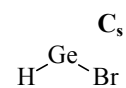


90
LIF

BrGeH

Bromogermylene



State	$\tilde{X}^1A'^a)$	$\tilde{A}^1A''^a)$
Energy [eV]	0.00	2.562
$r_0(\text{H-Ge}) [\text{\AA}]$	1.598(6)	1.615(1)
$r_0(\text{Ge-Br}) [\text{\AA}]$	2.329(12)	2.308(1) ^{b)}
$\theta_0(\text{H-Ge-Br}) [\text{deg}]$	93.9 ^{c)}	116.3 ^{c)}

HGeBr and DGeBr were produced in a pulsed-jet discharge through helium seeded with H_3GeBr and D_3GeBr . The $\tilde{A}^1A'' - \tilde{X}^1A'$ spectra were studied by laser-induced fluorescence. Rotational analyses of the 0-0 bands yielded rotational constants from which the structural parameters for the zeroth levels were obtained.

^{a)} This work [1].

^{b)} From [2].

^{c)} Assumed at the value from MRSDCI calculations [3].

[1] Harper, W.W., Clouthier, D.J.: J. Chem. Phys. **108** (1998) 416.

[2] Ito, H., Hirota, E., Kuchitsu, K.: Chem. Phys. Lett. **175** (1990) 384.

[3] Benavides-Garcia, M., Balasubramanian, K.: J. Chem. Phys. **97** (1992) 7537.

Replaces [II/25A\(2, 169\)](#)