

GSO/GSOZ

Key Scintillator Materials for Novel Radiation Detectors

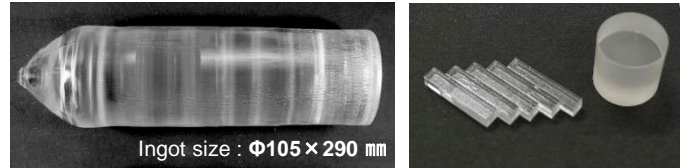
Features

GSO (Ce-doped Gd_2SiO_5)

- ✓ Good scintillation characteristics up to 150°C
- ✓ Decay time can be varied by changing the Ce concentration
- ✓ Excellent radiation resistance
- ✓ No hygroscopicity
- ✓ No self-radiation

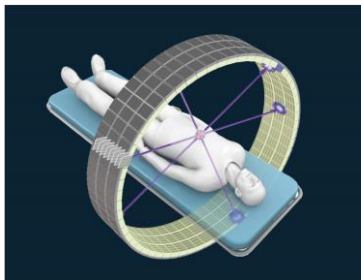
GSOZ (Zr, Ce-doped Gd_2SiO_5)

- ✓ Larger light out than GSO
- ✓ Other characteristics are equivalent to GSO

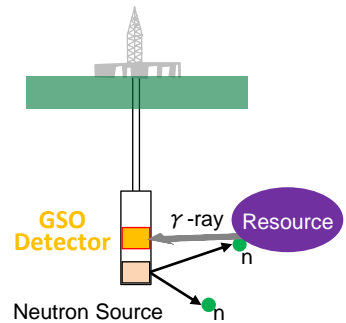
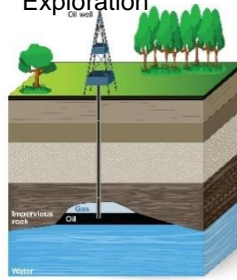


Applications

Positron Emission Tomography



Underground Resource Exploration



Comparison of Typical Scintillators

	GSO	GSOZ	LGSO	LSO	BGO	NaI:Tl
Light output (NaI=100)	20	24	~90	~90	12	100
Decay time (ns)	30~60	30~60	40~42	40~42	300	230
Peak wavelength λ_{em} (nm)	430	430	410	410	480	415
Density (g/cm ³)	6.7	6.7	7.3~7.4	7.4	7.13	3.67
Effective atomic number Z_{eff}	58	58	63	63	77	50
Hygroscopicity	No	No	No	No	No	Yes
Self-radiation	No	No	Yes	Yes	No	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