Er:YSGG

DESCRIPTION

Our Er: YSGG crystal products, also known as erbium-doped yttrium scandium gallium garnet crystal. It is a kind of laser crystal product with excellent comprehensive performance. It is widely used in oral diseases, optical communication and laser medical treatment. The product has the characteristics of high thermal conductivity, stable physical and chemical properties and high quantum efficiency. Can be used in Er:YSGG laser, solid pulse high frequency laser, water laser products.

FEATURES

- High quantum efficiency
- High thermal conductivity
- Physical and chemical properties are stable
- Lasers can be emitted at 1.6 m and 2.78 m wavelengths

APPLICATIONS

- Laser medicine
- Photo-communication
- Solid-state pulsed high-frequency lasers

www.laser-crylink.com
sales@crylink.com
+86-21-66566068
Building 7, No.718 Baoqi Road, Baoshan District, Shanghai, China

Er:YSGG

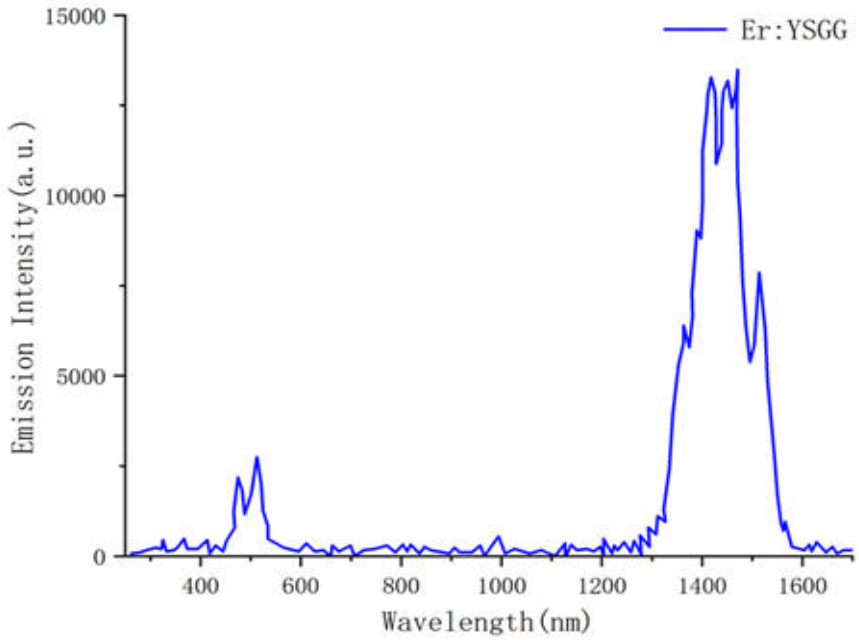
BASIC PARAMETERS

Chemical formula	Er3+:YSGG
Crystal structure	Cubic
Doping concentration	30-50 at.%
Space group	Oh10
Lattice constant	12.42 Å
Density	5.2 g/cm3
Mohs hardness	>7
Coefficient of thermal expansion	8.1×10-6 K-1
Directional	<001> <111>
Thermal conductivity	0.079W·cm-1·K-1
Refractive index	1.926@1.064 μm
dn/dT	7×10-6 K-1
Generated wavelength	2.797; 2.823μm

