

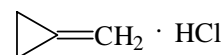
1687  
MW

**C<sub>4</sub>H<sub>7</sub>Cl**

**Methylenecyclopropane – hydrogen chloride (1/1)**  
(weakly bound complex)

**C<sub>s</sub>**  
(effective symmetry class)

$r_0$	Å <sup>a)</sup>	$\theta_0$	deg <sup>a)</sup>
$R_{\text{cm}}$	3.5454(10)	$\gamma$	162.5(1)
$r$	2.323(8)	$\phi$ <sup>b)</sup>	90.8(5)
$d(\text{Cl}\dots\text{CC})$ <sup>c)</sup>	3.569(5)	$\alpha$	90 <sup>d)</sup>
$\delta(\text{D-H})$ <sup>e)</sup>	-0.0025	$\theta_{az}$ <sup>f)</sup>	29.55 <sup>d)</sup>



HCl is attached to the C=C bond of methylenecyclopropane in a T-type configuration and lies in or very near the plane that bisects the cyclopropyl ring. The HCl axis is bent towards the three membered ring.

<sup>a)</sup> Not all uncertainties were estimated in the original paper.

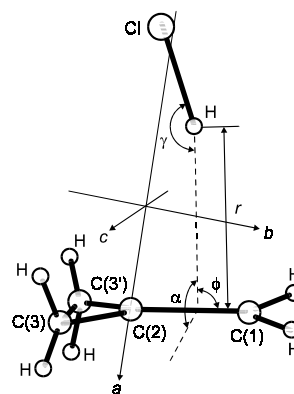
<sup>b)</sup> The angle included by C(1), the midpoint of C=C and the H atom of HCl.

<sup>c)</sup> The distance from Cl atom to the center of C(1)=C(2) bond.

<sup>d)</sup> Fixed.

<sup>e)</sup> The difference in  $r$  between the DCl and the HCl species of the dimer.

<sup>f)</sup> Angle between the  $a$  axis and H–Cl.



Kisiel, Z., Fowler, P.W., Legon, A.C.: J. Chem. Phys. **101** (1994) 4635.