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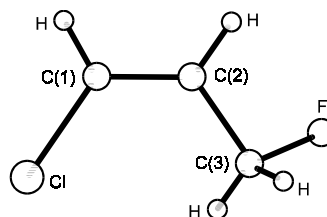
C₃H₄ClF

(Z)-1-Chloro-3-fluoro-1-propene

C₁
ClHC=CH-CFH₂

r_a	Å ^{a)}	θ_α	deg ^{a)}
C(1)=C(2)	1.347(14)	C=C-C	125.4(8)
C(2)-C(3)	1.493(14)	C=C-Cl	122.7(6)
C-Cl	1.737(5)	C-C-F	111.2(8)
C-F	1.388(9)	C=C-H	122.8 ^{b)}
C-H	1.110(12)	C(2)-C(3)-H	111.2 ^{b)}
		H-C-H	110.0 ^{b)}
		τ_0 ^{c)}	143(10)

Only one conformer (*gauche*) was observed, but small amounts (<10%) of a second form could not be excluded. The height of the C(2)-C(3) torsional potential at the *anti* position: $V_0 = 1.0(10)$ kJ mol⁻¹. The nozzle temperature was 20 °C.



^{a)} Twice the estimated standard errors including a systematic error.

^{b)} Assumed.

^{c)} Minimum energy torsional angle C=C-C-F; $\tau = 0^\circ$ when C-F bond is eclipsed with respect to the C=C bond.

Schei, S.H., Hagen, K.: J. Mol. Struct. **116** (1984) 249.