES	1] SMSQ10.100 10.00 1000.00 cquisition parame! 128 500.233 17.595720	usec ters MHz Hz
GPNAM[GPZ1 P16 F1 - A TD SF01 FIDRES SW	1] SMSQ10.100 10.00 1000.00 cquisition paramel 128 500.233 17.595720 4.502	usec ters MHz Hz
GPNAM[GPZ1 P16 F1 - A TD SF01 FIDRES	1] SMSQ10.100 10.00 1000.00 cquisition parame! 128 500.233 17.595720	usec ters MHz Hz
GPNAM[GPZ1 P16 F1 - A TD SFO1 FIDRES SW FnMODE	1) SMSQ10.100 10.00 1000.00 cquisition paramal 500.233 17.595720 4.502 QF	usec ters MHz Hz ppm
GPNAM[GPZ1 P16 F1 - A TD SFO1 FIDRES SW FnMODE	1) SMSQ10.100 10.00 1000.00 cquisition paramet 128 500.233 17.595720 4.502 0F	usec ters MHz Hz ppm
GPNAM[GPZ1 P16 F1 - A TD SFO1 FIDRES SW FnMODE	1] SMSQ10.100 10.00 1000.00 cquisition paramel 128 500.233 17.595720 4.502	usec ters MHz Hz ppm
GPNAM[GPZ1 P16 F1 - A TD SF01 FIDRES SW FnMODE F2 - P	1] SMSQ10.100 10.00 1000.00 cquisition paramel 500.233 17.595720 4.502 OF	usec ters MHz Hz ppm
GPNAM[GPZ1 P16 F1 - A TD SF01 FIDRES SW FnMODE F2 - P SI SF	1] SMSQ10.100 10.00 1000.00 cquisition parame! 500.233 17.595720 4.502 CF rocessing paramete 500.2330554	usec ters MHz Hz ppm
GPNAM[GPZ1 P16 F1 - A TD SF01 F1DRES SW FnMODE F2 - P SI SF WDW	1] SMEQ10.100 10.00 1000.00 cquisition paramet 500.233 17.595720 4.502 0F rocessing paramet. 500.3300504 0GINE	usec ters MHz Hz ppm
GPNAM[GPZ1 P16 F1 - A TD SF01 FIDRES SW FNMODE F2 - P SI SF WDW SSB	1] SMSQ10.100 10.00 1000.00 cquisition parame! 500.233 17.595720 4.502 OF rocessing paramet. 1024 500.2305504 0 SINE	usec ters MHz Hz ppm
GPNAM [GPZ1 P16 F1 - A TD SF01 FIDRES SW FnMODE F2 - P SI SF WDW SSB LB	1] SMEQ10.100 10.00 1000.00 cquisition paramet 128 500.233 17.595720 QF roccassing paramet: 500.2300504 0 GSINE	usec ters MHz Hz ppm
GPNAM[GPZ1] P16 F1 - A TD SF01 F1DRES SW FnMODE F2 - P S1 SSB LB LB GB	1] SMSQ10.100 10.00 1000.00 cquisition paramel 500.233 17.595720 4.502 OF rocessing paramet 500.2300504 QEINE 0 Hz	usec ters MHz Hz ppm
GPNAM [GPZ1 P16 F1 - A TD SF01 FIDRES SW FnMODE F2 - P SI SF WDW SSB LB	1] SMEQ10.100 10.00 1000.00 cquisition paramet 128 500.233 17.595720 QF roccassing paramet: 500.2300504 0 GSINE	usec ters MHz Hz ppm
GPNAM[GPZ1 P16 F1 - A TD SF01 FIDRES SW FIMODE F2 - P SI WDW SSB LB GB PC	1] SMSQ10.100 100.00 1000.00 cquisition paramel 500.233 17.595720 4.502 0F rocessing paramet 500.23305504 0 GSINE 0 Hz	usec ters MHz Hz ppm ers
GPNAM[GPZI p16 F1 - A TD - A TD - FIDERS SW FnMODE F2 - P SI SF WDW SSB LB GB GB FC F1 - P	1] SMSQ10.100 10.00 1000.00 1000.00 cquisition parameter 128 500.233 17.595720 QF rocessing parameter 500.2300504 QGINE 0 0 Hz 1024	usec ters MHz Hz ppm ers
GPNAM[GPZI P16 F1 - A TD SF01 FIDRES SW FIMODE F2 - P SF WDW SSB LB GB PC F1 - P	1] SMSQ10.100 10.00 1000.00 cquisition paramel 500.233 17.595720 4.500 0F rocessing paramet 500.2300504 0 UK	usec ters MHz Hz ppm ers
GPNAM[GPZI p16 F1 - A TD - A TD - FIDERS SW FnMODE F2 - P SI SF WDW SSB LB GB GB FC F1 - P	1] SMSQ10.100 10.00 1000.00 cquisition paramel 500.233 17.595720 4.500 0F rocessing paramet 500.2300504 0 UK	usec ters MHz Hz ppm ers
