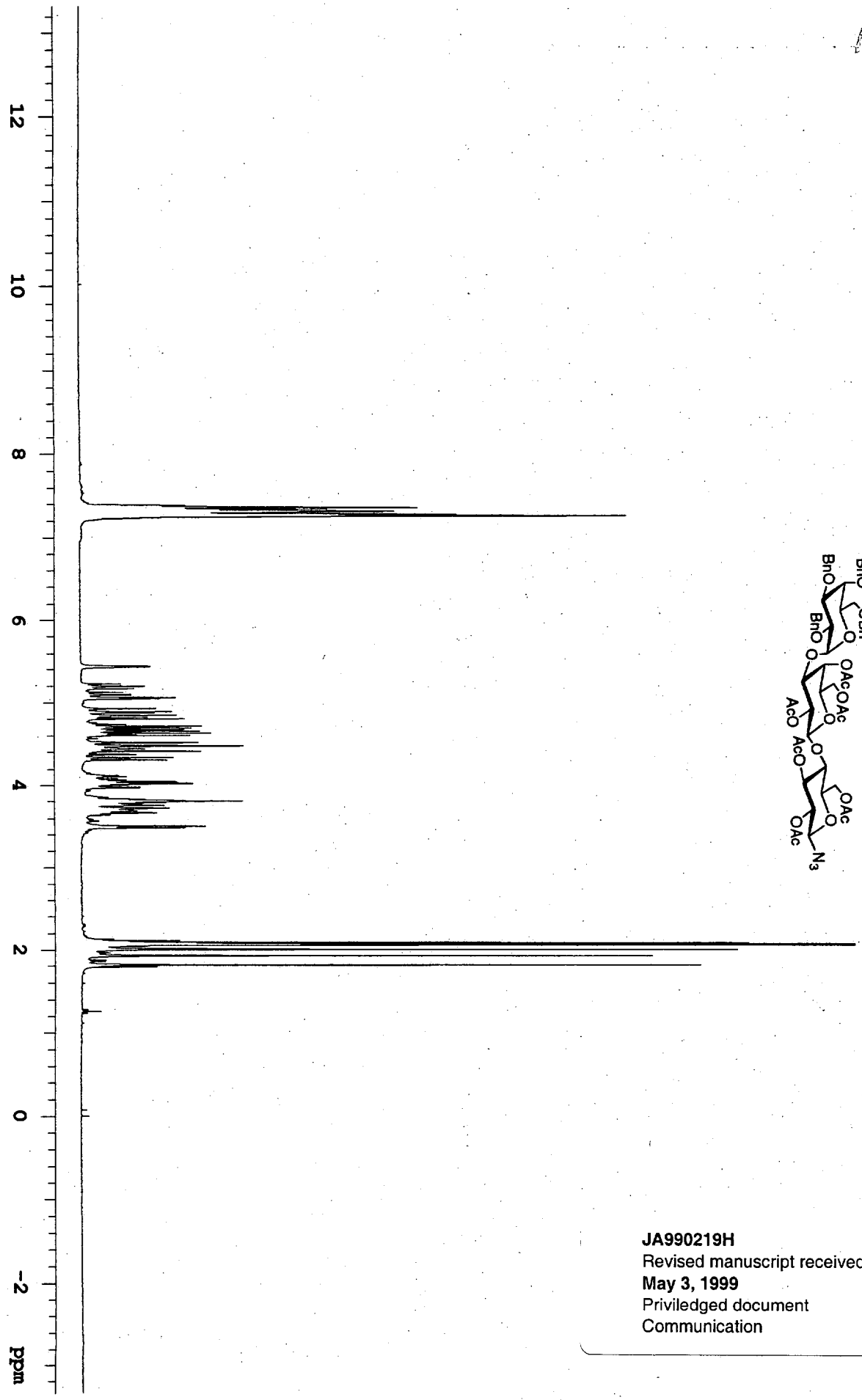
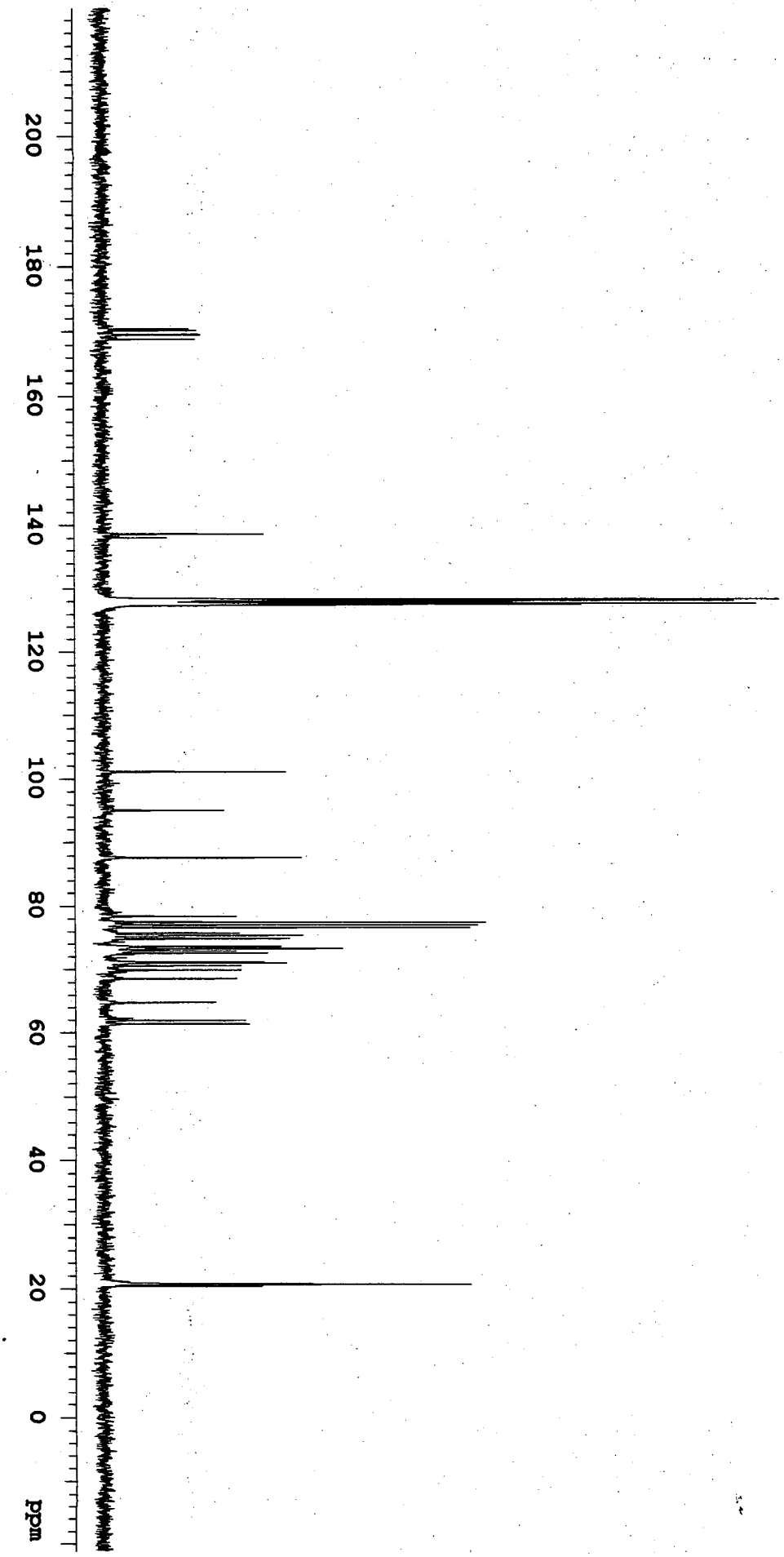
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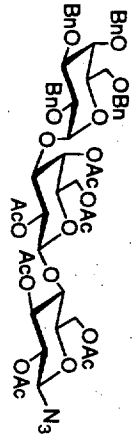


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2



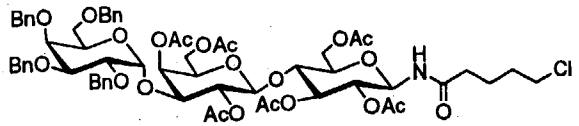
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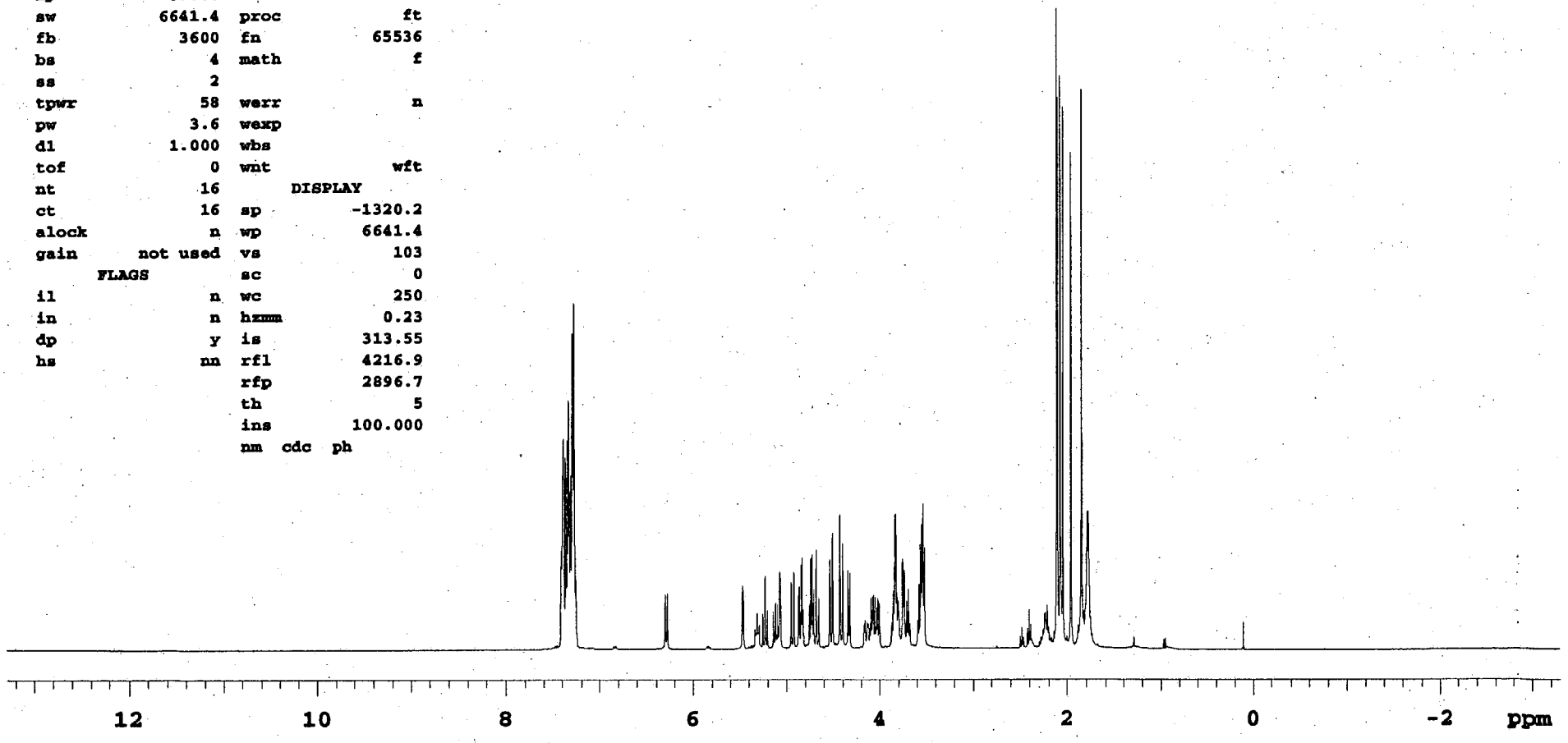
Mercury 400 spectrometer

proton spectrum

exp1 s2pul

SAMPLE		DEC. & VT	
date	Jul 1 1998	dn	H1
solvent	CDCL3	dof	0
file	exp	dm	nnn
ACQUISITION		dmm	c
sfrq	400.090	dmf	200
tn	H1	dpwr	30
at	2.409	PROCESSING	
np	32000	wtfile	
sw	6641.4	proc	ft
fb	3600	fn	65536
bs	4	math	f
ss	2		
tpwr	58	werr	n
pw	3.6	wexp	
d1	1.000	wbs	
tof	0	wnt	wft
nt	16	DISPLAY	
ct	16	sp	-1320.2
alock	n	wp	6641.4
gain	not used	vs	103
FLAGS		sc	0
il	n	wc	250
in	n	hzmm	0.23
dp	y	is	313.55
hs	nn	rfl	4216.9
		rfp	2896.7
		th	5
		ins	100.000
		nm cdc ph	





