

28/02/2025

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Production of polarized light
 by reflection

FEBRUARY 24
 SATURDAY 24

Production of polarized light by reflection → Polarized light can be produced from the common physical processes that deviate light beams, including absorption, reflection, diffraction (or scattering) and the process known as birefringence (The property of double refraction).

Explanation → When light passes from one material to another, it changes direction at the surface of the two materials. This is called refraction. The refracted light can acquire some degree of polarization. The polarization

of reflected light is span in a plane perpendicular to the surface. The phenomenon of refraction where two refracted rays are produced for a given incident ray is called double refraction or birefringence. The two ~~refraction~~ refracted rays are plane polarised in perpendicular planes. By eliminating one of the them, plane polarised light can be obtained.

→ Iceland spar, a rare form of the mineral calcite is a double refracting crystal that can be used to demonstrate the polarisation of reflected light.