

This Week In PHOTONICS

PHOTONICS MEDIA



sponsor



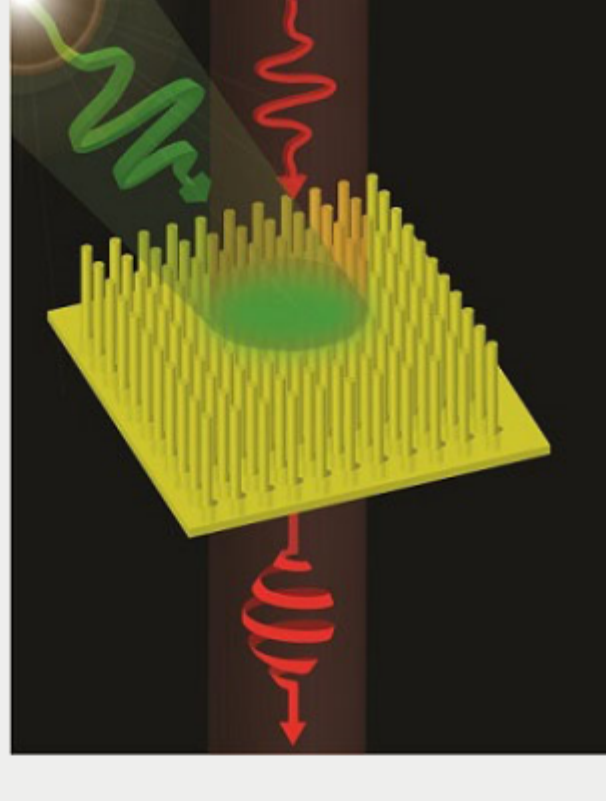
Lasers in Industry

A resource on materials processing, micromachining and more.
ORDER NOW! Only \$69.00

Top Stories

Controlling Light With Light

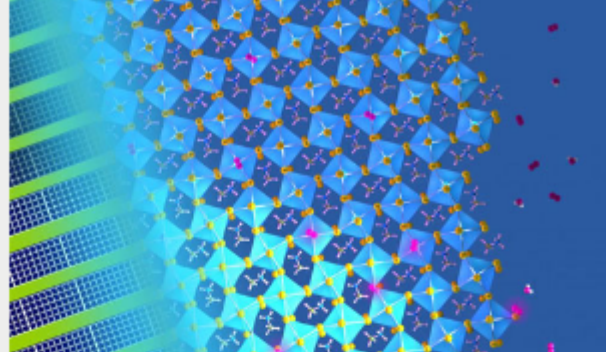
A breakthrough in rapid polarization switching with an all-optical polarization control could allow faster data transfer and open new areas of nanoresearch, enabling researchers to learn more about unseen nanoscale worlds such as drug chemistry and quantum electronics. Scientists have developed an ultrafast method of changing the fundamental properties of light with light.



[Read Article](#)

Light and Moisture Combine to Mend Defects in Perovskite Films

Exposure to light combined with exposure to humidity and oxygen has been shown to permanently correct defects in the molecular structure of perovskites, resulting in minimal nonradiative losses and properties approaching those of perovskite single crystals and crystalline semiconductors. To repair defects caused by carrier trapping, researchers developed a perovskite-based device, and before completing it, exposed it to light, oxygen and humidity.



[Read Article](#)

Ballistic Photon Imaging Locates Fiber Optic Instruments In Vivo

A camera that detects light sources inside the human body could be used at a patient's bedside to track and guide the location of an endoscope, or other fiber optic instrument, in the body without the need for x-rays or other equipment. The high absorption and scattering of light in the visible spectrum has traditionally made it difficult for light-based devices to provide information about tissue layers beyond a depth of a few millimeters under the skin.



[Read Article](#)

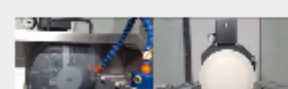
Featured Products

Optical Fabrication

Photonics Media

Optical Fabrication is a new book for anyone working on or interested in the methods, materials and measurement techniques used in modern lens and optical component manufacturing. The book will serve as an introduction or update, moving beyond methods and materials to design and complex modern applications. Also included are a handy list of useful tables and a dictionary of terms used in the book.

[Visit Website](#) [Request Info](#)



Turning FLIR Optics To The Next Level

Lambda Research Optics Inc. (USA)

With the latest generation of Nanotech's 450UPLv2 (3-axis), Lambda can support all your FLIR needs with diamond-turned lenses (Ge, Si, CaF2, ZnSe, Cleartran, Al, Cu) as a complete package including High Efficiency AR coatings from 2-16um. Lambda offers large size diamond-turned optics from 5mm to 400mm, Irregularity (1/2 Fringe for Ø 150mm) <1/2 Fringe up to Ø 150mm, and Surface Roughness <30 Å RMS.

