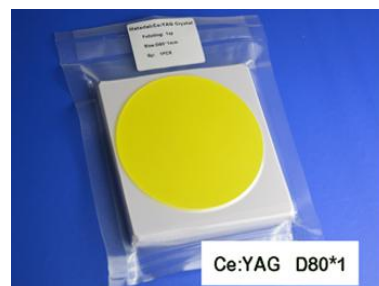




## YAG(Ce) Scintillators

With the wavelength of the maximum emission at 560nm, YAG(Ce) can well matched to CCD sensitivity. And it is known as a kind of non-hygroscopic, chemically inert inorganic scintillation material. Ce:YAG is a reasonably fast scintillator with a relative light yield of 12% of NaI(Tl). Ce:YAG scintillators are used in SEM, electronic imaging, beta-ray and X-ray counters and imaging. It has excellent temperature and mechanical characteristics which makes it suitable for ultra-thin screen of <0.005mm. Yag(ce) crystals has a high threshold for high energy electrons or ions, makes it suitable for high electric current environment.

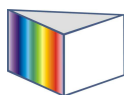


### Features:

- Chemically and physically stable
- Suitable to make ultra-thin screens
- Suitable for high electricity environment
- High electron conversion efficiency
- Relatively high light output
- Light yield increases linearly with the total energy of the electron beam
- Good thermal conductivity

### Ability:

- Growth method: Czochralski
- Formula:  $Y_3Al_5O_{12}$  (cerium content: 0.1~1.2 at%)
- Maximum dimension:  $\varphi 80 \text{ mm} \times 200 \text{ mm}$
- Available items: single crystals
- Metal coating: Al, Au, Ag etc.
- Protective coating: SiO<sub>2</sub>



Basic Properties:

Basic Properties	
Crystal structure	M3
Density (g/cm <sup>3</sup> )	4.55
Melting Point (°C)	1970
Hardness (Mho)	8.5
Hygroscopic	No
Wavelength of Emission Max. (nm)	1.82
Decay Time (ns)	70
Light Output (photons/keV)	8
Relative Light Output (%)	21

**Note:** The crystal boules, blanks and polished elements are available.

Application Notes:

- Scanning electron microscope(SEM)
- Ultra-thin imaging screens
- Electron imaging
- Beta, X-ray counter
- Ion beam imaging