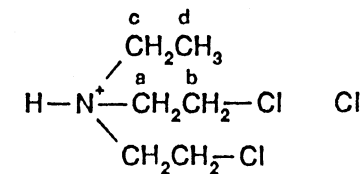
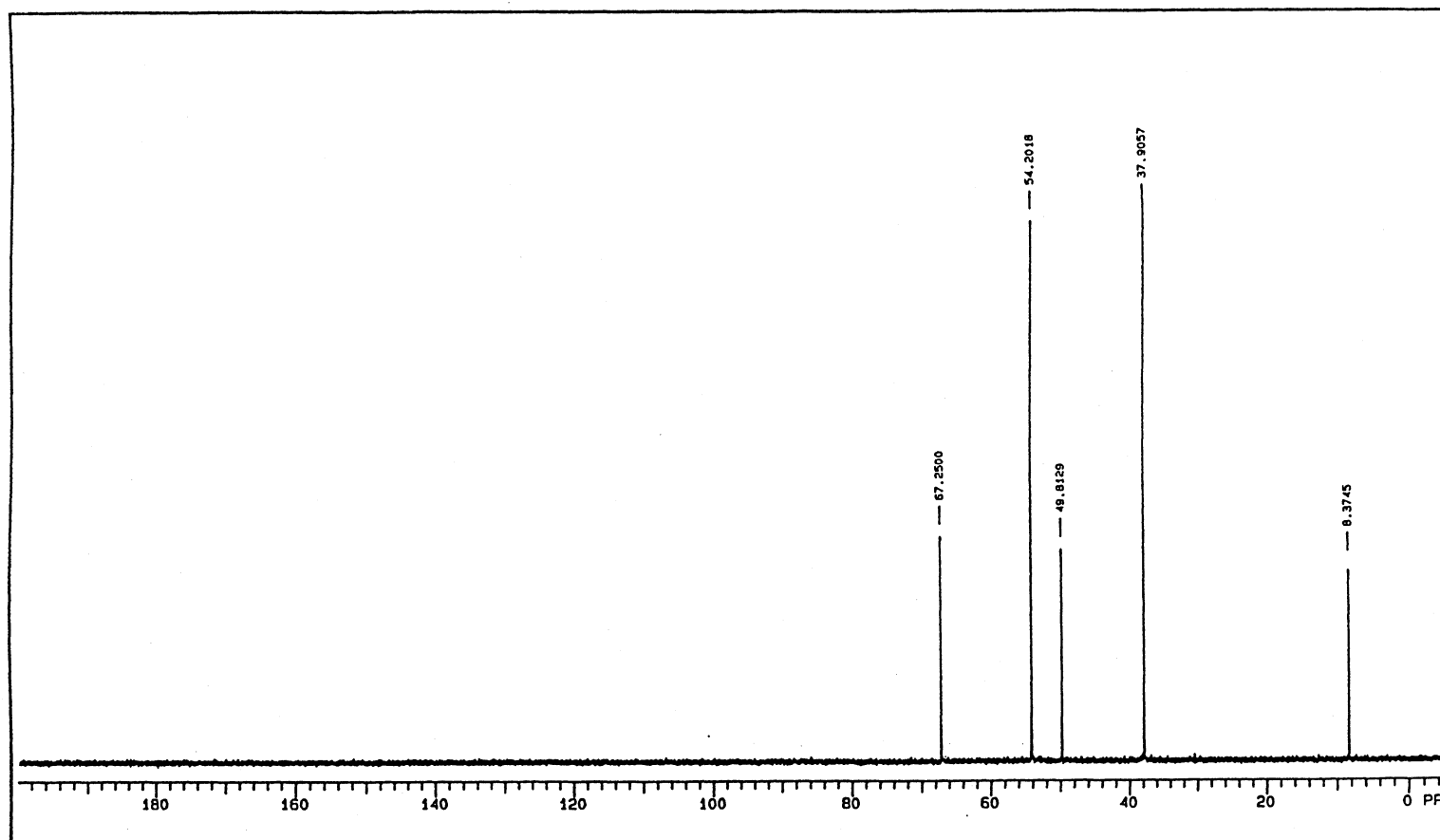


## Bis(2-chloroethyl)ethylamine hydrochloride

[3590-07-6] (hydrochloride)

[538-07-8] (base)

 $^{13}\text{C}\{\text{H}\}$ -NMR

nuc.	$\delta$ [ppm]
a	54.20
b	37.90
c	49.81
d	8.37

Res. freq. 75.429 MHz  
 Solvent: D2O  
 Temperature: 24°C  
 Concentration: approx. 50mg/ml  
 Reference: dioxane  
 (67.25ppm, internal)

Spectral width: 17699 Hz  
 Data points (FID): 65472  
 Data points (spec.): 32K  
 Pulse width: 5.6  $\mu$ s (38°)  
 Number of scans: 2884

Rep.time.: 1.85 s  
 Line broad.: exp., 0.5 Hz  
 Resolution: 0.86 Hz (dioxane)  
 Instrument: Varian VXR-300  
 Filename: