



Phosphor Information Leaflet

GENERAL

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

OPTICAL PROPERTIES

Excitation maxima @ 682 nm em.	261 nm (4.8 eV); 434 nm (2.9 eV); 606 (2.0 eV)
Emission maximum @ 434 nm exc.	683 nm (1.8 eV); 723 nm (1.7 eV)
Centroid wavelength	734 nm (1.7 eV)
Full width @ half emission maximum	lines
Lumen equivalent	5 lm/W
CIE1931 chromaticity coordinates (x, y)	0.721; 0.279
Band edge of host lattice	7.0 eV
Reflection @ 260 nm	70%
Decay time $\tau_{1/e}$	> 1 ms

PHYSICAL PROPERTIES

Body colour	Greenish-white
Density	
Refractive index (at λ)	1.7
Mineral type	huntite
Crystal system	trigonal
Space group (#)	$R\bar{3}2$ h (155)

