

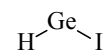
208  
LIF

GeHI

Iodogermylene

 $C_s$ 

| State                           | $\tilde{X}^1A'$ <sup>a)</sup> | $\tilde{A}^1A''$ <sup>a)</sup> |
|---------------------------------|-------------------------------|--------------------------------|
| Energy [eV]                     | 0.00                          | 2.347                          |
| $r_0(\text{H-Ge})$ [Å]          | 1.593(15)                     | 1.618(15)                      |
| $r_0(\text{Ge-I})$ [Å]          | 2.525(10)                     | 2.515(10)                      |
| $\theta_0(\text{H-Ge-I})$ [deg] | 93.5 <sup>b)</sup>            | 116.2 <sup>b)</sup>            |



HGeI and DGeI were produced in a pulsed-jet discharge through helium seeded with  $\text{H}_3\text{GeI}$  and  $\text{D}_3\text{GeI}$ . 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.

<sup>a)</sup> This work [1].

<sup>b)</sup> Assumed at the value from *ab initio* calculations [2].

[1] Harper, W.W., Klusek, C.M., Clouthier, D.J.: J. Chem. Phys. **109** (1998) 9300.

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