

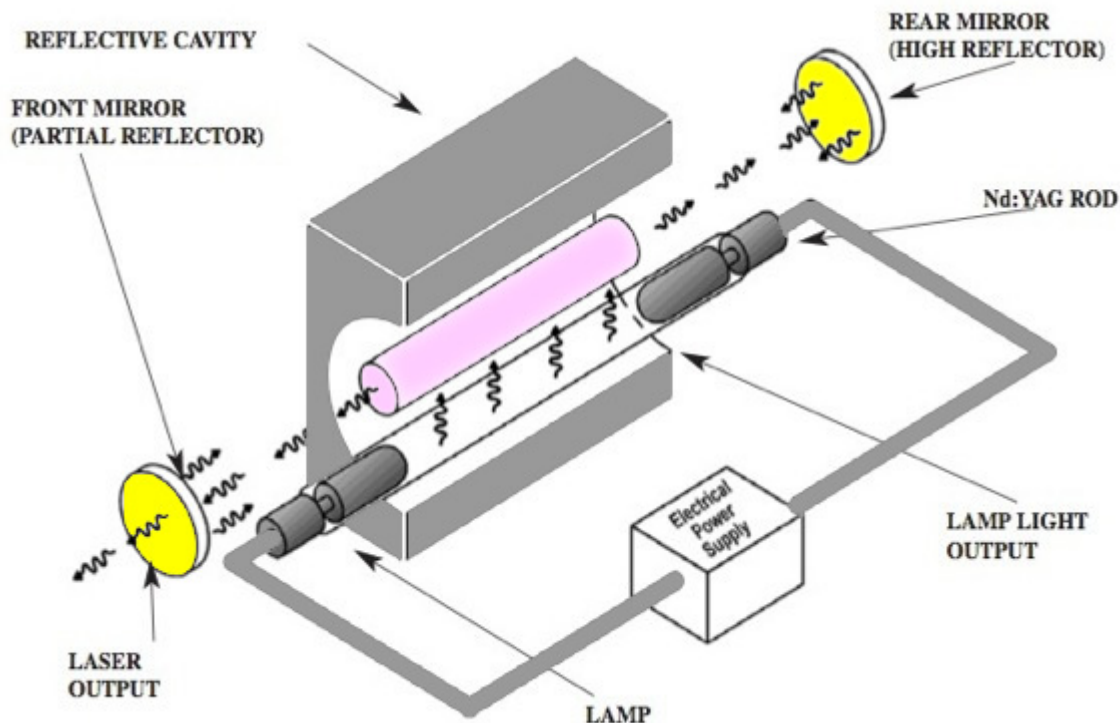
## Laser Rods

ULTI Crystal offers the laser industry the highest quality solid-state laser components which included a full range of laser rods and slabs based on YAG or sapphire host crystals: Nd:YAG, Yb:YAG, Er:YAG and CTH:YAG laser crystals, as well as Ruby and Ti:sapphire.

These rods are of the highest optical quality, and are high damage resistant A/R coated for use at 1064 nm. Systems designers may select from several levels of dopant concentrations and rod or slab configurations to optimize the performance of each laser system. Lasers based on ULTI Crystal 's rods have demonstrated significantly improved performance including:

- Increased efficiency
- Increased output power
- Increased damage resistance
- Reduced thermal lensing
- Higher brightness
- Higher TEM00 output. Please contact the ULTI Crystal sales dept. for assistance in selecting the appropriate laser rod for your laser.

### YAG laser optically pumped by Xenon or Krypton Lamp application



### Standard Rods Processing Specifications.

Specifications	Capability
Diameter Tolerance:	$\pm 0.025 \text{ mm}$
Length Tolerance:	$\pm 0.5 \text{ mm}$
End Face Bevel:	0.075 mm/0.12 mm
End Face Perpendicularity:	Plano/Plano $\leq 5 \text{ arc min}$
End Face Parallelism:	Plano/Plano $\leq 10 \text{ arc sec}$
End Face Flatness:	$\lambda/10$ (90% of aperture)
End Surface Finish:	10-5 scratch-dig
Ground Barrel Finish:	400 grit
Polished Barrel Finish:	80-50 scratch-dig
Coating:	AR/AR coating at central wavelength

