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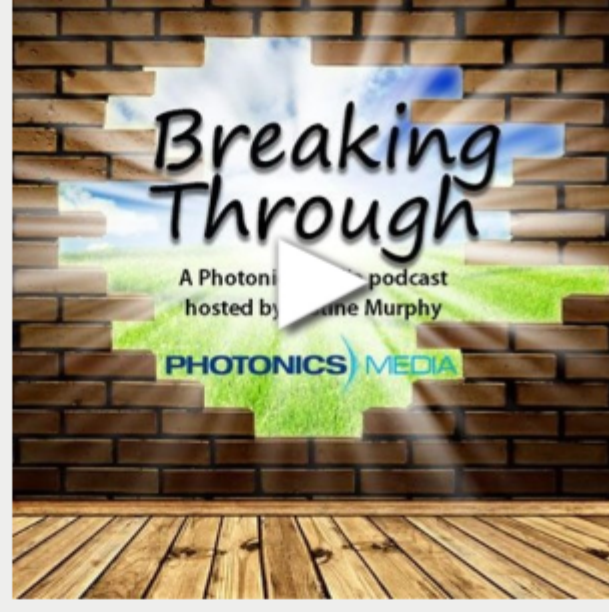
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Top Stories

Breaking Through: Women in Photonics, ep.2 Mackenzie Van Camp

In this episode, we talk with Mackenzie Van Camp, a Ph.D. candidate at Boston University who is studying ways to apply quantum mechanics of light for higher precision measurements, specifically in sensing applications, using a process called spontaneous parametric down-conversion. As a younger female embarking on her career in photonics, she shares her experiences and offers a unique perspective on the industry.

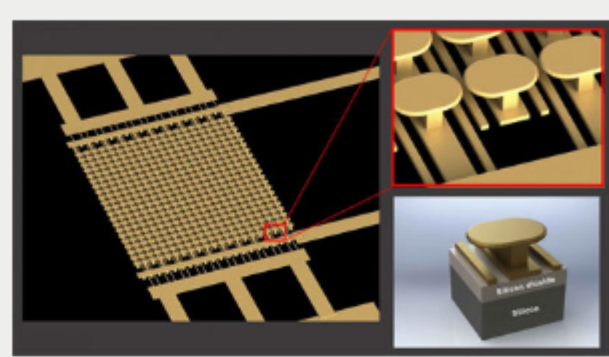


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Photoemission-Based Microelectronics Are Semiconductor-Free

A semiconductor-free, optically-controlled microelectronic device fabricated using metamaterials has shown a significant increase in conductivity when activated by low voltage and a low power laser. The discovery may facilitate the development of microscale electronic devices that are faster and capable of handling more power, and could also lead to more efficient solar panels. The device consists of an engineered metasurface on top of a silicon wafer, with a layer of silicon dioxide in between.



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Autonomous Industrial Robot Paints With Precision

Some of the building interiors in Singapore will soon be getting a fresh coat of paint, meticulously applied by the PictoBot, an autonomous robot that makes painting large areas a fast and easy process. PictoBot can paint a high interior wall 25 percent faster than a crew of two painters using a scissor lift, improving both productivity and safety. Co-developed by researchers at Nanyang Technological University (NTU Singapore) and JTC Corporation, the robot integrates several components to automate the spray painting of interior walls that may have different specifications.



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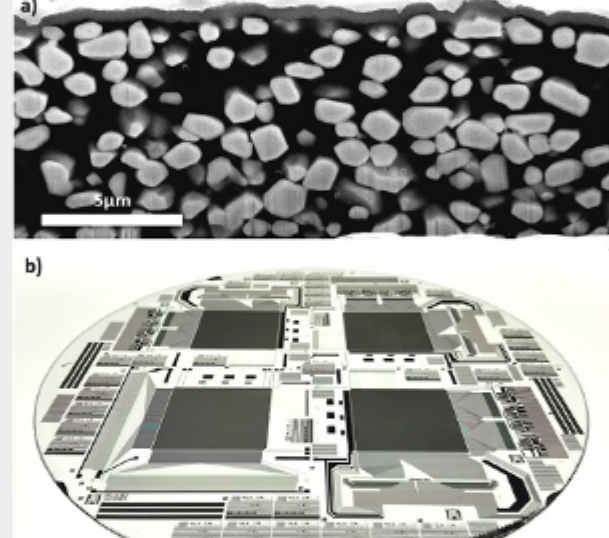