[Visit Website](#) [Request Info](#)

sponsors



More News

Photorealistic 3D Renderings Accurately Digitize Transparent Objects

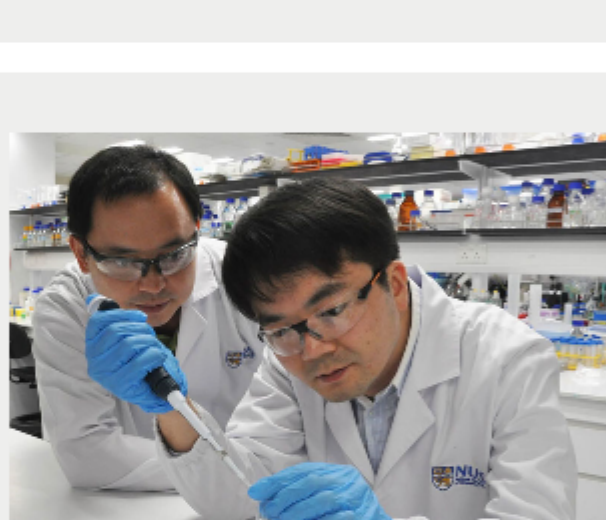
The ability to create detailed, 3D digital versions of clear objects and their surroundings has been difficult because of the different modalities required to digitize objects with diffuse reflectance properties. Scientists have created a new imaging technique that could be useful for movie production, creating virtual reality experiences, improving design and quality assurance in the production of clear products, and even for preserving rare or culturally significant objects.



[Read Article](#)

Photosensitizer Activates Anti-Cancer Properties in Antimalarial Drug

Scientists have shown that the anticancer properties of artemisinin, an antimalarial drug that is also a promising alternative cancer treatment, could be enhanced potentially tenfold when used with the photosensitizer aminolaevulinic acid (ALA). When exposed to light, ALA leads to the generation of free radicals that can kill cells. A combination of artemisinin and ALA could kill colorectal cancer cells and suppress tumor growth more effectively than administering artemisinin alone.



[Read Article](#)

More Headlines

[Light Drives Electronic Currents Through Graphene](#) [Read Article](#)

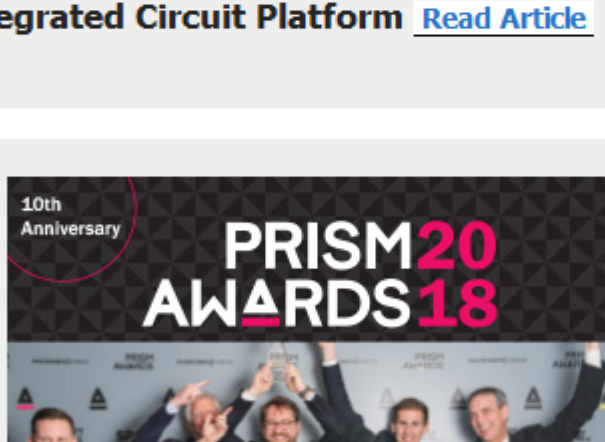
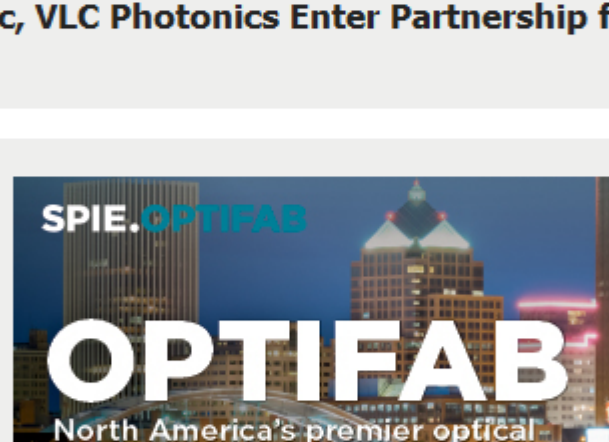
[Ericsson, Zenuity Partner for Assisted, Autonomous Driving](#) [Read Article](#)

[Toyota Research Institute Partners with Luminar on Autonomous Vehicle Tech](#) [Read Article](#)

[Advances in Aerial Thermography Could Transform Archeological Methods](#) [Read Article](#)

[Ligentec, VLC Photonics Enter Partnership for Photonic Integrated Circuit Platform](#) [Read Article](#)

