Tuesday, November 9, 2021

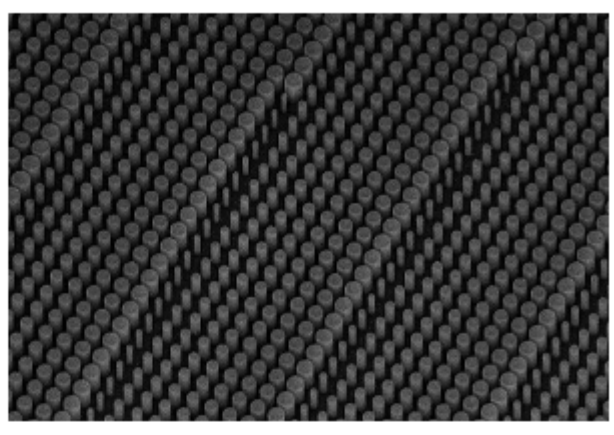
OPTICS TECH PULSE

Optics Tech Pulse is a special edition newsletter from Photonics Media and Bristol Instruments Inc. covering key developments in optics technology.

NIL Technologies Reports 94% Efficiency in Meta-Optical Lens

Optical solutions company NIL Technology (NILT) reports that is has designed, built, and characterized multiple meta-optical element (MOE) lenses with 94% absolute efficiency. The demonstration was done with 940-nm NIR lens, with results being heralded as a major milestone for the commercial use of metalenses.

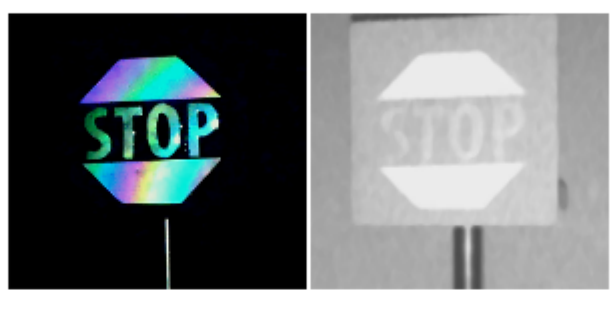
Read Article



Structural Material Lets Autonomous Vehicles Read Signs on Their Own

Research at the University at Buffalo has explored the science behind microscale concave interfaces (MCI) — structures that reflect light to produce beautiful and potentially useful optical phenomena.

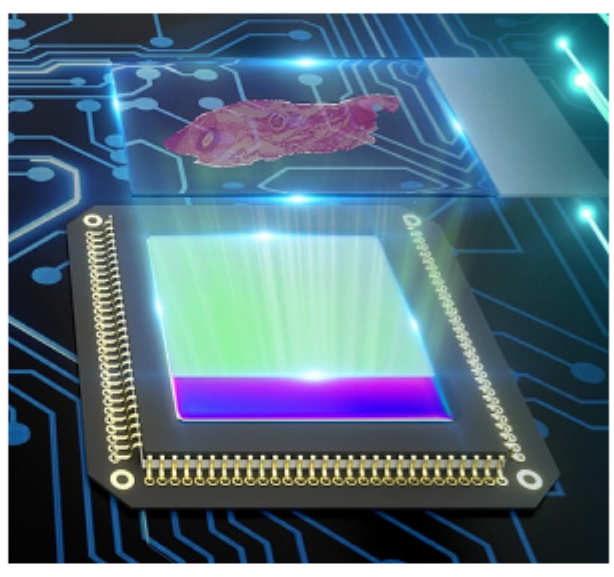
Read Article



Parallel Optical Processing Enables Highest Throughput Microscopy Imaging

A resolution-enhanced parallel-coded ptychography technique developed by researchers at the University of Connecticut has achieved the highest numerical aperture and throughput to date, compared to previous demonstrations of similar technology. The approach replaces the objective lens with a disorder-engineered surface.

Read Article



Laser-Writing Method Facilitates 10,000× Greater Data Storage than Blu-Ray Disc

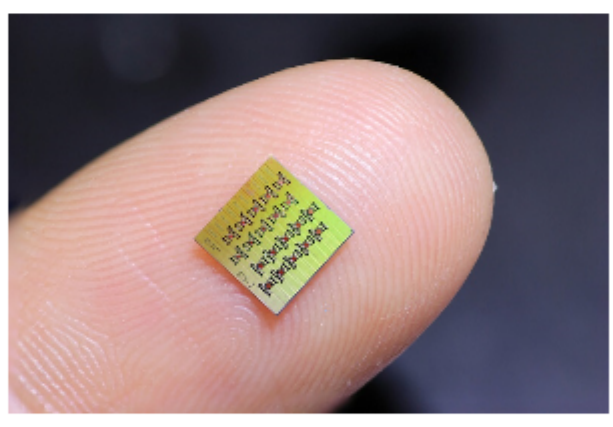
University of Southampton researchers have developed a fast and energy-efficient laser-writing method for producing high-density nanostructures in silica glass. The resulting tiny structures can be used for long-term five-dimensional (5D) optical data storage that is more than 10,000× denser than Blu-ray optical disc storage technology.

Read Article

Researchers Achieve Magnet-Free Optical Isolation

A collaboration between École Polytechnique Féderalé de Lausanne (EPFL) and Purdue University has led to the development of an electrically driven, magnet-free optical isolator that enables light routing on a chip.

Read Article



Optica Membership Elects Gerd Leuchs VP, Judith Dawes Director at Large

The membership of Optica, formerly OSA, elected Gerd Leuchs, director emeritus at the Max Planck Institute for the Science of Light, as the society's 2022 vice president. The membership elected Judith Dawes, professor of physics and director of MQ Photonics Research Centre at Macquarie University (Australia), director at large for a 2022-2024 term.

Read Article

AmeriCOM Unveils Blueprint to Invigorate, Sustain Optics Workforce

The American Center for Optics Manufacturing (AmeriCOM) outlined its plans to support the growing manufacturing requirements of the nation's optics industry. At the annual meeting of the NY Photonics Association in Rochester, N.Y., AmeriCOM President and CEO Jeff Ruckman said that AmeriCOM will focus on workforce training at the technician level, and will assess and address critical gaps in defense systems, the optics supply chain, and future industry needs.

Read Article

PHOTONICS MEDIA photonics.com