



# Phosphor Information Leaflet

## GENERAL

Name	Yttrium aluminum tetra borate chromium
Chemical formula	$YAl_3(BO_3)_4:Cr^{3+}$
Application areas	Laser gain media

## OPTICAL PROPERTIES

Excitation maxima @ 740 nm em.	425 nm (2.92 eV); 597 nm ( 2.08 eV)
Emission maximum @ 450 nm exc.	683 nm (1.82 eV); 716 nm (1.73 eV)
Centroid wavelength	730 nm
Full width @ half emission maximum	line
Lumen equivalent	5 lm/W <sub>opt.</sub>
CIE1931 chromaticity coordinates (x, y)	0.717; 0.282
Band edge of host lattice	5.7 eV
Reflection @ 260 nm	59 %
Decay time $\tau_{1/e}$	

## PHYSICAL PROPERTIES

Body colour	green
Density	3.84 g/cm <sup>3</sup>
Refractive index (at $\lambda$ )	1.77 (632.8 nm)
Mineral type	huntite
Crystal system	trigonal
Space group (#)	<i>R</i> 32 h (155)

