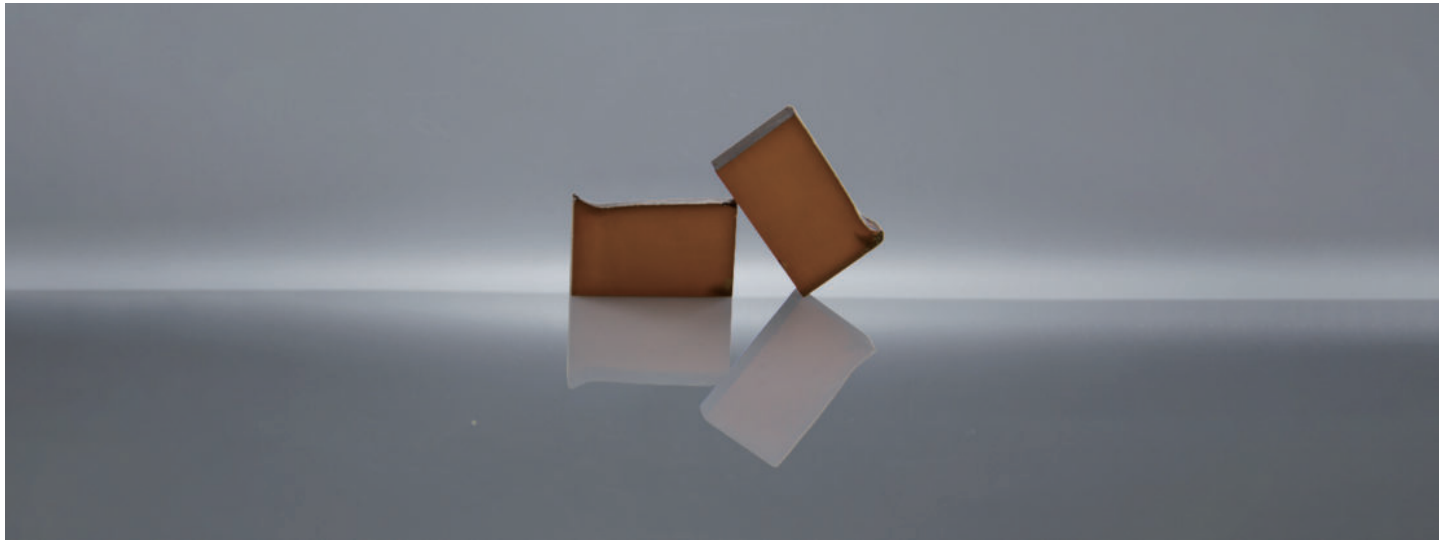


# BSO



## DESCRIPTION

BSO crystal, also known as bismuth silicate crystal, with the chemical formula  $\text{Bi}_{12}\text{SiO}_{20}$ , is a yellowish, high-efficiency photoelectric conductor with good overall performance, and BSO crystal has remarkable electro-optical and photo-conductivity properties, wide optical window, good light transmission, high damage threshold, and high phase conjugation efficiency. They are very suitable for electro-optical effects and are used in electro-optical sensors, holographic recording devices, photo-folding incoherent to coherent optical converters, thin-film optical waveguides, photorefractive, and other related fields. It is ideal for making functional devices for space optics because it can be drawn into large single crystals.

## FEATURES

- High electro-optical coefficient
- High phase conjugation efficiency
- Large size components available up to 3"
- Can be customized upon request

## APPLICATIONS

- Electric light switch
- Spatial light modulator
- Phase co-location mixer

## CRYSTAL SPECIFICATION

Light Passing Aperture	85%
Dimensional Tolerance	+0.0mm/-0.2mm
Thickness tolerance	±0.2mm
Parallelism	<30 arc seconds
Chamfering	<0.3mm @45°
Surface quality	40/20
Wavefront distortion	< $\lambda/4$ @632.8nm
Coatings	No coating



# BSO

## CRYSTAL CHARACTERISTICS

Chemical formula	$\text{Bi}_{12}\text{SiO}_{20}$
Lattice parameters	10.10Å
Density	9.2g/cm <sup>3</sup>
Mohs Hardness	5
Transmission range	0.45-6μm
Refractive index	2.54 @630nm
Spinability	42 deg/mm @500nm
Electro-optical coefficient	$r_{41}=5\text{pm/v}$
Dielectric constant (low frequency)	56

## SPECTRA

