Thursday, February 28, 2019

This Week In PHOTONICS

PHOTONICS MEDIA

Top Stories

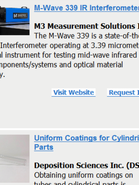
Strain Engineering Enables Precise Placement of Single Photon Emitters in Semiconductors

Scientists at the U.S. Naval Research Laboratory (NRL) and the Air Force Research Laboratory (AFRL) have developed a way to directly write quantum light sources, which emit a single photon of light at a time, into monolayer semiconductors such as tungsten diselenide (WSe_2).

Read Article

Graphene-Based Wearables on Display at Mobile World Congress 2019

A new device from the Institute of Photonic Sciences allows users to monitor their level of exposure to sunlight through a UV sensor. Using the same core technology as the UV patch, ICFO is developing a fitness band to measure heart rate, hydration, oxygen saturation, breathing rate, and temperature.



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Perovskite Quantum Dots Deliver Coherent Single-Photon Emission

In an advancement toward a single photon source for use in quantum computing and communications devices, researchers at the Massachusetts Institute of Technology and ETH Zurich showed that individual perovskite quantum dots could be used as a source for individual photons with precisely known and consistent properties, including wavelength.

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Featured Products

Back Illuminated sCMOS by PCO

PCO-TECH Inc.

Unique technology comes from evolution, combining existing and new technology. When PCO's tried and trusted sCMOS cameras pool forces with modern back illuminated (bi) sensor technology, pco.edge 4.2 bi and pco.panda 4.2 bi come into the world of science. Both cameras stand out with their nearly perfect quantum...

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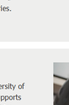

M-Wave 339 IR Interferometer

M3 Measurement Solutions Inc.

The M-Wave 339 is a state-of-the-art Infrared Interferometer operating at 3.39 micrometers. It is the ideal instrument for testing mid-wave infrared imaging components/systems and optical material homogeneity.

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High Power Laser Drivers

Arroyo Instruments LLC

The 4400 Series LaserSource laser diode driver is designed for demanding, high-power laser applications. With up to 100 Amps of drive current and high-voltage configurations, the 4400 can meet many high-power laser requirements. Add QCW operation, digital I/O, and temperature monitoring, and you have a very capable instrument.

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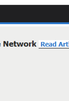

Uniform Coatings for Cylindrical Parts

Deposition Sciences Inc. (DSI)

Obtaining uniform coatings on tubes and cylindrical parts is inherently challenging due to the line of sight nature of most thin film deposition processes, but can be accomplished in sputtering by utilizing innovative tooling techniques. Tubes and cylinders are used in a range of applications, including solar simulation...

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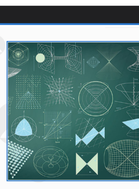
More News

Control of Nanowire Growth Could Advance Nanowire Use in Silicon Photonics

Researchers from the Swiss Federal Institute of Technology Lausanne (EPFL) Laboratory of Semiconductor Materials, together with colleagues from the Massachusetts Institute of Technology (MIT) and the Ioffe Institute in Russia, have discovered a way to grow nanowire networks in a highly controlled and fully reproducible manner. First, they needed to understand what happens at the onset of nanowire growth — a process, they found, that goes against currently accepted theories.



Read Article

'Crystal Ball' VR System Supports Two Users for Collaborative Tasks

Researchers at the University of British Columbia and the University of Saskatchewan have developed a ball-shaped VR display that supports up to two users at a time, using advanced calibration and graphics rendering techniques that produce a complete, distortion-free 3D image even when viewed from multiple angles.

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More Headlines

Funding Aims to Improve Global Gravitational Wave Network Read Article

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UA to Name College of Optical Sciences After Founding Dean, James C. Wyant Read Article

Laser 'Drill' Sets a New Record in Laser-Driven Electron Acceleration Read Article

Industry Events

PITTCON 2019

March 17-21, 2019 · Pennsylvania Convention Center · Philadelphia United States

Photonics Media Booth: 2512

Pittcon is the world's leading annual conference and exposition on laboratory science. It attracts attendees from industry, academia, and government from over 90 countries worldwide. Having grown beyond its roots in analytical chemistry and spectroscopy, Pittcon has evolved into an event that now also serves a diverse constituency encompassing life sciences, pharmaceutical discovery and QA, food safety, environmental, bioterrorism, and other emerging markets. Proceeds from Pittcon fund science education and outreach at all levels, from kindergarten through adult.

More Info

Webinars

Deep Learning in Machine Vision

Tue, Mar 5, 2019 10:00 AM - 11:00 AM EST

This webinar will give users of machine vision software insight into deep learning technologies and the possibilities that deep learning offers for machine vision applications. The presenter will introduce deep learning technologies based on MVTec HALCON and provide an overview of deep learning machine vision applications. He will also cover some of the best practices for developing and setting up deep learning applications. This webinar is sponsored by Euresys, Smart Vision Lights, Integro Technologies, and IDS Imaging Development Systems GmbH.

Register Now

In Vivo Medical Laser Procedures: An Overview

Thu, Mar 7, 2019 1:00 PM - 2:00 PM EST

This one-half hour webinar, presented by OFS, will provide an overview of current in vivo medical procedures performed using lasers and optical fibers, including procedures for neurology, ophthalmology, and cardiology. The presentation will begin with a brief history of laser-based medical applications. Speaker Jaehan Kim will describe the types of light-tissue interactions and discuss which wavelengths have been found most useful for different medical procedures. He will also touch on the use of high-power versus low-power lasers; the use and benefits of laser-based imaging applications; and the benefits of the Raman fiber laser, a potentially game-changing technology for medical laser applications.

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