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Thursday, May 25, 2017

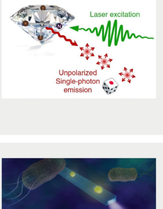
This Week In PHOTONICS

PHOTONICS MEDIA

Top Stories

Laser Pulses, Class of New Materials Show Potential for Energy Efficiency

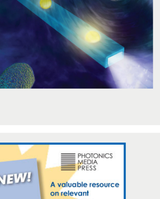
An experiment that involves the cutting edge of condensed matter physics and materials science could make superconductivity at room temperature and more efficient energy usage a reality. An international collaboration used tailored laser pulses to snap the electronic interactions in a copper, oxygen and bismuth compound. The scientists identified the condition for which electrons do not repel each other, which is an essential prerequisite for current to flow without resistance.



Read Article

Unpolarized Single Photons Generated With True Randomness

The generation of single photons in random polarization states from diamond could have significance in the development of quantum cryptography and the testing of fundamental problems in quantum mechanics. Until now, much of the research has been focused on the generation of single photons in pure polarization states.



Read Article

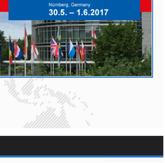
Nanofiber Device Detects Forces and Sound Waves from Live Cells

A novel nano-sized optical fiber, about 100 times thinner than a human hair, is sensitive enough to detect forces down to 160 femtonewtons (fN) (about ten trillion times smaller than a newton) when placed in a solution containing live Heliobacter pylori bacteria, i.e. swimming bacteria found in the gut. In cultures of beating heart muscle cells from mice, the nanofiber demonstrated the ability to detect sounds down to -30 decibels — a level 1,000 times below the limit of the human ear.

Read Article

Images Alone Form a Dynamic 3D City Model

"VarCity," a technology platform that can create 3D city models using image data alone, can evaluate and automatically combine images from all types of sources, including aerial photography, panoramic images taken with special vehicles, and photos published on social networks and internet platforms. It can also use video material, such as from public webcams.



Read Article

Perovskite Stability Could be Improved by Atomic-Scale Redesign

The mechanism has been discovered that causes solar cells made with organic lead halide perovskites to rapidly deteriorate when exposed to oxygen and light. The discovery could provide the basis for solving issues related to long-term stability of perovskite cells.

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More Headlines

Marine Exercises Showcase Amphibious, Autonomous Defense Systems Read Article

NASA Prototype Rocket Makes Third Flight Read Article

XFEL Generates First Laser Light Read Article

AMRC Develops Hybrid 3D Printing Process Read Article

UC Merced Acquires Zeiss Laser Scanning Confocal Microscope Read Article

Featured Products

Canon Surface Reflectance Analyzer

Canon U.S.A. Inc., Industrial Products Div.

Canon RA-352H, Surface Reflectance Analyzer (goniophotometer), is a compact, portable device capable of measuring GLOSS, HAZE, IMAGE CLARITY, and BRDF (bidirectional reflectance distribution function) in a single pass.

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Photonics Media

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.

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Industry Events

SENSOR +TEST 2017

May 30 - June 1, 2017 - Nuernberg Exhibition Centre - Nuernberg Germany
Photonics Media Booth: 1.123
SENSOR+TEST 2017 is the world's leading forum for sensor, measurement and testing technology. In 2016, 586 exhibitors from 32 nations showcased products covering the entire spectrum of measurement system competency, from sensing to evaluation. In addition to 600+ exhibits, this year's conference will include numerous congresses and a full schedule of events, providing attendees with many opportunities to learn more about the state of sensing technology. The AMA Conferences, SENSOR and IRSF congress, will take place in parallel to SENSOR+TEST 2017, enriching the event.

More Info

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 Dieing, Ph.D., is director of applications and support at WITec GmbH in Ulm, Germany.

Register Now

OLED Foldable Displays: The Future of the Display Industry

Thu, Jun 1, 2017 1:00 PM - 2:00 PM EDT
Barry Young, CEO of the OLED Association and an authority on OLED lighting and displays, will review concepts and market trends in OLED technology; then focus the discussion on the timeline and market for foldable displays. He will introduce foldable mobile devices that have been prototyped and will soon reach the market. He will also discuss the challenges to commoditizing flexible OLED displays, including manufacturing complexity and cost. Young is CEO of Young Market Research and CEO and president of the OLED Association, an industry-based organization that provides a forum for the interchange of technical and market information.

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Positioning Equipment | Nonsilica Glass Fiber Optic Fibers
Soldering Materials | Fiber Optic Lightguides

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