



Er:YAG Rods

Laser Crystal



性能
合作
价值

Standard Rod Specifications

Material Parameters

Host: Yttrium Aluminum Garnet ($Y_3Al_5O_{12}$)
 Standard Melt Concentrations:
 Erbium (Er^{3+}): 50 Atomic % ($\sim 7 \times 10^{21} cm^{-3}$)
 Orientation: [111] crystallographic directions ($\pm 5^\circ$)
 Wavefront Distortion: 1/2 wave per inch of rod length

Dimensional Tolerances

Diameter: $+0.000'' / -0.002''$
 Length: $+0.040'' / -0.000''$
 Barrel Finish: $55 \pm 5 \mu\text{inch}$ (RMS)
 Chamfer: $0.005'' \pm 0.0003''$ at $45^\circ \pm 5^\circ$

End Configuration

Flatness: less than $\lambda / 10$ wave (measured at 632.8 nm)
 Parallelism: less than 10 seconds of arc
 Perpendicularity: less than 5 minutes of arc
 Scratch-Dig: 10 - 5 per MIL-O-13830A

Anti-Reflection Coatings

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

Lasing Properties

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

600 - 800 nm Pump Band

High Slope Efficiency

High Optical Quality

High Water Peak Region

NEW SOURCE TECHNOLOGY LLC

6678 Owens Drive, Suite 105, Pleasanton, CA, USA 94588
 Ph: 925/462-6888 Fx: 925/462-8388
www.newsourcetechnology.com

New Source Technology, LLC (NST) 是位于加利福尼亚的有限责任公司。NST 专门从事关键激光组件的设计，制造，销售和/或分销，特别着重于光学谐振器，PFN 组件，冷却组件，泵腔，激光棒，闪光灯，电容器充电电源，封装的二极管，光学和激光二极管驱动器。