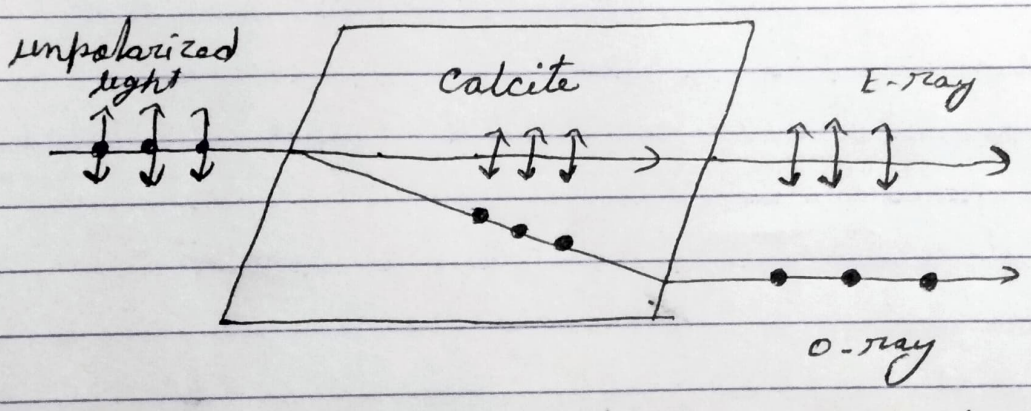
B.Sc – II 22/1/22

Nicol Prism →

It is an optical device made from calcite crystal & is used in many optical instruments for producing & analysing plane polarized light. It derives its name from its inventor William Nicol who first designed it 1828

Principle →

It is based on the phenomenon of double refraction when an unpolarised light ray passes through a calcite crystal



It splits into 2 refracted rays i.e O ray & E ray. The vibration of E-ray are in the plane of paper while those of O ray are perpendicular to plane of paper. Both these rays are plane polarized & are ⊥ to each other. For obtaining only single polarized beam we should eliminate the other Nicol prism is made in such a way that it eliminates O ray by TIR only E-ray comes out of the prism.