

Spodumene, $\text{LiAlSi}_2\text{O}_6$

Spodumene

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American Mineralogist 58 (1973) 594-618

High-temperature crystal chemistry of acmite, diopside, hedenbergite, jadeite, spodumene, and ureyite

9.463 8.392 5.218 90 110.15 90 C2/c

atom	x	y	z	Wyckoff
Si	0.2941	0.0935	0.2560	8f
Al	0	0.9066	0.25	4e
Li	0	0.2752	0.25	4e
O1	0.1099	0.0823	0.1402	8f
O2	0.3646	0.2673	0.3009	8f
O3	0.3565	0.9871	0.0578	8f

$(4 \times 8f) + (2 \times 4e)$

Raman Active Modes

WP	A_g	A_u	B_g	B_u
8f	3	.	3	.
4e	1	.	2	.

Total number of modes:

$$14A_g + 16B_g = 30$$