

Note: Above parameters for reference only, please contact our sales Rep. for your specific requirement.

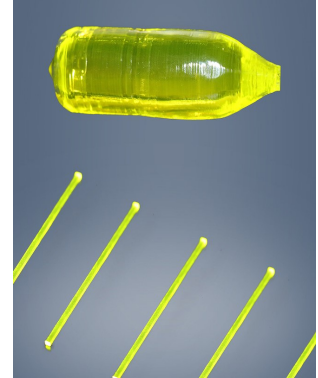
Cerium doped Lutetium Aluminum Garnet (Ce:LuAG)

Introduction:

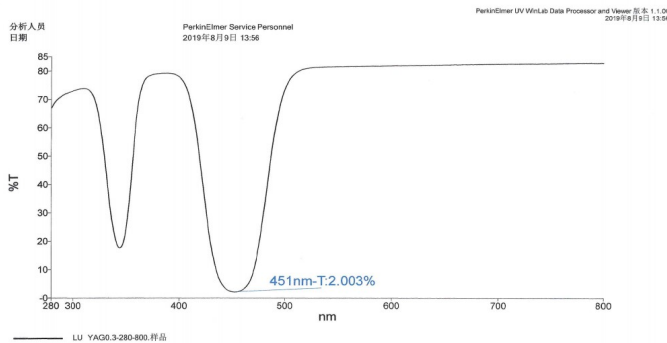
Cerium doped Lutetium Aluminium Garnet (Ce:LuAG) is a well-established scintillator and has many attractive properties, such as fast decay (80ns), high light yield, emission peaks at 510nm that well matched with the sensitivity of commercial Si-CCD detectors as well as good mechanical and chemical stability. Ce:LuAG is also a very appropriate crystal for imaging screens, LED lighting and laser lighting.

Main Advantages

- ✧ Good mechanical and chemical performance
- ✧ High density
- ✧ Fast decay time
- ✧ Non-hygroscopicity



Transmission Curve:



Typical applications:

PET scanners, high-energy gamma and charged particle detection, as well as X-ray, beta, UV-ray high-spatial resolution image screen, LED illumination, and laser illumination.


Material Properties:

Chemical Formula	Ce:Lu ₃ Al ₅ O ₁₂
Density	6.73g/cm ³
Hardness	8.5 Mohs
Melting Point	1970°C
Emission Peak	510nm
Lattice Constant	a=11.914Å
Refractive Index	1.84
Expanding Coefficient	8.8*10 ⁻⁶ /°C
Decay Time	80 ns
Energy Resolution	< 8%

Crystro Offers:

Orientation	< 0.5°
Thickness /Diameter Tolerance	±0.05mm
Parallelism	< 10"
Surface Quality	10-5
Perpendicularity	< 15'
Chamfer	< 0.1mm@45°
Dimensions	Max Φ 60mm

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