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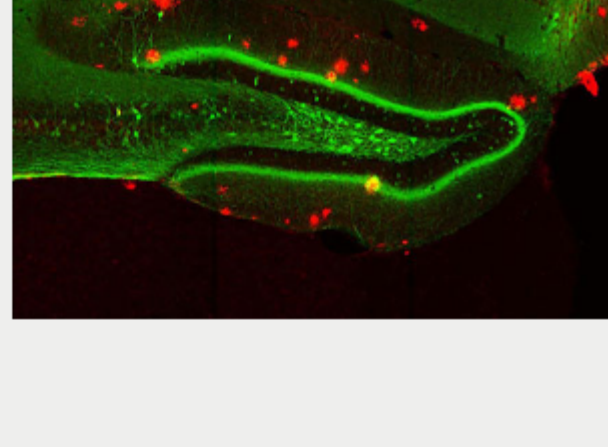
One of the best, if not THE best conferences I've attended in terms of material, structure and networking
- Stephen Harris, ON Semi

25 - 27 April 2016
Cologne, Germany
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Top Stories

Optogenetic Technique Recovers Lost Memories in Alzheimer Mouse Model

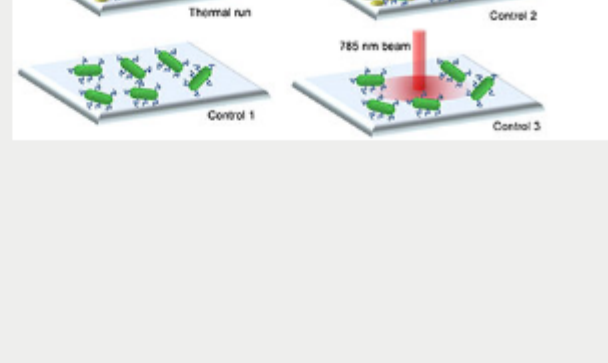
An experimental optogenetics technique has been applied to a mouse model of Alzheimer's disease (AD) to rescue memories. The study revealed that spines — small knobs on brain-cell dendrites through which synaptic connections are formed — are essential for memory retrieval and that fiber optic light stimulation could be used to regrow lost spines, enabling the mice to remember a previous experience.



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NIR Light, Gold Nanoparticles Combine to Inactivate Bacteria

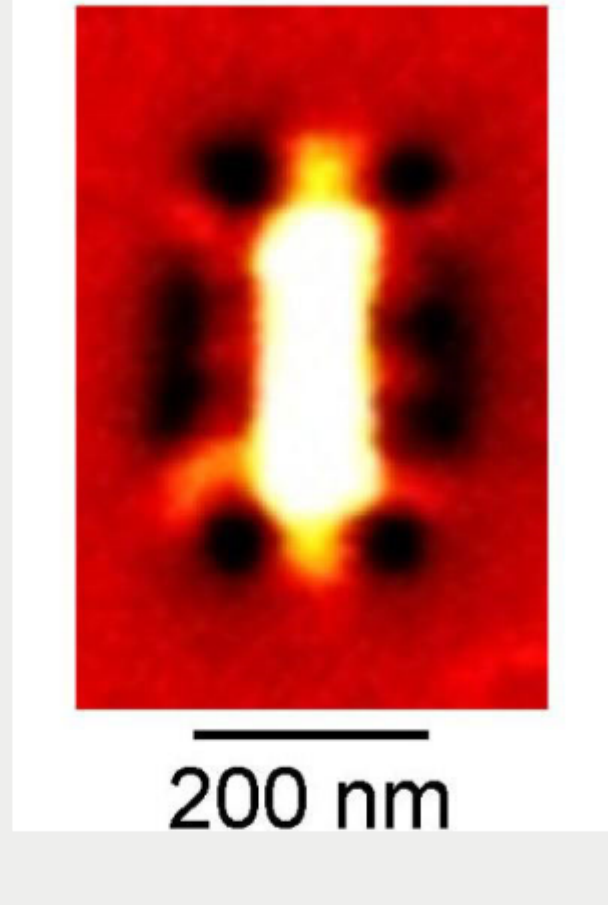
A rapid photothermal technique has been developed that irradiates near-infrared (NIR) light to inactivate bacterial cells, such as E. coli, deposited on surfaces coated with gold nanoparticles. The method could one day help hospitals treat some common infections without using antibiotics, which could help reduce antibiotic resistance. Scientists from the University of Houston created nanoporous gold disks (NPGDs) in the lab by dissolving gold and reducing it to nanometer-scale particles. Once miniaturized, the particles could be crafted into various shapes including rods, triangles or disks.



