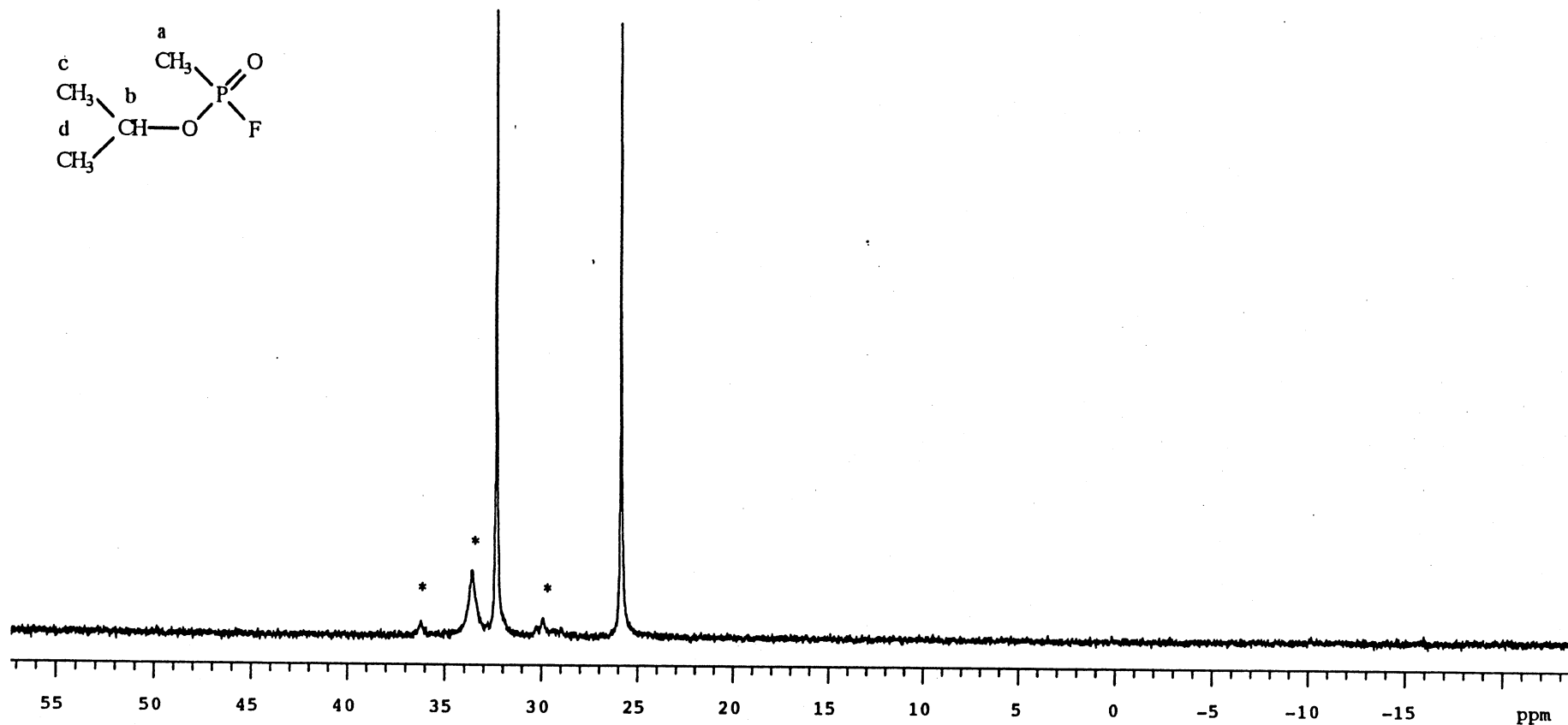
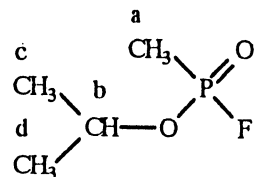


5-3-12

 $^{31}\text{P}\{^1\text{H}\}$ NMR

Isopropyl methylphosphonofluoridate (Sarin)
107-44-8



Solvent:	CDCl_3	Flip angle; Pulse width:	45 °; 4.6 μs	nuc.	δ [ppm]	J [Hz]
Concentration:	14.1 mg/1.1 ml	No. of scans; Rep. time:	64; 18.5 s	P	29.10	1046.3 (F)
Reference substance:	ext. $\text{P}(\text{OH})_4\text{ClO}_4$	Weighting; Line broad.:	exp.; 1.0 Hz			
Sample temperature:	29.5 °C	Spectral resolution:	13.5 Hz (P)			
Resonance frequency:	161.980 MHz	Instrument:	Bruker AMX-400			
Spectral width:	13157.9 Hz	Source reference:	930211-439			
Data points (FID; spec.):	64 k; 64 k					

$\delta(\text{P}(\text{OH})_4\text{ClO}_4) = 0.66$ vs. $\delta(\text{H}_3\text{PO}_4) = 0.00$

OPCW Code:5-3-12 (p1/11)