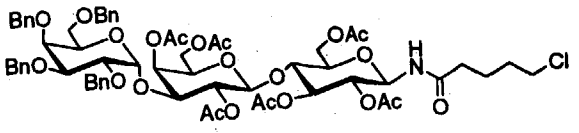
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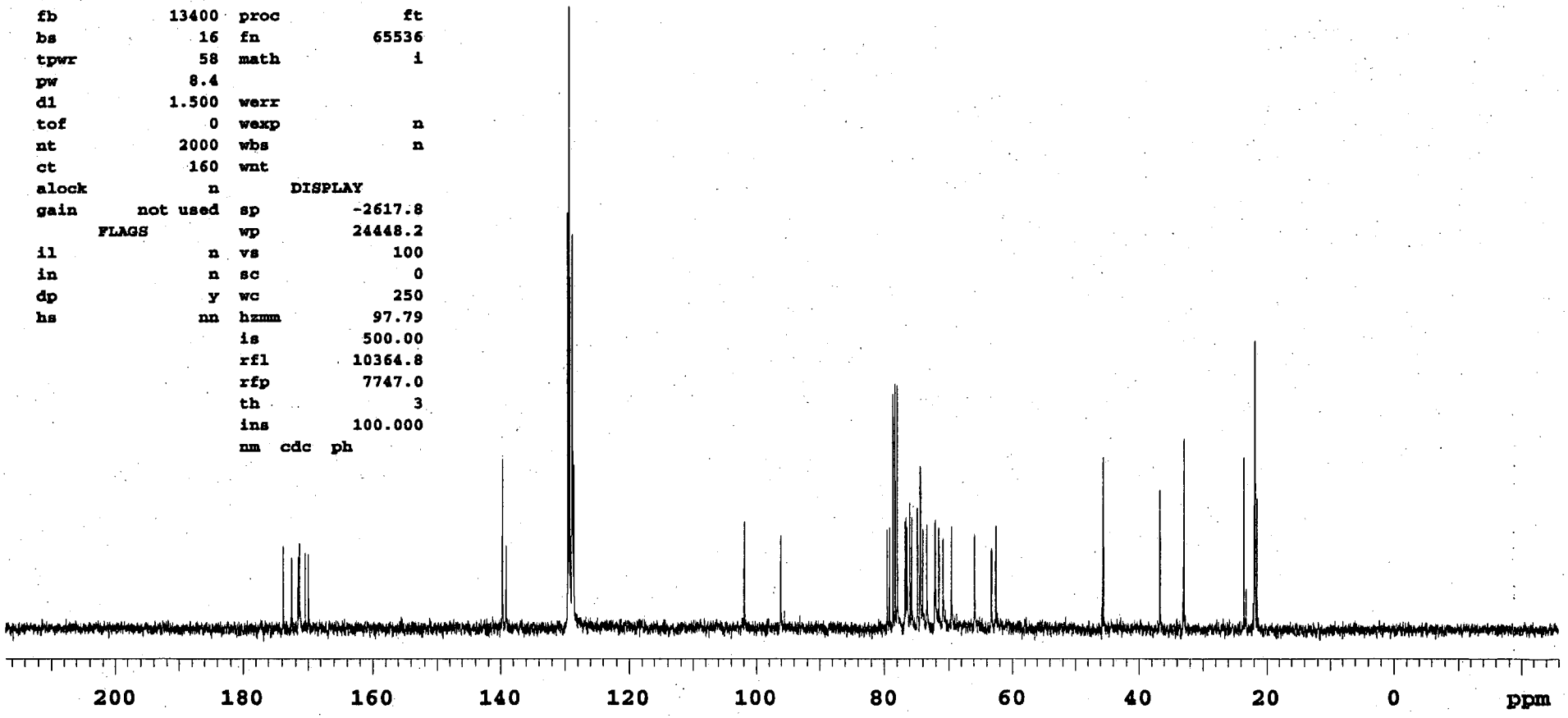
Mercury 400 spectrometer

Carbon spectrum

exp2 s2pul

SAMPLE		DEC. & VT	
date	Jul 1 1998	dn	H1
solvent	CDCL3	dof	0
file	exp	dm	yyy
ACQUISITION		dmm	w
sfrq	100.612	dmf	10800
tn	C13	dpwr	42
at	0.654	PROCESSING	
np	32000	lb	1.75
sw	24448.2	wtfile	
fb	13400	proc	ft
bs	16	fn	65536
tpwr	58	math	i
pw	8.4		
d1	1.500	werr	
tof	0	wexp	n
nt	2000	wbs	n
ct	160	wnt	
alock	n	DISPLAY	
gain	not used	sp	-2617.8
FLAGS		wp	24448.2
il	n	vs	100
in	n	sc	0
dp	y	wc	250
hs	nn	hzmm	97.79
		is	500.00
		rfl	10364.8
		rfp	7747.0
		th	3
		ins	100.000
		nm cdc ph	





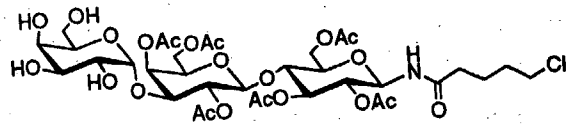
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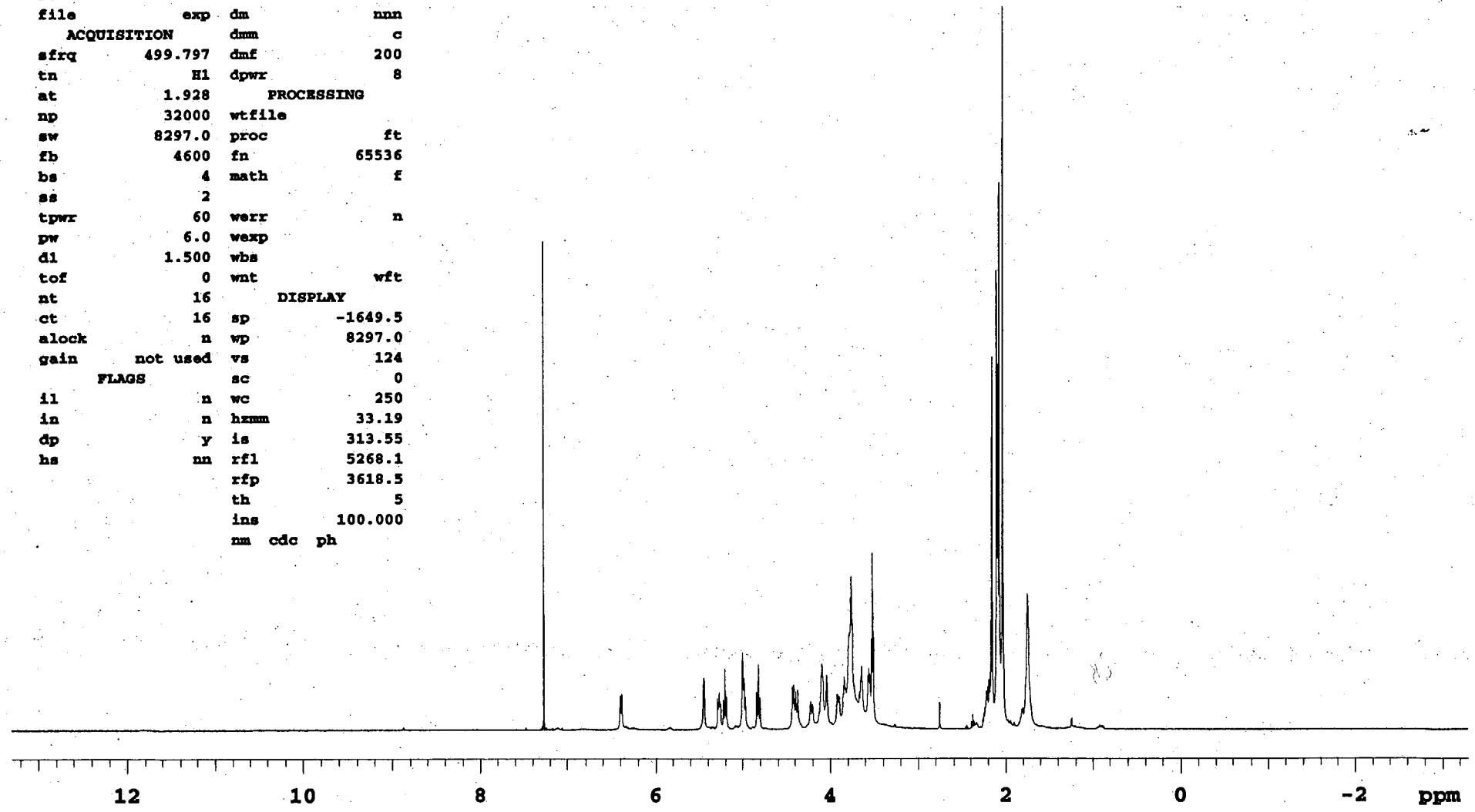
Unity 500 spectrometer

STANDARD PROTON PARAMETERS

exp1 s2pul

SAMPLE		DEC. & VT	
date	Jul 8 1998	dn	H1
solvent	CDCL3	dof	0
file	exp	dm	nnn
ACQUISITION		dmm	c
sfrq	499.797	dmf	200
tn	H1	dpwr	8
at	1.928	PROCESSING	
np	32000	wtfile	
sw	8297.0	proc	ft
fb	4600	fn	65536
bs	4	math	f
ss	2		
tpwr	60	werr	n
pw	6.0	wexp	
d1	1.500	wbs	
tof	0	wnt	wft
nt	16	DISPLAY	
ct	16	sp	-1649.5
alock	n	wp	8297.0
gain	not used	vs	124
FLAGS		sc	0
il	n	wc	250
in	n	hzmm	33.19
dp	y	is	313.55
hs	nn	rfl	5268.1
		rfp	3618.5
		th	5
		ins	100.000
		nm cdc ph	





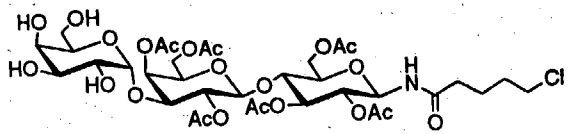
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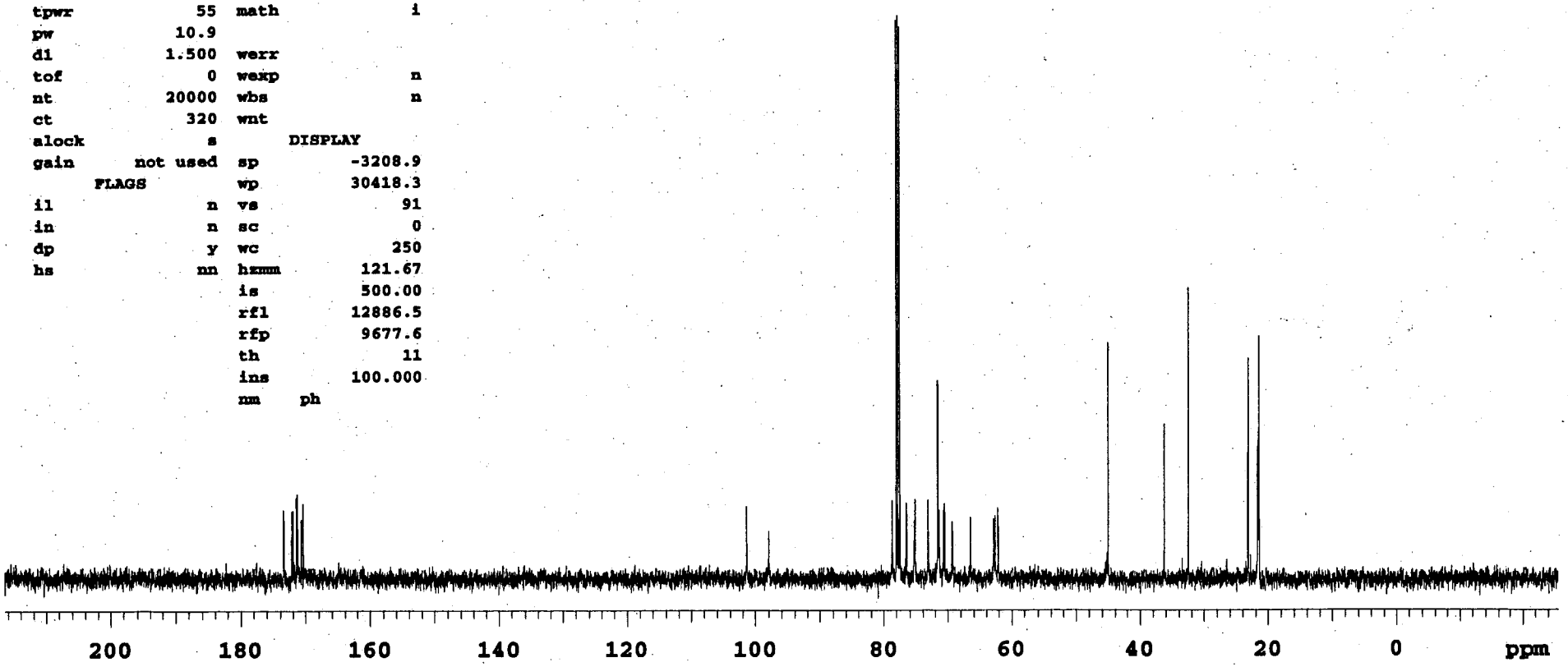
Unity 500 spectrometer

