Thursday, December 22, 2022

This Week in PHOTONICS

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.: Top Stories

NIST, AIM Photonics Partner on High-Frequency PICs
NIST has entered into a cooperative R&D agreement with AIM Photonics that will give chip developers a critical new tool for designing faster photonic integrated circuits (PICs). As part of the collaboration, NIST will design electrical "calibration structures" that can be used to measure and test the electronic performance of chips. This will enable improved design quality for chips operating at speeds up to 110 GHz. Most current photonic chips operate at around 25 GHz.

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All-Optical Chip-Based Nanolaser Pumping Accelerates Info Processing
Researchers from Korea University have developed an all-optical method for driving multiple highly dense nanolaser arrays that could enable chip-based optical communication links that process and move data faster than current electronic devices. In the research, the use of optical fiber eliminated the need for large and complex electrodes that are typically used to drive laser arrays.

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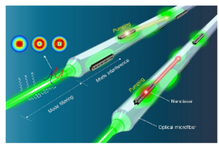

Interferometric Method Measures Interactions at Zeptosecond Speed
Researchers at the Australian Attosecond Science Facility and the Centre for Quantum Dynamics of Griffith University developed a novel interferometric technique that simplifies measurement of the ultrafast dynamics of light-induced processes. The researchers used the interferometric technique to measure time delays with zeptosecond — one trillionth of a billionth of a second — resolution.

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.: Featured Products & Services

Kentek Rx Laser Safety Eyewear

Kentek Corp.
Covering the most prominent lasers on the market (80%), these protective filters have the prescription built in the lens. Available in Progressive or Single Vision Rx, finally ending the need for awkward fit-overs or clip-ons. Available on KentekLaserStore.com, the most true-to-life virtual try-on technology available is making it easier to find the most appropriate frame for your perfect fit.

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New Filters Enable Compact, Lower Cost Fluorometer

Delta Optical Thin Film A/S
Delta Optical Thin Film has introduced new advanced excitation and emission bandpass optical filters for fluorescence spectroscopy/microscopy that enable more compact and lower cost fluorometers to be built.

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Hamamatsu Adopts Siemens' mPower Digital Software Read Article

Lidar Firm Innoviz Establishes Industry Partnership with Outsight Read Article

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.: Upcoming Webinars

Key Considerations for Part and Sample Holding in Interferometric Characterization
Wed, Jan 18, 2023 1:00 PM - 2:00 PM EST
Interferometry is a powerful tool when used to characterize optical surface form errors, as well as accumulated errors, when measuring transmitted wavefronts. Opticians and engineers have many methods available to facilitate such measurements but can often overlook the effects caused by part holding or fixturing. Frank DeWitt of XONOX Technology Inc. discusses what should be considered when approaching part holding and fixturing for interferometric measurements, the features that are critical to the item being measured, and the required outputs of the measurement.

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3D Optical Metrology: Capabilities for a New Era
Thu, Jan 19, 2023 1:00 PM - 2:00 PM EST
Kevin Harding of Optical Metrology Solutions provides an overview of the many 3D optical metrology tools available today. He discusses applications from general manufacturing of durable parts to precision component measurement. He shares examples, typical performance specifications, and the limitations of the many tools on the market today. Harding then considers each technology for both the type of application it is best suited to address, as well as its speed and resolution. Finally, he shows where each technology fits within the bigger picture of practical applications.

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