33° 15′ to the surface, and in this case the polarization is *complete*, or the whole of the reflected light has acquired the property in question.* If at any other obliquity; it is only *partially* polarized, or a portion only of the reflected light has acquired it. How this portion is to be distinguished and separated from the *unpolarized* portion, we shall presently explain. Suffice it here to observe that this latter portion bears a greater proportion to the whole reflected beam, as the angle of incidence deviates more from that above specified (which is called the *polarizing angle*). The plane in which reflexion has been made is called the plane of polarization; and two rays which have undergone reflection at the polarizing angle in planes perpendicular to each other, are said to be *oppositely polarized.*

(128.) The angle of incidence 56° 45′ has this peculiarity—that if we consider the directions subsequently pursued by the two portions into which a ray so incident on glass is divided, the one pursuing its course by reflexion in the air, the other by refraction within the glass, these two directions include a right angle as in the figure overleaf, where A C is the incident, C B the reflected, and C D the refracted rays, at the surface of a glass P Q. When the angle A C P or B C Q is 33° 15′ Q C D is 56° 45′, and D C B is a right angle. The law of polarization *so announced*, as Sir David Brewster has shown, is general,

* In point of fact the differently coloured rays are not all polarized at exactly the same angle, so that this is rigorously exact only for homogeneous light. But the difference is so trifling that it is purposely here kept out of view.