C13

exp2 s2pul

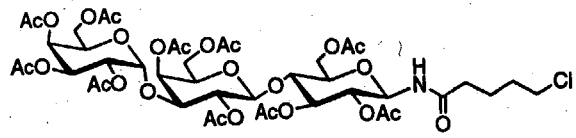
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solvent	CDCL3	dof	0
file	exp	dm	yyy
ACQUISITION		dmm	w
sfrq	125.685	dmf	12400
tn	C13	dpwr	43
at	0.526	PROCESSING	
np	32000	lb	1.75
sw	30418.3	wtfile	
fb	16800	proc	ft
bs	16	fn	65536
tpwr	55	math	i
pw	10.9		
d1	1.500	werr	
tof	0	wexp	n
nt	20000	wbs	n
ct	320	wnt	
alock	s	DISPLAY	
gain	not used	sp	-3208.9
FLAGS		wp	30418.3
il	n	vs	91
in	n	sc	0
dp	y	wc	250
hs	nn	hzmm	121.67
		is	500.00
		rfl	12886.5
		rfp	9677.6
		th	11
		ins	100.000
		nm	ph





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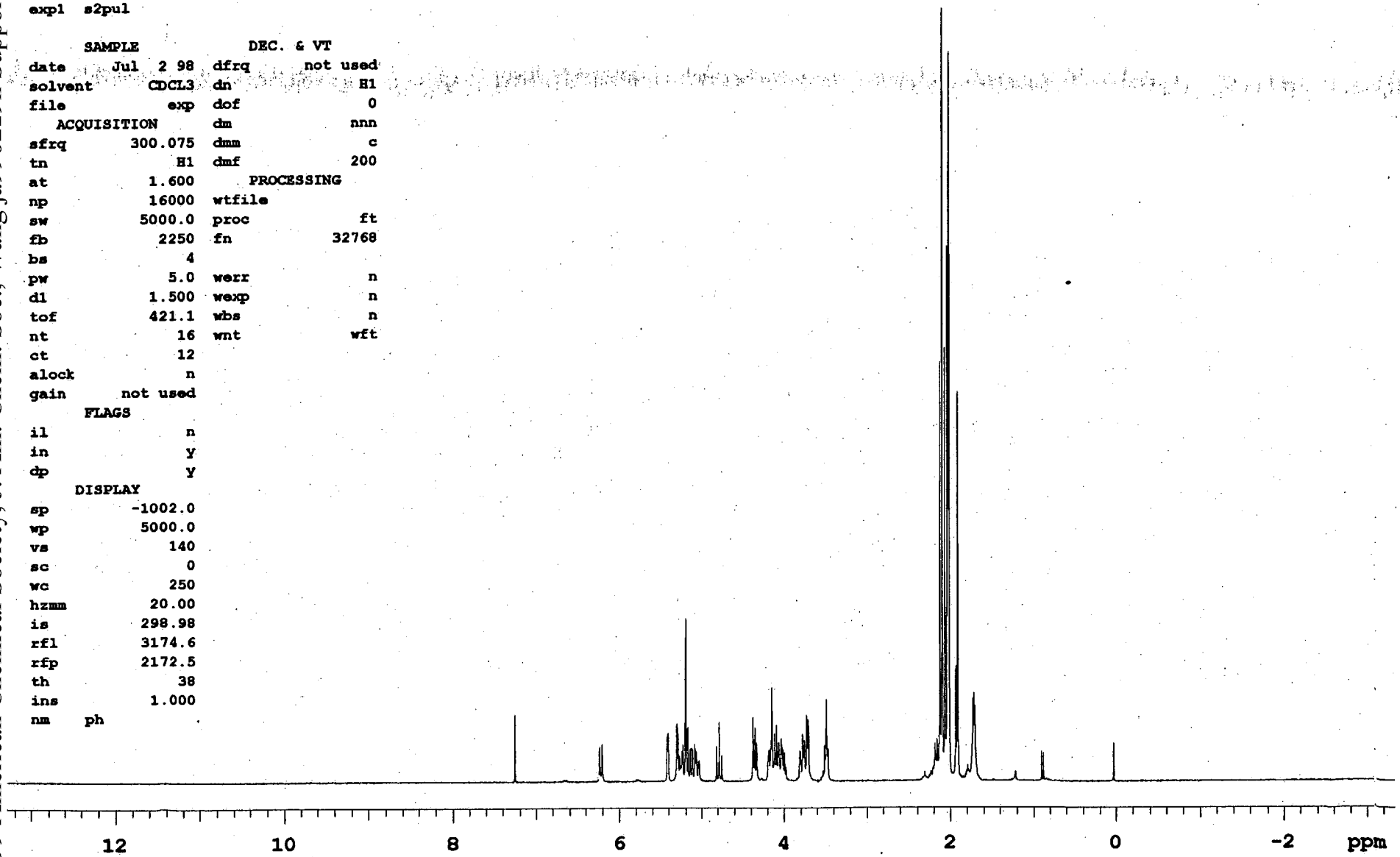
7



Proton spectrum

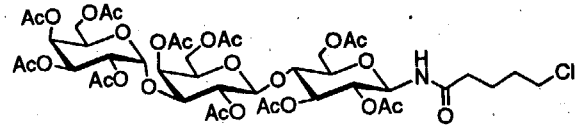
exp1 s2pul

SAMPLE		DEC. & VT	
date	Jul 2 98	dfrq	not used
solvent	CDCL3	dn	H1
file	exp	dof	0
ACQUISITION		dm	nnn
sfrq	300.075	dmm	c
tn	H1	dmf	200
at	1.600	PROCESSING	
np	16000	wtfile	
sw	5000.0	proc	ft
fb	2250	fn	32768
bs	4		
pw	5.0	werr	n
d1	1.500	wexp	n
tof	421.1	wbs	n
nt	16	wnt	wft
ct	12		
alock	n		
gain	not used		
FLAGS			
il	n		
in	y		
dp	y		
DISPLAY			
sp	-1002.0		
wp	5000.0		
vs	140		
sc	0		
wc	250		
hzmm	20.00		
is	298.98		
rfl	3174.6		
rfp	2172.5		
th	38		
ins	1.000		
nm	ph		



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(2)

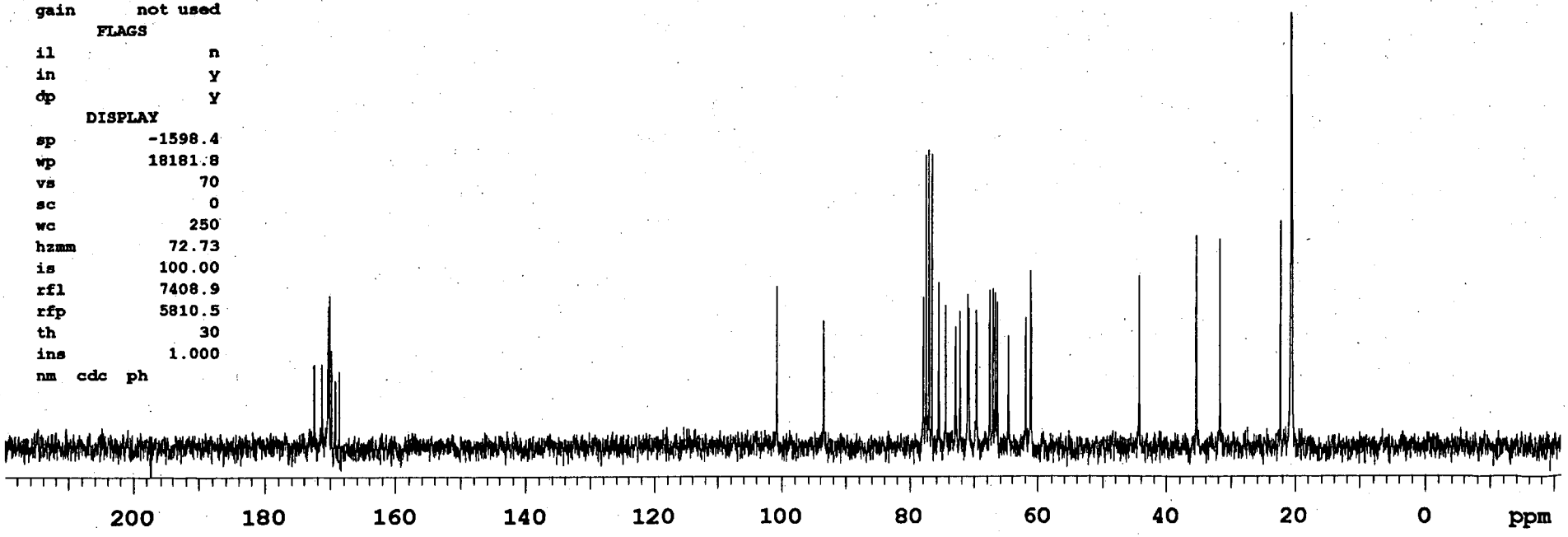


Carbon spect

exp2 s2pul

SAMPLE		DEC. & VT	
date	Jul 2 98	dfrq	not used
solvent	CDCL3	dn	H1
file	exp	dhp	1.0
ACQUISITION		dof	450.0
sfrq	75.461	dm	YYY
tn	C13	dmm	s
at	0.440	dmf	10000
np	16000	PROCESSING	
sw	18181.8	lb	1.75
fb	9500	wtfile	
bs	16	proc	ft
pw	15.0	fn	32768
d1	1.500		
tof	0	werr	n
nt	2000	wexp	n
ct	208	wbs	
alock	n	wnt	wft
gain	not used		
FLAGS			
il	n		
in	y		
dp	y		
DISPLAY			
sp	-1598.4		
wp	18181.8		
vs	70		
sc	0		
wc	250		
hzmm	72.73		
is	100.00		
rfl	7408.9		
rfp	5810.5		
th	30		
ins	1.000		

nm cdc ph



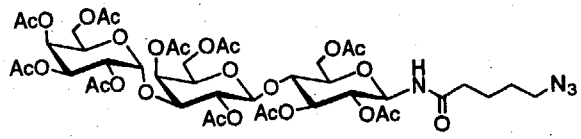
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Mercury 400 spectrometer

proton spectrum

exp1 s2pu1

SAMPLE		DEC. & VT	
date	Jul 11 1998	dn	H1
solvent	CDCL3	dof	0
file	exp	dm	nnn
ACQUISITION		dmm	c
sfrq	400.090	dmf	200
tn	H1	dpwr	30
at	2.409	PROCESSING	
np	32000	wtfile	
sw	6641.4	proc	ft
fb	3600	fn	65536
bs	4	math	f
ss	2		
tpwr	58	werr	n
pw	3.6	wexp	
d1	1.000	wbs	
tof	0	wnt	wft
nt	16	DISPLAY	
ct	16	sp	-1320.2
alock	n	wp	6641.4
gain	not used	vs	140
FLAGS		sc	0
il	n	wc	250
in	n	hzmm	26.57
dp	y	is	313.55
hs	nn	rfl	4216.9
		rfp	2896.7
		th	5
		ins	100.000
		nm cdc ph	



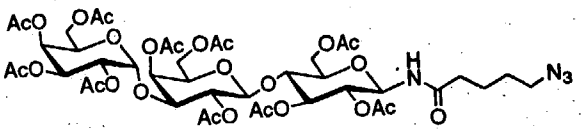
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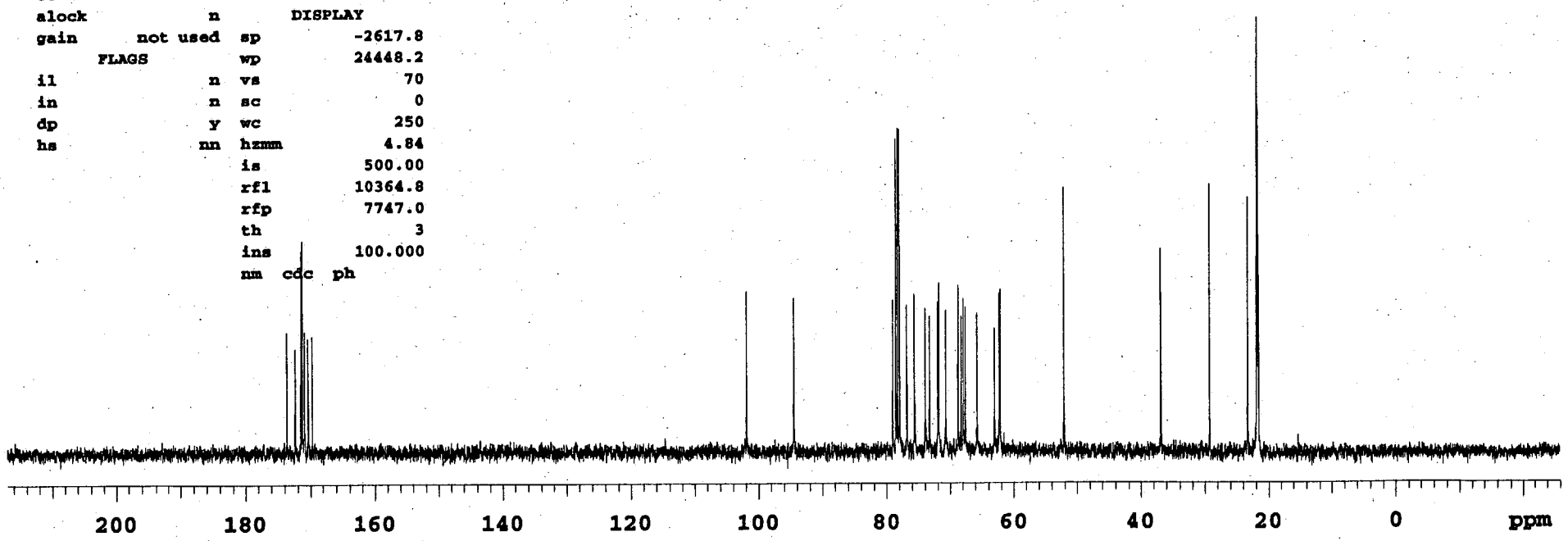
Mercury 400 spectrometer

