

## Strontium Lanthanum Aluminate (LaSrAlO<sub>4</sub>)

The strontium lanthanum aluminate crystal has no twins and phase transitions from the melting point to the low temperature. It has the same structure as the high-temperature superconductor YBCO. Compared with other substrates, the<001>plane has a moderate lattice mismatch with YBCO<001>. (2.5~3.5%). At the same time, the thermal expansion coefficient of this crystal is lower than that of other perovskite crystals, which can deposit films at lower temperatures to improve lattice mismatch and reduce stress.



### PARAMETERS

Crystal Structure	Tetragonal
Growth Method	Czochralski
Lattice Constant	a=3.756Å c=12.63 Å
Melting Point	1650°C
Density	5.92 (g/cm <sup>3</sup> )
Mohs Hardness	6-6.5 (mohs)
Dielectric Coefficient	ε=16.8
Dimension	10x3mm, 10x5mm, 10x10mm, 15x15mm, 20x15mm, 20x20mm Φ15,Φ20, Φ1", Φ2",Φ2.6"
Thickness	0.5mm, 1.0mm
Polishing	One side or two sides
Orientation	<001>
Crystal Plane Orientation Accuracy	±0.5°
Edge Orientation Accuracy	2° (Special requirements can reach within 1°)
Bevel Wafer	According to specific requirements, wafers with edge-oriented crystal planes inclined at a specific angle (inclination angle 1°-45°) can be processed.
Surface Roughness	Ra≤5Å (5×5μm)
Package	Class 100 clean bag, Class 1000 super clean room