Video

Diffusion Bonded Crystal

Laser Crystal

Nd:YAG Laser Crystal

Cr^{4+}:YAG Laser Crystal

Er:YAG Laser Crystal

Nd:Ce:YAG Laser Crystal

Yb:YAG Laser Crystal

Nd:YLF Laser Crystal

$Nd:YVO_4$ Laser Crystal

Optical Windows

BK7 Standard Windows

BK7 High Precision Windows

Fused Silica Standard Windows

Fused Silica High Precision Windows

Coating Film

BK7 Plano-Convex Cylindrical Lens

Lens

BK7 Plano-Convex Lens

Fused Silica Plano-Convex Lens

BK7 Double Convex Lens

Fused Silica Double Convex Lens

BK7 Plano-Concave Lenses

Fused Silica Plano-Concave Lens

BK7 Double Concave Lenses

Fused Silica Double Concave Lens

Coating Film

BK7 Plano-Convex Cylindrical Lens

Optical Mirror

BK7 Standard Substrate

BK7 High Precision Substrate

Fused Silica Standard Substrate

Fused Silica High Precision Substrate

Beam Splitter Plate

Nd: YAG Laser Beam Combiner

Scanning Mirror

Coating Film

BK7 Plano-Convex Cylindrical Lens

Nd:YLF Laser Crystal

Nd:YLF

Nd:YLF is grown utilizing the modified Czochralsky technique. The use of high quality starting materials for crystal growth, whole boule interferometry, and precise measurement of bulk losses using transmission spectroscopy assures that each crystal will perform to customer specifications.

Consulting Products Information

Advantages:

1. High power, low beam divergence, efficient single mode operation
2. High average power Q-switching at a moderate repetition rate
3. Linear polarized resonators for Q-switching and frequency doubling
4. Potential uniform mode for large diameter rods or slabs
5. Stimulated emission cross section is favorable for low CW threshold
6. Thermal lensing lower than that of YAG
7. 1053nm output of Nd:YLF matches gain curves of Nd:Glass and performs well as an oscillator and pre-amplifier for this host

Specifications:

Dopant Concentration	0.4~1.5 atm %
Orientation	a-cut or c-cut within 2°
Flatness	< λ/10 @ 632.8nm
Parallism	≤10 "
Perpendicularity	≤5 '
Surface Quality	10/5 (MIL-O-13830A)
Size	Diameter: 2~10mm, Length: 10~120mm Upon request of customer
Dimensional Tolerances	Diameter +0.0/-0.03mm, Length ±0.5mm Chamfer: < 0.1 mm @ 45°
AR-Coating Reflectivity	≤ 0.2% (@1047/1053nm)

Main properties of Nd:YLF crystal:

Chemical Formaulay	$LiY_{1.0-x}Nd_xF_4$
Density, g/cm^3	3.99
Mohs hardness	4~5
Lattice constant, A	a = 5.26, c = 10.94
Refractive index, at 1.053 μm	n_o= 1.448; n_e= 1.47
Thermal conductivity, W x cm^{-1} x $°K^{-1}$	0.06
Thermal expansion (a), 10^{-6} x $°C^{-1}$	13 along a, 8 along c
Thermooptical factor (dn/dT), at 1.06 μm	π = 4.3 x 10^{-6} x $°K^{-1}$, σ = 2.0 x 10^{-6}x $°K^{-1}$
Generated wavelength, μm	π = 1.047, σ = 1.053
Laser Wavelength	1047nm, 1053nm
Fluorescence Lifetime	485μs
Emission Cross Section	$1.8×10^{-19}$cm2(E ∥ C) @1047nm $1.2×10^{-19}$cm2(E ⊥ C) @1053nm

Feedback Form

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NLO Crystal

LBO Crystal
BBO Crystal
KTP Crystal
KDP, KD*P Crystal
$LiNbO_3$ / LN Crystal

Window Crystal

YAG Crystal
Sapphire Crystal
CaF_2 Crystal
MgF_2 Crystal
BaF_2 Crystal
LiF Crystal

Laser Rod Repolishing

Laser Safety Glasses

Optical Filter

Medical IPL Filter
Interference Filter

Light Pipe Homogenizing

Laser Beauty Supplies

Laser Handle
Laser Bonding Crystal

*Email

Your Email

*Content

Product Name

http://www.bjpcrystal.com/3-ylf-laser-crystal-6.html

Your Name

Your Full Name.

Company

Your Company Name.

Tel./Fax.

Related Products

NLO Crystal

KTP crystal is the most commonly used for SHG(Frequency doubling) of Nd-doped laser for green/red output. It is widely used in both commercial and military lasers including laboratory and medical systems, range-finders, lidar, optical communication and industrial systems....