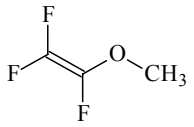
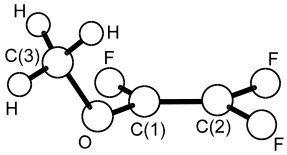
355 **$C_3H_3F_3O$** **Trifluoro(methoxy)ethene** **C_1**
ED, *ab initio* calculations
Methyl trifluorovinyl ether



r_a	Å [a])	θ_a	deg [a])
C–H	1.10 [b])	C(2)=C(1)–O	118.2(5)
C(1)=C(2)	1.310 [c])	C=C–F (mean)	123.3(6)
C–F (mean)	1.335(6)	C(2)=C(1)–F [d])	120.6(9)
C(1)–F [e])	1.348(9)	C(1)=C(2)–F [d])	124.6(7)
C(2)–F [e])	1.328(7)	C–O–C	109.3(18)
O–C (mean)	1.381(7)	H–C–H	110.5 [f])
O–C(1)	1.326(13)	tilt(CH_3) [g])	3.0 [f])
O–C(3)	1.436(13)	τ [h])	111.1(35)

Methyl group was assumed to have local C_{3v} symmetry and staggered conformation with respect to the O–C(1) bond.
The nozzle was at room temperature.



[a]) Three times the estimated standard errors including a systematic error.
[b]) Not refined.
[c]) Assumed at the experimental value for the $F_2C=CF_2$ molecule.
[d]) Difference between the C=C–F bond angles was assumed at the mean value from HF/3-21G and MP2/6-31G* calculations.
[e]) Difference between the C–F bond lengths was assumed at the mean value from HF/3-21G and MP2/6-31G* calculations.
[f]) Constrained to the mean value from HF/3-21G and MP2/6-31G* calculations.
[g]) Tilt angle between the C_3 axis of the CH_3 group and the O–C bond direction away from the O–C(1) bond.
[h]) C=C–O–C torsional angle from the *syn* position.

Leibold, C., Reinemann, S., Minkwitz, R., Resnik, P.R., Oberhammer, H.: J. Org. Chem. **62** (1997) 6160.