

1058  
ED

**C<sub>3</sub>H<sub>2</sub>Cl<sub>4</sub>**

**(Z)-1,2,3,3-Tetrachloro-1-propene**

**C<sub>s</sub> (*syn*)**  
**C<sub>1</sub> (*gauche*)**  
**CHCl=CCl-CHCl<sub>2</sub>**

$r_g$	Å <sup>a)</sup>	$\theta_\alpha$	deg <sup>a)</sup>
C-H	1.023(38)	C-C=C	123.4(9)
C=C	1.333(9)	C(2)=C(1)-H	118 <sup>b)</sup>
C-C	1.492(11)	C(2)=C(1)-Cl	123.1(23)
C-Cl (mean)	1.746(3)	C(3)-C(2)-Cl	113.4(18)
$\Delta(\text{C-Cl})$ <sup>c)</sup>	0.062(7)	C(2)-C(3)-Cl	114.2(12)
C(1,2)-Cl <sup>c)</sup>	1.715(4)	Cl-C(3)-Cl	110.4(6)
C(3)-Cl <sup>c)</sup>	1.777(4)	C(2)-C(3)-H	109 <sup>b)</sup>
		$\tau_1$ <sup>d)</sup>	0 <sup>b)</sup>
		$\tau_2$ <sup>d)</sup>	133(4)

41(12)% of the molecules have a *syn* conformation, 59(12)% have a *gauche* conformation.  
The nozzle was at 333 K.

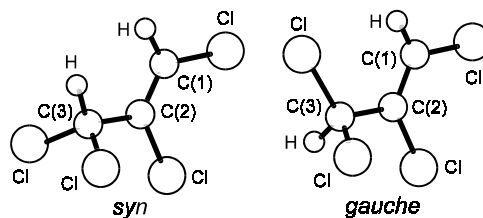
<sup>a)</sup> Twice the estimated standard errors including a systematic error.

<sup>b)</sup> Assumed.

<sup>c)</sup> (C(3)-Cl) - (C(1,2)-Cl).

<sup>d)</sup>  $\tau_1$  and  $\tau_2$  are the H-C(3)-C(2)=C(1) torsion angles in the *syn* and *gauche* conformers, respectively.

<sup>e)</sup> Dependent parameter.



Kaleem, H., Lund, A., Schei, S.H., de Meijere, A., Hagen, K., Stølevik, R.: J. Phys. Chem. **96** (1992) 8357.