

LaCl₃(Ce)

Introduction

Cerium-doped lanthanum chloride LaCl₃(Ce) is a newly developed scintillation crystal with hexagonal structure, colorless, transparent. It offers superior energy resolution, fast emission and excellent linearity. It has light output similar to NaI(Tl) but much better energy resolution. LaCl₃(Ce) is a promising scintillation crystal used for various applications including Gamma-ray detect, Nuclear-medical imaging (PET,SPECT), High-energy physics, Security, Geological exploration and environmental monitoring fields.

Main Advantages:

- Fast decay time
- Superior energy resolution
- Very stable light output over a wide range of temperatures.

Main Properties:

Density [g/cm ³]	3.85
Melting Point [°C]	1062
Thermal Expansion Coefficient [10 ⁻⁶ /° C]	11 along C-axis
Cleavage Plane	[100]
Hygroscopic	yes
Wavelength of Emission Max. [nm]	350
Lower Wavelength Cutoff[nm]	313
Refractive Index @Emission Max	~1.9
Primary Decay Time[ns]	28
Light Yield[photons/MeVγ]	49000
Photoelectron Yield[% of NaI(Tl)] (for γ-rays)	70-90

公司简介 INTRODUCTION



CASTECH INC.

(CASTECH) was founded by Fujian Institute of Research on the Structure of Matter, Chinese Academy of Science in 1988. Thanks to long term interactive partnership with the leaders in laser system manufacturing industry and ongoing efforts of our employees, we have established the largest mass production lines in the world for LBO, BBO, Nd:YVO₄ and TGG crystals, and implemented a complete quality control system for our products.

CASTECH is now a worldwide leading supplier of nonlinear optical crystals, laser crystals, precision optics, and a variety of laser components. In CASTECH, there are Flux/Czochralski/Water Solution/Bridgman Crystal Growth production lines, Crystal Orientation and Dicing workshop, Optical Polishing workshop and Optical Coating workshop with IBS, IAD, MS and EB coating technique. Our commitments are backed by our huge manufacturing capacity.

CASTECH's quality system is IATF 16949:2016 and ISO 9001:2015 certified. We have established a complete system for outgoing parts inspection. Our optical testing equipments include Zygo Interferometers, Agilent Cary 7000, Perkin-Elmer Lambda 950, Nikon Microscope, Photo-Thermal Common-Path Interferometers, Zygo Newview 8300, Taylor Hobson LupoSan 260, Extinction Ratio Measurement and Ellipsometers. These equipments along with many others, ensure that we comply with all specifications for our products.

Today, over 60% of CASTECH's products are exported to USA, Japan, Europe and other Asia Market. We have established a global sales network. We have set up our agencies and distributors in the main industrial countries and districts.

Our mission is to deliver the best products and solutions to our customers in photonics industry, and help them to realize their full potential in business. Here at CASTECH, we value comity, integrity, honesty, and innovation.