



Cerium bromide crystal (CeBr<sub>3</sub> Crystal) has excellent scintillation performance. Its energy resolution and decay time are comparable to those of LaBr<sub>3</sub>. It also has better time resolution characteristics, which can achieve accurate identification and identification of radiation sources with different energy levels. analyze. Cerium bromide crystal also has a relatively high effective atomic number, and its constituent elements have no natural radioactive isotopes. In the energy range of 1500-2200 keV, its own background radiation is less than 0.001 c/s/cc.

General parameters	CeBr <sub>3</sub>	Unit
Density	5.10	g/cm <sup>3</sup>
Melting Point	1,056	K
Wavelength of Emission Peak	380	nm
Energy Resolution	<4.5%	@662KeV
Light Output	60,000	ph/MeV
Decay Constant	20	ns
Cleavage	no	/
Hygroscopic	yes	/
Refractive Index	2.10	/

## Basic Information

- Growth technique ..... Bridgman
- Dimension(max) ..... Diameter 100 mm×130 mm
- Achieved items ..... Encapsulated and assembly detectors

## Characterization

- Dimension of CeBr<sub>3</sub>: Ø51×51 mm; PMT: R6231; Radiation source: Cs<sup>137</sup>; Energy resolution: 3.8%; Background: 0.025c/s/cc for standard; <0.001c/s/cc for ultra low CeBr<sub>3</sub>

