Human/Insect Lens Adds Depth to Wide-Angle Views

A new lens that combines the focusing ability of the human eye with an insect's wide-angle view could help make a confocal microscope with no moving parts, or improve surgical imaging.

Read Article >>

Share

Holograms Enabled by $10 Optical Chip

An optical chip built by an MIT graduate student at a cost of $10 could be a "game changer" for holography, enhancing the resolution of conventional 2-D displays and enabling color holographic videos suitable for 3-D television.

Read Article >>

Share

Wafer-Scale Micro-Optics Fulfill Promise

Early inventions in the field of planar diffractive and refractive micro-optics date back more than a century. In 1891, Gabriel Lippmann invented "interference color photography," later called Lippmann holograms. This invention was made without lasers and long before Dennis Gabor invented holography in 1948. Lippmann also invented "integral photography," an autostereoscopic method to display 3-D images for observation with the naked eye.

Read Article >>

Share

Nanostructured Holograms Control Light's Intensity, Phase, Polarization

By combining cutting-edge nanotechnology with holograms, applied physicists at Harvard demonstrated a novel way for changing the intensity, phase and polarization of light rays.

Read Article >>

Share

'Plasmofluidic' Lens is Tunable, Reconfigurable

Laser-induced bubbles on a metal film are the first demonstration of a plasmonic lens in a microfluidic environment, report engineers at Pennsylvania State University. The unique integration of plasmonics and microfluidics could help in developing multifunctional plasmonic elements, highly sensitive biomedical detection systems, and on-chip, all-optical information processing.

Read Article >>

Share