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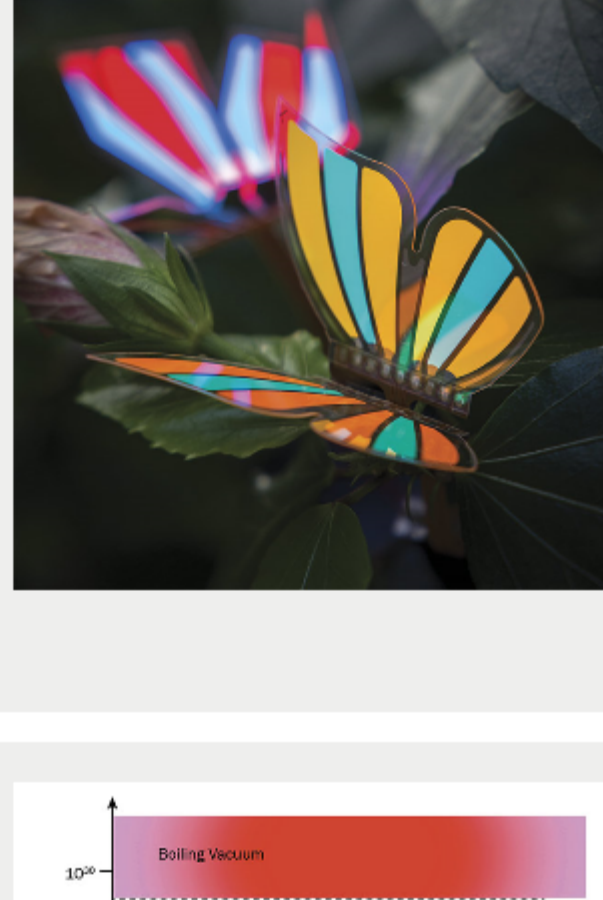


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OLED Modules for Textile Integration

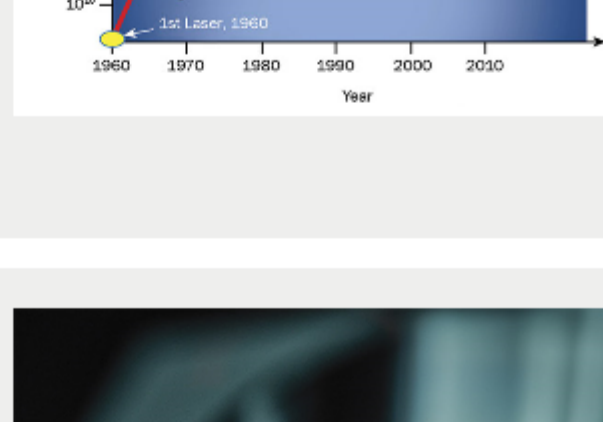
Flexible organic light-emitting diode (OLED) elements are destined for integration into textiles, and they promise to be an optimal technology for integrating light into clothing and other cloth surfaces. The demand for flexible OLED integration into garments is already on the rise. OLED-based lighting elements have outstanding characteristics, including high pliability and low weight, which make them ideal for use in fashion clothing or accessories. Beyond consumer-oriented fashion, flexible OLEDs have potential professional applications in security, emergency and rescue, and the outdoor or fitness industries.



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Aspheric Optics for Nuclear Research

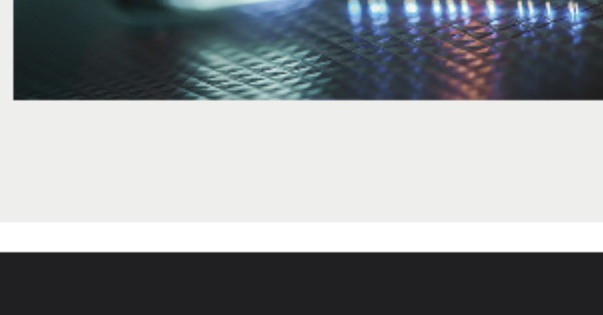
Nuclear research laser facilities around the world increasingly use powerful, amplified, ultrashort-duration pulses of coherent light to deliver massive energy densities at a given target. The synchronized delivery of such high-power pulses generates extreme conditions that allow scientists to carry out state-of-the-art nuclear research. It also enables the study of conditions that exist only in exotic and distant environments, such as the core of our sun and beyond. These facilities enable researchers to advance knowledge in fields such as particle and nuclear physics, materials science, and astrophysics, with applications that range from nuclear energy to medicine.



