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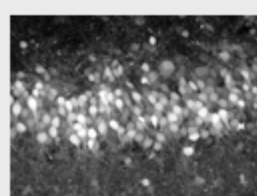
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# PHOTONICS.com

Thursday, March 13, 2014

## Brain Mapping Seeks New Paths



New imaging techniques could build new roadways in neural mapping and provide a better understanding of how the brain functions. A team at Columbia University, in conjunction with other institutions, is developing such imaging techniques as part of the federal BRAIN initiative. And they agree that photonics will ultimately play a key role in treating brain-related debilitating diseases and conditions.

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## A Sticky Approach to Fighting Infection

A new nanoscale approach to studying a common source of infection could ultimately lead to the creation of bacteria-resistant materials as a line of defense.

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## SPI Names New CEO

Dr. Christian Schmitz has taken the reigns at SPI Lasers as the company's new CEO.

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## Products on PhotonicsBuyersGuide.com



### Room Temperature HgCdTe detectors

**Infrared Associates**  
Infrared Associates, Inc. can now provide Room Temperature HgCdTe detectors covering the range of wavelengths from 1 um to 6 um. These detectors have both high sensitivity and ease of operation.

[More info >>](#)



### Mini and Micro Lens Elements

**Argyle International**  
Argyle Int'l has added a new series of miniature and micro lens elements to its diverse line of custom optics. Precise control of surface quality and centering make these lenses a good choice for your design.

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### Low Cost CNC Controlled Machines

**OptoTech Optical Machinery**  
The SM 80 CNC generator and the SPO 80 CNC polisher have automatic handling available and can be upgraded for aspheric capability making them the perfect entry level equipment.

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### Window Protection Shades and Blocks

**Kentek Corporation**  
Kentek's laser safe window protection shades and blocks are made-to-measure for virtually every shape and size window. Windows are for use with any laser application.

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## More Articles on Photonics.com

## HelioVolt Stops Work as Investor Backs Out

HelioVolt, a developer and manufacturer of thin-film solar modules based on CIGS technology, has suspended its photovoltaic initiatives after its major investor has backed out of the PV industry altogether.

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## Breaking Down Diamonds, Atom By Atom

An inadvertent breakthrough in laser technology could enhance the development of quantum computers and other diamond-based technologies. Researchers at Macquarie University's MQ Photonics Research Centre discovered that UV laser light was able to remove single atoms, one by one, from diamonds.

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## Tiny Lasers Could Help Fight Bio-Weapons

Biochemical weapons could be a big threat, but a new DARPA program is proposing a very small solution: tiny lasers.

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In this edition of the industry's **premier weekly newscast**: Tiny lasers help detect bio-weapons, a laser technology breakthrough removes individual atoms, new imaging techniques offer better understanding of brain functions, and Young Explorers study broadband imaging for real-life applications.

## IDEX Optics & Photonics Names Melles Griot Leader

IDEX Optics & Photonics has enlisted Michael Marsh to be the general manager of the Melles Griot Optical Systems business.

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## MUSE Offers 3-D View of Distant Galaxies

A new astronomical instrument installed at the Paranal Observatory in Chile captures 3-D images of distant galaxies and bright stars.

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## EXFO Receives 2014 Portable FOTE Leadership Award

Frost & Sullivan has awarded EXFO Inc. the 2014 Global Market Share Leadership Award for its work in the fiber-optic test equipment market.

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## WHITE PAPER

### An Introduction to Pulsed-Current Laser Diode Drivers

IXYS Colorado

The paper helps the reader to understand pulsed-current laser diode drivers and choose the right one for his or her application by explaining the basics of how they work and the components that comprise them. Ideal and real current sources are defined and explained, leading to an explanation of compliance voltage. Datasheet specifications for real-world products are explained: Forward voltage drop Single-junction lasers vs. stacks Rise and fall times Three driver topographies are discussed: the voltage-controlled driver, the inductive-storage current driver, and the capacitive-storage current driver. Each is described in terms of circuit composition, advantages, disadvantages, limitations, and quality of pulse generation.

[DOWNLOAD WHITE PAPER >>](#)

## Industry Events

OFC 2014 - Mar. 9, 2014 - Mar. 13, 2014 · San Francisco, CA



OFC 2014 offers high quality science and comprehensive programming with invited presentations given by experts the field. Also featured are peer-reviewed technical presentations, up-to-the-minute research presented in postdeadline sessions, short courses covering a broad range of topic areas, and notable plenary session featuring exceptional keynote speakers.

Interactive workshops and panel discussions keep attendees engaged, and poster sessions, trends, insights and analyses by leaders in the field at Service Provider Summit and Market Watch as well as extensive free show floor business programming keep them informed.

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## PHOTONICS MEDIA

THE PULSE OF THE INDUSTRY



## FEATURED VIDEO



**Jörg Neukum** DILAS Fiber-Coupled, Multi-Single Emitter Module, Category: Industrial Lasers

### DILAS – Fiber Coupled, Multi-Single Emitter Module

Jörg Neukum, Director of Sales and Marketing at DILAS, talks about the Prism nominated Fiber-Coupled, Multi-Single Emitter Module. The compact size provides users with a manageable footprint for integrating the device into any OEM system. With fiber core diameters as small as 105um for single diode laser bars and scalable power levels for multi-bar modules up to kilowatt level, the product line of fiber-coupled modules offers highest brightness and power at all wavelengths, for all applications.

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- [Distributed Feedback Lasers](#)
- [Laser Cavities](#)
- [Laser Optics](#)
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