

174	FHO₃S	Hydrogen fluoride – sulfur trioxide (1/1)	C_{3v}
MW		(weakly bound complex)	(effective symmetry class)
			(large-amplitude motion)
			HF · SO ₃

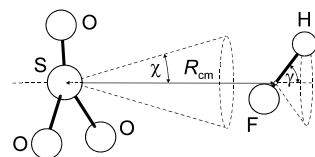
r_0	Å	θ_0	deg
S...F	2.655(10)	$\gamma^a)$	47.7(10) ^{b)}
		$\chi^a)$	15.6 ^{c)}

The hydrogen atom approaches the SO₃ on or near its C₃ axis, and the vibrationally averaged structure is that of a symmetric top. The out-of-plane distortion of the SO₃ is negligible. The hydrogen points away from the SO₃.

^{a)} See figure for the definition.

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

^{c)} Assumed. Estimated uncertainty is (+3.3/−4.8).



Canagaratna, M., Phillips, J.A., Goodfriend, H., Fiacco, D.L., Ott, M.E., Harms, B., Leopold, K.R.: J. Mol. Spectrosc. **192** (1998) 338.