



Cerium doped silicate yttrium, YSO(Ce), belongs to monoclinic rare earth ortho-silicate crystal, it is similar with the LYSO(Ce) crystal, while generally used as a semiconductor and in photo optic applications. YSO(Ce) crystal shares the same emission peak 420 nm with LYSO(Ce), but it is less efficient in terms of light output, which is around 28,000 Photons/MeV, the decay time of YSO(Ce) 50-70 ns is slower than LYSO(Ce)'s 40 ns.

General parameters	YSO(Ce)	Unit
Density	4.40	g/cm ³
Wavelength of Emission Peak	410	nm
Light Output	28,000	ph/MeV
Decay Constant	62	ns
Anti-radiation	1 x 10 ⁸	rad
Refractive Index	1.82	/
Hardness	5.8	mohs
Hygroscopic	no	/
Cleavage	no	/

Basic Information

- Growth technique ----- Czochralski
- Dimension(max) ----- Diameter 70 mm×200 mm
- Achieved items ----- Single crystal and array

Features

- 1 ----- High light output
- 2 ----- Relatively short decay time
- 3 ----- High density and anti-radiation hardness
- 4 ----- Stable chemical and physical properties

Main Applications

- 1 ----- Radiation detection
- 2 ----- Security industry
- 3 ----- Semiconductor
- 4 ----- Photo optic applications