

1580  
MW

**C<sub>4</sub>H<sub>5</sub>Cl**

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

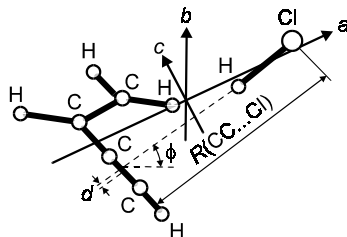
**C<sub>1</sub>**  
(effective symmetry class)  
HC≡C–CH=CH<sub>2</sub> · HCl

$$r_0(\text{CC}\cdots\text{Cl}) = 3.629(1) \text{ \AA}$$

$$\phi^{\text{a)}} = 33.6(3)^\circ$$

$$d^{\text{a)}} = 0.041(3) \text{ \AA}$$

<sup>a)</sup> For definition see figure.



$\phi$  is the cylindrical rotation angle about the C≡C bond relative to the plane of vinyl - acetylene, and  $d$  is the displacement of the H-bond axis relative to the center of the C≡C bond (here exaggerated for clarity).

Kisiel, Z., Fowler, P.W., Legon, A.C., Devanne, D., Dixneuf, P.: J. Chem. Phys. **93** (1990) 6249.