



Phosphor Information Leaflet

GENERAL

Name	Yttrium aluminate garnet praseodymium
Chemical formula	$Y_3Al_5O_{12}:Pr^{3+}$
Application areas	UV-B Radiation Sources

OPTICAL PROPERTIES

Excitation maxima @	288 nm (4.31 eV)
Emission maximum @ 280 nm exc.	317 nm (3.91 eV)
Centroid wavelength	407 nm (3.05 eV)
Full width @ half emission maximum	35 nm
Lumen equivalent	54 lm/W _{opt.}
CIE1931 chromaticity coordinates (x, y)	0.433, 0.303
Band edge of host lattice	170 nm (7.29 eV)
Reflection @ 283 nm	10 %

PHYSICAL PROPERTIES

Body colour	Pale green
Density	4.56 g/cm ³
Refractive index (at λ)	1.80 (589.3 nm)
Mineral type	Garnet
Crystal system	Cubic
Space group (#)	I a -3 d (230)

