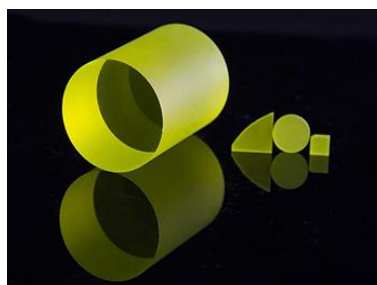


## GAGG(Ce) Scintillators

GAGG(Ce) - Gadolinium Aluminium Gallium Garnet ( $Gd_3 Al_2 Ga_3 O_{12}$ ),

doped with Ce is a newly developed scintillator. It is one of the brightest available scintillators with an emission peak at 520nm. GAGG(Ce) has good stopping power, is physically rugged and well suited to a broad range of applications. GAGG(Ce) has best light output in all series of oxide crystal. Besides, it has good energy resolution, High density, non-selfradiation, Non- hygroscopic. It's widely used in ToF-PET, PEM, SPECT, CT , X-ray &Gamma ray detection.

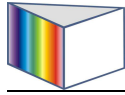


### Features:

- No hygroscopic
- High light output
- High energy resolution
- Fast decay time
- High uniformity

### Basic Properties:

Basic Properties	
Wavelength Range	475 – 800nm
Density	6.63g/cm <sup>3</sup>
Hygroscopicity	No
Melting Point	1850°C
Hardness	8Mohs
Decay Time	≤88 ns
Solubility	N/A
Refractive Index	1.9 @540nm
Light Yield	57000 photons/MeV
Energy resolution	5.2%@662keV



**Note:**

GAGG(Ce) scintillator crystals have the following issues which should be noted:

Light emission has a good part above 500nm, a region where photomultipliers are less sensitive

GAGG(Ce) scintillator crystals are useful in diverse applications such as:

Medical Imaging - PET, PEM, SPECT and CT

**Application Notes:**

This material can be used in the following fields:

- Nuclear medicine detector
- Radiation detector
- Oil detection equipment
- Security check equipment
- High energy physical