



Phosphor Information Leaflet

GENERAL

Name	Yttrium oxide sulphide thulium
Chemical formula	$Y_2O_2S:Tm^{3+}$
Application areas	x-ray detectors, cathode ray tubes

OPTICAL PROPERTIES

Excitation maxima @ 456 nm em.	265 nm (4.68 eV), 363 nm (3.42 eV)
Emission maximum @ 363 nm exc.	455 nm (2.73 eV)
Centroid wavelength	-
Full width @ half emission maximum	Lines
Lumen equivalent	11 lm/W _{vis.}
CIE1931 chromaticity coordinates (x, y)	0.157, 0.039
Band edge of host lattice	270 nm (4.6 eV)
Reflection @ 254 nm	10 %
Decay time 1/e	-

PHYSICAL PROPERTIES

Body colour	Whitish-brown
Density	4.9 g/cm ³
Refractive index (at λ)	
Mineral type	
Crystal system	Trigonal
Space group (#)	P-3m1 (164)

