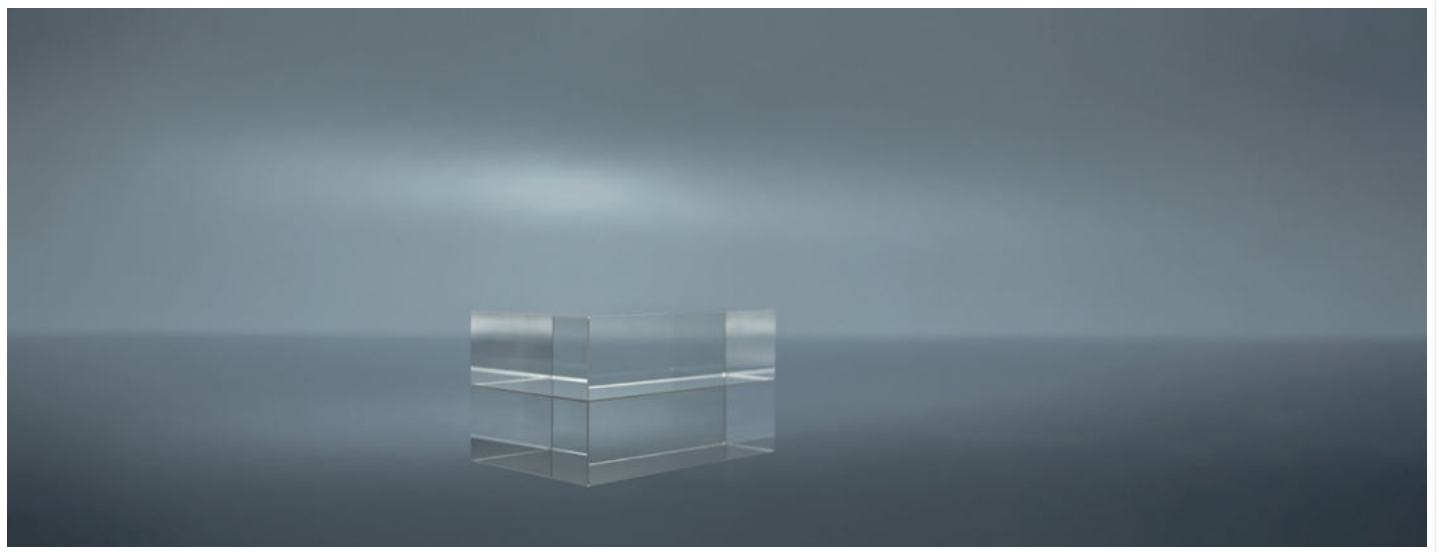


# CeF<sub>3</sub>



## DESCRIPTION

CRYLINK's CeF<sub>3</sub> crystal product is a kind of fluoride crystal product with excellent comprehensive performance. It is widely used in the fields of  $\gamma$ -ray detection, high energy and nuclear physics,  $\beta$ -ray detection. The product has the characteristics of high density, good temperature stability and high detection efficiency. Can be used in Faraday isolator, X-ray detector,  $\beta$ -ray detector,  $\gamma$ -ray detector products.

## FEATURES

- Insoluble
- High density
- Fast decay time
- High atomic number
- High detection efficiency
- Good temperature stability

## APPLICATIONS

- PET
- $\gamma$ -ray detection
- Faraday isolator
- X-ray,  $\beta$ -ray detection
- High energy and nuclear physics



# CeF<sub>3</sub>

## SPHYSICAL AND CHEMICAL PROPERTIES

Property	Value
Chemical Formula	CeF <sub>3</sub>
Density (g/cm <sup>3</sup> )	6.16
Melting Point (°C)	1443
Refractive Index@ 400nm	1.62
Radiation Length (cm)	1.68
Emission Peak (nm)	340(Slow); 300(Fast)
Attenuation Constant (ns)	30(Slow); 8(Fast)
Light Output [NaI(Tl)=100%]	8.6

## SCINTILLATION PROPERTIES

Property	Value
Wavelength (Maximum Emission) (nm)	286, 300, 340
Wavelength Range (nm)	280-700
fall time (ns)	44346
Amount of light (photon / MeV)	7000-12000
Radiation Length (cm)	1.68
Absorption length (cm-1)	3.5
Light Output (phe/MeV)	340-470
Thermal Cross Section	0.65 barn

## SPECTROGRAM