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Graphene Plasmons Explored for Nanoscale Control of IR Light

The ability to capture IR light with graphene nanostructures could open new opportunities for ultrasmall and efficient photodetectors, sensors, and other photonic and optoelectronic nanodevices. When light couples to charge oscillations in graphene the result is plasmon — a mixture of light and charge oscillations — which can be squeezed into miniscule volumes that are millions of times smaller than in conventional dielectric optical cavities.



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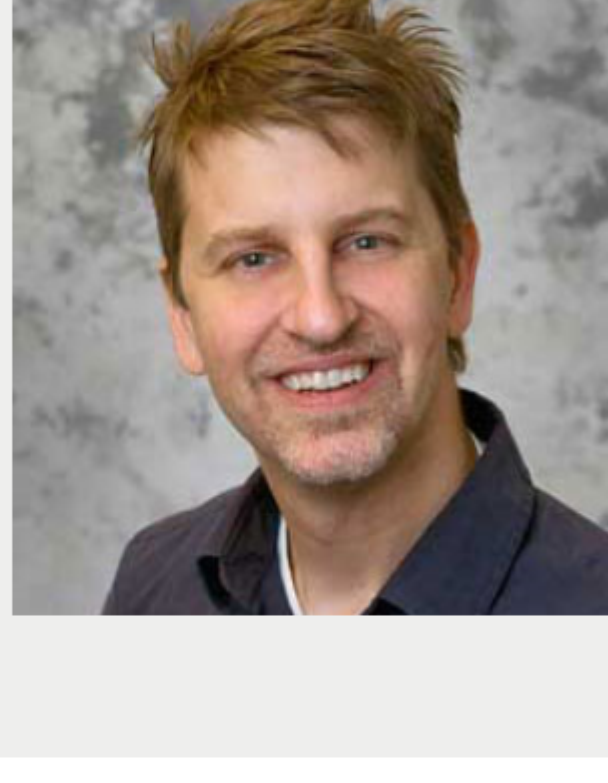
on the cutting edge



pco.edge 4.2 CLHS

Brookhaven's Functional Materials Center Appoints Charles Black Director

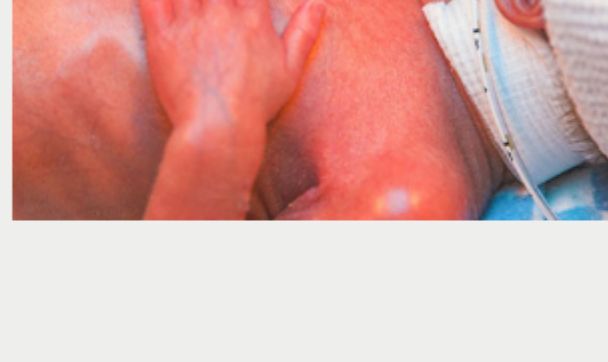
Charles Black has been named director of the Center for Functional Nanomaterials (CFN), a U.S. Department of Energy Office of Science User Facility located at Brookhaven National Laboratory. Black, who is also the group leader for Electronic Nanomaterials at CFN, joined Brookhaven Lab in 2006 as a scientist and became leader of the Electronic Nanomaterials Group the following year.



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Precise Wavelength Used to Gently Image Lungs of Newborns

To avoid the harmful radiation resulting from x-rays, near-infrared (NIR) spectroscopy has been used to image oxygen concentrations in the lungs of newborns, a technique that could be used to noninvasively monitor premature babies with underdeveloped lungs and increase survival rates. Emilie Krite Svandberg, an anaesthesiologist and researcher at Lund University, reported a spectroscopic method using precisely 760.445-nm light.

