

Two polaroid filters are held together so that the light passes through both. If the they are alined the same way, the effect is the same as it would be for one



can pass through it.

If we then rotate one filter the light gradually darkens, with 90 degree rotation no light is passed. If we continue to rotate the light increases once more.

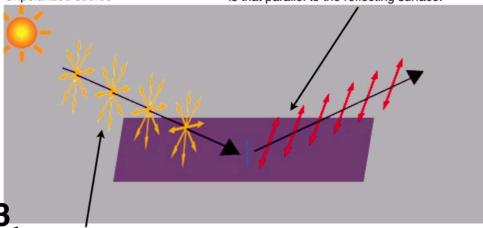
Polaroid filters

The Fizzics Organization www.fizzics.co.uk www.fizzics.org

filters are held so that

filter.

The component of the waves that reflects best Unpolarized source is that parallel to the reflecting surface.



Unpolarized waves oscillating in all planes

Sunlight reflecting from sea, sand or snow is partly polarized.

4 If a polaroid filter is turned so that most of this directly reflected light is cut out then glare is reduced.

Without a filter The reflection from the surface of the ice is brighter and lacks detail

With a filter, the exposure on the rough ground is the same but the bright reflection is reduced. There is more detail on the ice



The polaroid filter cuts out a lot of the reflection from the surface of the water





The first filter only allows the vertical component of the waves to pass.

