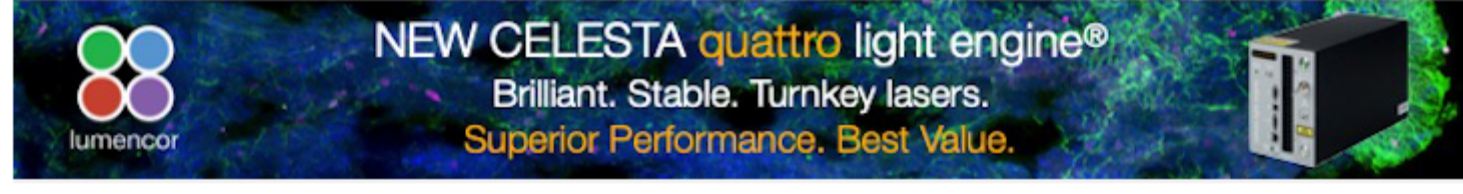


BIOPHOTONICS

BRINGING LIGHT TO THE LIFE SCIENCES®

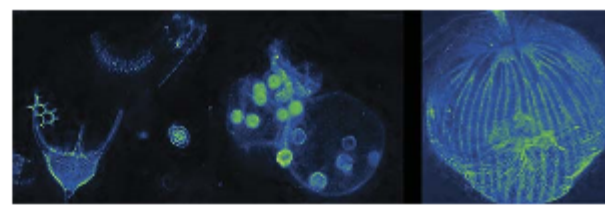
PHOTONICS MEDIA photonics.com

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. Manage your Photonics Media membership at Photonics.com/subscribe.



Microscopy Technique Enhances 3D Imaging Capability

A team at Boston University devised a technique to collect information from many focal planes at once, aided by a special algorithm for removing out-of-focus blur that may clear these hurdles in modern research. This delay is too long for an industry in which growing seasons are finite and even minor improvements in yield can add immediate value to the harvest.



[Read Article](#)

Spectroscopy Takes Root in Agricultural Analysis

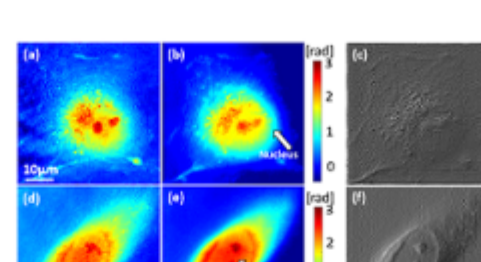
Before the advent of compact, portable optical sensing instruments such as miniature spectrometers, agriculture researchers and farmers with access to technology were limited to extracting their plant samples from the field, taking them to a lab, and then waiting days or weeks to get results. This delay is too long for an industry in which growing seasons are finite and even minor improvements in yield can add immediate value to the harvest.



[Read Article](#)

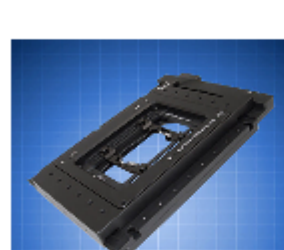
Synthetic Aperture Phase Microscopy Enables Subcellular Imaging

Researchers at The Chinese University of Hong Kong have developed a phase-reliant method of synthetic aperture microscopy. The method, introduced as "high spatial and temporal resolution synthetic aperture phase microscopy," or "HISTR-SAPM," features a setup of digital micromirror devices — electronic components commonly used in digital projectors and that contain a matrix of micromirrors — and overcomes previously existing limitations to SAM tied to spatial resolution and frame rate.



[Read Article](#)

.: Featured Products



Ultra Precise Piezo-Z Focus Stage

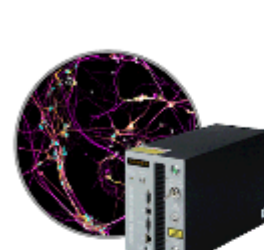
Applied Scientific Instrumentation Inc.

The PZ-2000FT XYZ stage

has been specifically designed to provide a high resolution, and highly repeatable, means of controlling the X, Y, and Z position of the microscope stage. The XY axes derive their precise control through the use of closed-loop DC servomotors...

[Visit Website](#)

[Request Info](#)



Lumencor's New CELESTA quattro

Lumencor Inc.

The CELESTA quattro Light Engine delivers four lasers

with brightness, stability, and longevity. It's designed to provide high performance solid-state laser lighting with which our CELESTA is synonymous, yet it has been refined from seven to four outputs for enhanced value.

[Visit Website](#)

[Request Info](#)



Bring Your Product to Life

Optikos Corporation

Have a project in mind? Work

with our talented team of engineers to bring your next idea to life. From concept and design to prototype and production, you can do it all with Optikos.

[Visit Website](#)

[Request Info](#)



LED Illuminators for 'Green' Labs

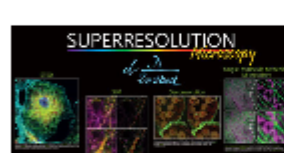
CoolLED Ltd.

Want to make your lab more

eco-friendly? Swap your toxic mercury-based lamps for the popular 3-channel pE-300 Series LED illuminators, enabling high-performance fluorescence microscopy alongside a breakthrough eco-score.

[Visit Website](#)

[Request Info](#)



Superresolution Microscopy Poster

Photonics Media

With interest in the

superresolution microscopy field growing rapidly, the editors of BioPhotronics magazine — in collaboration with acknowledged experts — created a poster with readers in mind that is suitable for lab, classroom and office. It features visually stunning, high-resolution images...

