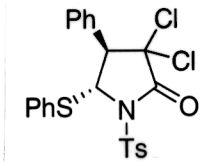
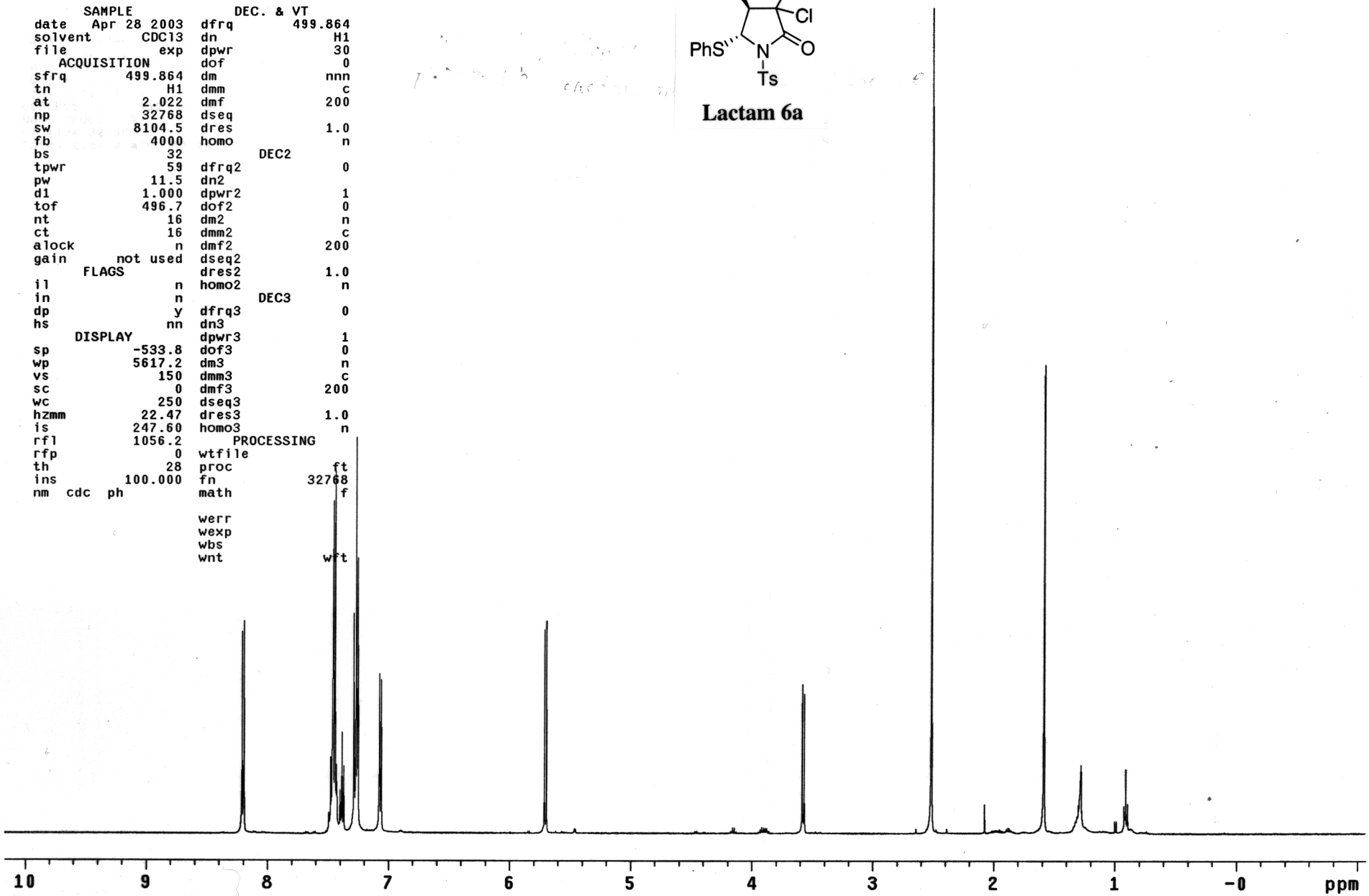
STANDARD PROTON PARAMETERS

exp1 s2pul N23-72-1

SAMPLE		DEC. & VT	
date	Apr 28 2003	dfrq	499.864
solvent	CDCl3	dn	H1
file	exp	dpwr	30
ACQUISITION		dof	0
sfrq	499.864	dm	nnn
tn	H1	dmm	c
at	2.022	dmf	200
np	32768	dseq	
sw	8104.5	dres	1.0
fb	4000	homo	n
bs	32	DEC2	
tpwr	59	dfrq2	0
pw	11.5	dn2	
d1	1.000	dpwr2	1
tof	496.7	dof2	0
nt	16	dm2	n
ct	16	dmm2	c
alock	n	dmf2	200
gain	not used	dseq2	
FLAGS		dres2	1.0
il	n	homo2	n
in	n	DEC3	
dp	y	dfrq3	0
hs	nn	dn3	
DISPLAY		dpwr3	1
sp	-533.8	dof3	0
wp	5617.2	dm3	n
vs	150	dmm3	c
sc	0	dmf3	200
wc	250	dseq3	
hzmm	22.47	dres3	1.0
is	247.60	homo3	n
rfl	1056.2	PROCESSING	
rfp	0	wtfile	
th	28	proc	ft
ins	100.000	fn	32768
nm cdc ph		math	f
		werr	
		wexp	
		wbs	
		wnt	wft



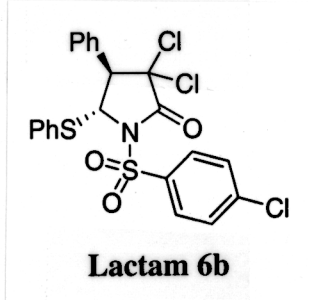
Lactam 6a



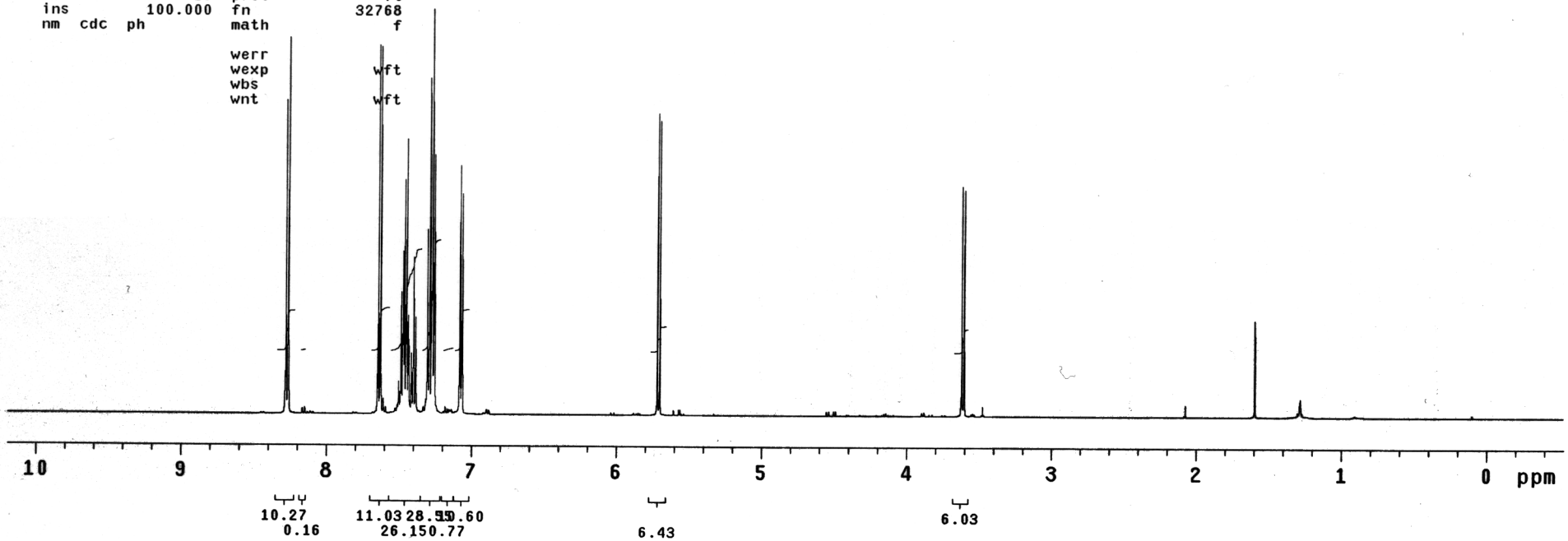
nz4-64-1 lactam(Ph,Cos)

exp1 s2pul

SAMPLE		DEC. & VT	
date	Nov 22 2003	dfrq	499.864
solvent	CDCl3	dn	H1
file	exp	dpwr	30
ACQUISITION		dof	0
sfrq	499.864	dm	nnn
tn	H1	dmm	c
at	2.022	dmf	200
np	32768	dseq	
sw	8104.5	dres	1.0
fb	4000	homo	n
bs	8	DEC2	
tpwr	59	dfrq2	0
pw	10.9	dn2	
d1	1.000	dpwr2	1
tof	496.7	dof2	0
nt	32	dm2	n
ct	32	dmm2	c
alock	n	dmf2	200
gain	not used	dseq2	
FLAGS		dres2	1.0
il	n	homo2	n
in	n	DEC3	
dp	y	dfrq3	0
hs	nn	dn3	
DISPLAY		dpwr3	1
sp	-265.2	dof3	0
wp	5362.5	dm3	n
vs	64	dmm3	c
sc	0	dmf3	200
wc	250	dseq3	
hzmm	21.45	dres3	1.0
is	250.32	homo3	n
rfl	1056.2	PROCESSING	
rfp	0	wtfile	
th	28	proc	ft
ins	100.000	fn	32768
nm cdc ph		math	f
		werr	
		wexp	wft
		wbs	
		wnt	wft



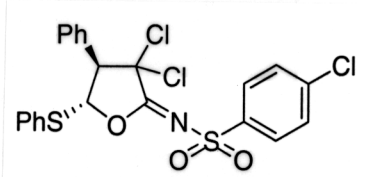
Lactam 6b



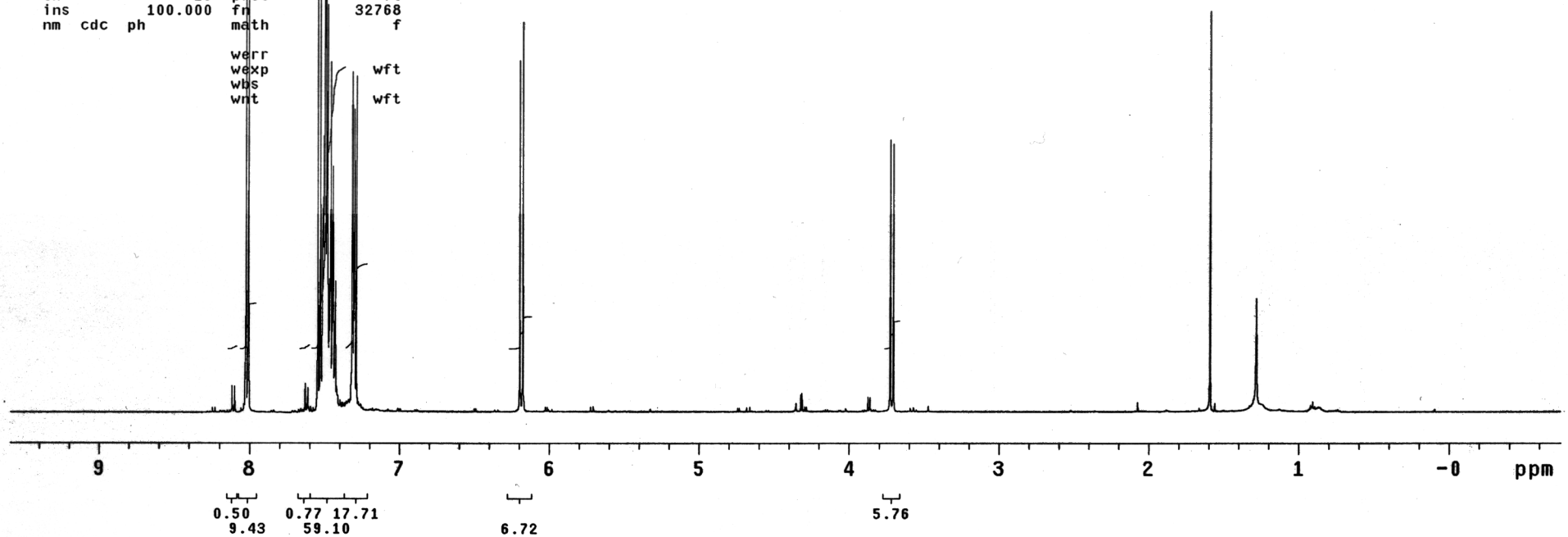
nz4-64-2 lactone Imine(Ph,Cos)

exp1 s2pul

SAMPLE		DEC. & VT	
date	Nov 21 2003	dfrq	499.864
solvent	CDCl3	dn	H1
file	exp	dpwr	30
ACQUISITION		dof	0
sfrq	499.864	dm	nnn
tn	H1	dmm	c
at	2.022	dmf	200
np	32768	dseq	
sw	8104.5	dres	1.0
fb	4000	homo	n
bs	8	DEC2	
tpwr	59	dfrq2	0
pw	10.9	dn2	
d1	1.000	dpwr2	1
tof	496.7	dof2	0
nt	32	dm2	n
ct	32	dmm2	c
alock	n	dmf2	200
gain	not used	dseq2	
FLAGS		dres2	1.0
il	n	homo2	n
in	n	DEC3	
dp	y	dfrq3	0
hs	nn	dn3	
DISPLAY		dpwr3	1
sp	-372.5	dof3	0
wp	5168.1	dm3	n
vs	98	dmm3	c
sc	0	dmf3	200
wc	250	dseq3	
hzmm	20.67	dres3	1.0
is	228.28	homo3	n
rfl	1056.2	PROCESSING	
rfp	0	wtfile	
th	28	proc	ft
ins	100.000	fn	32768
nm cdc ph		math	f
		werr	
		wexp	wft
		wbs	
		wnt	wft



Lactone Imine 7b

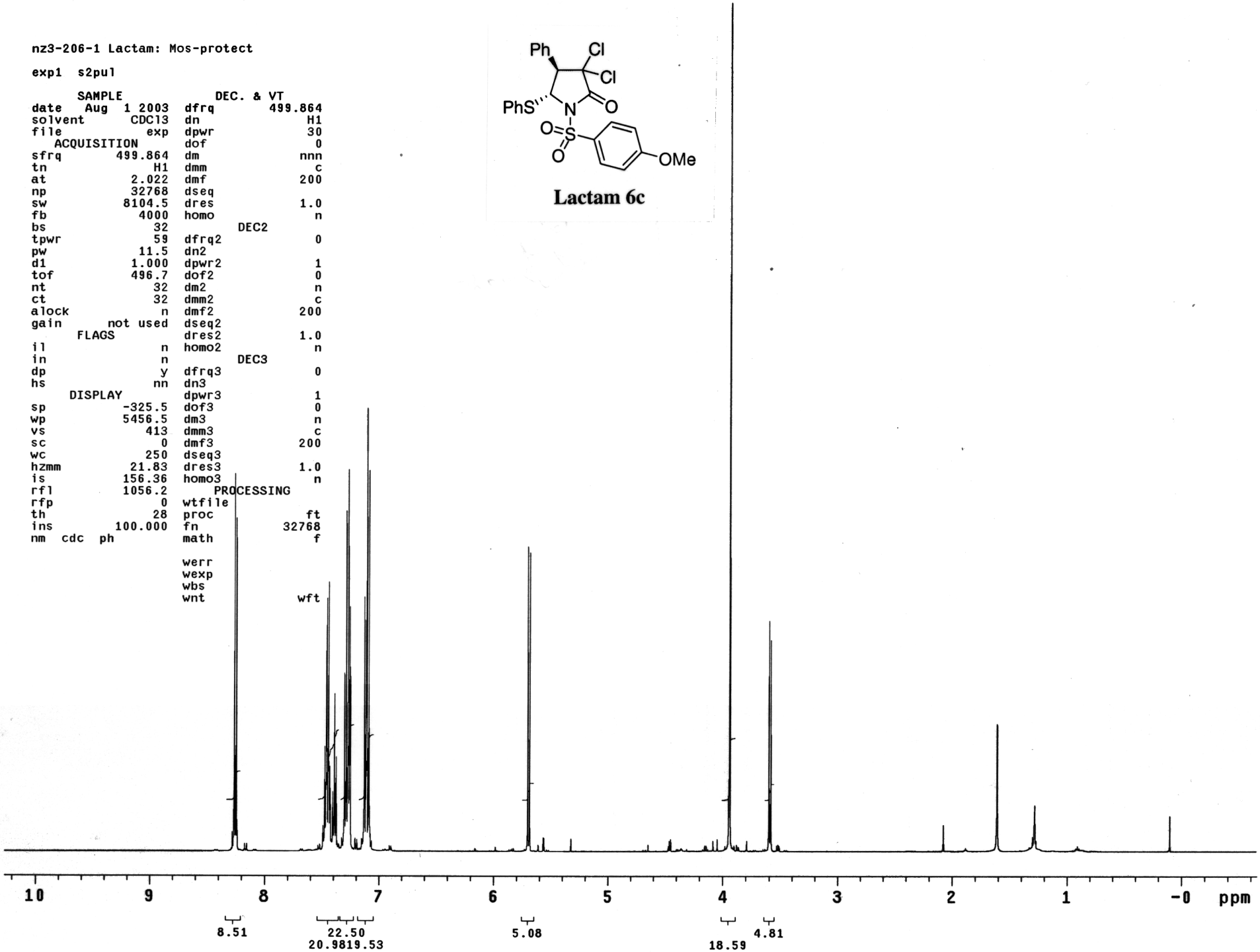


nz3-206-1 Lactam: Mos-protect

exp1 s2pul

SAMPLE		DEC. & VT	
date	Aug 1 2003	dfrq	499.864
solvent	CDCl3	dn	H1
file	exp	dpwr	30
ACQUISITION		dof	0
sfrq	499.864	dm	nnn
tn	H1	dmm	c
at	2.022	dmf	200
np	32768	dseq	
sw	8104.5	dres	1.0
fb	4000	homo	n
bs	32	DEC2	
tpwr	59	dfrq2	0
pw	11.5	dn2	
d1	1.000	dpwr2	1
tof	496.7	dof2	0
nt	32	dm2	n
ct	32	dmm2	c
alock	n	dmf2	200
gain	not used	dseq2	
FLAGS		dres2	1.0
il	n	homo2	n
in	n	DEC3	
dp	y	dfrq3	0
hs	nn	dn3	
DISPLAY		dpwr3	1
sp	-325.5	dof3	0
wp	5456.5	dm3	n
vs	413	dmm3	c
sc	0	dmf3	200
wc	250	dseq3	
hzmm	21.83	dres3	1.0
is	156.36	homo3	n
rfl	1056.2	PROCESSING	
rfp	0	wtfile	
th	28	proc	ft
ins	100.000	fn	32768
nm cdc ph		math	f
		werr	
		wexp	
		wbs	
		wnt	wft

