

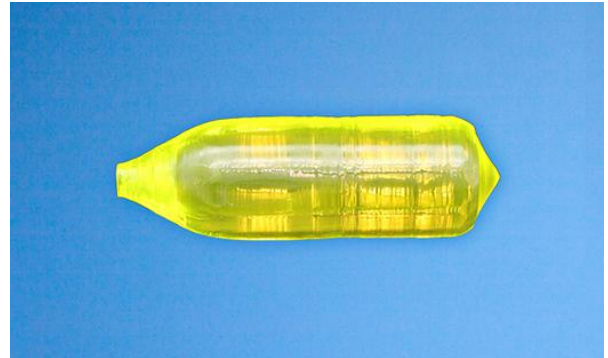
Ce:LuAG 掺铈镧铝石榴石 Cerium doped Lutetium Aluminium Garnet

简介 Introduction:

Ce:LuAG 是一种性能优良的闪烁晶体，具有衰减快 (80ns)、高光产额、510nm 发射峰，与工业硅 CCD 探测器的灵敏度和良好的机械化学稳定性相当。用于成像屏幕、LED 照明和激光照明。

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.

The Ce:LuAG is also a very appropriate crystal for imaging screens, LED lighting and laser lighting.



主要优点 Main Advantages:

机械和化学性能稳定性好

高密度

快衰变时间

不吸湿性

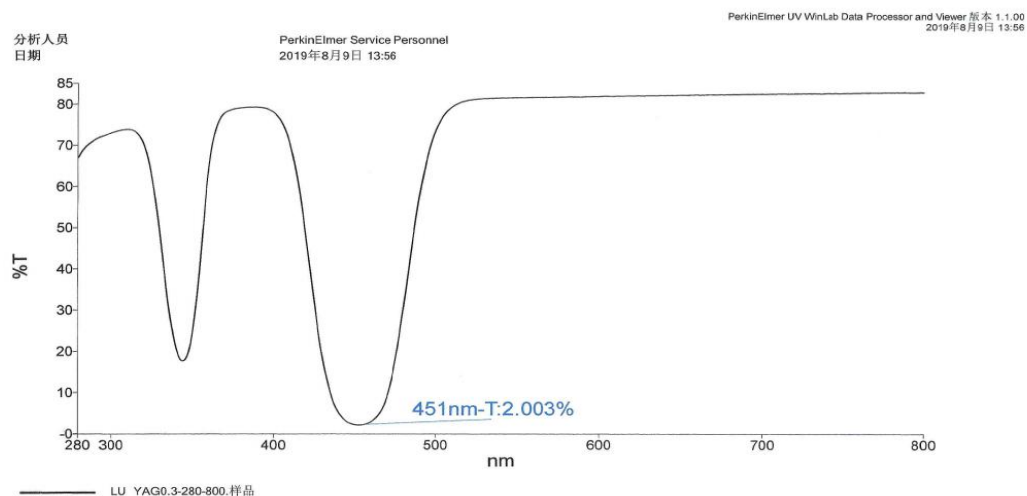
Good mechanical and chemical performance

High density

Fast decay time

Non-hygroscopicity

透射曲线 Transmission Curve:



材料特性 Material Properties:

分子式 Chemical Formula	Ce:Lu ₃ Al ₅ O ₁₂
密度 Density	6.73g/cm ³
硬度 Hardness	8.5 Mohs
熔点 Melting point	1970°C
发射峰 Emission peak	510nm
晶格常数 Lattice constant	a=11.914Å
反射系数 Refractive Index	1.84
膨胀系数 Expanding coefficient	8.8*10 ⁻⁶ /°C
衰变时间 Decay time	80 ns
能量分辨率 Energy resolution	< 8%

科瑞思创提供 Crystro offers:

定向精度 Orientation	< 0.5°
厚度和直径公差 Thickness /Diameter Tolerance	±0.05mm
平行度 Parallelism	< 10"
光洁度 Surface Quality	10/5
侧垂 Perpendicularity	< 15'
倒角 Chamfer	< 0.1*45°
最大尺寸 Dimensions	Maxφ60mm

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