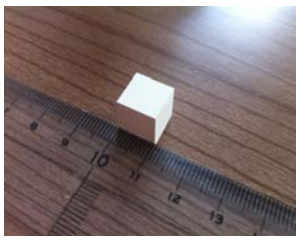
CsI(Tl)

Introductions



CsI(Tl) crystal emission maximum is 550nm, which is well matched to the sensitivity curve of photomultiplier tubes (PMTs) with bialkali photocathodes. CsI(Tl) crystal is relatively soft, can be made into a variety of shapes, able to withstand the mechanical and thermal shock.

Use in the air, compared with NaI(Tl), slight deliquescence.

Banner Union focus on research and development of high energy resolution, scintillation crystal array focusing on high sensitivity to achieve excellent imaging quality, the products are widely used with the X-ray baggage inspection equipment, container inspection equipment.

Basic Properties

Items	Specification
Relative Light Output（%）	45
Mohs Hardness	2
Cleavage Plane	Nothing
Wavelength of Emission Maximum（nm）	550
Density（g/cm3）	4.51
Hygroscopicity	Slight
Melting Point(℃)	894
Thermal Expansion Coefficient	54x 10^{-6} K^{-1}
Light Yield	(52-56)x10^{3}Photons/MeVγ
Primary Decay Constant(ns)	1000
Refractive Index	1.79
Afterglow	0.5-5%@6mms

CsI(Tl)

Crystal | CsI(Tl) 01