Brewster's Angle Apparatus

Print

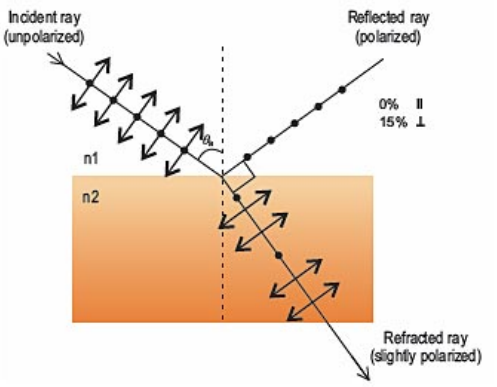
Model No: HO-ED-P-01

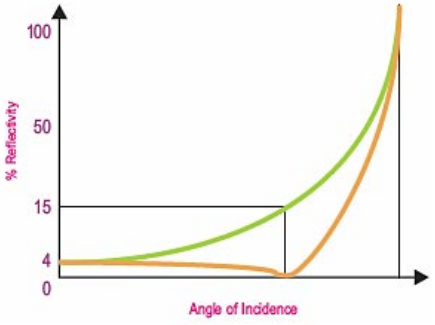
A beam of light incident on a dielectric transparent material can be resolved into parallel (P) and orthogonal (S) components. These components have different reflection coefficients and Brewster discovered that at a particular angle of incidence θ_B (called Brewster angle), reflection co-efficient of P-component goes zero. At this angle direction of reflected and transmitted beam are orthogonal to each other.

Experiment Examples

- To measure and plot the graph-reflectivity versus angle of incidence.
- To find the Brewster's angle (also known as the polarization angle) of glass plate and determine it's refractive index.

This equipment uses goniometer and a pinhole photo detector to determine the Brewster's angle and to study polarization of reflected light. Intensities of reflected light polarized in the plane of incidence and perpendicular to the plane are obtained as a function of angle of incidence. The results should be consistent with Fresnel's laws of reflection. All components are made out of anodized aluminium and stainless steel for corrosion free life.





Scope of Supply

Goniometer with Detector Mount

Model No: ED-P-01-GDM

Resolution of prism table	:	10 arc min
Resolution of stage	:	1 arc min
Quantity	:	1 no.

Optical Rail

Kinematic Laser Mount

Polarizer Rotator with Mount

Glass Slide

Diode Laser with Power supply (Red)

Detector Output Measurement Unit

Accessories