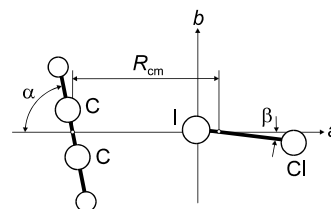


210
MW C_2H_2ClI **Acetylene – iodine chloride (1/1)**Ethyne – iodine chloride (1/1)
(weakly bound complex) C_{2v} (effective symmetry class)
(large-amplitude motion) $HC\equiv CH \cdot ICl$

r_0	\AA	θ_0	deg
*...I ^{a)}	3.1150(14)	α_{av} ^{b)}	75(2)
R_{cm}	3.6169(14)	β_{av} ^{b)}	4.5(5)

The equilibrium geometry of the complex has a planar, T-shape of C_{2v} symmetry in which ethyne acts as the bar of the T. The intermolecular stretching force constant is 12.12 N m^{-1} .



^{a)} * denotes the center of the π bond of ethyne.

^{b)} Average angle. See figure for the definition.

Davey, J.B., Legon, A.C.: Phys. Chem. Chem. Phys. **1** (1999) 3721.