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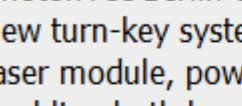
Improved Lasers and Techniques Benefit Materials Processing

For laser materials processing systems, power levels are up, costs are down, and there are innovations in beam delivery and control. These developments are expanding the use of lasers in welding, cutting, surface treatment, and other applications. But there are still challenges to overcome, such as devising the best integrated solution or dealing with difficult materials.



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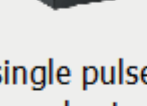
Featured Products



Turn-key Fiber-coupled Diode Laser System

PhotonTec Berlin GmbH
PhotonTec Berlin extends its diode laser portfolio with a new turn-key system. It integrates fiber-coupled diode laser module, power supply and cooling in one 19" rack, enabling both local and remote control of the power, operating mode, and pulse parameters.

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PEPS Series Optical Power Sensors

MKS/Newport
The PEPS sensors measure laser beam positioning as well as power and single pulse energy, suitable for either continuous wave or short pulse laser beams. These general purpose detectors measure laser beam position to 0.1 mm accuracy. When connected to our advanced 1919-R power meter or PMManage™ program, beam tracking is also possible.

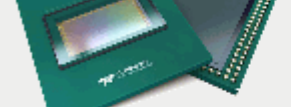
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Ultra-compact Pulsed Lasers for LIBS and Photoacoustics

Cobolt AB
Cobolt AB, a part of HÜBNER Photonics, is proud to introduce the Cobolt Tor™ XS, a high performance compact Q-switched laser at 1064 nm and 532 nm, with 100 uJ/pulse and 50 uJ/pulse respectively. The Cobolt Tor™ XS is intended for photoacoustic microscopy applications as well as integration into hand-held...

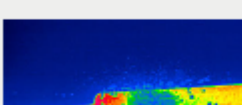
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Snappy 2M CMOS Image Sensor for High-speed Scanning

Teledyne e2v (UK) Ltd.
Teledyne e2v, announces Snappy 2 megapixel, a new CMOS image sensor designed for barcode reading and other 2D scanning applications. The sensor uniquely combines full HD resolution, a 2.8µm low-noise global shutter and advanced features for fast and economic decoding, all within a small optical format.

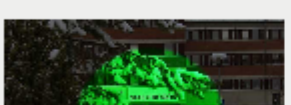
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Most Versatile Infrared Cameras

InfraTec GmbH, Infrarotsensoren und Messtechnik
InfraTec offers an entirely new level of flexibility for its high-end camera series ImageIR®. Users can choose between two speed modes for the same camera. In standard mode, the familiar frame rates for full frame, half frame, and sub-frame are available with full spatial resolution.

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IR Filters for Thermal Imaging and Gas Detection

Spectrogon US
Spectrogon manufactures infrared filters and windows with high transmission, high rejection outside the passband, and introducing low cosmetic defects — while maintaining excellent coating uniformity — for thermal imaging applications such as cryogenically cooled IR detectors and for uncooled microbolometers.

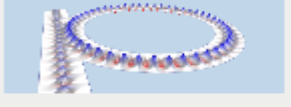
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Full Digital High Definition OLED Microdisplay

Yunnan Olightek Opto-Electronic Technology Co. Ltd.
The prominent high-definition OLED full digital microdisplays by OLIGHTEK profoundly widen near-to-eye applications and lead the way in near-to-eye technology. OLIGHTEK's full digital high-definition OLED microdisplays are available for new applications in markets such as: High resolution human medical field, Virtual world and simulation training...

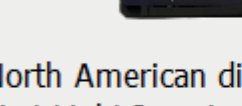
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Wave Optics Module

COMSOL Inc.
The Wave Optics Module is an add-on product to the COMSOL Multiphysics® simulation software platform. You can use the Wave Optics Module to efficiently model and optimize optical systems and photonic devices.

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New! C-RED 3 - High Speed SWIR, Low SwaP+C

Axiom Optics
Available from its only authorized North American distributor Axiom Optics (Boston, MA), First Light Imaging has unveiled C-RED 3, an uncooled SWIR camera optimized for low SwaP-C (Size, Weight, Power, and Cost). C-RED 3 is using a state-of-the-art TECless InGaAs sensor with 70+% QE from 0.9 to 1.7 µm combined with...

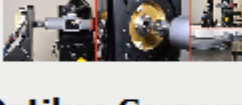
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Modal Deformable Mirror

ALPAO SAS
Modal Deformable Mirrors (DMM) allow the use of adaptive optics as never before! They provide an excellent correction of the most common optical aberrations (e.g. focus or astigmatism). With 7 or 8 control channels, each of them corresponding to one optical mode, the control is straightforward.

