

This Week In PHOTONICS

PHOTONICS MEDIA



sponsor

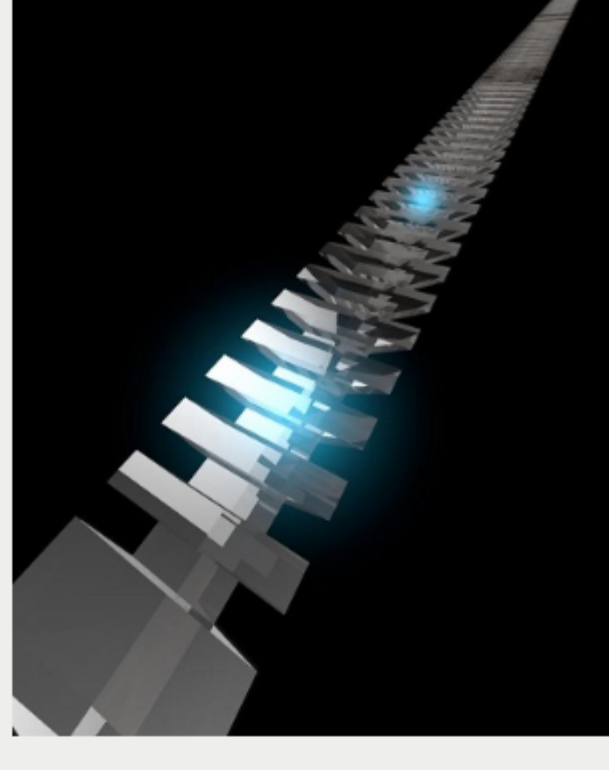
PHOTONICS MEDIA
THE BOOKSTORE

Machine Vision
A great resource for design and applications!
PRE-ORDER NOW! Only \$69.00

Top Stories

Caltech Researchers Develop On-Chip Nanoscale Optical Quantum Memory

A computer chip with nanoscale optical quantum memory has been developed that is analogous to a traditional memory chip in a computer. An international team took advantage of the peculiar features of quantum mechanics, such as superposition in which a quantum element can exist in two distinct states simultaneously, in designing their chip that stores data efficiently and securely.



[Read Article](#)

Nanosensors Used to Detect Obesity-Related Diseases

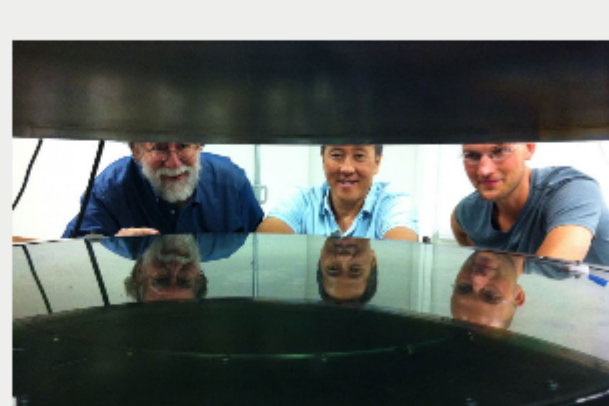
According to a New England Journal of Medicine study, more than one third of the world's population is overweight or obese. And, these weight issues can often lead to other health concerns. Researchers have created an optical reporter via nanosensor, which is capable of detecting the progression of obesity-related diseases. The nanosensors are specially formulated aqueously dispersed single-walled photoluminescent carbon nanotubes, made entirely of one specific semiconducting species.



[Read Article](#)

Scaled-Up Mirror-Coating Technology Could Improve Telescope Efficiency

Scientists are adapting atomic layer deposition (ALD), a technique widely used in the microelectronics industry, to develop protected silver coatings suitable for telescope mirrors. These coatings could help telescopes maintain high reflectivity at wavelengths from 340 nm through the mid-IR spectrum.



