

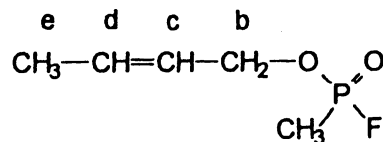
31P-NMR p1e13s dpwr=10
 dec low power: -3ppm
 9520001 1n CDC13
 213285198 Jrn.307,033/200
 Solvent: CDC13
 Temp. 30.0 C / 303.1 K
 User: pm1
 File: p1e13s
 VXR-400S "pmlvvr"
 PULSE SEQUENCE
 Relax. delay 2.000 sec
 Pulse 60.0 degrees
 Acq. time 3.625 sec
 Width 2259.9 Hz
 1000 repetitions
 OBSERVE P31, 161.9047045 MHz
 DECOUPLE H1, 399.9558427 MHz
 Power 10 dB
 continuously on
 single frequency
 DATA PROCESSING
 Line broadening 0.1 Hz
 FT size 65536
 Total time 6.3 hours

SPECTRAL LINES for th=5.0

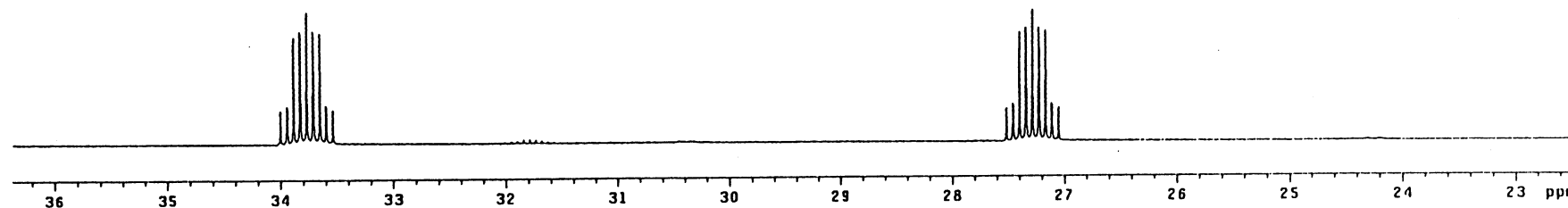
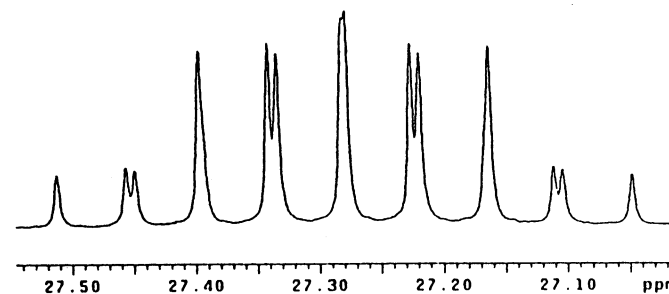
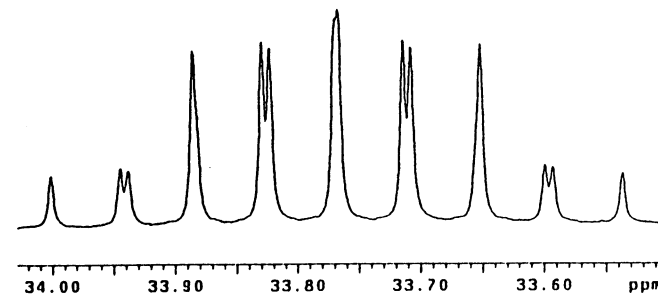
rf1= -3114.0 rfp= 515.6

H3PO4 external; res 27.3ppm:1.3Hz

nr	Hz	ppm	intensity
1	5496.02	33.845	5.2
2	5486.43	33.886	15.2
3	5477.33	33.830	16.0
4	5476.29	33.823	15.4
5	5467.26	33.767	18.8
6	5458.71	33.715	16.0
7	5457.67	33.708	15.4
8	5448.57	33.652	15.7
9	5440.02	33.589	5.3
10	5438.98	33.593	5.1
11	4445.56	27.457	5.2
12	4435.91	27.397	15.5
13	4426.87	27.342	16.1
14	4425.70	27.334	15.2
15	4417.15	27.282	18.3
16	4416.73	27.279	18.8
17	4408.25	27.227	16.0
18	4407.08	27.219	15.2
19	4398.04	27.164	15.8
20	4389.56	27.111	5.3



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2-Butenyl methylphosphonofluoridate (crotyl sarin)
 CAS 138780-00-4
 Nucleus : ³¹P
 Frequency : 161.9 MHz
 Concentration : ca. 24 mg/0.7 ml CDCl₃
 Reference H₃PO₄ external. Res. : 1.3 Hz (27.3 ppm)
 Instrument : Varian V⁴ 400S

Temperature : 30 °C
 Spectral width : 2259.9 Hz
 Data point (FID) : 16 K
 Pulse angle : 9.7 μs (60°)
 Number of pulses : 1000
 Repetition time : 5.6 s
 Line broadening : 0.1 Hz
 Data points (spec) : 64 K

P: 30.5 ppm J(PF) : 1050.4 Hz J(aP) : 18.7 Hz
 J(bP) : 9.1 Hz J(b'P) : 10.1 Hz