



Phosphor Information Leaflet

GENERAL

| | |
|-------------------|-----------------------------------|
| Name | Lanthanum aluminum oxide chromium |
| Chemical formula | $\text{LaAlO}_3:\text{Cr}^{3+}$ |
| Application areas | Laser gain media |

OPTICAL PROPERTIES

| | |
|---|----------------------------------|
| Excitation maxima @ 734 nm em. | 414 nm (3.0 eV); 564 nm (2.2 eV) |
| Emission maximum @ 410 nm exc. | 734 nm (1.69 eV) |
| Centroid wavelength | 731 nm |
| Full width @ half emission maximum | lines |
| Lumen equivalent | 14 lm/W _{opt.} |
| CIE1931 chromaticity coordinates (x, y) | 0.430; 0.532 |
| Band edge of host lattice | 5.6 eV |
| Reflection @ 410 nm | 61 % |
| Decay time $\tau_{1/e}$ | 48 ms |

PHYSICAL PROPERTIES

| | |
|----------------------------------|------------------------|
| Body colour | Pale pink |
| Density | 6.52 g/cm ³ |
| Refractive index (at λ) | |
| Mineral type | Perovskite |
| Crystal system | Cubic |
| Space group (#) | $Pm-3m$ (221) |

