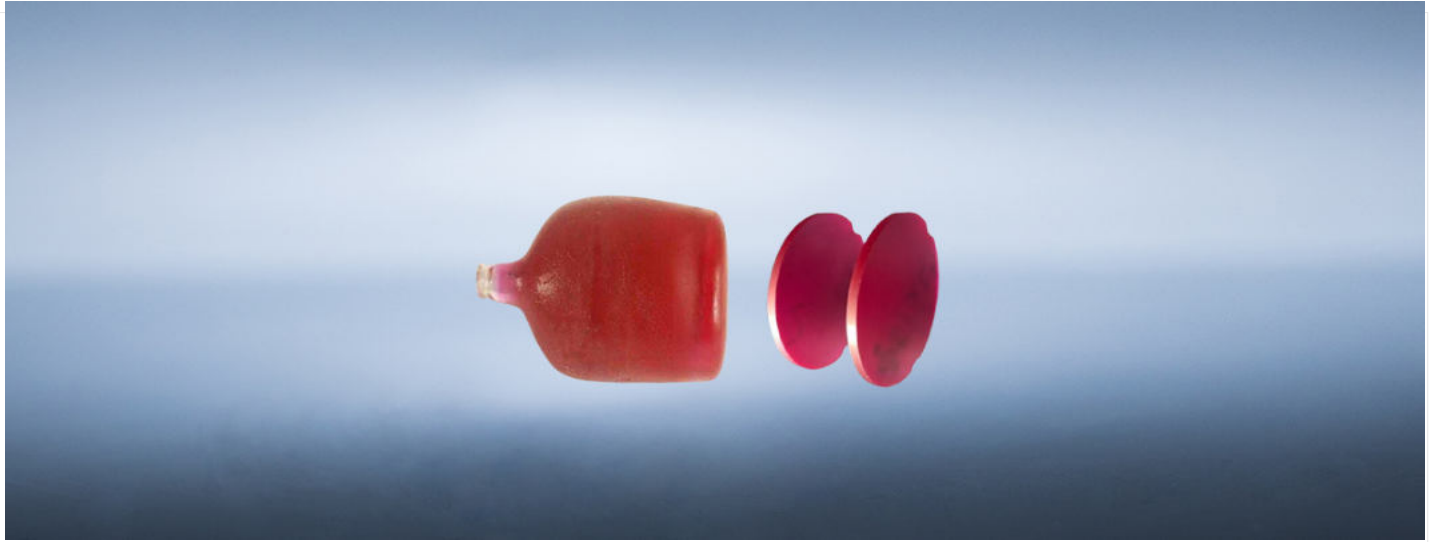


Cr:Al₂O₃



DESCRIPTION

CRYLINK's Cr:Al₂O₃ crystal products, also known as Ruby. It is a kind of laser crystal product with excellent comprehensive performance. It is widely used in optics and solid-state lasers. The product has the characteristics of high hardness and obvious dichroism. Can be used in optical glass, watch parts, ruby laser products.

FEATURES

- Hardness is high
- Obvious dichromeity

APPLICATIONS

- Solid lasers
- Watch parts
- Optical glass

STANDARD SPECIFICATIONS

Tuning Range (nm)	680 - 1100
Pumping Range (nm)	450 - 532
Absorption Coefficient at 510 nm (cm-1)	0.5 - 2.5
FOM	>200
Orientation	90° to c axis
Geometry	flat-flat / Brewster
Parallelity	10"
Flatness	0.2
Orientation Tolerance	< 5°
Broadband AR Coatings (%)	< 0.2
Diameter (mm)	(3 - 40) ± 0.1
Length (mm)	(10 - 140) ± 0.5



Cr:Al₂O₃

THE BASIC PARAMETERS

Chemical Formula	Cr ³⁺ :Al ₂ O ₃
Crystal Structure	Hexagonal
Lattice Constant(Å)	a = 4.748; c = 12.957
Crystal System	Trigonal
Axial Characteristics	Uniaxial
Growth Method	CZ
Melting Point	2040°C
Refractive Index	n _p = 1.759; n _m = 1.767
Double Refraction	0.0082
Density(g/cm ³)	3.98
Mohs Hardness(mohs)	9
Specific Heat Capacity @18°C (J·kg ⁻¹ ·K ⁻¹)	761
Thermal Conductivity@25°C (W·cm ⁻¹ ·K ⁻¹)	
Perpendicular to c-axis	0.35
Parallel to c-axis	0.33
Thermal Expansion Coefficient (20 - 100°C)	
Perpendicular to c-axis	4.78×10 ⁻⁶ K ⁻¹
Parallel to c-axis	5.31×10 ⁻⁶ K ⁻¹

SPECTROGRAM