GPMAM[GPZI] P16 F1 - A TD SFOI FIDRES SW FINDOR F2 - P SI SF WDW SSB LB GB PC F1 - P SI MC2	1] SMSQ10.100 10.00 1000.00 1000.00 cquisition parameter 128 500.233 17.595720 4.502 OF rocessing parameter 1024 500.2300504 OGENNE 0 0 Hz 0 1.40 rocessing parameter 1024 0 Upper 1024	usec ters MHz Hz ppm ers MHz
GPMAM! GPZI P16 F1 - A TD SF01 F1DRES SW F1MODE F2 - P SI WDW SSB LB GB PC F1 - P SI -	1] SMSQ10.100 10.00 1000.00 cquisition paramel 500.233 17.595720 4.500 OF rocessing paramet 500.2300504 OF 0 Hz 0 1.40 rocessing paramet 1024 500.2300504 FOR STAN OF 500.2300504	usec ters MHz Hz ppm ers MHz
GPNAM[GPZI P16 F1 - A TD SF00: F1DRES SW F1MODE F2 - P SI SSB LB GB PC F1 - P SI MC2 SFM WDW WDW	1] SMEQ10.100 10.00 1000.00 1000.00 cquisition paramel 128 500.233 17.595720 4.502 QF rocessing paramet. 1024 500.2300504 QEINE 0 1.40 rocessing paramet. 0 1.40 rocessing paramet. 0 500.2300504 QGINE	usec ters MHz Hz ppm ers MHz
GPMAM [GPZ71 P16 F1 - A TD SF01 FIDRES SW DW SI SI SF WDW SSB B GB B C F1 - P SI MC2 SF WDW SSB	1] SMSQ10.100 10.00 1000.00 cquisition paramel 500.233 17.595720 4.502 0F rocessing paramet 500.2300504 0 Utable Company 1024 500.2300504 0 Utable Company 0 Utable Company 1024 0 Utable Company 10	usec ters MHz Hz ppm ers MHz
GPMMMI GPZI F1 - A TD SF01 FIDRES SW FnMODE F2 - P SSB LB GB PC F1 - P SI MC2 SF WDM SSB LB GB PC	1] SMEQ10.100 10.00 1000.00 1000.00 cquisition paramel 128 500.233 17.595720 4.502 QF rocessing paramet. 1024 500.2300504 QEINE 0 1.40 rocessing paramet. 07 500.2300504 QEINE 0 OHz 0 OHZ 0 OGSINE	usec ters MHz Hz ppm ers MHz
GPMAM [GPZ71 P16 F1 - A TD SF01 FIDRES SW DW SI SI SF WDW SSB B GB B C F1 - P SI MC2 SF WDW SSB	1] SMSQ10.100 10.00 1000.00 cquisition paramel 500.233 17.595720 4.502 0F rocessing paramet 500.2300504 0 Utable Company 1024 500.2300504 0 Utable Company 0 Utable Company 1024 0 Utable Company 10	usec ters MHz Hz ppm ers MHz
GPMMMI GPZI F1 - A TD SF01 FIDRES SW FnMODE F2 - P SSB LB GB PC F1 - P SI MC2 SF WDM SSB LB GB PC	1] SMEQ10.100 10.00 1000.00 1000.00 cquisition paramel 128 500.233 17.595720 4.502 QF rocessing paramet. 1024 500.2300504 QEINE 0 1.40 rocessing paramet. 07 500.2300504 QEINE 0 OHz 0 OHZ 0 OGSINE	usec ters MHz Hz ppm ers MHz
GPMMMI GPZI F1 - A TD SF01 FIDRES SW FnMODE F2 - P SSB LB GB PC F1 - P SI MC2 SF WDM SSB LB GB PC	1] SMEQ10.100 10.00 1000.00 1000.00 cquisition paramel 128 500.233 17.595720 4.502 QF rocessing paramet. 1024 500.2300504 QEINE 0 1.40 rocessing paramet. 07 500.2300504 QEINE 0 OHz 0 OHZ 0 OGSINE	usec ters MHz Hz ppm ers MHz
GPMMMI GPZI F1 - A TD SF01 FIDRES SW FnMODE F2 - P SSB LB GB PC F1 - P SI MC2 SF WDM SSB LB GB PC	1] SMEQ10.100 10.00 1000.00 1000.00 cquisition paramel 128 500.233 17.595720 4.502 QF rocessing paramet. 1024 500.2300504 QEINE 0 1.40 rocessing paramet. 07 500.2300504 QEINE 0 OHz 0 OHZ 0 OGSINE	usec ters MHz Hz ppm ers MHz

