



Phosphor Information Leaflet

GENERAL

Name	Potassium terbium tungstate
Chemical formula	KTbW_2O_8
Application areas	Luminescent marker, solid-state laser
Optical transition	$[\text{Xe}]4f^8(^5\text{D}_4)-[\text{Xe}]4f^8(^7\text{F}_j)$

OPTICAL PROPERTIES

Excitation maxima @	486 nm (2.6 eV), 378 nm (3.3 eV)
Emission maximum @ 160 nm exc.	541 nm (2.3 eV), 548 nm (2.3 eV)
Centroid wavelength	565 nm (2.2 eV)
Full width @ half emission maximum	lines
Lumen equivalent	505 lm/W _{VIS}
CIE1931 chromaticity coordinates (x, y)	0.329, 0.608
Band edge of host lattice	-
Reflection @ 260 nm	8 %
Decay time 1/e	200 μs

PHYSICAL PROPERTIES

Body colour	White
Density	7.2 g/cm ³
Refractive index (at λ)	-
Mineral type	-
Crystal system	Monoclinic
Space group (#)	C12/c1 (15)

