



Nd:YLF

Nd: YLF, grows by Czochralski technique, is an excellent crystal for mode-locked operation for it has advantages of weak thermal lensing, relatively broad fluorescence line width and naturally polarized oscillation. The use of high quality starting materials for crystal growth, whole boule interferometry, and precise inspection of scattering particle in crystal using He-Ne laser assures the each crystal will perform well.

ADVANTAGES

- High power, low beam divergence, efficient single mode operation
- Thermal lensing lower than that of YAG
- Barrel side can be optimized for better heat handing

Laser Rods

- Flat/flat
- Parallel/ anti-parallel wedged
- Brewster angle
- Concave/convex radii
- Cylinder grooved

Specifications

Material	Nd:YLF
Dopant concentration	1.1+/-0.1at%
Dimension	Diameter: 3mm-8mm, Length: 10mm-120mm(upon customer' s request)
Diameter tolerance	+0/-0.05mm
Length tolerance	+/-0.5mm
Orientation	<100> or <001>
Extinction Ratio	≥ 28 dB(depends on actual size)
Wavefront Distortion	< λ /4 per inch @633.8nm
Barrel finish	Ground
Parallelism	<10 arc seconds

Home

Products

Production
capacityCompany
News

About Us

Contact Us

Channel	10-5@MIL-0-13830A
Scratch/Dig	10-5@MIL-0-13830A
Anti-Reflection coating	R<0.25%@1047/1053nm
Flatness	$\lambda/8@632.8\text{nm}$

Properties

Chemical formula	LiY 1.0-xNdxF4
Crystal structure	tetragonal
Space Group	I41/a
Mohs Hardness	4-5
Melting Point	825°C
Density	3.99 g/cm ³
Modulus of Elasticity	85 GPa
Thermal Conductivity Coefficient	0.063 W/cm K
Specific Heat	0.79 J/g K
Transparency region	180-6700nm
Spontaneous Fluorescence Lifetime	485 μs for 1% Nd doping
Cell Parameters	a=5.16Å,c=10.85Å