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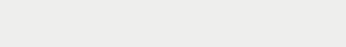


Quasi-Direct Conversion Used to Create Safer X-rays

A novel photonics technology is being developed to produce a set of low radiation, low cost, flat panel x-ray detectors, promising safer diagnosis for patients and less exposure for hospital and dental staff. The DiCoMo — Direct Conversion hybrid-organic x-ray detectors on Metal oxide backplane — project also promises this new technology will produce some of the highest resolution images ever seen in single x-ray records or CT scans.

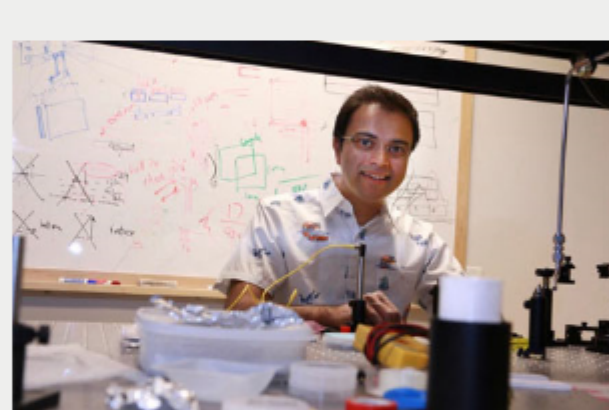


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Nanophotonic Cloaking Could Eliminate Crosstalk Between Photonic Devices

A nanophotonic cladding cloak that prevents crosstalk between two closely spaced single-mode waveguides could allow photonic devices to be integrated at a much higher density, without causing light to leak from one waveguide to another. This would allow billions of photonic devices to be packed into a single photonic computer chip and reduce the footprint of the chip, overcoming a major obstacle to the use of photonic chips in computers, data centers and mobile devices.



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Featured Products

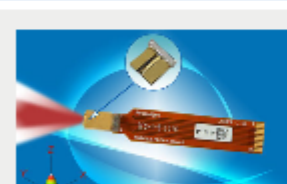
M-Wave 339 IR Interferometer



M3 Measurement Solutions Inc.

The M-Wave 339 is a state-of-the-art Infrared Interferometer operating at 3.39 micrometers. It is the ideal instrument for testing mid-wave infrared imaging components/systems and optical material homogeneity.

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DBR Laser with Beam Correction

Photodigm Inc.

Photodigm DBR lasers are now available with integrated beam correction. A Virtual Point Source (VPS) microlens inside the package corrects astigmatism and reduces fast axis divergence resulting in a user friendly near circular beam.

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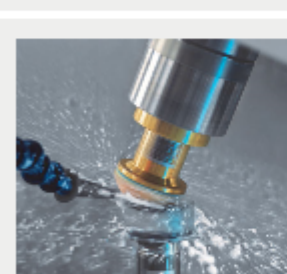


FOCtek 3MP 4/6mm Starlight Lenses

FOCtek Photonics Inc.

FOCtek provides customers with optical lenses assembled and custom-made lenses. We have developed a series of new products – ITS/Starlight Lenses which are available for 1/2.5", 1/2.7", 1/2.8", 1/3" CMOS sensor, especially IMX290 / IMX291.

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APS 3D: Advanced Polishing System 3D

Schneider Optical Machines Inc.

The Advanced Polishing System 3D (APS 3D) unites a new groundbreaking high-precision polishing technology for aspheres with an intelligent process flow and minimal user interaction.

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Industry Events

5th International Conference and Exhibition on Lasers, Optics & Photonics

November 28-30, 2016 - Hilton Atlanta Airport - Atlanta United States

The theme for this year's conference and exhibition is "Enlightening the Inevitable Ascent in the Beam of Lasers, Optics & Photonics". The conference will provide a platform for exchange of relevant experience in selected topics, including: laser systems, optics and lasers in medicine, optoelectronics, optical communications and networking, advancements in photonics, nanophotonics and biophotonics, quantum science and technology, technologies in lasers, optics and photonics, applications and trends in optics and photonics, fiber laser technology, and optical physics. Image courtesy of Wikimedia.



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