



Phosphor Information Leaflet

GENERAL

Name	Sodium yttrium fluoride praseodymium
Chemical formula	NaYF ₄ :Pr ³⁺
Application areas	Laser ceramics, Excimer lamps

OPTICAL PROPERTIES

Excitation maxima @	185 nm (6.70 eV)
Emission maximum @ 160 nm exc.	272 nm (4.56 eV), 406 nm (3.05 eV), 482 nm (2.57 eV), 607 nm (2.04 eV)
Centroid wavelength	
Full width @ half emission maximum	10 nm
Lumen equivalent	79 lm/W _{opt.}
CIE1931 chromaticity coordinates (x, y)	0.357, 0.242
Band edge of host lattice	7.38 eV
Reflection @ 300 nm	87 %

PHYSICAL PROPERTIES

Body colour	White
Density	3.97 g/cm ³
Refractive index (at λ)	1.4 (1060 nm)
Mineral type	-
Crystal system	Hexagonal
Space group (#)	P-6 (#174)

