

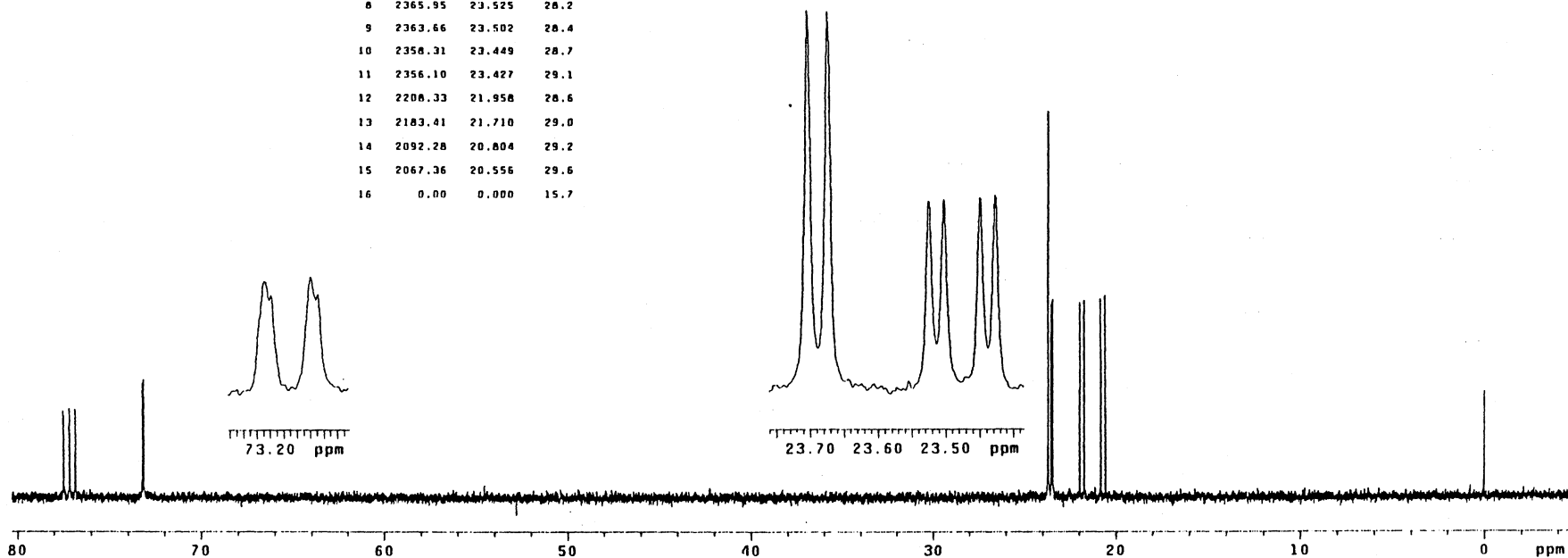
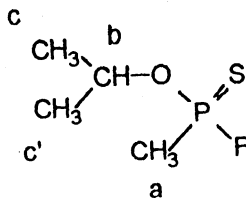
<sup>13</sup>C-NMR c1121b2(1H) + TMS  
thiosarin in ca 0.7ml CDCl<sub>3</sub>  
214195126.006 Jrn.342;145/200

Solvent: CDCl<sub>3</sub>  
Temp: 30.0 C / 303.1 K  
User: pm1  
File: c1121b2  
VXR-400S "pm1vvr"

PULSE SEQUENCE  
Relax. delay 1.000 sec  
Pulse 60.0 degrees  
Acq. time 3.832 sec  
Width 8550.7 Hz  
96 repetitions  
OBSERVE C13, 100.5680017 MHz  
DECOUPLE H1, 399.9571862 MHz  
Power 44 dB  
continuously on  
WALTZ-16 modulated  
DATA PROCESSING  
Line broadening 0.4 Hz  
FT size 262144  
Total time 7 minutes

SPECTRAL LINES for th-6.1

nr	Hz	ppm	Intensity
1	7792.81	77.484	12.8
2	7760.77	77.166	13.2
3	7728.81	76.848	13.0
4	7362.76	73.208	16.9
5	7355.78	73.139	17.4
6	2384.02	23.704	56.4
7	2380.95	23.674	56.3
8	2365.95	23.525	28.2
9	2363.66	23.502	28.4
10	2358.31	23.449	28.7
11	2356.10	23.427	29.1
12	2208.33	21.958	28.6
13	2183.41	21.710	29.0
14	2092.28	20.804	29.2
15	2067.36	20.556	29.6
16	0.00	0.000	15.7



Isopropyl methylthiophosphonofluoridate(thiosarin)  
CAS 4241-37-6  
Nucleus : <sup>13</sup>C{<sup>1</sup>H}  
Frequency : 100.6 MHz  
Concentration : ca. 179 mg/0.7 ml CDCl<sub>3</sub>  
Reference TMS internal. Resolution. : 0.7 Hz (TMS)  
Instrument : Varian VXR 400S

Temperature : 30 °C  
Spectral width : 8550.7 Hz  
Data point (FID) : 64 K  
Pulse angle : 13.0 μs (60°)  
Number of pulses : 96  
Repetition time : 4.8 s  
Line broadening : 0.4 Hz  
Data points (spec) : 256 K

a : 21.3 ppm J(aP) : 116.0 Hz J(aF) : 24.9 Hz  
b : 73.2 ppm J(bP) : 7.0 Hz J(bF) : 1.1 Hz  
c : 23.5 ppm J(cP) : 7.6 Hz J(cF) : 2.3 Hz  
c' : 23.7 ppm J(c'P) : 3.1 Hz