

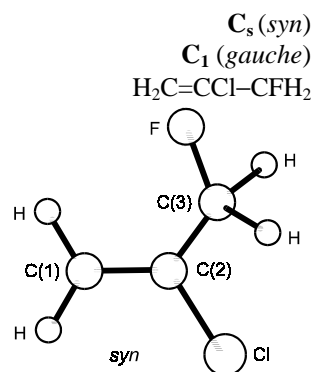
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C₃H₄ClF

2-Chloro-3-fluoro-1-propene

r_g	Å ^{a)}
C(1)–H	1.098(6)
C(3)–H	1.105(71)
C=C	1.338(6)
C–C	1.505(5)
C–Cl	1.743(3)
C–F	1.378(4)

θ_α	deg ^{a)}
C–C–F	111.2(8)
C(1)=C(2)–Cl	123.0(7)
C=C–C	125.6(6)
C(2)=C(1)–H	121.0 ^{b)}
C(2)–C(3)–H	109.5 ^{b)}
H–C(3)–H	108.0 ^{b)}
τ (<i>gauche</i>) ^{c)}	111.5(36)



The molecule exists as a mixture of *syn* (75.5(54)%) and *gauche* conformers.
The nozzle temperature was –18 °C.

^{a)} Estimated standard errors including a systematic error.

^{b)} Assumed.

^{c)} The torsional angle C=C–C–F ; $\tau = 0^\circ$ for the *syn* conformer when C–F bond is eclipsed with respect to the C=C bond.

Samdal, S., Seip, H.M., Torgrimsen, T.: J. Mol. Struct. **42** (1977) 153.