

CeBr₃

Excellent light output,
Excellent energy resolution, and
Fast decay time
Scintillator



CeBr₃

Product Information

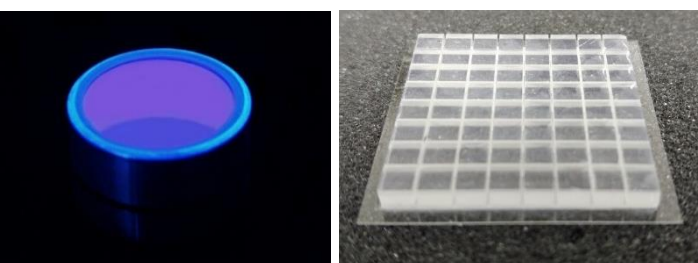


Fig.1: Photograph of CeBr₃ scintillator

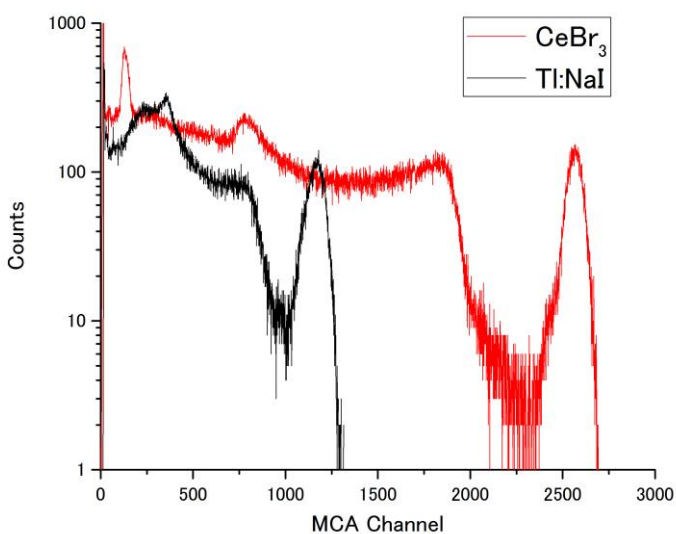


Fig.2: Pulse height spectra of CeBr₃ and Tl:NaI irradiated with gamma rays from a ¹³⁷Cs source.

Outline

CeBr₃ scintillator is one of the best inorganic scintillators with excellent light output, energy resolution, and fast decay time. Compared with Ce:LaBr₃, CeBr₃ has quite-small intrinsic gamma-ray background. Especially for applying to timing measurements, CeBr₃ is the best candidate among inorganic scintillators.

Scintillation Properties*2

Light output [photons/MeV]	70,000 – 80,000
Energy resolution (662 keV, FWHM) [%]	3 – 4
Decay time [ns]	20
Emission wavelength [nm]	370
Density [g/cm ³]	5.2

*2 All scintillation properties were measured using 2 x 2 x 1 mm³ sample coupled with R7600U-200 PMT.

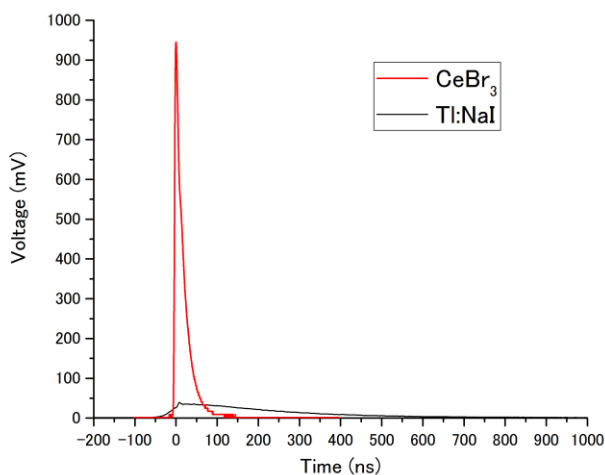


Fig.3: Scintillation decay curves of CeBr₃ and Tl:NaI irradiated with gamma-rays from a ¹³⁷Cs source

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