Current Data Parameters

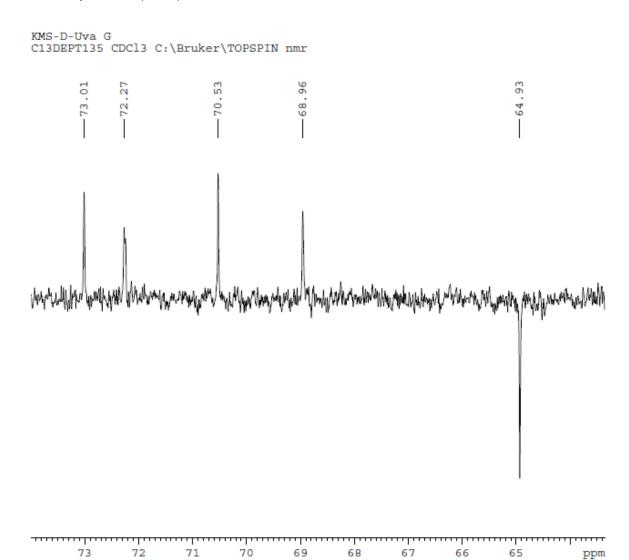
DEPT of compound 26

KMS-D-Uva G C13DEPT135 CDC13 C:\Bruker\TOPSPIN nmr



	Data Parameters	
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EXPNO	357	
PROCNO	1	
F2 - Acq	uisition Paramet	ers
Date	20130515	
Time	15.22	
INSTRUM	spect	
PROBHD	5 mm PABBO BB-	
PULPROG	deptsp135	
TD	65536	
SOLVENT	CDC13	
NS	512	
DS	4	
SWH	32894.738	17
FIDRES	0.501934	Hz
AQ	0.9961472	sec
RG	191.08	
DW	15.200	
DE	6.50	
TE	300.1	K
CNST2	145.0000000	
D1	2.00000000	sec
D2	0.00344828	sec
D12	0.00002000	sec
	CHANNEL fl	
NUC1	13C	
PT	8 65	11/03/05 (2)
P1	8.65	
P13	2000.00	
P13 PLW0	2000.00 0 W	usec
P13 PLW0 PLW1	2000.00 0 W 120.50000000	usec W
P13 PLW0 PLW1 SFO1	2000.00 0 W 120.50000000 125.7929956	usec W
P13 PLW0 PLW1 SFO1 SPNAM[5]	2000.00 0 W 120.50000000 125.7929956 Crp60comp.4	usec W
P13 PLW0 PLW1 SFO1 SPNAM[5] SPOAL5	2000.00 0 W 120.50000000 125.7929956 Crp60comp.4 0.500	usec W
P13 PLW0 PLW1 SFO1 SPNAM[5] SPOAL5 SPOFFS5	2000.00 0 W 120.50000000 125.7929956 Crp60comp.4 0.500	usec W MHz
P13 PLW0 PLW1 SFO1 SPNAM[5] SPOAL5	2000.00 0 W 120.50000000 125.7929956 Crp60comp.4 0.500	usec W MHz
P13 PLW0 PLW1 SFO1 SPNAM[5] SPOAL5 SPOFFES SPW5	2000.00 0 W 120.50000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002	usec W MHz W
P13 PLW0 PLW1 SFO1 SPNAM[5] SPOAL5 SPOFFS5 SPW5	2000.00 0 W 120.50000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 ====	usec W MHz
P13 PLW0 PLW1 SFO1 SPNAM[5] SPOAL5 SPOFFS5 SPW5	2000.00 0 W 120.50000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 ==== waltz16	usec W MHz
P13 PLW0 PLW1 SFO1 SPNAM[5] SPOAL5 SPOFFS5 SPW5 CPDPRG[2 NUC2	2000.00 0 W 120.50000000 125.7929956 CTp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 waltz16 11H	w MHZ
P13 PLW0 PLW1 SFO1 SPOAL5 SPOFFS SPW5 CPDPRG[2 NUC2 P3	2000.00 0 W 120.50000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 waltz16 1H 9.04	w MHZ W
P13 PLW0 PLW1 SFO1 SFNAM[5] SPOAL5 SPOFFS5 SPW5 CPDPRG[2 NUC2 P3 P4	2000.00 0 W 120.50000000 125.7929956 Crp60ccmp.4 0.500 0 Hz 13.77600002 CHANNEL f2 === waltzl6 1H 9.04 18.08	w MHz W usec usec
P13 PLW0 PLW1 SFO1 SPOAL5 SPOFFS SPW5 CPDPRG[2 NUC2 P3	2000.00 0 W 120.50000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 waltz16 1H 9.04	w MHz W usec usec
P13 PLW0 PLW1 SFO1 SFNAM[5] SPOAL5 SPOFFS5 SPW5 CPDPRG[2 NUC2 P3 P4	2000.00 0 W 120.50000000 125.7929956 Crp60ccmp.4 0.500 0 Hz 13.77600002 CHANNEL f2 === waltzl6 1H 9.04 18.08	W MHz
P13 PLW0 PLW1 SF01 SFNAM[5] SPOAL5 SPOFFS5 SPW5 CPDPRG[2 NUC2 P3 P4 PCPD2	2000.00 0 W 120.50000000 125.7929956 CTp60ccmp.4 0.500 0 Hz 13.77600002 CHANNEL f2 waltz16 1H 9.04 18.08	W MHz W usec usec usec w
