

YAG (Ce) is an important scintillation crystal with excellent scintillation performance, high luminous efficiency and wide light pulse; its biggest advantage is that its luminescence center wavelength is 550 nm, which can be effectively coupled with detection equipment such as silicon photodiodes. Compared with CsI scintillation crystal, Ce: YAG scintillation crystal has a fast decay time (about 75 ns, while CsI decay time is about 1000 ns), and Ce:YAG scintillation crystal is not deliquescent, resistant to high temperatures, and has stable thermodynamic properties.

General parameters	YAG(Ce)	Unit
Density	4.56	g/cm ³
Decay Constant	75	ns
Light Output	14,000	ph/MeV
Melting Point	2,243	K
Wavelength of Emission Peak	550	nm
Hardness	8.50	mohs
Refractive Index	1.82	/
Hygroscopic	no	/
Cleavage	no	/

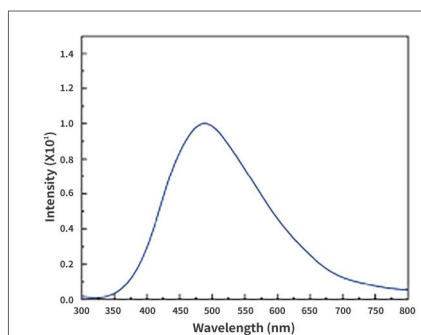
Basic Information

- Growth method Czochralski
- Cerium content 0.2-0.4at%
- Dimension(max) Diameter 80 mm×200 mm
- Achieved items Single crystal and coating

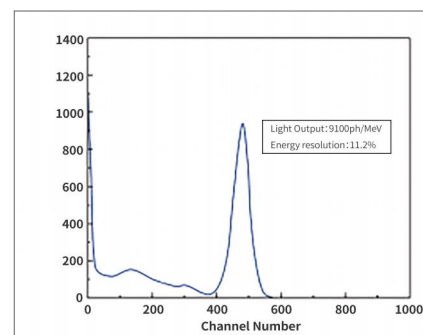
Features and Applications

- High density
- No hygrscopic & cleavage
- High temperature resistance
- High light output, Fast decay time
- Stable physical and chemical properties
- Fast Gamma Ray Detection
- Animal PET imaging scan
- Oil prospecting
- Electron Imaging (SEM)
- Two-dimensional imaging of medium and low energy X-rays

Characterization



X-Ray excited luminescence curve



Light output curve & Energy resolution curve