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LIGHT EXCHANGE



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Tweaks Turn Microscope into Billion-Pixel Imager

Changhuei Yang's lab at Caltech has developed a new setup that converts a relatively inexpensive conventional microscope into a billion-pixel imaging system that significantly outperforms the best available standard microscope. "We found a way to actually have the best of both worlds," said Guoan Zheng, initiator of the approach. "We used a computational approach to bypass the limitations of the optics. The optical performance of the objective lens is rendered almost irrelevant, as we can improve the resolution and correct for aberrations computationally."

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Nanocrystals Could Inform Nanocomposite Design

An optomechanical sensing technique that uses fluorescent tetrapod quantum dots to precisely measure the tensile strength of polymer fibers with minimal impact on their mechanical properties could lead to stronger nanocomposites.

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Color-Changing Mechanism Behind Cephalopods Revealed

Understanding how underwater creatures such as squid and octopus change color could inform new approaches to making tunable filters and switchable photonic materials that more efficiently encode, transmit and decode information with light.

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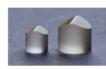
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Precision Powell Lenses

Laserline Optics Canada Laserline Optics Canada Inc. has

pioneered the volume production of the Powell lens, fabricating over 140,000 lenses since 1994, supporting the revolution in 3-D machine vision.

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Image Intensified Cameras Stanford Photonics

Stanford Photonics provides leading-

edge electronic imaging, digital microscope cameras and photonics technology for use in critical imaging technology applications requiring expertly designed devices and systems.

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Hand-Held Portable Spectrophotometer

Gigahertz-Optik

The Gigahertz-Optik LCRT-2005-S is designed as a portable instrument for the measurement of the regular (In-Line) transmission of windows and glasses with and without reflection reducing coatings in the laboratory or on site.

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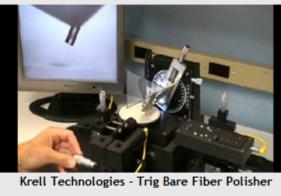


3D PRO Structured Light Laser Prophotonix Ltd.

The 3D PRO Laser from ProPhotonix has

been designed specifically for the demanding requirements of machine vision applications. The structured light lasers have a compact cylindrical form factor based on industry standard dimensions for easy integration into existing applications.

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FEATURED VIDEO

Trig polishes bare fibers at user selectable angles with high repeatability. Video monitoring provides accurate control of the shaping process, while an in-line vision system permits inspection of the polished surface while the fiber is loaded in the machine. Adapters are available for all fiber diameters and types, including PM.



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Laser-Controlled Switch Turns Blood Clotting On, Off

Crooks Joins LaserLinc as Southwest Regional Sales Rep

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OU Awarded Grant to Commercialize Mid-IR Detector

The supplier for the telecommunications, aerospace and defense markets will sell products for the precision optics maker in Korea.

Laser-controlled gold nanoparticles that release DNA molecules to switch blood clotting on and off could help

doctors better control blood clotting in patients undergoing surgery, or promote wound healing, say researchers

Based in Tucson, Steve Crooks will manage sales for the manufacturer of noncontact laser and ultrasonic systems

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in Arizona, parts of Southern California, Nevada, Colorado, Utah and New Mexico.

On this edition of the industry's only weekly newscast: a laser-controlled switch turns blood clotting on and off, plasmonics gives a performance boost to polymer LEDs and solar cells, a new 3-D display doesn't disturb 2-D viewers, and solar steam sterilizes with sunlight. Hosted by Photonics Media's Melinda Rose and Laura Marshall.

E2v Wins Arthur Clarke Award

for lasers, their value and future.

military and industrial applications.

The award, presented annually since 2005, recognizes notable contributions to space exploration, particularly

Dr. Ursula Keller, leader of the Ultrafast Laser Physics group at ETH Zurich and director of the Swiss multi-

A University of Oklahoma research team received a \$236,000 grant from the Oklahoma Center for the

institute NCCR MUST program in ultrafast science, was honored by the Laser Institute of America for her passion

British achievements. Read Article >>

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