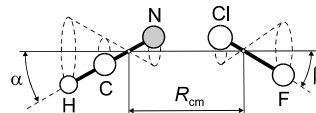


69
MW

CHCIFN

Hydrogen cyanide – chlorine fluoride (1/1)
(weakly bound complex) $C_{\infty v}$
(effective symmetry class)
(large-amplitude motion)
 $H-C\equiv N \cdot ClF$

Isotopic species	$r_0(R_{cm})$ [Å] ^{a)}	$r_0(N\cdots Cl)$ [Å] ^{a)}	k_g ^{b)} [N m ⁻¹]
$HC^{14}N \cdot ^{35}ClF$	3.811(3)	2.639(3)	12.25
$HC^{14}N \cdot ^{37}ClF$	3.790(3)	2.639(3)	12.33
$HC^{15}N \cdot ^{35}ClF$	3.789(3)	2.639(3)	12.36
$HC^{15}N \cdot ^{37}ClF$	3.768(3)	2.639(3)	12.38
$DC^{14}N \cdot ^{35}ClF$	3.868(3)	2.638(3)	12.03

^{a)} Obtained by assuming $\alpha_{av} = 10(3)^\circ$ and $\beta_{av} = 10(3)^\circ$.^{b)} Intermolecular stretching force constant.Hinds, K., Legon, A.C., Holloway, J.H.: Mol. Phys. **88** (1996) 673.