



Phosphor Information Leaflet

GENERAL

Name	Potassium heptafluoro niobate manganese
Chemical formula	$K_2NbF_7:Mn^{4+}$
Application areas	Red emitting phosphor for warm-white LEDs

OPTICAL PROPERTIES

Excitation maxima @ 628 nm em.	260 nm (4.77 eV), 364 nm (3.41 eV), 475 nm (2.61 eV)
Emission maximum @ 474 nm exc.	627 nm (1.98 eV)
Centroid wavelength	625 nm
Full width @ half emission maximum	Lines
Lumen equivalent	226 lm/W _{opt}
CIE1931 chromaticity coordinates (x, y)	0.689, 0.311
Band edge of host lattice	258 nm (4.81 eV) DFT calculated
Reflection @ 474 nm	65%

PHYSICAL PROPERTIES

Body colour	Yellowish
Density	3.21 g/cm ³
Refractive index (at λ)	1.61 (590 nm) DFT calculated
Mineral type	-
Crystal system	Monoclinic
Space group (#)	P12 ₁ /c1(#14)

