

LB-38x38



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Description

Lanthanum Bromide LB-38x38 is a well-known fast and bright high-energy resolution scintillation material. Enhanced energy resolution is achieved by co-doping discovered and patented by Sandia National Laboratory and many decades of CapeSym's crystal growth expertise. CapeSym is growing LaBr(Ce) and other advanced scintillator materials in its facility in Natick, MA USA.

Specifications

Shape	Cylinder
Detector type	LaBr ₃ (Ce)
Detector size	Ø38.1×38.1 mm
Energy range	From 10 keV
Typical resolution	2.5% at 662 keV
Typical sensitivity to gamma radiation, cps/(µSv·h ⁻¹)	850 (¹³⁷ Cs)
Readout	N/A
Dimensions	Ø42.0×46.0 mm
Weight	280 g
Additional Features	Low Actinides contamination

Benefits

- Excellent energy resolution – 2.5% at 662 keV and below 2.0% at 1333 keV
- Light output 70,000 ph/MeV
- Seamless design
- Density 5.1 g/cc and high Zeff
- La-138 internal activity for calibration with minimal Actinides contamination
- Fast decay time
- Operating temperature: -40 to 55 °C

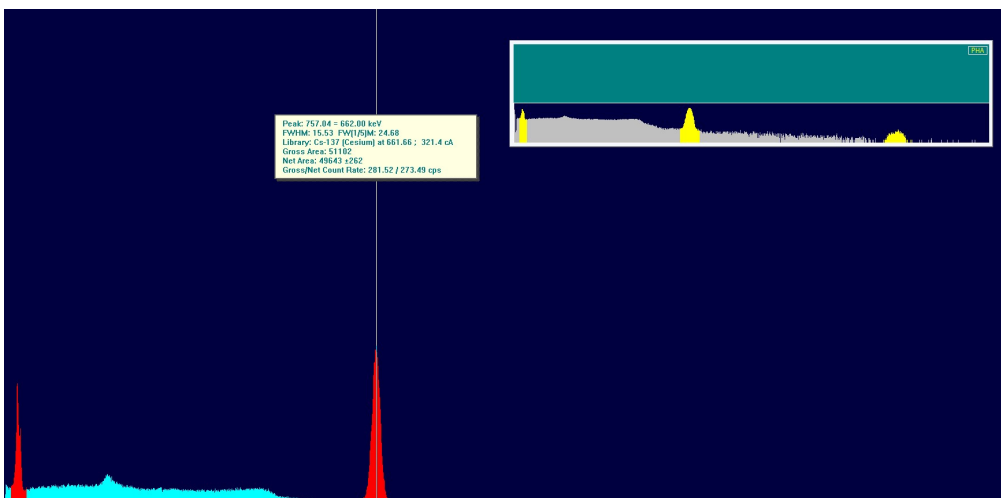
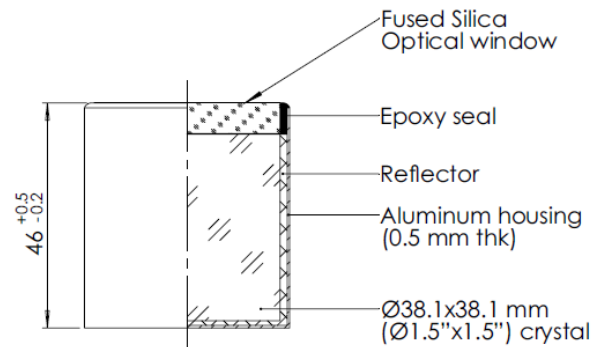


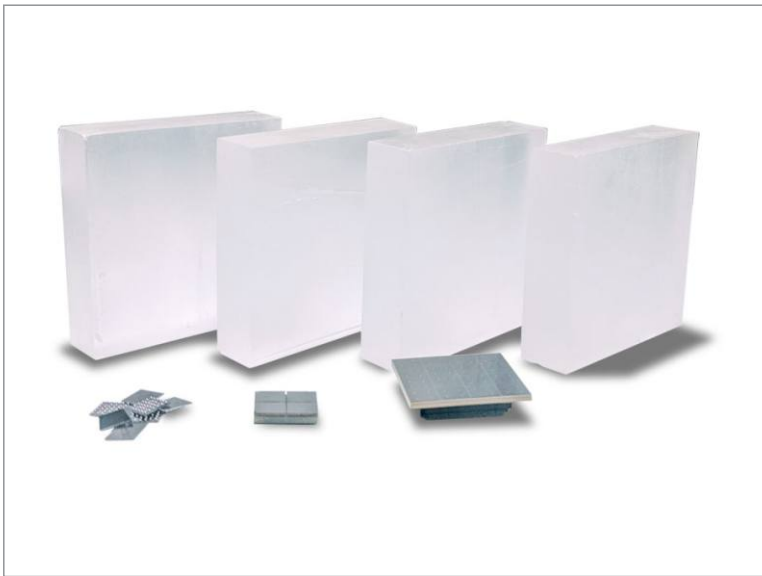
Fig. LB-38x38 Pulse-height spectra recorded with Cs-137 r/a source. Photopeak energy resolution 2.3% at 662 keV.



About CapeScint

CapeScint is a subsidiary of CapeSym, Inc. a multi-faceted company with 100+ years of combined experience in scintillators, semiconductors, and radiation detection instruments. CapeScint has its warehouse facilities and customer support staff located in Greater Boston Area, Massachusetts, USA.

Founded in 1992 as Cape Simulations, CapeSym, Inc. is now a multi-faceted company offering novel technical crystals and detectors for nuclear detection, including ScintiClear Srl(Eu), ElpasoLight™ CLYC(Ce), enhanced LaBr(Ce), 6LiI(Eu), and other scintillators.



Our ongoing R&D leverages decades of experience in crystal growth, solid state physics, analytical chemistry, materials science, thermo-fluid transport, and engineering design. CapeScint as a subsidiary of CapeSym, Inc. has a long history working with the US Government as a contractor and as a supplier of essential goods and services. During the last 30 years CapeSym, Inc. and supported missions of multiple US Government agencies including NASA, MDA, USAF, DoE, DTRA, NIH, CWMD, and US Navy.



Design and specifications are subject to change without notice