

This Week In PHOTONICS

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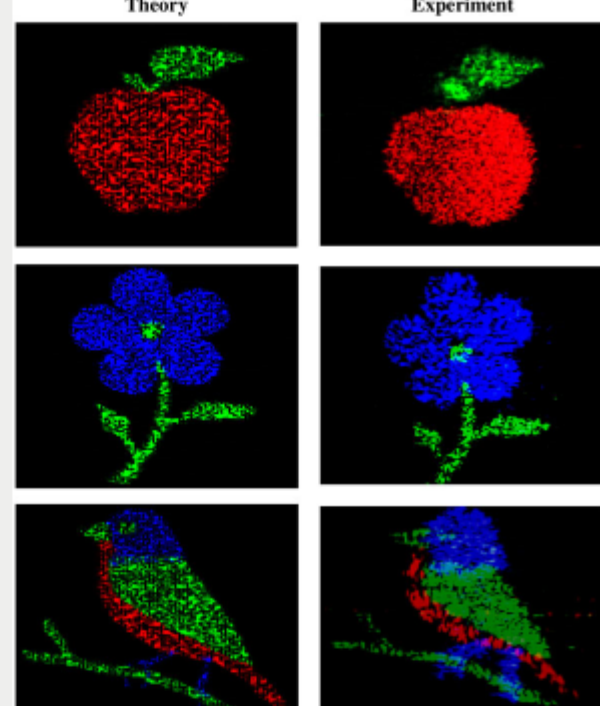


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Top Stories

Lens-Free, Multicolor Holography Technique Could Enable Compact 3D Displays

A holography technique based on computer-generated holograms (CHGs) produces complex, multicolor holographic images without any bulky optical components. The researchers encoded a multicolor image onto a 300- by 300- μm hologram in a 2D waveguide structure and demonstrated a multicolor CHG in an all-dielectric waveguide metasurface system.

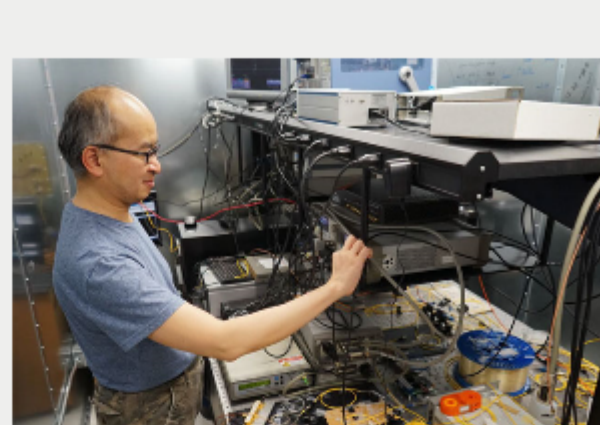


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All-Photonic Quantum Repeaters Could Lead to Faster, More Secure Quantum Internet

Researchers at the University of Toronto are working to address the challenges of transmitting quantum information securely over great distances using optical fiber communication. They have developed a prototype for a key element for all-photonic quantum repeaters, called all-photonic time-reversed adaptive (TRA) Bell measurement.

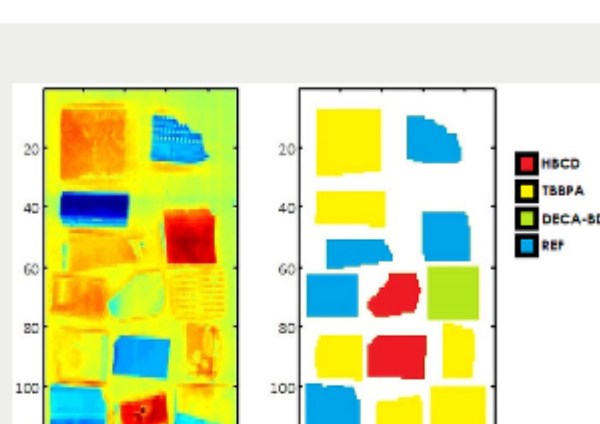


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Hyperspectral Imaging Could Automate, Improve Plastics Recycling

A new method using NIR hyperspectral imaging (HSI) and chemometrics could make it possible to sort between different types of plastic and between different flame retardants added to plastic — a necessity for recycling plastics more economically.