[Visit Website](#)

[Request Info](#)



Super Agilis™ High Speed Linear Stages

MKS/Newport

For Micro and

Nanopositioning applications, MKS offers the Super Agilis™ piezo motor linear stages, integrated with a CONEX-SAG piezo motor controller and driver in both closed-loop and open-loop versions. For out-of-the box control, the controller is preconfigured and delivered to control the included linear stage....

[Visit Website](#)

[Request Info](#)



The Ultra Precise Piezo-Z Stage

Perfect for super resolution microscopy applications.



LEARN MORE AT: WWW.ASIIMAGING.COM



ASLMS Annual Conference on ENERGY-BASED MEDICINE & SCIENCE

May 15-16, 2021

REGISTER TODAY!

.: In Case You Missed It

Ultrafast Yellow Laser Ramps Up the Power for Biomedical Applications

Researchers at the Physical Research Laboratory at Gujarat University have developed a compact and ultrafast high-power yellow laser. The tunable laser shows excellent beam quality, helping fill a need for a practical yellow light source emitting ultrafast light pulses.



[Read Article](#)

AO Two-Photon Endomicroscopy Achieves Synaptic Resolution

Scientists from the Hong Kong University of Science and Technology (HKUST) developed a technology for in vivo imaging of deep brain structures at synaptic resolution. The technology, "adaptive optics two-photon endomicroscopy," enables scientists to acquire information necessary to elucidating the ways in which the brain functions, overcoming limitation with existing imaging methods to shed light on brain functionality in previously unexplored regions of the brain.

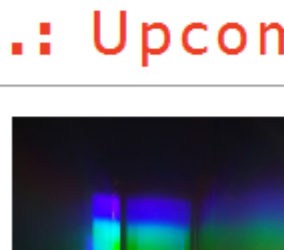
[Read Article](#)

Researchers Look to Combine AI and IR Sensing to Save Lives

Researchers at Stanford University are looking at AI and infrared sensing to save lives in smart hospitals and at-home care, specifically in a study that looks at 170 scientific papers to gather information on the field of "ambient intelligence" as it relates to health care. The effort aims to create smart hospital rooms equipped with AI systems to improve patient safety and outcomes.

[Read Article](#)

.: Upcoming Webinars

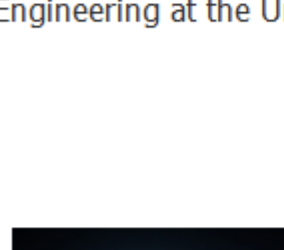


Characterization of Light Emitters and Detectors from the Visible to the Terahertz Spectral Range

Tue, Mar 30, 2021 1:00 PM - 2:00 PM EDT

In this webinar attendees will receive an overview of experimental hardware and different approaches for detector testing and emission studies in multiple spectral ranges. Speakers include Sergey V. Shilov, Ph.D., senior application scientist at Bruker Optics, Yuzhe Xiao, Ph.D., research associate at the University of Wisconsin-Madison, and Mikhail Kats, Ph.D., Jack St. Clair Kilby Associate Professor in Electrical and Computer Engineering at the University of Wisconsin-Madison. Presented by Bruker Optics.

[Register Now](#)



Quantitative CMOS Imaging – qCMOS: The Dawn of a New Era

Wed, May 19, 2021 11:00 AM - 12:00 PM EDT

Imaging in general and semiconductor imaging in particular has penetrated every aspect of our lives, especially in the sciences. It has empowered many experiments from relying on subjective recording into objectively documentable, repeatable and quantifiable methods. This webinar with Peter Seitz, Ph.D., will provide an overview of semiconductor image sensors and introduce photon-resolving quantitative imaging, or qCMOS. Presented by Hamamatsu Corporation.

[Register Now](#)

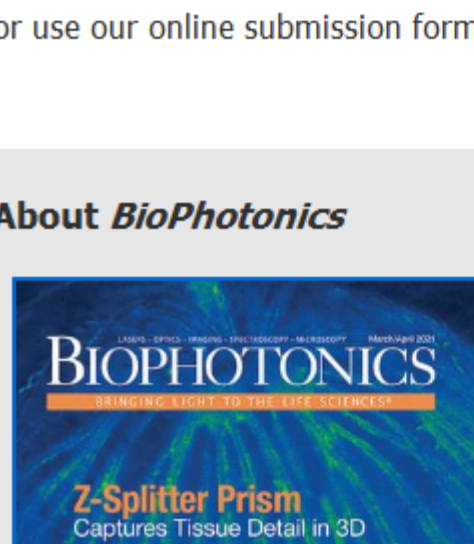
.: Next Issue :

Features

Lyme Disease Detection, Multiplex Illumination, Lasers In Light Sheet Illumination, and more.

Photonics Media is currently seeking technical feature articles on a variety of topics for publication in our magazine *BioPhotronics*. Please submit an informal 100-word abstract to Senior Editor Doug Farmer at Doug.Farmer@Photonics.com, or use our online submission form www.photonics.com/submitfeature.aspx.

About BioPhotronics



BioPhotronics is the global resource for research, business and product news and information for the biophotonics community and the industry's only stand-alone print and digital magazine.

Visit Photonics.com/subscribe to manage your Photonics Media membership.

[View Digital Edition](#) | [Manage Membership](#)



We respect your time and privacy. You are receiving this email because you are a Photonics Media subscriber, and/or a member of our website, Photonics.com. You may use the links below to manage your subscriptions or contact us.

Questions: info@photonics.com

[Unsubscribe](#) | [Subscribe](#) | [Subscriptions](#) | [Privacy Policy](#) | [Terms and Conditions of Use](#)

Photonics Media, 100 West St., PO Box 4949, Pittsfield, MA 01202-4949
© 1996 - 2021 Laurin Publishing. All rights reserved. Photonics.com is Registered with the U.S. Patent & Trademark Office. Reproduction in whole or in part without permission is prohibited.