Carbon spectrum

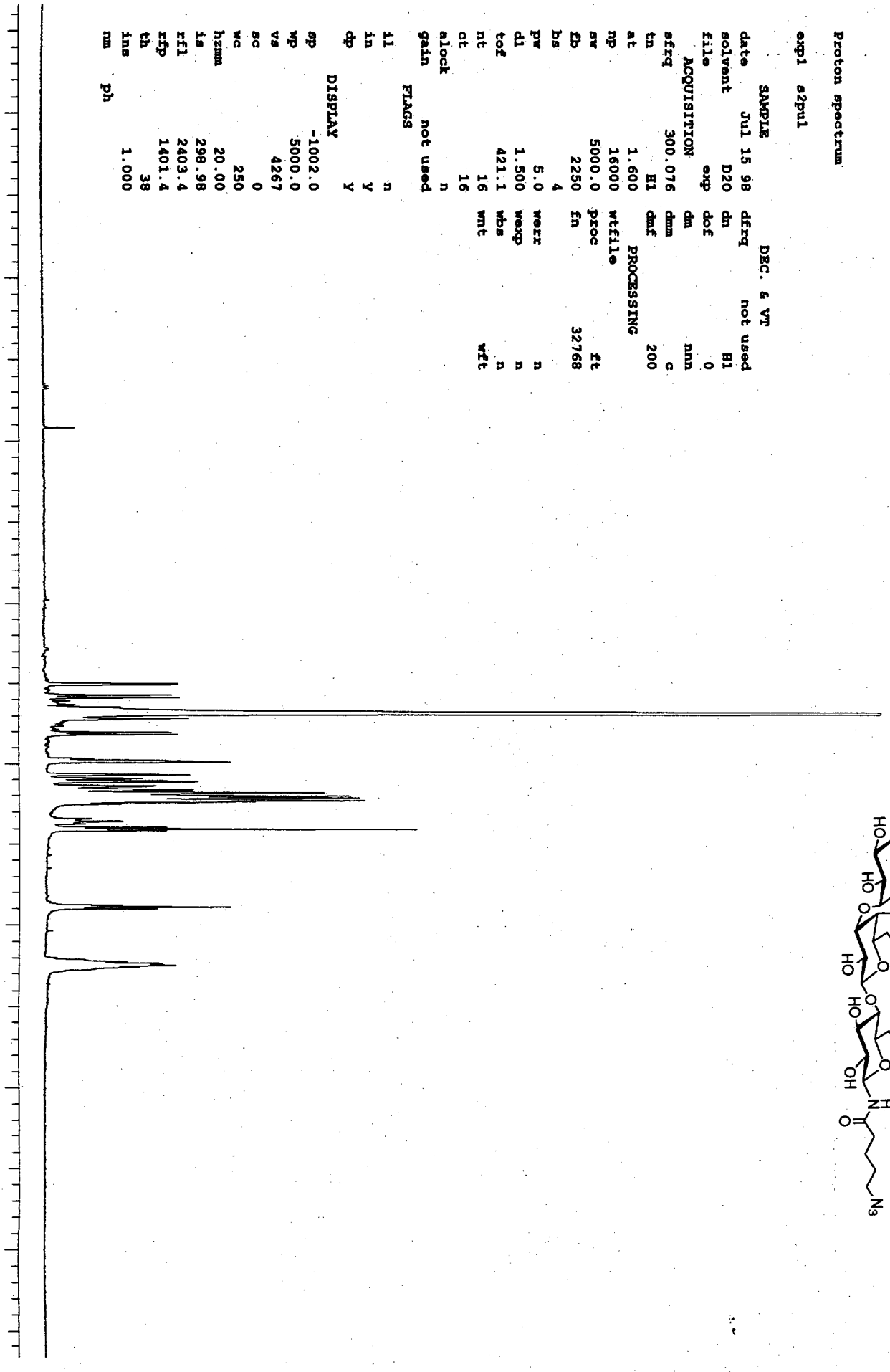
exp2 s2pul

SAMPLE		DEC. & VT	
date	Jul 11 1998	dn	H1
solvent	CDCL3	dof	0
file	exp	dm	yyy
ACQUISITION		dmm	w
sfrq	100.612	dmf	10800
tn	C13	dpwr	42
at	0.654	PROCESSING	
np	32000	lb	1.75
sw	24448.2	wtfile	
fb	13400	proc	ft
bs	16	fn	65536
tpwr	58	math	i
pw	8.4		
d1	1.500	werr	
tof	0	wexp	n
nt	2000	wbs	n
ct	0	wnt	
alock	n	DISPLAY	
gain	not used	sp	-2617.8
FLAGS		wp	24448.2
il	n	vs	70
in	n	sc	0
dp	y	wc	250
hs	nn	hzmm	4.84
		is	500.00
		rfl	10364.8
		rfp	7747.0
		th	3
		ins	100.000
		nm cdc ph	

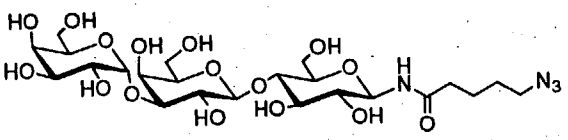




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Carbon spect

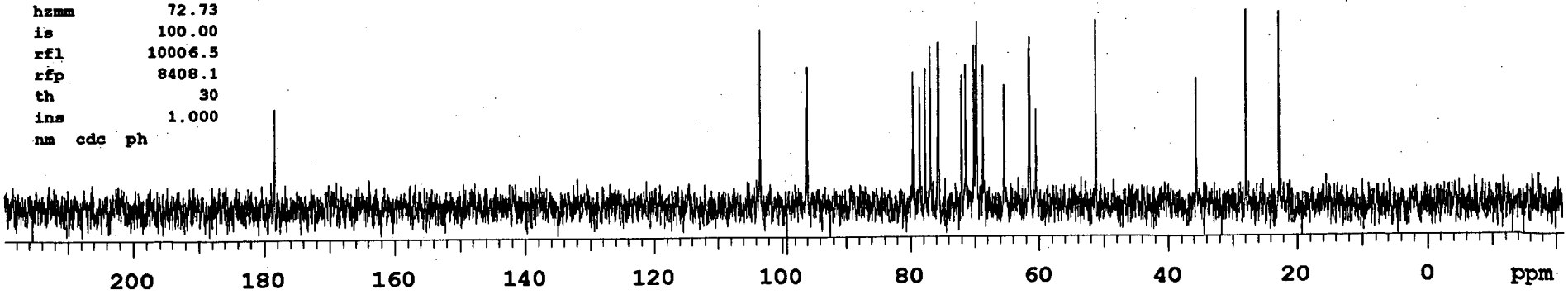
exp2 s2pul

SAMPLE		DEC. & VT	
date	Jul 15 98	dfrq	not used
solvent	D20	dn	H1
file	exp	dhp	1.0
ACQUISITION		dof	450.0
sfrq	75.461	dm	YYY
tn	C13	dmm	s
at	0.440	dmf	10000
np	16000	PROCESSING	
sw	18181.8	lb	1.75
fb	9500	wtfile	
bs	16	proc	ft
pw	15.0	fn	32768
d1	1.500		
tof	0	werr	n
nt	2000	wexp	n
ct	544	wbs	
alock	n	wnt	wft
gain	not used		

FLAGS	
il	n
in	y
dp	y

DISPLAY	
sp	-1598.4
wp	18181.8
vs	31
sc	0
wc	250
hzmm	72.73
is	100.00
rfl	10006.5
rfp	8408.1
th	30
ins	1.000

nm cdc ph



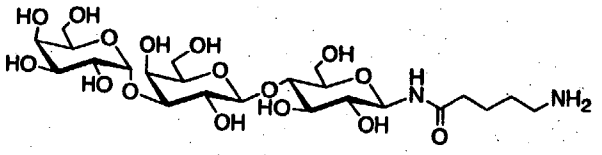
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Unity 500 spectrometer

STANDARD PROTON PARAMETERS

exp1 s2pul

SAMPLE		DEC. & VT	
date	Jul 17 1998	dn	H1
solvent	D2O	dof	0
file	exp	dm	nnn
ACQUISITION		dmm	c
sfrq	499.798	dmf	200
tn	H1	dpwr	8
at	1.928	PROCESSING	
np	32000	wtfile	
sw	8297.0	proc	ft
fb	4600	fn	65536
bs	4	math	f
ss	2		
tpwr	60	werr	n
pw	6.0	wexp	
d1	1.500	wbs	
tof	0	wnt	wft
nt	16	DISPLAY	
ct	16	sp	-1649.5
alock	n	wp	8297.0
gain	not used	vs	2356
FLAGS		sc	0
il	n	wc	250
in	n	hzmm	33.19
dp	y	is	313.55
hs	nn	rfl	3983.6
		rfp	2334.1
		th	5
		ins	100.000
		nm cdc ph	



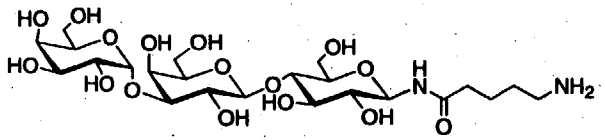
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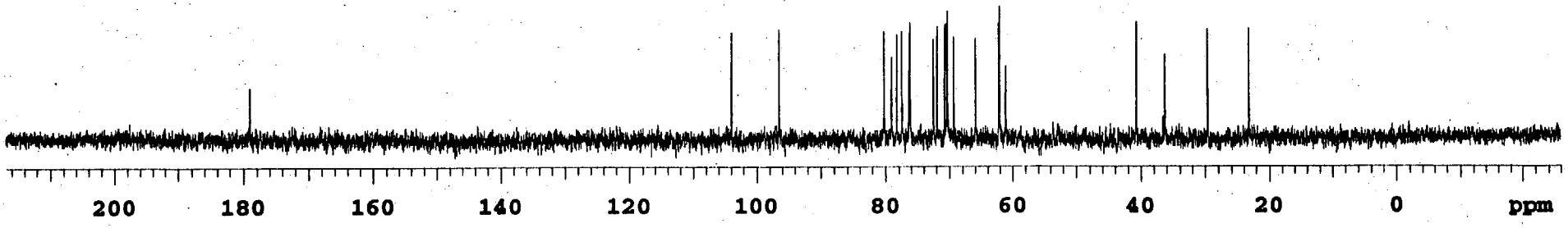
Mercury 400 spectrometer

Carbon spectrum

exp2 s3pul

SAMPLE		DEC. & VT	
date	Jul 16 1998	dn	H1
solvent	D2O	dof	0
file	exp	dm	yyy
ACQUISITION		dmm	w
sfrq	100.612	dmf	10800
tn	C13	dpwr	42
at	0.654	PROCESSING	
np	32000	lb	1.75
sw	24448.2	wtfile	
fb	13400	proc	ft
bs	16	fn	65536
tpwr	58	math	i
pw	8.4		
d1	1.500	werr	
tof	0	wexp	n
nt	2000	wbs	n
ct	1056	wnt	
alock	n	DISPLAY	
gain	not used	sp	-2617.7
FLAGS		wp	24448.2
il	n	vs	21
in	n	sc	0
dp	y	wc	250
hs	nn	hzmm	97.79
		is	500.00
		rfl	12109.3
		rfp	9491.6
		th	3
		ins	100.000
		nm cdc ph	





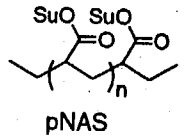
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Mercury 400 spectrometer

proton spectrum

exp1 s2pul

SAMPLE		DEC. & VT	
date	Aug 4 1998	dn	H1
solvent	DMSO	dof	0
file	exp	dm	nnn
ACQUISITION		dmm	c
sfrq	400.092	dmf	200
tn	H1	dpwr	30
at	2.409	PROCESSING	
np	32000	wtfile	
sw	6641.4	proc	ft
fb	3600	fn	65536
bs	4	math	f
ss	2		
tpwr	58	werr	n
pw	3.6	wexp	
d1	1.000	wbs	
tof	0	wnt	wft
nt	16	DISPLAY	
ct	16	sp	-1320.2
alock	n	wp	6641.4
gain	not used	vs	1699
FLAGS		sc	0
il	n	wc	250
in	n	hzmm	26.57
dp	y	is	313.55
hs	nn	rfl	2316.5
		rfp	996.2
		th	5
		ins	100.000
		nm cdc ph	



pNAS

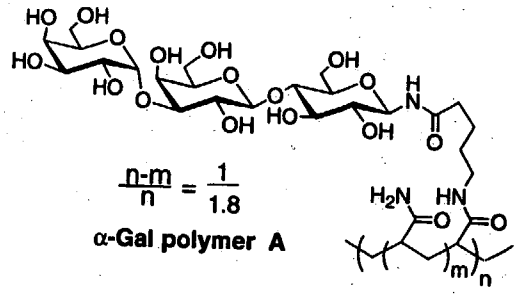
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Mercury 400 spectrometer

proton spectrum

exp1 s2pul

SAMPLE		DEC. & VT	
date	Sep 27 1998	dn	H1
solvent	D2O	dof	0
file	exp	dm	nnn
ACQUISITION		dmm	c
sfrq	400.091	dmf	200
tn	H1	dpwr	30
at	2.409	PROCESSING	
np	32000	wtfile	
sw	6641.4	proc	ft
fb	3600	fn	65536
bs	4	math	f
ss	2		
tpwr	58	werr	n
pw	3.6	wexp	
d1	1.000	wbs	
tof	0	wnt	wft
nt	1000	DISPLAY	
ct	68	sp	-1320.2
alock	n	wp	6641.4
gain	not used	vs	6222
FLAGS		sc	0
il	n	wc	250
in	n	hzmm	0.23
dp	y	is	313.55
hs	nn	rfl	3240.7
		rfp	1920.4
		th	5
		ins	100.000
		nm cdc ph	



