



Weekly News



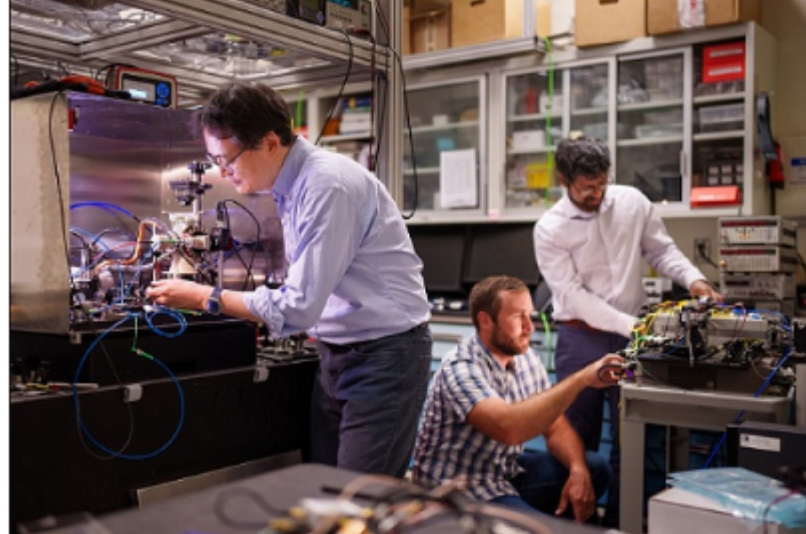
EUV Lithography Resolution Boosted to 5 nm

Researchers at the Paul Scherrer Institute have developed a photolithography technique to create denser circuit patterns. The current state-of-the-art microchips have conductive tracks separated by 12 nm. The current work enables tracks with a separation of just 5 nm. [Read Article](#)



China Marks Progress on High Energy Photon Source

The construction of the High Energy Photon Source (HEPS) at the Chinese Academy of Sciences has marked a milestone as electron beams with currents exceeding 10 milliamperes were successfully stored in the HEPS storage ring. The achievement signifies the completion of the accelerator complex and the beginning of beam commissioning. [Read Article](#)

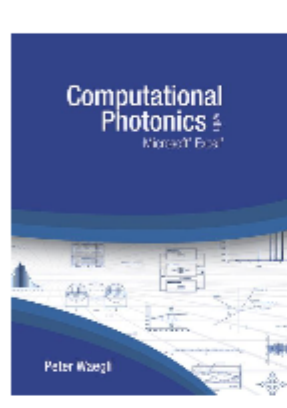


Integrated Photonics Shrinks Down GPS-Free Navigation Tech

Researchers from Sandia National Laboratories have used silicon photonic microchip components to perform a quantum sensing technique called atom interferometry, an ultra-precise way of measuring acceleration. It's the latest milestone toward developing a kind of quantum compass for navigation when GPS signals are unavailable. [Read Article](#)



Featured Products & Services



Computational Photonics with Microsoft® Excel®

Photonics Media

This book shows how Excel — readily available on almost every computer — can be used to study photonics problems and to design, analyze, and optimize photonics applications.

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Duplex Logic To Fiber Optic Converter

Highland Technology Inc.

The Highland K420 is a bi-directional, electrical-optical/optical-electrical data link with differential logic input and output, capable of transporting single or bi-directional digital data at speeds up to 2 GHz. The included Cisco SFP-10G-SR plugin module can operate at distances up to 400 meters with 50-micron OM4 or better fiber.

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More News

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Latest Webinars



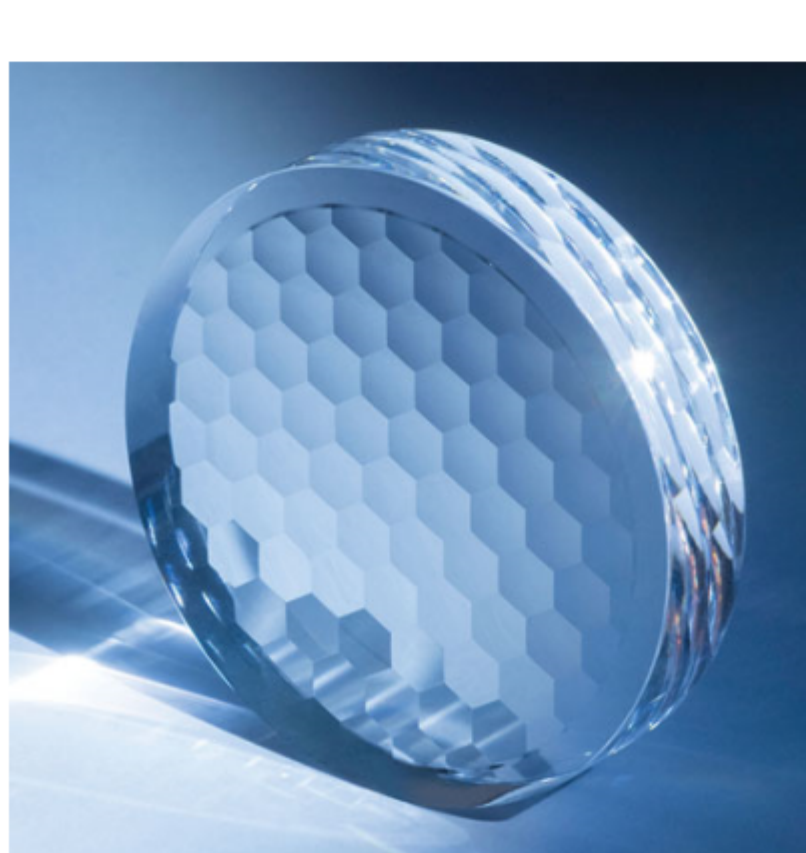
Reflective Optics for Multispectral EO Systems

Wed, Aug 28, 2024 9:00 AM - 10:00 AM EDT

Large reflective optics are essential for high-performance multispectral electro-optics imaging systems in defense, surveillance, and aerospace. These systems capture multiple wavelengths to improve target identification and combine data from various bands to offer a comprehensive environmental view, enhancing situational awareness. They excel in adverse conditions by penetrating haze, smoke, and challenging weather better than visible light, and they provide high-resolution imaging for detailed analysis and accurate decision-making. Utilizing advanced data fusion, these systems enhance target recognition and tracking, adapt to various requirements from surveillance to disaster response, and reduce operational costs by minimizing the number of necessary maneuvers. Join

MKS Ophir for an insightful webinar on the latest advancements in reflective optics for multispectral systems. Presented by MKS Ophir IR Optics.

[Register Now](#)



How to Improve Laser Applications Using Freeform Optics

Wed, Sep 4, 2024 10:00 AM - 11:00 AM EDT

This presentation provides a landscape of the freeform concept, design, product, and module solutions that are available for managers and designers of laser systems and applications that must deliver a performance enhancement that is difficult to obtain with conventional optics. Freeform optics are an elegant solution for beam shaping and aberration correction and allow optimization of laser applications. However, freeform optics are often regarded as difficult to design, difficult to incorporate into optical systems, expensive to make, and limited in optical performance. As a result, they occupy a small niche in the photonics industry. This webinar shows that there are easy, cost-effective ways to design, manufacture, and integrate solutions for high-grade, high-performance, fused silica freeform optics to

enhance laser systems and applications. Kidd shares examples of some of the most prevalent and important laser applications to show the technical and financial impact of using freeform optics solutions. These include coherent beam combing for laser-fusion and other directed energy applications as well as blue laser beam shaping for the welding of lithium-ion batteries and other electric vehicle components. Presented by PowerPhotonic.

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