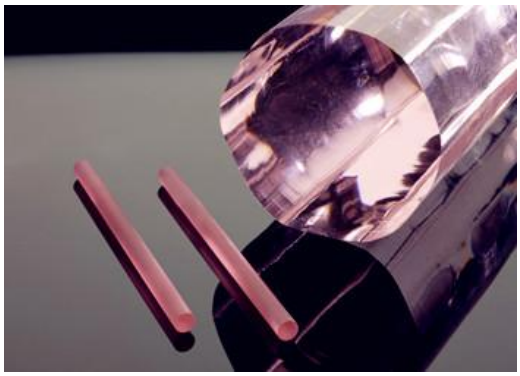
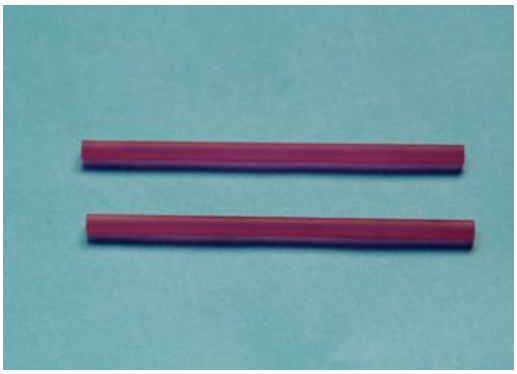
Er:YAG Crystals

- **High slope efficiency**
- **Operate well at room temperature**
- **Eye-safe laser wavelength**

Erbium-doped yttrium aluminum garnet or Er:YAG crystals is an excellent laser crystal which lasers at 2.94 μ m, This wavelength is the most readily absorbed into water and hydroxylapatite of all existing wavelengths and is considered a highly surface cutting laser. The 2.94μ m is a eye-safe wavelength, which makes **Er:YAG crystals** widely be used in medical applications as dental (hard tissues), orthopedics, etc.





SPECIFICATIONS

Specifications	
Dopant concentration	Er: ~50 at%
Wavefront Distortion	≤0.125λ/inch(@1064nm)
Extinction Ratio	≥25 dB
Rod Sizes	Diameter:3～6mm, Length:50～120 mm Upon request of customer
Dimensional Tolerances	Diameter:+0.000"/-0.002",
	Length: ± 0.02"
Barrel Finish	Fine Ground
Parallelism	≤10"
Perpendicularity	≤5′
Flatness	λ/10
Surface Quality	10/5(MIL-PRF-13830B)
AR Coating Reflectivity	≤ 0.25% (@2940nm)

Addr. Room A1031, Boke Mansion, No.9 Xiyuan Road, Xihu District, Hangzhou 310030, China.
Tel:+86-571-87920630 Fax:+86-571-87603342 E-mail:sales@shalomeo.com Home:www.shalomeo.com

Basic Properties

Physical and optical properties	
Laser Transition	$^4I_{11/2}$ to $^4I_{13/2}$
Laser Wavelength	2940nm
Photon Energy	6.75×10^{-20}J(@2940nm)
Emission Cross Section	3×10^{-20} cm^2
Index of Refraction	1.79 @2940nm
Pump Bands	600~800 nm

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