

# Crystal Polarizers



- Material: Calcite,  $\alpha$ -BBO, YVO<sub>4</sub>, MgF<sub>2</sub> or Crystal Quartz
- Custom dimension and shapes
- Diameter from 5 to 25.4 mm
- Clear aperture: Central 90% of diameter
- Wavefront distortion:  $\lambda/4@632.8\text{nm}$
- Surface quality: 20-10 S/D
- Beam deviation :  $<3'$
- Extinction ratio: 100,000:1
- Standard and custom coating options available
- High laser damage threshold

CASTECH offers an extensive production line of birefringent crystals for polarization applications. Our crystal polarizer family includes Glan-Taylor Polarizers, Glan-Laser Polarizers, Glan-Thompson Polarizers, Wollaston Polarizers, Rochon Polarizers and Quartz Polarization Rotators. Substrate options have  $\alpha$ -BBO (UV), calcite (visible to Near-IR), yttrium orthovanadate (YVO<sub>4</sub>, Near-IR to Mid-IR), MgF<sub>2</sub> (UV to Mid-IR), and crystal quartz (UV to Near-IR). Both the mounted and unmounted crystals are available. Contact us freely to select the ideal combination of construction type, substrate, coating design, angle of operation and laser damage resistance level to suit your applications.

## Metrology

Extinction ratio is an important factor to consider when choosing a polarizer. CASTECH employs Polarization Extinction Ratio (PER) System which is an easy-to-use highly sensitive instrument for measuring both polarization extinction ratio (PER) and extinction ratio (ER).



ZYGO Interferometer for wave front & parallelism measurement with  $\lambda/50$  accuracy  
Parallelism measure accuracy: 0.5 "



Extinction Ratio Measurement  
PER:>50dB  
ER:>250000:1

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