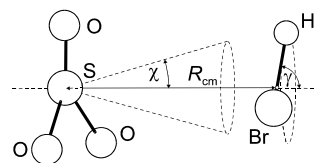


91 MW	<b>BrHO<sub>3</sub>S</b>	<b>Hydrogen bromide – sulfur trioxide (1/1)</b>		<b>C<sub>3v</sub></b>
		(weakly bound complex)	(effective symmetry class)	(large-amplitude motion)
				HB <sub>r</sub> · SO <sub>3</sub>
	$r_0$	$\text{\AA}$	$\theta_0$	deg
	S...Br	3.2339(85)	$\gamma^{\text{a}}$	73.0(5) or 107.0(5)
			$\chi^{\text{b}}$	15.6( $^{+3.3}_{-4.8}$ )

The bromine atom approaches the SO<sub>3</sub> on or near its C<sub>3</sub> axis, and the vibrationally averaged structure is that of a symmetric top. The out-of-plane distortion of SO<sub>3</sub> is negligible. The HBr unit is nearly parallel to the SO<sub>3</sub> plane.

<sup>a</sup>) See figure for the definition. Uncertainty was not estimated in the original paper. The direction of the tilt, toward or away from the SO<sub>3</sub>, is not determined.

<sup>b</sup>) See figure for the definition.



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