PHOTONICS MEDIA
THE PULSE OF THE INDUSTRY
biophotonics.com

LIGHT EXCHANGE

Follow Photonics Media on Facebook and Twitter

Terahertz Spectroscopy Promises Better Diagnosis, Safer Drugs

With terahertz imaging systems getting smaller and cheaper - and performing better - applications are stacking up in cancer imaging as well as drug detection and development. Terahertz spectroscopy is a fast-growing area of research with some hugely promising applications. Its low-photon-energy radiation makes it safe for tissue imaging, and its high absorption in water, which is often a key indicator of the presence of tumor cells, makes it a hopeful weapon in fighting cancer.

Read Article >> Share

FEATURED VIDEO

PCO Tech - Photonics West Booth Tour

A booth tour of PCO-TECH at Photonics West 2013, where various working and static oem cameras were displayed. Including the pco.edge sCMOS mounted onto a Zeiss microscope, pco.edge color version, pco.pixelfly usb compact 14bit camera and pco.dimax HS4 the latest addition to the high-speed camera line. www.pco-tech.com

Fiber Optics' Versatility Helps Market Grow

Companies report continued growth in the biomedical market. As diagnostic and treatment technologies evolve and increasingly turn to light, medical device manufacturers increasingly turn to fiber optic components and systems to deliver that light to tissues and organs. They might as well - the market is not only strong but also expanding, according to industry leaders.

Read Article >> Share

With Laser Zap, Cocaine Addiction Vaporizes

Laser light stimulation to a portion of the brain can wipe away addictive behaviors - or conversely turn on a drug addiction, a new US study on rats has demonstrated. An estimated 1.4 million Americans are addicted to cocaine, and cocaine abuse is a main cause of heart attacks and strokes for people under 35. The drug addiction places a heavy toll on society in terms of lost job productivity, lost earnings, cocaine-related crime, incarcerations, and treatment and prevention programs.

Read Article >> Share

On this edition of the industry's premier weekly newscast: a nanowafer tunes for optimal light absorption, subtle differences in butterfly wings could inspire new materials, paper-thin electronic skins light up at a touch, and a 16-year-old from Oregon develops a method to optimize quantum dots for solar applications. Hosted by Photonics Media's Laura Marshall and Melinda Rose.

Cancer Cell Killers Revealed by Laser Microscopy

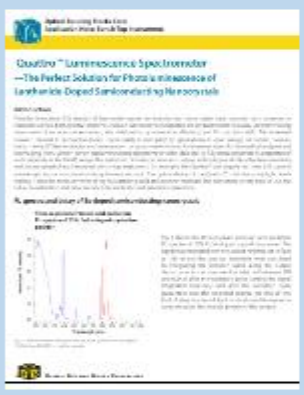
A laser-based microscope video imaging technique has revealed why a particular cancer drug is so effective at killing cells. The findings could revolutionize the design of future cancer treatments. Using high-quality video imaging, researchers from the Manchester Collaborative Centre for Inflammation Research (MCCIR) captured the process in which rituximab - a drug widely used to treat B cell malignancies such as lymphoma, leukemia and rheumatoid arthritis - binds to a diseased cell, then attracts white blood cells known as natural killer cells to attack.

Read Article >> Share

Wireless microLEDs Shed Light on Brain

Materials scientists and engineers at the University of Illinois at Urbana-Champaign and neurobiologists at Washington University in St. Louis injected microLEDs deep into the brains of mice to study their structure, function and complex connections. The specially designed LEDs - developed in the lab of John A. Rogers at the University of Illinois - are printed onto the tip of a thin, flexible plastic ribbon that can be deeply inserted with very little stress to tissue.

Read Article >> Share



The Perfect Solution for Photoluminescence Studies of Lanthanide-Doped Semiconducting Nanocrystals

Optical Building Blocks Corp.

Photoluminescence (PL) studies of lanthanide-doped semiconducting nanocrystals have become very common in materials science. The increased research interest in such materials is prompted by applications in solar energy conversion devices, lasing media, LED technologies and development of upconversion-based luminescent labels for biomedical analyses and bioimaging. The new Quattro™ bench-top luminescence spectrometer is the ideal tool to fully characterize the PL properties of such materials in the UV-VIS range.

DOWNLOAD WHITE PAPER >>

Biophotonics Products

HCS Studio Software

Thermo Fisher Scientific

Thermo Fisher Scientific Inc. has released HCS Studio, a suite of high-content imaging and analysis software offering researchers the ability to interact with and analyze cell images and corresponding data.

More info >>

Broadband-Coated Mirrors

Edmund Optics, Inc

The TechSpec broadband-coated ?/10 first-surface mirrors from Edmund Optics provide >99% reflection for application in the visible to near-infrared spectra, including flow cytometry, ophthalmology, spectroscopy, optical metrology, OCT and medical imaging, and DNA sequencing and genomics.

More info >>

976-nm Fiber-Coupled, Single Emitter Module

DILAS Diodenlaser GmbH

Suitable for medical applications, Dilas' fiber-coupled, single emitter module emits 10-W CW power at 976 nm from a single 200-µm broad-area emitter.

More info >>

CO2 Laser Lenses

Laser Research Optics

Laser Research Optics, a division of Meller Optics Inc., is offering CO2 lenses and turning mirrors for engraving and marking lasers that are optimized for 10.6 µm.

More info >>

Industry Events

Microscopy & Microanalysis 2013 - August 4 - 8, 2013 · Indianapolis, IN
Visit us at Booth 730

The annual meeting of the Microanalysis Society in conjunction with the Microscopy Society of America features the latest advances in the biological and physical sciences, techniques and instrumentation. Educational opportunities include a variety of Sunday short courses, tutorials, evening vendor tutorials, pre-meeting workshops, and in-week intensive workshops.

MORE INFO >>