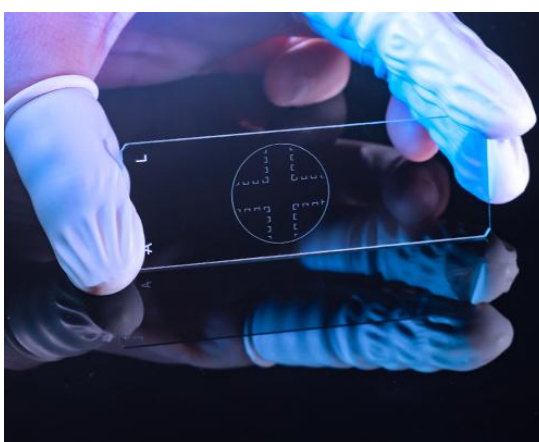


## LYSO(Ce) Scintillator Crystals

### Features:

- High Light Output and Short Decay Time
- High Energy Resolution
- High Density and Anti-radiation
- Stable Chemical and Physical Properties
- Maximum Size:  $\Phi 105\text{mm} \times 200\text{mm}$
- LYSO(Ce) Bulk Crystals, LYSO(Ce) Screens, and LYSO(Ce) Scintillator Arrays are available



### Product Description:

Cerium-doped silicate yttrium lutetium, Ce: LYSO or LYSO (Ce) crystal in short, is a Cerium doped and lutetium based scintillation crystal. LYSO (Ce) crystal is a new type of scintillation material that has excellent properties: high density, short decay time, high light output, anti-radiation. LYSO (Ce) crystal is also a reliable scintillation material with stable chemical and physical properties. LYSO(Ce) is ideal for applications that require higher throughput, better timing, and energy resolution, including time-of-flight Positron Emission Tomography (PET) scanning machines. Gamma-ray detectors based on Cerium doped LYSO hold broad prospects in fields like Nuclear Medical Imaging, High Energy Physics, Nuclear Physics, etc.

Hangzhou Shalom EO offers custom LYSO(Ce) blanks, polished components, scintillation screens, and LYSO(Ce) arrays upon the customer's request, our LYSO scintillation crystals are grown by Czochralski method, the largest diameter of 105mm and a maximum length of 200mm crystals are available.

**Applications:**

- Positron emission tomography (PET)
- Medically X-ray CT
- High energy physics
- Nuclear medicine
- Nuclear radiation scanner
- Geological prospecting
- Radiation detector
- Radiation Monitoring Systems
- Gamma pulse spectroscopy

**Product Specifications:**
**Basic Properties:**

Melting Point (°C)	2050	Density (g/cm <sup>3</sup> )	7.2
Hygroscopic	None	Hardness (Mohs)	5.8
Wavelength of Emission Peak(nm)	428	Refractive Index @ Emission Peak	1.82
Decay Time (ns)	<42	Energy Resolution (%)	8%-10%
Light Yield (Photons/MeV)	≥32000	Anti-radiation (rad)	>10 <sup>6</sup>
Effective Atomic Number	66		

**Specifications:**

Growth Method	Czochralski	Items	Both LYSO(Ce) crystals and LYSO (Ce) arrays are available
Maximum Dimension	∅ 105 mm x 200 mm		