



Electro-Optics Technology GmbH

# Innovative High Quality Laser Solutions

## Nd:YAG

### Neodymium-doped YAG



Electro-Optics Technology GmbH has been growing Nd:YAG for over 20 years. During this time, material properties and qualities have improved to make it one of the best solutions on the market. You will find our material to have lower absorption and higher transmission than are commonly found on the market. We specialize in controlling the dopant level to optimize your pumping requirements. Our high quality Nd:YAG is a highly effective laser medium for high power lasers.

With over 20 years of polishing and fabrication experience, Electro-Optics Technology GmbH has become a world leader in providing 2D and 3D crystal designs. We also offer low absorbing, high damage threshold optical coatings.

Speak to one of our crystal experts to learn more about Electro-Optics Technology's product offerings.

## FEATURES

- High quality materials composition
- Increased efficiency

## OPTIONS

- Numerous dopant concentrations in stock
- Precise dopant level with narrow tolerance
- Bonded rods
- Flat, curved, or tapered ends

## APPLICATIONS

- Diode-pumped Lasers
- Flash-pumped Lasers
- Q-switched Lasers
- Pulsed or CW
- Medical
- Industrial Marking & Cutting



# Innovative High Quality Laser Solutions

Electro-Optics Technology GmbH

## MATERIAL PARAMETERS

Host Crystal	Y <sub>3</sub> Al <sub>5</sub> O <sub>12</sub>
Dopant Concentration (± 0.1 at%)	0.05 at% up to 2.5 at%
Orientation	[111] and [100]
Laser Wavelengths	946 nm, 1064 nm, 1319 nm, 1444 nm
Fluorescence Lifetime (1064 nm)	235 μs (depending on dopant concentration)
Emission Cross Section (1064 nm)	7 x 10 <sup>-21</sup> cm <sup>2</sup>
Index of Refraction (1064 nm)	1.81

## LASER ROD STANDARD SPECIFICATIONS

Length	Up to 130 mm
Diameter	1 mm up to 25 mm
Chamfer	0.08 mm to 0.13 mm at 45° ± 5°
Barrel Finish	Fine Ground or Polished upon request
Flatness	Better than λ/10
Parallelism	Within 10 sec. of arc
Perpendicularity	Within 5 min. of arc
Polarization Extinction Ratio	>30 dB

## ABSORPTION SPECTRUM OF Nd:YAG