### Laser Material Capabilities.

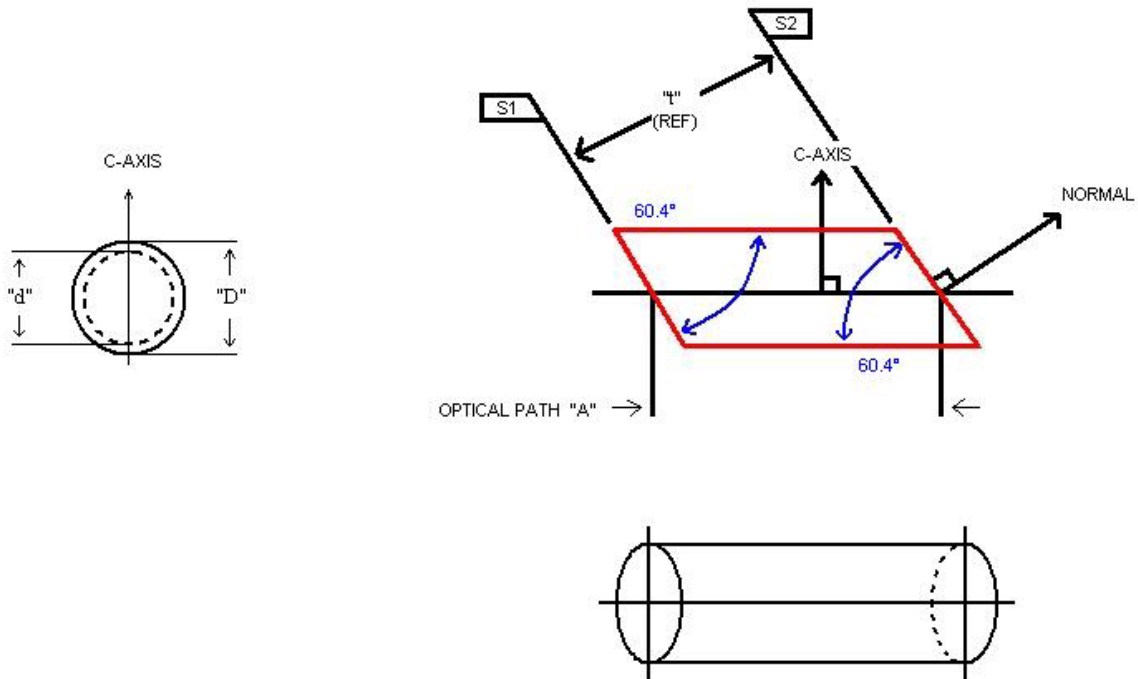
#### Notes

- »| Our inspection standard is comply with MIL standard and ISO9001 standard
- »| OEM Specifications are available upon requested

Laser Material	Standard Dopant Concentrations (Atomic%)	Maximum Dimensions (Diameter/Length)
Nd:YAG	0.6%, 0.7%, 0.8%, 0.9%, 1.0%, 1.2%	10 mm dia x 165 mm long
Er:YAG	50%	8 mm dia x 115 mm long
CTH:YAG	1.7%-2%, 6%, 0.36%	6 mm dia x 115 mm long
Tm:YAG	0.1%, 0.5%, 2%, 3%, 4%, 6%	8 mm dia x 100 mm long
Yb:YAG	0.5%, 1%, 10%, 15%, 18%, 25%	8 mm dia x 100 mm long
Nd:YAIO3	0.6%	7 mm dia x 100 mm long
Tm:YAIO3	2%, 3%, 4%	6 mm dia x 25 mm long

### Crystal Configuration for Typical Brewster Cut Review





## TYPICAL BREWSTER CUT CONFIGURATION

### Notes

» It is available for any custom configuration.

### Standard Product List

Code	Material	Dia,mm	L,mm	Doping,%	Orientation	Wedge of ends, Degree	Coating	Price
<b>LRD-101</b>	Nd:YAG	3	65	0.8	111	0/0	AR/AR@1064nm R<0.2%,AOI=0deg	<a href="#">Contact us</a>
<b>LRD-102</b>	Nd:YAG	3	65	1.1	111	0/0	AR/AR@1064nm R<0.2%,AOI=0deg	<a href="#">Contact us</a>
<b>LRD-103</b>	Nd:YAG	4	65	0.8	111	3/3, parallel	AR/AR@1064nm R<0.2%,AOI=0deg	<a href="#">Contact us</a>
<b>LRD-104</b>	Nd:YAG	4	65	1.1	111	3/3, parallel	AR/AR@1064nm R<0.2%,AOI=0deg	<a href="#">Contact us</a>
<b>LRD-105*</b>	Nd:YAG	6.35	85	1.1	111	3/3, parallel	AR/AR@1064nm R<0.2%,AOI=0deg	<a href="#">Contact us</a>
<b>LRD-106*</b>	Nd:YAG	8	85	1.1	111	3/3, parallel	AR/AR@1064nm R<0.2%,AOI=0deg	<a href="#">Contact us</a>
<b>LRD-107*</b>	Nd:YAG	10	85	1.1	111	3/3, parallel	AR/AR@1064nm R<0.2%,AOI=0deg	<a href="#">Contact us</a>
<b>LRD-108*</b>	Nd:YAG	12	100	0.8	111	3/3, parallel	AR/AR@1064nm R<0.2%,AOI=0deg	<a href="#">Contact us</a>
<b>LRD-109*</b>	Nd:YAG	12	100	1.1	111	3/3, parallel	AR/AR@1064nm R<0.2%,AOI=0deg	<a href="#">Contact us</a>

### Notes



- » | Marked " \* " means that rods with barrel grooving, except 10 mm at both ends of the rod without grooving.
- » | To inquiry or order a finished Nd:YAG laser rod, please specify the specification listed above, for common application, we only need to know the main specification: Nd-dopant concentration, sizes, and coating. For special request, please specify specification in details for evaluation and fabrication.
- » | We can also support CTH:YAG,Er:YAG,Yb:YAG rods and slabs, please contact us for more information.
- » | Custom size is available upon requested.

