

# Fast-LGSO

## Key Scintillator Materials for Novel Radiation Detectors

Fast-LGSO (Ce-doped  $\text{Lu}_{2-x}\text{Gd}_x\text{SiO}_5$ )



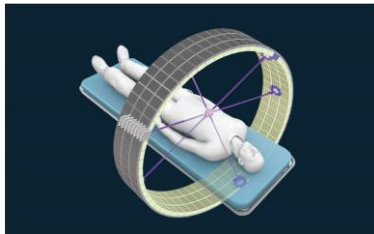
Ingot size : Φ94 × 300 mm

## Features

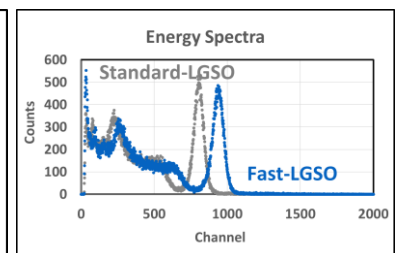
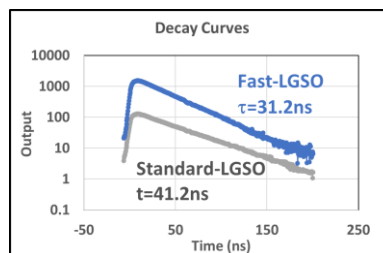
- ✓ Faster decay than standard LGSO
- ✓ Larger light output than standard LGSO
- ✓ Good timing resolution
- ✓ Other characteristics are equivalent to standard LGSO
- ✓ No hygroscopicity

## Applications

Positron Emission Tomography



## Properties



## Comparison of Typical Scintillators

	Fast-LGSO	LGSO	LSO	LYSO	NaI:TI
Light yield (NaI=100)	~90	~90	~90	~90	100
Decay time (ns)	30~36	40~42	40~42	40~42	230
Energy resolution ( $^{137}\text{Cs}$ , %)	8~10	8~10	8~10	~10	~7
Density ( $\text{g}/\text{cm}^3$ )	7.3~7.4	7.3~7.4	7.4	7.2	3.7
Hygroscopicity	No	No	No	No	Yes
Self-radiation	Yes	Yes	Yes	Yes	No

# OXIDE

OXIDE Corporation

1747-1 Maginohara, Mukawa, Hokuto, Yamanashi 408-0302 JAPAN  
Tel: +81-551-26-0022, Fax: +81-551-26-0033



Sales@opt-oxide.com



<https://www.opt-oxide.com>



Oxide Yamanashi



OXIDE Corporation

Sales Contact in North America: Specialty Chemicals Dept., Marubeni America Corporation.  
Tel: +1 (914) 428-8900, [productinfo@marubeni.com](mailto:productinfo@marubeni.com)