

Advantages

Wide pump band
of 600 - 800 nm

High Slope
Efficiency

High optical
quality

Operates in a
long-wavelength,
high water peak
region

New Source Technology is a leading supplier of Er:YAG Rods for Industrial and Medical laser applications. We maintain the highest standards of quality and can deliver products to your exact specifications from our Pleasanton, California location. You are assured of the highest possible consistency and precision every time. For more information, please contact us at sales@newsourcetechnology.com.

Material Parameters

Host:	Yttrium Aluminum Garnet ($Y_3Al_5O_{12}$)
Dopant:	Erbium (Er^{3+})
Dopant Concentration	50 Atomic % ($\sim 7 \times 10^{21} \text{ cm}^{-3}$)
Orientation:	[111] crystallographic directions ($\pm 5^\circ$)
Wavefront Distortion:	1/2 wave per inch of length, as measured in a doublepass interferometer operating at 1 micron

Dimensional Tolerances

Diameter:	+0.000" / -0.002"
Length:	+0.040" / -0.000"
Barrel Finish:	55 \pm 5 micro-inch
Chamfer:	0.005" \pm 0.003" at 45° \pm 5°

End Configuration

Flatness:	within λ / 10 wave at 633 nm wavelength
Parallelism:	within 30 seconds of arc
Perpendicularity:	within 5 minutes of arc
Surface Quality:	scratch-dig 10 - 5 per MIL-O-13830A

Anti-Reflection End Coatings

Reflectivity:	less than 0.25% at 2.04 microns
Adhesion and Durability:	meets MIL-C-48497A standards
Pulsed Damage Threshold:	greater than 10 J / cm^2

Laser Properties

Lasing Transition:	$^4I_{11/2}$ to $^4I_{13/2}$
Stimulated Emission Cross-Section:	$3 \times 10^{-20} \text{ cm}^2$
Pump Bands:	600 - 800 nm

Other laser crystals:

- CTH:YAG
- Nd:YAG
- Alexandrite
- KTP
- LBO

You may also be interested in:

- Laser Pump Chambers
- Flashlamps
- Resonator Mirrors
- Other Laser Optics
- Safety Eyeware

