



Phosphor Information Leaflet

GENERAL

Name	Strontium germanate chromium
Chemical formula	$\text{SrGa}_{12}\text{O}_{19}:\text{Cr}^{3+}$
Application areas	Laser gain media

OPTICAL PROPERTIES

Excitation maxima @ 740 nm em.	266 nm (4.66 eV), 451 nm (2.75 eV); 632 nm (1.96 eV)
Emission maximum @ 450 nm exc.	694 nm (1.79 eV); 754nm (1.64eV)
Centroid wavelength	729 nm
Full width @ half emission maximum	75 nm
Lumen equivalent	6 lm/W _{opt.}
CIE1931 chromaticity coordinates (x, y)	0.658; 0.333
Band edge of host lattice	1.86 eV
Reflection @ 450 nm	71 %
Decay time $\tau_{1/e}$	

PHYSICAL PROPERTIES

Body colour	green
Density	6.15 g/cm ³
Refractive index (at λ)	
Mineral type	magnetoplumbite
Crystal system	hexagonal
Space group (#)	$P6_3/mmc$ (194)