P13 PLW0 PLW1 SFO1 SFOAL5 SPOFFS5 SPW5 CPDPRG[2 NUC2 P3 P4 PCFD2 PLW2	2000.00 0 W 120.50000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 waltz16 1H 9.04 18.08 80.00 27.16399956	w MHz w usec usec usec usec w w
P13 PLW0 PLW1 SFO1 SPNAM[5] SPOAL5 SPOFFS5 SPW5 CPDPRG[2 NUC2 P3 P4 PCFD2 PLW12	2000.00 0 W 120.50000000 125.7929956 Crp60ccmp.4 0.500 0 Hz 13.77600002 CHANNEL f2 ===- waltz16 1H 9.04 18.08 80.00 27.16399956 0.34685999	w MHz w usec usec usec usec w w
P13 PLW0 PLW1 SFO1 SPOAL5 SPOFFS5 SPW5 CPDPRG[2 NUC2 P3 P4 PCPD2 PLW2 PLW12 SFO2	2000.00 120.50000000 125.7929956 Crp60ccmp.4 0.500 0 Hz 13.77600002 CHANNEL f2 === waltzl6 1H 9.04 18.08 80.00 27.16399956 0.34685999 500.2315998	usec W MHZ W usec usec usec W W MHZ
P13 PLW0 PLW1 SFO1 SPOAL5 SPOFFS5 SPW5 CPDPRG[2 NUC2 P3 P4 PCPD2 PLW2 PLW12 SFO2	2000.00 0 W 120.50000000 125.7929956 Crp60ccmp.4 0.500 0 Hz 13.77600002 CHANNEL f2 ===- waltz16 1H 9.04 18.08 80.00 27.16399956 0.34685999	usec W MHZ W usec usec usec W W MHZ
P13 PLW0 PLW1 SPO1 SPNAM[5] SPOAL5 SPOFFS5 SPW5 CPDPRG[2 NUC2 P3 P4 PCPD2 PLW2 PLW12 SFO2 F2 Proc	2000.00 120.50000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 waltz16 1H 9.04 18.08 80.00 27.1639995 0.34685999 500.2315998 cessing paramete 32768	W MHZ W usec usec usec W W MHZ
P13 PLW0 PLW1 SFO1 SFOAL5 SPOFFS5 SPOFFS5 SPW5 CPDPRG[2 NUC2 P3 P4 PCPD2 PLW2 PLW12 SFO2 F2 - Proc SI SF	2000.00 120.50000000 125.7929956 Crp60ccmp.4 0.500 0 Hz 13.77600002 CHANNEL f2 ==== waltz16 18.08 80.00 27.16399956 0.34685999 500.2315998 cessing paramete 125.7829340	W MHZ W usec usec usec W W MHZ
P13 PLW0 PLW1 SFO1 SPNAM[5] SPOAL5 SPOFFS5 SPW5 CPDPRG[2 NUC2 P3 P4 PCPD2 PLW2 PLW2 PLW2 SFO2 F2 - Proc SI SF WDW	2000.00 0 W 120.50000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 ===- waltzl6 1H 9.04 18.08 80.00 27.1639995 0.34685999 500.2315998 cessing paramete 32768 125.7829340 EM	W MHZ W usec usec usec W W MHZ
P13 PLW0 PLW1 SFO1 SFOAL5 SFOFFS5 SFW5 CPDPRG[2 NUC2 P3 P4 PCPD2 PLW2 PLW2 PLW12 SFO2 F2 - Proc SI SF WDW SSB	2000.00 0 W 120.50000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 waltz16 1H 9.04 18.08 80.00 27.1639995 0.34685999 500.2315998 Cessing paramete 32768 125.7829340 EM	W MHZ W usec usec W MHZ W MHZ
P13 PLW0 PLW1 SFO1 SFNAM[5] SFOAL5 SFOFFS5 SFW5 CPDFRG[2 NUC2 P3 P4 PCFD2 PLW12 SFO2 F2 - Proc SI SF WDW SSB LB	2000.00 0 W 120.50000000 125.7929956 Crp60ccmp.4 0.500 0 Hz 13.77600002 CHANNEL f2 === waltzl6 18.08 80.00 27.1639995 0.34689599 500.2315998 cessing paramete 32768 125.7829340 EM	W MHZ W usec usec W MHZ W MHZ
P13 PLW0 PLW1 SFO1 SFOAL5 SFOFFS5 SFW5 CPDPRG[2 NUC2 P3 P4 PCPD2 PLW2 PLW2 PLW12 SFO2 F2 - Proc SI SF WDW SSB	2000.00 0 W 120.50000000 125.7929956 Crp60comp.4 0.500 0 Hz 13.77600002 CHANNEL f2 waltz16 1H 9.04 18.08 80.00 27.1639995 0.34685999 500.2315998 Cessing paramete 32768 125.7829340 EM	W MHZ W usec usec W MHZ W MHZ