Lactam 6c

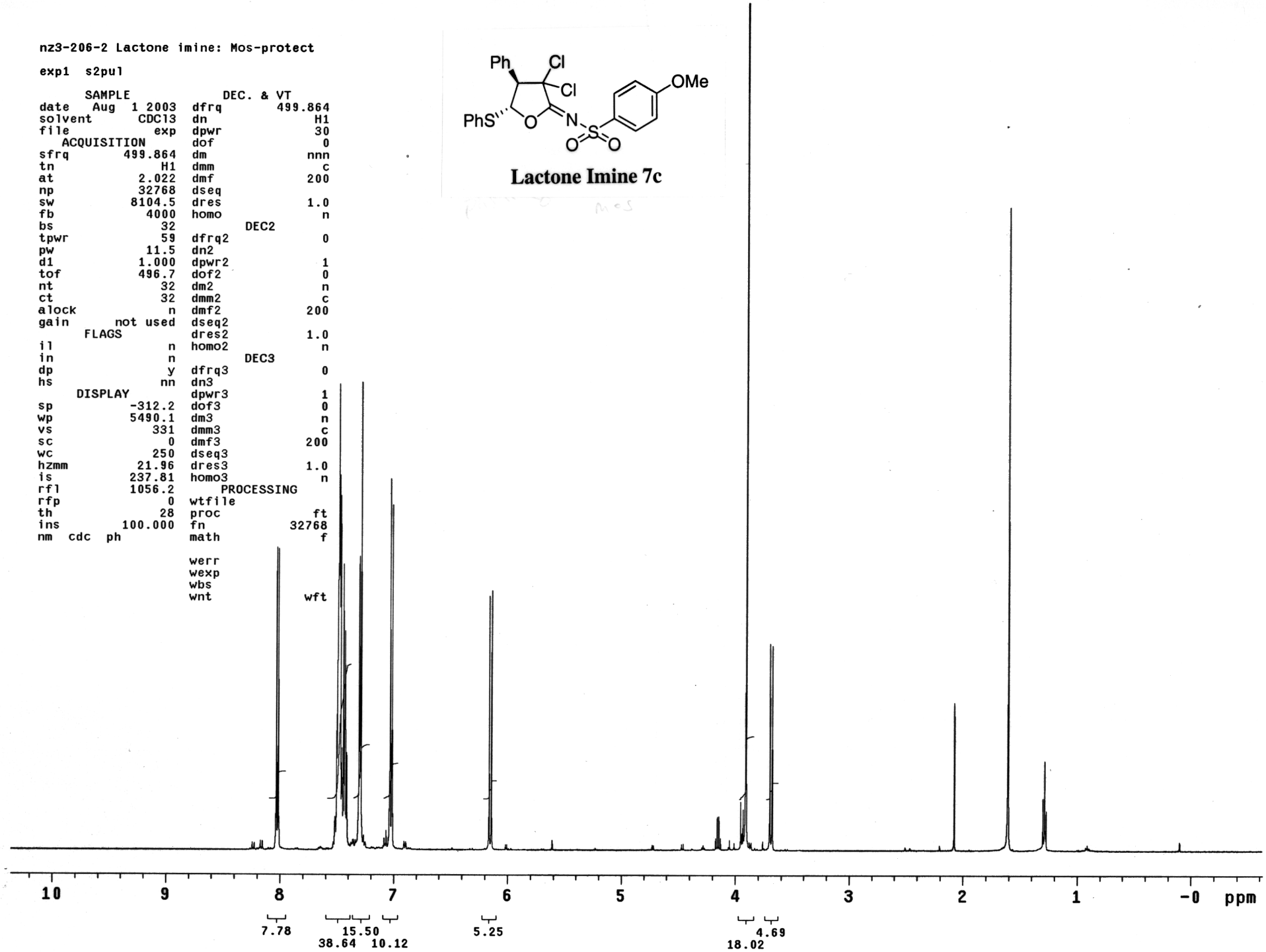


nz3-206-2 Lactone imine: Mos-protect

exp1 s2pul

SAMPLE		DEC. & VT	
date	Aug 1 2003	dfrq	499.864
solvent	CDCl3	dn	H1
file	exp	dpwr	30
ACQUISITION		dof	0
sfrq	499.864	dm	nnn
tn	H1	dmm	c
at	2.022	dmf	200
np	32768	dseq	
sw	8104.5	dres	1.0
fb	4000	homo	n
bs	32	DEC2	
tpwr	59	dfrq2	0
pw	11.5	dn2	
d1	1.000	dpwr2	1
tof	496.7	dof2	0
nt	32	dm2	n
ct	32	dmm2	c
alock	n	dmf2	200
gain	not used	dseq2	
FLAGS		dres2	1.0
il	n	homo2	n
in	n	DEC3	
dp	y	dfrq3	0
hs	nn	dn3	
DISPLAY		dpwr3	1
sp	-312.2	dof3	0
wp	5490.1	dm3	n
vs	331	dmm3	c
sc	0	dmf3	200
wc	250	dseq3	
hzmm	21.96	dres3	1.0
is	237.81	homo3	n
rfl	1056.2	PROCESSING	
rfp	0	wtfile	
th	28	proc	ft
ins	100.000	fn	32768
nm cdc ph		math	f
		werr	
		wexp	
		wbs	
		wnt	wft

Lactone Imine 7c

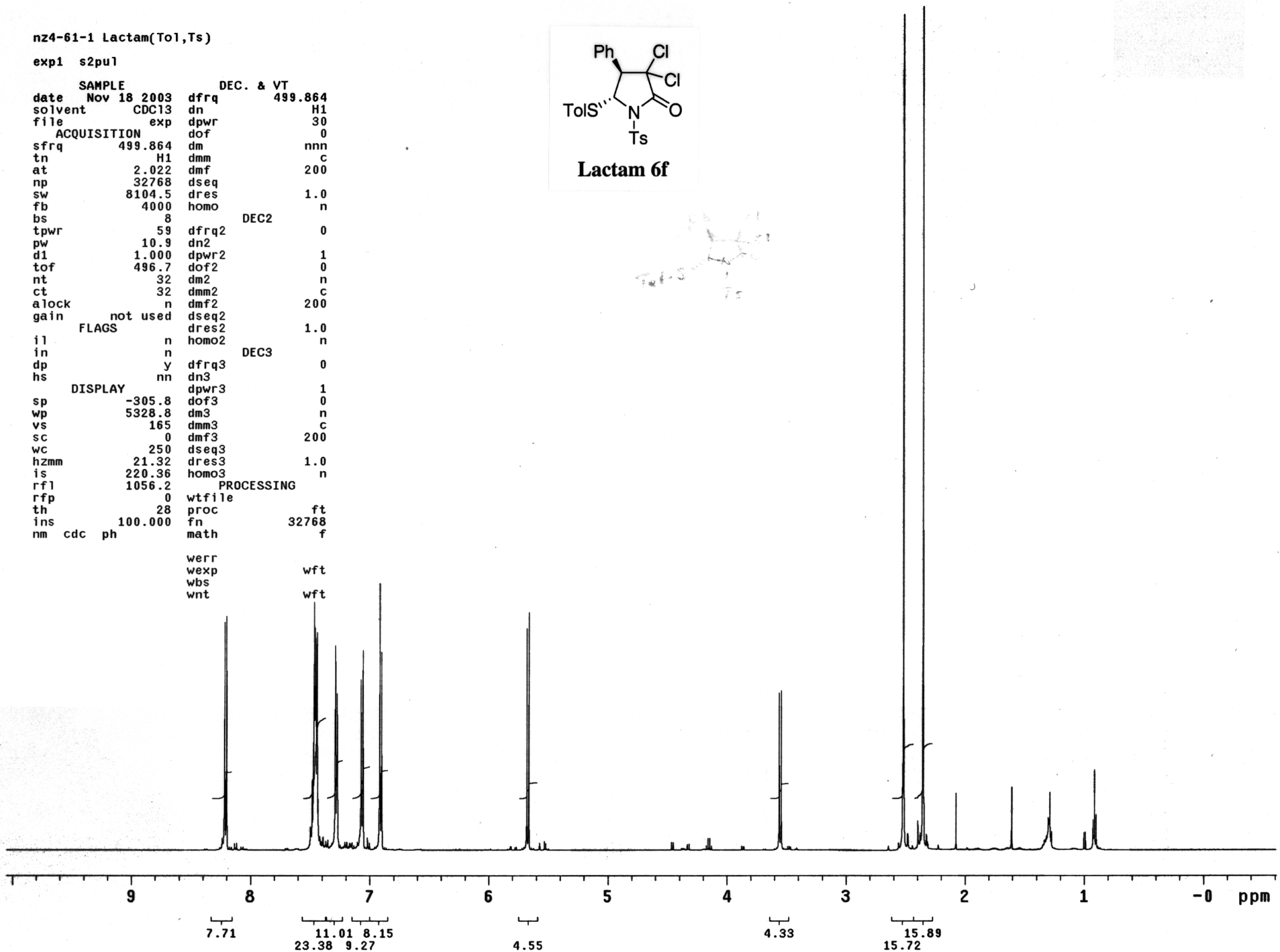


nz4-61-1 Lactam(Tol,Ts)

exp1 s2pul

SAMPLE		DEC. & VT	
date	Nov 18 2003	dfrq	499.864
solvent	CDCl3	dn	H1
file	exp	dpwr	30
ACQUISITION		dof	0
sfrq	499.864	dm	nnn
tn	H1	dmm	c
at	2.022	dmf	200
np	32768	dseq	
sw	8104.5	dres	1.0
fb	4000	homo	n
bs	8	DEC2	
tpwr	59	dfrq2	0
pw	10.9	dn2	
d1	1.000	dpwr2	1
tof	496.7	dof2	0
nt	32	dm2	n
ct	32	dmm2	c
alock	n	dmf2	200
gain	not used	dseq2	
FLAGS		dres2	1.0
il	n	homo2	n
in	n	DEC3	
dp	y	dfrq3	0
hs	nn	dn3	
DISPLAY		dpwr3	1
sp	-305.8	dof3	0
wp	5328.8	dm3	n
vs	165	dmm3	c
sc	0	dmf3	200
wc	250	dseq3	
hzmm	21.32	dres3	1.0
is	220.36	homo3	n
rfl	1056.2	PROCESSING	
rfp	0	wtfile	
th	28	proc	ft
ins	100.000	fn	32768
nm cdc ph		math	f
		werr	
		wexp	wft
		wbs	
		wnt	wft

Lactam 6f

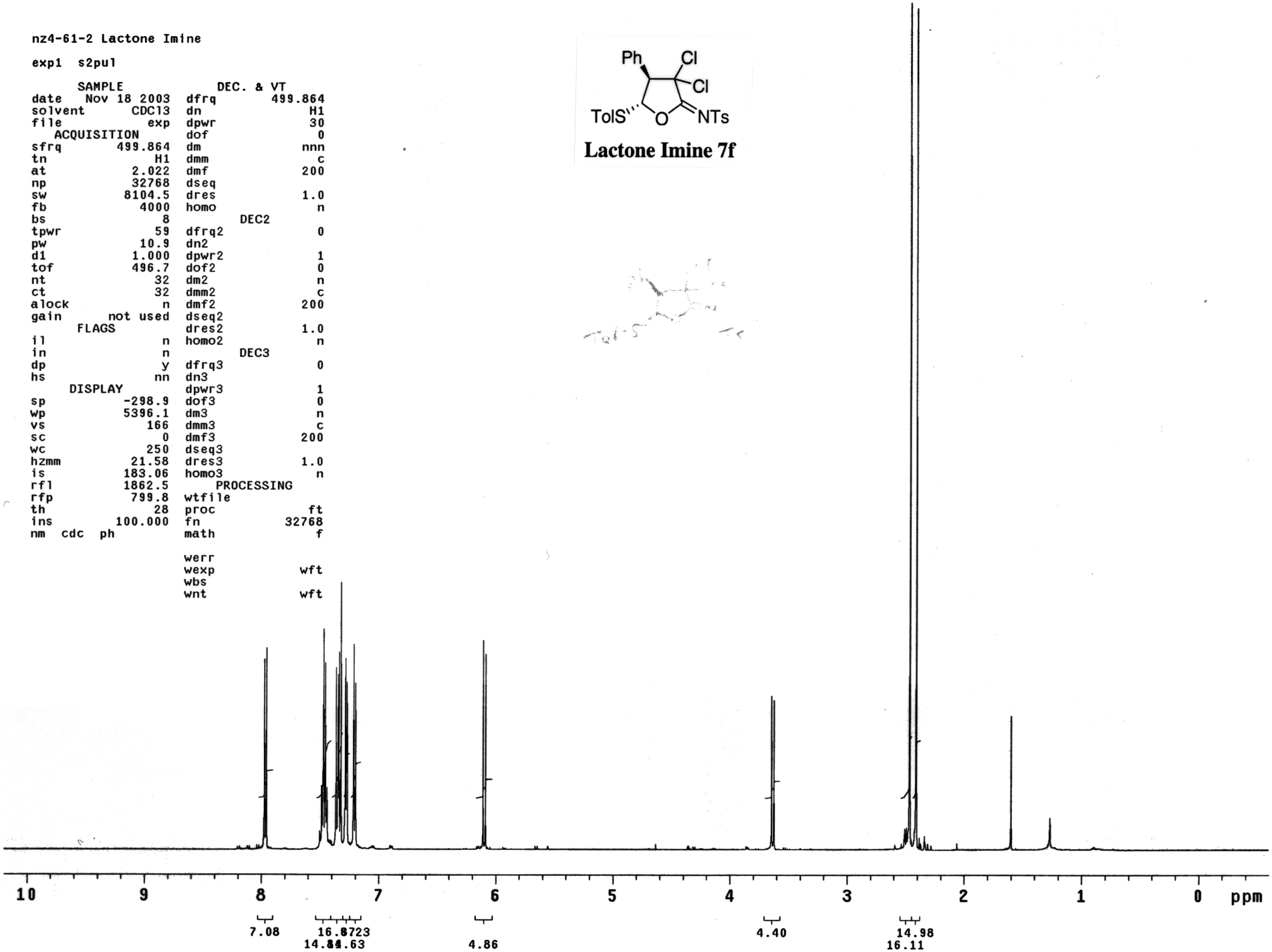


nz4-61-2 Lactone Imine

exp1 s2pul

SAMPLE		DEC. & VT	
date	Nov 18 2003	dfrq	499.864
solvent	CDCl3	dn	H1
file	exp	dpwr	30
ACQUISITION		dof	0
sfrq	499.864	dm	nnn
tn	H1	dmm	c
at	2.022	dmf	200
np	32768	dseq	
sw	8104.5	dres	1.0
fb	4000	homo	n
bs	8	DEC2	
tpwr	59	dfrq2	0
pw	10.9	dn2	
d1	1.000	dpwr2	1
tof	496.7	dof2	0
nt	32	dm2	n
ct	32	dmm2	c
alock	n	dmf2	200
gain	not used	dseq2	
FLAGS		dres2	1.0
il	n	homo2	n
in	n	DEC3	
dp	y	dfrq3	0
hs	nn	dn3	
DISPLAY		dpwr3	1
sp	-298.9	dof3	0
wp	5396.1	dm3	n
vs	166	dmm3	c
sc	0	dmf3	200
wc	250	dseq3	
hzmm	21.58	dres3	1.0
is	183.06	homo3	n
rfl	1862.5	PROCESSING	
rfp	799.8	wtfile	
th	28	proc	ft
ins	100.000	fn	32768
nm cdc ph		math	f
		werr	
		wexp	wft
		wbs	
		wnt	wft

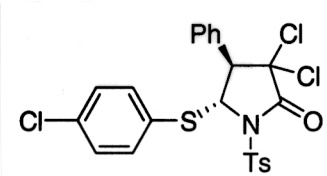
Lactone Imine 7f



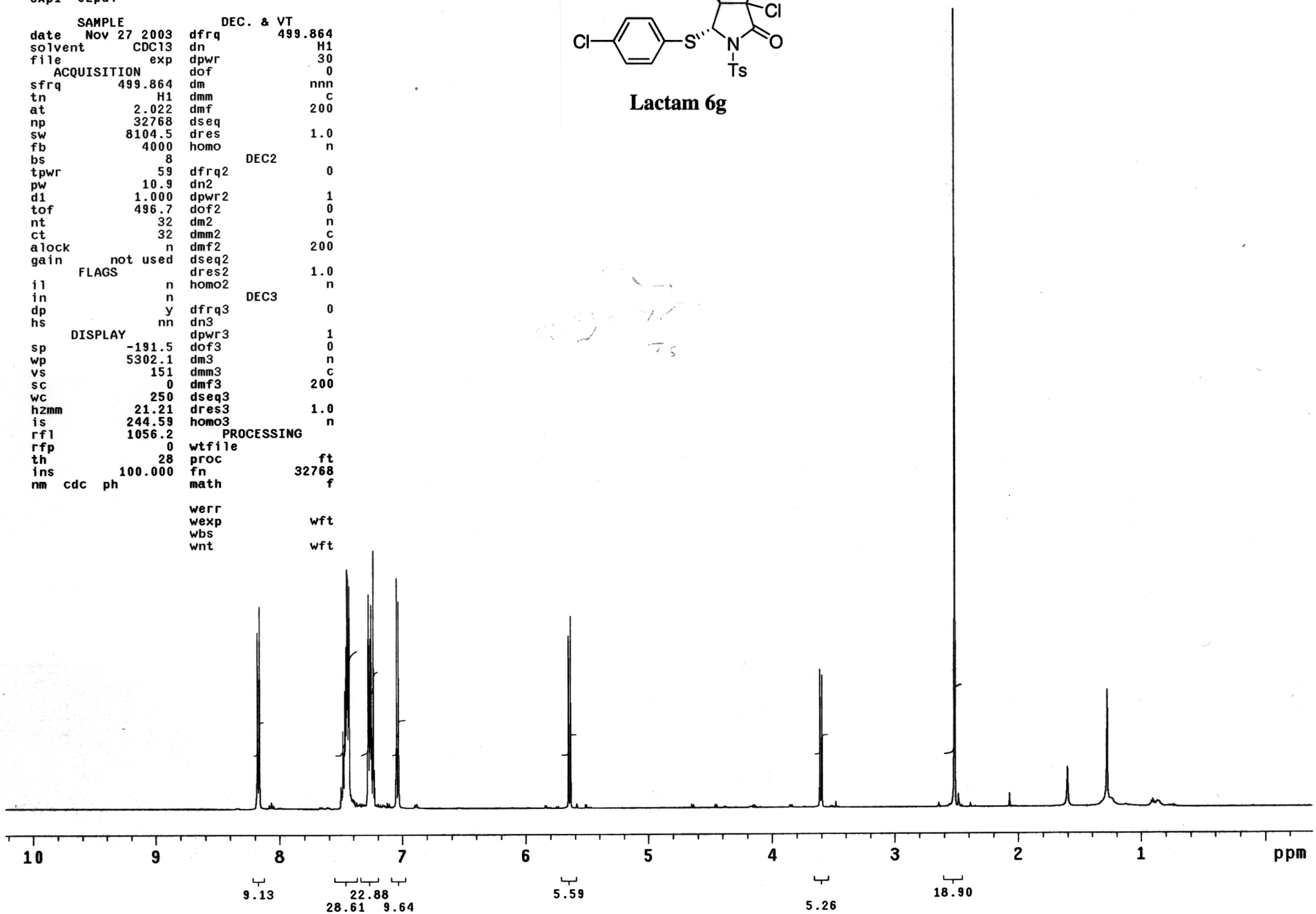
nz4-70-1 Lactam(4-Cl-Ph,Ts)

exp1 s2pul

SAMPLE		DEC. & VT	
date	Nov 27 2003	dfrq	499.864
solvent	CDCl3	dn	H1
file	exp	dpwr	30
ACQUISITION		dof	0
sfrq	499.864	dm	nnn
tn	H1	dmm	c
at	2.022	dmf	200
np	32768	dseq	
sw	8104.5	dres	1.0
fb	4000	homo	n
bs	8	DEC2	
tpwr	59	dfrq2	0
pw	10.9	dn2	
d1	1.000	dpwr2	1
tof	496.7	dof2	0
nt	32	dm2	n
ct	32	dmm2	c
alock	n	dmf2	200
gain	not used	dseq2	
FLAGS		dres2	1.0
il	n	homo2	n
in	n	DEC3	
dp	y	dfrq3	0
hs	nn	dn3	
DISPLAY		dpwr3	1
sp	-191.5	dof3	0
wp	5302.1	dm3	n
vs	151	dmm3	c
sc	0	dmf3	200
wc	250	dseq3	
hzmm	21.21	dres3	1.0
is	244.59	homo3	n
rfl	1056.2	PROCESSING	
rfp	0	wtfile	
th	28	proc	ft
ins	100.000	fn	32768
nm cdc ph		math	f
		werr	
		wexp	wft
		wbs	
		wnt	wft



