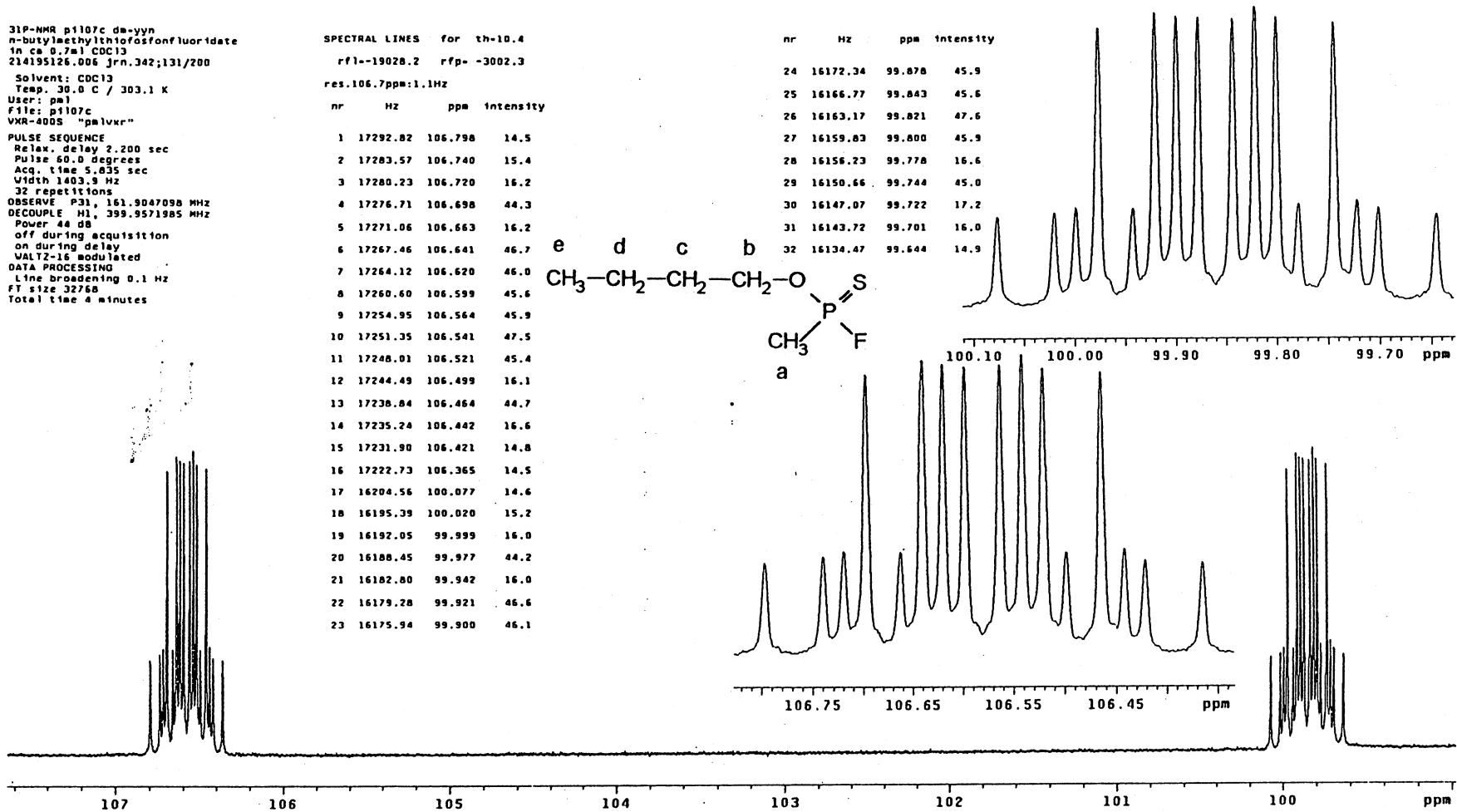
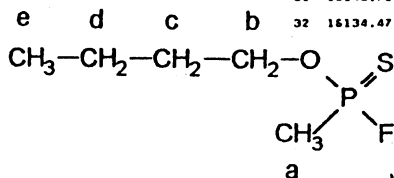


31P-NMR p1107c da-yyv  
 n-butylmethylthiophosphonofluoridate  
 in ca 0.7ml CDCl3  
 214195126.006 Jrn.342;131/200  
 Solvent: CDCl3  
 Temp. 30.0 C / 303.1 K  
 User: pm1  
 File: p1107c  
 VXR-400S "palvkr"  
 PULSE SEQUENCE  
 Relax. delay 2.200 sec  
 Pulse 50.0 degrees  
 Acq. time 5.835 sec  
 Width 1403.9 Hz  
 32 repetitions  
 OBSERVE P31, 161.9047098 MHz  
 DECOUPLE H1, 399.9571985 MHz  
 Power 44 dB  
 off during acquisition  
 on during delay  
 WALTZ-16 modulated  
 DATA PROCESSING  
 Line broadening 0.1 Hz  
 FT size 32768  
 Total time 4 minutes

SPECTRAL LINES for th-10.4  
 rfl=-19028.2 rfp=-3002.3

nr	Hz	ppm	intensity
1	17292.82	106.798	14.5
2	17283.57	106.740	15.4
3	17280.23	106.720	16.2
4	17276.71	106.698	44.3
5	17271.06	106.663	16.2
6	17267.46	106.641	46.7
7	17264.12	106.620	46.0
8	17260.60	106.599	45.6
9	17254.95	106.564	45.9
10	17251.35	106.541	47.5
11	17248.01	106.521	45.4
12	17244.49	106.499	16.1
13	17238.84	106.464	44.7
14	17235.24	106.442	16.6
15	17231.90	106.421	14.8
16	17222.73	106.365	14.5
17	16204.56	100.077	14.6
18	16195.39	100.020	15.2
19	16192.05	99.999	16.0
20	16188.45	99.977	44.2
21	16182.80	99.942	16.0
22	16179.28	99.921	46.6
23	16175.94	99.900	46.1

nr	Hz	ppm	intensity
24	16172.34	99.878	45.9
25	16166.77	99.843	45.6
26	16163.17	99.821	47.6
27	16159.83	99.800	45.9
28	16156.23	99.778	16.6
29	16150.66	99.744	45.0
30	16147.07	99.722	17.2
31	16143.72	99.701	16.0
32	16134.47	99.644	14.9



n-Butyl methylthiophosphonofluoridate

CAS 4241-36-5

Nucleus : <sup>31</sup>P

Frequency : 161.9 MHz

Concentration : ca. 75 mg/0.7 ml CDCl<sub>3</sub>

Reference H<sub>3</sub>PO<sub>4</sub> external. Res. : 1.1 Hz (106.7 ppm)

Instrument : Varian VXR 400S

Temperature : 30 °C

Spectral width : 1403.9 Hz

Data point (FID) : 16 K

Pulse angle : 10.4 μs (60°)

Number of pulses : 32

Repetition time : 8.0 s

Line broadening : 0.1 Hz

Data points (spec) : 32 K

P: 103.2 ppm J(PF) : 1088.2 Hz J(aP) : 16.1 Hz

J(bP) : 9.2 Hz

J(b'P) : 12.5 Hz

OPCW Code:6-3-258B (p1/1)