



Phosphor Information Leaflet

GENERAL

Name	Lutetium gallium tetraborate chromium
Chemical formula	$\text{LuGa}_3(\text{BO}_3)_4:\text{Cr}^{3+}$
Application areas	Laser gain media, marker

OPTICAL PROPERTIES

Excitation maxima @ 734 nm em.	260 nm (4.8 eV); 432 nm (2.9 eV); 607 nm (2.0 eV)
Emission maximum @ 434 nm exc.	734 nm (1.7 eV)
Centroid wavelength	740 nm (1.7 eV)
Full width @ half emission maximum	100 nm
Lumen equivalent	3 lm/W
CIE1931 chromaticity coordinates (x, y)	0.703; 0.293
Band edge of host lattice	
Reflection @ 260 nm	70%
Decay time $\tau_{1/e}$	> 1 ms

PHYSICAL PROPERTIES

Body colour	Greenish-white
Density	
Refractive index (at λ)	
Mineral type	huntite
Crystal system	trigonal
Space group (#)	$R\bar{3}2$ h (155)

