

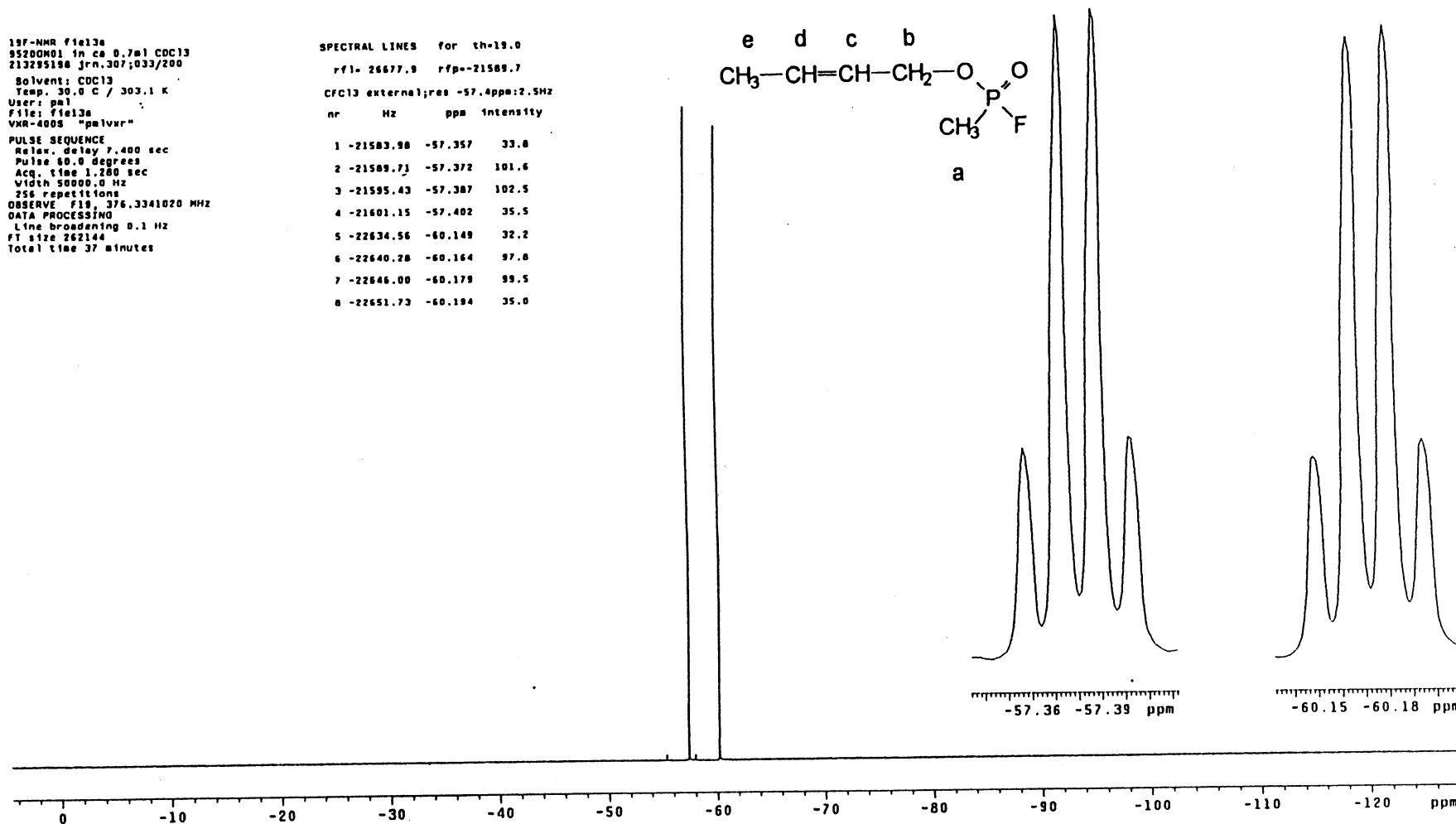
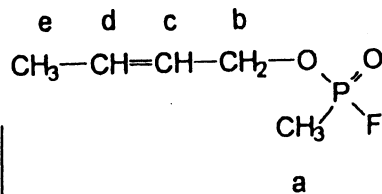
19F-NMR f1e13a  
 9520001 in ca 0.7ml CDCl3  
 21329519a Jrn.307;033/200

Solvent: CDCl3  
 Temp. 30.0 C / 303.1 K  
 User: pal  
 File: f1e13a  
 VXR-400S "palvvr"

PULSE SEQUENCE  
 Relax. delay 7.400 sec  
 Pulse 60.0 degrees  
 Acq. time 1.280 sec  
 Width 50000.0 Hz  
 256 repetitions  
 OBSERVE F19, 376.3341020 MHz  
 DATA PROCESSING  
 Line broadening 0.1 Hz  
 FT size 262144  
 Total time 37 minutes

SPECTRAL LINES for th=19.0

nr	Hz	ppm	Intensity
1	-21583.98	-57.357	33.8
2	-21589.71	-57.372	101.6
3	-21595.43	-57.387	102.5
4	-21601.15	-57.402	35.5
5	-22634.56	-60.149	32.2
6	-22640.28	-60.164	97.8
7	-22646.00	-60.179	99.5
8	-22651.73	-60.194	35.0



2-Butenyl methylphosphonofluoridate (crotyl sarin)  
 CAS 138780-00-4  
 Nucleus : <sup>19</sup>F  
 Frequency : 376.3 MHz  
 Concentration : ca. 24 mg/0.7 ml CDCl<sub>3</sub>  
 Reference CFC<sub>3</sub> external. Res. : 2.5 Hz (-57.4 ppm)  
 Instrument : Varian VXR 400S

Temperature : 30 °C  
 Spectral width : 50000.0 Hz  
 Data point (FID) : 128000  
 Pulse angle : 22.9 μs (60°)  
 Number of pulses : 256  
 Repetition time : 8.7 s  
 Line broadening : 0.1 Hz  
 Data points (spec) : 256 K

F: -58.8 ppm J(PF) : 1050.4 Hz J(aF) : 5.8 Hz