



Electro-Optics Technology GmbH

Innovative High Quality Laser Solutions

Yb:YAG

Ytterbium-doped YAG



Electro-Optics Technology GmbH has been growing Yb: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. High quality Yb:YAG is a highly effective laser medium for high power lasers emitting at 1030 nm. It is widely used in industrial 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 crystal quality
- Large size boules (on request without core)

OPTIONS

- Slabs, disks, and rods available
- Large dimensions available
- Numerous dopant concentrations in stock
- Bonded rods and slabs
- Custom coatings available

APPLICATIONS

- High Power Picosecond Lasers
- Diode-pumped Lasers
- Industrial Lasers



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MATERIAL PARAMETERS

Host Crystal	Y ₃ Al ₅ O ₁₂
Yb ³⁺ Dopant Concentration	0.1 at% to 25 at%
Orientation	[111] and [100]
Laser Wavelength	1030 nm
Absorption Cross Section	8.2 x 10 ⁻²¹ cm ²
Emission Cross Section	2.03 x 10 ⁻²⁰ cm ²
Index of Refraction at 1030 nm	1.82

TYPICAL SPECIFICATIONS

Rod Length or Disk Thickness	0.1 mm to 100 mm
Rod and Disk Diameters	1 mm up to 75 mm
Chamfer	0.08 mm to 0.13 mm at 45° ± 5°
Barrel Finish	Ground or Polished upon request
Flatness	Better than λ/10
Parallelism	Within 10 sec. of arc
Perpendicularity	Within 5 min. of arc