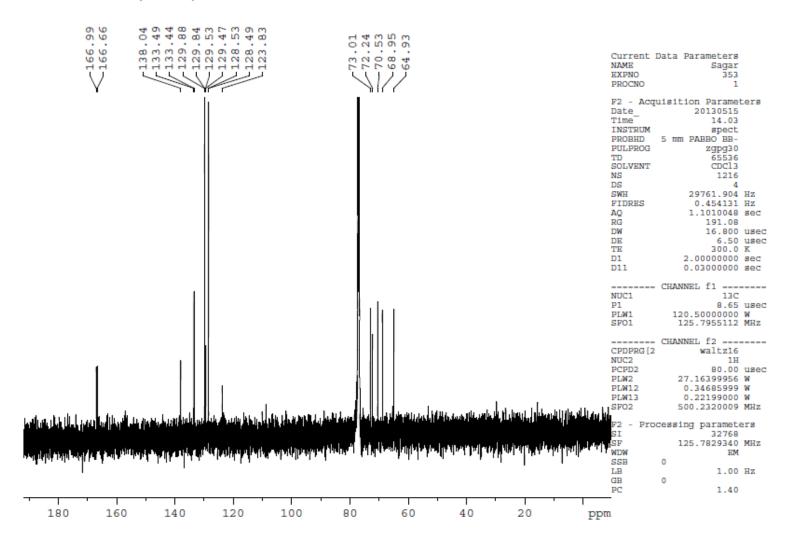
DEPT of compound 26 (zoom)



