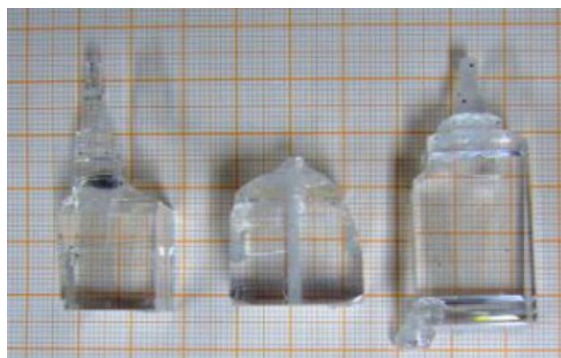


## Potassium Tantalate (KTaO<sub>3</sub>)

Potassium tantalate (KTaO<sub>3</sub>, KT for short) single crystal has a stable cubic structure and can be used to make laser modulators, digital deflectors and semiconductor devices. Because the crystal has no phase change in the temperature range from absolute zero to its melting point (1645K), and its unit cell parameters match very well with yttrium-barium-copper-oxygen superconductors, it is promising to be used as a substrate material for superconductor films.



### PARAMETERS

Molecular formula	KTaO <sub>3</sub> (KT)
Space Group	m3m
Lattice Constant	3.984 Å
Melting Point	1352.2°C
Density	7.025 (g/cm <sup>3</sup> )
Mohs Hardness	6 (mohs)
Growth Method	Czochralski
Refractive Index	2.226@633nm, 2.152@1539nm
Thermal Expansion	4.027×10 <sup>-6</sup> /K
Specific Heat (room temperature)	0.378(J/gK)
Transmission Wavelength	380~4000nm
Orientation	<100>;<110>;<111>
Dimension	20x20x0.5mm;10x10x0.5mm,5x5x0.5mm According to customer needs, substrates with special orientation and size can be customized.
Polishing	One side or two sides, Ra< 5 Å