

Note: Above parameters for reference only, please contact our sales Rep. for your specific requirement.

# **Cerium doped Gadolinium Aluminum Gallium Garnet**

## Introduction:

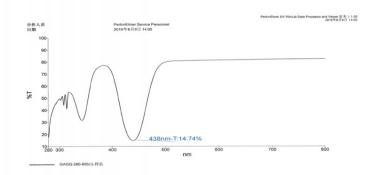
Ce:GAGG is a relatively new single scintillation crystal with many properties, such as high light yield, high density, good energy resolution, good emission peak matching with silicon sensor and low intrinsic energy resolution. in addition, the material is non-hygroscopic and non-self-radiative. which is widely used in PET, PEM, SPECT, CT, X and Y ray detection and so on.

#### Main Advantages:

- ∻ High light output
- ∻ High energy resolution
- ∻ High density
- ∻ No self-radiation
- ∻ No deliquescing

#### **Transmission Curve:**





#### **Typical applications:**

- Computed tomography scan (CT)  $\triangleright$
- Positron emission tomography (PET) ۶
- ⊳ Single-photon emission computerted tomography imaging (SPECT)
- ⊳ particle accelerator
- ≻ X-ray and y-ray detection

## **Material Properties:**

Chemical Formula	Ce: Gd <sub>3</sub> Al <sub>2</sub> Ga <sub>3</sub> O <sub>12</sub>
Density	6.63g/cm <sup>3</sup>
Hardness	8 Mohs
Melting Point	1850°C
Atomic Number	54.4
Growth Method	Czochralski
Expanding Coefficient	TBA*10 <sup>-6</sup>

## **Crystro Offers:**

Orientation	< 0.5°
Thickness/Diameter Tolerance	±0.05mm
Parallelism	< 30"
Perpendicularity	< 15′
Surface Quality	10-5
Clear Aperture	> 90%
Chamfer	< 0.1mm@45°
Dimensions	Max $\Phi$ 60mm

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