

Phosphor Information Leaflet

GENERAL

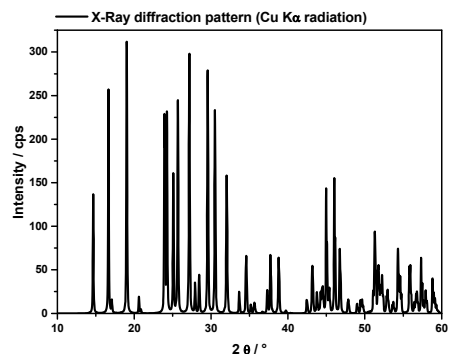
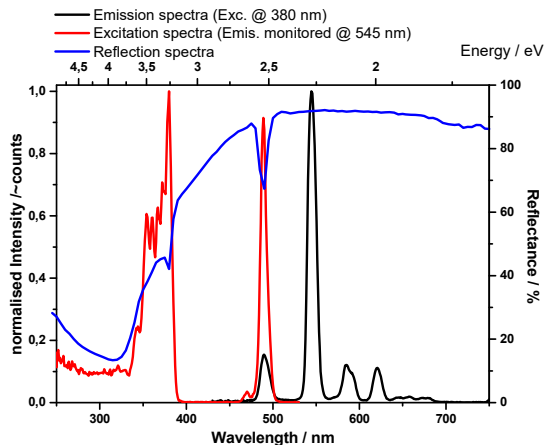
Name	Terbium trimolybdate
Chemical formula	Tb ₂ Mo ₃ O ₁₂
Application areas	Colour converter in near UV LEDs

OPTICAL PROPERTIES

Excitation maxima @	354 nm (3.50 eV), 380 nm (3.26 eV), 489 nm (2.54 eV)
Emission maximum @ 380 nm exc.	545 nm (2.28 eV)
Centroid wavelength	554 nm (2.24 eV)
Full width @ half emission maximum	Lines
Lumen equivalent	535 lm/W _{opt.}
CIE1931 chromaticity coordinates (x, y)	0.336, 0.621
Band edge of host lattice	300 nm (4.13 eV)
Reflection @ 380 nm	42 %

PHYSICAL PROPERTIES

Body colour	Greenish-white
Density	4.59 g/cm ³
Refractive index (at λ)	≈ 2
Mineral type	
Crystal system	Tetragonal
Space group (#)	C -4 m 21 (113)



Literatur: F. Baur, F. Glocker, T. Jüstel, J. Mater. Chem. C, 2015,3, 2054-2064
 "Photoluminescence and energy transfer rates and efficiencies in Eu³⁺ activated Tb₂Mo₃O₁₂"