

Thallium-doped sodium iodide NaI(Tl) crystal is a scintillation crystal with excellent performance. Its maximum emission wavelength is 415 nm, which can be well matched with the photocathode of a common specification photomultiplier tube. Sodium iodide crystals are widely used in various fields such as nuclear medicine, environmental monitoring, safety inspections and scientific research. Due to their excellent energy resolution and high light output, they are also commonly used in gamma cameras, positron emission tomography(PET) machines and other radiation detection systems.

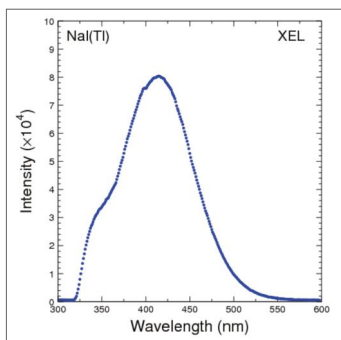
General parameters	NaI(Tl)	Unit
Density	3.67	g/cm ³
Melting Point	924	K
Wavelength of Emission Peak	415	nm
Light Output	38,000	ph/MeV
Decay Constant	264	ns
Cleavage	(100)	/
Hygroscopic	yes	/
Hardness	2	mohs
Refractive index	1.85	/

Basic Information

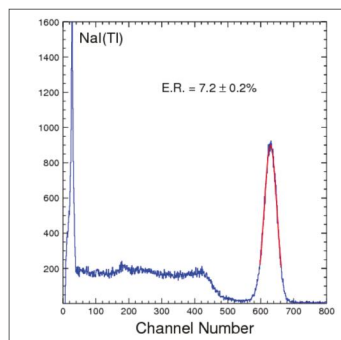
- Growth technique Bridgman
- Dimension(max) Diameter 150 mm×400 mm
- Achieved items Encapsulated and assembly detectors

Characterization

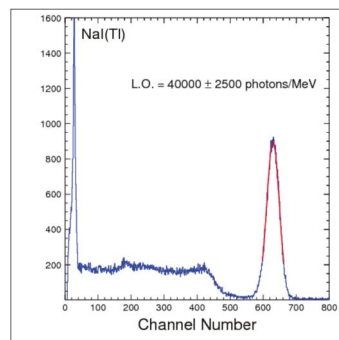
- Dimension of NaI(Tl): Ø40×40 mm; PMT: R1306; Reflector: Teflon(0.80 mm); Radiation source: Cs¹³⁷; HV: 650V; Absolute value of light output: 38,000 photons/MeV; Energy resolution: 7.2%; Decay time: 264 ns



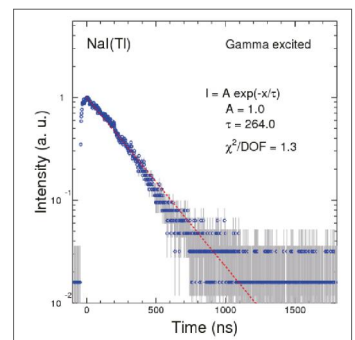
X-Ray excited Luminescence curve



Energy resolution curve



Light output curve



Scintillation decay curve by gamma ray excited