

Structure Data of Free Polyatomic Molecules

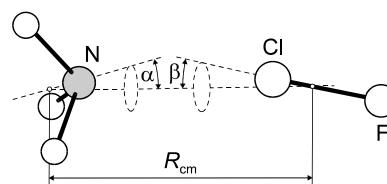
123	ClF₄N	Chlorine fluoride – trifluoroamine (1/1)	C_{3v}
MW		Chlorine fluoride – nitrogen trifluoride (1/1) (weakly bound complex)	(effective symmetry class) (large-amplitude motion) ClF · NF ₃

r_0	\AA		θ_0	deg	
	F ₃ ¹⁴ N · ³⁵ ClF	F ₃ ¹⁴ N · ³⁷ ClF		F ₃ ¹⁴ N · ³⁵ ClF	F ₃ ¹⁴ N · ³⁷ ClF
R_{cm}	3.8942(5)	3.8729(5)	α_{av} ^{a) b)}	6.0(1)	6.0(1)
N...Cl	2.8365(5)	2.8357(5)	β_{av} ^{a)}	6.85(1)	6.85(1)

The intermolecular stretching force constant is 5.76 N m⁻¹.

^{a)} See figure for the definition. Average value.

^{b)} Uncertainty was not estimated in the original paper.



Waclawik, E.R., Legon, A.C., Holloway, J.H.: Chem. Phys. Lett. **295** (1998) 289.