Thursday, February 23, 2017

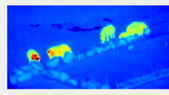
This Week In PHOTONICS

PHOTONICS MEDIA

Top Stories

Conservation Drones and Thermal Finger Prints Help Endangered Species

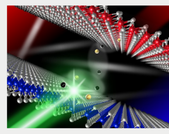
An astrophysics-ecology drone project could be the answer to many global conservation efforts. Using drones, thermal cameras and techniques used to analyze objects in space, an astrophysicist and an ecologist from Liverpool John Moores University (LJMU) are hoping to help endangered species such as the rhino and the orangutan.



Read Article

New Bilayer Material Could Improve LED Technology

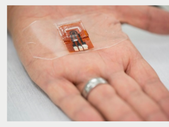
A new bilayer material measuring less than one nanometer in thickness per layer could lead to more efficient and versatile light emission. Researchers working at the Ultrafast Laser Lab at the University of Kansas (KU) successfully created the material by combining atomically thin layers of molybdenum disulfide and rhenium disulfide.



Read Article

Graphene-Based Electrode Used to Build Molecular Sensor

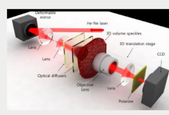
Graphene electrodes that act as effective biosensors have been created using a laser to burn patterns into a polymer sheet. King Abdullah University of Science & Technology (KAUST) researchers used a technique called laser scribing which locally heats parts of a flexible polyimide polymer to 2500 °C or more to form carbonized patterns of patches on the surface that act as electrodes. These black patches are about 33-µm thick, and their highly porous nature allows molecules to permeate the material.



Read Article

Optical Diffusers Improve Definition, Viewing Angle for 3D Holograms

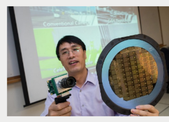
A wavefront-shaping technique has been used to create a dynamic 3D holographic image with a viewing angle of 35 degrees in a volume of 2 cm in length, width and height. Use of the technique was shown to yield a 3D holographic display that performed with more than 2600 times the strength of existing displays.



Read Article

Ultrafast Camera Developed for Drones, Autonomous Vehicles

An ultrafast high-contrast camera developed in Singapore could help self-driving cars and drones "see" better in adverse road and weather conditions. The smart camera, created by a team of scientists from Nanyang Technological University (NTU), can record the slightest of movements and objects in real-time, even when blinded by bright light or in complete darkness. The new camera records changes in light intensity between scenes at nanosecond intervals, much faster than conventional video, and stores the images in a smaller data format as well.



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Featured Products

Emerald CMOS Sensors

e2v

e2v's new Emerald family of CMOS sensors, feature the world's smallest true global shutter pixel available on the market today (2.8µm). With a smaller optical format and higher resolutions, the sensors lead to improved performance and reduced system costs for customers.

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QuixX Picosecond Pulsed Diode Laser

Omicron-Laserage Laserprodukte GmbH

These new diode lasers combine picosecond pulsed and CW operation with many features like a user-adjustable pulse shape, programmable delay generator, integrated frequency generator, fast modulation & gating and many more.

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Industry Events

Pittcon 2017

March 5-9, 2017 - McCormick Place - Chicago United States

Pittcon is the world's leading annual conference and exposition for laboratory science. This dynamic, vibrant event is a "must attend" for laboratory managers, analytical chemists, scientists and researchers. It will provide attendees with a first-hand look at lab innovations, access to technical experts to find solutions to critical issues, and an opportunity to compare and evaluate equipment from many vendors, all in one place. Targeted educational sessions help attendees discover new techniques and learn about the latest research. Short courses are offered on more than 60 topics. Plus, a free on-site employment service is offered for attendees to review and interview for jobs.

More Info

Webinars

Integrating Camera Technology Into a Successful Machine Vision Solution

Fri, Mar 10, 2017 1:00 PM - 2:00 PM EST

In this webinar, Rex Lee, Ph.D., CEO and president of Pyramid Imaging, Inc. and a machine vision professional with more than four decades of experience in business and academe, will discuss the components of a comprehensive machine vision system, including cameras, lighting, lenses, sensors and detectors. He will also speak on how to design a system that has the components required for optimal performance. Areas he will address include: requirements definition, system design, implementation, turnkey systems; and how to determine if a turnkey machine vision system is right for you.

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