

磷酸钛氧钾在商业和军用激光里被广泛使用，包括实验室和医学系统，射程探测器，激光雷达，光通信和工业激光系统。KTP最常用于倍频Nd:YAG及其他掺Nd晶体的激光，特别是在中低功率密度的激光器中。到目前为止，利用KTP进行腔内与腔外倍频的掺Nd晶体的激光器，在逐步取代可见光染料激光和可调蓝宝石激光器。在许多的工业研究中，该种激光器被广泛用作绿光光源。

Potassium titanyl phosphate is widely used in commercial and military lasers, including laboratory and medical systems, range detectors, lidars, optical communications and industrial laser systems. KTP is most commonly used for frequency-doubled Nd:YAG and other Nd-doped lasers, especially in low to medium power lasers. So far, the use of KTP for intracavity and extra cavity frequency doubling of Nd-doped lasers has gradually replaced visible-light dye lasers and tunable sapphire lasers. In many industrial studies, this type of laser is widely used as a green light source.

主要特点 Features

- 非线性光学系数大

Large nonlinear optical coefficient

- 接收角大，走离角小

Wide angular bandwidth and small walk-off angle

- 宽的温度和光谱带宽

Broad temperature and spectral bandwidth

- 光电系数高和介电常数低

High electro-optic coefficient and low dielectric constant

- 抗阻比值大

Large figure of merit

- 不吸水，化学，机械性能稳定

No hygroscopic, chemically and mechanically stable

- 高导热性

High thermal conductivity

应用领域 Applications

- 晶体尺寸最大 20*20*40mm

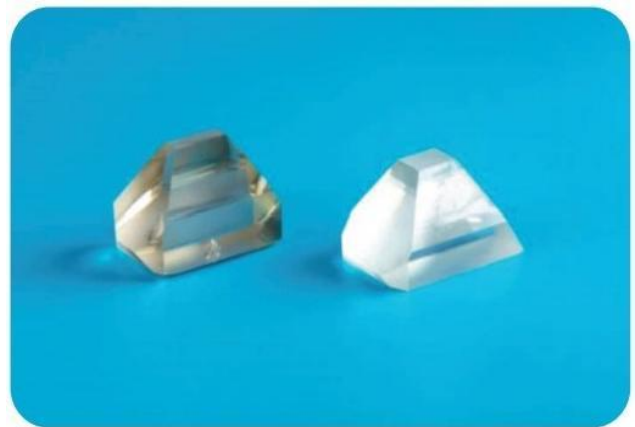
Crystal size up to 20x20x40mm

- 单波段和双波段 AR 和 BBAR 镀膜

Single band and dual band AR and BBAR coatings

- 标准和定制外壳的安装

Standard and customized mounts and housings



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性能参数:

Flatness	$\lambda/8$ at 633nm
Parallelism	≤ 20 arcsec
Wavefront Distortion	$\lambda/8$ at 633nm
Surface Quality	20-10
Perpendicularity	≤ 5 arcmin
Angle tolerance	$\Delta\theta, \Delta\phi \leq \pm 0.25^\circ$
Dimension tolerance	± 0.1 mm
ClearAperture	90% of central area
Chamfer	≤ 0.2 mmx45°
Chip	≤ 0.1 mm
Damage Threshold	0.5GW/cm ² 1064nm TEM00 10ns 10Hz for AR-coated 0.3GW/cm ² 2532nm TEM00 10ns 10Hz for AR-coated