[Read Article](#)

Featured Products

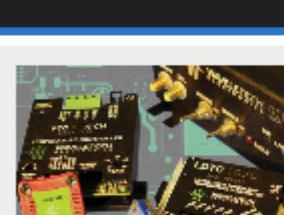


PCB Mount InGaAs Photodiodes

Fermionics Opto-Technology
Fermionics Opto-Technology offers PC Board mountable InGaAs photodiodes with active diameters

of 80 µm, 100 µm, 150 µm, and 300 µm. These modules are based on TO46 headers with ball-lens. Compatible input fibers include single-mode, and multi-mode fibers up to 100/140, depending on the photodiode active diameter.

[Visit Website](#) [Request Info](#)



Laser Control for Spectroscopy

Wavelength Electronics Inc.

Wavelength Electronics offers several high performance solutions for complete control of a laser diode or QCL based spectrometer. This includes low-noise laser current operation, and millikelvin stability temperature control. Choose the QCL Series with the PTC-CH for low noise, ultra-narrow linewidth and stable center wavelength.

[Visit Website](#) [Request Info](#)

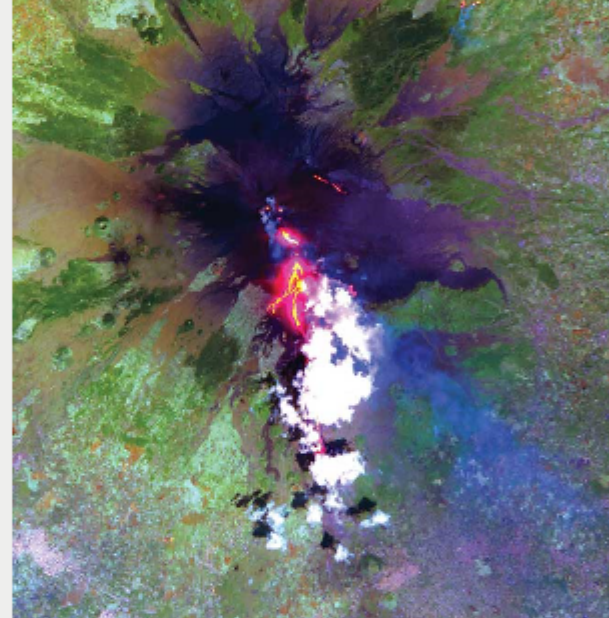
sponsors



More News

Infrared Satellite Data Predicts End of Volcanic Eruptions

Knowing when an effusive volcanic eruption will end is just as important as the onset in terms of reducing hazards. Using thermal infrared remote sensing data acquired from NASA's Moderate Resolution Imaging Spectroradiometer (MODIS) aboard the Terra and Aqua satellites, researchers set out to test a hypothesis first published in 1981 that detailed how lava flow rate changes during a volcanic eruption.



[Read Article](#)

Columbia Scientists Develop 3D Microscope for Live Cell Imaging

A team of scientists has successfully developed the Swept Confocally Aligned Planar Excitation (SCAPE) 3D microscope, which eliminates the need to mount samples or other special preparation and is capable of imaging freely moving living samples in real-time at speeds 10 to 100 times faster than current laser-scanning microscopes.



[Read Article](#)

More Headlines

Espros, Taiwan Semiconductor Finalize Mass Production Contract [Read Article](#)

Optifab 2017 Connects Industry and Academia [Read Article](#)

Uncharted Waters [Read Article](#)

On-Chip Photonic Synapse Mimics Neural Synapse [Read Article](#)

RIT's Qiao, OSA Organizes Second Women in Optics and Photonics Symposium [Read Article](#)

