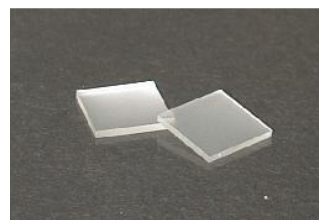


Strontium Titanate Substrates

Strontium Titanium Oxide (SrTiO₃) Substrates!

- ✚ Strontium Titanate single crystal substrates
- ✚ Epi-ready
- ✚ Excellent quality, free of any defect
- ✚ Surface finish $\leq 5\text{-}7\text{\AA}$, epi-side



List of various SrTiO₃ substrates available

<100>			
Size	Polish	Size	Polish
10 x 10 x 0.5mm	One side	10 x 10 x 1.0mm	One side
10 x 10 x 0.5mm	Both sides	10 x 10 x 1.0mm	Both sides
0.5" x 0.5" x 0.5mm	One side	5 x 5 x 0.5mm	One side
0.5" x 0.5" x 0.5mm	Both sides	5 x 5 x 0.5mm	Both sides
1" dia x 0.5mm	One side	20mm x 20mm x 0.5mm	One side
1" dia x 0.5mm	Both sides	20mm x 20mm x 0.5mm	Both sides
<110>		<111>	
5 x 5 x 0.5mm	One side	5 x 5 x 0.5mm	One side
5 x 5 x 0.5mm	Both sides	5 x 5 x 0.5mm	Both sides
10 x 10 x 0.5mm	One side	10 x 10 x 0.5mm	One side
10 x 10 x 0.5mm	Both sides	10 x 10 x 0.5mm	Both sides
¼" x ¼" x 0.5mm	One side	¼" x ¼" x 0.5mm	One side

Typical Properties	
Growth Method	Flame Fusion (Vernuil) Method
Crystal Structure (Lattice Constant)	Cubic (a = 3.905 Å)
Melting Point	2080°C
Density	5.175 gm/cm ³
Hardness	6-6.5 Mohs
Dielectric Constant	~300
Loss Tangent @ 10GHz	~5x10 ⁻⁴ @ 300K, ~3 x10 ⁻⁴ @77K
Coefficient of Thermal Expansion	10.4 x 10 ⁻⁶ /°C
Optical Refractive Index	2.380 @ 656nm, 2.409 @ 589nm , 2.488 @ 486nm
Chemical Stability	Insoluble in water, Resistant to most solvents



VIN KAROLA INSTRUMENTS

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