



Phosphor Information Leaflet

GENERAL

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

OPTICAL PROPERTIES

Excitation maxima @ 747 nm em.	260 nm (4.8 eV); 427 nm (2.9 eV); 609 nm (2.0 eV)
Emission maximum @ 429 nm exc.	747 nm (1.7 eV)
Centroid wavelength	747 nm (1.7 eV)
Full width @ half emission maximum	109 nm
Lumen equivalent	2 lm/W
CIE1931 chromaticity coordinates (x, y)	0.686; 0.308
Band edge of host lattice	
Reflection @ 260 nm	70%
Decay time $\tau_{1/e}$	> 1 ms

PHYSICAL PROPERTIES

Body colour	
Density	4.68 g/cm ³
Refractive index (at λ)	
Mineral type	huntite
Crystal system	trigonal
Space group (#)	$R\bar{3}2$ h (155)