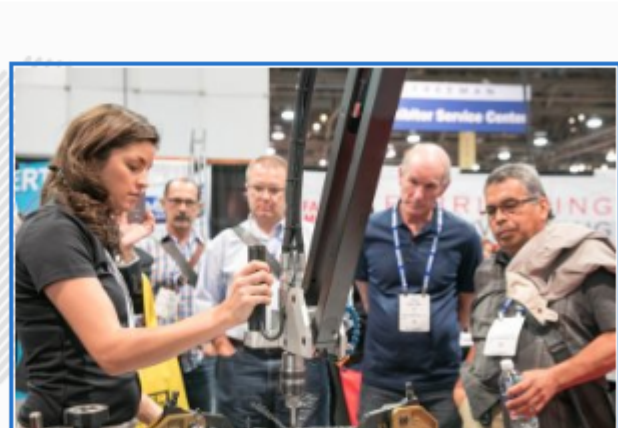
sponsors



Industry Events

FABTECH 2017

NOVEMBER 6-9, 2017 - McCormick Place - Chicago United States
FABTECH provides a a wealth of information and ideas in a convenient venue where you can meet with world-class suppliers, see the latest industry products and developments, and find tools to improve productivity, increase profits and meet your metal forming, fabricating, welding, and finishing needs. More than 50,000 attendees and over 1,700 exhibiting companies are expected at this year's event. FABTECH also provides educational sessions and expert-led presentations covering the latest trends and technology in the metal forming, fabricating, welding and finishing industries. New in 2017 - a 3D/Additive Manufacturing Pavilion and an expanded Tube & Pipe Pavilion.



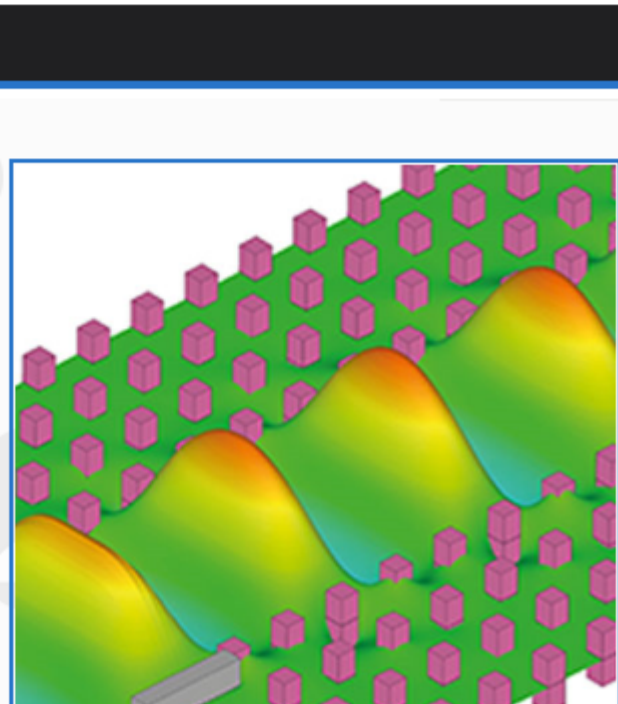
[More Info](#)

Webinars

3D Electromagnetic Simulation of Photonic Devices

Wed, Oct 18, 2017 12:00 PM - 1:00 PM EDT

This webinar will discuss electromagnetic (EM) simulation workflows for photonics and show how modeling can provide insights into the design and optimization of photonic and optical devices. It will present CST STUDIO SUITE for photonics simulations and discuss the simulation of multiphysics effects such as heating and losses due to thermal heating. It is presented by CST, a leading provider of 3D EM field simulation tools. CST is part of SIMULIA, a Dassault Systems brand.



[Register Now](#)

PHOTONICS buyers' guide®

Looking for Lasers & Laser Systems products? Search [PhotonicsBuyersGuide.com](#), or browse these product categories:

[Laser Dyes](#)

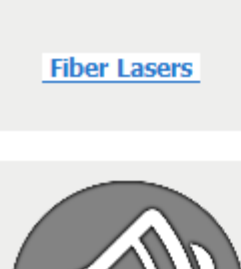
[Ratiometers](#)

[Laser System Accessories](#)

[Capacitor Charging Power Supplies](#)

[Fiber Lasers](#)

[X-Ray and Ion-Beam Power Supplies](#)



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](#).