



Phosphor Information Leaflet

GENERAL

Name	Potassium titanium fluoride manganese
Chemical formula	$K_2TiF_6:Mn^{4+}$
Application areas	Light emitting diodes

OPTICAL PROPERTIES

Excitation maxima @ 631 nm monitored	470 nm (2.64 eV)
Emission maximum @ 470 nm exc.	631 nm (1.96 eV)
Centroid wavelength	630 nm (1,98 eV)
Full width @ half emission maximum	3 nm
Lumen equivalent	191 lm/W
CIE1931 chromaticity coordinates (x, y)	0.6950, 0.3049
Band edge of host lattice	5.6 eV
Reflection @ 254 nm	7%
Decay time $\tau_{1/e}$	~ 6.5 ms

PHYSICAL PROPERTIES

Body colour	Yellow
Density	3.03 g/cm ³
Refractive index (at λ)	1.41
Mineral type	
Crystal system	Tetragonal
Space group (#)	P-3m1 (164)

