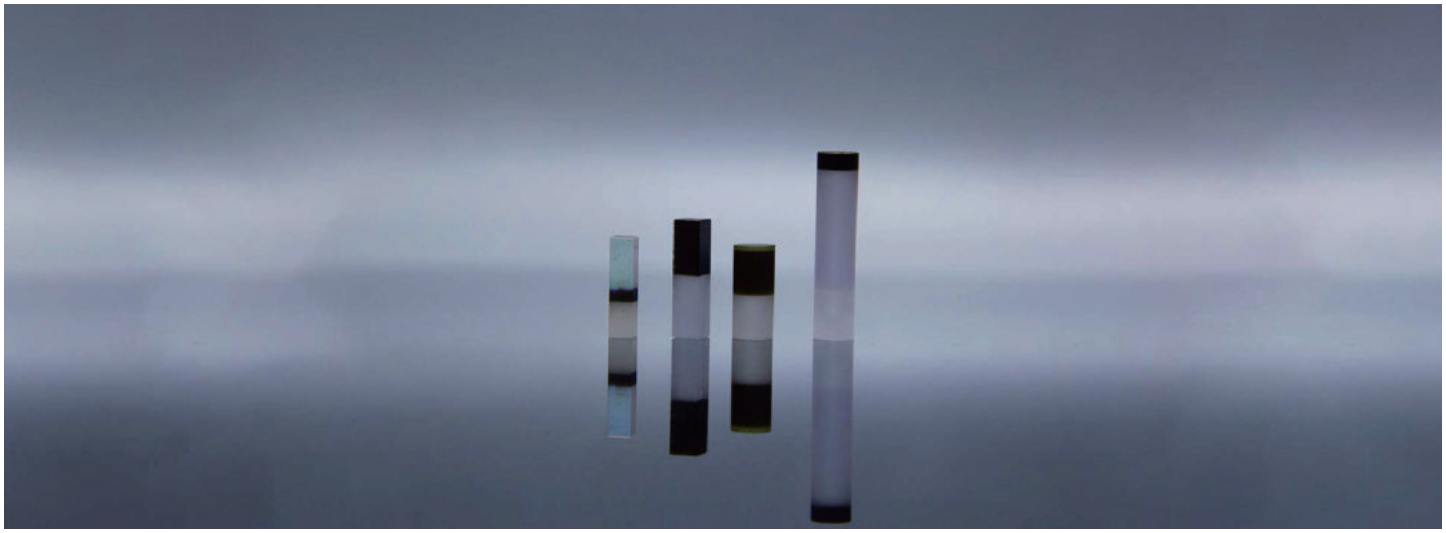
Nd:YVO_4+KTP



DESCRIPTION

Nd:YVO_4+KTP bonded crystal is a bonded crystal formed by bonding KTP at one end of Nd:YVO_4, which can effectively improve the comprehensive performance of Nd:YVO_4 laser.

The thermal conductivity of Nd:YVO_4 is ∥c:5.23w/m/k; ⊥c:5.10w/m/k, the thermal conductivity of KTP crystal is 0.13w/m/k (@100°C), Nd:YVO_4+KTP bonded crystal is formed by bonding at both ends, which can effectively improve the thermal effect of Nd:YVO_4 crystal and reduce the thermal lens effect formed during laser pumping. Improve the beam quality of the laser, improve the output efficiency of 457nm and 671nm laser, improve the stability of the output capacity of the laser, and improve the service life of the laser.

CRYLINK uses surface activation bonding technology, which is a bonding technology at low or normal temperature. The typical features are surface cleaning and surface activation. Before bonding, the bombardment of fast atoms or ion beams on the bonding surface can effectively increase the bonding strength and achieve high-quality bonding between inorganic materials, metals and semiconductor materials. Compared with the high-temperature thermal bonding method, the surface activation bonding technology has higher bonding force interface, better optical absorption loss and surface shape change control, while the impurities on the thermal diffusion bonding surface cannot be removed and are bonded on the bonding surface. Surface activated bonding technology has the advantages of removing various polishing residual components, removing organic pollutants, removing surface oxide layer, breaking chemical bonds of materials, and improving activation energy.

The produced Nd:YVO_4+KTP bonded crystal has high bonding strength, small bonding surface absorption loss (generally less than 20ppm) and small change of bonding surface shape (bonding surface shape <lamda/8). The shape of the bonded crystal can be rod, plate, waveguide or sandwich. Various types of coatings can be provided at both ends of the bonded crystal, such as two end antireflection films AR@1064nm&532nm, etc. Nd:YVO_4+KTP bonded crystals are widely used in many fields, such as machinery, material processing, spectroscopy, wafer testing, display, medical testing, laser printing, data storage and so on.

Nd:YVO_4+KTP

FEATURES

- It can effectively improve the thermal effect of nd:yvo4 crystal
- Reduce the thermal lens effect formed during laser pumping
- Improve the beam quality of laser
- Improve 457nm and 671nm laser output efficiency
- It can improve the stability of the output capacity of the laser and the service life of the laser

APPLICATIONS

- Telemetry
- Ranging
- Remote sensing

PRODUCT PARAMETERS

Nd:YVO_4+KTP		
Materials	Nd:YVO_4	KTP
Concentrations	0.5%,1%, 2%,2,5%, 3%	/
Structure	Rods/Slabs/Sandwich/Waveguide/	
End-face Configuration	Flat/Convex/Wedge	
Side Configuration	Polish/Fine Ground	
Coating available	AR@1064nm&532nm	AR@1064nm&532nm
	others	others