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Featured Products

Laser Welding Photonic Devices



Amada Miyachi America Inc.

AMADA MIYACHI's LF range of fiber lasers are efficient, low maintenance manufacturing tools that offer precise control and a range of beam qualities which can be tuned for each specific welding application. They are particularly well suited for small component welding, like photonic device welding and electrical connections.

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WEBINAR | Spectroscopic Reference Data for Hot Gases

FREE WEBINAR
Spectroscopic reference data for hot gases
Dr. Tomáš Janáček, Institute of Optics, Academy of Sciences of the Czech Republic, Brno
Thursday, January 24th, 10:00 AM (PST)
[REGISTER NOW](#)

DRS Daylight Solutions

There exists a marked lack of experimental absorption spectra for gaseous molecules at high temperatures and high pressures. Gases in these high-enthalpy thermodynamic states are present in a wide range of natural and man-made environments, such as cool stars, exoplanets, plasmas, explosions, flames, volcanoes, forest...

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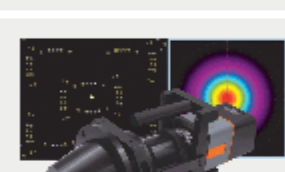


Superresolution Microscopy Poster

Photonics Media

With interest in the superresolution microscopy field growing rapidly, the editors of BioPhotonics magazine – in collaboration with acknowledged experts – created a poster with readers in mind that is suitable for lab, classroom and office.

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Near-Infrared Intensity Lens

Radiant Vision Systems, Test & Measurement

The Near-Infrared (NIR) Intensity Lens solution from Radiant Vision Systems is a compact camera/lens system capable of capturing the full angular distribution of a NIR-emitting light source in a single image. Compared to goniometric solutions for light source characterization, the NIR Intensity Lens captures complete...

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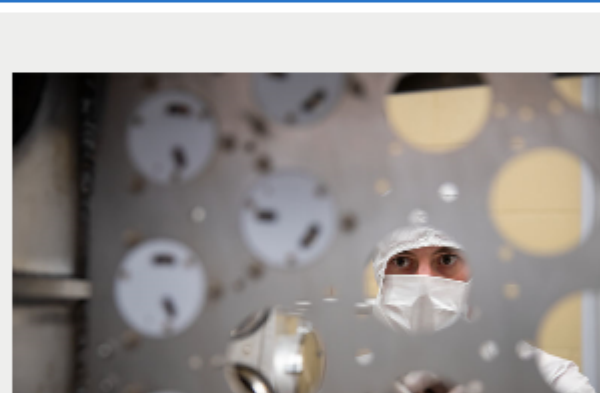
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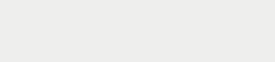
More News

Photomultiplier Tubes from Brown Team Will Be the 'Eyes' of New Dark Matter Detector

Brown University researchers have assembled two arrays of photomultiplier tubes (PMTs) to serve as the "eyes" for the LUX-ZEPLIN (L-Z) dark matter detector, which will begin its search for dark matter particles at the Sanford Underground Research Facility (SURF) in Lead, S.D., in 2020. At this former mining site, the detector will be shielded by about 1 mile of rock to limit interference.

