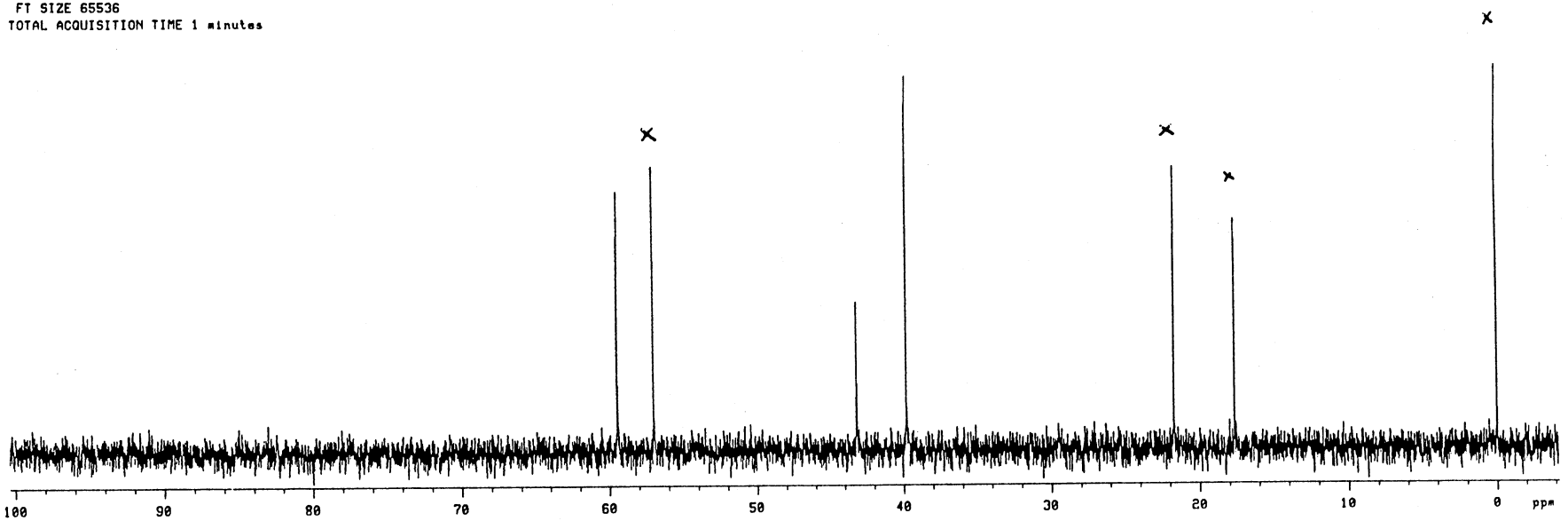
```
13C-NMR c1b29b2(1H) + DSS
17.0mg 9508GM10 in D2O
213194534 jrn.271;115/200
OBSERVE C13
 FREQUENCY 100.578 MHz
 SPECTRAL WIDTH 20491.8 Hz
 ACQUISITION TIME 1.599 sec
 RELAXATION DELAY 1.000 sec
 PULSE WIDTH 13.1 usec
 TEMPERATURE 30.0 deg. C.
 NO. REPETITIONS 0
DECOUPLE H1
 HIGH POWER 44
 DECOUPLER CONTINUOUSLY ON
 WALTZ16 MODULATED
DOUBLE PRECISION ACQUISITION
DATA PROCESSING
 LINE BROADENING 1.0 Hz
 FT SIZE 65536
TOTAL ACQUISITION TIME 1 minutes
```

SPECTRAL LINES for th=19.4
rfl= 785.5 rfp= 0.0
DSS internal

nr	Hz	ppm	intensity
1	5981.13	59.467	38.1
2	5734.10	57.011	41.8
3	4343.88	43.189	21.6
4	4003.68	39.807	55.2
5	2185.70	21.731	41.5
6	1775.45	17.652	33.7
7	0.00	0.000	56.5

c b a

$CH_3N(CH_2CH_2Cl)_2.HCl$



Bis(2-chloroethyl) methylamine hydrochloride
CAS 55-86-7

Nucleus :	$^{13}C\{1H\}$
Frequency :	100.6 MHz
Concentration :	ca. 17 mg/0.7 ml D_2O (pH 1)
Reference DSS internal 0.00 ppm. Res. :	2.7 Hz (DSS)
Instrument :	Varian VXR 400S

Temperature :	30 °C
Spectral width :	20491.8 Hz
Data point (FID) :	64 K
Pulse angle :	13.1 µs (60°)
Number of pulses :	128
Repetition time :	2.6 s
Line broadening :	1.0 Hz
Data points (spec) :	64 K

a:	39.8 ppm
b:	59.5 ppm
c:	43.2 ppm

x = DSS