

This, which might be concluded *à priori* by considering that the unpolarized portion differs in no respect from ordinary light, and is therefore susceptible of so receiving partial polarization, while the polarized portion retains its polarization unchanged by reflexion, is verified by experiment.

(132.) If a ray partially polarized in any plane be received on the doubly refracting prism already mentioned, with its edge perpendicular to the plane of polarization, the polarized portion will pass wholly into the ordinary image, while the unpolarized will be equally divided between the two. Thus the two images will be unequally bright. By turning round such a prism, then, till a position is found at which the contrast between the two images is most striking, this plane will be discovered, and the difference of their illuminations is the measure of the quantity of polarized light in the beam.

(133.) *Polarization of light by refraction.*—When light is incident on glass or any uncrystallized transparent body *at the polarizing angle*, the reflected portion (a small per-centage, not more than one-twelfth of the whole light) is wholly polarized in the plane of incidence, as already stated. The refracted beam (by far the larger portion), when examined in the mode just described, is found to be *partially polarized in a plane at right angles* to that of incidence, and the amount of polarized light which it contains to be precisely equal to that in the reflected beam. Thus we see that when light falls upon such a surface, the greater portion passes unchanged, while the other is divided into two equal portions *oppo*