SCIONIX

SrI2(Eu) Scintillation Detectors

High-resolution $SrI_2(Eu)$ scintillation detectors

Europium-doped strontium iodide gives high resolution thanks to very good proportionality and high light output: approx. 3.5% FWHM at 662 keV. The scintillator is relatively slow, 1–5 µs, and crystals are available up to 38 x 38 mm.



Energy resolution at 662 keV	Light yield	Maximum crystal size
Approx. 3.5% FWHM [1]	**80 photons/keV** [1]	**38 x 38 mm** [1]

Specifications

DETECTOR		
Scintillator	$SrI_2(Eu)$, europium-doped strontium iodide (2 mol% Eu)	[1]
PERFORMANCE		
Energy resolution at 662 keV	Approx. 3.5% FWHM	[1]
Typical resolution by energy	38 x 38 mm: 59.5 keV 10%; 122 keV 6%; 356 keV 5%; 662 keV 3.5%; 1,332 keV 3%; 2,600 keV 2.5%	[1]
MECHANICAL		
Emission wavelength	400–480 nm	[1]
Maximum crystal size	38 x 38 mm	[1]
GENERAL		
Density	4.6 g/cm³	[1]
Refractive index	1.85 (at emission maximum)	[1]
Decay time	1–5 µs, size dependent	[1]
Light yield	80 photons/keV	[1]
Photoelectron yield (NaI(Tl) = 100)	120–140	[1]
Hygroscopic	Yes	[1]

Sources

[1] **High resolution SrI2(Eu) scintillation detectors – data sheet**
Scionix · datasheet · p. 1; p. 2 · checked 2026-11-26
https://scionix.nl/wp-content/uploads/2022/09/SrI2Eu-datasheet.pdf

Every value is taken from the manufacturer's own document; the number after the value refers to the source list. Always check against the latest datasheet before ordering.

The data comes from the manufacturer’s published documents. Manufacturers may change specifications; the current configuration and performance are confirmed in the quotation.