

La-GPS(Ce)

High light output up to 150°C &
High energy resolution &
Non hygroscopic nature
Scintillator



Product Information

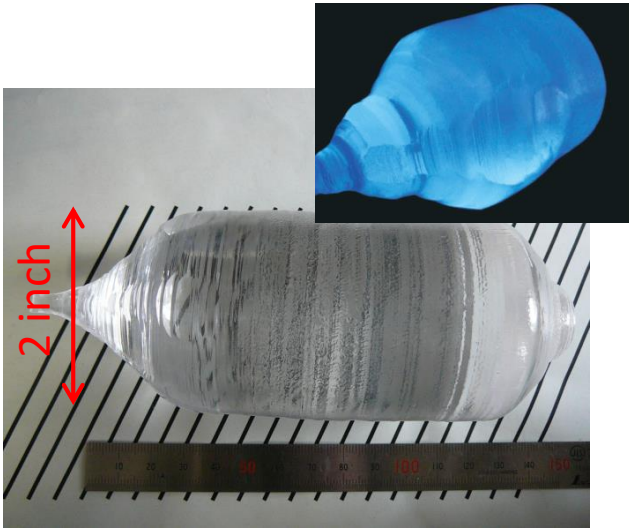


Fig.1: Photograph of La-GPS(Ce) scintillator. *1

*1 A. Yoshikawa, et al., Cryst. Growth Des., 15 (2015) 1642–1651.

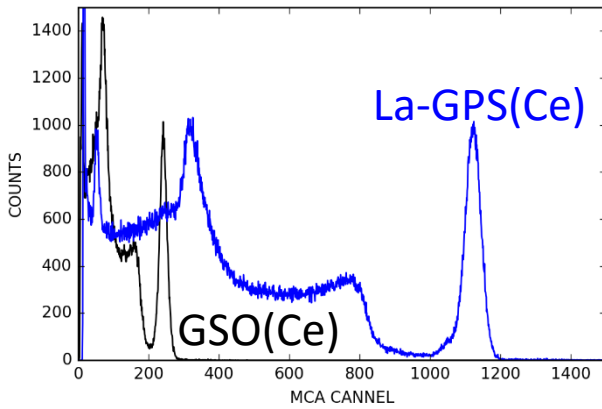


Fig.2: Pulse height spectra of GSO(Ce) and La-GPS(Ce) irradiated with gamma rays from a ^{137}Cs source.

Outline

La-GPS(Ce) scintillator has high light output, energy resolution and fast decay time among oxide scintillators. Moreover, the light out put remained high enough up to 150°C, and La-GPS(Ce) has no hygroscopic nature. La-GPS(Ce) bulk single crystal with 2-inch-diameter is available now.

Scintillation Properties*2

Light output [photons/MeV]	38,000 – 48,000
Energy resolution (662 keV, FWHM) [%]	4 – 5
Decay time [ns]	60 – 70
Emission wavelength[nm]	390
Density [g/cm ³]	~5.3

*2 All scintillation properties were measured using 5 x 5 x 5 mm³ sample coupled with R7600U-200 PMT.

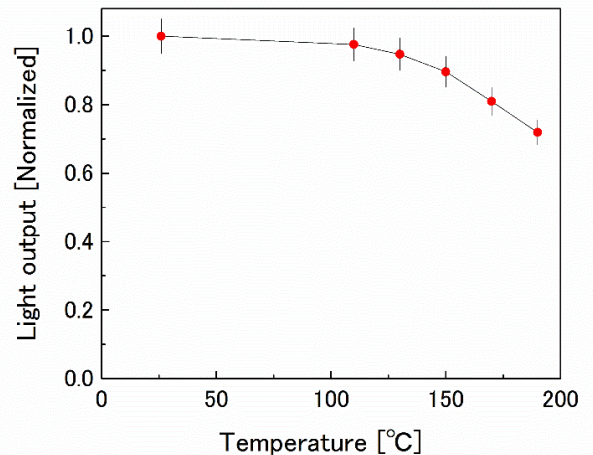


Fig.3: Light output as function of temperature

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