

1835  
ED

**C<sub>4</sub>H<sub>11</sub>P**

**Ethyldimethylphosphine**

C<sub>1</sub> (*gauche*)  
C<sub>s</sub> (*trans*)  
H<sub>3</sub>C-CH<sub>2</sub>-P(CH<sub>3</sub>)<sub>2</sub>

$r_a$	Å <sup>a)</sup>	$\theta_a$	deg <sup>a)</sup>
C-C	1.559(5)	C-C-P ( <i>gauche</i> )	112.3(35)
C-P	1.848(2)	C-C-P ( <i>trans</i> )	107.6(27)
C-H	1.097(3) <sup>b)</sup>	C(m)-P-C(m) <sup>c)</sup>	101.5(35)
		C(m)-P-C(e) <sup>c)</sup>	99.6(20)
		P-C-H	110.5(9)
		C-C-H	107.5(21)
		$\tau$ (C-P) <sup>d)</sup>	114(8)

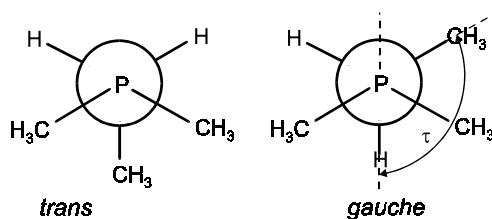
The CH<sub>3</sub> groups were assumed to have local C<sub>3v</sub> symmetry about the C-P or C-C bonds. Two distinct conformers, *gauche* (57(15)%) and *trans*, were identified. The nozzle temperature was 35 °C.

<sup>a)</sup> Estimated standard errors.

<sup>b)</sup> Not specified in the original data and is roughly estimated.

<sup>c)</sup> m: methyl, e: ethyl.

<sup>d)</sup> Torsional angle for the *gauche* conformer (see figure);  $\tau = 0^\circ$  for the *trans* conformer.



Durig, J.R., Sullivan, J.F., Cradock, S.: J. Mol. Struct. **145** (1986) 127.