



Phosphor Information Leaflet

GENERAL

Name	Lutetium aluminate garnet europium
Chemical formula	$\text{Lu}_3\text{Al}_5\text{O}_{12}:\text{Eu}^{3+}$
Application	Luminescent marker

OPTICAL PROPERTIES

Excitation maxima @	393 nm (3.16 eV)
Emission maximum @ 393 nm exc.	590 nm (2.10 eV), 709 nm (1.75 eV)
Centroid wavelength	649 nm (1.91 eV)
Full width @ half emission maximum	Lines
Lumen equivalent	222 lm/W _{opt.}
CIE1931 chromaticity coordinates (x, y)	0.618, 0.380
Band edge of host lattice	160 nm (7.75 eV)
Reflection @ 394 nm	90 %
Decay time $\tau_{1/e}$	15 μs

PHYSICAL PROPERTIES

Body colour	White
Density	6.70 g/cm ³
Refractive index (at λ)	1.84 (589.3 nm)
Mineral type	Garnet
Crystal system	Cubic
Space group (#)	I a -3 d (230)