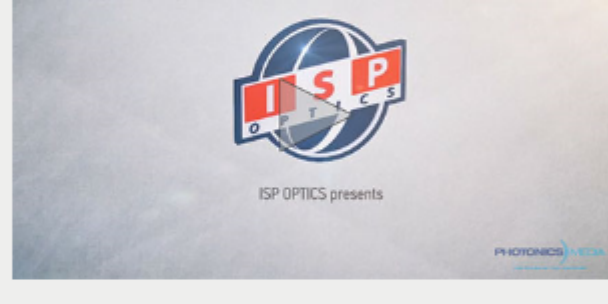


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Featured Video

ISP Optics - Vertically Integrated Manufacturer of IR Optical Components

ISP Optics Corporation is a vertically integrated manufacturing company of IR Optical Components. Every step in the manufacturing process - from crystal growth to final inspection - is controlled by ISP. This ensures the customer receives a quality product, from a trusted name with over 20 years of industry expertise.

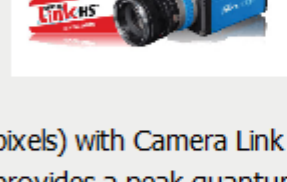


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Featured Products



New pco.edge 4.2 Meets CLHS

PCO-TECH Inc.
Camera combines an advanced generation sCMOS sensor (2048 X 2048 pixels) with Camera Link HS (CLHS) interface. The pco.edge 4.2 provides a peak quantum efficiency (QE) of up to 82%.

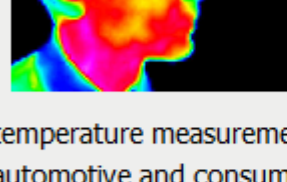
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Custom Flat Optics Manufacturing

Sydor Optics, Inc.
Sydor Optics is a custom manufacturer of precision flat-surfaced, parallel and wedged glass optical components specializing in double-sided polishing, continuous pad & pitch polishing, CNC machining and laser machining.

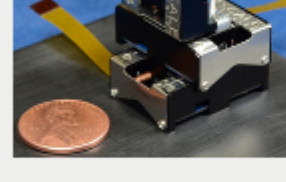
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IR Thermopile Array 80x64 Pixel

Heimann Sensor
Heimann Sensor is a well-known manufacturer of infrared sensors and modules. Applications include remote temperature measurement and gas detection in industrial, medical, automotive and consumer markets.

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USB Microstage has Built-in Controller

New Scale Technologies
The M3-LS Linear Smart Stage is a direct-drive, high-precision micro stage built for fast, simple integration into miniature OEM systems. All drive electronics are integrated right into the compact stage housing – no external board needed.

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LASYS

International Trade Fair for Laser Material Processing

May 31 – June 02, 2016
Messe Stuttgart

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Industry Events

Sensors Expo & Conference

June 21-23, San Jose, CA
The Sensors Expo & Conference Program consists of over 55 technical sessions and five pre-conference symposia. Technologies to be showcased during the exhibition include IR sources, detectors and systems, optical components such as specialized lenses and coatings, chemical and biological sensing, high-speed imaging and sensing, robotics, displays and photonic, multispectral and hyperspectral sensors.

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Webinars

FLIM (Fluorescence Lifetime Imaging in the Frequency Domain) in a Nutshell

Thu, Apr 14, 2016 1:00 PM – 2:00 PM EDT
Due to advancements in CMOS image sensor technology a new camera system, pco.film, has been created to allow for easy and fast fluorescence (and phosphorescence) lifetime imaging. The webinar will shortly reintroduce the principle of photoluminescence lifetime imaging. Based on the principle of frequency-domain luminescence lifetime imaging, the features of the new pco.film camera will be discussed. Further, the simple experimental setup with a microscope in conjunction with an appropriate excitation light source will be shown. Based on experimental results with Förster resonance energy transfer (FRET) and endogenous fluorescence applications, the advantages and limitations of the new FLIM system will be presented.

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www.displayweek.org
Moscone Convention Center, San Francisco, CA
May 22-27, 2016

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