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IQ Lab™ Temperature Testing for Automotive Lenses

Optikos Corporation
Optikos IQ Lab™ Services offers lens testing over extended temperature ranges IQ Lab temperature testing services are especially valuable for automotive lens manufacturers and integrators, whose applications have stringent performance and athermalization requirements to meet safety standards for camera image quality.

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OEM Microscope Components

Nikon Instruments Inc.
Nikon provides a large range of microscopy components to satisfy diverse optical requirements. These components can be incorporated into imaging systems to fulfill unique experimental requirements. Nikon is staffed with a dedicated team to service large volume and OEM requests.

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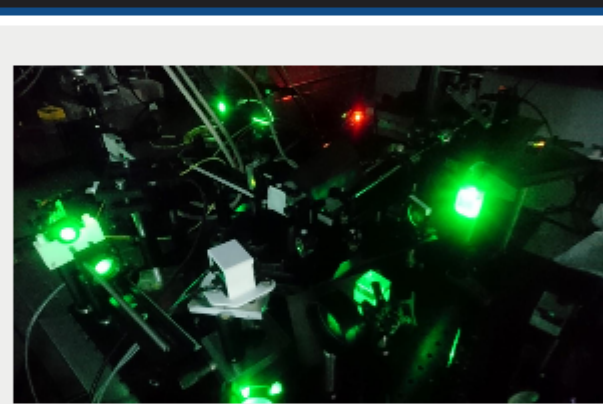
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In Case You Missed It

Lensless Holographic Endoscope Is Self-Calibrated

Researchers at Dresden University of Technology (TU Dresden) have developed a tiny, self-calibrating endoscope that produces 3D images of objects smaller than a single cell. Without a lens or any optical, electrical, or mechanical components, the tip of the endoscope measures just 200 µm across.



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2D Material Combines Long Lifetime with Freedom of Movement

Researchers at Rensselaer Polytechnic Institute (RPI) have developed a method to isolate thin layers of tungsten diselenide (WSe2) — a 2D material — from crystals, to allow layers of WSe2 to be stacked on top of other atomically thin materials such as boron nitride and graphene. The discovery could further the use of WSe2 for building smaller, more efficient computing devices.

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Light-Powered Nano-Microbial 'Factories' Could Help Reduce Carbon

Using light-activated quantum dots to activate specific enzymes within microbial cells, researchers at the University of Colorado Boulder created nanobio-hybrid organisms that can consume harmful gases such as carbon dioxide and convert them into biodegradable plastic, gasoline, ammonia, and biodiesel.

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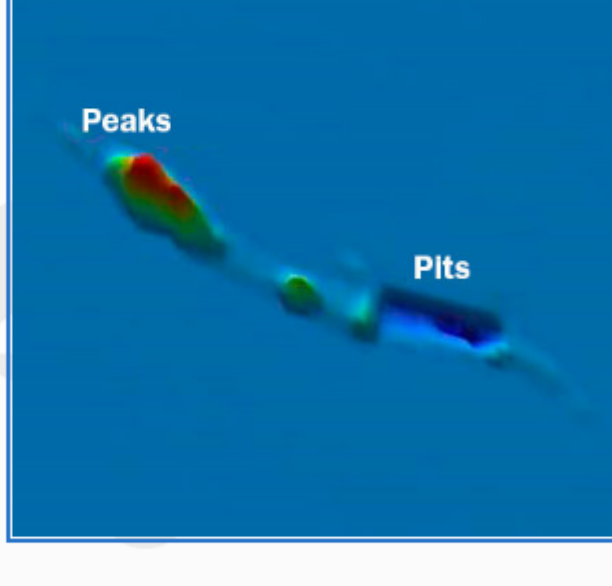
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Webinars

Solving Challenges in Defect Inspection of Advanced Optics

Mon, Sep 23, 2019 1:00 PM – 2:00 PM EDT
This webinar, presented by Bruker Corp., will discuss how a white-light interferometry (WLI) optical profiler performs fully automated defect inspection of advanced optical components such as lenses, mirrors, prisms, and windows. The noncontact WLI technique combines subnanometer vertical resolution over square-millimeter-large areas, enabling 100% inspection of high-quality optics through direct measurement of topography. Presenter Samuel Lesko will explain how customized analysis can easily spot the most minute defects, even in cases of complex surface geometry, and how customized analysis can automatically output critical information of detected defects (size, depth/height, orientation, location) without operator intervention or an etching step.



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Features

Thin Disk Lasers, Freeform Optics, Detectors

Photonics Media is currently seeking technical feature articles on a variety of topics for publication in our magazine *Photonics Spectra*. Photonics.com is offering a limited 100-word abstract to Susan Petrie, Senior Editor, at Susan.Petrie@Photonics.com, or use our online submission form www.photonics.com/submitfeature.aspx.

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