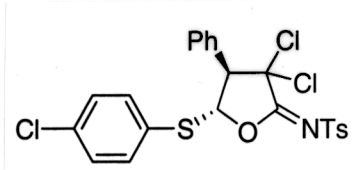
Lactam 6g



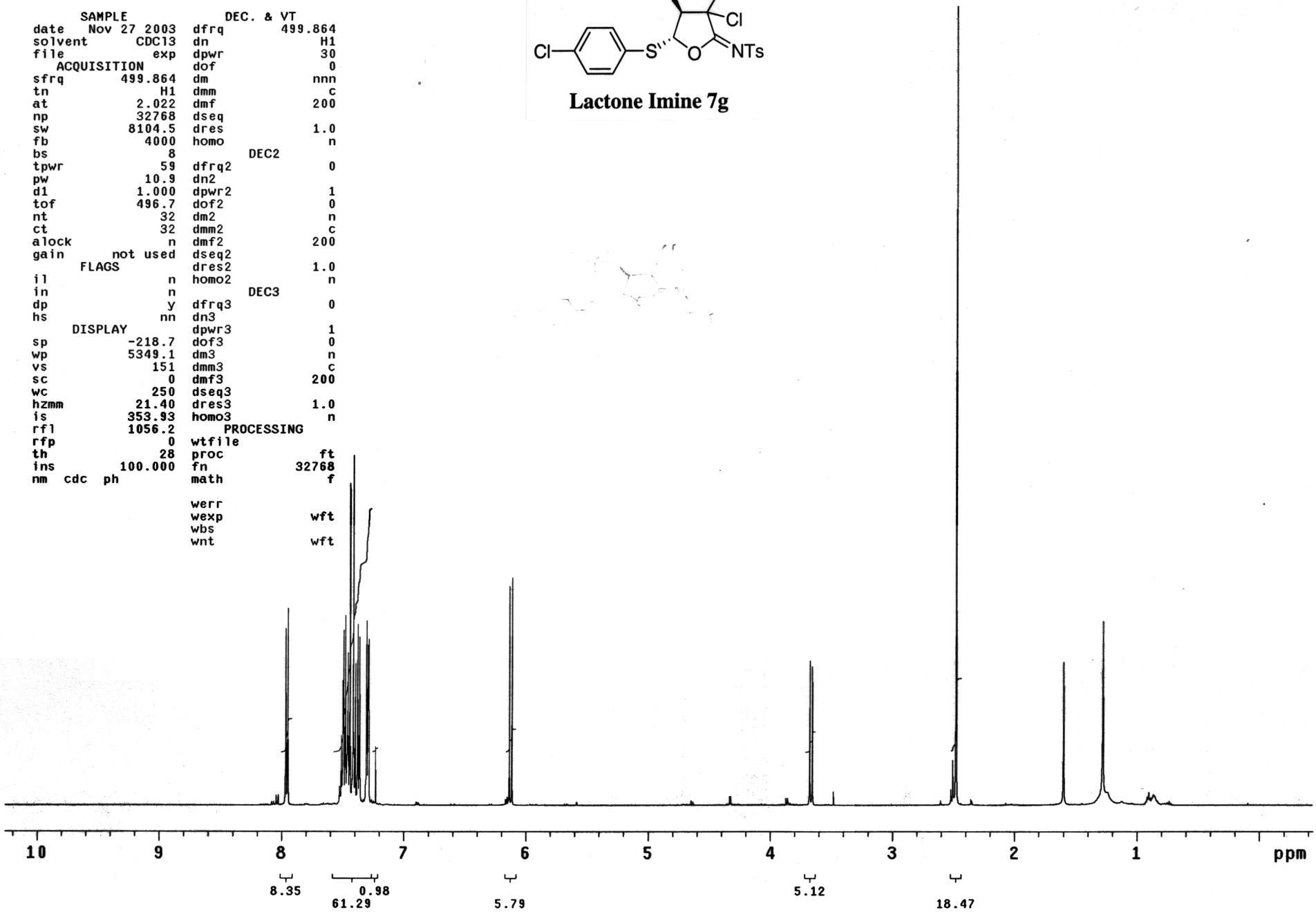
nz4-70-2 Lactone Imine(4-Cl-Ph,Ts)

exp1 s2pul

SAMPLE		DEC. & VT	
date	Nov 27 2003	dfrq	499.864
solvent	CDCl3	dn	H1
file	exp	dpwr	30
ACQUISITION		dof	0
sfrq	499.864	dm	nnn
tn	H1	dmm	c
at	2.022	dmf	200
np	32768	dseq	
sw	8104.5	dres	1.0
fb	4000	homo	n
bs	8	DEC2	
tpwr	59	dfrq2	0
pw	10.9	dn2	
d1	1.000	dpwr2	1
tof	496.7	dof2	0
nt	32	dm2	n
ct	32	dmm2	c
alock	n	dmf2	200
gain	not used	dseq2	
FLAGS		dres2	1.0
il	n	homo2	n
in	n	DEC3	
dp	y	dfrq3	0
hs	nn	dn3	
DISPLAY		dpwr3	1
sp	-218.7	dof3	0
wp	5349.1	dm3	n
vs	151	dmm3	c
sc	0	dmf3	200
wc	250	dseq3	
hzmm	21.40	dres3	1.0
is	353.93	homo3	n
rfl	1056.2	PROCESSING	
rfp	0	wtfile	
th	28	proc	ft
ins	100.000	fn	32768
nm cdc ph		math	f
		werr	
		wexp	wft
		wbs	
		wnt	wft



Lactone Imine 7g

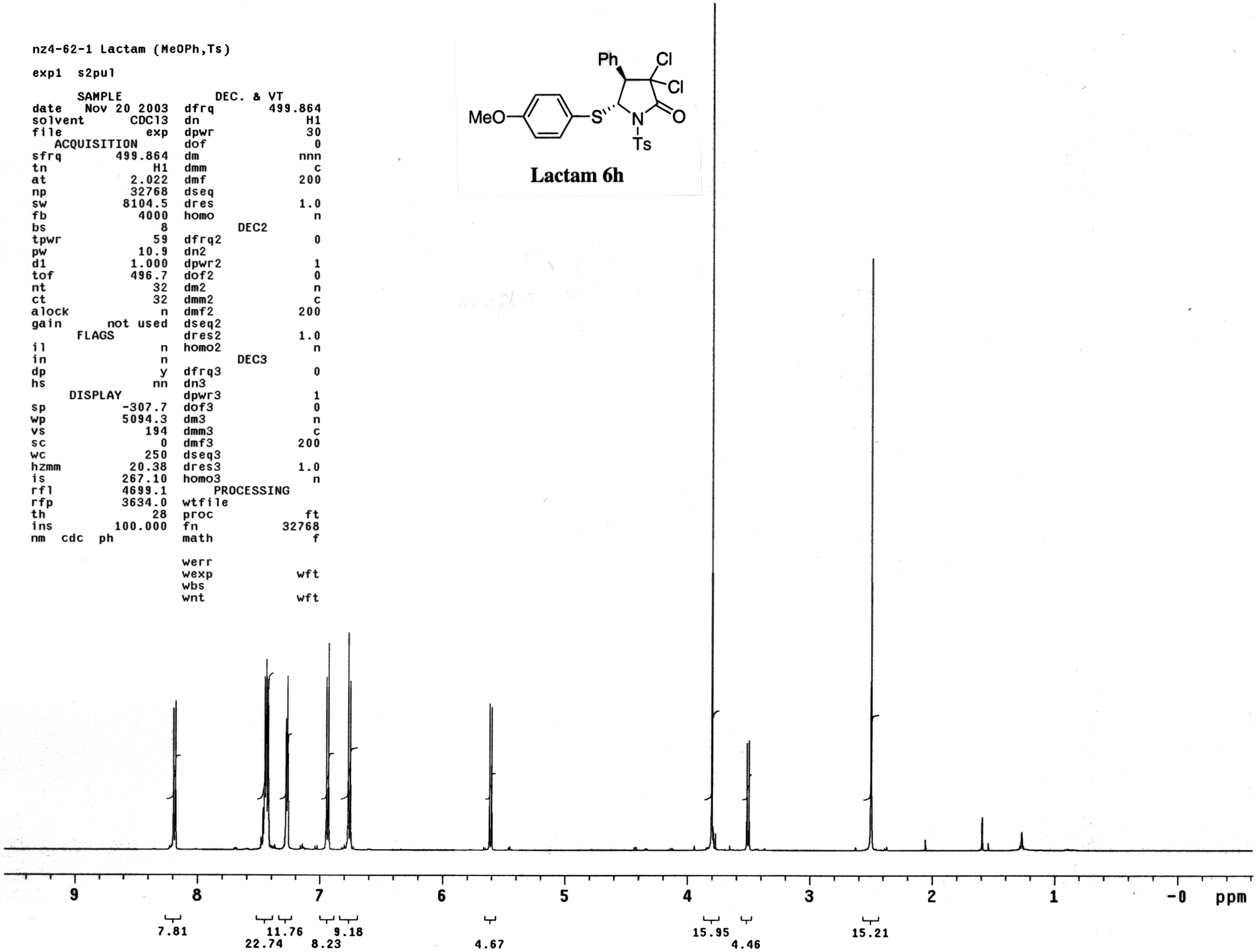


nz4-62-1 Lactam (MeOPh,Ts)

exp1 s2pul

SAMPLE		DEC. & VT	
date	Nov 20 2003	dfrq	499.864
solvent	CDCl3	dn	H1
file	exp	dpwr	30
ACQUISITION		dof	0
sfrq	499.864	dm	nnn
tn	H1	dmm	c
at	2.022	dmf	200
np	32768	dseq	
sw	8104.5	dres	1.0
fb	4000	homo	n
bs	8	DEC2	
tpwr	59	dfrq2	0
pw	10.9	dn2	
d1	1.000	dpwr2	1
tof	496.7	dof2	0
nt	32	dm2	n
ct	32	dmm2	c
alock	n	dmf2	200
gain	not used	dseq2	
FLAGS		dres2	1.0
il	n	homo2	n
in	n	DEC3	
dp	y	dfrq3	0
hs	nn	dn3	
DISPLAY		dpwr3	1
sp	-307.7	dof3	0
wp	5094.3	dm3	n
vs	194	dmm3	c
sc	0	dmf3	200
wc	250	dseq3	
hzmm	20.38	dres3	1.0
is	267.10	homo3	n
rfl	4699.1	PROCESSING	
rfp	3634.0	wtfile	
th	28	proc	ft
ins	100.000	fn	32768
nm cdc ph		math	f
		werr	
		wexp	wft
		wbs	
		wnt	wft

Lactam 6h

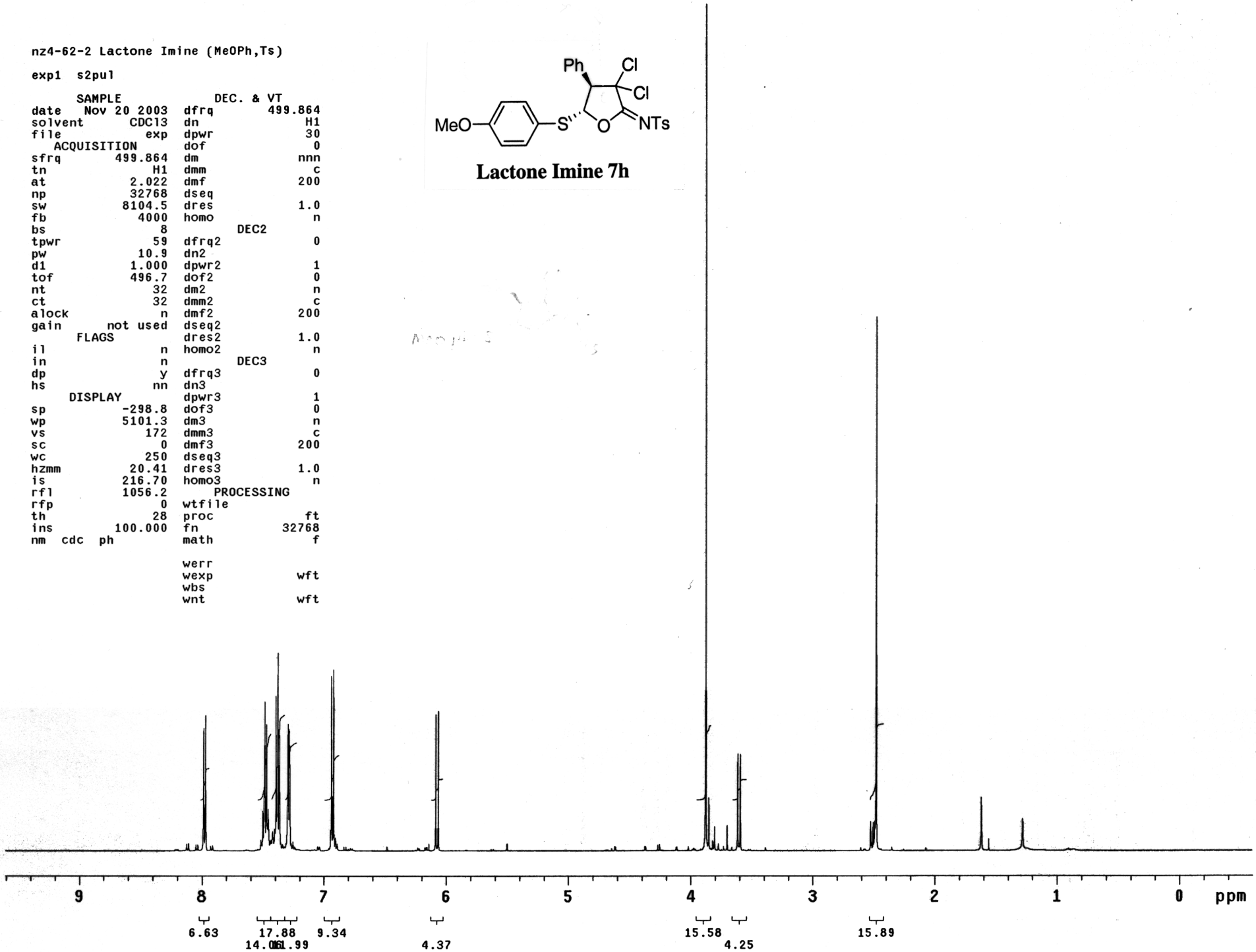


nz4-62-2 Lactone Imine (MeOPh,Ts)

exp1 s2pul

SAMPLE		DEC. & VT	
date	Nov 20 2003	dfrq	499.864
solvent	CDCl3	dn	H1
file	exp	dpwr	30
ACQUISITION		dof	0
sfrq	499.864	dm	nnn
tn	H1	dmm	c
at	2.022	dmf	200
np	32768	dseq	
sw	8104.5	dres	1.0
fb	4000	homo	n
bs	8	DEC2	
tpwr	59	dfrq2	0
pw	10.9	dn2	
d1	1.000	dpwr2	1
tof	496.7	dof2	0
nt	32	dm2	n
ct	32	dmm2	c
alock	n	dmf2	200
gain	not used	dseq2	
FLAGS		dres2	1.0
il	n	homo2	n
in	n	DEC3	
dp	y	dfrq3	0
hs	nn	dn3	
DISPLAY		dpwr3	1
sp	-298.8	dof3	0
wp	5101.3	dm3	n
vs	172	dmm3	c
sc	0	dmf3	200
wc	250	dseq3	
hzmm	20.41	dres3	1.0
is	216.70	homo3	n
rfl	1056.2	PROCESSING	
rfp	0	wtfile	
th	28	proc	ft
ins	100.000	fn	32768
nm cdc ph		math	f
		werr	
		wexp	wft
		wbs	
		wnt	wft

Lactone Imine 7h

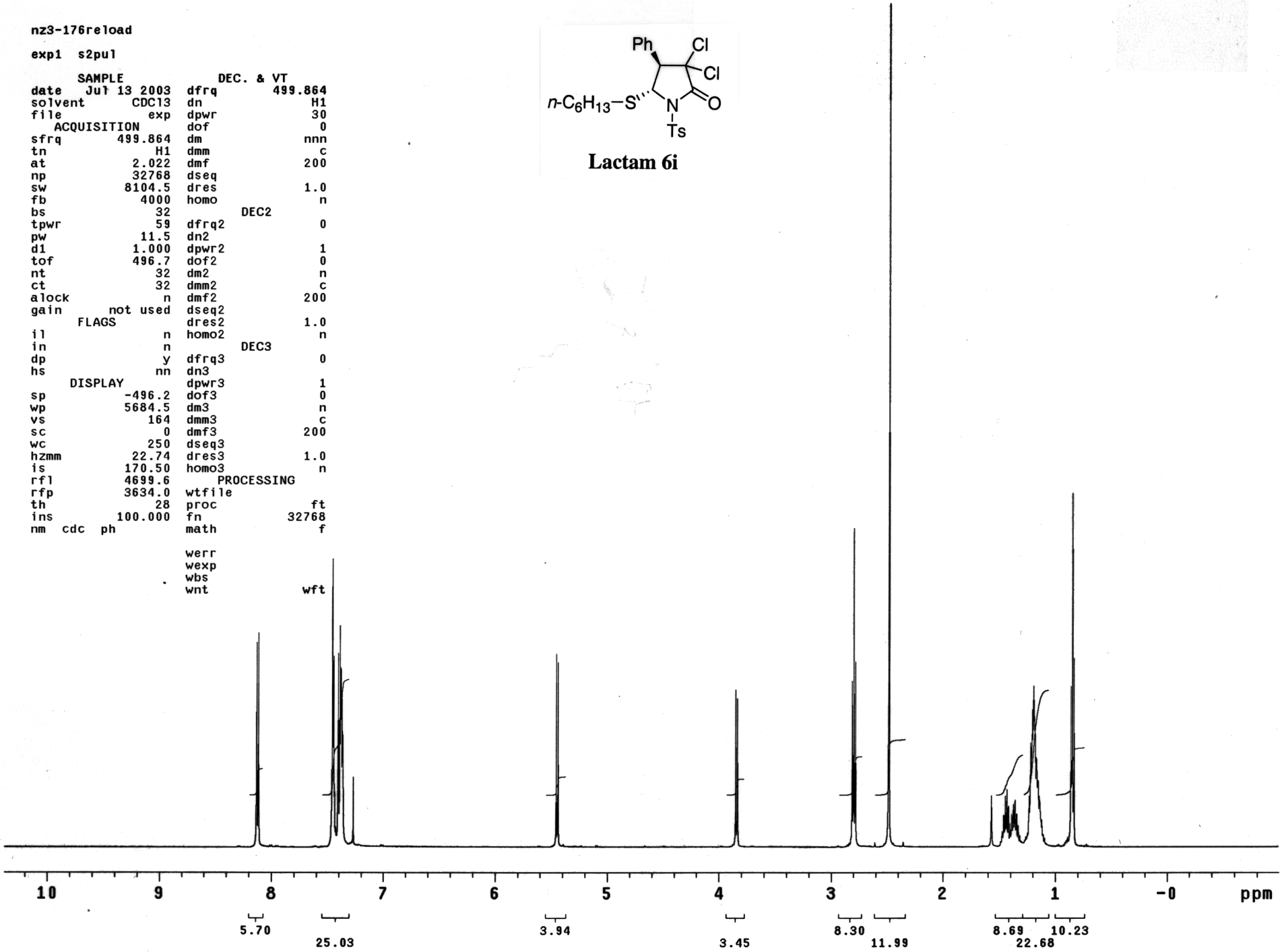


nz3-176reload

exp1 s2pul

SAMPLE		DEC. & VT	
date	Jul 13 2003	dfrq	499.864
solvent	CDCl3	dn	H1
file	exp	dpwr	30
ACQUISITION		dof	0
sfrq	499.864	dm	nnn
tn	H1	dmm	c
at	2.022	dmf	200
np	32768	dseq	
sw	8104.5	dres	1.0
fb	4000	homo	n
bs	32	DEC2	
tpwr	59	dfrq2	0
pw	11.5	dn2	
d1	1.000	dpwr2	1
tof	496.7	dof2	0
nt	32	dm2	n
ct	32	dmm2	c
alock	n	dmf2	200
gain	not used	dseq2	
FLAGS		dres2	1.0
il	n	homo2	n
in	n	DEC3	
dp	y	dfrq3	0
hs	nn	dn3	
DISPLAY		dpwr3	1
sp	-496.2	dof3	0
wp	5684.5	dm3	n
vs	164	dmm3	c
sc	0	dmf3	200
wc	250	dseq3	
hzmm	22.74	dres3	1.0
is	170.50	homo3	n
rfl	4699.6	PROCESSING	
rfp	3634.0	wtfile	
th	28	proc	ft
ins	100.000	fn	32768
nm cdc ph		math	f
		werr	
		wexp	
		wbs	
		wnt	wft