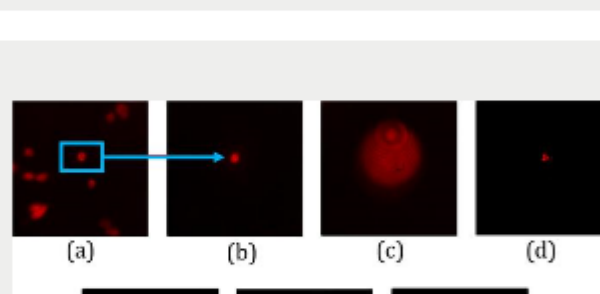


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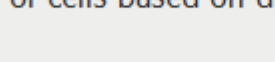


Optical Microscopy System Simultaneously Observes and Stimulates Multiple Living Cells in 3D

A new optical microscope uses holographic techniques to stimulate multiple cells simultaneously and monitor cell activity after stimulation. The system consists of two subfunctions: 3D observation of cells and 3D stimulation of cells based on digital holography.



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More Headlines

Photoacoustic Approach Uses Lasers to Send Messages [Read Article](#)

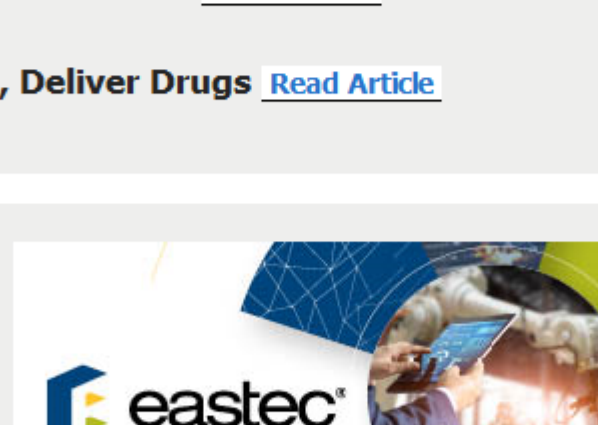
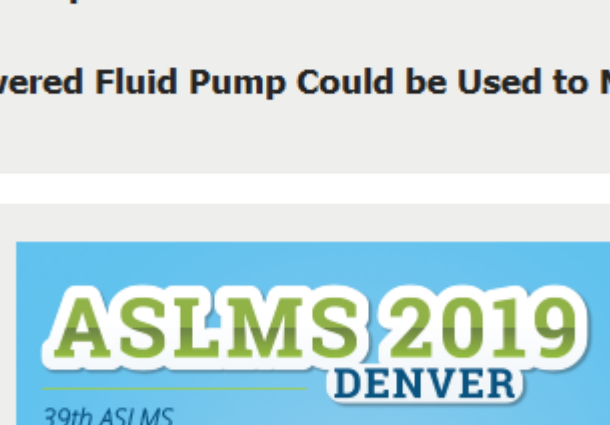
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New Free-Space Enhancement Cavities Developed for Optical Solitons [Read Article](#)

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Industry Events

Photonics West 2019

February 2-7, 2019 - The Moscone Center - San Francisco United States

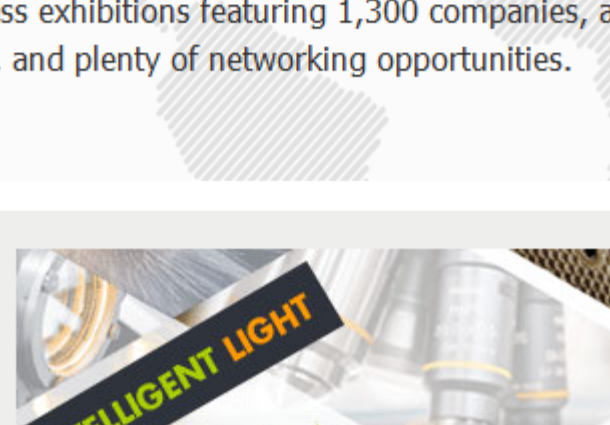
Photonics Media Booth: 444,445

SPIE Photonics West is the world's largest photonics technologies event, consisting of three conferences - BIOS, LASE, and OPTO - and exhibitions. Photonics West 2019 will give you access to cutting-edge research through its 5,000-plus presentations and courses, its two world-class exhibitions featuring 1,300 companies, a robust industry program, and plenty of networking opportunities.



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