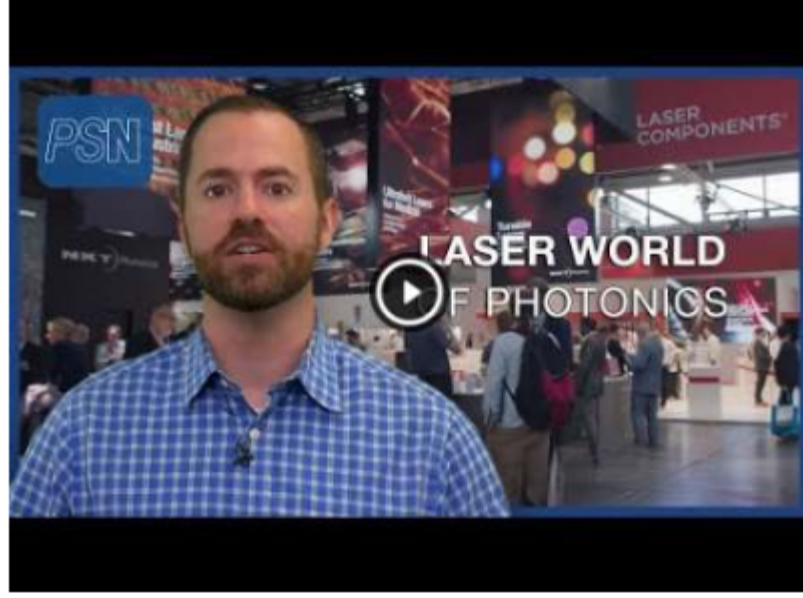




Weekly News



Featured Video

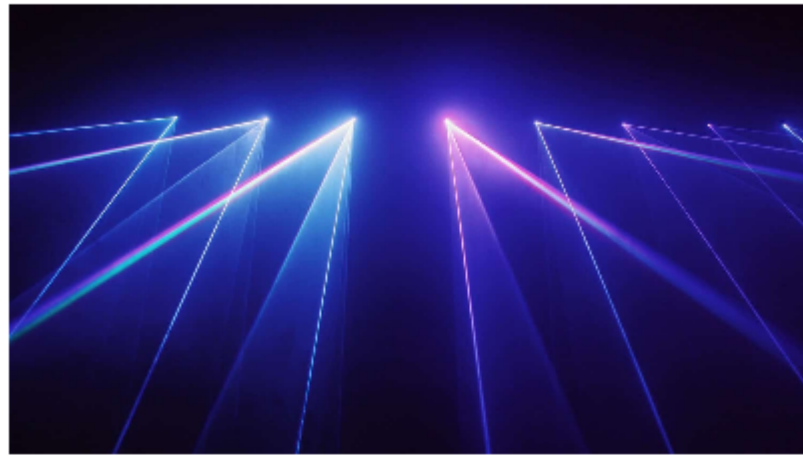


New Players in Photonic Chips, Laser World of Photonics Prepares for Record Attendance

TNO announces plans to develop a manufacturing line for photonic chips with help from the PIXEurope initiative. Chinese media reports the nation's first production line for thin-film, niobate photonic chips. MIT researchers develop a novel AI hardware accelerator for wireless signal processing. Coherent Aerospace & Defense is awarded nearly \$30 million from the U.S. Navy to advance its high powered laser weapons system. Vodafone targets quantum capabilities with a new

partnership with ORCA Computing. Lawrence Livermore National Laboratory and Amazon Web Services leverage the power of AI to enhance operations at the National Ignition Facility. And Laser World of Photonics 2025 is expecting to welcome a record number of exhibitors to Munich!

