

This Week In PHOTONICS

PHOTONICS MEDIA

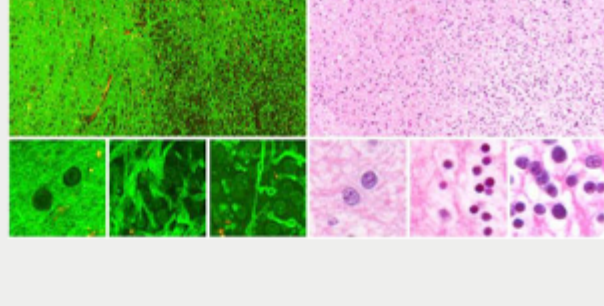


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Top Stories

Third-Harmonic Generation Microscopy Provides in Situ Brain Tumor Imaging

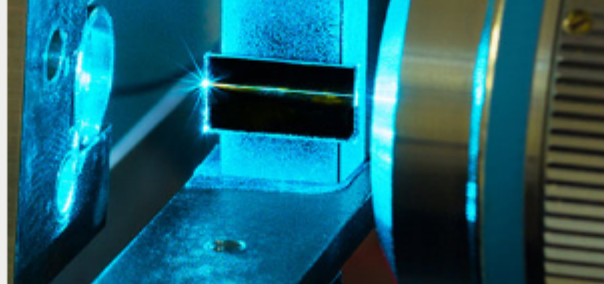
A technique involving third-harmonic generation microscopy could allow neurosurgeons to image and assess brain tumor boundaries during surgery, providing optical biopsies in near-real time and increasing the accuracy of tissue removal.



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Topptica to Support Life Sciences Laser Miniaturization Project

Topptica Photonics AG said it will provide semiconductor laser sources and integration services to PDX4life, a pilot line focused on the development of a compact, fully integrated photonics device to replace the bulky and expensive optical systems that currently dominate the life sciences sector.



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Rhodopsin Mimic Advances Light-Sensitive Artificial Cell Design

An artificial mimic of a key light-sensitive molecule could enable techniques for building light-sensitive artificial cells. Professor Jonathan Clayden and colleagues in the University of Bristol's School of Chemistry, along with collaborators at the universities of Manchester and Hull, created an artificial mimic of rhodopsin, a protein that resides in cell membranes in the retina. The absorption of light by rhodopsin is the first step in the biochemistry of vision.



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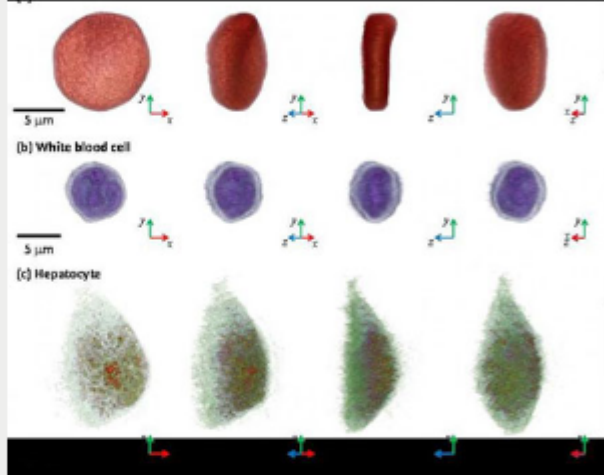
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on the cutting edge

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Holotomography Enables Real-Time, Label-Free Visualization of Cells

A powerful method for imaging live cells without staining employs a 2D/3D/4D holographic microscope, allowing real-time, label-free visualization of biological samples. The research group of professor YongKeun Park of the Korea Advanced Institute of Science and Technology (KAIST), along with the startup TomoCube, founded by Park, built the system, which they described as the optical analogy of x-ray computed tomography (CT). The microscopic tool, called holotomography (HT)-1, uses laser illumination whereas x-ray CT uses x-ray beams.



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Tanner Awarded Horiba Young Fluorescence Investigator Award

Kandice Tanner of the National Institute of Health (NIH) has been awarded Horiba Scientific's annual Young Fluorescence Investigator Award. Tanner is an investigator in the Laboratory of Cell Biology in the NIH Center for Cancer Research in Bethesda, Md.



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Featured Video

OSA Centennial - Bienvenu Ndagano, University of Witwatersrand

The Optical Society members share their reflections on 100 years of optics innovation, what inspired their interest in the field and how OSA has impacted their career.



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Light Matters

A Time to Remember - LIGHT MATTERS

This month, we look at a new optogenetics technique developed at MIT's Riken Center that uses fiber optic light stimulation to essentially regrow lost synaptic connections in the brain. Researchers incredible findings could ultimately help combat Alzheimer's and other neurological diseases. We also delve into an IR imaging method that is helping beekeepers ensure the health of their colonies; Managing Editor Michael Wheeler tells us how growing nanostructures could someday create self-cleaning textiles; and we learn about a new noninvasive spectroscopy technique for the assessment of bacteria in things like food and blood supplies.



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More Headlines

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[On Target receives \\$5.2M in Funding for Cancer Fluorescence Compound](#) [Read Article](#)

[Corning, OLEDWorks Announces OLED Lighting Contest, Deadline June 30](#) [Read Article](#)

[Sol Voltaics Aligns, Orients Nanowires in Solar Thin Film](#) [Read Article](#)

[Manfra Chosen to Lead Microsoft's Station Q Purdue](#) [Read Article](#)

Featured Products



[Taper Manufacturing Station \(TMS\)](#)
3SAE Technologies

The production-ready Taper Manufacturing Station (TMS) with optional cleaving package is designed for use in the manufacturing of optical fiber tapers, bundles and couplers.

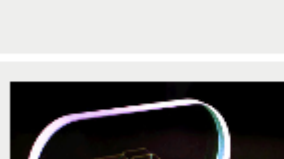
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[SCG 250: Freeform Grinding](#)
Schneider Optical Machines

The SCG 250 provides an ideal platform for freeform, aspherical, and spherical grinding. The unique mechanical design and axis configuration combined with innovative kinematics allow for both cup and peripheral wheel grinding in a single process cycle.

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[Thin-Film Coating](#)
United Lens Company

For over forty years ULC has been providing high-quality Thin Film Coatings for the photonics industry. We use a robotic multi-station aqueous ultrasonic system with 18 meg. ohm deionized water to prep the optics for coating.

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[Adjustable or Fixed Fiber Collimators](#)
Micro Laser Systems

For well over 15 years, Micro Laser Systems has been manufacturing Fiber Collimators with very high beam quality in adjustable or fixed focus format.

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CLEO:EXPO:
7 – 9 June 2016
San Jose, California, US

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Industry Events

Sensor & Test 2016 - The Measurement Fair

May 10-12, 2016 - AMA Service GmbH - Nuremberg, Germany

Photonics Media Booth: 1.123

Sensor & Test 2016 is the world's leading forum for sensors, measuring and testing, with more than 500 exhibitors from around the world, a special topic for 2016 will be "Measuring in the Cloud". Expert forums provide an opportunity for innovative dialog on new concepts and solutions for processing, transferring and analyzing data acquired by measuring technology, while ensuring its security. Visit our website to download a free admission ticket, compliments of Photonics Media.

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