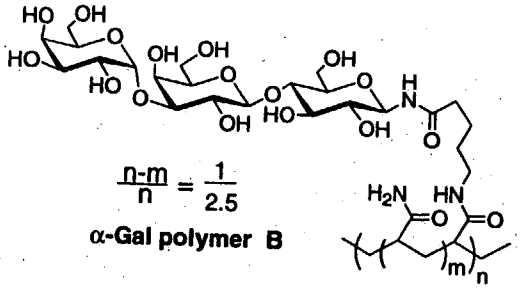
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Mercury 400 spectrometer

proton spectrum

exp1 s2pul

SAMPLE		DEC. & VT	
date	Sep 27 1998	dn	H1
solvent	D2O	dof	0
file	exp	dm	nnn
ACQUISITION		dmm	c
sfrq	400.091	dmf	200
tn	H1	dpwr	30
at	2.409	PROCESSING	
np	32000	wtfile	
sw	6641.4	proc	ft
fb	3600	fn	65536
bs	4	math	f
ss	2		
tpwr	58	werr	n
pw	3.6	wexp	
d1	1.000	wbs	
tof	0	wnt	wft
nt	1000	DISPLAY	
ct	20	sp	-257.4
alock	n	wp	4727.6
gain	not used	vs	7396
FLAGS		sc	0
il	n	wc	250
in	n	hzmm	18.91
dp	y	is	313.55
hs	nn	rfl	3240.7
		rfp	1920.4
		th	5
		ins	100.000
		nm cdc ph	



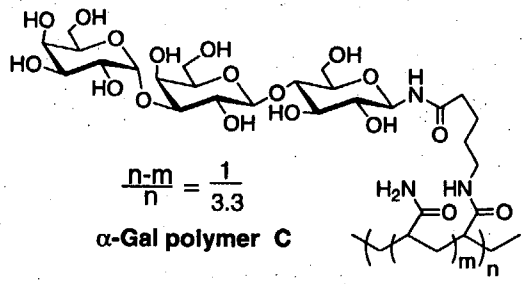
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Unity 500 spectrometer

STANDARD PROTON PARAMETERS

exp1 s2pul

SAMPLE		DEC. & VT	
date	Oct 22 1998	dn	H1
solvent	D2O	dof	0
file	exp	dm	nnn
ACQUISITION		dmm	c
sfrq	499.791	dmf	200
tn	H1	dpwr	8
at	1.928	PROCESSING	
np	32000	wtfile	
sw	8297.0	proc	ft
fb	4600	fn	65536
bs	4	math	f
ss	2		
tpwr	60	werr	n
pw	6.0	wexp	
d1	1.500	wbs	
tof	0	wnt	wft
nt	800	DISPLAY	
ct	136	sp	-1649.6
alock	n	wp	8297.0
gain	not used	vs	9427
FLAGS		sc	0
il	n	wc	250
in	n	hzmm	0.09
dp	y	is	313.55
hs	nn	rfl	3983.6
		rfp	2334.0
		th	5
		ins	100.000
		nm cdc ph	



α-Gal polymer C

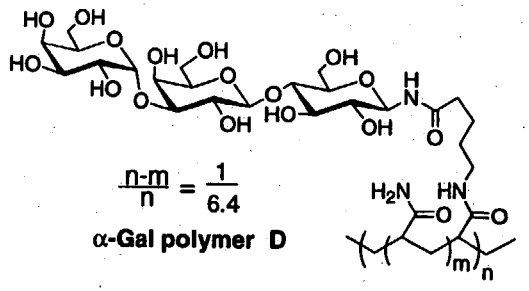
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Mercury 400 spectrometer

proton spectrum

exp1 s2pul

SAMPLE		DEC. & VT	
date	Aug 25 1998	dn	H1
solvent	D2O	dof	0
file	exp	dm	nnn
ACQUISITION		dmm	c
sfrq	400.091	dmf	200
tn	H1	dpwr	30
at	2.409	PROCESSING	
np	32000	wtfile	
sw	6641.4	proc	ft
fb	3600	fn	65536
bs	4	math	f
ss	2		
tpwr	58	werr	n
pw	3.6	wexp	
d1	1.000	wbs	
tof	0	wnt	wft
nt	1000	DISPLAY	
ct	72	sp	-1320.2
alock	n	wp	6641.4
gain	not used	vs	7458
FLAGS		sc	0
il	n	wc	250
in	n	hzmm	26.57
dp	y	is	313.55
hs	nn	rfl	3240.7
		rfp	1920.4
		th	5
		ins	100.000
		nm cdc ph	



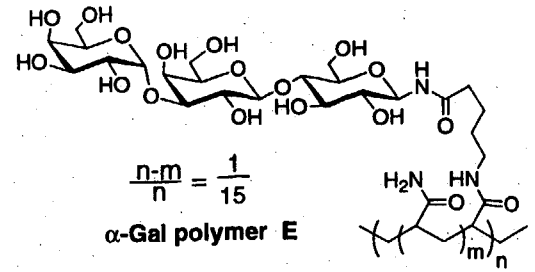
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Unity 500 spectrometer

STANDARD PROTON PARAMETERS

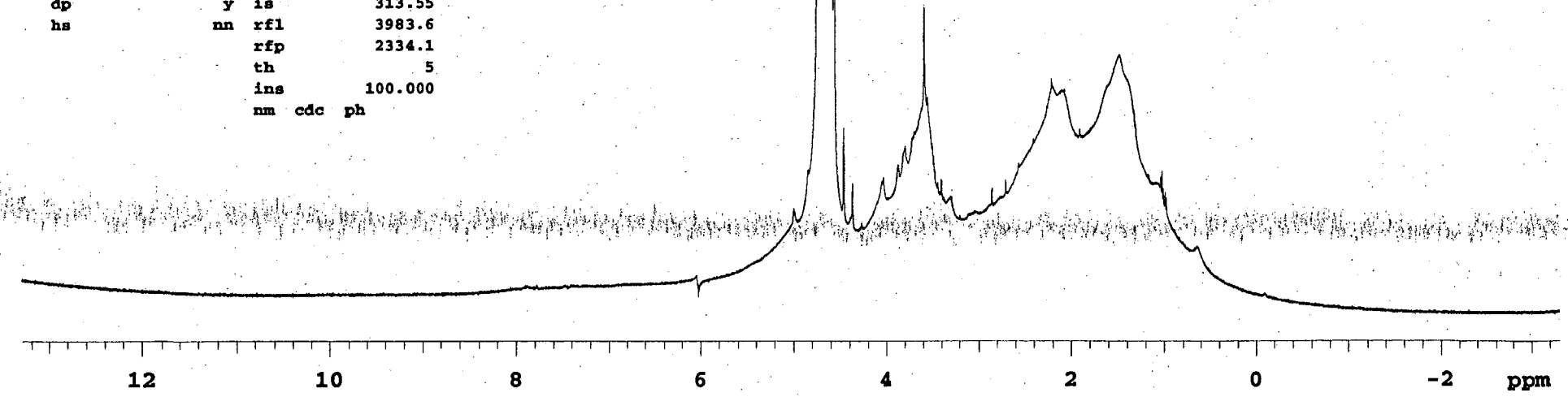
exp1 s2pul

SAMPLE		DEC. & VT	
date	Sep 16 1998	dn	H1
solvent	D2O	dof	0
file	exp	dm	nnn
ACQUISITION		dmm	c
sfrq	499.798	dmf	200
tn	H1	dpwr	8
at	1.928	PROCESSING	
np	32000	wtfile	
sw	8297.0	proc	ft
fb	4600	fn	65536
bs	4	math	f
ss	2		
tpwr	60	werr	n
pw	6.0	wexp	
d1	1.500	wbs	
tof	0	wnt	wft
nt	800	DISPLAY	
ct	412	sp	-1649.5
alock	n	wp	8297.0
gain	not used	vs	18435
FLAGS		sc	0
il	n	wc	250
in	n	hzmm	33.19
dp	y	is	313.55
hs	nn	rfl	3983.6
		rfp	2334.1
		th	5
		ins	100.000
		nm cdc ph	



$\frac{n-m}{n} = \frac{1}{15}$

α-Gal polymer E



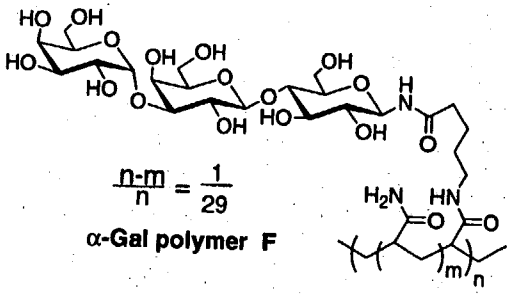
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STANDARD PROTON PARAMETERS

exp1 s2pul

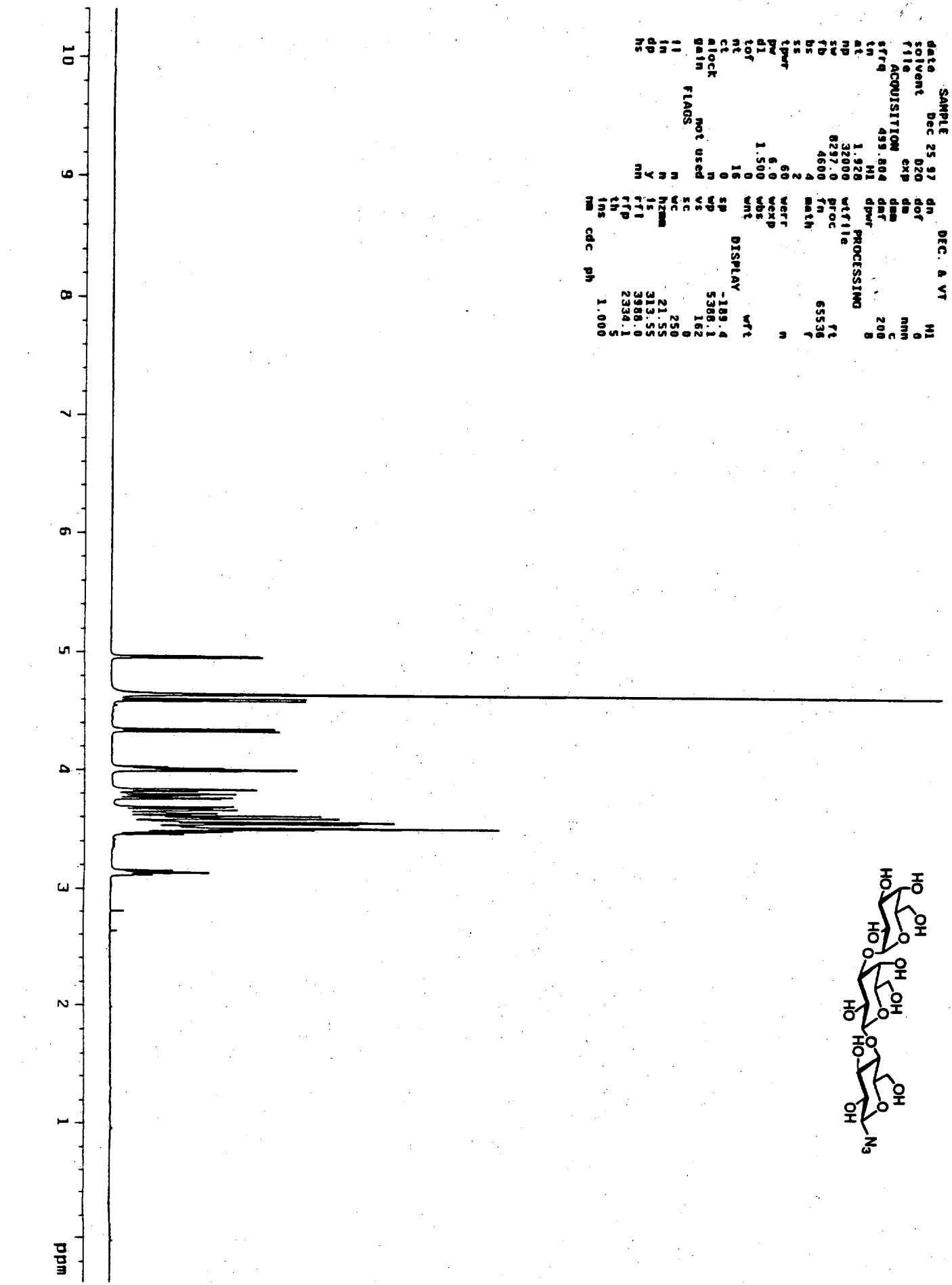
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solvent	D2O	dof	0
file	exp	dm	nnn
ACQUISITION		dmm	c
sfrq	499.798	dmf	200
tn	H1	dpwr	8
at	1.928	PROCESSING	
np	32000	wtfile	
sw	8297.0	proc	ft
fb	4600	fn	65536
bs	4	math	f
ss	2		
tpwr	60	werr	n
pw	6.0	wexp	
d1	1.500	wbs	
tof	0	wnt	wft
nt	800	DISPLAY	
ct	372	sp	-1649.5
alock	n	wp	8297.0
gain	not used	vs	14478
FLAGS		sc	0
il	n	wc	250
in	n	hzmm	0.09
dp	y	is	313.55
hs	nn	rfl	3983.6
		rfp	2334.1
		th	5
		ins	100.000
		nm cdc ph	