Lactam 6i

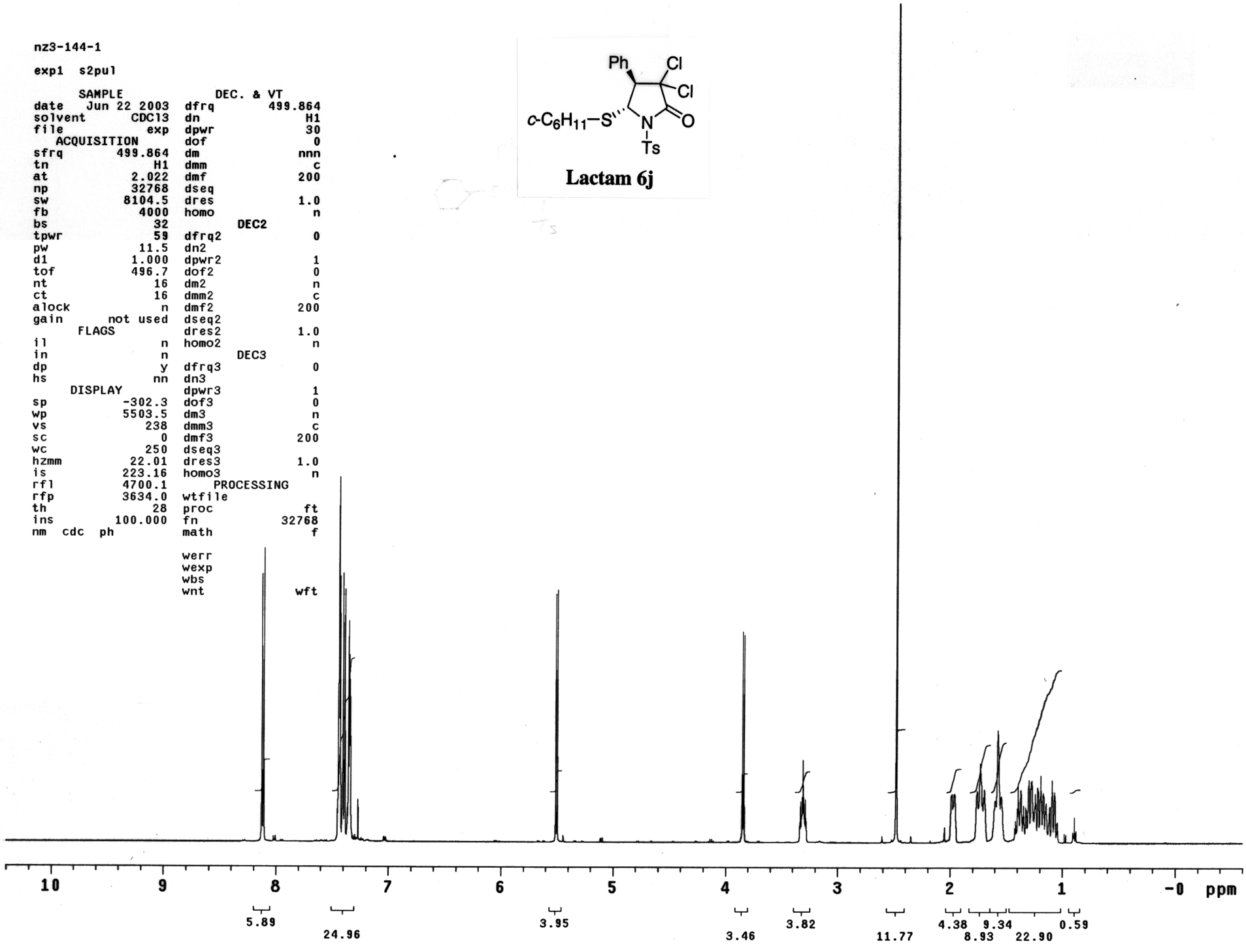


nz3-144-1

exp1 s2pul

SAMPLE		DEC. & VT	
date	Jun 22 2003	dfrq	499.864
solvent	CDCl3	dn	H1
file	exp	dpwr	30
ACQUISITION		dof	0
sfrq	499.864	dm	nnn
tn	H1	dmm	c
at	2.022	dmf	200
np	32768	dseq	
sw	8104.5	dres	1.0
fb	4000	homo	n
bs	32	DEC2	
tpwr	59	dfrq2	0
pw	11.5	dn2	
d1	1.000	dpwr2	1
tof	496.7	dof2	0
nt	16	dm2	n
ct	16	dmm2	c
alock	n	dmf2	200
gain	not used	dseq2	
FLAGS		dres2	1.0
il	n	homo2	n
in	n	DEC3	
dp	y	dfrq3	0
hs	nn	dn3	
DISPLAY		dpwr3	1
sp	-302.3	dof3	0
wp	5503.5	dm3	n
vs	238	dmm3	c
sc	0	dmf3	200
wc	250	dseq3	
hzmm	22.01	dres3	1.0
is	223.16	homo3	n
rfl	4700.1	PROCESSING	
rfp	3634.0	wtfile	
th	28	proc	ft
ins	100.000	fn	32768
nm cdc ph		math	f
		werr	
		wexp	
		wbs	
		wnt	wft

Lactam 6j

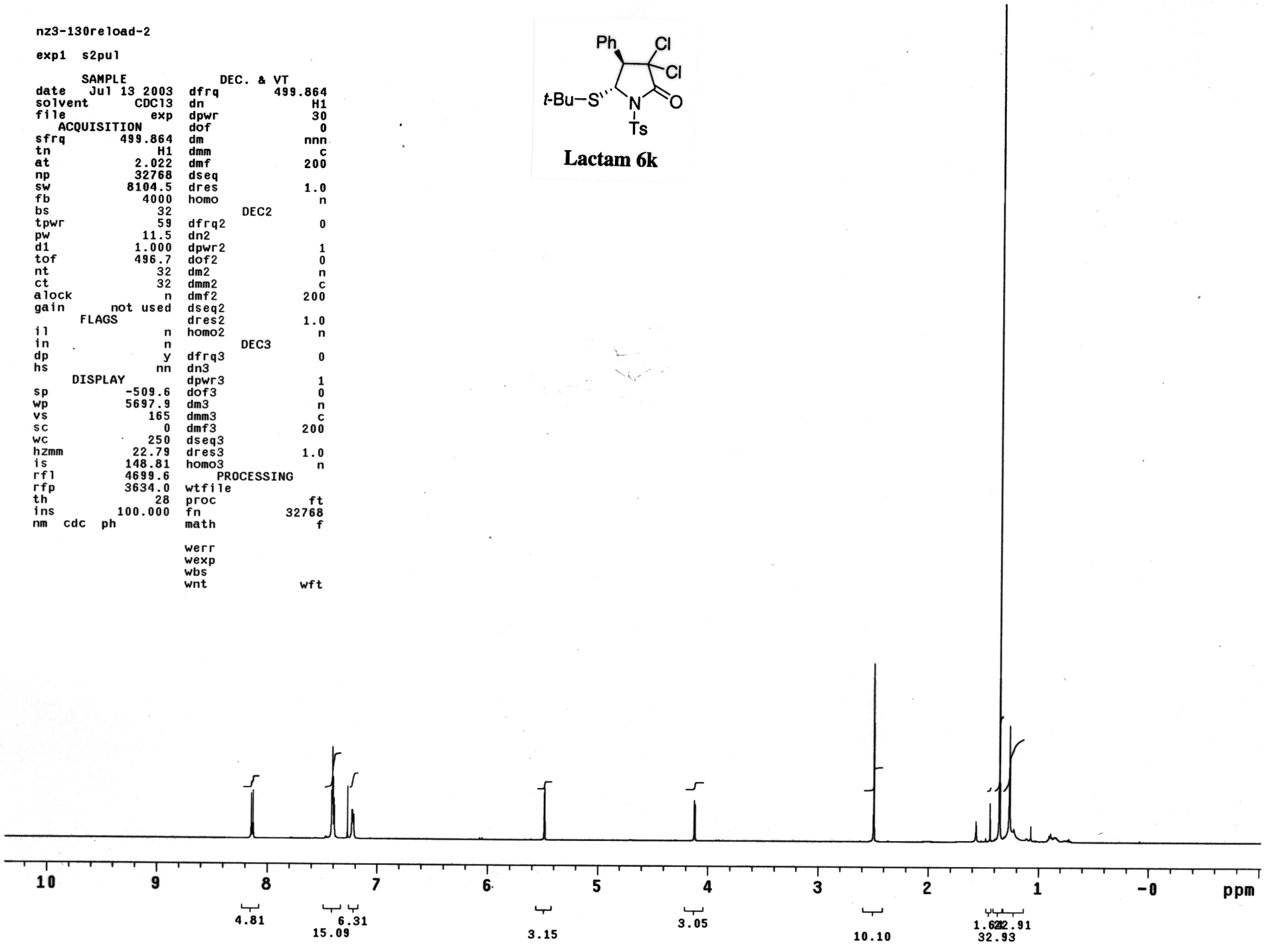


nz3-130reload-2

exp1 s2pul

SAMPLE		DEC. & VT	
date	Jul 13 2003	dfrq	499.864
solvent	CDCl3	dn	H1
file	exp	dpwr	30
ACQUISITION		dof	0
sfrq	499.864	dm	nnn
tn	H1	dmm	c
at	2.022	dmf	200
np	32768	dseq	
sw	8104.5	dres	1.0
fb	4000	homo	n
bs	32	DEC2	
tpwr	59	dfrq2	0
pw	11.5	dn2	
d1	1.000	dpwr2	1
tof	496.7	dof2	0
nt	32	dm2	n
ct	32	dmm2	c
alock	n	dmf2	200
gain	not used	dseq2	
FLAGS		dres2	1.0
il	n	homo2	n
in	n	DEC3	
dp	y	dfrq3	0
hs	nn	dn3	
DISPLAY		dpwr3	1
sp	-509.6	dof3	0
wp	5697.9	dm3	n
vs	165	dmm3	c
sc	0	dmf3	200
wc	250	dseq3	
hzmm	22.79	dres3	1.0
is	148.81	homo3	n
rfl	4699.6	PROCESSING	
rfp	3634.0	wtfile	
th	28	proc	ft
ins	100.000	fn	32768
nm cdc ph		math	f
		werr	
		wexp	
		wbs	
		wnt	wft

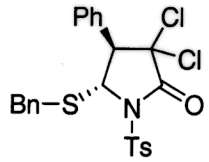
Lactam 6k



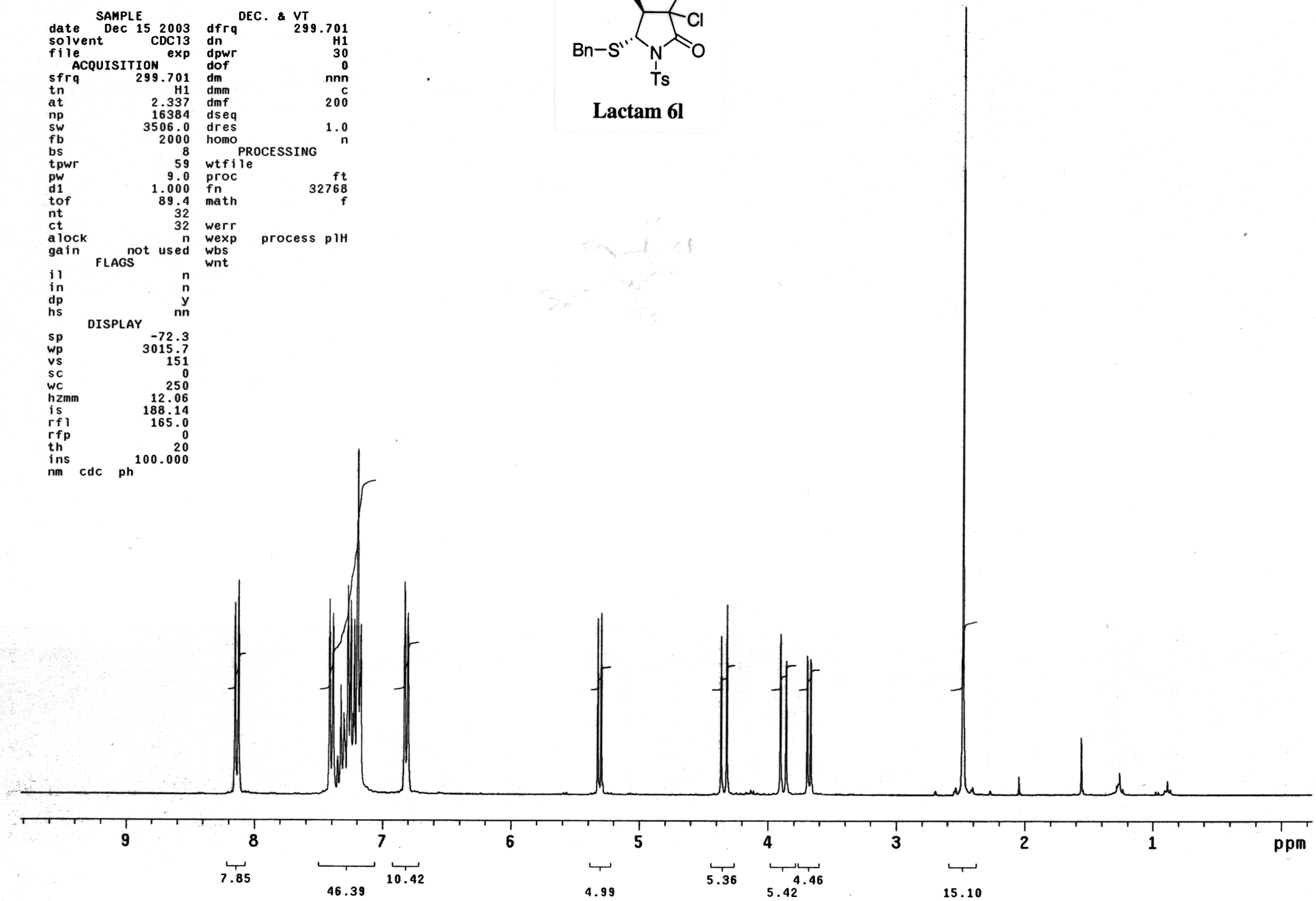
nz4-11 Lactam(Bn,Ts)

exp1 s2pul

SAMPLE		DEC. & VT	
date	Dec 15 2003	dfrq	299.701
solvent	CDCl3	dn	H1
file	exp	dpwr	30
ACQUISITION		dof	0
sfrq	299.701	dm	nnn
tn	H1	dmm	c
at	2.337	dmf	200
np	16384	dseq	
sw	3506.0	dres	1.0
fb	2000	homo	n
bs	8	PROCESSING	
tpwr	59	wtfile	
pw	9.0	proc	ft
d1	1.000	fn	32768
tof	89.4	math	f
nt	32		
ct	32	werr	
alock	n	wexp	process plH
gain	not used	wbs	
FLAGS		wnt	
il	n		
in	n		
dp	y		
hs	nn		
DISPLAY			
sp	-72.3		
wp	3015.7		
vs	151		
sc	0		
wc	250		
hzmm	12.06		
is	188.14		
rfl	165.0		
rfp	0		
th	20		
ins	100.000		
nm cdc ph			



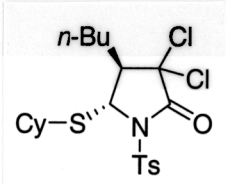
Lactam 6l



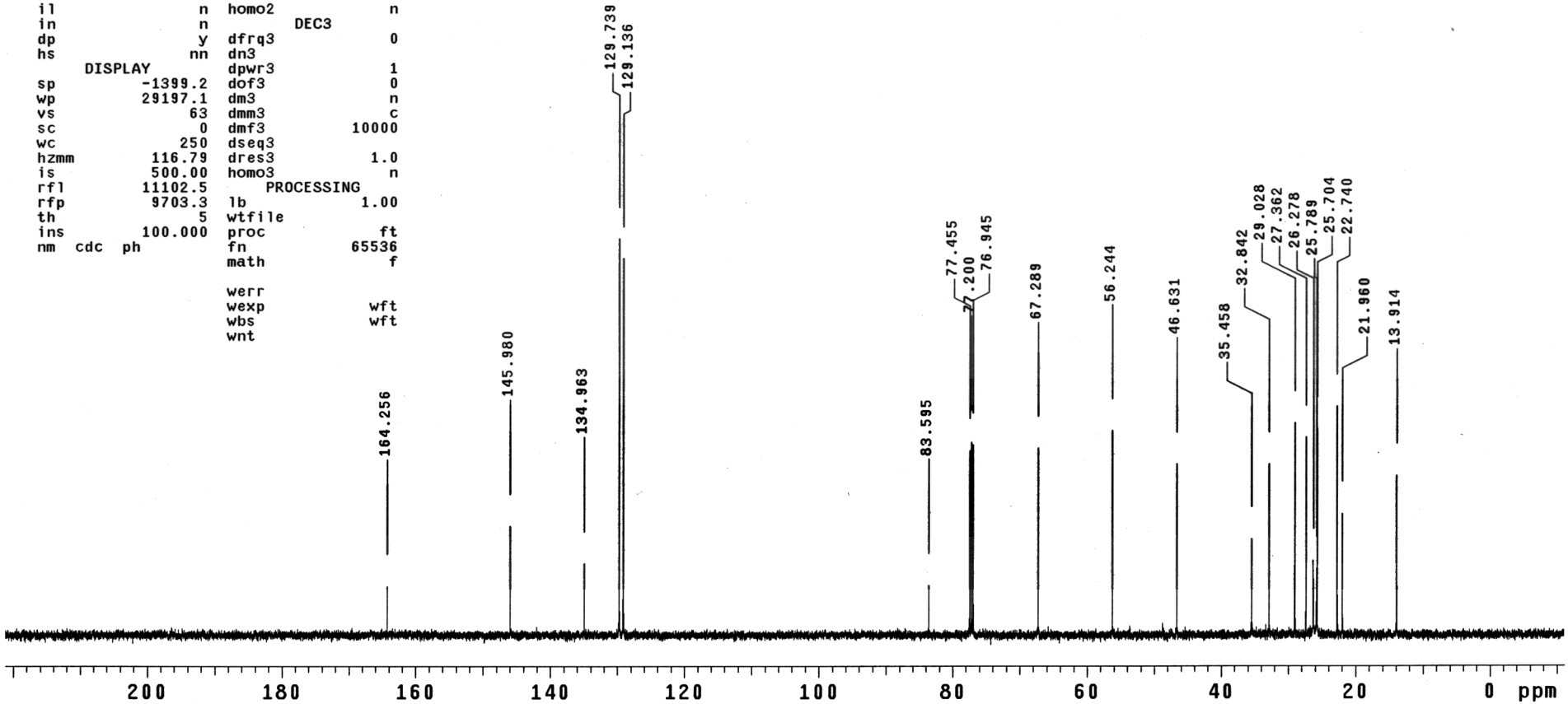
nz3-182-1c13

exp1 s2pul

SAMPLE		DEC. & VT	
date	Jul 17 2003	dfrq	499.864
solvent	CDCl3	dn	H1
file	exp	dpwr	41
ACQUISITION		dof	496.7
sfrq	125.703	dm	yyy
tn	C13	dmm	w
at	1.122	dmf	12000
np	65536	dseq	
sw	29197.1	dres	1.0
fb	16000	homo	n
bs	8	DEC2	
tpwr	59	dfrq2	0
pw	24.0	dn2	
d1	2.000	dpwr2	1
tof	1270.5	dof2	0
nt	1000	dm2	n
ct	100	dmm2	c
alock	n	dmf2	10000
gain	not used	dseq2	
FLAGS		dres2	1.0
il	n	homo2	n
in	n	DEC3	
dp	y	dfrq3	0
hs	nn	dn3	
DISPLAY		dpwr3	1
sp	-1399.2	dof3	0
wp	29197.1	dm3	n
vs	63	dmm3	c
sc	0	dmf3	10000
wc	250	dseq3	
hzmm	116.79	dres3	1.0
is	500.00	homo3	n
rfl	11102.5	PROCESSING	
rfp	9703.3	lb	1.00
th	5	wtfile	
ins	100.000	proc	ft
nm cdc ph		fn	65536
		math	f
		werr	
		wexp	wft
		wbs	wft
		wnt	