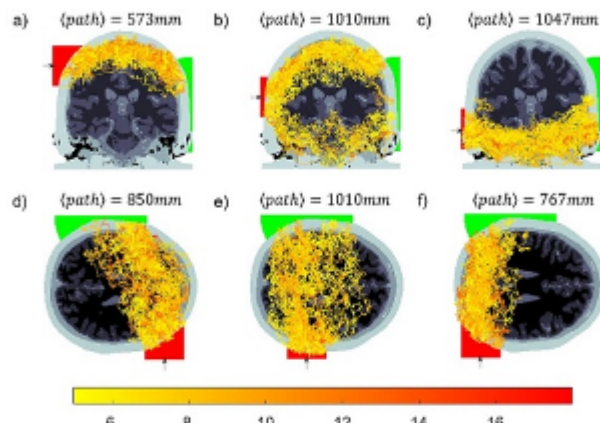
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Laser Technique Sinters Ultrahigh Temperature Ceramics Without a Furnace

Ultrahigh-temperature ceramics (UHTCs) are designed to withstand extreme environments, making them indispensable in aerospace, defense, and energy applications. Hafnium carbide (HfC) in particular is well-suited for thermal protection coating systems in spacecraft, engines, and

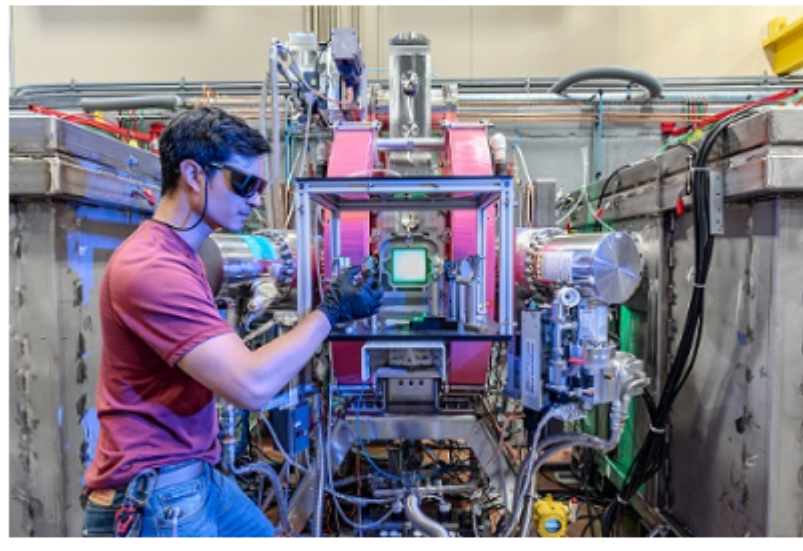
hypersonic vehicles, due to its ultrahigh melting point, exceptional hardness, high elastic modulus, and high thermal conductivity. A technique for synthesizing HfC, developed by a team at North Carolina State University, integrates crosslinking and pyrolysis into a single step, reducing processing time and energy consumption. [Read Article](#)



Photon Transport Through Entire Head Shows Promise for Noninvasive Imaging

With the appropriate optical setup, it is possible to measure photons as they travel diametrically across the inside of the adult human head. This discovery, made by scientists at the University of Glasgow, could contribute to the development of noninvasive optical techniques for deep brain imaging.

[Read Article](#)



Xcimer Energy Completes Electron-Beam-Pumped Excimer Laser

Inertial fusion startup Xcimer Energy has completed an electron-beam-pumped excimer laser. According to the company, this is the first laser of its kind funded by the private sector, and the first built by any organization in more than 20 years. The system operates at the longest pulse length of any Krypton Fluoride (KrF) laser, the company added. And last month, according to a press release from the company, the

laser achieved a pulse length of 3 μ s, a global record for this type of laser source. [Read Article](#)



Featured Products & Services



Precision Polished Substrates

Ohara Corporation

Ohara is a leading manufacturer of double-side polished substrates with extremely low surface roughness (RMS \sim 2 Angstroms) and flatness (\sim 1 μ m) values. Sizes 25- to 360-mm diameter, thin (down to 50 μ m) and ultra-clean. Fused silica, optical glass, etc.

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CTL 780 – Mode-Hop-Free Tuning Around 780 nm

Toptica Photonics AG

Wide mode-hop-free tuning between 750 nm and 790 nm is now available. Ideal for (micro) cavities that include Rb or K atoms, or to characterize devices over a wide range.

