Thursday, December 5, 2024

PHOTONICS spectra

Weekly News

Breaking News: China Responds to U.S. Restrictions with Export Bans, VDMA Branch Elects New Chairperson, Executive Board

Tensions between the U.S. and China are escalating. Chinese officials have announced new export bans after White House officials increased export restrictions on several Chinese companies. VDMA R+A has appointed a new chairperson along with a new executive board. Some of the leading companies in photonics are forming a consortium focusing on 3D printing for industrial applications. Researchers have found a way to break down forever plastics with LED systems. Liquid crystal lens could help people with epilepsy to avoid seizures caused by certain light. And a team in Brazil is using LIDAR technology to assess landslide risks. Sponsored by scia Systems and TRIOPTICS.

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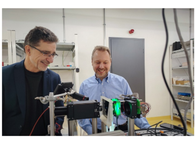

MicroLEDs Show Potential for Neuromorphic Computing

Known for their energy efficiency, LEDs are also opening up completely new possibilities for applications beyond lighting. By using a neuron network of microscopic LEDs for the AI of tomorrow, a research group at Technische Universität Braunschweig's Nitride Technology Centre aims to make future computers more powerful and energy efficient.

Read Article

EU to Launch Lasers4MaaS Laser Welding Project

Funded under a European Union HORIZON grant, the Lasers4MaaS project is set to commence next month. The project targets the integration of advanced laser welding technologies with digital platforms to enable flexible, scalable, and sustainable production solutions. Its over-arching goal is to increase the technological readiness level (TRL) from TRL 4 to TRL 6.

Read Article

SPIE Names Finalists in 2025 Startup Challenge

Seven early-stage startup companies have been selected to compete for a top prize of $10,000 at the 15th annual SPIE Startup Challenge at Photonics West on Jan. 28. Participating teams compete for sponsored prizes, in addition to gaining increased visibility with potential investors and exposure to potential collaborators or partners.

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Featured Products & Services

Automated Fluorescence, Simplified

CoolLED Ltd.

Give your instrument the edge with the latest LED illumination technology. The CoolLED Amora Series is ideal for OEM configurations, and features Sequence Runner for fast, cost-effective fluorescence automation.

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Green Laser to Deliver Stability

Ampliconyx Oy

The AMPX-PICO-532 picosecond green fiber laser, developed with patented technology, is designed to break new ground in time and spectral resolution flavored by versatile OEM integration and elegant control.

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More News

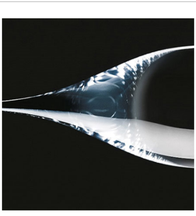
Akhetonics Raises $6.3M for All-Optical Digital Processor

SCHOTT Names Torsten Derr CEO

Metasurface-Enabled Camera Optimized for AR/VR Devices

LED Light Breaks Down Forever Chemicals that Harm the Environment

Latest Webinars



Fused Silica Step Index Fibers: Advanced Preform and Fiber Metrology

Tue, Dec 10, 2024 12:30 PM - 1:30 PM EST

This webinar discusses advanced preform and fiber measurement techniques for specialty fibers, with a particular focus on fibers produced using the POD (plasma outside deposition) process. In this process, fluorine-doped fused silica is applied to the outside of a high-purity core rod made of synthetic quartz glass to produce the refractive index step required for light guiding. Depending on the specific application wavelengths of these specialty fibers, various synthetic fused silica materials are available as core materials, which enable the production of specialty fiber preforms tailored to the application. The session begins with a brief introduction to the manufacturing process and typical applications of specialty fibers, followed by an in-depth examination of the characterization of the preforms and the resulting fibers. Presented by Heraeus Conamic.

Register Now

Benchmark

Design Considerations for Automated Manufacturing of Optical Assemblies

Wed, Dec 11, 2024 1:00 PM - 2:00 PM EST

As the demand for efficient production of optical systems grows in industries ranging from aerospace and defense to medical imaging, the automation of optical assembly processes becomes increasingly critical. This webinar discusses strategies for optimizing optical assembly designs for automated manufacturing, providing an in-depth exploration of how the latest innovations in optical design, material selection, and component placement are transforming assembly methods. Discover the critical aspects that are essential for achieving precise alignments, minimizing cycle times, and ensuring exceptional performance outcomes in applications such as lidar systems, fiber optics, and advanced medical devices. Implementing these strategies in early-stage design planning lays the groundwork for optimized automated production, enhances alignment accuracy, and boosts final production yields.

Register Now

All Things Photonics

Optics Manufacturing in America (with Dave Shelton) and a Primer on Metamaterials (with Andrea Alù)

David Shelton, President and CEO of AmeriCOM, discusses ongoing efforts to strengthen the United States' optical manufacturing industry and how they relate to defense and national security. **Andrea Alù**, Einstein Professor of Physics at The City University of New York, provides a primer on metamaterials, including ongoing research efforts and hot topics, and a look to the future.

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