

Thin-Film Scintillator

$CeBr_{3-x}I_x$ (CBI)

- High speed
- Extremely Bright
- No afterglow

Radiation Monitoring Devices, Inc. (RMD) is currently developing Cerium Bromiodide ($CeBr_{3-x}I_x$ or CBI), a new, fast, bright, thin-film scintillator.

Key features include:

- Ideal solution for high-speed, high brightness applications
- Typical size is 40 mm diameter or 2" x 2", but is available in sizes up to 4" x 4"
- No afterglow
- Decay time ~ 36 ns.

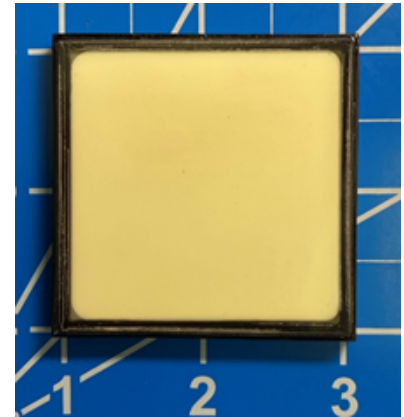


Figure 1: 50 mm x 50 mm CBI deposited onto a fused silica packaged in a hermetically sealed aluminum can.

CBI Scintillator Properties:

Light Yield	33% of Lanex Regular (excited by 70 kVp source)
Emission:	500 nm
Afterglow:	none
Decay time:	~36 ns
Spatial resolution:	>8 lp/mm (350 μ m thick CBI film)

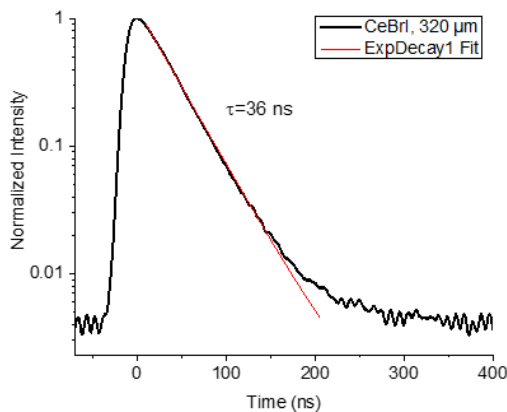
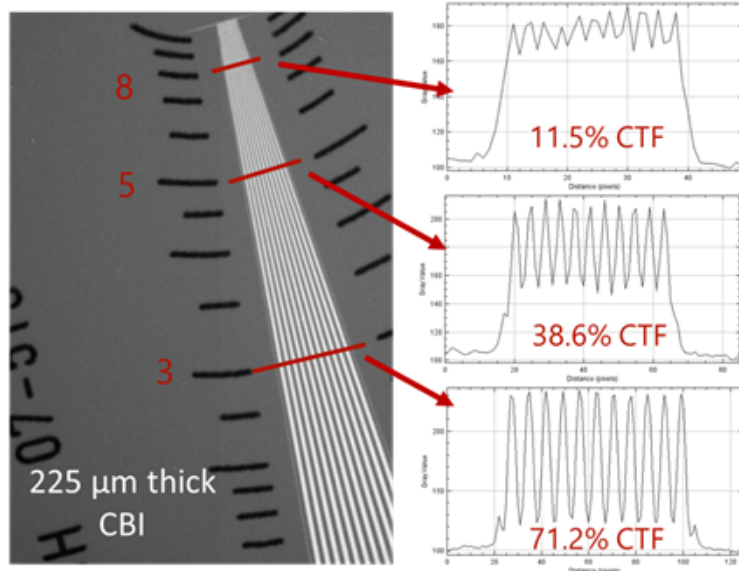
Key Benefits

This unique scintillator is especially useful in applications that require high speed.

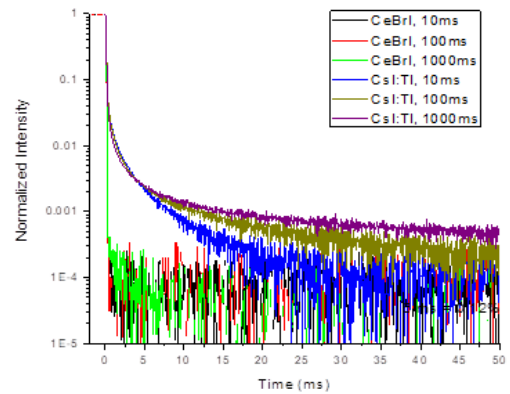
- No dopant atom, intrinsic scintillator
- Fast Ce-based emission
- High spatial resolution
- High brightness
- High speed
- No afterglow

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Fast scintillation decay



Afterglow