Unity 500 spectrometer



α-Gal polymer F

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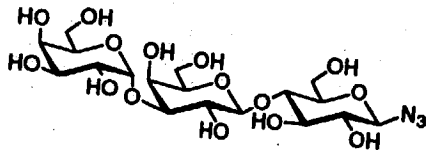


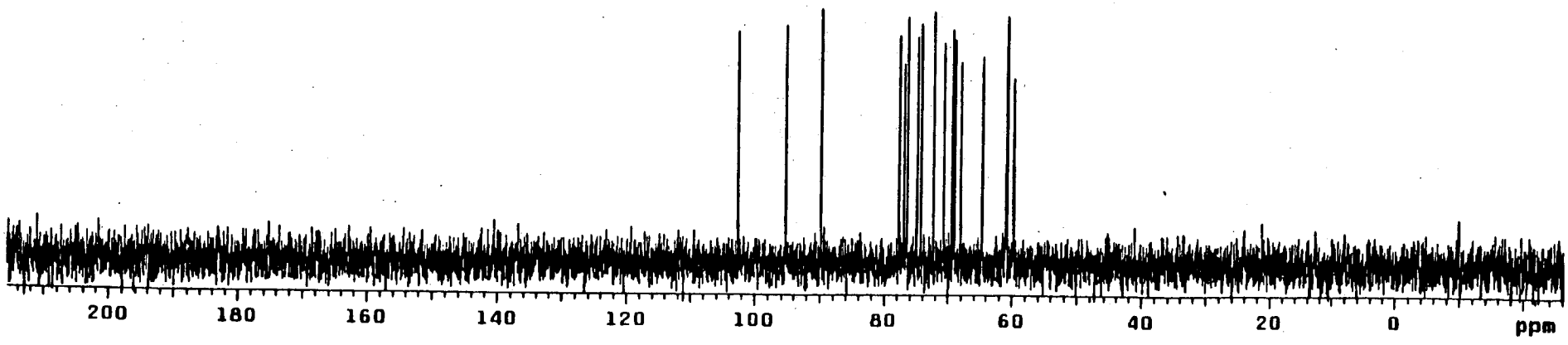
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JL-8-37-d2o

exp2 s2pul

SAMPLE		DEC. & VT	
date	Dec 25 97	dn	H1
solvent	D2O	dof	0
file	exp	dm	yyy
ACQUISITION		dmm	w
sfrq	125.687	dmf	12400
tn	C13	dpwr	43
at	0.526	PROCESSING	
np	32000	lb	1.75
sw	30418.3	wtfile	
fb	16800	proc	ft
bs	16	fn	65536
tpwr	55	math	t
pw	9.0		
d1	1.500	werr	
tof	0	wexp	n
nt	200	wbs	n
ct	200	wnt	
alock	s	DISPLAY	
gain	not used	sp	-3297.4
FLAGS		wp	30418.3
fl	n	vs	40
in	n	sc	0
dp	y	wc	250
hs	nn	hzmm	8.04
		fs	500.00
		rfl	12976.1
		rfp	9678.7
		th	33
		ins	1.000
		nm ph	





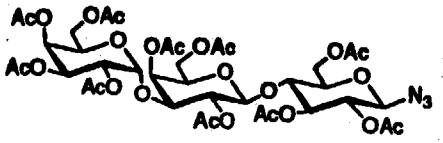
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Unity 500 spectrometer

STANDARD PROTON PARAMETERS

exp1 s2pul

SAMPLE		DEC. & VT	
date	Jan 27 1999	dn	H1
solvent	CDCL3	dof	0
file	exp	dm	nnn
ACQUISITION		dmm	c
sfrq	499.790	dmf	200
tn	H1	dpwr	8
at	1.928	PROCESSING	
np	32000	wtfile	
sw	8297.0	proc	ft
fb	4600	fn	65536
bs	4	math	f
ss	2		
tpwr	60	werr	n
pw	6.0	wexp	
d1	1.500	wbs	
tof	0	wnt	wft
nt	16	DISPLAY	
ct	16	sp	-1649.6
alock	n	wp	8297.0
gain	not used	vs	150
FLAGS		sc	0
il	n	wc	250
in	n	hzmm	33.19
dp	y	is	313.55
hs	nn	rfl	5268.0
		rfp	3618.5
		th	5
		ins	100.000
		nm cdc ph	



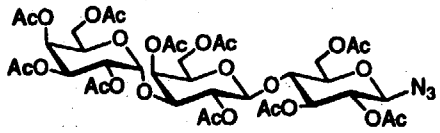
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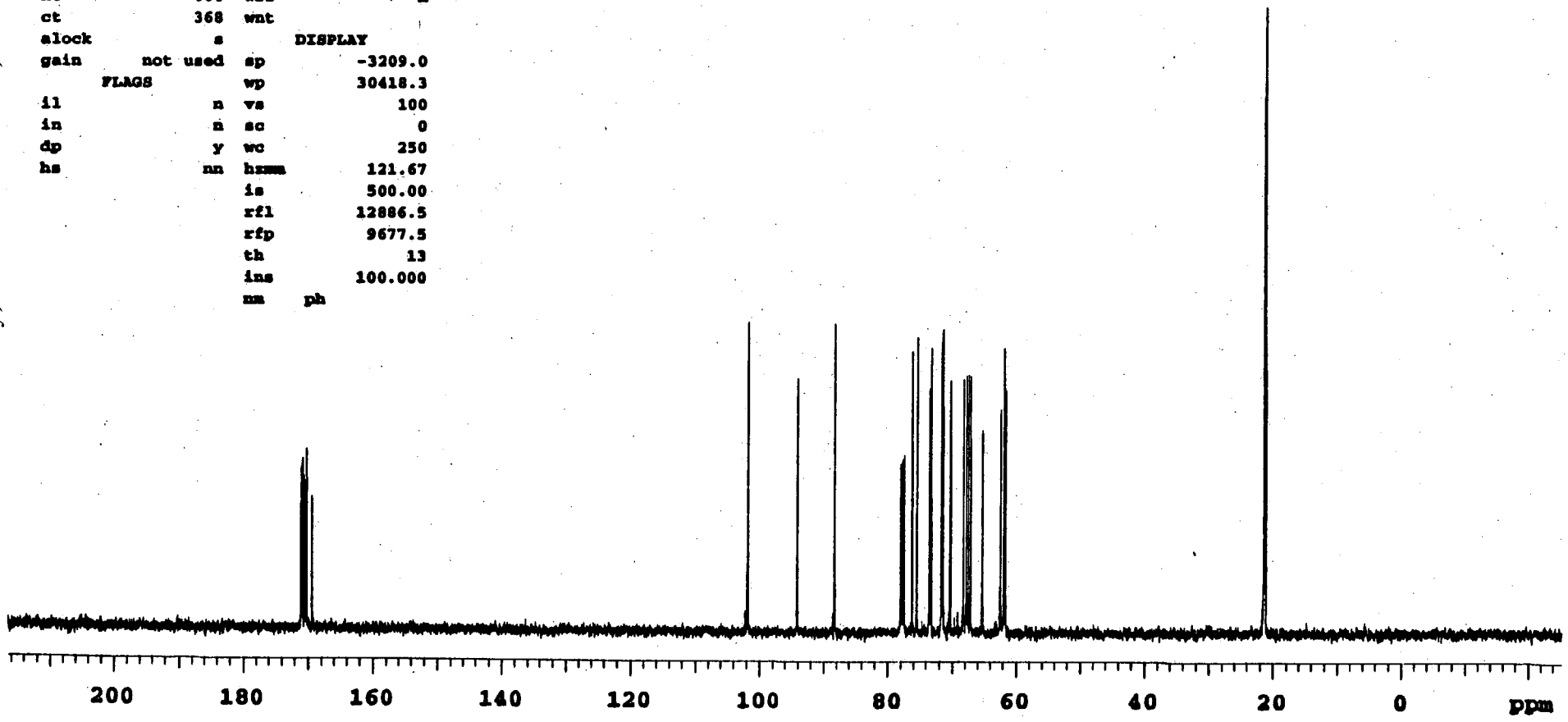
Unity 500 spectrometer

C13

exp2 s2pul

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date	Jan 27 1999	dn	H1
solvent	CDCL3	dof	0
file	exp	dm	yyy
ACQUISITION		dmm	w
sfrq	125.684	dmf	12400
tn	C13	dpwr	43
at	0.526	PROCESSING	
np	32000	lb	1.75
sw	30418.3	wtfile	
fb	16800	proc	ft
bs	16	fn	65536
tpwr	55	math	i
pw	10.8		
d1	1.500	werr	
tof	0	wexp	n
nt	600	wbs	n
ct	368	wnt	
alock	s	DISPLAY	
gain	not used	sp	-3209.0
FLAGS		wp	30418.3
il	n	vs	100
in	n	sc	0
dp	y	wc	250
hs	nn	hzmm	121.67
		is	500.00
		rfl	12886.5
		rfp	9677.5
		th	13
		ins	100.000
		nm	ph





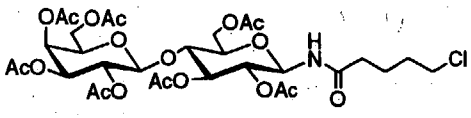
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Unity 500 spectrometer

STANDARD PROTON PARAMETERS

exp1 s2pul

SAMPLE		DEC. & VT	
date	Oct 10 1998	dn	H1
solvent	CDCL3	dof	0
file	exp	dm	nnn
ACQUISITION		dmm	c
sfrq	499.790	dmf	200
tn	H1	dpwr	8
at	1.928	PROCESSING	
np	32000	wtfile	
sw	8297.0	proc	ft
fb	4600	fn	65536
bs	4	math	f
ss	2		
tpwr	60	werr	n
pw	6.0	wexp	
d1	1.500	wbs	
tof	0	wnt	wft
nt	16	DISPLAY	
ct	12	sp	-1649.6
alock	n	wp	8297.0
gain	not used	vs	132
FLAGS		sc	0
il	n	wc	250
in	n	hzmm	33.19
dp	y	is	313.55
hs	nn	rfl	5268.0
		rfp	3618.5
		th	5
		ins	100.000
		nm cdc ph	



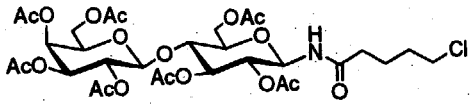
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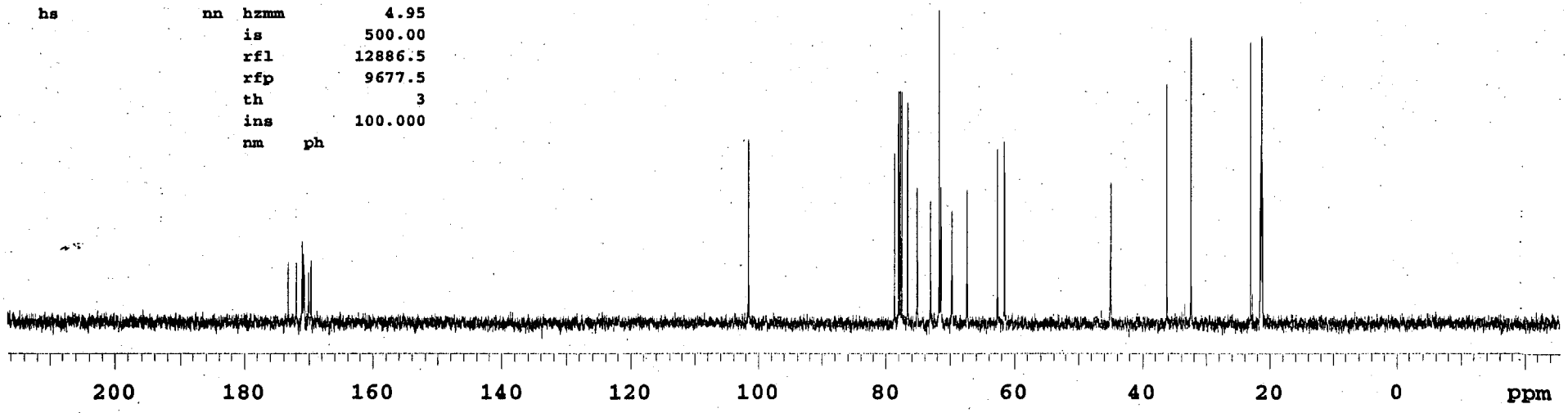
Unity 500 spectrometer

