Hilger Crystals
A Dynasil Company

CRYSTAL MATERIALS INDEX

Thallium doped Caesium Iodide

CsI(Tl)

Properties	Value
Cleavage Planes	None
Decay Constant (ns)	1000
Density (g.cm-3)	4.51
Emission Spectral Range (nm)	350-725
Gamma and X-ray absorption coefficients (cm-1)	0.48 at 660keV 10.00 at 100KeV
Melting Point (K)	894
Peak Scintillation Wavelength (nm)	550
Photons/MeV	5200
Radiation Length (cm)	1.86
Refractive Index at peak emission	1.78
Solubility (g/100g H_2O @ 300K)	44.0
Stability	Slightly Hygroscopic
Structure	BCC
Therman Conductivity (W·m-1·K-1) @ 300K	1.13
Transmission Range (nm)	240-70000

CsI(Tl) is a useful scintillator offering high light yield and emits at a wavelength suitable for silicon photomultipliers (SiPMs). Typical applications include arrays of this material used in security imaging systems, such as baggage scanners.

sales@hilger-crystals.co.uk| +44-1843-231166