

1488
ED

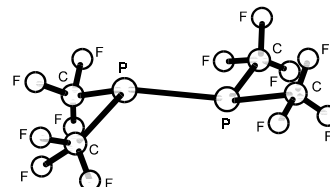
$\text{C}_4\text{F}_{12}\text{P}_2$

Tetrakis(trifluoromethyl)diphosphane

effectively C_{2h}
(excluding F atoms)

$(\text{F}_3\text{C})_2\text{P}-\text{P}(\text{CF}_3)_2$

r_g	\AA^a	θ^b	deg^a
P-P	2.182(16)	C-P-C	103.8(8)
P-C	1.914(4)	P-P-C	106.7(7)
C-F	1.337(2)	P-C-F	110.4(2)
		τ^c	32.9(20)
		ϕ^d	16.6(30)



The *trans* conformer was predominant. The presence of the *gauche* conformer could not be ruled out.

The nozzle temperature was not stated, probably room temperature.

^a) Twice the estimated standard errors including a systematic error.

^b) Unidentified, possibly θ_a .

^c) F-C-P-P torsional angle from the *anti* position. Viewing along CF_3 axes from C to P, the torsions were assumed to be clockwise for CF_3 groups bonded to one phosphorus and counterclockwise for groups bonded to the other.

^d) Root-mean-square torsional amplitude about the P-P bond.

Hodges, H.L., Su, L.S., Bartell, L.S.: Inorg. Chem. **14** (1975) 599.