Polarizers

- **Glan Laser Prisms** for high performance, high power applications
- **Glan Taylor** and **Glan Thompson Prisms** provide high extinction ratios
- **Beamsplitting Thompson Prisms** split the s- and p- components
- **Beam Displacers** shift the s- and p- components
- **Wollaston Prisms** diverge the s- and p- components
- **Laser Polarizing Beamsplitters** separate the s- and p- components
- **Broadband Polarizing Beamsplitters** separate the s- and p- components
- **Dichroic Polarizers** are cost effective and convenient
- **Quartz Waveplates** provide controlled retardation
- **Quartz Depolarizers** scramble the in-coming beam polarization
- **Mica Waveplates** provide controlled retardation over a broadband region

We supply a wide range of polarization devices and we will be pleased to quote for your specific OEM and volume requirements. We are also able to provide most of these polarization devices with special mounting configurations and custom cells. Please call or write for further information.

Various materials may be used in optical polarization devices. Crystals, such as calcite, quartz and mica, exhibit different indices of refraction for different polarization orientations. These materials are referred to as being birefringent. Unpolarized light entering a birefringent crystal from the correct orientation is broken into two separate plane polarized beams. These are usually referred to as the ordinary (o-ray) and extraordinary (e-ray) rays. The plane polarized o-ray behaves according to Snell's law, whereas the orthogonally polarized e-ray does not and is refracted at an extraordinary angle. Other polarizers make use of organic materials which can be imbedded in plastic and then aligned to make them selectively absorb different polarization directions. And thin films can be stacked to act as multiple reflective polarizers. All of these techniques have their advantages in specific applications.

In light of this, we offer a wide range of components which affect the state of polarization. These include the following calcite elements: Glan laser prisms, Glan Thompson prisms, Glan Taylor prisms, Wollaston prisms and calcite beam displacers. All are made from a very high grade of optical quality natural calcite crystals which exhibits only very slight internal striae.

Other forms of polarization component included are: thin film laser polarizers, dichroic polarizers, quartz and mica waveplates and quartz depolarizers.

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