

This Week in PHOTONICS



Optimizing Ultrafast Laser Micromachining. **Precisely.**

:: Top Stories

European Consortium Launches to Bolster Continent's Silicon Photonics Value Chain

German-based silicon chips foundry X-FAB is leading the European Union-funded consortium photonixFAB to boost innovation within the European silicon photonics industry, and to increase sovereignty in the semiconductor and photonics industries in Europe. The project seeks to increase access to both low-loss silicon nitride- and silicon-on-insulator-based photonics platforms with indium phosphide and lithium niobate heterogenous integration capabilities.

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Toshiba Europe and Telecom Partner Demonstrate QKD Deployment Viability

Researchers from Toshiba Europe and global telecommunications operator Orange have demonstrated the viability of deploying quantum key distribution (QKD) on existing commercial networks to protect transmissions from being decrypted by quantum computers. The demonstration and findings could help network operators reduce the cost of implementing QKD by removing the need to invest in dedicated quantum fiber infrastructure.

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Light-Reactive Concrete Locks in Clean Air

Researchers at the Korea Institute of Civil Engineering and Building Technology (KICT) have developed a photocatalytic concrete that can remove fine particulate matter on roads. The technology holds promise for underground road tunnels, where poor air circulation prevents removal of fine particulate matter from automobile exhaust gases — which in turn contributes to poor air quality.

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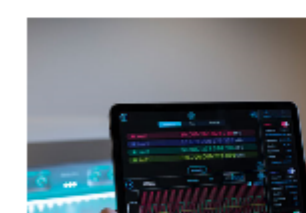
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:: Upcoming Webinars



Revolutionizing Measurements: Next-Generation Strategies for Modern Phase Detection

Tue, Jun 20, 2023 10:00 AM - 11:00 AM EDT

Liquid Instruments co-founder and CEO Daniel Shaddock shares next-generation strategies to perform optical phase locking using digitally implemented, FPGA-based lock-in amplifiers and phasemeters. He covers advanced phase measurement techniques essential for applications such as coherent beam combining (CBC), optical metrology, free-space optical (FSO) communication, and gravitational wave detection. The presentation introduces phase and compares several common phase measurement techniques. Learn how to improve measurement confidence and speed with dedicated phase detection, consolidate legacy test equipment, and reduce costs with software-defined instrumentation. Presented by Liquid Instruments.

Register Now



Revolutionizing Infrared Detection: Five Key Advantages of InAs and InAsSb-Based Detectors for Unmatched Performance

Thu, Jun 22, 2023 10:00 AM - 11:00 AM EDT

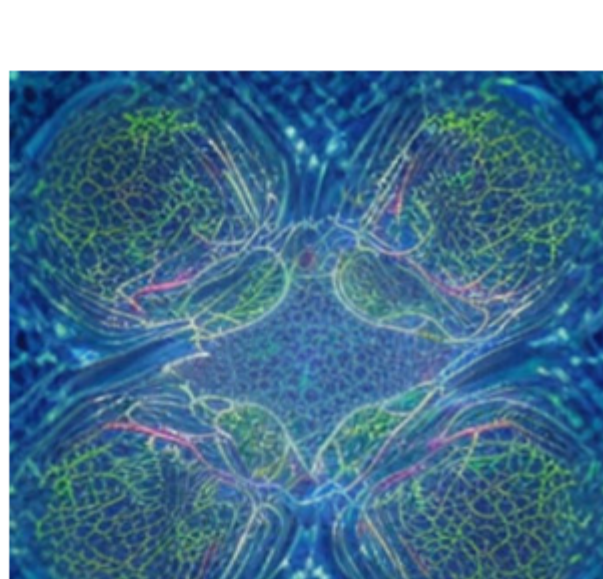
Lukasz Kubiszyn of VIGO Photonics covers many of the key advancements in InAs and InAsSb based detection for mid-wave IR and long-wave IR for applications spanning from environmental monitoring to spectroscopy. These advancements are creating lower cost options without sacrificing the detectivity and sensitivity that MCT detectors have offered for many years. In addition, Kubiszyn highlights some of the unique attributes that are opening new applications for detection and analysis technologies around the world. Presented by VIGO Photonics

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:: All Things Photonics

The Precise Advanced Technologies and Health Systems for Underserved Populations initiative, or PATHS-UP, aims to integrate engineering research and education with technological innovation to transform national prosperity, health, and security. In a panel discussion, host Jake Saltzman is joined by **Samuel Mabbott**, assistant professor in the Texas A&M Department of Biomedical Engineering; **Cyril Soliman**, who earned his Ph.D. under Mabbott in the Texas A&M Biomedical Optics Lab; and **Michael Matthews**, vice president of the spectroscopy division at Wasatch Photonics. The trio served as key players on a portion of PATHS-UP-supported work that involves the development of a surface-enhanced Raman spectroscopy technology that targets the detection of core biomarkers at the point of care.

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