

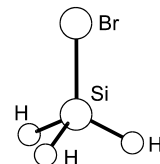
Structure Data of Free Polyatomic Molecules

 95
IR

BrH₃Si
Bromosilane
Silyl bromide

C_{3v}
SiH₃Br

r_0	Å	θ_0	deg
Si-Br	2.2123(1)	H-Si-H	110.75(2)
Si-H	1.4743(2)	H-Si-Br	108.16(2)
r_s	Å	θ_s	deg
Si-Br	2.210(25)	H-Si-H	110.72(45)
Si-H	1.471(31)	H-Si-Br	108.19(45)
r_m^p ^{a)}	Å	θ_m^p ^{a)}	deg
Si-Br	2.2076(1)	H-Si-H	110.65(3)
Si-H	1.4703(4)	H-Si-Br	108.27(3)
r_e	Å ^{b)}	θ_e ^{b)}	deg
Si-Br	2.2070(5)	H-Si-H	110.54(15)
Si-H	1.4696(20)	H-Si-Br	108.38(15)


^{a)} With Laurie correction: $r(\text{Si-D}) - r(\text{Si-H}) = 0.0028 \text{ Å}$.

^{b)} Uncertainties were not estimated in the original paper.

 Demaison, J., Cosléou, J., Bürger, H., Mkadmi, E.B.: J. Mol. Spectrosc. **185** (1997) 384.

[II/25A\(2, 178\)](#)