sponsors

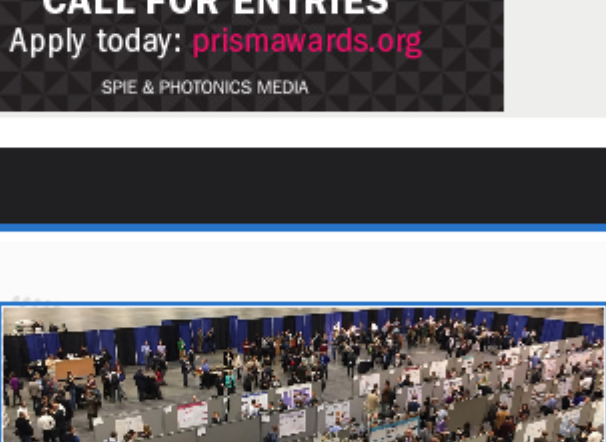


Industry Events

AVS 64th INTERNATIONAL SYMPOSIUM & EXHIBITION 2017

October 29 - November 3, 2017 - Tampa Convention Center - Tampa United States

This AVS Symposium and Exhibition addresses cutting-edge issues associated with materials, processing and interfaces in the research and manufacturing communities. The Symposium fosters a multidisciplinary environment that cuts across traditional boundaries between disciplines, featuring papers from AVS technical divisions, technology exhibition, and focus topics on emerging technologies. The equipment exhibition is one of the largest in the world with 200-plus participating companies. More than 2,000 scientists and engineers gather from around the world to attend the Symposium.



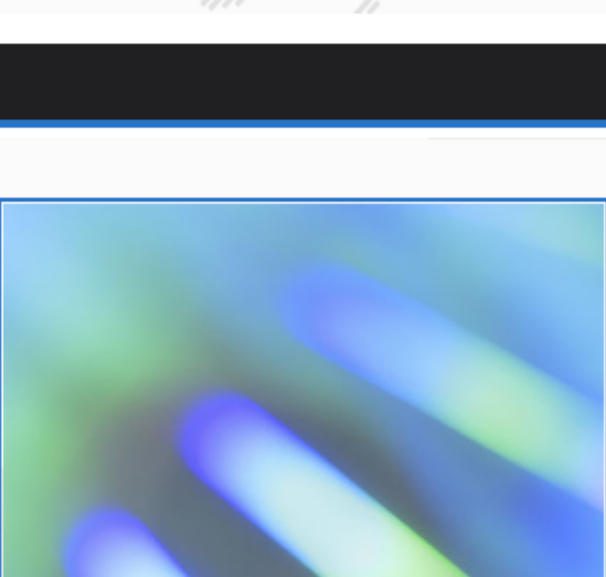
[More Info](#)

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 diverse applications for HSI, from 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 production teams.

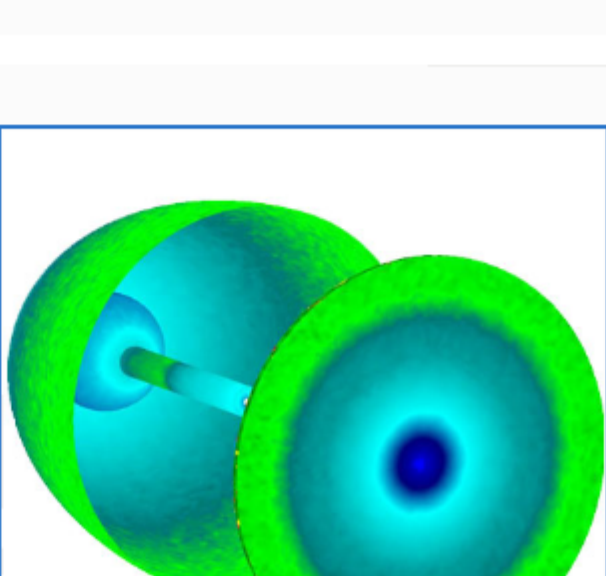


[Register Now](#)

Learn Efficient Luminaire Design Using Virtual Prototyping

Thu, Oct 12, 2017 1:00 PM - 2:00 PM EDT

You will learn how to design more efficient luminaires using Lambda Research's TracePro software, a 3D CAD virtual prototyping program with the power and tools to simulate and design luminaires. Learn how to design luminaires for maximum efficiency and specified angular output, how to use photorealistic rendering to make sure a luminaire works as designed, when to use diffusers to improve design output, Tips and Tricks for creating better luminaires in less time, and more. Presented by Lambda Research Corporation.



[Register Now](#)

PHOTONICS buyers' guide®

Looking for Imaging & Sensing products? Search [PhotonicsBuyersGuide.com](#), or browse these product categories:

[Resonant Scanners](#)

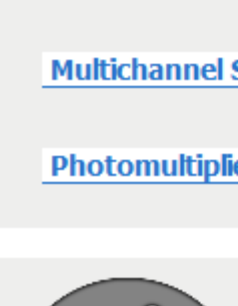
[Liquid Crystal Displays \(LCD\)](#)

[Multichannel Spectroscopy Detectors](#)

[Video Inspection Systems](#)

[Photomultiplier Tube Detectors](#)

[Machine Vision Systems](#)



CALL FOR ARTICLES!

Photonics Media is currently seeking technical feature articles on a variety of topics for publication in our magazines (*Photonics Spectra*, *Industrial Photonics*, *BioPhotonics* and *EuroPhotonics*). Please submit your manuscript to Michael.Wheeler@Photonics.com, or use our online submission form.