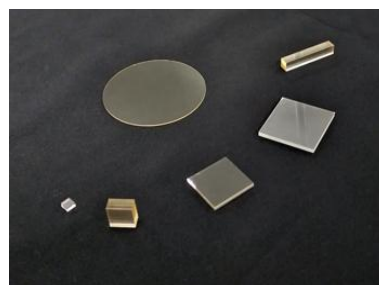


CdWO₄ Scintillators

CdWO₄ crystal is characterized by high density, high atomic number and relatively high light yield with extremely low decay time. When subjected to x-ray irradiation, the after-glow of CdWO₄ is very slow typically less than 0.1% after 3ms, and demonstrate very good resistance. All of these features are significant and make CdWO₄ a primary scintillation crystal for x-ray CT and in security inspection.



Features:

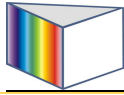
- low after-glow
- High density, high-Z scintillator
- Relatively high light yield
- Withstands high energy radiation damage
- Suitable for low activity counting application

Ability:

- Growth method: Bridgman
- Maximum dimension: ∅ 80 mm x 200 mm
- Available items: single crystal and 1D array or 2D array
- Inhomogeneity between pixels in array: <15%

Basic Properties:

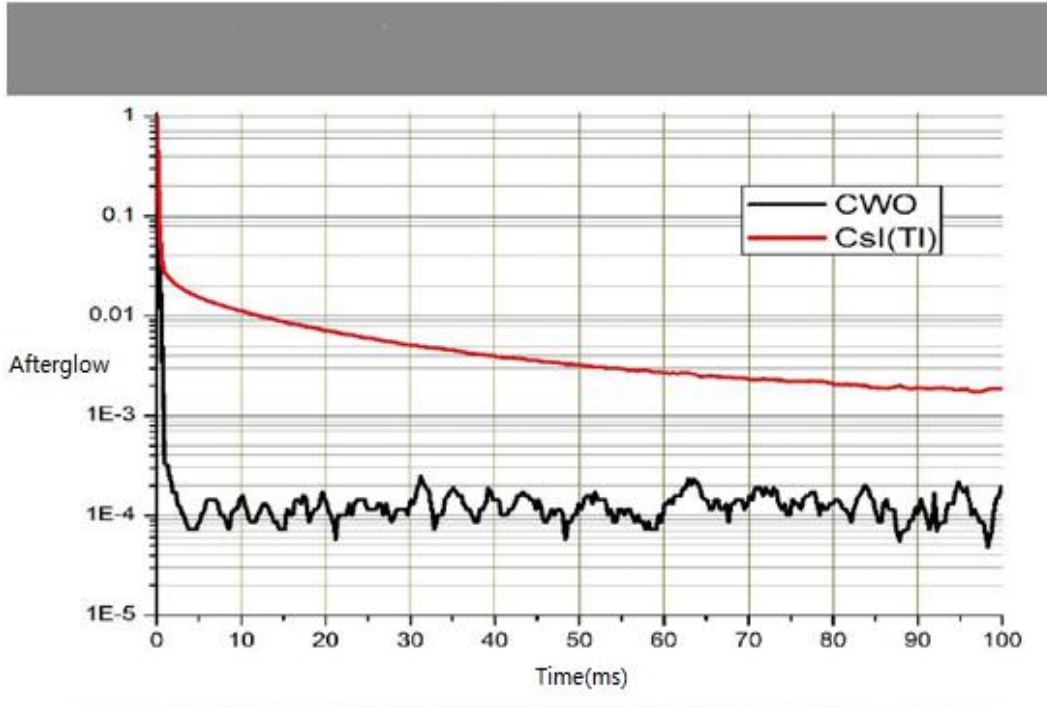
Basic Properties:	
Melting Point (°C)	1598
Density (g/cm ³)	7.9
Hygroscopic	None
Hardness (ns)	4~4.5
Wavelength of Emission Max. (nm)	2.2~2.3
Decay Time (ns)	14000
Light Yield (photons/MeV)	12000~15000
Photoelectron Yield (% of NaI(Tl)) (for γ-rays)	30~50



Afterglow(%@3ms)	<0.1
Radiation Length(cm)	1.06

Note: The boules, blanks, polished elements and scintillator arrays are available.

The after-glow of CdWO₄ and CsI(Tl)



Application Notes:

- Security inspection
- X-ray CT
- High energy physics
- Nuclear medicine