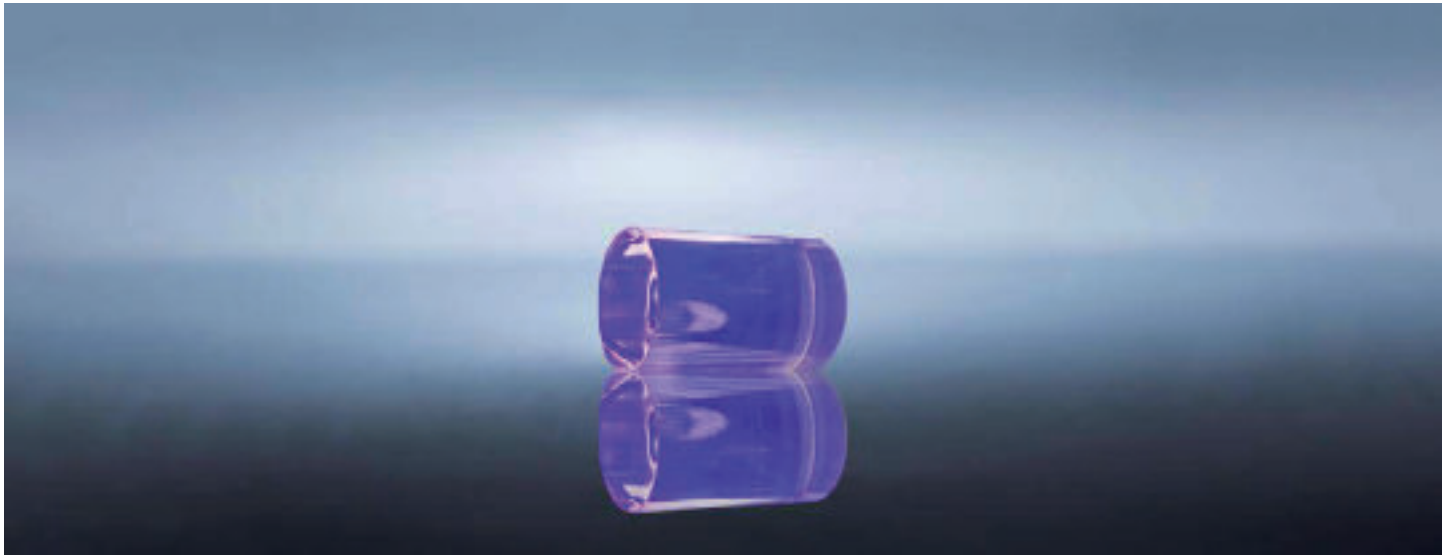


Eu:SrI₂ Scintillator Crystal



DESCRIPTION

Eu:SrI₂ crystal is an excellent scintillation crystal with relatively large effective atomic number, high light output, very high energy resolution, and relatively low afterglow time. It is very suitable for application in nuclear isotope identifiers and security inspection, and potential for industrial and medical computer tomography, high resolution X-ray imaging. The emission peak of Eu:SrI₂ crystal is about 435 nm. Which matches well with the photomultiplier tube (PMT) and silicon photodiode (PD).

FEATURES

- Good Energy Resolution
- High Thermal Conductivity
- High Mechanical Strength
- Fast Decay Time
- High Light output

APPLICATIONS

- Hand-held high-precision nuclide identification instrument
- Portable gamma spectrometer
- Online measurement of radioactive waste water
- Element isotope screening
- Industrial and medical X-ray tomography
- Ultra-high resolution X-ray imaging
- Neutron detection

PARAMETERS

SCINTILLATOR PROPERTIES

Wavelength (Max.emission) (nm)	435
Wavelength range (nm)	400~480
Decay time (ns)	1200
Light yield (photons/MeV)	80
Light output (photons/MeV)	80000
Refractive index	1.85
Radiation length (cm)	1.95
Optical transmission (um)	0.13-10
Energy resolution (%)	<3
X-ray Absorption Coef.at 100 KeV (cm ⁻¹)	2.88
X-ray Absorption Coef.at 662 KeV (cm ⁻¹)	0.13

