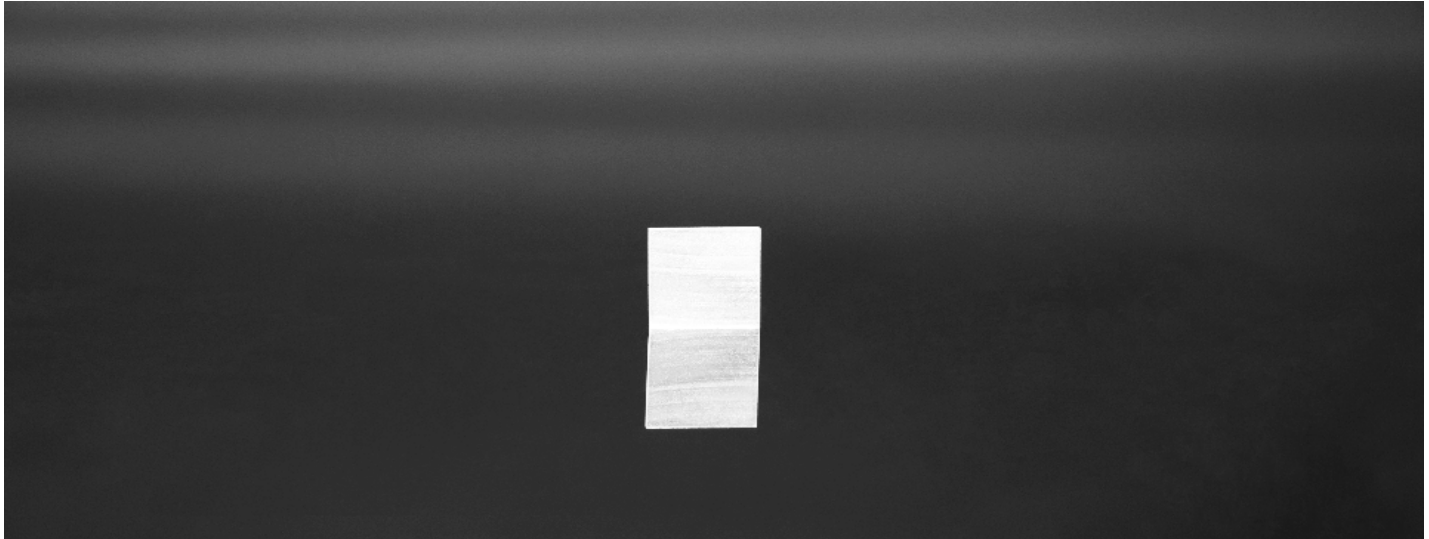


YAlO₃

Yttrium Aluminium Perovskite (YAlO₃) Crystal Substrate



DESCRIPTION

Yttrium aluminum perovskite (YAlO₃) is also referred to as yttrium Orthoaluminate (YAP), which is an important crystal matrix material with excellent optical and physicochemical properties. YAlO₃ Crystal Substrate is an excellent substrate for high temperature superconducting (HTS) thin film and II-V nitride, as well as many oxide films due to its chemical stability and lattice matching. Furthermore, the YAP crystal is a rare earth and transition metal ion doped crystal, which widely used in laser scintillation, holographic recording, optical data storage and ionizing radiation dosimeters.

FEATURE

- Yttrium Orthoaluminate (YAlO₃) is similar to YAG, which doped with rare earth and transition metal ions such as Tm, Nd, Pr, Er, and Cr

APPLICATION

- An excellent substrate for high temperature superconducting (HTS) thin film and II-V nitride
- A rare earth and transition metal ion doped crystal for laser scintillation, holographic recording, optical data storage and ionizing radiation dosimeters



PARAMETER

Physical Properties

Structure	Orthorhombic
Lattice	a=5.176Å, b=5.307Å, c=7.355Å
Melting Point	1870°C
Density	5.37g/cm ³
Thermo-Expans	(2-20)×10 ⁻⁶ /K
Dielectric Constant	16-20



Main Specification

Thickness	0.5mm or 1.0mm
Polished	Single or double side polished (SSP or DSP)
Orientation	<001>, <100>, <010>, <110>, <101>
Redirection Precision	±0.5°
Redirection the Edge	2°
Angle of Crystalline	Special size and orientation are available on demand
Ra	< 0.5nm (5µm x 5µm area)
Special Specification	We can customize specific orientation and dimension upon requirements

