

Structure Data of Free Polyatomic Molecules

187	F₂Si	Silicon difluoride	C_{2v}
LIF		Difluorosilylene	SiF ₂

State	$\tilde{a} \ ^3B_1$
Energy [eV]	3.263
$r_0(\text{Si-F})$ [Å]	1.586(1)
$\theta_0(\text{F-Si-F})$ [deg]	113.1(1)

SiF₂ radicals were produced by the jet pyrolysis of Si₂F₆. The $\tilde{a} \ ^3B_1 - \tilde{X} \ ^1A_1$ transition was excited by an excimer-pumped dye laser. The molecular structure was deduced from the rotational constants.

Karolczak, J., Judge, R.H., Clouthier, D.J.: J. Am. Chem. Soc. **117** (1995) 9523.

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