

1800
ED

C₄H₉OP

Acetyldimethylphosphine

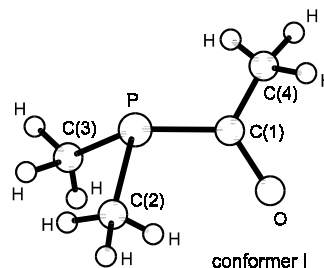
essentially C_s (conformer I)
C₁ (conformer II)
H₃C–C(O)–P(CH₃)₂

r_a	Å ^{a)}	θ_a	deg ^{a)}
P–C(average)	1.863(2)	C(1)–P–C	105.7(9)
C–C	1.536(9)	C(2)–P–C(3)	99.3(20)
C=O	1.219(4)	P–C=O	123.0(6)
C–H	1.094(6)	P–C–C	115.3(9)

Two conformers with different angle of rotation of the acetyl group about the P–C(1) bond, τ , are consistent with the experimental data; those with τ of 5.7(66)° (conformer I) and 78.8(120)° (conformer II) ($\tau = 0^\circ$ when C(2)–P–C(3) bisector is *syn* with respect to the C=O bond). Other parameters of the two conformers agree within uncertainties. Parameter values for conformer I are listed.

The nozzle temperature was 50...60 °C.

^{a)} Three times the estimated standard errors.



Khaikin, L.S., Andrutskaya, L.G., Grikina, O.E.,

Vilkov, L.V., El'natanov, Yu.I., Kostyanovskii, R.G.: J. Mol. Struct. **37** (1977) 237.