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More News

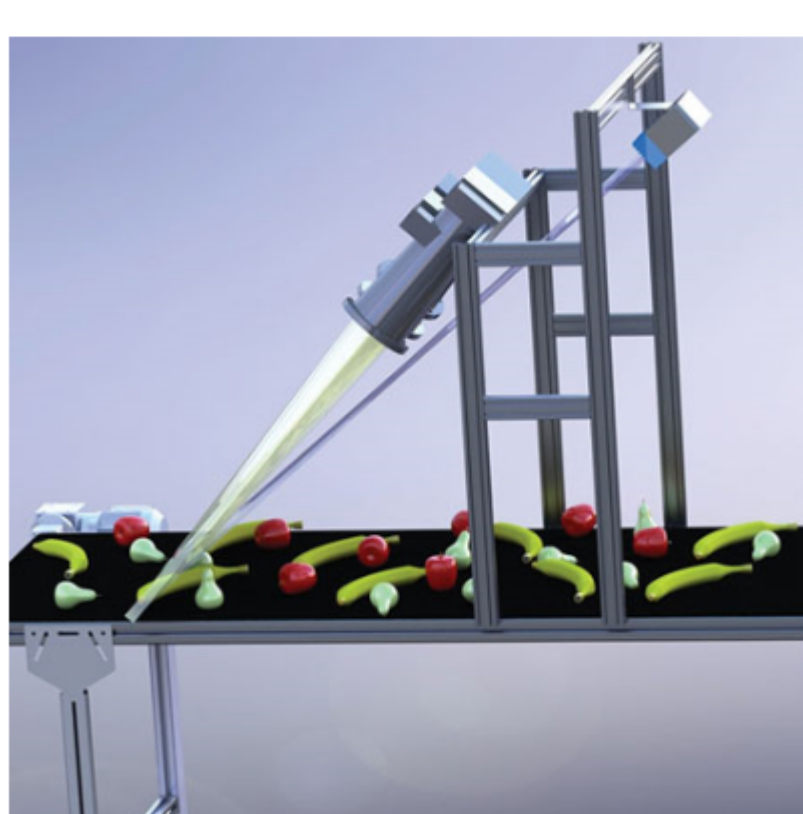
[Nanoimprinted Metalenses Enable Nonlinear Conversion of IR to Visible](#)

[Coherent Awarded \\$29.9M Navy Contract](#)

[Transparent Film, Using Graphene, Boosts Photonics Applications](#)

[Light-Based Control of Bacteria Aims to Quell Antibiotic Resistance](#)

Latest Webinars



Optimization of LED Illumination for Hyperspectral Imaging Applications

Wed, Jul 9, 2025 11:00 AM - 12:00 PM EDT

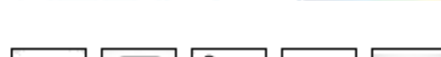
This webinar introduces key principles of inline hyperspectral imaging and focuses on the often-overlooked design and integration of illumination. Attendees will learn how to optimize system throughput, sensitivity, and spectral accuracy by properly matching illumination performance to the capabilities of their spectral imaging cameras. We will compare traditional broadband sources, such as tungsten-halogen lamps, to modern solid-state LED systems—evaluating factors such as spectral coverage, uniformity, angular distribution, thermal stability, and cooling techniques. Whether you are developing new HSI camera systems or integrating spectral imaging into existing automation platforms, this webinar will offer practical insight into achieving better results through optimized, application-

specific illumination strategies. Hyperspectral imaging (HSI) is revolutionizing industries like food processing, materials recycling, and pharmaceuticals by enabling high-speed, non-contact identification of product characteristics. Yet, one of the most underestimated—and absolutely critical—determinants of overall system performance is the illuminator. This webinar will reveal how optimized, performance-driven LED illumination strategies can dramatically improve results, unlock new capabilities, and give your solutions a competitive edge in the marketplace. Presented by Innovation In Optics, Inc.

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