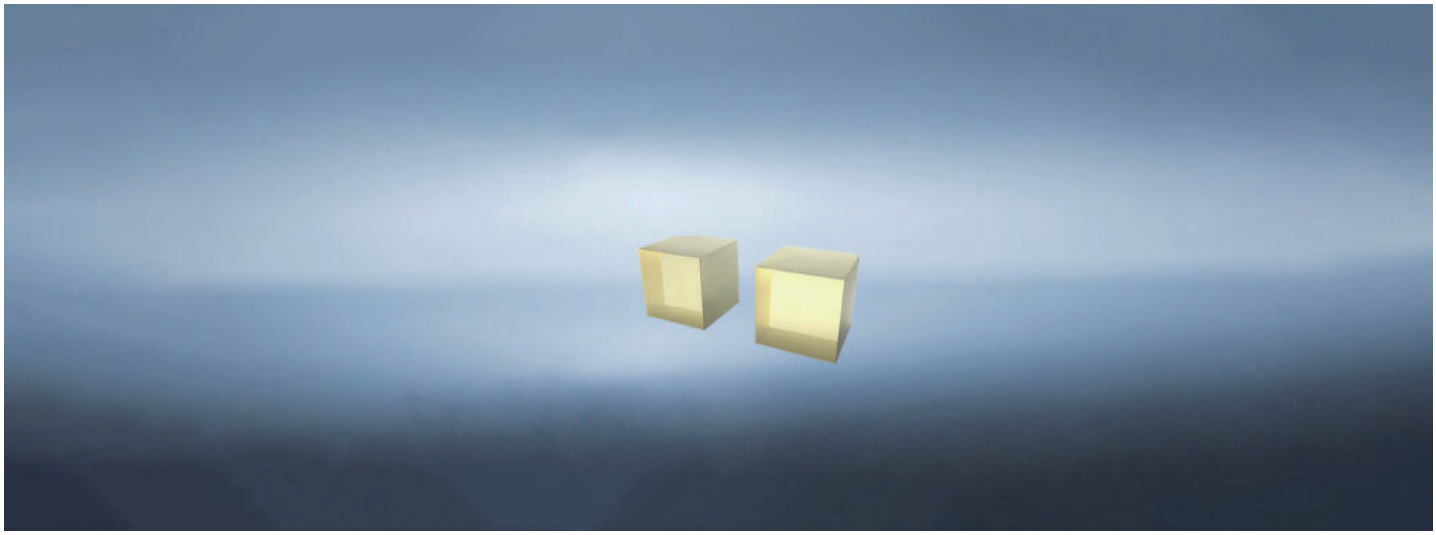
Pr:YLF



DESCRIPTION

CRYLINK's Pr:YLF crystal products, is a comprehensive performance of laser crystal products. It has a wide range of applications in the fields of copper or gold, entertainment and science. The product has absorption band and emission in blue spectral region, high absorption and emission cross section, and can achieve blue, green, orange, red and deep red down-conversion laser output characteristics. Can be used in diode pumped solid-state lasers, wavelength separators, DPSS lasers, broadband laser mirror products.

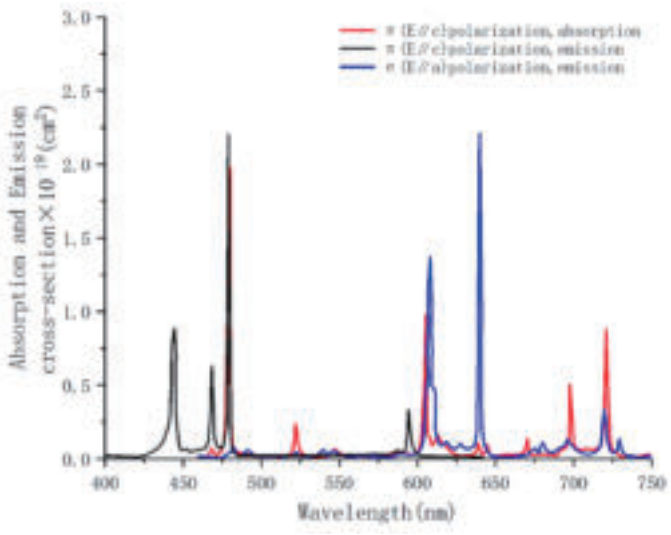
FEATURES

- InGaN laser diode and 2ω-OPSL wire
- High absorption and emission cross-section (-10^{-19} cm^2)
- Absorption band and emission in the blue spectral region

APPLICATIONS

- Science
- Entertainment
- Polarized cubes
- Broadband laser mirror
- Diodes pump solid-state lasers
- Handle metals such as copper or gold
- Wavelength separators and combiners

SPECTRA



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Pr:YLF

PARAMETERS

STANDARD

Orientation	a cut
Clear Aperture	>90%
Surface Tolerance	+ 0/-0.1mm
Length Tolerance	±0.1mm
Parallelism Error	<10arcsec
Perpendicular Error	<10arcmin
Chamfer	<0.1mm @45°
Surface Finish	10-5 S-D
Flatness	<λ/10@632.8 nm
Wavefront Distortion	λ/ 4@632.8 nm
Coating	R<1%@440-444nm + R<0.6%@500-700nm
Damage Threshold	>5J/cm^2@532nm,10 ns

SPECTRAL AND THERMOMECHANICAL PROPERTIES

Absorption Peak Wavelength	444nm
Peak Absorption Cross-section	8×10^{-20}cm^2
Absorption Bandwidth at Peak Wavelength	-5nm
Laser Wavelength	640nm
Lifetime of 3P0 Energy Levels	50μs
Emission Cross Section	20×10^{-20}cm^2
Refractive Index @1064nm	n_o=1.448
	n_e=1.470
Crystal Structure	Tetragonal
Density	3.95g/cm3
Thermal Conductivity	6Wm^{-1}K^{-1}
dn / dT	-5.2×10^{-6} (|| c) K^{-1}
	-7.6×10^{-6} (|| a) K^{-1}
Thermal Coefficient of Expansion	~16×10^{-6} K^{-1}
Typical Doping Level	<1 at.%