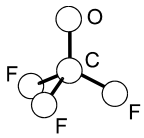
46 **CF_3O** **Trifluoromethoxy** **C_{3v}**

LIF $F_3C{-}O\cdot$

State	$\tilde{X}\,^2E_{3/2}$	$\tilde{A}\,^2A_1$
Energy [eV]	0.00	3.537
r_0(C−O) [Å]	1.361 [a])	1.384 [a])
r_0(C−F) [Å]	1.327 [b])	1.327 [b])
θ_0(F−C−F) [deg]	109.3 [a])	108.8 [a])



CF_3O molecules were produced by passing CF_3OF diluted with helium through a high pressure pulsed valve, after which it was photolyzed by a 193nm excimer laser. The $\tilde{A}\,^2A_1 - \tilde{X}\,^2E_{3/2}$ transition was studied by laser-induced fluorescence excited by a pulse-amplified frequency-doubled CW dye laser. The molecular parameters were obtained from the *A*- and *B*-rotational constants, by assuming the value for r_0(C−F) from related molecules.

[a]) Error limits were not given in the original paper.
[b]) Assumed.

Yang, M.-C., Williamson, J.M., Miller, T.A.: J. Mol. Spectrosc. **186** (1997) 1.