



Electro-Optics Technology GmbH

Innovative High Quality  
Laser Solutions

# CTH:YAG

## Chromium Thulium Holmium-doped YAG



Electro-Optics Technology GmbH has been growing CTH: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 for 2.1  $\mu\text{m}$  lasers. Our high quality CTH:YAG is an excellent choice for medical laser applications.

With over 20 years of polishing and fabrication experience, EOT 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 spectral overlap with flashlamp pumps
- High efficient conversion to 2100 nm

### OPTIONS

- Bonded end caps
- Radius or flat ends
- Barrel fine ground or polished
- Tapered rod ends

### APPLICATIONS

- Flash-pumped Lasers
- Q-switched Lasers
- Medical
- Commercial



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## MATERIAL PARAMETERS

|                                       |   |
|---------------------------------------|---|
| Host Crystal                          | $Y_3Al_5O_{12}$   |
| Dopant Concentration (in the crystal) | Cr <sup>3+</sup> 1.8 at%<br>Tm <sup>3+</sup> 6.0 at%<br>Ho <sup>3+</sup> 0.36 at% |
| Orientation                           | [111] within 2°   |
| Laser Wavelength                      | 2100 nm   |
| Fluorescence Lifetime                 | 8.5 ms  |
| Emission Cross Section                | $7 \times 10^{-21} \text{ cm}^2$  |
| Index of Refraction (2100 nm)         | 1.80  |

## LASER ROD STANDARD SPECIFICATIONS

|             |  |
|-------------|--|
| Length      | Typical 100 mm to 130 mm                                       |
| Diameter    | Typical 4 mm to 6 mm   |
| AR Coatings | Special, super dense, OH-free coating;<br>HR coating available |

## ABSORPTION SPECTRUM OF CTH:YAG (1.0 nm SBW)

