



Phosphor Information Leaflet

GENERAL

Name	Strontium ortho-phosphate praseodymium
Chemical formula	$\text{Sr}_3(\text{PO}_4)_3:\text{Pr}^{3+},\text{Si}^{4+}$
Application areas	Excimer discharge lamps
Optical transition	$[\text{Xe}]4f^2 ({}^3\text{H}_4) - [\text{Xe}]4f^15d^1$

OPTICAL PROPERTIES

Excitation maxima @ 231 nm	210 nm (5.9 eV)
Emission maximum @ 160 nm exc.	231 nm (5.4 eV)
Centroid wavelength	273 nm (4.5 eV)
Full width @ half emission maximum	12 nm (0.3 eV)
Lumen equivalent	-
CIE1931 chromaticity coordinates (x, y)	-
Band edge of host lattice	-
Decay time $\tau_{1/e}$	< 50 ns

PHYSICAL PROPERTIES

Body colour	White
Density	4.53 g/cm ³
Refractive index (at λ)	
Mineral type	
Crystal system	Trigonal
Space group (#)	$R\bar{3}m$ h (166)

