

Li[IO<sub>3</sub>]*hP*10(182) *P*6<sub>3</sub>22 – gcb**LiIO<sub>3</sub> α** [2], Strukturbericht notation E2<sub>3</sub>Structural features: Li atoms and :IO<sub>3</sub> ψ-tetrahedra in a NiAs-type arrangement.

Kutolin S.A. et al. (1975) [1]

LiIO<sub>3</sub> $a = 0.5484$ ,  $c = 0.5177$  nm,  $c/a = 0.944$ ,  $V = 0.1348$  nm<sup>3</sup>,  $Z = 2$ 

site	Wyck.	sym.	<i>x</i>	<i>y</i>	<i>z</i>	occ.	atomic environment
O1	6g	.2.	0.33	0	0		tetrahedron Li <sub>2</sub> I <sub>2</sub>
I2	2c	3.2	$\frac{1}{3}$	$\frac{2}{3}$	$\frac{1}{4}$		octahedron O <sub>6</sub>
Li3	2b	3.2	0	0	$\frac{1}{4}$		octahedron O <sub>6</sub>

Transformation from published data: -*x*, -*y*, -*z*

Experimental: powder, film, X-rays

Remarks: Phase stable at  $T < 533$  K. The structure was later redetermined in space group (173) *P*6<sub>3</sub> [3].

References: [1] Kutolin S.A., Belova L.F., Samoilova R.N., Kotenko O.M., Dokuchaeva I.M., Ivanova N.M. (1975), Inorg. Mater. 11, 739-742 (Izv. Akad. Nauk SSSR, Neorg. Mater. 11, 862-865). [2] Zachariasen W.H., Barta F.A. (1931), Phys. Rev. 37, 1626-1630. [3] De Boer J.L., Van Bolhuis F., Olthof Hazekamp R., Vos A. (1966), Acta Crystallogr. 21, 841-843.