

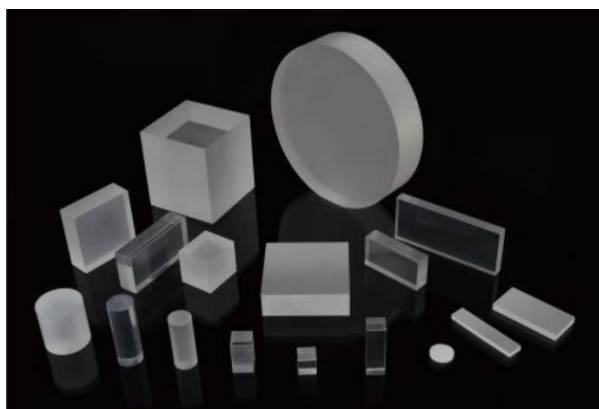
Thallium activated Cesium Iodide – CsI(Tl)

Radanite Group

We offer high quality CsI(Tl), CsI(Na), CsI(Pure), NaI(Tl) and GAGG(Ce) scintillation crystals of various shapes and sizes as well as pixelated arrays. We have full capability to cut, shape, polish and coat the crystals as well as couple with silicone photodiode in order to meet your specific requirements.

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CsI(Tl) - Thallium activated Cesium Iodide, is one of the brightest available scintillation crystals with an emission wavelength of 550nm. CsI(Tl) has a light yield of 54 photons/KeV and very good stopping power. CsI(Tl) is also physically rugged which makes it easy to handle and well suited for a broad range of applications including ones with severe shock conditions.

CsI(Tl) is slightly hygroscopic. Contact with water and humidity should be avoided..

CsI(Tl) scintillators have the following features:

- Low afterglow
- Good uniformity
- Good radiation resistance
- Low background
- Physically rugged
- Suitable for coupling with Si photodiode

Typical applications for CsI(Tl) scintillators include:

- High energy physics
- Dose rate monitors
- Industrial applications
- Medical physics

Properties:

Density (g/cm ³)	4.51
Effective atomic number	54
Maximum emission wavelength (nm)	550
Radiation length (cm)	1.86
Light yield (photons/KeV)	54
Decay time (ns)	1000
Thermal expansion coefficient (°C ⁻¹)	54x10 ⁻⁶
Melting Point (°K)	894
Hardness (Mohs)	2
Scintillation afterglow (100ms)	TBA
Hygroscopic	Slightly

