

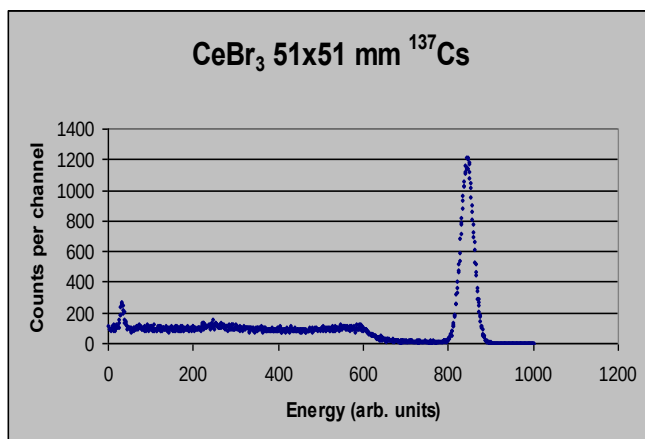


Data Sheet

High resolution low background CeBr₃ scintillators

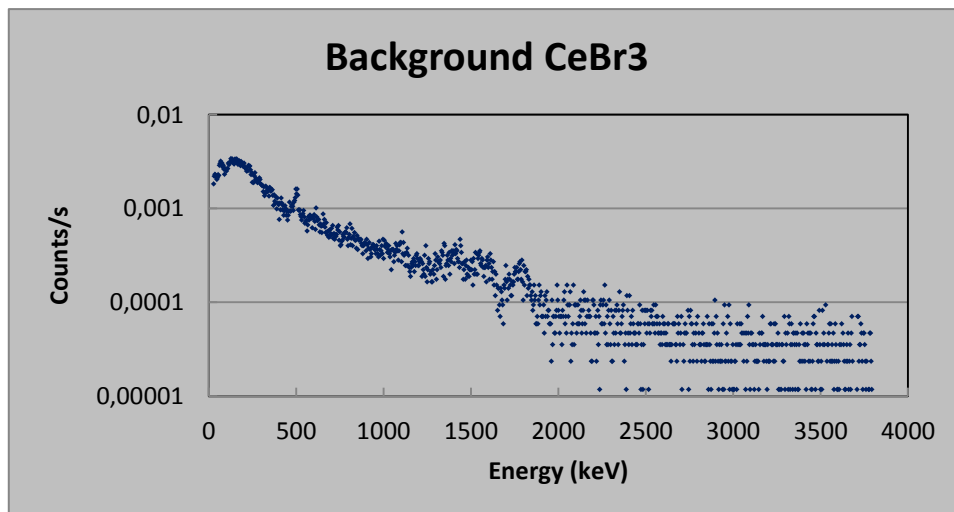
CeBr₃ scintillation crystals offer an alternative to NaI(Tl) crystals for high resolution gamma spectrometry. Above an energy of 200 keV, the resolution is superior to NaI(Tl). CeBr₃ scintillation detectors do not suffer from the intrinsic La-138 background typical for La-halide scintillators.

Density	:	5.2 g / cc
Maximum emission	:	380 nm
Decay time (typical)	:	18-20 ns
Size	:	up to 76 mm diameter, 102 mm length



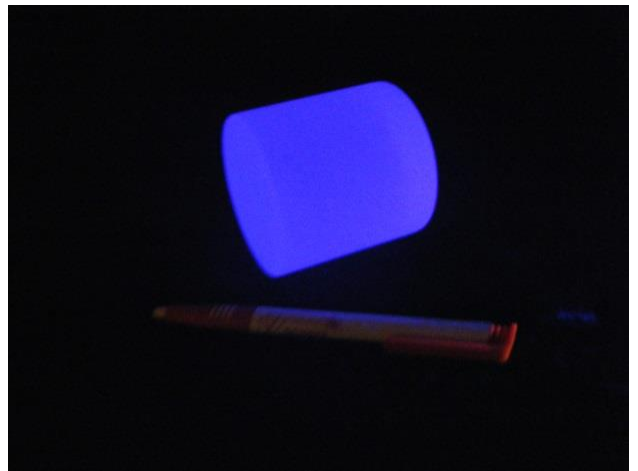
Typical pulse height spectrum

Background spectrum
inside 50 mm Lead shield



Typical energy resolution (FWHM) in % :

Energy (keV)	Nal(Tl)	CeBr ₃
30	18	20
60	11	13
81	10	11
122	8.5	8
356	8	5
662	7	4
1332	5	3
2600	4	2



76 x 76 mm CeBr₃ crystals under ambient and UV light

References : Quarati et al. NIM A 729 (2013) pp 596-604