Wednesday, August 23, 2017

BIOPHOTONICS

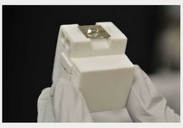
BRINGING LIGHT TO THE LIFE SCIENCES®

PHOTONICS MEDIA

Monthly newsletter focusing on how light-based technologies are being used in the life sciences. Includes news, features and product developments in lasers, imaging, optics, spectroscopy, microscopy, lighting and more.

In Dermatology, Lasers Offer Options For Medical, Cosmetic Procedures

Advancements are producing alternatives to invasive technologies that are safer, more effective and more affordable. From skin cancer diagnosis and treatment to wrinkle removal and skin rejuvenation, laser-based treatments increasingly offer noninvasive alternatives to traditional procedures. These noninvasive alternatives can lessen tissue damage, decrease recovery times, speed diagnosis and reduce scarring.



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Intelligent Hyperspectral Imaging Holds Promise for Pathology

Hyperspectral imaging provides images with numerous spectral bands over a continuous spectral range, enabling analysis of complex scenes that contain both spectral and spatial information. Recent advances in tunable filter elements combined with increased computational power of embedded processors have resulted in a fully autonomous battery-operated and small form-factor imager.

Read Article

Microscopy Method Enables Simultaneous Imaging of 24 Molecules

A novel microscopy platform with enhanced detection sensitivity could allow for more comprehensive, system-wide labeling and imaging of greater numbers of biomolecules in living cells and tissues than is currently possible. The platform, called electronic pre-resonance stimulated Raman scattering microscopy, offers high levels of sensitivity and selectivity.

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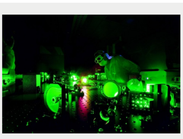
In Case You Missed It

Laser Sparks New Behavior in Light

By focusing laser light to a brightness one billion times greater than the surface of the sun, physicists at the University of Nebraska-Lincoln have observed changes in a vision-enabling interaction between light and matter. The changes produced unique x-ray pulses with the potential to generate extremely high-resolution imagery useful for medical, engineering, scientific and security purposes.



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Photoacoustic Imaging Technique Delivers Panoramic Scan of Live Animal in Real Time

A hybrid imaging technique combines light and ultrasound to provide a full cross-sectional view of a small animal's internal functions in real time.

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Nanoscale Sensor Detects Disease

A new nanoscale sensor has been developed that can help detect cytokines — molecules that play a critical role in cellular response to infection, inflammation, trauma and disease.

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Featured Products

Compact and Efficient Multi-Laser Engine - iChrome CLE

TOPTICA Photonics Inc.

TOPTICA's iChrome CLE is a compact laser engine that combines four laser lines in one box. All integrated colors are provided via one polarization-maintaining single-mode fiber. It is available with 405, 488, 561 and 640 nm and more than 20 mW guaranteed output power after the fiber each.

Visit Website | Request Info

Ideal OEM Illumination Platform for Biophotonics

Lumencor Inc.

Lumencor's AURA light engine® provides a flexible platform for integration of solid-state light sources in customized configurations. The AURA light engine incorporates up to 5 light output channels that can be configured according to your application requirements. Channel selection is implemented via TTL or serial control interfaces.

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Cobolt Skyra™: The New Multi-line Laser

Cobolt AB

Cobolt AB proudly introduces the Cobolt Skyra™, a revolutionary multi-line laser platform. Offers up to 4 laser lines in a box that can fit into the palm of your hand (70 x 134 x 38 mm) and requires no external electronics.

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Light Sheet Microscopy (oSPIM)

Applied Scientific Instrumentation Inc.

ASI's Oblique Single Illumination Microscope (oSPIM) is an excellent platform for high resolution light sheet microscopy for samples mounted in standard coverslip-bottom culture dishes. The oSPIM is a single-view light sheet system where the illumination light sheet is generated at an oblique angle using an oil immersion objective below the sample dish.

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Webinars

Mobile Hyperspectral Imagers: Implementations and Applications

Tue, Oct 10, 2017 1:00 PM - 2:00 PM EDT

This webinar will provide an overview of the state of the art in hyperspectral imaging (HSI) and cover a number of applications for HSI spanning medical imaging to agriculture and anti-counterfeiting. The webinar will conclude with an outlook on some of the exciting new technologies that are expected to continue to transform this imaging modality and move it into the domain of the consumer. Presenter Hod Finkelstein is CTO of TruTag Technologies where he leads imaging systems development and microparticle productization teams.

Register Now

Coming in September...

Features

Embedded Vision Medical Diagnosis; Cardiac Optogenetics; Fluorescence Microscopy; Photoacoustic Imaging

Issue Bonus

Annual OCT Sourcebook: Non-Ophthalmological OCT Applications, Research, Market Report, Directory

Photonics Media is currently seeking technical feature articles on a variety of topics for publication in our magazine *BioPhotonics*. Please submit an informal 100-word abstract to Associate Managing Editor Marcia Stamel at marcia.stamel@photonics.com or use our online submission form www.photonics.com/submitfeature.aspx.

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