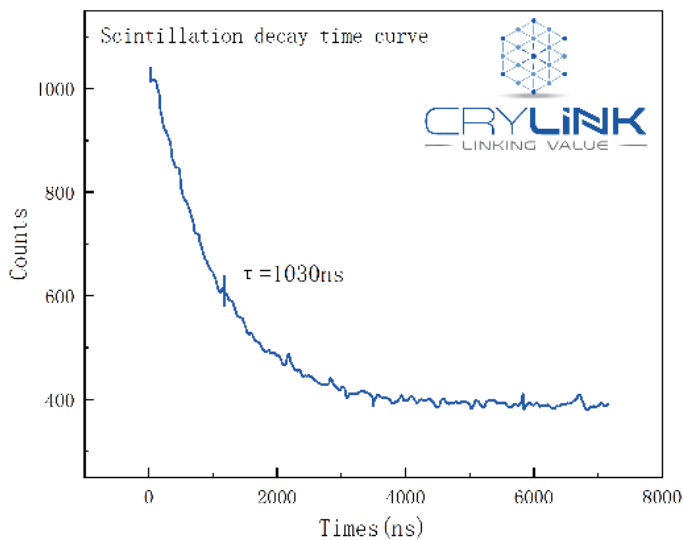
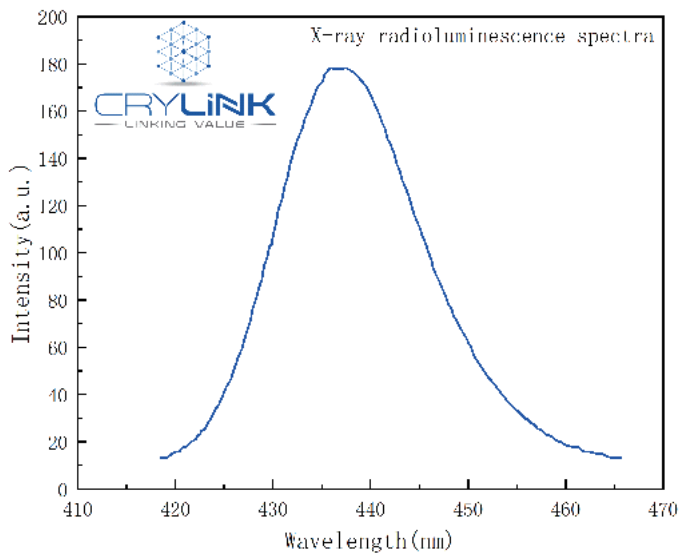


Eu:SrI₂ Scintillator Crystal

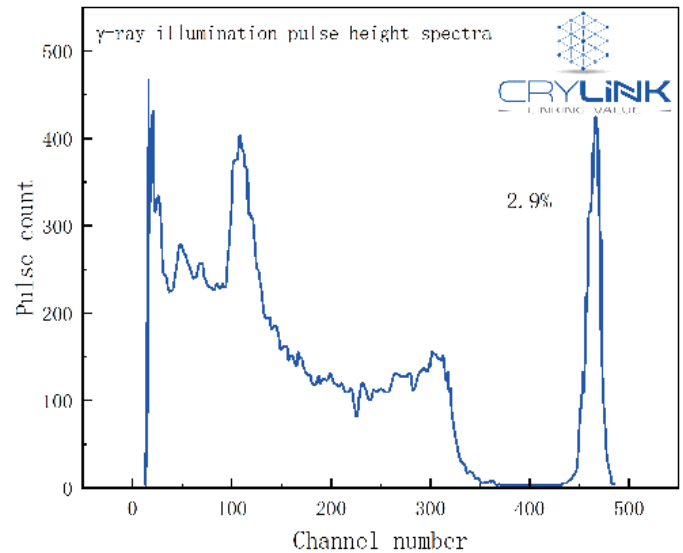
MATERIAL PROPERTIES

Chemical formula	Eu: SrI ₂
Density (g/cm ³)	4.55
Melting point (°C)	538
Hygroscopic	Yes
Atomic number (effective)	49
Thermal expansion coeff (C ⁻¹)	21.64*10 ⁻⁶

SPECTRA



SPECTRA



PMT:R1306 ; Reflector: Teflon(0.8mm);
 Radiation source: Cs¹³⁷ HV:650V
 Light Output :80000 ph/MeV;
 Energy resolution :2.9%

