

71
MW

CHCIIN
Hydrogen cyanide – iodine chloride (1/1)

(weakly bound complex)

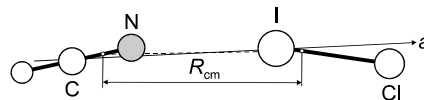
 $C_{\infty v}$

(effective symmetry class)

(large-amplitude motion)

 $H-C\equiv N \cdot ICl$

Isotopic species	$r_0(R_{cm})$ [Å]	$r_0(N...I)$ [Å]
$HC^{14}N \cdot I^{35}Cl$	3.949(1)	2.850(1)
$DC^{14}N \cdot I^{35}Cl$	4.006(1)	2.849(1)
$HC^{15}N \cdot I^{35}Cl$	3.928(1)	2.850(1)
$HC^{15}N \cdot I^{37}Cl$	3.950(1)	2.851(1)



The complex is linear, and the order of the nuclei was found to be HCN · ICl.

 The intermolecular stretching force constant is 14.5 N m^{-1} .

 Herrebout, W.A., Legon, A.C., Wacławik, E.R.: Phys. Chem. Chem. Phys. **1** (1999) 4961.