Thursday, June 9, 2016

This Week In PHOTONICS

PHOTONICS MEDIA

Top Stories

Call for Nominations! Beacons of the Photonics Industry

Beacons are the photonics industry's luminaries who are guiding the scientific and business communities to optics and photonics through their work in five categories. Please submit a separate entry for each Beacon you wish to nominate. Deadline for submissions is July 1, 2016. The results of the survey will be published in the August issue of Photonics Spectra. Submit a Nomination form.

Read Article

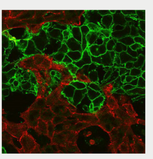
Hands-On Science in the Classroom Boosts STEM Retention Almost 25 Percent

A recent study found that a student's chances of completing a science, technology, engineering or math (STEM) degree significantly increases when he or she participates in course-based undergraduate research experiences (CUREs), which engage students in hands-on research at a large scale. Researchers from the Texas Institute for Discovery Education in Science analyzed data from more than 4,000 students who participated in the Freshman Research Initiative (FRI) at the University of Texas.

Read Article

Optogenetic Technique Rapidly Screens for Cardiac Drug Safety

An optogenetic technique has been used to make cardiac cells beat and optically measure their response, enabling an automated drug-testing process called OptoDyCE. The fully automated system for all-optical cardiac electrophysiology can rule out potentially dangerous drugs by testing 30,000 light-responsive cells in less than 10 min, a process that currently takes hours or even years. The technique streamlines the primarily manual process that researchers use to comply with FDA testing requirements and ensure the safety of the drugs. It can also be done using a patient's own blood cells using stem-cell techniques.



Read Article

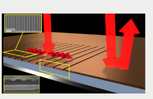
Planetary Resources Secures Funding for Earth Observation

Asteroid mining company Planetary Resources Inc. has secured $21.1 million in Series A funding to deploy and operate Ceres, an advanced Earth observation business. Ceres is set to use the first commercial IR and hyperspectral sensor platform to better understand and manage natural resources. It will leverage Planetary Resources' Arkyd spacecraft to deliver affordable, on-demand Earth intelligence of natural resources on any spot on the planet.

Read Article

Ultrathin TLA Materials Could Broaden IR Applications

Ultrathin gratings composed of common materials were shown to increase the absorption efficiency of light to almost 99 percent when thin grooves were etched into the film, directing the light sideways. The semiconductor materials are compatible with optoelectronic applications such as photodetectors and optical modulators, and could make IR technology less expensive and more accessible. A team comprising researchers from the University of Sydney, Australia National University and University of Technology Sydney began their investigation by examining total light absorption (TLA) in homogeneous ultrathin films, finding that TLA was difficult to achieve in uniform ultrathin layers.



Read Article

Featured Video

OSA Centennial - Susana Marcos - Instituto de Optica

OSA Fellow, Susana Marcos, Instituto de Optica, Spain, recalls how her love of physics helped kindle an interest in optics.

Watch Now

More Headlines

Capasso Lab Reports Planar Metalens Designed to Replace Glass Optics Read Article

Single-Lens Multispectral Camera Images in VIS, IR Read Article

Laser Scatterometer Distinguishes Wild Type, Mutant Bacteria Read Article

DRS Technologies Awarded U.S. Defense Contract Read Article

Phoenix, Sandia to Collaborate on PICs Read Article

Featured Products

TLB-6740 Velocity™ Widely Tunable Laser

New Focus

The TLB-6740 Velocity laser features a tuning range from 2350 to 2450 nm and is capable of both fine (piezo) and coarse (DC motor) mode-hop-free tuning. The TLB-6740 operates in single mode and provides > 4mW of free space power at 2400 nm with a linewidth of less than 200 kHz (measured over 50 ms). Applications for...

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Curved Displays need Ultra-Thin Glass and Coatings

Abrisa Technologies

Abrisa Technologies, a leader in thin-film coatings and glass, now offers transparent conductive ITO, photopic AR and filter coatings on 50 to 100 micron thin, flexible glass to support ultra-thin and curved display needs while preserving the clarity of images that only glass can give. All materials are from trusted ter...

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VIEW-IT® IR & UV Detectors

Kentek Corp.

Kentek's View-It® Infrared and Ultraviolet detectors feature a high-efficiency, laser-sensitive material that provides an unlimited viewing period for both pulsed and continuous wave lasers. Kentek's View-It® detectors are a convenient method for real-time viewing of beam shape, mode structure, and beam...

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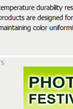

Moxtek ICE Cube™ Polarizing Beamsplitter

MOXTEK Inc.

Moxtek's wire-grid polarizing beamsplitter (PBS) ICE Cubes™ and plates provide high transmission, high contrast, and high temperature durability resulting in bright, beautiful images. Our PBS products are designed for use over a wide angular range while maintaining color uniformity and image contrast over the...

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Industry Events

SEMICON West 2016

July 12-14, 2016 - Moscone Center - San Francisco, CA

SEMICON West 2016 will feature 700 exhibitors and more than 115 hours of programs and networking events from across the supply chain—materials, equipment, design, manufacturing, system integration, demand channels, and adjacencies such as flexible hybrid electronics, MEMS and sensor and more. At this year's expo, several new forums designed to enhance collaboration within shared communities of interest will debut. Led by technical experts, top analysts, and leaders from some of the biggest names in electronics, the new forums are generating significant advance interest and buzz, including an Advanced Manufacturing Forum; Flexible Hybrid Electronics Forum; and a World of IoT Forum, addressing trends impacting the market, including smart things and MEMS and sensor manufacturing.

More Info

PHOTONICS buyers' guide®

Looking for Lasers and Laser Systems products? Search PhotonicsBuyersGuide.com, or browse these product categories:

Beam Positioners | Laser Safety Equipment

Excimer Lasers | Piezoelectric Positioning Equipment

Laser Cutting Systems | Tunable External Cavity Diode Lasers

CALL FOR ARTICLES!

Photonics Media is currently seeking technical feature articles on a variety of topics for publication in our magazines (*Photonics Spectra, Industrial Photonics, BioPhotonics* and *EuroPhotonics*). Please submit an informal 100-word abstract to Managing Editor Michael Wheeler at Michael.Wheeler@Photonics.com, or use our online submission form.