C13

exp2 s2pul

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date	Oct 10 1998	dn	H1
solvent	CDCL3	dof	0
file	exp	dm	yyy
ACQUISITION		dmm	w
sfrq	125.684	dmf	12400
tn	C13	dpwr	43
at	0.526	PROCESSING	
np	32000	lb	1.75
sw	30418.3	wtfile	
fb	16800	proc	ft
bs	16	fn	65536
tpwr	55	math	i
pw	10.8		
d1	1.500	werr	
tof	0	wexp	n
nt	1000	wbs	n
ct	160	wnt	
alock	s	DISPLAY	
gain	not used	sp	-3209.0
FLAGS		wp	30418.3
il	n	vs	50
in	n	sc	0
dp	y	wc	250
hs	nn	hzmm	4.95
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		rfl	12886.5
		rfp	9677.5
		th	3
		ins	100.000
		nm	ph





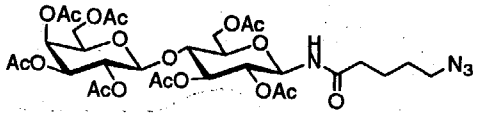
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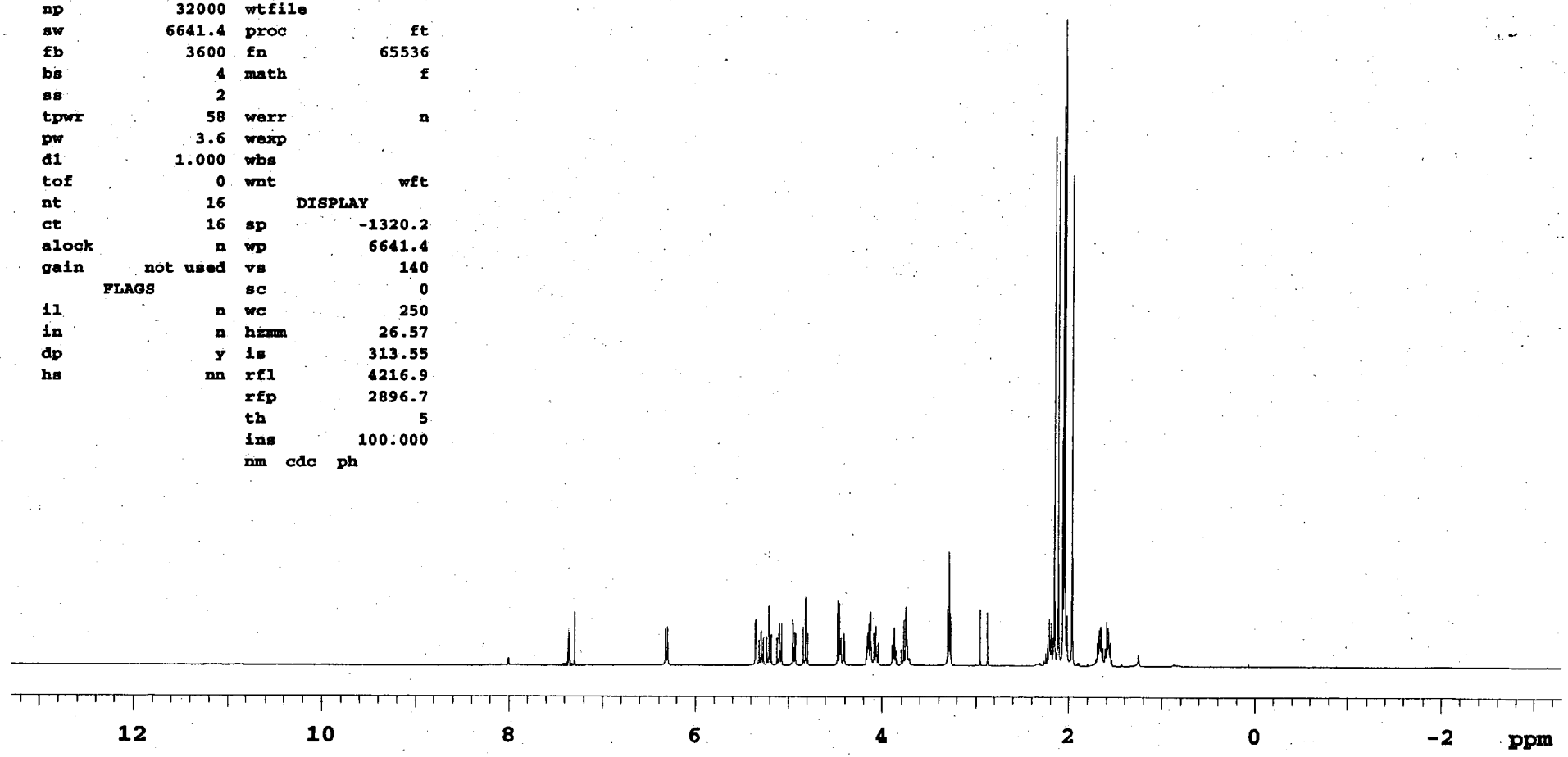
Mercury 400 spectrometer

proton spectrum

exp1 s2pul

SAMPLE		DEC. & VT	
date	Oct 13 1998	dn	H1
solvent	CDCL3	dof	0
file	exp	dm	nnn
ACQUISITION		dmm	c
sfrq	400.090	dmf	200
tn	H1	dpwr	30
at	2.409	PROCESSING	
np	32000	wtfile	
sw	6641.4	proc	ft
fb	3600	fn	65536
bs	4	math	f
ss	2		
tpwr	58	werr	n
pw	3.6	wexp	
d1	1.000	wbs	
tof	0	wnt	wft
nt	16	DISPLAY	
ct	16	sp	-1320.2
alock	n	wp	6641.4
gain	not used	vs	140
FLAGS		sc	0
il	n	wc	250
in	n	hzmm	26.57
dp	y	is	313.55
hs	nn	rfl	4216.9
		rfp	2896.7
		th	5
		ins	100.000
		nm cdc ph	





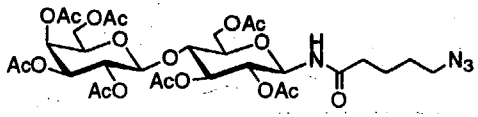
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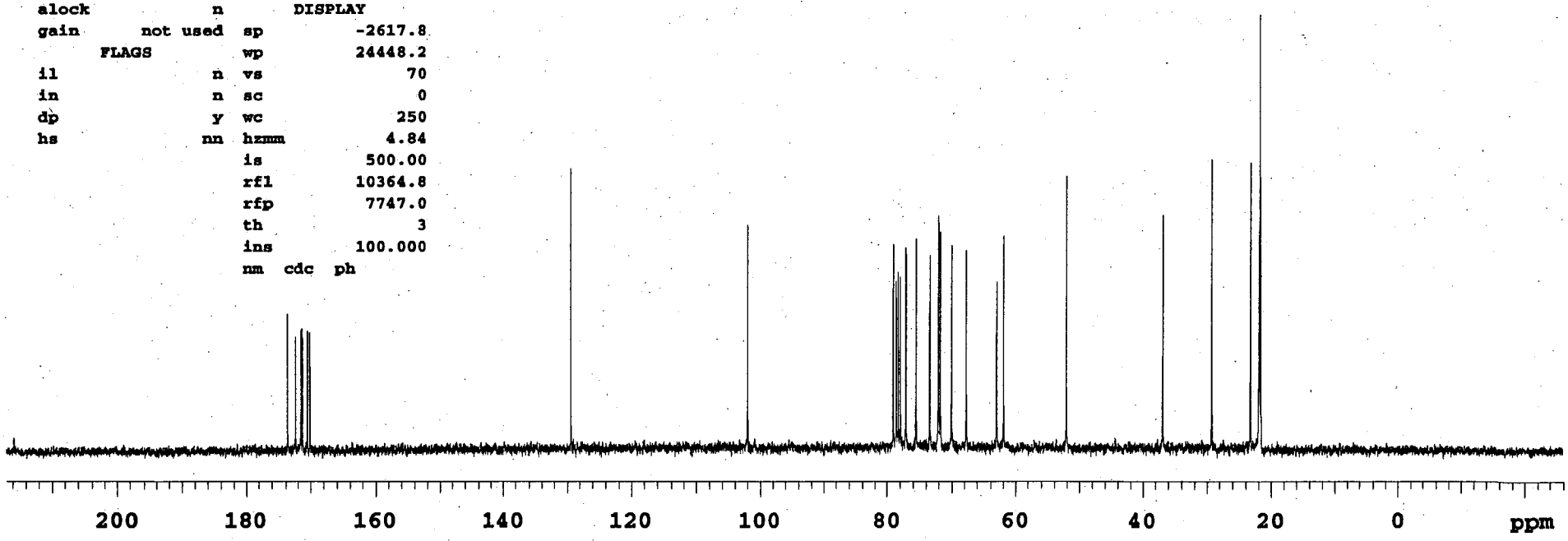
Mercury 400 spectrometer

Carbon spectrum

exp2 s2pul

SAMPLE		DEC. & VT	
date	Oct 13 1998	dn	H1
solvent	CDCL3	dof	0
file	exp	dm	yyy
ACQUISITION		dmm	w
sfrq	100.612	dmf	10800
tn	C13	dpwr	42
at	0.654	PROCESSING	
np	32000	lb	1.75
sw	24448.2	wtfile	
fb	13400	proc	ft
bs	16	fn	65536
tpwr	58	math	i
pw	8.4		
d1	1.500	werr	
tof	0	wexp	n
nt	1000	wbs	n
ct	176	wnt	
alock	n	DISPLAY	
gain	not used	sp	-2617.8
FLAGS		wp	24448.2
il	n	vs	70
in	n	sc	0
dp	y	wc	250
hs	nn	hzmm	4.84
		is	500.00
		rfl	10364.8
		rfp	7747.0
		th	3
		ins	100.000
		nm cdc ph	





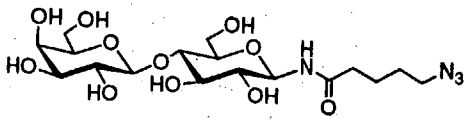
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Unity 500 spectrometer

STANDARD PROTON PARAMETERS

exp1 s2pul

SAMPLE		DEC. & VT	
date	Oct 15 1998	dn	H1
solvent	D2O	dof	0
file	exp	dm	nnn
ACQUISITION		dmm	c
sfrq	499.791	dmf	200
tn	H1	dpwr	8
at	1.928	PROCESSING	
np	32000	wtfile	
sw	8297.0	proc	ft
fb	4600	fn	65536
bs	4	math	f
ss	2		
tpwr	60	werr	n
pw	6.0	wexp	
d1	1.500	wbs	
tof	0	wnt	wft
nt	16	DISPLAY	
ct	16	sp	-1649.6
alock	n	wp	8297.0
gain	not used	vs	353
FLAGS		sc	0
il	n	wc	250
in	n	hzmm	0.09
dp	y	is	313.55
hs	nn	rfl	3983.6
		rfp	2334.0
		th	5
		ins	100.000
		nm cdc ph	



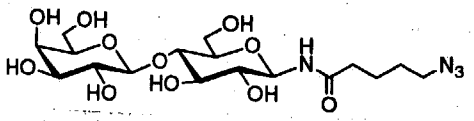
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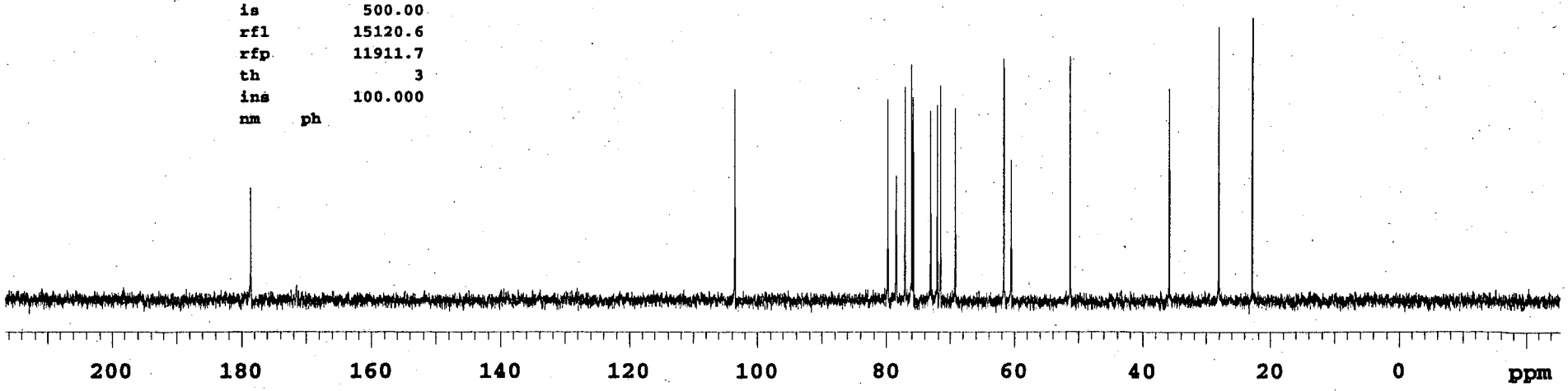
Unity 500 spectrometer