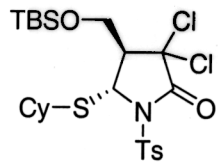
Lactam 9



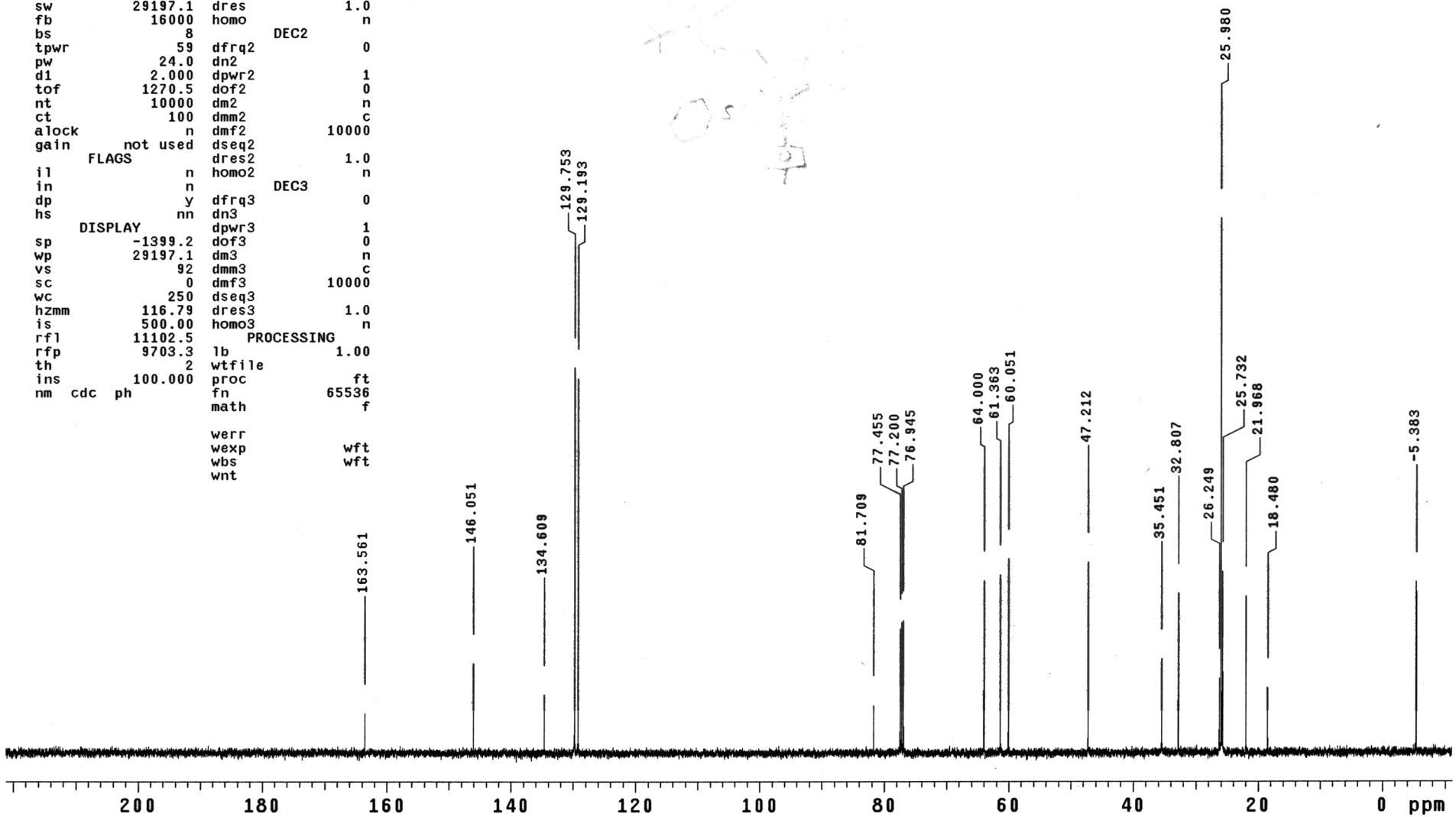
nz3-267c13Lactam

exp1 s2pul

SAMPLE		DEC. & VT	
date	Sep 7 2003	dfrq	499.864
solvent	CDCl3	dn	H1
file	exp	dpwr	41
ACQUISITION		dof	496.7
sfrq	125.703	dm	yyy
tn	C13	dmm	w
at	1.122	dmf	12000
np	65536	dseq	
sw	29197.1	dres	1.0
fb	16000	homo	n
bs	8	DEC2	
tpwr	59	dfrq2	0
pw	24.0	dn2	
d1	2.000	dpwr2	1
tof	1270.5	dof2	0
nt	10000	dm2	n
ct	100	dmm2	c
alock	n	dmf2	10000
gain	not used	dseq2	
FLAGS		dres2	1.0
il	n	homo2	n
in	n	DEC3	
dp	y	dfrq3	0
hs	nn	dn3	
DISPLAY		dpwr3	1
sp	-1399.2	dof3	0
wp	29197.1	dm3	n
vs	92	dmm3	c
sc	0	dmf3	10000
wc	250	dseq3	
hzmm	116.79	dres3	1.0
is	500.00	homo3	n
rfl	11102.5	PROCESSING	
rfp	9703.3	lb	1.00
th	2	wtfile	
ins	100.000	proc	ft
nm cdc ph		fn	65536
		math	f
		werr	
		wexp	wft
		wbs	wft
		wnt	



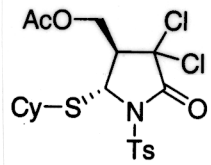
Lactam 11



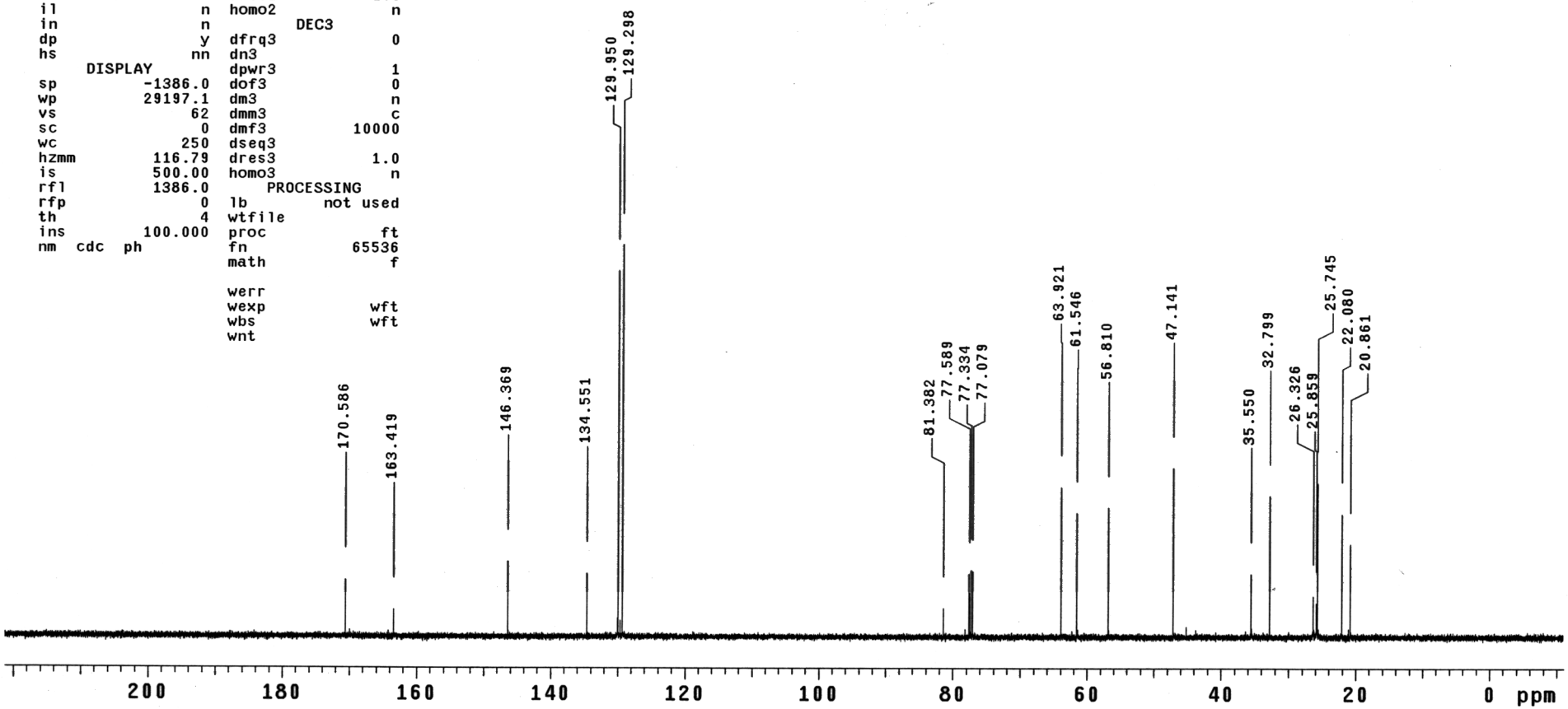
STANDARD CARBON PARAMETERS

exp1 s2pul

SAMPLE		DEC. & VT	
date	Sep 14 2003	dfrq	499.864
solvent	CDCl3	dn	H1
file	exp	dpwr	41
ACQUISITION		dof	496.7
sfrq	125.703	dm	yyy
tn	C13	dmm	w
at	1.122	dmf	12000
np	65536	dseq	
sw	29197.1	dres	1.0
fb	16000	homo	n
bs	8	DEC2	
tpwr	59	dfrq2	0
pw	24.0	dn2	
d1	2.000	dpwr2	1
tof	1270.5	dof2	0
nt	10000	dm2	n
ct	161	dmm2	c
alock	n	dmf2	10000
gain	not used	dseq2	
FLAGS		dres2	1.0
il	n	homo2	n
in	n	DEC3	
dp	y	dfrq3	0
hs	nn	dn3	
DISPLAY		dpwr3	1
sp	-1386.0	dof3	0
wp	29197.1	dm3	n
vs	62	dmm3	c
sc	0	dmf3	10000
wc	250	dseq3	
hzmm	116.79	dres3	1.0
is	500.00	homo3	n
rfl	1386.0	PROCESSING	
rfp	0	lb	not used
th	4	wtfile	
ins	100.000	proc	ft
nm cdc ph		fn	65536
		math	f
		werr	
		wexp	wft
		wbs	wft
		wnt	



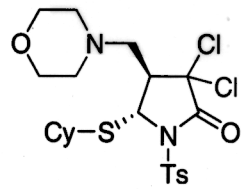
Lactam 13



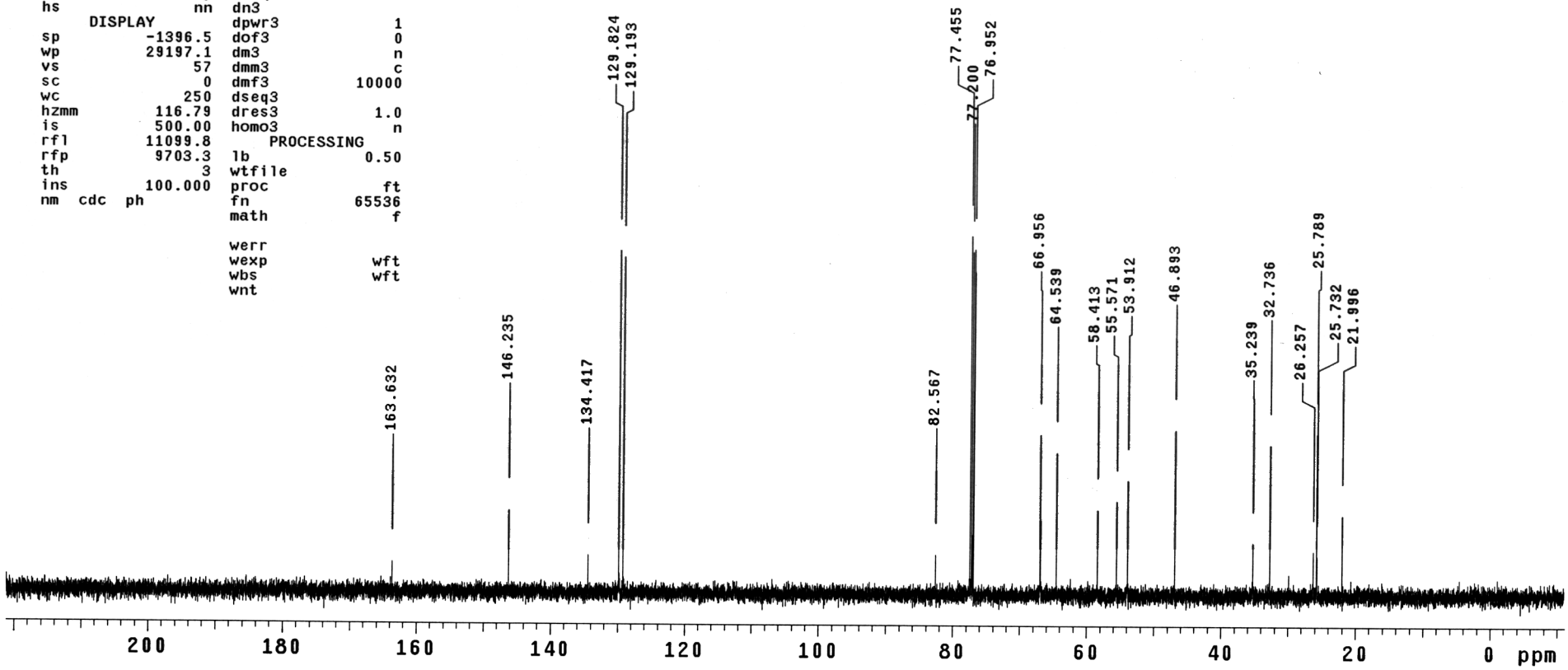
nz3-286c13Lactam

exp1 s2pul

SAMPLE		DEC. & VT	
date	Sep 19 2003	dfrq	499.864
solvent	CDCl3	dn	H1
file	exp	dpwr	41
ACQUISITION		dof	496.7
sfrq	125.703	dm	yyy
tn	C13	dmm	w
at	1.122	dmf	12000
np	65536	dseq	
sw	29197.1	dres	1.0
fb	16000	homo	n
bs	8	DEC2	
tpwr	59	dfrq2	0
pw	24.0	dn2	
d1	2.000	dpwr2	1
tof	1270.5	dof2	0
nt	1000	dm2	n
ct	150	dmm2	c
alock	n	dmf2	10000
gain	not used	dseq2	
FLAGS		dres2	1.0
il	n	homo2	n
in	n	DEC3	
dp	y	dfrq3	0
hs	nn	dn3	
DISPLAY		dpwr3	1
sp	-1396.5	dof3	0
wp	29197.1	dm3	n
vs	57	dmm3	c
sc	0	dmf3	10000
wc	250	dseq3	
hzmm	116.79	dres3	1.0
is	500.00	homo3	n
rfl	11099.8	PROCESSING	
rfp	9703.3	lb	0.50
th	3	wtfile	
ins	100.000	proc	ft
nm cdc ph		fn	65536
		math	f
		werr	
		wexp	wft
		wbs	wft
		wnt	



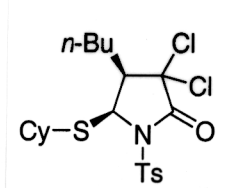
Lactam 15



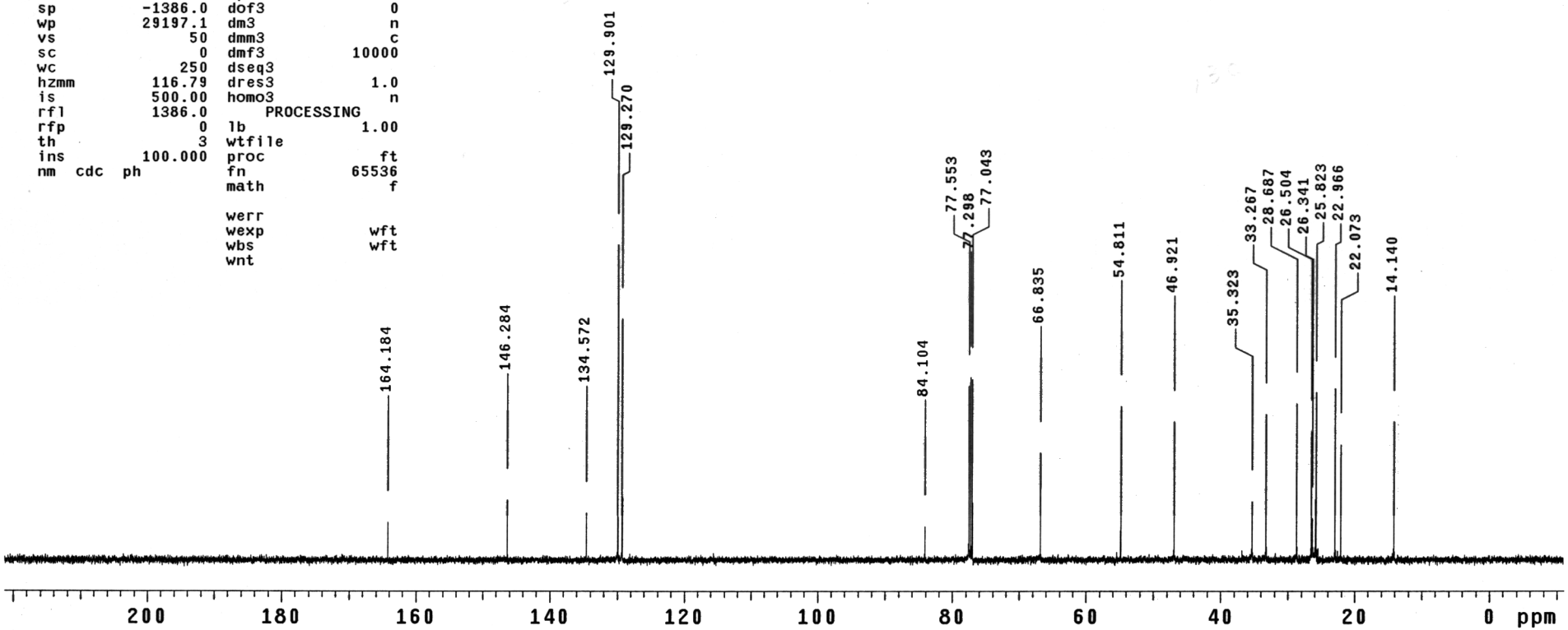
nz3-302c13

exp1 s2pul

SAMPLE		DEC. & VT	
date	Sep 28 2003	dfrq	499.864
solvent	CDCl3	dn	H1
file	exp	dpwr	41
ACQUISITION		dof	496.7
sfrq	125.703	dm	yyy
tn	C13	dmm	w
at	1.122	dmf	12000
np	65536	dseq	
sw	29197.1	dres	1.0
fb	16000	homo	n
bs	8	DEC2	
tpwr	59	dfrq2	0
pw	24.0	dn2	
d1	2.000	dpwr2	1
tof	1270.5	dof2	0
nt	10000	dm2	n
ct	213	dmm2	c
alock	n	dmf2	10000
gain	not used	dseq2	
FLAGS		dres2	1.0
il	n	homo2	n
in	n	DEC3	
dp	y	dfrq3	0
hs	nn	dn3	
DISPLAY		dpwr3	1
sp	-1386.0	dof3	0
wp	29197.1	dm3	n
vs	50	dmm3	c
sc	0	dmf3	10000
wc	250	dseq3	
hzmm	116.79	dres3	1.0
is	500.00	homo3	n
rfl	1386.0	PROCESSING	
rfp	0	lb	1.00
th	3	wtfile	
ins	100.000	proc	ft
nm cdc ph		fn	65536
		math	f
		werr	
		wexp	wft
		wbs	wft
		wnt	



