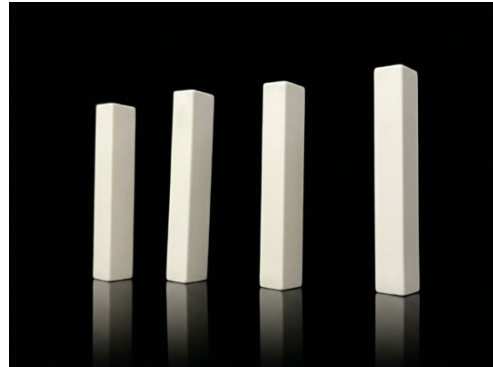


SCINTILLATOR ARRAYS

CdWO₄ Array

Product Brochure & Technical Reference

CdWO₄ scintillator arrays for X-ray detection and imaging projects. Pixel layout, separator construction, optical finish and readout coupling should be reviewed as one assembly.



Reference product image. Shown geometry is illustrative.

Material reference properties / options

Property	Typical Value
Relative light output of NaI(Tl)	30% to 50%
Scintillation decay time	14000 ns
Emission peak wavelength	475 nm
Refractive index at peak wavelength	2.3
Density	7.9 g/cm ³
Hygroscopic	No
Mohs hardness	4.5
Light yield	12 to 15 photons/keV

Reference values and options for selection. Confirm the material grade, geometry, test conditions and acceptance criteria for the quoted configuration.

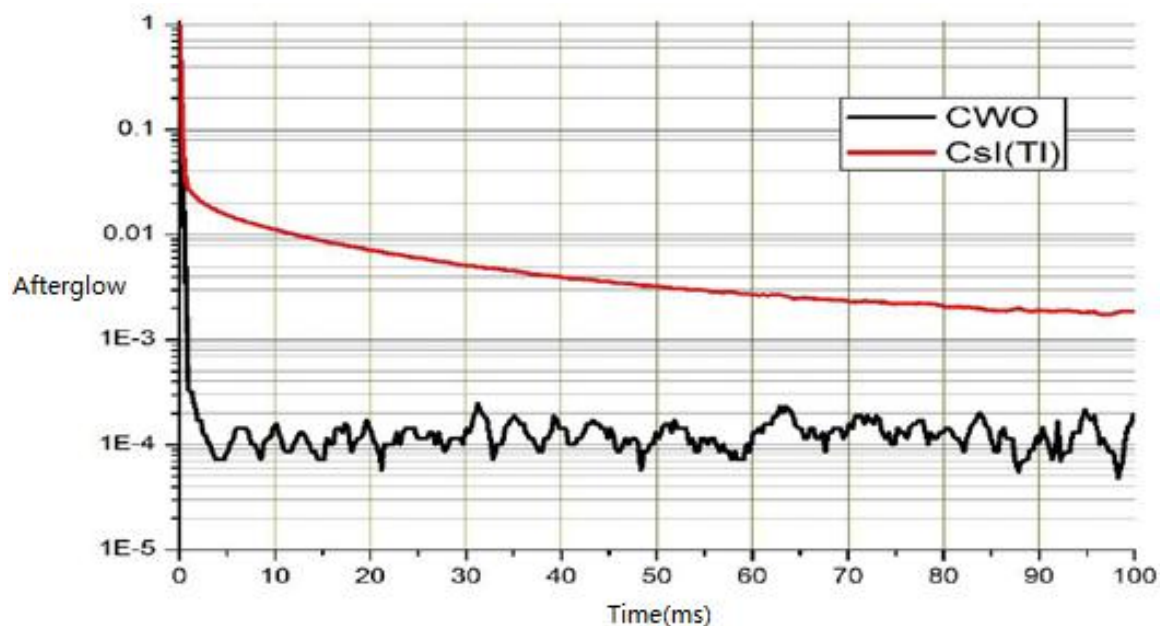
SCINTILLATOR ARRAYS

Configuration & quotation

Define the component around your application

Application examples: Industrial computed tomography scanners; Medical computed tomography detector modules; Security inspection for luggage, containers and vehicles

Material afterglow reference



The figure compares CWO and CsI(Tl) material afterglow. It is a material reference for array selection; define the assembled array acceptance test with its readout and operating conditions.

Reflector Types and Thicknesses of CdWO₄ Array

Material	Thickness of Reflector Material + Adhesive
TiO ₂	≥ 0.1 mm
BaSO ₄	≥ 0.1 mm

Specifications of CdWO₄ Array

Array Item	Typical Option	Notes
Linear array	1×8, 1×16, 1×32, 1×64 and custom formats	Used for line-scan and CT detector modules.
2D array	6×10, 12×18, 24×36 and custom formats	Pixel count and pitch can be reviewed by drawing.
Minimum pixel size	0.3 mm x 1 mm	Subject to geometry, reflector and processing feasibility.
Reflector	TiO ₂ or BaSO ₄	Selected according to optical isolation, reflectivity and process requirement.

Properties of CdWO₄ Crystal

Property	Typical Value
Afterglow	<0.01% at 20 ms
Cleavage plane	<010>
Radiation length	1 cm

Prepare your quotation

RFQ Item	Information to Provide
Application	Industrial CT, medical CT, security inspection, line scan, high-energy physics or custom detector.
Array geometry	Linear or 2D array, pixel count, pixel size, pitch, total size and drawing.
Reflector	TiO ₂ , BaSO ₄ , reflector thickness, optical isolation and cross-talk requirement.
Optical processing	Surface finish, polishing, coupling face, backing and sensor interface.
Quality target	Dimensional tolerance, light output uniformity, cross-talk, defects and inspection report.
Order information	Prototype quantity, batch quantity, packaging and delivery schedule.

Reference values and options for selection. Confirm the material grade, geometry, test conditions and acceptance criteria for the quoted configuration.

Send drawings for engineering review

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Open product and inquiry page | Hangzhou, Zhejiang, China