

Weekly News





2025 from Photonics Spectra There was no shortage of research breakthroughs and big

Recapping the Most-Read Stories of

business dealings for 2025. Here are some of the stories that really caught our readers' attention, topping the list of the most-read stories of the year. Watch Now

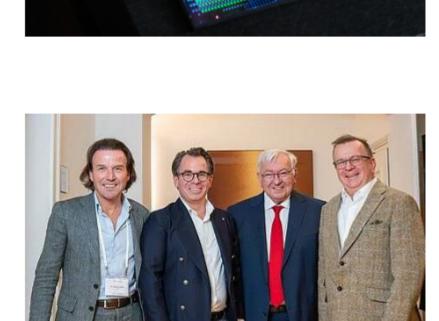


The International Cooperation on Next-gen Inertial Confinement Fusion Lasers project will combine the expertise

Unites Fusion Tech Leaders

Fraunhofer ILT and LLNL Joint-Effort

of scientists at the Fraunhofer Institute for Laser Technology ILT (Fraunhofer ILT) and Lawrence Livermore National Laboratory (LLNL) to transition laser-ignited inertial fusion from the experimental stage to application. Read Article On-Chip Optical Phase Modulator Scales to Large Quantum Computers



requirement, optical phase modulators will need to be massproducible and powerful. Read Article

Switzerland's HOERBIGER Group to

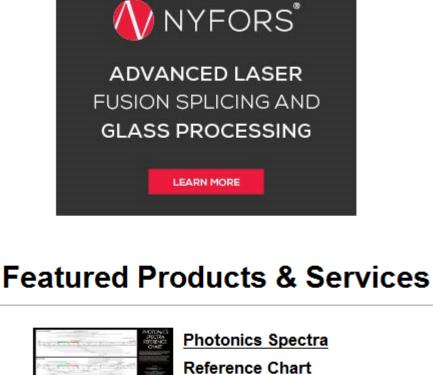
to independently control each qubit, and, to support this

Optical phase modulators with scalable platforms are

essential for large-scale quantum computing. Quantum

computers will require thousands, even millions, of channels

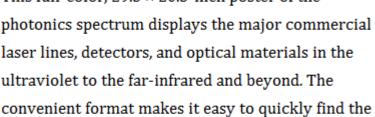
Acquire Physik Instrumente Physik Instrumente (PI), a provider of precision motion and positioning technologies, signed an agreement to be acquired by HOERBIGER, a diversified technology group with global operations. For PI, the move provides greater resources to facilitate sustainable growth, while HOERBIGER gains the opportunity to expand into new markets. Read Article





15th Anniversary

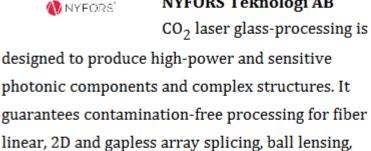
This full-color, 29.5×20.5 -inch poster of the photonics spectrum displays the major commercial



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end-capping, and many other challenging processes.

precision solutions for fiber preparation, such as stripping, cleaving, recoating, and end-face inspection. NYFORS offers custom workcell automation solutions. Visit Website Request Info Looking for something else? Check the Photonics Marketplace. **PHOTONICS**

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Octopus-Inspired Micro-LEDs Designed for Cancer Therapy Camera Module Market Poised for Growth

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ARTIFICIAL INTELLIGENCE

VISION FABRIC

Dr. Pavlo A. Molchanov

More News

Artificial Intelligence Vision Fabric

Transparent Ceramic Could Boost Internet Speeds, Cut Energy Use

Finchetto Secures Grant to Fuel Optical Switch R&D



the limits of traditional optics. At its core is a quantum-ready multichannel electro-optic synchronization interface, enabling real-time recording of holographic data with scalable, ultrahigh precision. When paired with quantum multichannel

Tue, Jan 6, 2026 11:00 AM - 12:00 PM EST

AI Vision Fabric is a breakthrough platform that fuses advanced

interpret visual information. Inspired by nature's most efficient

vision systems, this technology unlocks performance far beyond

digital holography with Fresnel coherent diffraction imaging

(FCDI), transforming how artificial systems capture and

Meeting Next-Generation Optical Component and System Metrology Needs Tue, Jan 13, 2026 11:00 AM - 12:00 PM EST As optical systems evolve toward greater design complexity, the demand for precise, reliable metrology continues to grow.

