GAGG

($Gd_3Al_2Ga_3O_{12}$ (Ce))

High light output &
High energy resolution &
Non hygroscopic nature
Scintillator

Patent No.:EP2671940(B1), US8969812(B2), RU2622124(C2), JP5952746(B2)
EP3138891(B1), US10174247(B2), RU2670919(C9)

GAGG

Product Information

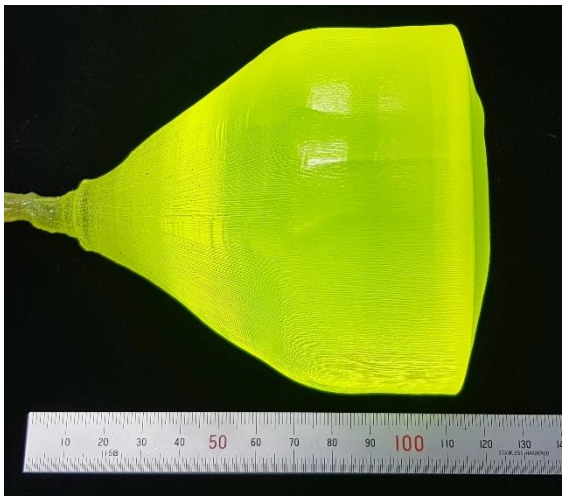

Fig.1 photograph of 4-inch-diameter GAGG scintillator.*1

*1 Czochralski growth of 4-inch diameter Ce:Gd3Al2Ga3O12 single crystals for scintillator applications
V.Kochurikhin et al., J.Cryst.Growth, 531 (2020) 125384.

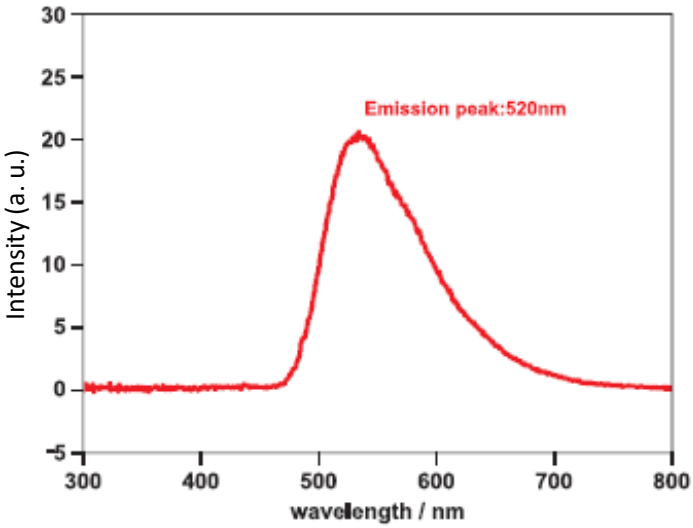

Fig.2: Radioluminescence spectra of GAGG excited by X-ray, CuKα, 120μA、40kV

Outline

GAGG scintillator has high light output, high energy resolution and high density among oxide scintillators. GAGG has no hygroscopic and no self radiation nature.

4-inch-diameter GAGG bulk single crystal was achieved.

We can supply the variety of the GAGG shape.
Cube, array, plate, cylinder, rod, wafer etc... are available.

Scintillation Properties*2

Light output [photons/MeV]	45,000～55,000
Energy resolution (662 keV, FWHM) [%]	8～9
Decay time [ns]	～90
Emission wavelength [nm]	520
Density [g/cm^3]	6.63

*2 All properties were measured using 5 x 5 x 5 mm^3 sample.

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