



Grown in France,
Manufactured in France, Sold all over the World.



KTA

Potassium Titanyl Arsenate – KTiOAsO₄

Applications

Operation	Advantages	Field of Application
Optical Parametric Oscillator	<ul style="list-style-type: none"> + High Efficiency + High transmission in the 3-3.5μm range + Small walk-off 	<ul style="list-style-type: none"> + Eye-safe designators and range-finders with mid-high average powers + Spectroscopy, gas detection

Optical properties

Average refractive index

1.8

Coefficients in Sellmeier's equation

$$\left[n_i^2 = A_i + \frac{B_i \lambda^2}{(\lambda^2 - C_i^2)} - D_i \lambda^2 \right]$$

for $0.4 < \lambda < 4 \mu\text{m}$

Index	A	B	C	D
n_x	1.90713	1.23522	0.19692	0.01025
n_y	2.15912	1.00099	0.21844	0.01096
n_z	2.14786	1.29559	0.22719	0.01436

Fenimore, Scheppler, Ramadabran, McPherson,
J. Opt. Soc. Am. B Vol 12(5) 1995

Transparency range, μm

0.35 → 5.3

Residual absorption (PCI) at 1064nm:

<200 ppm/cm

Physical properties

Chemical formula	KTiOAsO ₄	
Crystal structure	Orthorhombic	
Point group	mm2	
Lattice parameters, Å	a	13.12
	b	6.56
	c	10.79
Hardness (Mohs)	5.5	
Hygroscopic susceptibility	none	
Density, g.cm ⁻³	3.45	
Resistivity (20°C, 20% Humidity), Ohm.cm	10^6	
Aperture, mm ² :	from 1x1 to 10x10	
Length, mm:	up to 20	

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