

How to determine the polarisation axis of linear polarisers

The simplest test is to view the reflected light from a flat surface, e.g. a windowsill, through the polariser. One way the light will be bright, this is when the polariser axis is parallel to the windowsill, if you turn the polariser through 90 degrees the image will darken.

If you have a second aligned test polariser you can determine the axis more effectively, providing the blocking side is at 90 degrees to the axis.

Put the two polarisers together and rotate until you obtain total blocking, at this point the blocking edge of the test polariser is exactly aligned with the axis of your sample polariser.

Linear Polarisers

Synthetic linear polarising filters (polarisers) possess special properties for selectively absorbing light oscillations in certain planes. When unpolarised light, which is a complex mixture of oscillation directions lying in all possible directions perpendicular to the line of travel, is passed through a linear polariser it's oscillations become confined to a single linear plane and the light is considered "polarised". This linearly polarised light can be modified to suppress unwanted reflections and to eliminate glare for a variety of applications.

