

Chromium Doped Yttrium Aluminum Garnet (Cr⁴⁺:YAG) Crystal

Cr⁴⁺:YAG (Y₃Al₅O₁₂) is an excellent crystal for passively Q-switching diode pumped or lamp-pumped Nd and Yb doped lasers at wavelength from 1.0 to 1.2mm.

Basic Properties of Cr⁴⁺:YAG

Formula	Cr ⁴⁺ :Y ₃ Al ₅ O ₁₂
Crystal Structure	Cubic garnet
Dopant Level	1 mol%, 3 mol%
Hardness	8.5 (Mohs)
Damage Threshold	>500 MW/cm ²
Refractive Index	1.82@1064nm

Specifications:

Parameter	Unit	
Flatness		<λ/8
Wavefront Distortion		<λ/4
Parallelism	arc second	<30
Surface Quality (scratch/dig)		20-10
AR-coating		R<0.2%@1064nm
Standard Aperture	mm ²	3×3 ~15×15

AR-coatings and HR-coatings are available. The initial transmission(T₀) from 10% to 95% according to customer's requirements. Standard size of 3×3 mm² with T₀=80% or 90%.

When ordering Cr⁴⁺:YAG crystal, please specify the aperture, initial transmission (T₀) and coatings.