

This Week In PHOTONICS

PHOTONICS MEDIA



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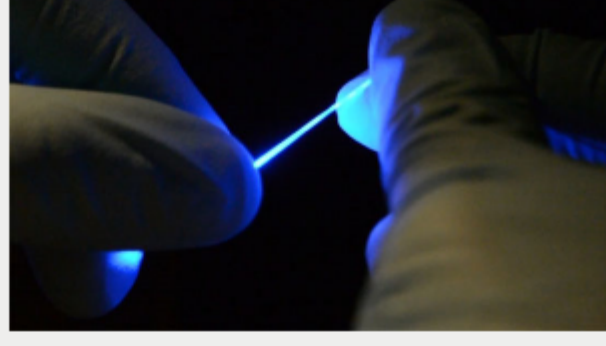
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Top Stories

Probe Could Deliver Optoelectronic Stimulation, Enable Better Understanding of Spinal Cord

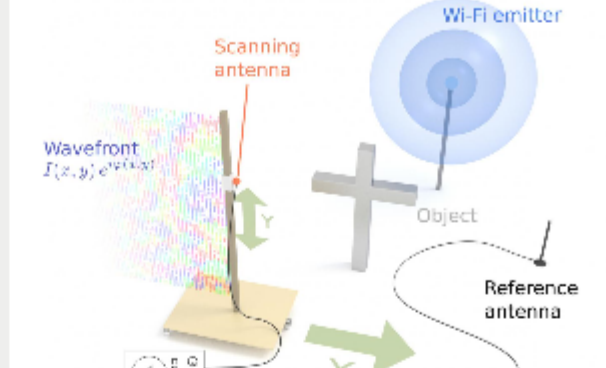
A rubber-like fiber that can flex and stretch with the human spine while delivering both optical impulses and electrical connections for stimulation and monitoring of the spine could be used in the study of spinal cord neurons and potentially to help restore spinal cord function. A team of researchers from the Massachusetts Institute of Technology (MIT), the University of Washington and Oxford University has created a hybrid probe that maintains low optical transmission losses in the visible range and that can stand up under strains exceeding those occurring in mammalian spinal cords.



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Holographic Process Uses WiFi to Generate 3D Images

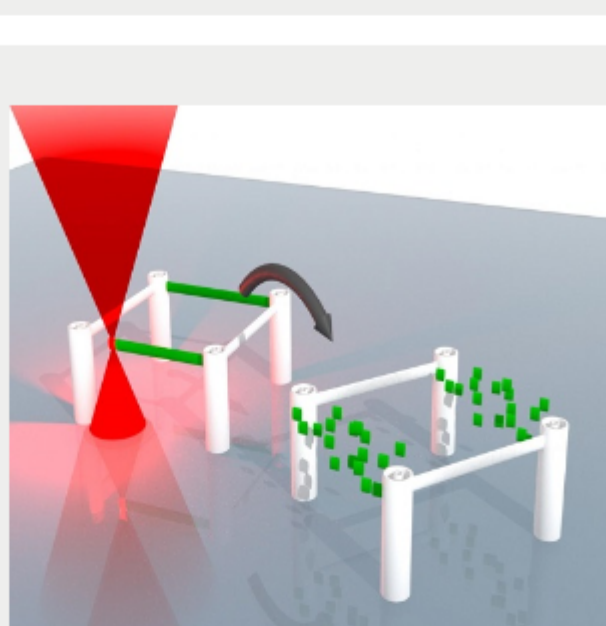
A holographic imaging process that generates 3D images using the microwave radiation of a Wi-Fi transmitter could be used in automated industrial facilities to track objects as they move through production. Although processes already exist that allow the localization of microwave radiation, even through walls, this process is different in that it allows an entire interior space to be imaged via holographic processing of Wi-Fi or cellphone signals.



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Researchers Develop Erasable Ink for 3D Printing

Direct 3D laser printing or laser writing uses a computer-controlled focused laser beam to generate the structures. The process produces micrometer-sized objects with defined properties. Researchers from the Karlsruhe Institute of Technology (KIT) have developed a method that actually erases the ink used for 3D printing, allowing the small structures up to 100 nm to be repeatedly erased and rewritten if need be.



