

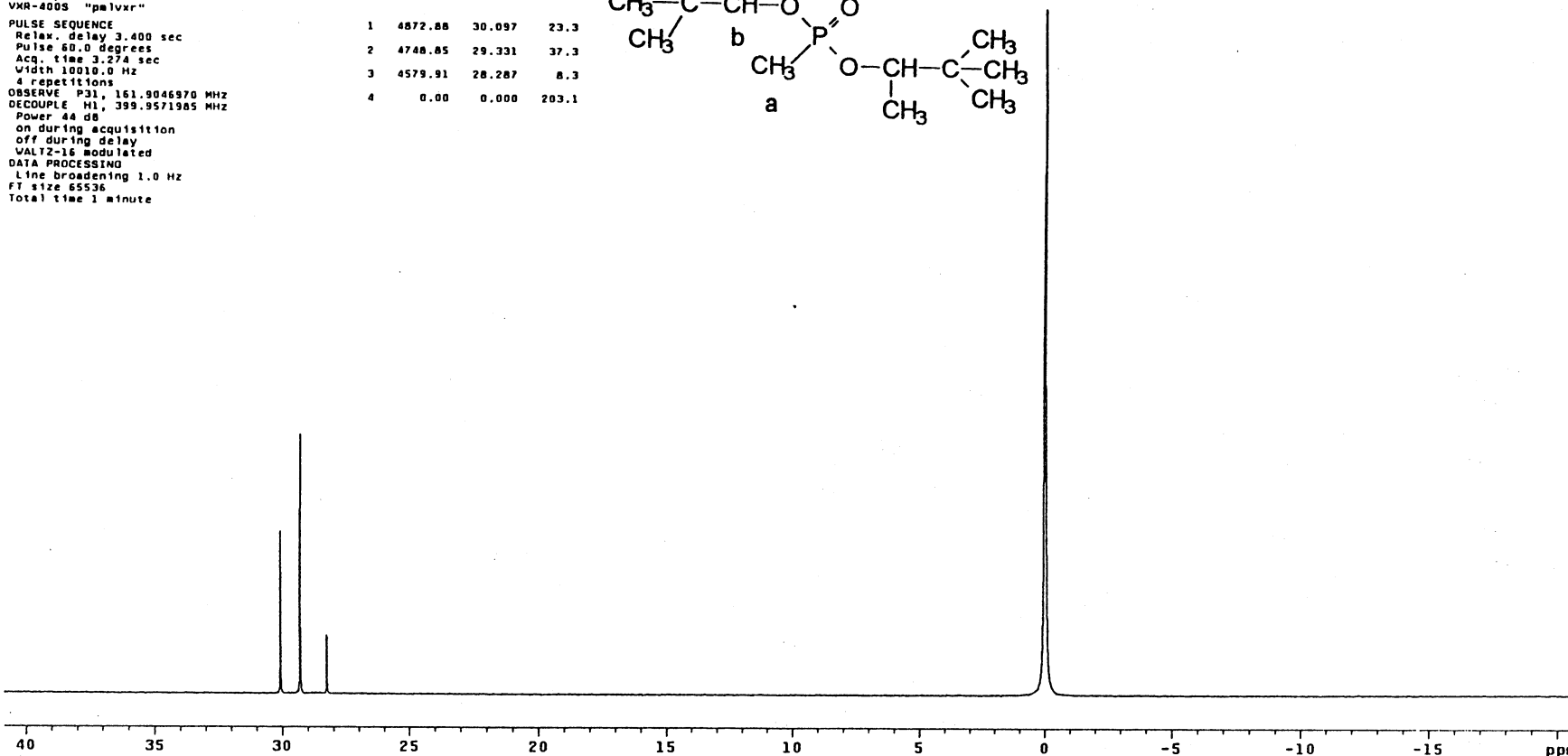
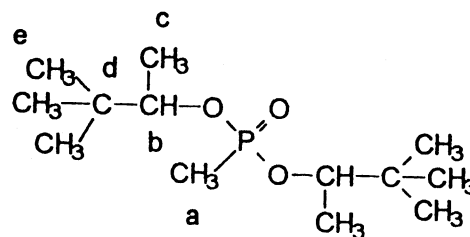
³¹P-NMR p1109b2(1H) + cap 85X H3PO4
 dipinecolylmethylphosphonate
 in ca 0.7ml CDCl₃
 214195126.006 jrn.342;133/200
 Solvent: CDCl₃
 Temp. 30.0 C / 303.1 K
 User: pm1
 File: p1109b2
 VXR-400S "pmlvvr"
 PULSE SEQUENCE
 Relax. delay 3.400 sec
 Pulse 60.0 degrees
 Acq. time 3.274 sec
 Width 10010.0 Hz
 4 repetitions
 OBSERVE P31, 161.9046970 MHz
 DECOUPLE H1, 399.9571985 MHz
 Power 44 dB
 on during acquisition
 off during delay
 WALTZ-16 modulated
 DATA PROCESSING
 Line broadening 1.0 Hz
 FT size 65536
 Total time 1 minute

SPECTRAL LINES for th-5.3

rfl= 3394.6 rfp= 0.0

H3PO4 external; res. 29.3ppm; 3.3Hz

nr	Hz	ppm	intensity
1	4872.88	30.097	23.3
2	4746.85	29.331	37.3
3	4579.91	28.287	8.3
4	0.00	0.000	203.1



Bis(1,2,2-trimethylpropyl) methylphosphonate
 CAS 7040-58-6

Nucleus : ³¹P{¹H}
 Frequency : 161.9 MHz
 Concentration : ca. 200 mg/0.7 ml CDCl₃
 Reference H₃PO₄ external. Res. : 3.3 Hz (29.3 ppm)
 Instrument : Varian VXR 400S

Temperature : 30 °C
 Spectral width : 10010.0 Hz
 Data point (FID) : 64 K
 Pulse angle : 10.4 μs (60°)
 Number of pulses : 4
 Repetition time : 6.7 s
 Line broadening : 1.0 Hz
 Data points (spec) : 64 K

three isomers
 P I: 29.3 ppm
 P II: 30.1 ppm
 P III: 28.3 ppm