

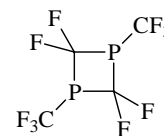
1485  
ED

$C_4F_{10}P_2$

**2,2,4,4-Tetrafluoro-1,3-bis(trifluoromethyl)-  
1,3-diphosphetane**

$C_s$

$r_a$	$\text{\AA}^a$	$\theta_a$	deg $^a$
C–F(average)	1.341(2)	C(1)–P–C(1')	77.6(8)
P–C(average)	1.898(3)	P–C(1)–P'	95.6(6)
P–C(1)	1.895(11)	C(1)–P–C(2) $^b$	101.7(11)
P–C(2)	1.905(21)	F–C(2)–F	107.7(6)
		F–C(1)–F	106.4(7)
		$\varphi^c$	35.4(12)
		$\alpha^d$	105.0(7)



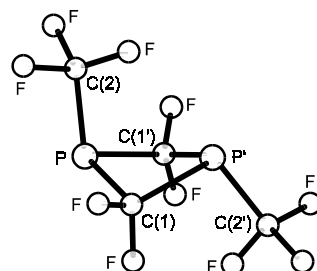
The  $CF_3$  groups are in axial and equatorial directions and both  $CF_3$  groups are staggered with respect to the ring bonds.  $C_{3v}$  symmetry for the  $CF_3$  groups and equal angles between the *exo* P–C bonds and the CPC plane of the ring were assumed. The measurements were made at room temperature.

$^a$ ) Twice the estimated standard errors including the scale error.

$^b$ ) Dependent parameter.

$^c$ ) Puckering angle between two CPC planes.

$^d$ ) Angle between the P–C(2) bond and the C(1)PC(1') plane.



Steger, B., Oberhammer, H., Grobe, J., Duc Le Van: Inorg. Chem. **25** (1986) 3177.