Thursday, May 16, 2019

This Week In PHOTONICS

PHOTONICS MEDIA

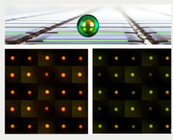
Top Stories

Graphene-Based Logic Gate Could Support Photonic Quantum Computing

Physicists from the University of Vienna and the Institute of Photonic Sciences have shown that graphene structures can be tailored to enable single photons to interact with one another. Their findings have led them to propose a new potential architecture for a two-photon logic gate for quantum computing.

Read Article

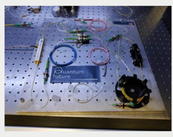
Nanopixels Could Be Used for Creating Building-Size Displays



Nanopixels that are 1 million times smaller than those being used in smartphones have been constructed from gold nanoparticles encapsulated in a conductive polymer shell. The tiny pixels, developed by scientists at the University of Cambridge, could be used to create large-scale flexible displays at lower cost than existing technologies.

Read Article

All-Fiber Device Could Enable Free-Space-Based Quantum Key Distribution



Researchers from the University of Padova have developed an all-fiber device to generate the quantum states necessary for quantum key distribution (QKD), a method of protecting data that uses properties of light, such as polarization, to encode data and send a random key needed to decrypt the encoded data.

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.

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Canon Surface Reflectance Analyzer

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

Canon RA-532H, Surface Reflectance Analyzer (goniophotometer), is a compact, portable device capable of measuring 4 surface appearance conditions in a single pass: gloss, haze, image clarity (IC), and BRDF (Bidirectional Reflectance Distribution Function). Additionally, Canon has recently released its own new parameter, "Scattering" parameter, overcoming the shortage of both IC and DOI (Distinctiveness of Image) when evaluating matte and textured surfaces as well as orange peel surface.

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More News

Better Understanding of Photoswitch Pathway Could Lead to New Applications

A photoswitching scaffold called Donor-Acceptor Stenhouse Adducts (DASAs) has shown exceptional versatility and could expand the functionality and use of molecular switches. DASA molecules exhibit a profound change of shape when switched. Further, they are triggered by red light.

Read Article

Near-UV Light Could Reduce Bird Collisions with Power Lines by 98%

To prevent sandhill cranes from colliding with power lines as they fly to roosting sites, scientists at EDM International mounted UV lights on power lines' supporting structures and shined the lights on the lines at night.

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Color-Tuning Technique Uses a Single LED Read Article

Industry Events

Embedded Vision Summit 2019

May 20-23, 2019 · Santa Clara Convention Center · Santa Clara United States

The Embedded Vision Summit is the only event focused exclusively on deployable computer vision. With more than 100 sessions across 4 tracks, you will have the opportunity to learn new ways to create innovative products using visual intelligence and gain new insights and know-how about computer vision-enabling technologies, applications, and markets. With 1200-plus attendees and more than 60 partners and suppliers showcasing their latest products and solutions, there is no better place to stay up-to-date on what's happening the industry.

More Info

Webinars

Stabilizing the Line of Sight: LOS Dynamics and Control

Thu, Jun 6, 2019 1:00 PM - 2:00 PM EDT

This webinar, presented by the author of Stabilizing the Line of Sight (Photonics Media Press, 2018), will provide an overview of the issues and topics that must be addressed to successfully implement Line of Sight (LOS) control and stabilization design. Presenter Peter Kennedy will cover LOS pointing, tracking, and stabilization, with a focus on LOS definition, performance, architecture, and basic theory. He will provide a general methodology for LOS stabilization system design and identify critical algorithms for analyzing stabilization techniques. The objective of the webinar is to provide attendees with a firm grounding in LOS stabilization, so that they will be able to address the detailed design tasks required to perform an actual design.

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Photonics Media is currently seeking technical feature articles on a variety of topics for publication in our magazines *(Photonics Spectra, BioPhotonics, Vision Spectra,* and *EuroPhotonics)*. Please submit an informal 100-word abstract to editorial@Photonics.com, or use our online submission form.