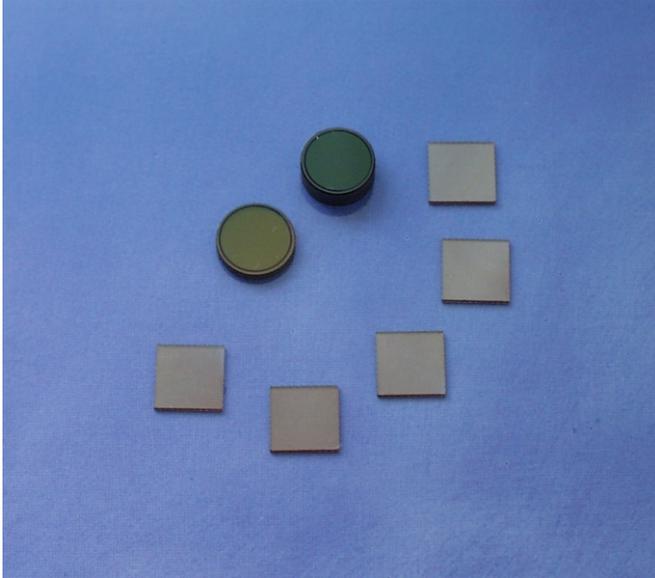


Cr⁴⁺:YAG CRYSTALS

ALL-SOLID-STATE HIGH POWER PASSIVE Q-SWITCH
AND ACTIVE MEDIUM FOR INFRARED FEMTOSECOND LASERS



Material parameters:

Material:	Cr ⁴⁺ :YAG (Cr ⁴⁺ doped Y ₃ Al ₅ O ₁₂)
Recovery time:	8.5 μs
Saturation fluence:	0.5 J/cm ²
Refractive index:	1.82 @ 1064 nm
Crystal structure:	cubic garnet
Hardness:	Mohs 8.5
Density:	4.56 g/ccm
Orientation:	[100] +/- 10° (standard)

Size:

Standard apertures: 9.5 mm, 8x8 mm², 4x4 mm², 2.5 mm

Clear aperture: min. 0.75 of dimension.

Thickness: depends on the specified O.D. or initial transmission, Cr⁴⁺ concentration and may vary +/- 30% from the specified value.

Surfaces:

Wedge: <30 arcmin

Flatness: 0.5 wave @ 633 nm

Surface quality: 20-10 s/d

Coatings (standard):

AR/AR@1064 nm, R<0.3%

Damage threshold (coated):

>500 MW/cm² for 10 ns pulses

We have a large variety of Cr⁴⁺:YAG standard crystals in stock for:

- Flashlamp-pumped lasers with T=0.25, T=0.32, T= 0.50
- Diode-pumped lasers with T= 0.80, T=0.85, T=0.9 and T=0.95

We are exclusive supplier of Brewster-cut crystals for very high peak power applications.

We also offer specially coated Cr⁴⁺:YAG crystals that serve as OUTPUT COUPLERS. In this way one can save the output mirror and considerably simplify the laser design.

Standard reflections at the exit side are:

R=8.5%, R=50%, R=90%, R=95%.

We also supply crystals with custom specific parameters.