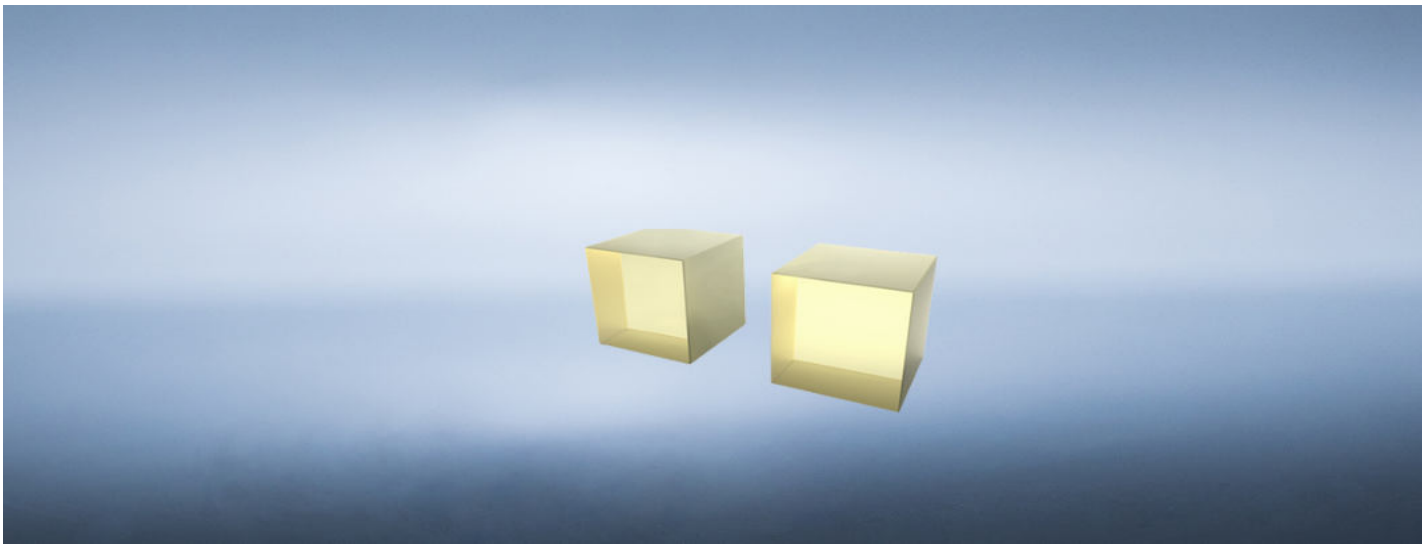
Pr:YLF



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 cm2)
- 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

www.laser-crylink.com
sales@crylink.com
+86-21-66566068
Building 7, No.718 Baoqi Road, Baoshan District, Shanghai, China

Pr:YLF

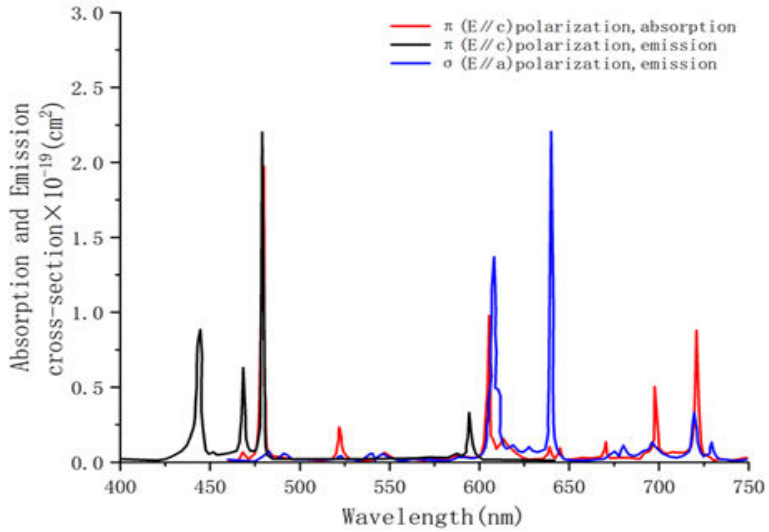
SPECTROSCOPIC AND THERMOMECHANIC PROPERTIES

Absorption peak wavelength	444nm
Peak absorption cross section	$8\times10^{-20}cm^2$
Absorption bandwidth at peak wavelengths	-5nm
Laser wavelength	640nm
3P0 energy level of service life	50μs
Emission cross-section	$20\times10^{-20}cm^2$
Refractive index@1064nm	no=1.448，ne=1.470
Crystal structure	Tetragonal
Density	$3.95g/cm^3$
Thermal conductivity	$6Wm^{-1}K^{-1}$
dn / dT	-5.2×10^{-6}（|| c）K-1， -7.6×10^{-6}（（|| a）K-1
Coefficient of thermal expansion	$\sim16\times10^{-6}$ K-1
Typical doping level	<1 at.%

STANDARD SPECIFICATIONS

Orientation	a-cut
Clear aperture	>90%
Face dimensions tolerance	+ 0/-0.1mm
Length tolerance	±0.1mm
Parallelity error	<10arcsec
Perpendicularity error	<10arcmin
Protective chamfers	<0.1mm @45°
Surface quality	10-5 S-D
Surface flatness	<λ/10@632.8 nm
Wavefront distortion	λ/ 4@632.8 nm
Coating	R<1%@440-444nm + R<0.6%@500-700nm
Laser damage threshold	$>5J/cm^2$@532nm,10 ns

SPECTROGRAM



Pr:YLF absorption and emission curve