STANDARD SPECIFICATIONS

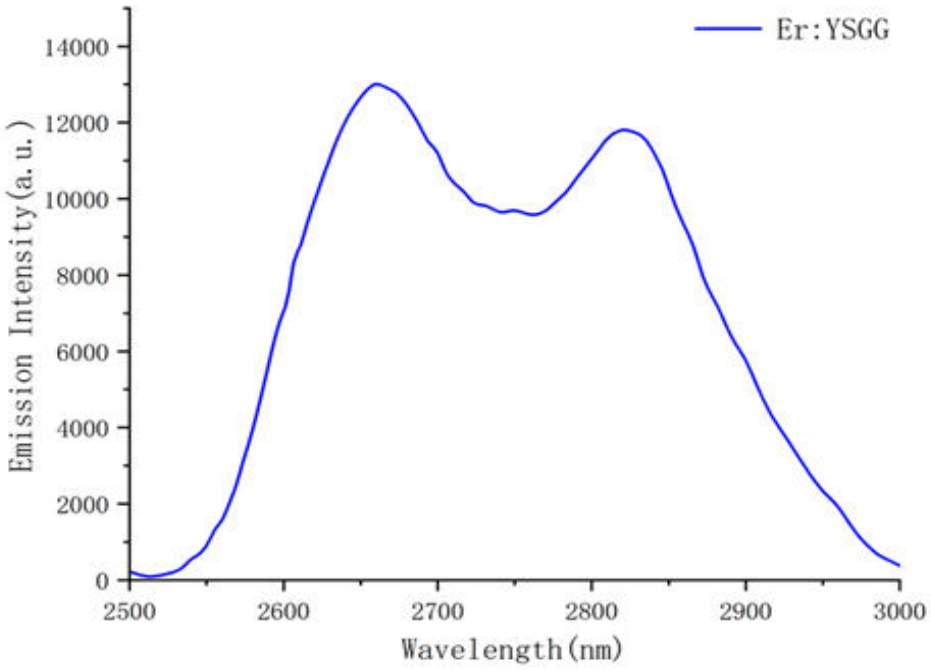
Shank diameter	Up to 15 mm
Diameter tolerance	0
Length tolerance	+0.040 / -0.000
Tilt /wedge angle	±5 min
Chamfer	0.005 ±0.003@45°
Parallelity	30 arcsec
Flatness	λ/10 @ 633 nm
Perpendicularity	5 arc minutes
Surface finish	10-5 S-D
Wavefront distortion	λ/2 per inch@633nm

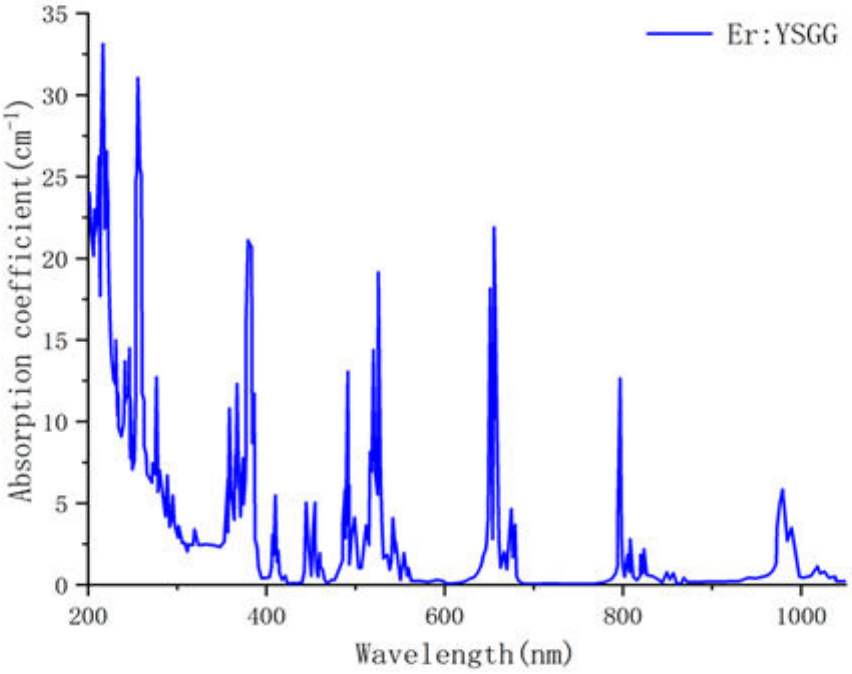
SPECTROGRAM



www.laser-crylink.com
sales@crylink.com
+86-21-66566068
Building 7, No.718 Baoqi Road, Baoshan District, Shanghai, China

Er:YSGG


Er:YSGG
Emission Intensity(a.u.)
14000
12000
10000
8000
6000
4000
2000
0
2500
2600
2700
2800
2900
3000
Wavelength(nm)


Er:YSGG
Absorption coefficient(cm⁻¹)
35
30
25
20
15
10
5
0
200
400
600
800
1000
Wavelength(nm)