C13

exp2 s2pul

SAMPLE		DEC. & VT	
date	Oct 15 1998	dn	H1
solvent	D2O	dof	0
file	exp	dm	yyy
ACQUISITION		dmm	w
sfrq	125.684	dmf	12400
tn	C13	dpwr	43
at	0.526	PROCESSING	
np	32000	lb	1.75
sw	30418.3	wtfile	
fb	16800	proc	ft
bs	16	fn	65536
tpwr	55	math	i
pw	10.8		
d1	1.500	werr	
tof	0	wexp	n
nt	1000	wbs	n
ct	192	wnt	
alock	s	DISPLAY	
gain	not used	sp	-3208.8
FLAGS		wp	30418.3
il	n	vs	45
in	n	sc	0
dp	y	wc	250
hs	nn	hzmm	121.67
		is	500.00
		rfl	15120.6
		rfp	11911.7
		th	3
		ins	100.000
		nm ph	



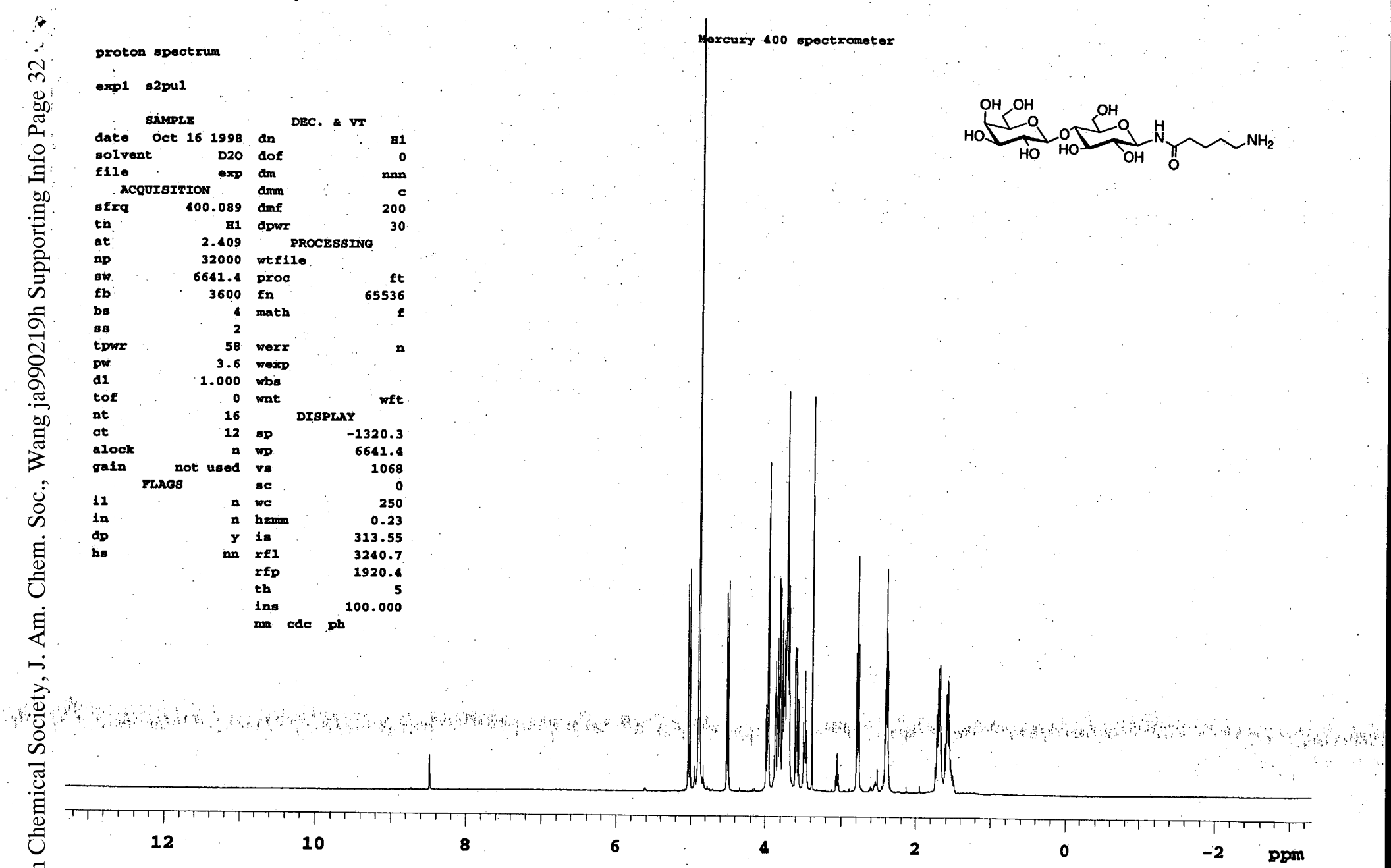


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proton spectrum

exp1 s2pul

SAMPLE		DEC. & VT	
date	Oct 16 1998	dn	H1
solvent	D2O	dof	0
file	exp	dm	nnn
ACQUISITION		dmm	c
sfrq	400.089	dmf	200
tn	H1	dpwr	30
at	2.409	PROCESSING	
np	32000	wtfile	
sw	6641.4	proc	ft
fb	3600	fn	65536
bs	4	math	f
ss	2		
tpwr	58	werr	n
pw	3.6	wexp	
d1	1.000	wbs	
tof	0	wnt	wft
nt	16	DISPLAY	
ct	12	sp	-1320.3
alock	n	wp	6641.4
gain	not used	vs	1068
FLAGS		sc	0
il	n	wc	250
in	n	hzmm	0.23
dp	y	is	313.55
hs	nn	rfl	3240.7
		rfp	1920.4
		th	5
		ins	100.000
		nm cdc ph	



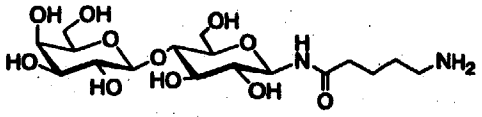
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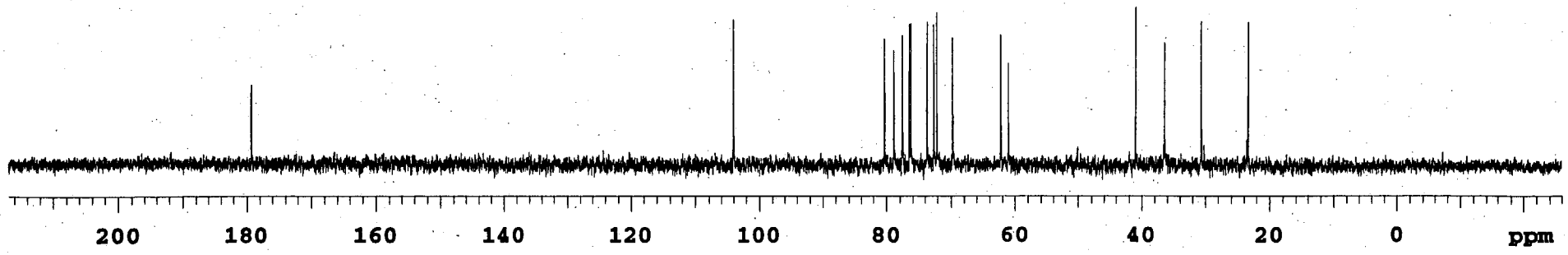
Mercury 400 spectrometer

Carbon spectrum

exp2 s2pul

SAMPLE		DEC. & VT	
date	Oct 16 1998	dn	H1
solvent	D2O	dof	0
file	exp	dm	yyy
ACQUISITION		dmm	w
sfrq	100.611	dmf	10800
tn	C13	dpwr	42
at	0.654	PROCESSING	
np	32000	lb	1.75
sw	24448.2	wtfile	
fb	13400	proc	ft
bs	16	fn	65536
tpwr	58	math	i
pw	8.4		
d1	1.500	werr	
tof	0	wexp	n
nt	1000	wbs	n
ct	656	wnt	
alock	n	DISPLAY	
gain	not used	sp	-2617.7
FLAGS		wp	24448.2
il	n	vs	25
in	n	sc	0
dp	y	wc	250
hs	nn	hzmm	4.84
		is	500.00
		rfl	12109.3
		rfp	9491.6
		th	3
		ins	100.000
		nm cdc ph	





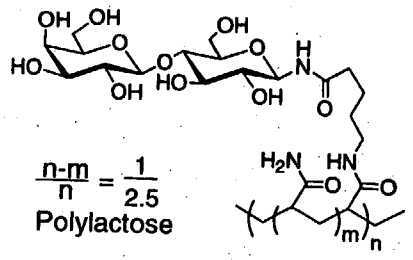
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Unity 500 spectrometer

STANDARD PROTON PARAMETERS

exp1 s2pul

SAMPLE		DEC. & VT	
date	Oct 22 1998	dn	H1
solvent	D2O	dof	0
file	exp	dm	nnn
ACQUISITION		dmm	c
sfrq	499.791	dmf	200
tn	H1	dpwr	8
at	1.928	PROCESSING	
np	32000	wtfile	
sw	8297.0	proc	ft
fb	4600	fn	65536
bs	4	math	f
ss	2		
tpwr	60	werr	n
pw	6.0	wexp	
d1	1.500	wbs	
tof	0	wnt	wft
nt	800	DISPLAY	
ct	140	sp	-1649.6
alock	n	wp	8297.0
gain	not used	vs	3692
FLAGS		sc	0
il	n	wc	250
in	n	hzmm	33.19
dp	y	is	313.55
hs	nn	rf1	3983.6
		rfp	2334.0
		th	5
		ins	100.000
		nm cdc ph	



$\frac{n-m}{n} = \frac{1}{2.5}$

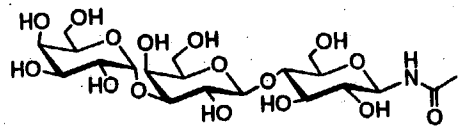
Polylactose

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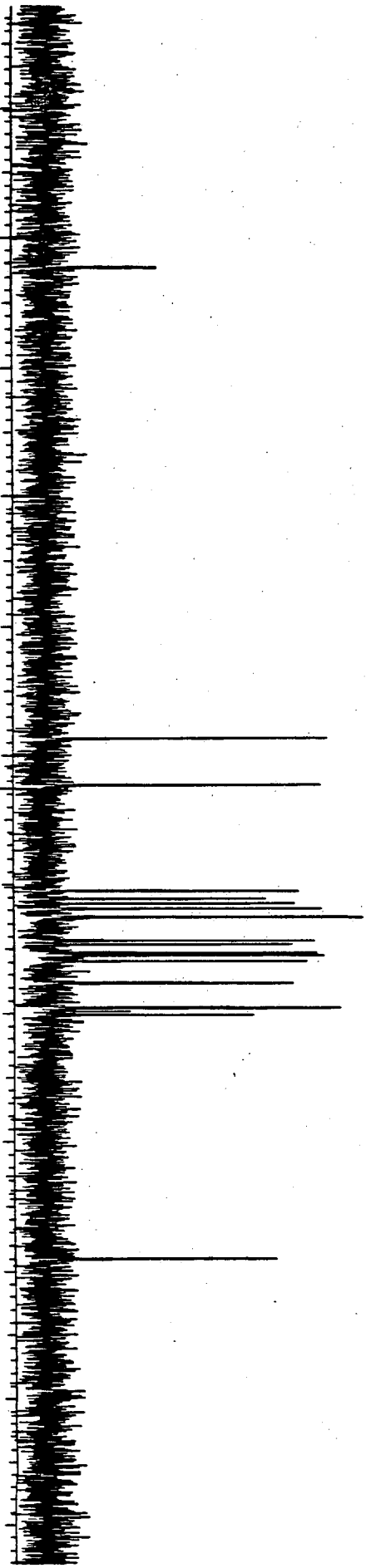
trisaccharide

expl s2pul

SAMPLE		DEC. & VT	
date	Dec 11 97	dn	H1
solvent	D2O	dof	0
file	exp	dm	nnn
ACQUISITION		dmm	c
sfrq	499.804	dmf	200
tn	H1	dpwr	8
at	1.928	PROCESSING	
np	32000	wtfile	
sw	8297.0	proc	ft
fb	4600	fn	65536
bs	4	math	f
ss	2		
tpwr	60	werr	n
pw	6.0	wexp	
d1	1.500	wbs	
tof	0	wnt	wft
nt	16	DISPLAY	
ct	16	sp	-259.3
alock	n	wp	5434.7
gain	not used	vs	162
FLAGS		sc	0
fl	n	wc	250
in	n	hzmm	21.74
dp	y	is	313.55
hs	nn	rfl	3988.0
		rfp	2334.1
		th	5
		ins	1.000
		nm cdc ph	



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C13
exp2  s2pul

SAMPLE                          DEC. & VT
date      Dec 11 07 dn                H1
solvent       D2O dof                 0
file          exp  dm                yyy
ACQUISITION       dmm                 w
sfrq    125.687 dmf             12400
tn          C13 dpwr               43
at        0.526                PROCESSING
np        32000 lb          1.75
sw      30418.3 wtfile
fb      16800 proc                ft
bs         16 fn              65536
tpwr       55 math                 i
pw        9.0
d1      1.500 werr
          0 wexp                   n
tof       200 wbs                  n
nt        200 wnt
ct                        DISPLAY
alock        s                -3287.4
gain    not used sp          30418.3
FLAGS          wp                 50
ii             vs                  0
in             sc                250
dp             wc               4.95
hs             hzmm           500.00
               is             12876.1
               rfl             9678.7
               rfp                  3
               th               1.000
               ins
               ph
               dm
```