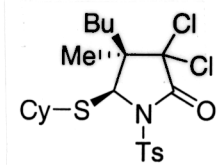
Lactam 19



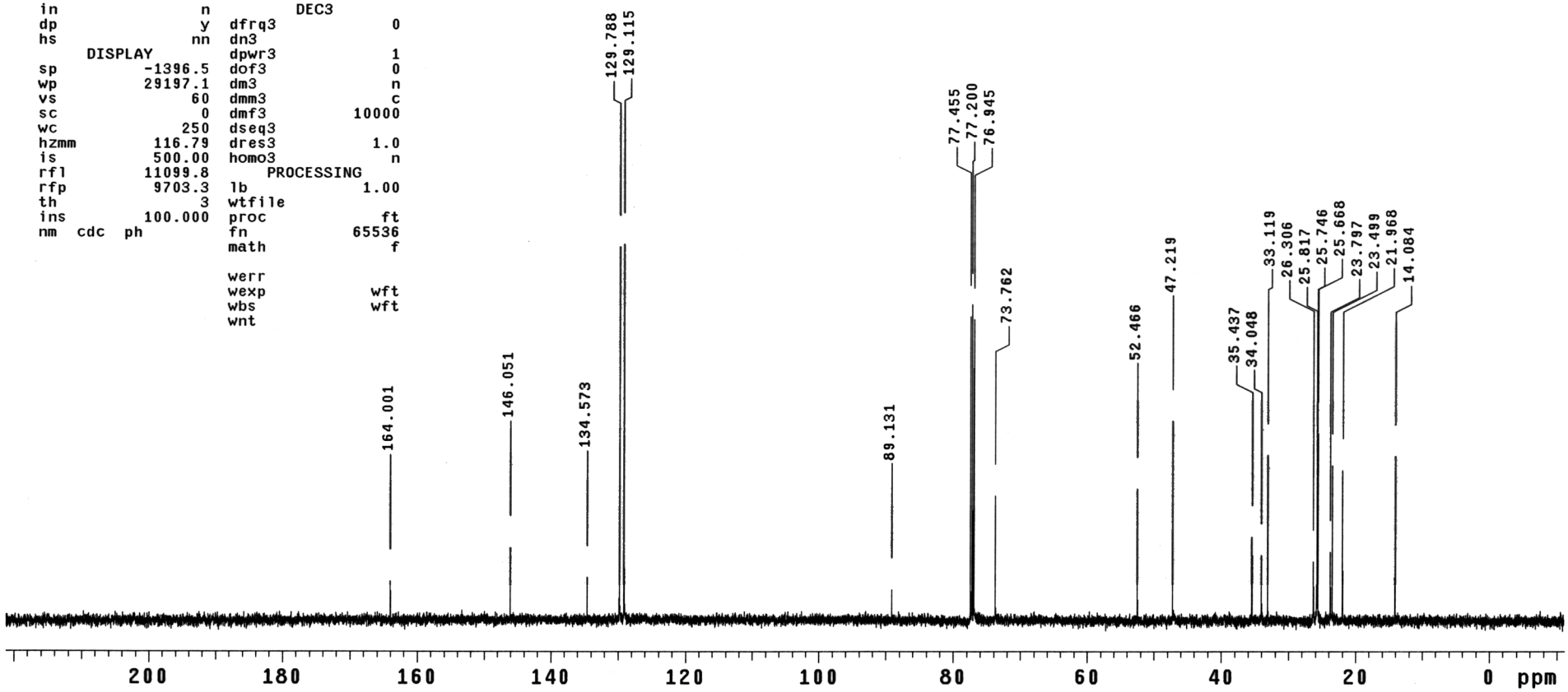
STANDARD CARBON PARAMETERS

exp1 s2pul

SAMPLE		DEC. & VT	
date	Oct 11 2003	dfrq	499.864
solvent	CDCl3	dn	H1
file	exp	dpwr	41
ACQUISITION		dof	496.7
sfrq	125.703	dm	yyy
tn	C13	dmm	w
at	1.122	dmf	12000
np	65536	dseq	
sw	29197.1	dres	1.0
fb	16000	homo	n
bs	8	DEC2	
tpwr	59	dfrq2	0
pw	24.0	dn2	
d1	2.000	dpwr2	1
tof	1270.5	dof2	0
nt	1000	dm2	n
ct	201	dmm2	c
alock	n	dmf2	10000
gain	not used	dseq2	
FLAGS		dres2	1.0
il	n	homo2	n
in	n	DEC3	
dp	y	dfrq3	0
hs	nn	dn3	
DISPLAY		dpwr3	1
sp	-1396.5	dof3	0
wp	29197.1	dm3	n
vs	60	dmm3	c
sc	0	dmf3	10000
wc	250	dseq3	
hzmm	116.79	dres3	1.0
is	500.00	homo3	n
rfl	11099.8	PROCESSING	
rfp	9703.3	lb	1.00
th	3	wtfile	
ins	100.000	proc	ft
nm cdc ph		fn	65536
		math	f
		werr	
		wexp	wft
		wbs	wft
		wnt	



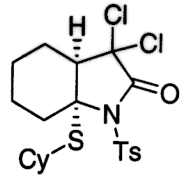
Lactam 21



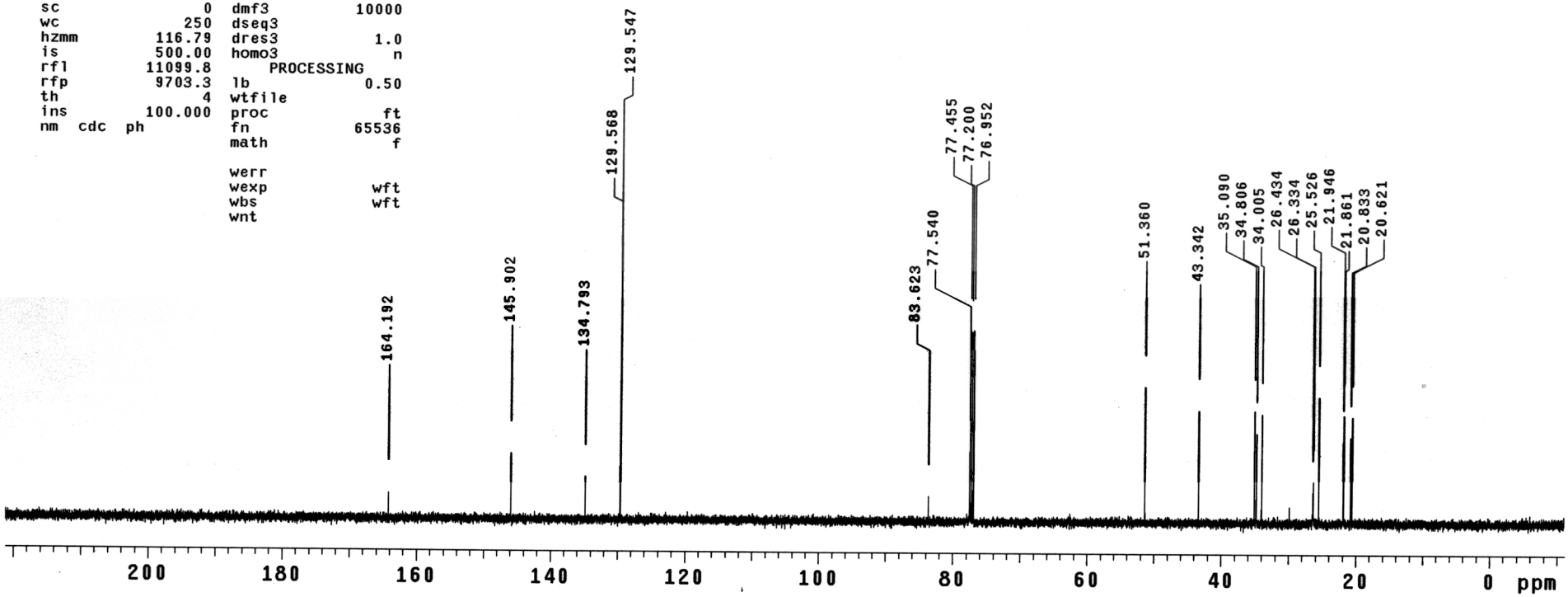
nz3-188-2c13

exp1 s2pul

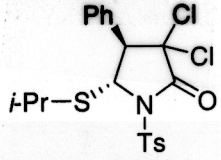
SAMPLE		DEC. & VT	
date	Jul 19 2003	dfrq	499.864
solvent	CDCl3	dn	H1
file	exp	dpwr	41
ACQUISITION		dof	496.7
sfrq	125.703	dm	yyy
tn	C13	dmm	w
at	1.122	dmf	12000
np	65536	dseq	
sw	29197.1	dres	1.0
fb	16000	homo	n
bs	8	DEC2	
tpwr	59	dfrq2	0
pw	24.0	dn2	
d1	2.000	dpwr2	1
tof	1270.5	dof2	0
nt	1000	dm2	n
ct	150	dmm2	c
alock	n	dmf2	10000
gain	not used	dseq2	
FLAGS		dres2	1.0
il	n	homo2	n
in	n	DEC3	
dp	y	dfrq3	0
hs	nn	dn3	
DISPLAY		dpwr3	1
sp	-1396.5	dof3	0
wp	29197.1	dm3	n
vs	44	dmm3	c
sc	0	dmf3	10000
wc	250	dseq3	
hzmm	116.79	dres3	1.0
is	500.00	homo3	n
rfl	11099.8	PROCESSING	
rfp	9703.3	lb	0.50
th	4	wtfile	
ins	100.000	proc	ft
nm cdc ph		fn	65536
		math	f
		werr	
		wexp	wft
		wbs	wft
		wnt	



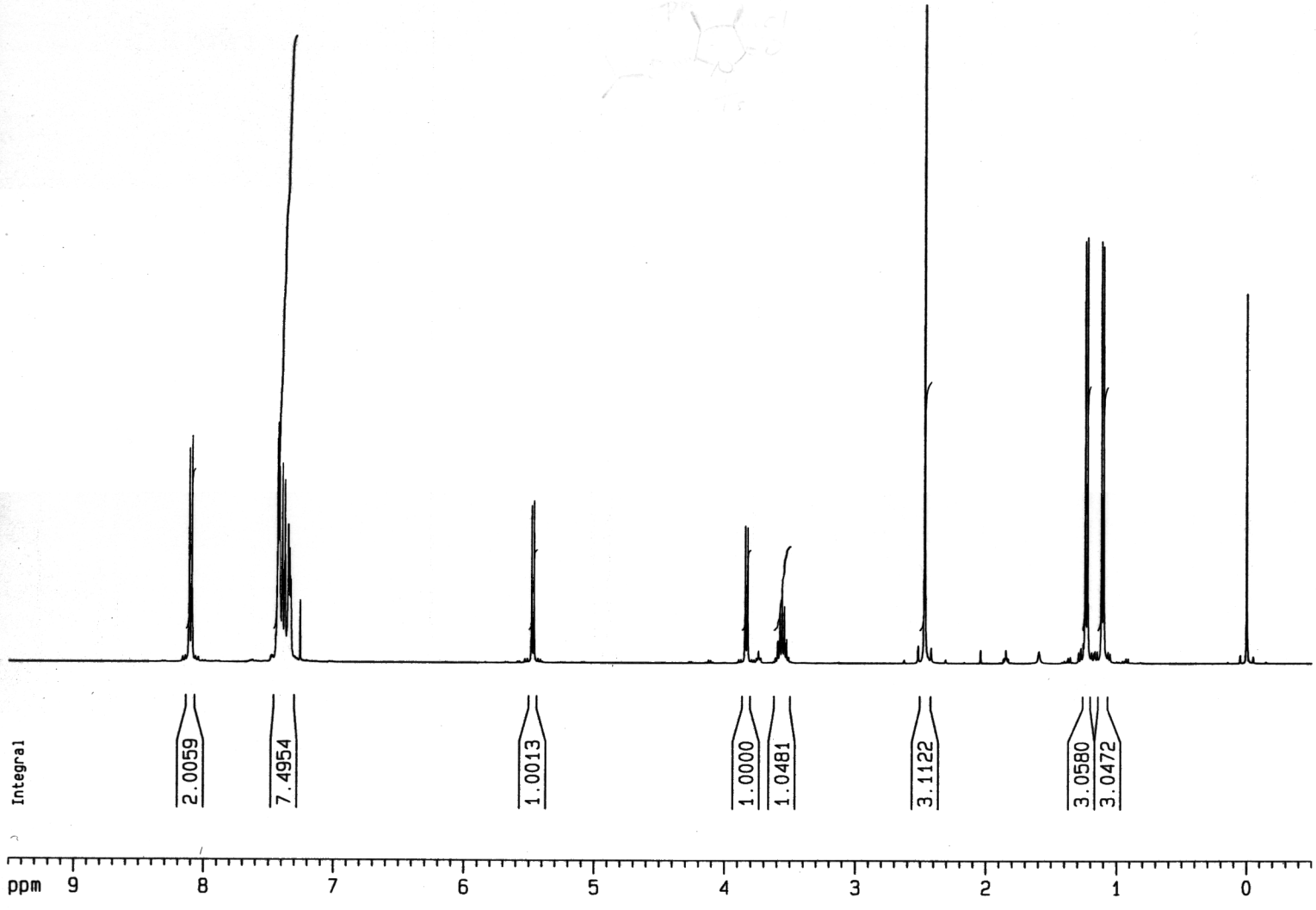
Lactam 23



nz4-233 Lactam
PROTON CDCl3 D:\ nzou 58

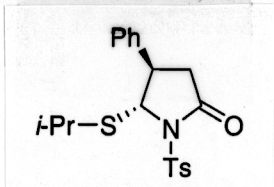


Lactam 24

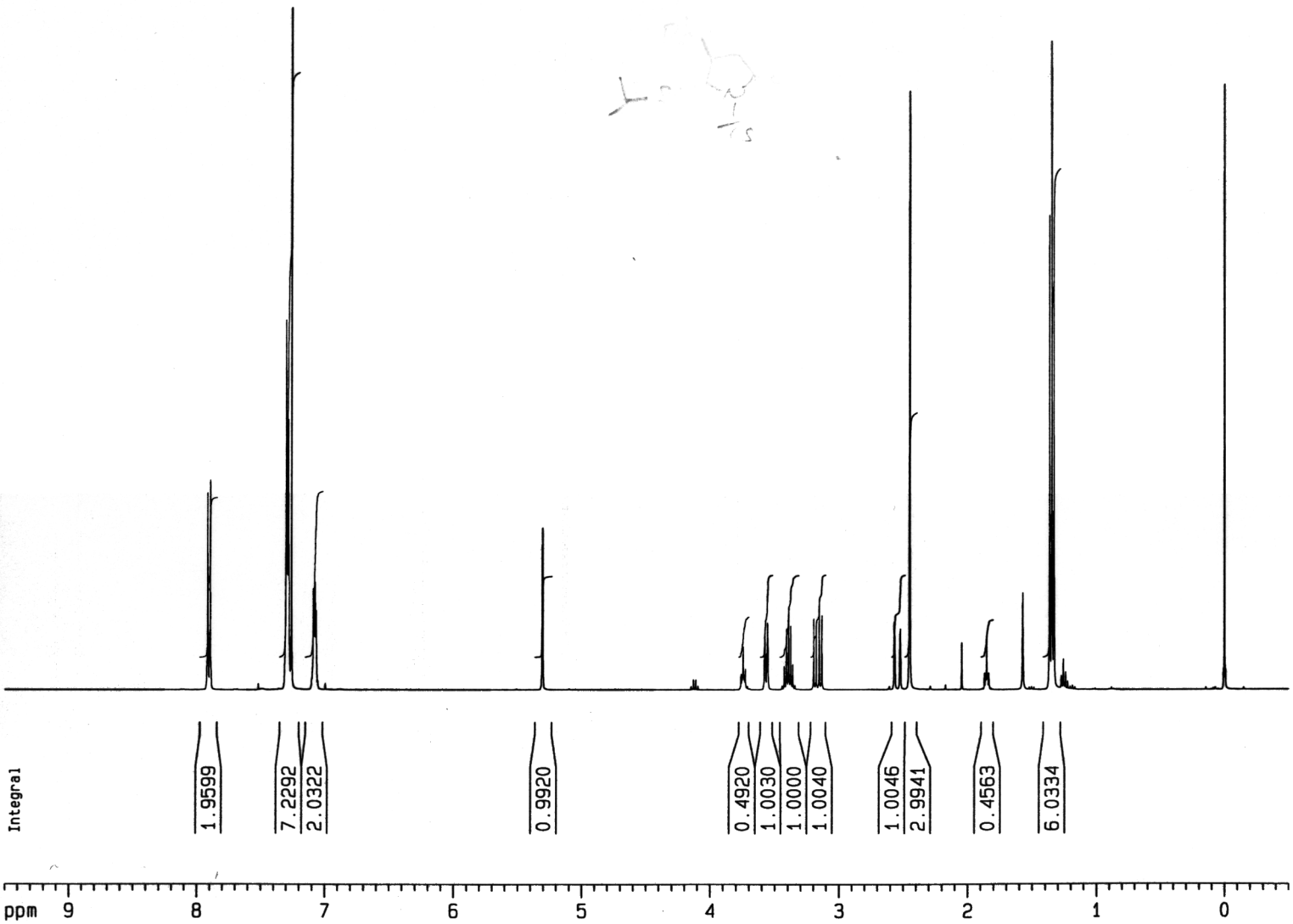



```
Current Data Parameters
NAME            nz4-233
EXPNO                 2
PROCNO                1

F2 - Acquisition Parameters
Date_          20041115
Time              19.58
INSTRUM           spect
PROBHD     5 mm QNP  1H
PULPROG            zg30
TD                65536
SOLVENT           CDCl3
NS                   16
DS                    2
SWH            8278.146 Hz
FIDRES         0.126314 Hz
AQ           3.9584243 sec
RG               101.6
DW              60.400 usec
DE                6.00 usec
TE               300.0 K
D1          1.00000000 sec

============ CHANNEL f1 =============
NUC1                 1H
P1                8.60 usec
PL1              -3.00 dB
SFO1        400.1324710 MHz

F2 - Processing parameters
SI                32768
SF          400.1300101 MHz
WDW                  EM
SSB                   0
LB                 0.30 Hz
GB                    0
PC                 1.00

1D NMR plot parameters
CX                20.00 cm
F1P               9.500 ppm
F1              3801.24 Hz
F2P              -0.500 ppm
F2              -200.07 Hz
PPMCM           0.50000 ppm/cm
HZCM          200.06500 Hz/cm
```

nz4-236 dechlorination
PROTON CDCl3 D:\nzou 59



Lactam 25



Current Data Parameters
NAME nz4-236
EXPNO 2
PROCNO 1

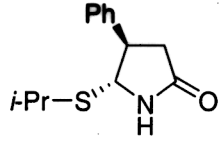
F2 - Acquisition Parameters
Date_ 20041117
Time 20.27
INSTRUM spect
PROBHD 5 mm QNP 1H
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 256
DS 2
SWH 8278.146 Hz
FIDRES 0.126314 Hz
AQ 3.9584243 sec
RG 228.1
DW 60.400 usec
DE 6.00 usec
TE 300.0 K
D1 1.00000000 sec

========== CHANNEL f1 ==========
NUC1 1H
P1 8.60 usec
PL1 -3.00 dB
SFO1 400.1324710 MHz

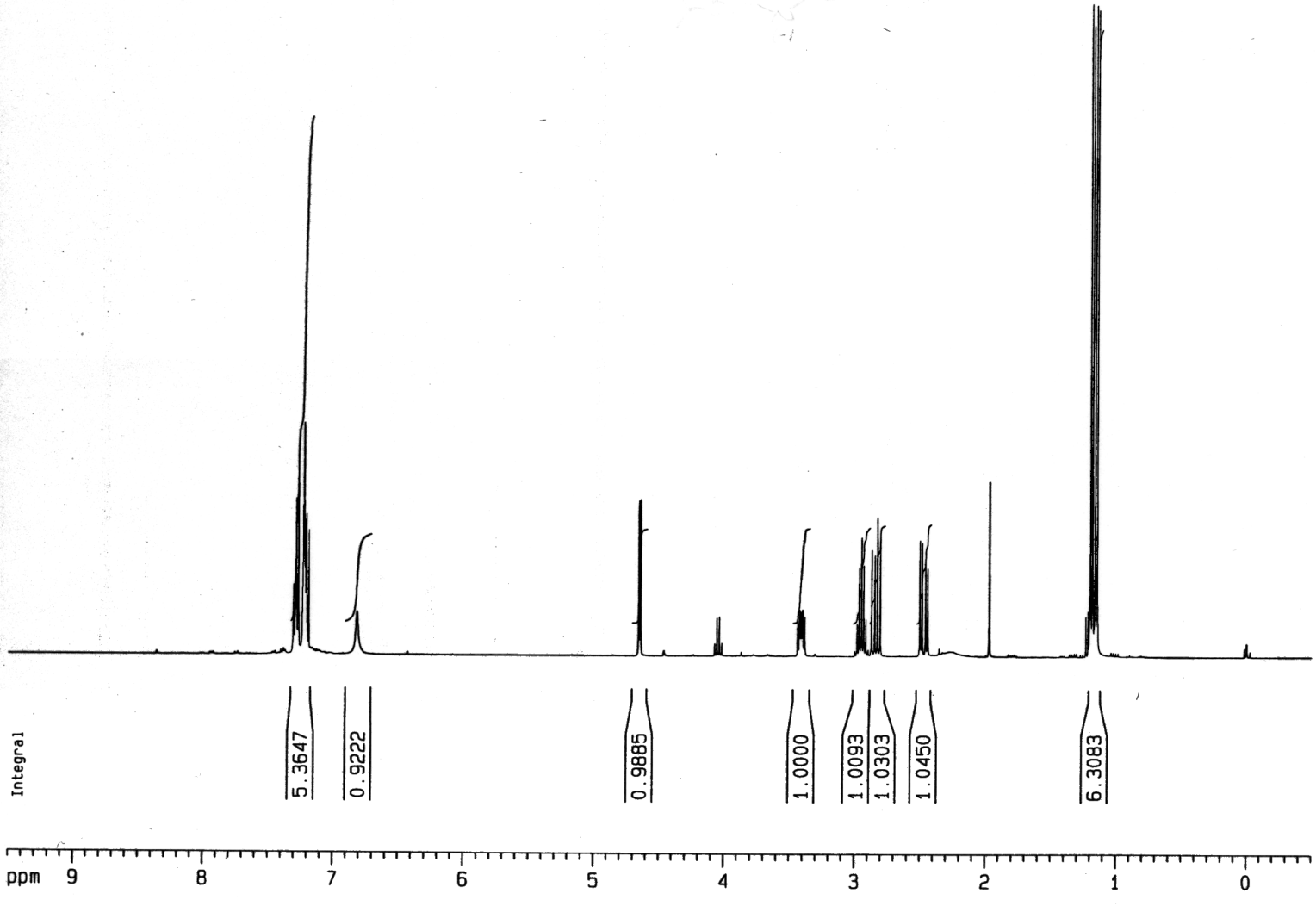
F2 - Processing parameters
SI 32768
SF 400.1300091 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

