

Bi₄Ge₃O₁₂ (BGO) Crystal

Introduction

Now CASTECH can supply Bismuth germanate (Bi₄Ge₃O₁₂) crystal. BGO is an inorganic oxide with cubic eulytine structure, colorless, transparent and insoluble in water. Because of its high stopping power, high photopeak efficiency, non-hygroscopic, low afterglow and easy to be fabricated, BGO is a good scintillator material and has been found a wide applications in high energy physics, nuclear physics, space physics, nuclear medicine, geological prospecting and other industries.

Properties of CASTECH's BGO crystal

Crystal Structure	cubic
Density (g/cm ³)	7.13
Melting point (°C)	1045
Hardness	5
Parameter of crystal cell (Å)	10.518
Refractive index	2.15
Radiation length (cm)	1.1
Peak of fluorescence spectra (nm)	480
Decay time (ns)	300
Relative light output (%)	10-14 NaI(Tl)
Energy resolution (511 KeV,%)	20