



上海奥普特科晶体材料有限公司

Shanghai Opticrystal Materials Co., Ltd

Ce: LuAG doped with cerium lutetium aluminum garnet :

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Ce:LuAG is a scintillation crystal with excellent performance, which has fast decay (80ns), high light yield, and emission peak at 510nm, which is comparable to the sensitivity of industrial silicon CCD detectors and good mechanochemical stability.

Main features:

Good mechanical and chemical stability

high density

fast decay time

non-hygroscopic

Typical application:

Micro-nano CT

High Energy Gamma and Charged Particle Detection

X -ray, beta , ultraviolet ray imaging screen with high spatial resolution

LED lighting and laser lighting

Material properties:

molecular 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=11.914 Å
Reflection coefficient	1.84
Coefficient of expansion	8.8*10 ⁻⁶ /°C
decay time	80 ns
energy resolution	<8%

Product parameters:

Orientation accuracy	<0.5°
size	Customized
tolerance	±0.05mm
Parallelism	<10"
smoothness	10-5
Perpendicularity	<15'
Chamfer	<0.1mm @45°