

Structure Data of Free Polyatomic Molecules

113 ED, IR	CeI₃	Cerium triiodide Cerium(III) iodide	probably D_{3h} (or quasiplanar) CeI ₃
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r_g	Å ^{a)}	θ_a	deg ^{a)}
Ce–I	2.948(9)	I–Ce–I	112.8(10) ^{b)}

According to thermodynamic calculations, the molecule exists in the monomeric and dimeric ($\approx 4.5\%$) forms.

The nozzle temperature was 1274 K.

^{a)} Unidentified, possibly estimated total error.

^{b)} Deviation of the I–Ce–I bond angle from 120° (planar configuration) was ascribed to the shrinkage effect.

Molnár, J., Konings, R.J.M., Kolonits, M., Hargittai, M.: J. Mol. Struct. **375** (1996) 223.