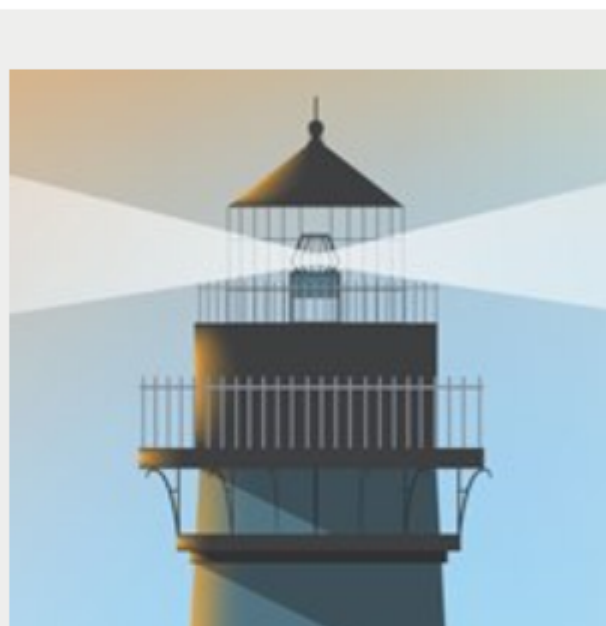
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Deadline Extended! Submit Your Choice for Industry Beacon

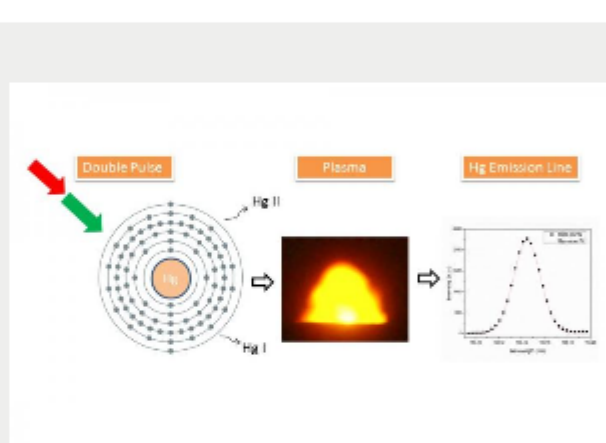
Each year, Photonics Media honors a few notable people in the photonics and optics industry, whose outstanding contributions have advanced light-based technologies in the scientific, business, academic and consumer communities. Industry Beacons are nominated by our readers. This year, we've extended the deadline to July 3, 2017 to reach as many readers — and gather as many nominations — as possible.



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Spectroscopy-Based Tool Detects, Measures Contaminants in Landfills

A method known as laser induced breakdown spectroscopy (LIBS) could offer a cleaner, faster and simpler approach than existing technologies for detecting contaminants in the fluids coming from landfills. Although conventional LIBS presents some limitations when used in the single-pulse configuration, the use of LIBS in the double-pulse (DP) configuration demonstrated rapid detection of mercury (Hg) and could potentially be applied to other contaminants.



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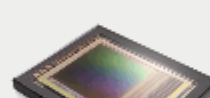
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Teledyne e2v
Teledyne e2v has launched its ground breaking new Emerald family of CMOS image sensors. This new product family features the world's smallest true global shutter pixel available on the market today (2.8µm).

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The HyperFine Spectrometer

LightMachinery Inc.
Designed for measuring hyperfine spectra and subtle spectral shifts, the HyperFine spectrometer from LightMachinery is a compact, low cost spectrometer capable of sub-picometer resolution. It is ideal for pulsed laser characterization and for measuring the small spectral shifts from Brillouin scattering.

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This 12-lecture digital course is for anyone involved in technology development and the business development opportunities based on technology. CITE provides a roadmap and methodology for moving advanced technology into successful commercial products and provides a view of current and future hot areas for investor funding.