1D NMR plot parameters
CX 20.00 cm
F1P 9.500 ppm
F1 3801.24 Hz
F2P -0.500 ppm
F2 -200.07 Hz
PPMCM 0.50000 ppm/cm
HZCM 200.06500 Hz/cm

nz4-239 Detosyl: after column
PROTON CDCl3 D:\ nzou 47



Lactam 26



Current Data Parameters
NAME nz4-239
EXPNO 2
PROCNO 1

F2 - Acquisition Parameters
Date_ 20041126
Time 18.20
INSTRUM spect
PROBHD 5 mm QNP 1H
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 16
DS 2
SWH 8278.146 Hz
FIDRES 0.126314 Hz
AQ 3.9584243 sec
RG 181
DW 60.400 usec
DE 6.00 usec
TE 300.0 K
D1 1.00000000 sec

========== CHANNEL f1 ==========
NUC1 1H
P1 8.60 usec
PL1 -3.00 dB
SFO1 400.1324710 MHz

F2 - Processing parameters
SI 32768
SF 400.1300379 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

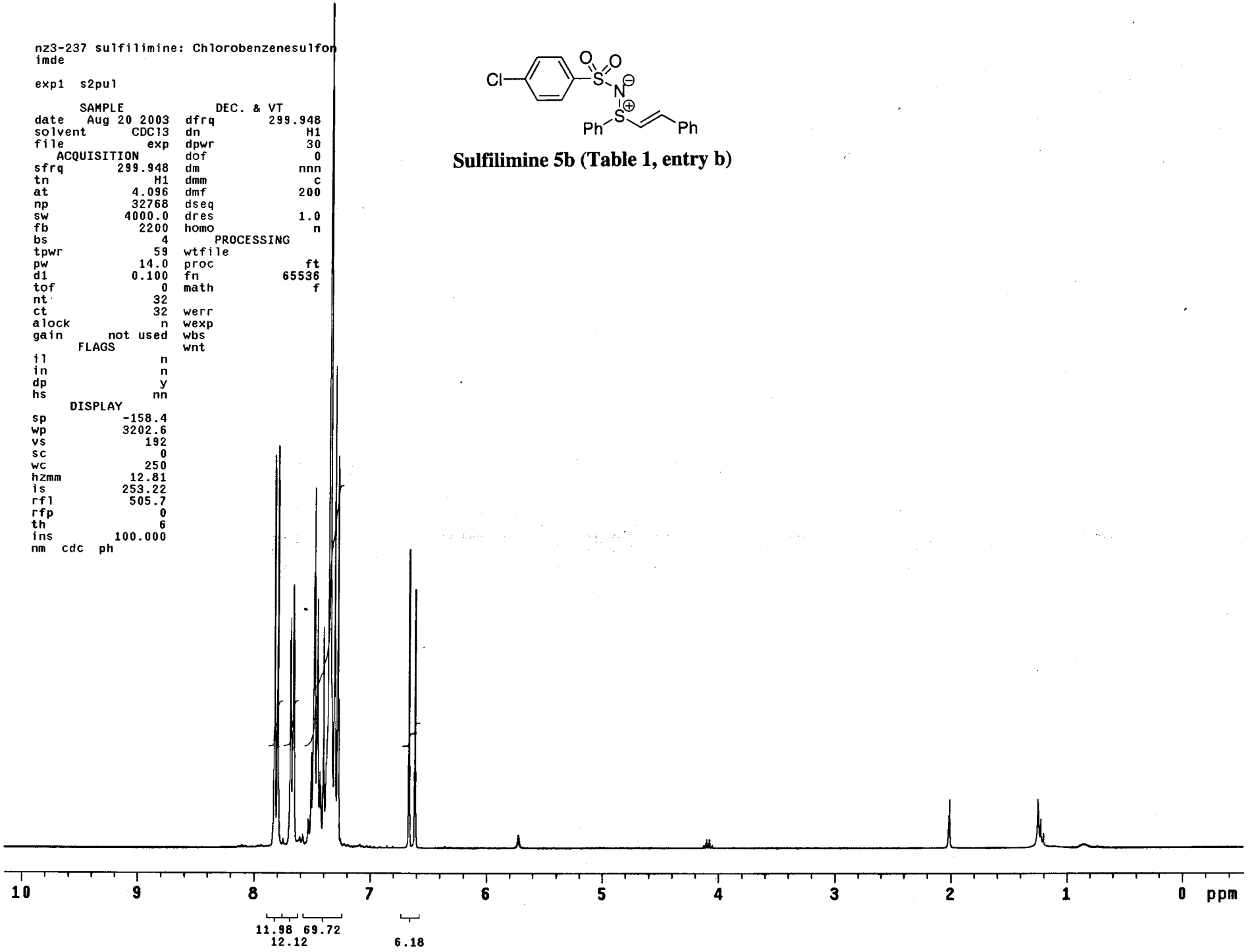
1D NMR plot parameters
CX 20.00 cm
F1P 9.500 ppm
F1 3801.24 Hz
F2P -0.500 ppm
F2 -200.07 Hz
PPMCM 0.50000 ppm/cm
HZCM 200.06502 Hz/cm

nz3-237 sulfilimine: Chlorobenzenesulfon
imde

exp1 s2pul

SAMPLE		DEC. & VT	
date	Aug 20 2003	dfrq	299.948
solvent	CDCl3	dn	H1
file	exp	dpwr	30
ACQUISITION		dof	0
sfrq	299.948	dm	nnn
tn	H1	dmm	c
at	4.096	dmf	200
np	32768	dseq	
sw	4000.0	dres	1.0
fb	2200	homo	n
bs	4	PROCESSING	
tpwr	59	wtfile	
pw	14.0	proc	ft
d1	0.100	fn	65536
tof	0	math	f
nt	32		
ct	32	werr	
alock	n	wexp	
gain	not used	wbs	
FLAGS		wnt	
il	n		
in	n		
dp	y		
hs	nn		
DISPLAY			
sp	-158.4		
wp	3202.6		
vs	192		
sc	0		
wc	250		
hzmm	12.81		
is	253.22		
rfl	505.7		
rfp	0		
th	6		
ins	100.000		
nm cdc ph			

Sulfilimine 5b (Table 1, entry b)

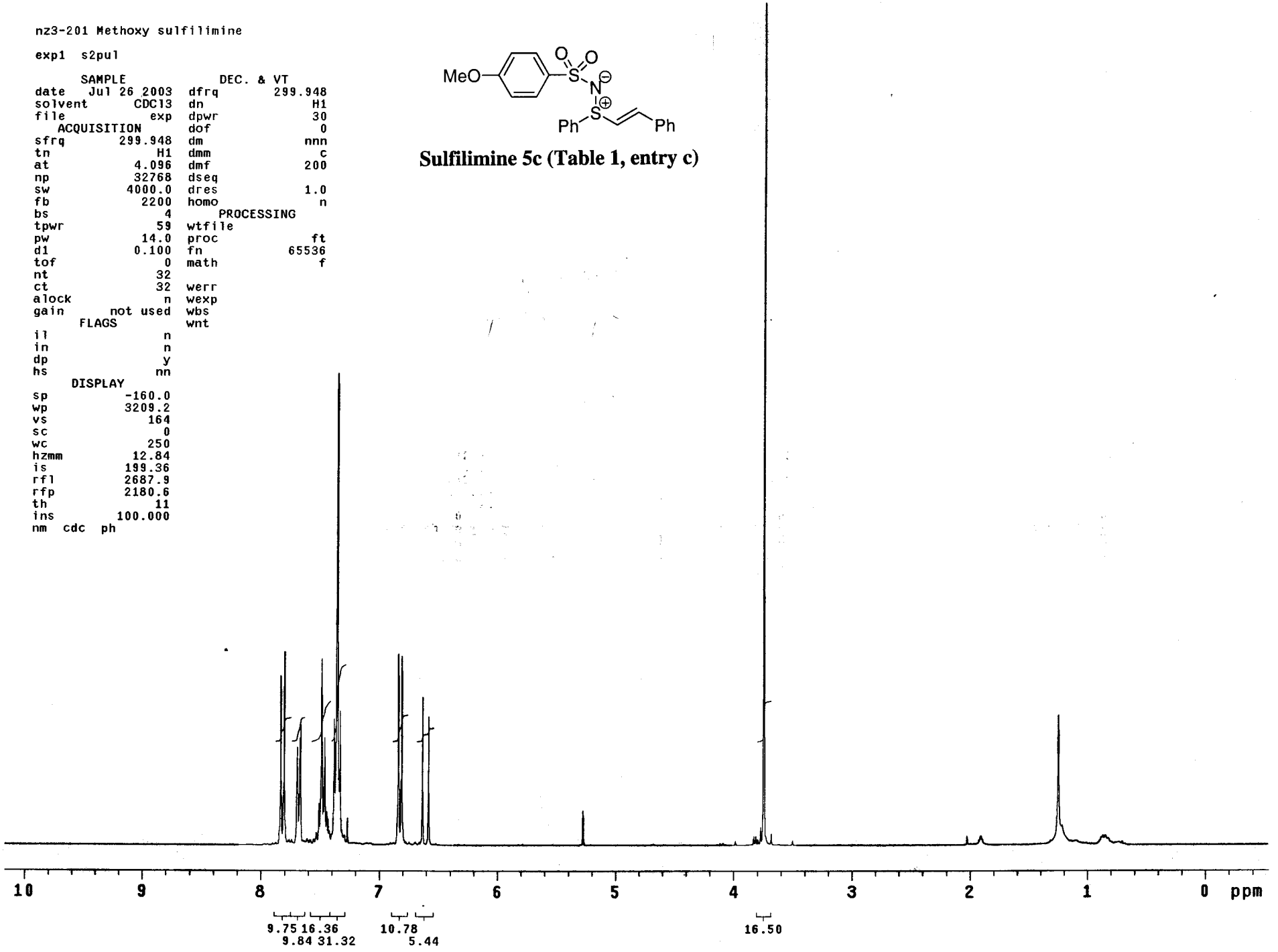


nz3-201 Methoxy sulfilimine

exp1 s2pul

SAMPLE		DEC. & VT	
date	Jul 26 2003	dfrq	299.948
solvent	CDCl3	dn	H1
file	exp	dpwr	30
ACQUISITION		dof	0
sfrq	299.948	dm	nnn
tn	H1	dmm	c
at	4.096	dmf	200
np	32768	dseq	
sw	4000.0	dres	1.0
fb	2200	homo	n
bs	4	PROCESSING	
tpwr	59	wtfile	
pw	14.0	proc	ft
d1	0.100	fn	65536
tof	0	math	f
nt	32		
ct	32	werr	
alock	n	wexp	
gain	not used	wbs	
FLAGS		wnt	
il	n		
in	n		
dp	y		
hs	nn		
DISPLAY			
sp	-160.0		
wp	3209.2		
vs	164		
sc	0		
wc	250		
hzmm	12.84		
is	199.36		
rfl	2687.9		
rfp	2180.6		
th	11		
ins	100.000		
nm cdc ph			

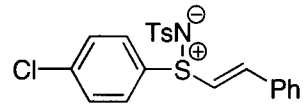
Sulfilimine 5c (Table 1, entry c)



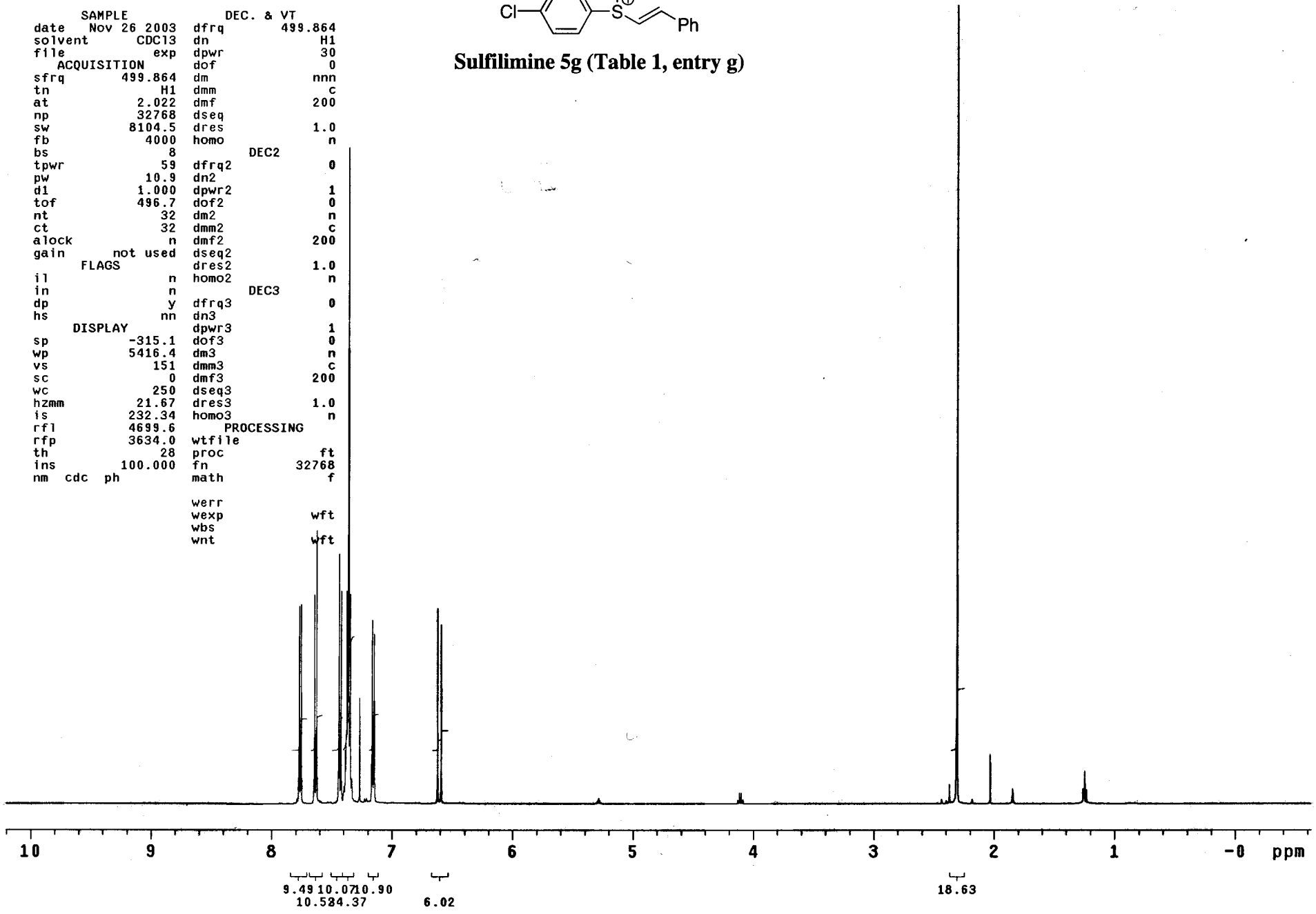
nz4-69 sulfilimine(4-Cl-Ph,Ts)

exp1 s2pul

SAMPLE		DEC. & VT	
date	Nov 26 2003	dfrq	499.864
solvent	CDCl3	dn	H1
file	exp	dpwr	30
ACQUISITION		dof	0
sfrq	499.864	dm	nnn
tn	H1	dmm	c
at	2.022	dmf	200
np	32768	dseq	
sw	8104.5	dres	1.0
fb	4000	homo	n
bs	8	DEC2	
tpwr	59	dfrq2	0
pw	10.9	dn2	
d1	1.000	dpwr2	1
tof	496.7	dof2	0
nt	32	dm2	n
ct	32	dmm2	c
alock	n	dmf2	200
gain	not used	dseq2	
FLAGS		dres2	1.0
il	n	homo2	n
in	n	DEC3	
dp	y	dfrq3	0
hs	nn	dn3	
DISPLAY		dpwr3	1
sp	-315.1	dof3	0
wp	5416.4	dm3	n
vs	151	dmm3	c
sc	0	dmf3	200
wc	250	dseq3	
hzmm	21.67	dres3	1.0
is	232.34	homo3	n
rfl	4699.6	PROCESSING	
rfp	3634.0	wtfile	
th	28	proc	ft
ins	100.000	fn	32768
nm cdc ph		math	f
		werr	
		wexp	wft
		wbs	
		wnt	wft



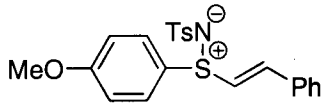
Sulfilimine 5g (Table 1, entry g)



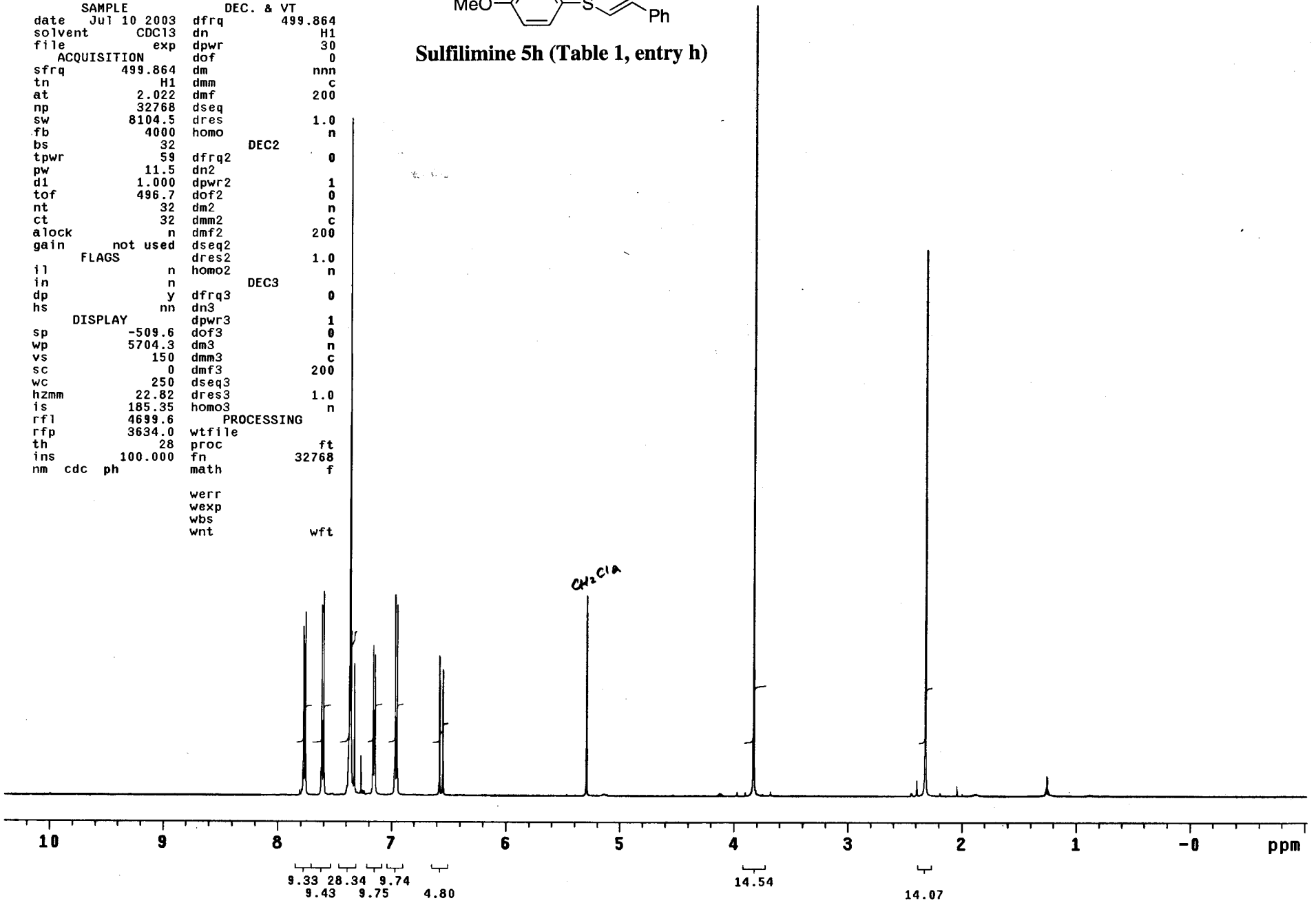
nz3-174

exp1 s2pul

SAMPLE		DEC. & VT	
date	Jul 10 2003	dfrq	499.864
solvent	CDCl3	dn	H1
file	exp	dpwr	30
ACQUISITION		dof	0
sfrq	499.864	dm	nnn
tn	H1	dmm	c
at	2.022	dmf	200
np	32768	dseq	
sw	8104.5	dres	1.0
fb	4000	homo	n
bs	32	DEC2	
tpwr	59	dfrq2	0
pw	11.5	dn2	
d1	1.000	dpwr2	1
tof	496.7	dof2	0
nt	32	dm2	n
ct	32	dmm2	c
alock	n	dmf2	200
gain	not used	dseq2	
FLAGS		dres2	1.0
il	n	homo2	n
in	n	DEC3	
dp	y	dfrq3	0
hs	nn	dn3	
DISPLAY		dpwr3	1
sp	-509.6	dof3	0
wp	5704.3	dm3	n
vs	150	dmm3	c
sc	0	dmf3	200
wc	250	dseq3	
hzmm	22.82	dres3	1.0
is	185.35	homo3	n
rfl	4699.6	PROCESSING	
rfp	3634.0	wtfile	
th	28	proc	ft
ins	100.000	fn	32768
nm cdc ph		math	f
		werr	
		wexp	
		wbs	
		wnt	wft