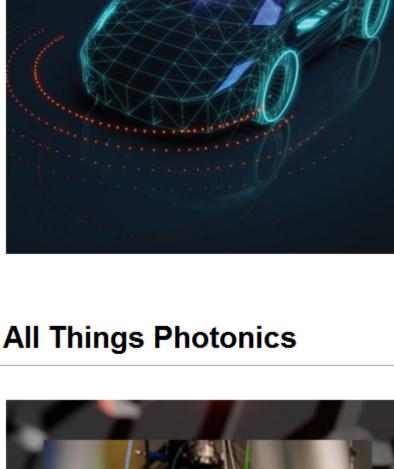
Vibration-insensitive interferometry is emerging as a critical enabler for advancing the fabrication and integration of nextgeneration components. This technique supports high-precision

measurement of aspheres, freeform optics, and infrared (IR) components, extending capability into new wavelength regions while accommodating the industry's shift toward smaller, more integrated optical elements. Attendees will discover how this approach is transforming optical metrology, bringing precision and flexibility to the production line and helping manufacturers keep pace with the innovation driving modern optical design. Register Now

processors, it opens the door to unprecedented speed, parallelism, and intelligence. This powerful fusion of AI, holography,

Exploring the Benefits of Borosilicate

Register Now



technologies such as high-power LEDs, adaptive driving beams, and integrated sensor systems. These innovations introduce new challenges in thermal management, durability, and optical

Automotive lighting is advancing at a rapid pace, driven by

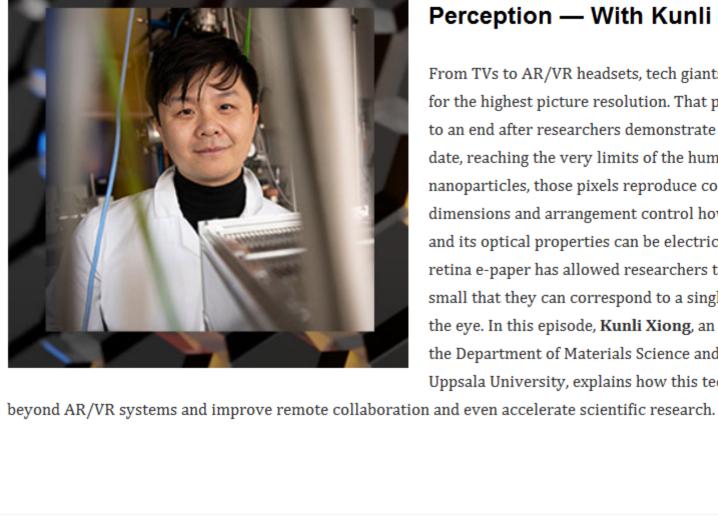
Wed, Jan 14, 2026 11:00 AM - 12:00 PM EST

Glass in Automotive Lighting

precision - areas in which traditional glass materials often reach their limits. This webinar focuses on the role of BOROFLOAT® 33 borosilicate glass in addressing these challenges. With its distinctive combination of thermal stability, optical clarity, and mechanical strength, BOROFLOAT® 33 has emerged as a key material for next-generation lighting and sensing applications. Presented by SCHOTT. Register Now

From TVs to AR/VR headsets, tech giants have always pushed for the highest picture resolution. That push may soon come

Reaching the Limit of Human Perception — With Kunli Xiong



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to an end after researchers demonstrate the smallest pixels to date, reaching the very limits of the human eye. Using nanoparticles, those pixels reproduce colors whose dimensions and arrangement control how light is scattered, and its optical properties can be electrically tuned. A new retina e-paper has allowed researchers to create pixels so small that they can correspond to a single photon receptor in the eye. In this episode, Kunli Xiong, an assistant professor in the Department of Materials Science and Engineering at Uppsala University, explains how this technology could go Listen Now

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