

Polarize

[Science](#), [Physics](#)



Q) Is blue sky polarized, is the sun polarized? Blue light reflected from a glass table polarized? Why do some sunglasses block glare off water and others do not? What other applications are there for polarizer?

Visible light is actually an electromagnetic, transverse wave which propagates outwards from the source in all directions. The term polarization or polarized light refers to the waves that are travelling only in one plane, and this light is known as polarized light.

The sun is a spherical source out of which a large spectrum of electromagnetic waves is emitted. Since the waves are travelling in all sorts of planes, the light from the sun is then definitely not polarized. Similarly the sky appears blue because of the scattering of different wavelengths of lights in all directions; however blue light is the one that is most highly scattered. This light is also not polarized. The third scenario of blue light being reflected from a surface is a bit complicated. Whether the reflected light is polarized or not depends on the angle of incidence. If the angle of incidence is the Brewster angle, then the reflected light would be polarized otherwise it would be partially polarized.

Polarized glasses have a wide variety of uses. They are sometimes used in combination with sunglasses in order to reduce glare. They are also used by people who travel on water or by fishermen in order to polarize the light that is reflected from the surface of the water to allow a better view of inside the water. Recently Polarized glasses have also found their use in the 3d glasses where they are used by the viewers to watch 3d movies

Works Cited

Goldstein, Dennis. Polarized Light, Revised and Expanded (Optical Science and Engineering) . CRC Press, 2003. Print.