

آزمایش تحقیق معادلات فرنل

Investigation in Fresnel's equations exp

Required equipments for the Experiment:

High pressure mercury lamp with socket 110009
Power supply for sodium and mercury lamp 110010
Pair of polarization filter with vernier (N=2) 220005
Optical bench (N=2) 110008
Beam Expander 220003
Dielectric plate with holder (N=2) 221401
Set of colored filter with holder (N=3) 220004
Swivel joint with protector scale 330101
MultiClamp (N=6) 110003
Translucent screen 220009
Stand base, V shape (N=2) 110004

Descriptions:

The fact that light can be polarized is important evidence of the transversal nature of light waves. Natural light is unpolarized. it consists of mutually independent, unordered waves, each of which has a specific polarization state. polarization of light is the selection of waves having a specific polarization state. Unpolarized light is reflected at a glass surface. When we view this through an analyzer, we see that the reflected light as at least partially polarized. The greatest polarization is observed when reflection occurs at the polarizing angle (Brewster angle) α_r . The relationship $\tan \alpha_r = n$ gives us the refractive index n of the glass. Closer observation leads to Fresnel's laws of reflection, which describe the ratio of reflected to incident amplitude for different directions of polarization. These laws are quantitatively verified in the second experiment.

Warranty : One year

After sales service : Ten years

