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Thursday, October 8, 2020

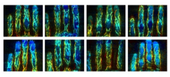
This Week in PHOTONICS

PHOTONICS MEDIA photonics.com

.: Top Stories

3D Biometric Technique Provides Accurate, Efficient Security

An optical biometric authentication tool using photoacoustic tomography to map a subject's finger veins in 3D could provide a nearly uncrackable security method. Researchers at SUNY Buffalo developed the biometric authentication technique. Tests showed that the method performed with 99% accuracy in accepting and/or rejecting identities.



Read Article

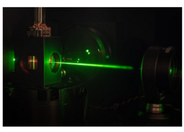
Hyperspectral Stripe Projector Combines 3D, Spectroscopic Imaging

A projector capable of making images that elude the capture capabilities of traditional cameras could, when paired with a monochrome sensor array and sophisticated programming, enable 3D spectroscopy on the fly. On its own, the compact Hyperspectral Stripe Projector (HSP) supports a new method for collecting the spatial and spectral information necessary for considerable and diverse applications.

Read Article

Chemical System Collects, Stores Solar Energy on Molecule for 14 Hours

By decoupling photochemical processes from the classic day-night cycle, researchers from the Leibniz Institute of Photonic Technology and Friedrich Schiller University have developed a copper complex-based chemical system for molecularly storing solar energy for at least 14 hours. The system overcomes a barrier that had made solar-powered photochemistry unsuitable for continuous industrial production processes.



Read Article

.: Featured Products

2MP Global Shutter MIPI Module

Teledyne e2v - UK

The 2M compact optical module features a pre-focused, industrial-grade scanning optic and finds uses in a variety of scanning, embedded vision and computer vision applications to enhance productivity and throughput in logistics, sorting, retail POS, and many other industrial sectors.

Visit Website | Request Info

IR Filters

Deposition Sciences Inc. (DSI)

DSI designs and manufactures bandpasses, beamsplitters, ARs, and dark mirrors for use in the MWIR thru LWIR wavelength regions, customized to specific applications. Using photolithography, we can also pattern these coatings with feature sizes as small as 20 µm.

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.: More News

Single Microendoscope Device Acquires Photoacoustic and Fluorescent Images Read Article

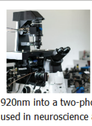
PLUS Captures 3D Images of Solids' Internal Defects Read Article

Aarhus University Awarded Grant for Machine Vision Enhanced Plastics Recycling Read Article

SBI, Theragnostics Agreement Will Accelerate Fluorescence-Based Oral Cancer Diagnoses Read Article

Extreme UV Source Facility Opens with Ultrashort Pulses and High Frequencies Read Article

.: Upcoming Webinars



Setting Up a Simple and Cost-Efficient Two-Photon Microscope for Neuroscience

Wed, Oct 14, 2020 1:00 PM - 2:00 PM EDT

In this webinar, Max Eisele, Ph.D., Product Manager for Ultrafast Fiber Lasers at TOPTICA Photonics, will highlight the advantages of multi-photon microscopy and introduce suitable microscope platforms and illumination units to guide you through the set-up of a simple and cost-efficient two-photon microscope. As an example, we will demonstrate the integration of a single-wavelength fiber-laser at 920nm into a two-photon microscope that is optimized to the excitation and detection of green fluorescent proteins, typically used in neuroscience applications. Presented by TOPTICA Photonics.

Register Now

Paving the Way Toward Ultrahigh-Speed and High-Resolution 3D Optical Measurements

Thu, Oct 15, 2020 1:00 PM - 2:00 PM EDT

In this webinar, Casey Emtman of Micro Encoder Inc. will discuss the concept of liquid lenses, which involves controlling the shape of a liquid to alter the properties of a lens, and how liquid lens technologies can provide fast and accurate measurements for 3D inspection.

Register Now

.: All Things Photonics

In this week's episode, Manu Prakash recounts the road to putting the Foldscope microscope in the hands of more than 1 million users around the world. We also explore science's role in our current global pandemic situation and how a problem-solving mentality extends beyond the laboratory.

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