



KT Potassium Tantalate :

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KT Potassium Tantalate (KTaO<sub>3</sub>) Single crystal has a stable cubic structure, and can be used to make laser modulator, digital deflector and semiconductor devices. Due to the absence of phase transition in the temperature range from absolute zero to its melting point (1645K), and the good matching of its cell parameters with yttrium barium copper oxide superconductors, this crystal has the potential to be used as a substrate material for superconducting thin films

Product Parameter:

Molecular formula	KTaO <sub>3</sub> (KT)
Point group	m3m
Cell parameters	0.3984nm
Melting point	1352.2°C
Density	7.025 g/cm <sup>3</sup>
Mohs hardness	6
Growing directions	Czochralski method
Refractive index	2.226@633nm, 2.152@1539nm
Thermal expansion coefficient due to	4.027*10 <sup>-6</sup> /K
Specific heat (room temperature JK-1g-1)	0.378
Transparent band (nm)	380~4000
Conventional crystal orientation	<100>;<110>;<111>
Standard size	20x20x0.5mm;10x10x0.5mm,5x5x0.5mm, or processed according
Polishing	Single throw, double throw, and Ra <1nm