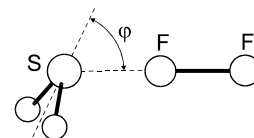


<b>181</b> MW	<b>F<sub>2</sub>H<sub>2</sub>S</b>	<b>Diffluorine – hydrogen sulfide (1/1)</b> (weakly bound complex)	<b>C<sub>s</sub></b> (effective symmetry class) (large-amplitude motion) F <sub>2</sub> · H <sub>2</sub> S
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$r_0$	Å	$\theta_0$	deg
S...F	3.20(1)	$\varphi^a$	113(5)

Rotational spectra in the ground state and a low-lying vibrationally excited state were observed. The vibrational satellite is probably associated with internal rotation of H<sub>2</sub>S about its local C<sub>2</sub> axis. The complex is weakly bound (intermolecular stretching force constant is 2.36 N m<sup>-1</sup>) and has a pyramidal configuration at S.



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

Cotti, G., Evans, C.M., Holloway, J.H., Legon, A.C.: Chem. Phys. Lett. **264** (1997) 513.