

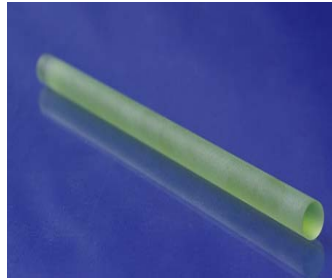
Laser Crystals

NLO Crystals

Birefringent Crystals

AO and EO Crystals

Magneto-optical Crystal

Erbium Laser Glass (Er:Glass)
Introductions


Er:Glass is the best glass material for 1.54um laser due to its eyesafe wavelength of 1540 nm and high transmission. The stimulated emission cross section is $8 \times 10 \text{cm}^{-2}$ and the life of fluorescent is more than 8.2 ms. Er: Glass is widely use in the range finder, target indication, medical instrument, and also used in the laser

radar, vehicle crashworthy, atmosphere observation, communication and so on. We could provide 1-20mm diameter and 10-120 mm length rods, or various size of plates. Typical Xe lamp pumped 330 laser threshold values is less than 6J and oblique efficiency is more than 1.8%, which is used for laser ranging. LD pump series for doping different concentration Er - Yb phosphate laser glass which can be used in the field of wave-guide amplifier, fiber amplifier field.

Basic Properties

Items	Specification
Max. Excitation Wavelength	$1535.8 \pm 1 \text{nm}$
Fluorescence Half Width ($\Delta\lambda$)	29.9nm
Fluorescence Life Time (τ)	> 8.2ms
Excitation Wavelength Absorption	$< 0.002 \text{cm}^{-1}$
Free Oscillation Threshold value E_{th}	<6J
Free Oscillation Differentiation Efficiency	>1.8%
Output of Q-switch status inputting 11J	> 20mJ

Erbium Laser Glass (Er:Glass)

Crystal

| ERG 01