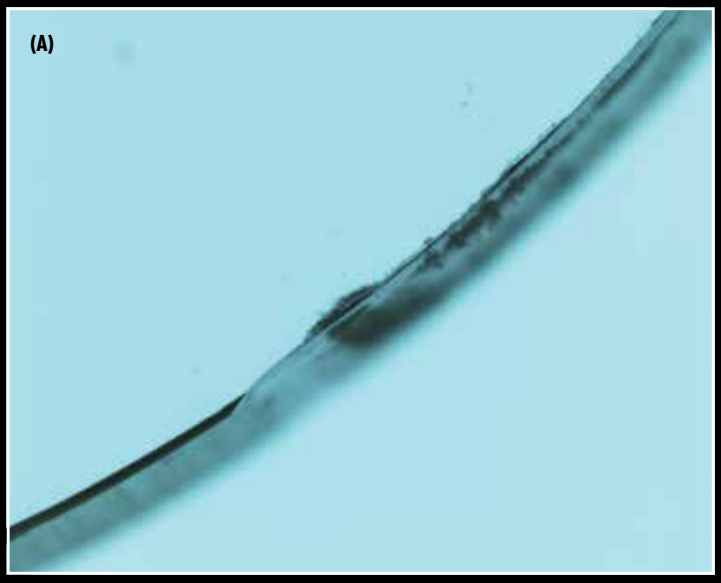
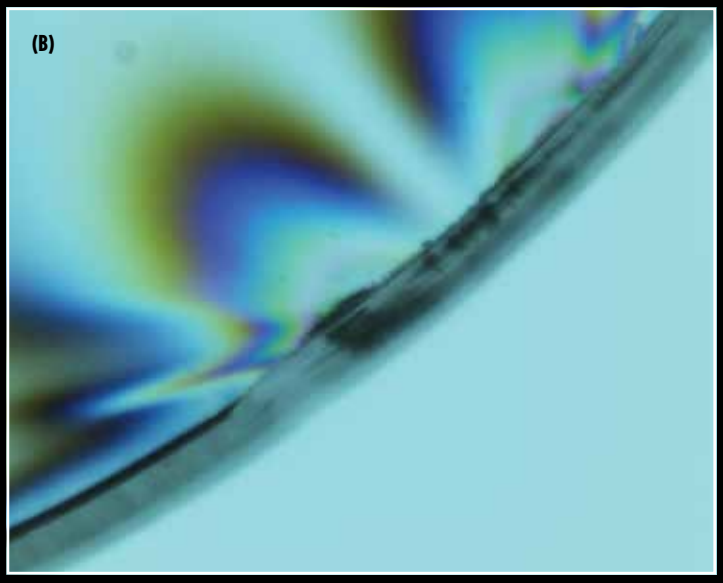
LIGHT POLARIZATION
Reveals Hidden Stress In Materials



An unpolarized image (A) shows the edge of a lens.



The polarized light image (B) reveals large internal stress in the lens which is completely undetectable in the unpolarized image.

When light is used to characterize materials in a microscope, we pay close attention to setting the correct wavelength and using the right filters, but often neglect an important characteristic of light: polarization. By taking control of the polarization in an imaging setup, we can reveal information that would otherwise be hidden. Using a polarizer to linearly polarize the illumination, this demo visualizes the stress present in an object by simply placing a linear polarizer rotated at 90 degrees in front of the camera. Removing either polarizer shows the standard, non-polarized image. Comparison between these two images shows the wealth of information that can be revealed by taking control of your polarization.

FEATURED STOCK PRODUCTS:

Description	Stock Number
1X Mitutoyo Plan Apo Infinity-Corrected Long WD Objective	#58-235
MT-1 Accessory Tube Lens	#54-774
20 mm Diameter Linear Plastic Polarizer, Unmounted	#85-918
150 x 150 mm Linear Plastic Polarizer, Unmounted	#86-196
EO-3112C ½" CMOS Color USB Lite Edition Camera	#62-842
3,5" x 6" White, LED Backlight	#83-873

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