Current I	Dat	ta	Pa	ra	me	te	rs	
NAME					8	ag	ar	
EXPNO						3	57	
PROCNO							1	
F2 - Acqu	111	sit						ers
Date_				20			15	
Time					1	5.	22	
INSTRUM					55	рe	ct	
PROBHD	5	ш						
PULPROG			d	еF			35	
TD							36	
SOLVENT					C		13	
NB						5	12	
DB							4	
SWH								Hz
FIDRES								Hz
AQ			0	. 9				sec
RG							08	
DW								usec
DE								usec
TE							.1	K
CNST2		1					00	
D1								sec
D2			Ο.	00	34	48	28	sec
D12			Ο.	00	00	20	00	sec
	C	LAN	NΒ	L	£1			
NUC1							3C	
P1								usec
P13				2	00	0.	00	usec
PLWO	0	W						
PLW1							00	
SFO1		1	25	. 7	92	99	56	MHz
SPNAM[5]		0	rp	60			-4	
SPOAL5					0	. 5	00	
	0	Hz						
SPW5		1	3.	77	60	00	02	W
	C	HAN	NΒ					
CPDPRG[2				*	a.l		16	
NUC2							111	
P3								usec
P4								usec
PCPD2								usec
PLW2							56	
PLW12							99	
SFO2		5	00	. 2	31	59	98	MHz
F2 - Proc	œ	551	ng	F				TS
SI							68	
SF		1	25	. 7	82			MHz
WDW	_						ВM	
SSB	0					_		
LB						1.	00	Hz
GB	0							
PC						1.	40	

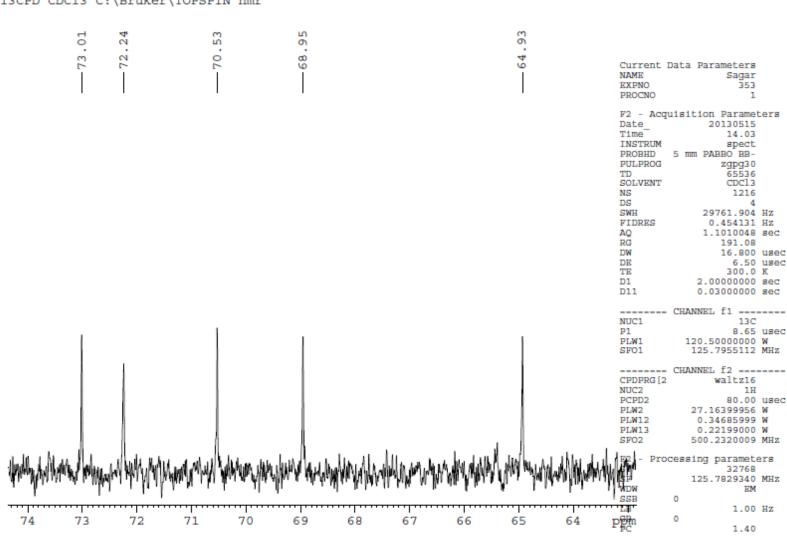
¹⁴C NMR of compound **26**

KMS-D-Uva-G C13CPD CDC13 C:\Bruker\TOPSPIN nmr

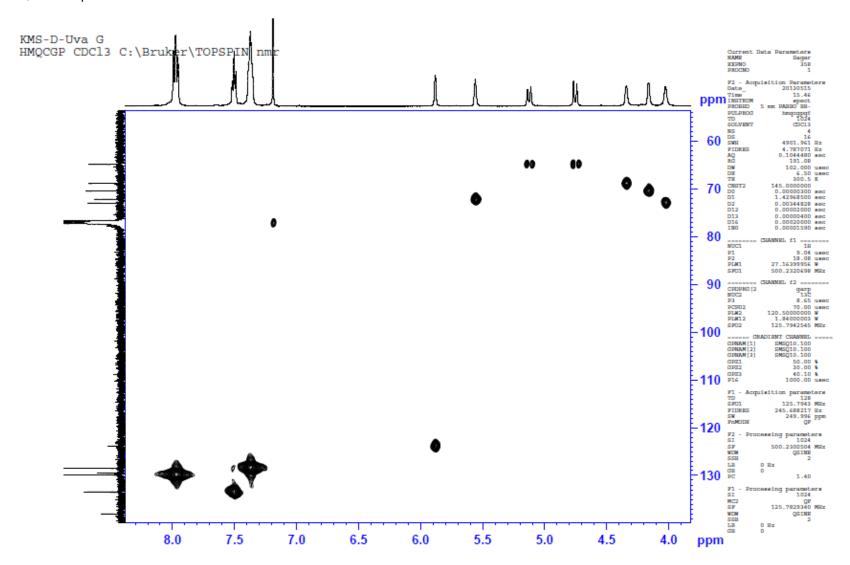


¹⁴C NMR of compound **26** (zoom)





HMQC of compound 26



HMQC of compound 26 (zoom)