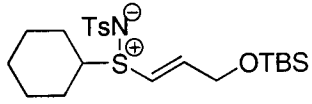
Sulfilimine 5h (Table 1, entry h)



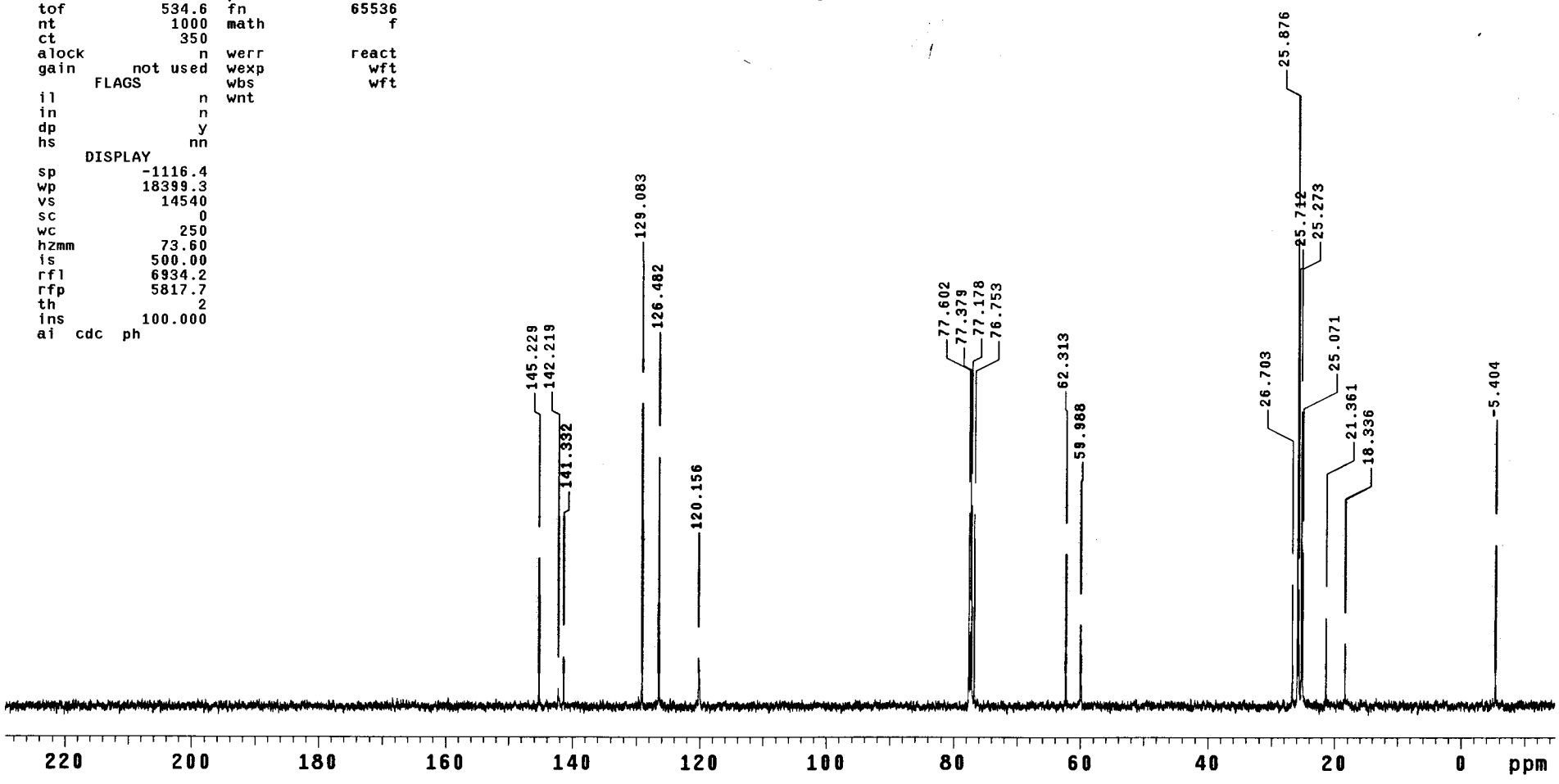
nz3-263c13 Sulfilimine: TBS-allyl alcoho
l

exp1 s2pul

SAMPLE		DEC. & VT	
date	Sep 5 2003	dfrq	299.701
solvent	CDCl3	dn	H1
file	exp	dpwr	49
ACQUISITION		dof	89.0
sfrq	75.368	dm	yyy
tn	C13	dmm	w
at	0.890	dmf	8500
np	32768	dseq	
sw	18399.3	dres	1.0
fb	10200	homo	n
bs	8	PROCESSING	
tpwr	59	lb	2.00
pw	10.0	wtfile	
d1	2.500	proc	ft
tof	534.6	fn	65536
nt	1000	math	f
ct	350		
alock	n	werr	react
gain	not used	wexp	wft
FLAGS		wbs	wft
il	n	wnt	
in	n		
dp	y		
hs	nn		
DISPLAY			
sp	-1116.4		
wp	18399.3		
vs	14540		
sc	0		
wc	250		
hzmm	73.60		
is	500.00		
rfl	6934.2		
rfp	5817.7		
th	2		
ins	100.000		
ai cdc ph			



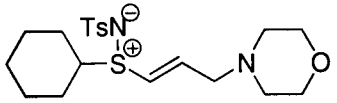
Sulfilimine 10 (Table 2, entry 2)



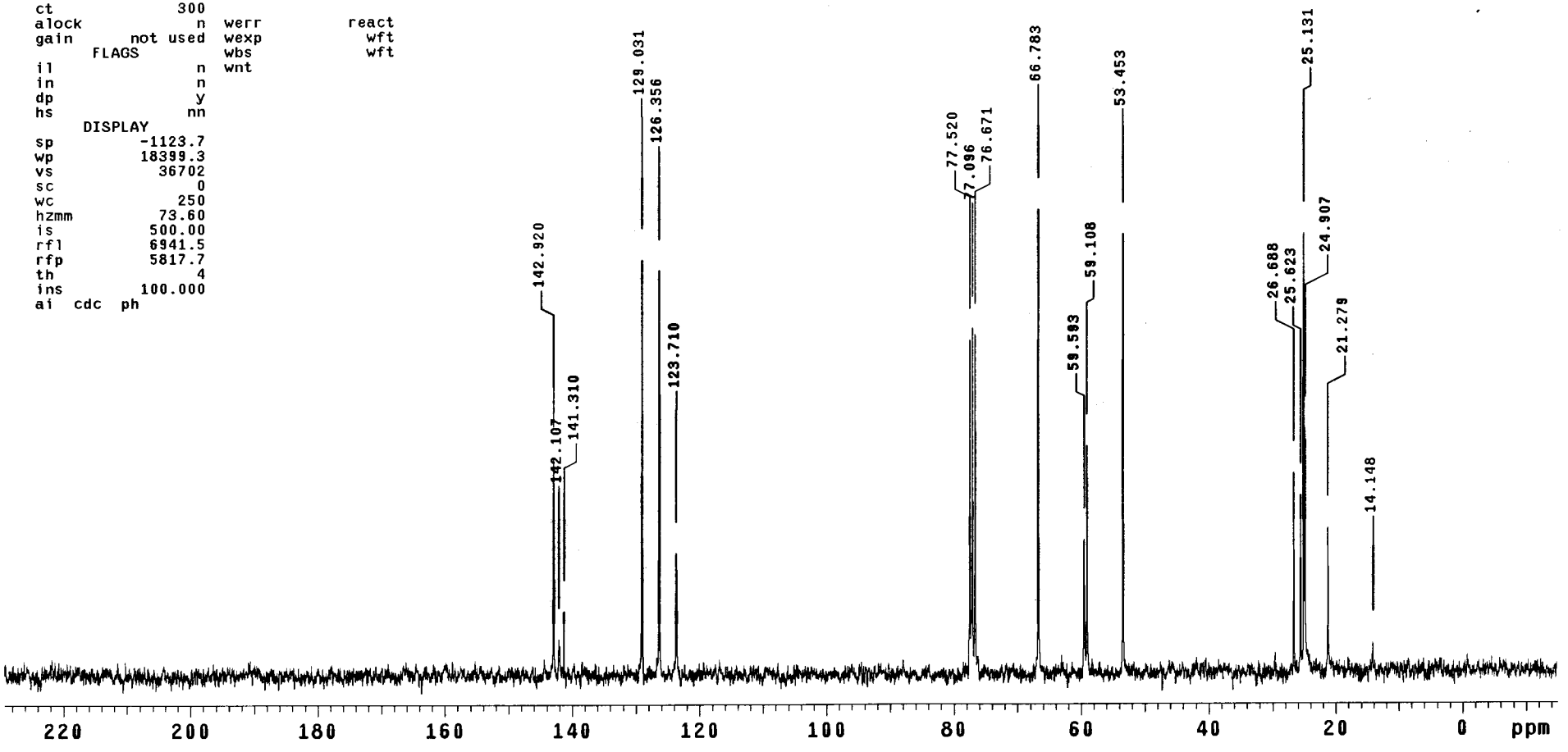
nz3-283c13 Sulfilimine: N-allyl Morpholi
ne

exp1 s2pul

SAMPLE		DEC. & VT	
date	Sep 17 2003	dfrq	299.701
solvent	CDCl3	dn	H1
file	exp	dpwr	49
ACQUISITION		dof	89.0
sfrq	75.368	dm	yyy
tn	C13	dmm	w
at	0.890	dmf	8500
np	32768	dseq	
sw	18399.3	dres	1.0
fb	10200	homo	n
bs	8	PROCESSING	
tpwr	59	lb	4.00
pw	10.0	wtfile	
d1	2.500	proc	ft
tof	534.6	fn	65536
nt	10000	math	f
ct	300		
alock	n	werr	react
gain	not used	wexp	wft
FLAGS		wbs	wft
il	n	wnt	
in	n		
dp	y		
hs	nn		
DISPLAY			
sp	-1123.7		
wp	18399.3		
vs	36702		
sc	0		
wc	250		
hzmm	73.60		
is	500.00		
rfl	6941.5		
rfp	5817.7		
th	4		
ins	100.000		
ai cdc ph			



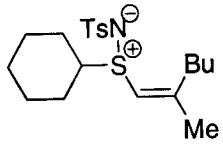
Sulfilimine 14 (Table 2, entry 4)



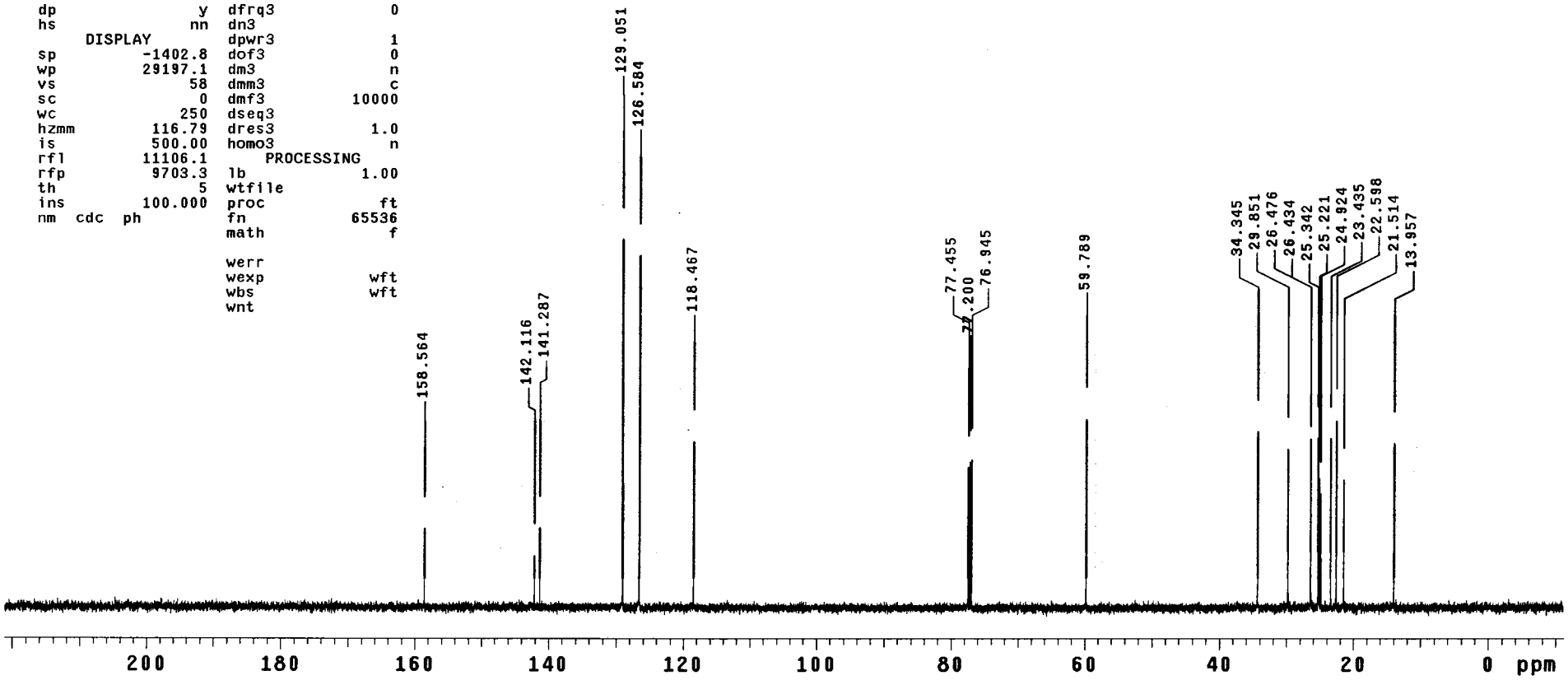
nz4-14c13 sulfilimine

exp1 s2pul

SAMPLE		DEC. & VT	
date	Oct 9 2003	dfrq	499.864
solvent	CDCl3	dn	H1
file	exp	dpwr	41
ACQUISITION		dof	496.7
sfrq	125.703	dm	yyy
tn	C13	dmm	w
at	1.122	dmf	12000
np	65536	dseq	
sw	29197.1	dres	1.0
fb	16000	homo	n
bs	8	DEC2	
tpwr	59	dfrq2	0
pw	24.0	dn2	
d1	2.000	dpwr2	1
tof	1270.5	dof2	0
nt	10000	dm2	n
ct	100	dmm2	c
alock	n	dmf2	10000
gain	not used	dseq2	
FLAGS		dres2	1.0
il	n	homo2	n
in	n	DEC3	
dp	y	dfrq3	0
hs	nn	dn3	
DISPLAY		dpwr3	1
sp	-1402.8	dof3	0
wp	29197.1	dm3	n
vs	58	dmm3	c
sc	0	dmf3	10000
wc	250	dseq3	
hzmm	116.79	dres3	1.0
is	500.00	homo3	n
rfl	11106.1	PROCESSING	
rfp	9703.3	lb	1.00
th	5	wtfile	
ins	100.000	proc	ft
nm cdc ph		fn	65536
		math	f
		werr	
		wexp	wft
		wbs	wft
		wnt	



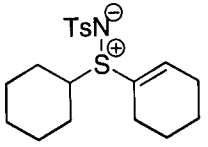
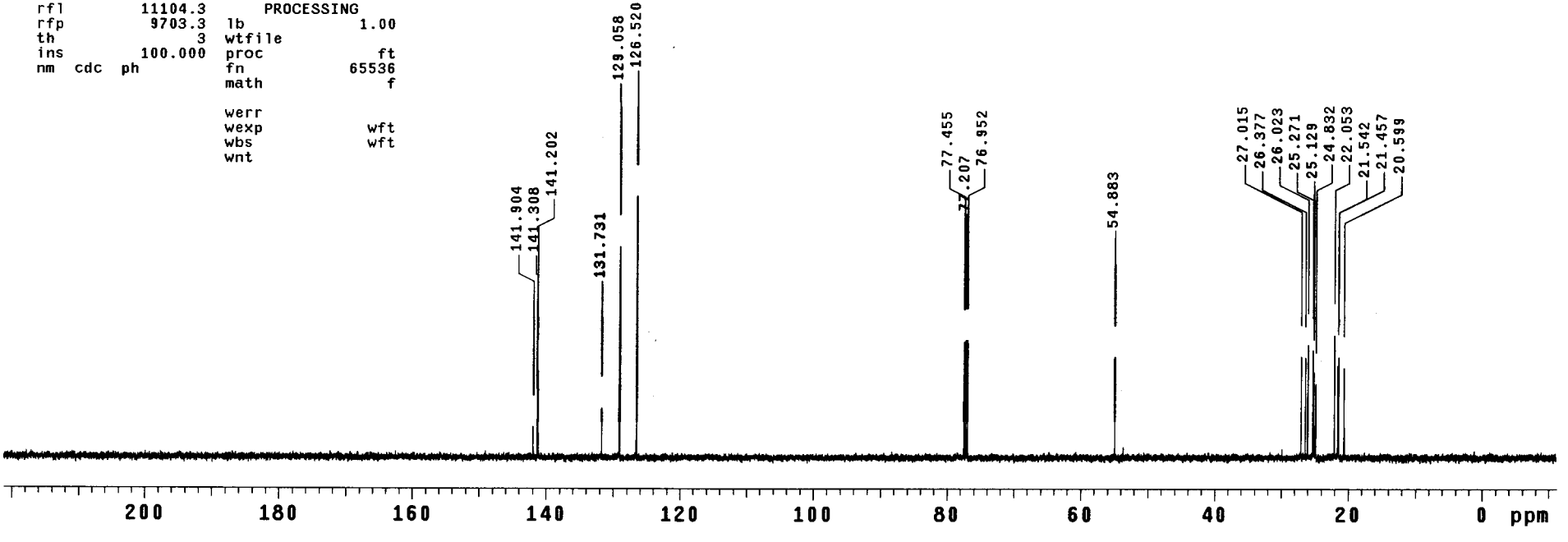
Sulfilimine 20 (Table 2, entry 7)



STANDARD CARBON PARAMETERS

exp1 s2pul

SAMPLE		DEC. & VT	
date	Jul 19 2003	dfrq	499.864
solvent	CDCl3	dn	H1
file	exp	dpwr	41
ACQUISITION		dof	496.7
sfrq	125.703	dm	yyy
tn	C13	dmm	w
at	1.122	dmf	12000
np	65536	dseq	
sw	29197.1	dres	1.0
fb	16000	homo	n
bs	8	DEC2	
tpwr	59	dfrq2	0
pw	24.0	dn2	
d1	2.000	dpwr2	1
tof	1270.5	dof2	0
nt	1000	dm2	n
ct	100	dmm2	c
alock	n	dmf2	10000
gain	not used	dseq2	
FLAGS		dres2	1.0
il	n	homo2	n
in	n	DEC3	
dp	y	dfrq3	0
hs	nn	dn3	
DISPLAY		dpwr3	1
sp	-1401.0	dof3	0
wp	29197.1	dm3	n
vs	41	dmm3	c
sc	0	dmf3	10000
wc	250	dseq3	
hzmm	116.79	dres3	1.0
is	500.00	homo3	n
rfl	11104.3	PROCESSING	
rfp	9703.3	lb	1.00
th	3	wtfile	
ins	100.000	proc	ft
nm cdc ph		fn	65536
		math	f
		werr	
		wexp	wft
		wbs	wft
		wnt	



Sulfilimine 22 (Table 2, entry 8)