

## Structure Data of Free Polyatomic Molecules

<b>106</b>	<b>Br<sub>3</sub>Ga</b>	<b>Gallium tribromide</b>	<b>D<sub>3h</sub></b>
ED		Gallium(III) bromide	GaBr <sub>3</sub>
	$T = 357 \text{ K}$		
	$\frac{r_g}{\text{Å}^a)}$	$\frac{\theta_\alpha}{\text{deg}^a)}$	
	Ga–Br 2.239(7)	Br–Ga–Br 120.2(12)	
	$T = 638 \text{ K}$		
	$\frac{r_g}{\text{Å}^a)}$	$\frac{\theta_\alpha}{\text{deg}^a)}$	
	Ga–Br 2.249(5)	Br–Ga–Br 120.0(1)	

According to combined experiments of ED and quadrupole mass spectrometry, only the monomeric form was present at the nozzle temperature of 638 K, whereas the monomers and dimers were present in the ratio of 42.1:57.9 at 357 K. The equilibrium bond length,  $r_e(\text{Ga–Br})$ , was estimated to be 2.225(8) Å taking into account a Morse-type correction.

<sup>a</sup>) Estimated total error.

Réffy, B., Kolonits, M., Hargittai, M.: J. Mol. Struct. **445** (1998) 139.