HR-GAGG

(High Energy Resolution $Gd_3(Al,Ga)_5O_{12}(Ce)$)

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

HR-GAGG

Product Information

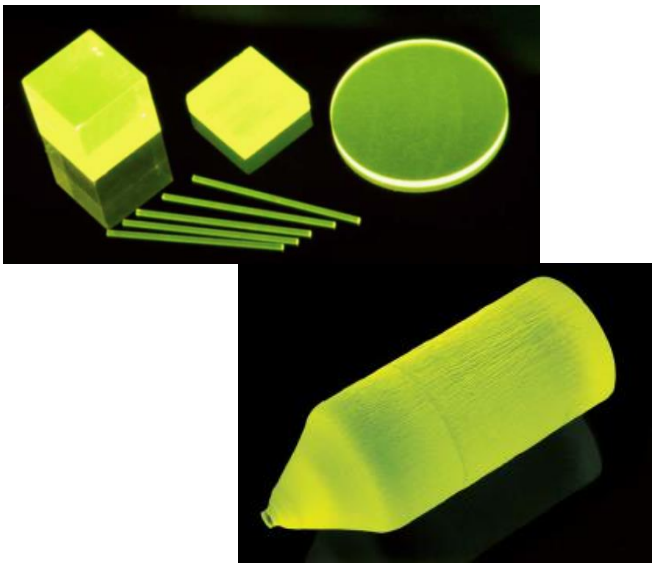

Fig.1: Photograph of HR-GAGG scintillator.

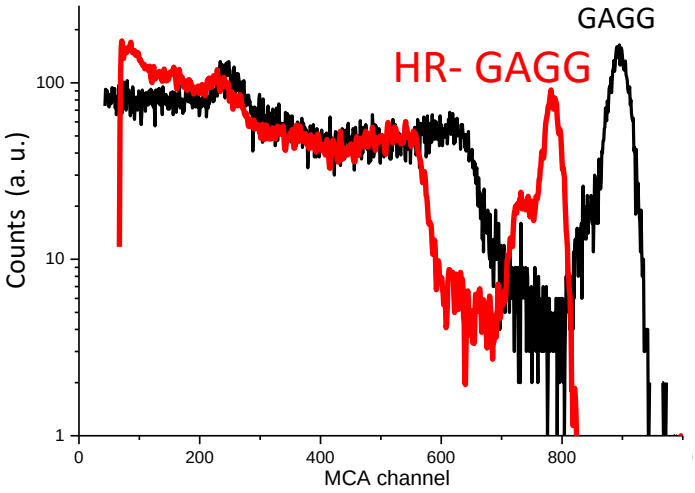

Fig.2: Pulse height spectra of HR-GAGG and GAGG irradiated with gamma rays from a ^{137}Cs source.

Outline

HR-GAGG is GAGG based scintillator with highest energy resolution among oxide.

HR-GAGG scintillator has also high light output and high density.
HR-GAGG has no hygroscopic and no self radiation nature.

2-inch-diameter HR-GAGG bulk single crystal is available now.

Scintillation Properties*1

Light output [photons/MeV]	40,000-50,000
Energy resolution*3 (662 keV, FWHM) [%]	3.7 *2～5
Decay time [ns]	138ns(71%), 649ns(29%)
Emission wavelength [nm]	520
Density [g/cm^3]	～6.3

*1 All scintillation properties were measured using 5 x 5 x 5 mm^3 sample.
*2 P. Sibczynski et. al., Nucl. Instrum. Methods Phys. Res., Sect. A, 772 (2015) 112.
*3 Energy resolution was measured with APD.

Crystals for your future

Crystals and Applications

C&A Corporation

Single Crystal Growth Service
Consulting of crystalline business
Scintillator crystals, arrays and scintillation detectors
Piezoelectric crystals and piezoelectric devices

6-6-40 Aza-Aoba, Aramaki, Aoba-ku, Sendai,Miyagi 980-8579 JAPAN Email:info@c-and-a.jp URL:http://www.c-and-a.jp