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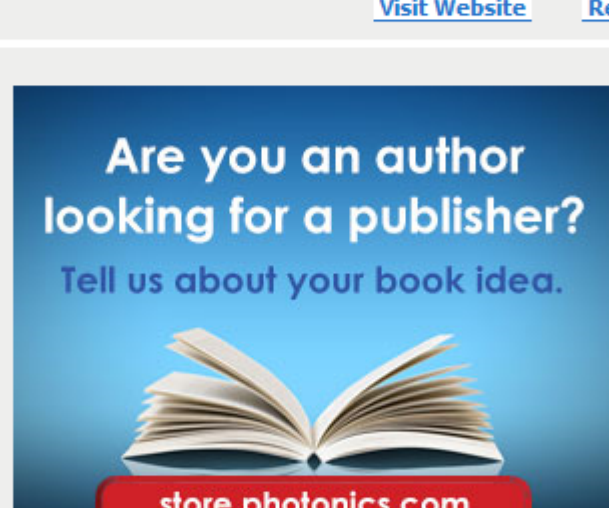


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Newport Thin Film Laboratory Inc.
NTFL is a fully equipped clean room coating facility specializing in the design and manufacture of vacuum deposited optical thin films used in the ultraviolet, visible and infrared spectrum. We produce a wide variety of coatings, most of which are designed and manufactured to specific customer specifications.

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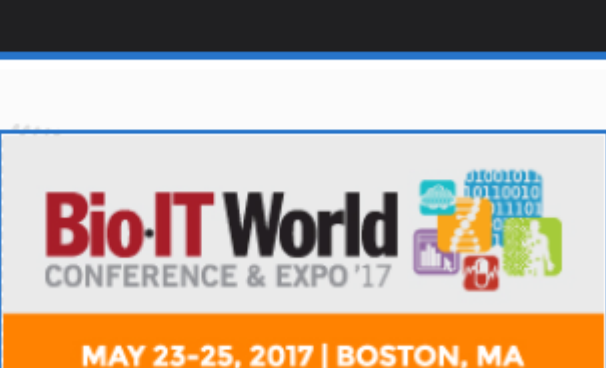
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Industry Events

Bio-IT World Conference & Expo '17

May 23-25, 2017 - Seaport World Trade Center - Boston United States
 The Annual Bio-IT World Conference & Expo will showcase the myriad of IT and informatics applications and enabling technologies that drive biomedical research, drug discovery, and clinical and healthcare initiatives. The conference is a vibrant event that will unite 3,300+ life sciences, pharmaceutical, clinical, healthcare and IT professionals from more than 40 countries. This year's conference will include 13 parallel conference tracks and 14 pre-conference workshops. The event will feature over 260 talks, including best practice case studies and joint partner presentations, covering a range of topics including big data, smart data, cloud computing, trends in IT infrastructure, omics technologies, high-performance computing, data analytics, open source and precision medicine, from the research realm to the clinical arena.

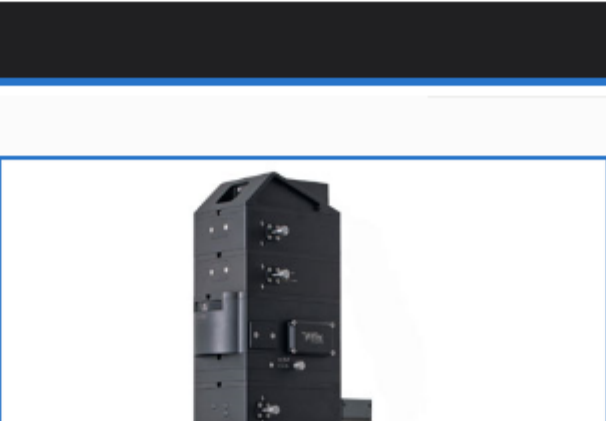


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Webinars

Perspectives in 3D Confocal Raman Imaging

Tue, May 30, 2017 11:00 AM - 12:00 PM EDT
 This webinar, presented by WITec, will show the workflow and power of confocal Raman imaging for analyzing the chemical composition, crystallinity, stress, optoelectronic and structural properties of materials and organisms. It will introduce state-of-the-art developments in confocal Raman imaging, including user-friendly automated features and the ability to extract information from the data set more easily, leading to improved analyses. It will also cover recording surface topography of rough and uneven surfaces using WITec's TrueSurface technology. A live data evaluation of measured data sets will demonstrate the power of confocal Raman imaging today. Presenter Thomas Dieling, Ph.D., is director of applications and support at WITec GmbH in Ulm, Germany.

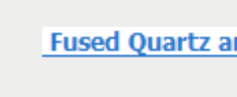


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