YCOB Yttrium calcium oxyborate：

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YCOB Yttrium calcium oxyborate crystal is a nonlinear crystal, its nonlinear optical coefficient is comparable to BBO and LBO crystals, with stable physical and chemical performance (no tidal solution) and good mechanical processing performance, and can be obtained in a short period, has become one of the most widely studied nonlinear optical crystals.

YCOB crystal is easy to grow, high optical quality, light transmittance band width, large phase matching range, high damage threshold, and no tidal solution, and has become a research hotspot in frequency conversion devices. Due to Y can be replaced with most rare earth activated ions in any ratio, the crystal possesses both laser and nonlinear optical properties, thus becoming a laser self doubling crystal. The biggest advantage of YCOB crystal is its excellent nonlinear optical absorption and the ability to fabricate large aperture devices.

Main features:

High resistivity

Less anisotropy

Low coefficient of thermal expansion

High temperature acceptance

Less parameter luminescence

High threshold of laser induced damage

Material Properties:

Crystal structure	Monooblique, point group m
Crystal lattice parameters	a=8.0770 Å, b=16.0194 Å , c=3.5308 Å , β=101.167º, Z=2
Melting point	About 1510 C
Moh's hardness	6~6.5
Density	3.31 g/cm^3
Thermal conductivity	2.6 W/m/K (‖X), 2.33 W/m/K (‖Y), 3.1 W/m/K (‖Z)

Product Parameter:

Dimensional tolerance	(W±0.1mm)x(H±0.1mm)x(L+0.5mm/-0.1mm)（L≥2.5mm） (W±0.1mm)x(H±0.1mm)x(L+0.1mm/-0.1mm)（L < 2.5mm）
Optical aperture	≧90%
Wavefront distortion	≦λ/8 @633nm
Flatness	λ/8 @633nm
Finish	10/5
Parallelism	≦20"
Verticality	≦5′
Angular deviation	Δθ≦0.25°,Δφ≦0.25°
Coating film	custom made