Thursday, June 1, 2023

This Week in PHOTONICS

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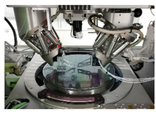
Top Stories

AIM Photonics to Offer Optoelectronic Testing Services



AIM Photonics has launched its new Opto-electronic Testing Services, which the institute said features a full suite of advanced tools for testing photonic integrated circuits (PICs) and conventional electronic ICs. The service will be offered through AIM Photonics' Test, Assembly, and Packaging (TAP) facility, which provides access to both photonic and electronic test, assembly, and packaging prototyping services for substrates up to 300-mm wafers, AIM said.

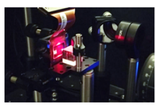
Read Article

On-Chip System Cuts Power Consumption, Drives Data Center Efficiency

Researchers at Oregon State University and Baylor University developed a silicon photonics method that reduces the amount of energy consumed by photonic chips used in data centers and supercomputers. Specifically, the energy-efficient method compensates for temperature variations that degrade the chips. According to the U.S. DOE, a data center can consume up to 50× more energy per square foot of floor space than a typical office building. Data centers account for roughly 2% of all electricity use in the U.S.

Read Article

Spatial Light Modulation Gauges How Lenses Slow Progress of Myopia



Myopia, or nearsightedness, is one of the most common ocular disorders worldwide and a leading cause of visual impairment in children. Although specialized eyeglass lenses have been clinically tested to treat myopia progression, an in-depth optical characterization of the lenses has not yet been performed. Researchers from the ZEISS Vision Science Lab at the University of Tübingen and the University of Murcia undertook a comprehensive characterization to investigate the properties of spectacle lenses designed to slow the progress of myopia. Results of the study could help increase the efficacy of future lens designs.

Read Article

Featured Products & Services

High-Dynamic Laser Scan Heads

Aerotech Inc.

The Aerotech AGV-XPO two-axis laser scan head minimizes the tradeoff between speed and precision in laser processing. Its low-inertia, high-efficiency motors enable rapid acceleration profiles, while ultra-high resolution position feedback enables near-zero tracking error even at long working distances.

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771 Laser Spectrum Analyzer

Bristol Instruments Inc.

The model 771 operates as both a high-resolution spectrum analyzer and a high-accuracy wavelength meter. With spectral resolution up to 2 GHz and wavelength accuracy as high as ±0.0001 nm, this system provides the most detailed information about the spectral properties of lasers operating from 375 nm to 12 µm.

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More News

Investment Firm Carlyle Group Acquires Czech Optics Company Meopta Read Article

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Scientists Develop Nanometer Domain N-Slit Quantum Interferometers Read Article

Upcoming Webinars

Fused Silica Tubes for Optical Fiber Manufacturing: Fiber Performance Sensitivity on Purity and Tube Geometry

Wed, Jun 14, 2023 1:00 PM - 2:00 PM EDT

This presentation discusses the manufacturing processes for fused silica tubes used in optical fiber production. Peter Bauer from Heraeus Conamic highlights the factors influencing purity and geometry of these tubes and how they impact the final fiber performance. Impurities can cause attenuation and reduced mechanical strength and cannot be eliminated in later production steps. Tube geometry is also crucial, as variations can cause beam distortion or miss alignments during fiber splicing. Presented by Heraeus Conamic.

Register Now

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

All Things Photonics

Microelectronics technology innovation and, more notably, recent legislation have brought to the fore the need for a unified strategy to ensure sustained positive outcomes in today's semiconductor environment. **Walter Burgess**, co-CEO, Sales & Engineering at Power Technology Inc., is helping to spearhead many of the efforts that business and technology leaders in Arkansas are commencing to ensure they can best-leverage opportunities stemming from 2022's Chips and Science Act. In this episode, Burgess overviews his state's opportunity following passage of the act, and he discusses the link between optics and photonics and semiconductor-driven economic progress.

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