$Li(Li_{0.2}Zn_{0.2}Sn_{0.6})_3ZnSnO_8$	*hP*28	(186) $P6_3mc$ – $c^3b^3a^2$

$Li_{1.6}Zn_{1.6}Sn_{2.8}O_8$ [1]
Structural features: Close-packed O layers in hc stacking; Sn and (Sn,Li,Zn) in octahedral, Li and Zn in tetrahedral voids.

Choisnet J., Raveau B. (1979) [1]
$Li_{1.60}O_8Sn_{2.80}Zn_{1.60}$
a = 0.6067, c = 0.988 nm, c/a = 1.628, V = 0.3149 nm^3, Z = 2

site	Wyck.	sym.	*x*	*y*	*z*	occ.	atomic environment
M1	6*c*	.*m*.	0.169	0.831	0.368		octahedron O_6
O2	6*c*	.*m*.	0.522	0.478	0.025		tetrahedron Sn_3Zn
O3	6*c*	.*m*.	0.839	0.161	0.265		tetrahedron $LiSn_3$
Zn4	2*b*	3*m*.	$^1/_3$	$^2/_3$	0.064		tetrahedron O_4
O5	2*b*	3*m*.	$^1/_3$	$^2/_3$	0.275		tetrahedron Sn_3Zn
Sn6	2*b*	3*m*.	$^1/_3$	$^2/_3$	0.644		octahedron O_6
O7	2*a*	3*m*.	0	0	0.0		tetrahedron $LiSn_3$
Li8	2*a*	3*m*.	0	0	0.188		tetrahedron O_4

M1 = 0.6Sn + 0.2Li + 0.2Zn
Transformation from published data: origin shift 0 0 0.853
Experimental: powder, diffractometer, X-rays, R_B = 0.047

References: [1] Choisnet J., Raveau B. (1979), Mater. Res. Bull. 14, 1381-1389.