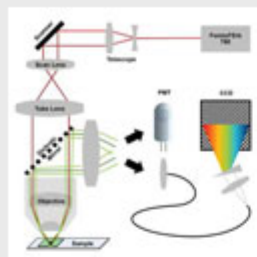


BIOPHOTONICS

BRINGING LIGHT TO THE LIFE SCIENCES

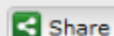
Wednesday, February 26, 2014

Simplified Approach Makes Two-Photon Multicolor Imaging Less Costly



A method combining a fixed-wavelength laser with a nondescanned hyperspectral detection system renders clean images. Two-photon microscopy (TPM) is the method of choice for imaging biological samples in vivo, with cellular resolution in three dimensions. Multicolor imaging with several fluorophores – standard in single-photon microscopy – also is desirable in TPM, but existing approaches using multiple lasers are expensive.

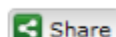
[Read Article >>](#)



SERS on the Verge of Diagnostic Success

Applications poised to benefit from this emerging Raman technology include biology, forensics and pharmaceuticals. After years of exclusion as an academic technique, Raman spectroscopy has finally, firmly taken its place as an important analytical tool used for applications ranging from noninvasive imaging for diagnostics to in-field sensing for the detection of drugs and explosives.

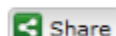
[Read Article >>](#)



Raman Technique Offers Promise for Clinical Applications

Researchers have achieved some success in honing the sensitivity of this label-free technique for diagnostic applications. Raman imaging has been explored for a range of uses; among the most exciting of these are applications in the biomedical arena. Here, especially in the past decade or so, considerable attention has been paid to the potential of the technique for diagnosis of disease.

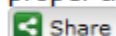
[Read Article >>](#)



Fast Camera Tracks Agile Survival Artists

Some like it hot – for example, micro-organisms that live in the deep sea on “black smokers,” where heat rises from the interior of the earth. These archaea, or “ur-bacteria,” form a separate branch in the phylogenetic tree of life and are veritable survival artists. Biologists have long wondered how exactly it is that archaea propel themselves.

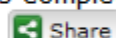
[Read Article >>](#)



Laser Reveals Photosynthetic Processes

Scientists have used an ultrafast laser to study a photosynthetic complex — arguably the most important bit of organic chemistry on the planet — in its complete functioning state.

[Read Article >>](#)



Biophotonics Products



iChrome MLE

TOPTICA Photonics
Biophotonics instrumentation frequently requires several laser wavelengths from one package. TOPTICA's exceptional iChrome MLE provides a perfect solution.

[More info >>](#)



Multitrack Imaging Spectrograph

Andor Technology plc
The Holospec multitrack imaging spectrograph by Andor Technology is suitable for various applications including weak nanostructure photoluminescence; micro-Raman mapping, including tip-enhanced Raman spectroscopy; spectrally assisted microfluidics; real-time medical diagnosis; standoff chemical detection; and online process control.

[More info >>](#)



CMOS X-Ray Detector

Teledyne DALSA, Machine Vision OEM Components
Teledyne Dalsa Inc. has added the Xineos-1515 CMOS x-ray detector to its flat detector series for clinical fixed and mobile applications such as C-arms, fluoroscopy and 3-D orthopedic imaging systems.

[More info >>](#)



Illumination Microscope

Applied Scientific Instrumentation Inc.
Applied Scientific Instrumentation (ASI) Inc.'s dual-inverted selective plane illumination microscope generates 3-D volumes with isotropic resolution (330 nm) in all directions.

[More info >>](#)

Industry Events

PITTCON 2014 - March 2 – 6 2014 · Chicago, IL

Visit Photonics Media at Booth 3844



There are more than 2,000 technical sessions available to choose from with this year's conference at PITTCON. The 2014 comprehensive Technical Program will include, but not limited to, areas of analytical chemistry, applied spectroscopy, life sciences, bioanalysis, and food sciences.

[More info >>](#)

PHOTONICS MEDIA

THE PULSE OF THE INDUSTRY



sponsor

AvaSpec-HERO ...



best of both!

sponsor

UXR™-300BF
Ceramic Xenon Lamps

For scientific, medical & industrial illumination applications



PHOTONICS buyers' guide

Looking for **Biophotonics products?** Search the Photonics Buyers' Guide or Browse these product categories:

[Gastroenterology Laser Systems](#)
[Mass Spectrometers](#)
[Microscope Cameras](#)
[Optical Coherence Tomography Imaging Systems](#)
[Photodynamic Therapy/Oncology Laser Systems](#)
[Tissue Welding Laser Systems](#)

sponsor



OBLIQUE SINGLE PLANE ILLUMINATION MICROSCOPE (OSPIM)

The oSPIM is two microscopes in one. The lower microscope can be used for conventional fluorescent imaging including WF, confocal, and TIRF. The bottom objective is also used for light sheet (SPIM) illumination, with light sheet imaging from the tilted top objective.

www.asiimaging.com



sponsor



iChrome CLE

Economic 4-color laser engine

sponsor



JUNE 26–29, 2017, MESSE MÜNCHEN

LASER World of PHOTONICS

Questions: pr@photonics.com

Unsubscribe: <http://www.photonics.com/Newsletter/EmailUnsubscribe.aspx>

[Subscribe](#)

[Manage Subscriptions](#)

[Privacy Policy](#)

[Terms and Conditions of Use](#)