

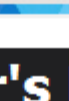
PHOTONICS spectra



Monthly newsletter from the editors of Photonics Spectra, with features, popular topics, new products, and what's coming in the next issue.

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PRISM AWARDS 2017

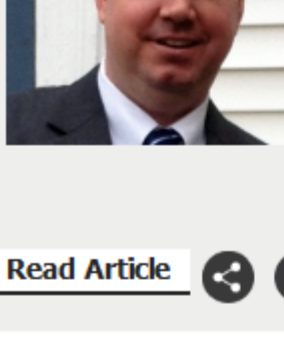


FINALISTS ANNOUNCED

Honoring the best new optics and photonics products

SEE THE WINNERS AT SPIE PHOTONICS WEST

From the Editor's Desk

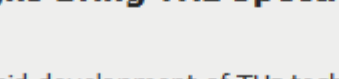


A Season for Disruption

MIKE WHEELER, MANAGING EDITOR

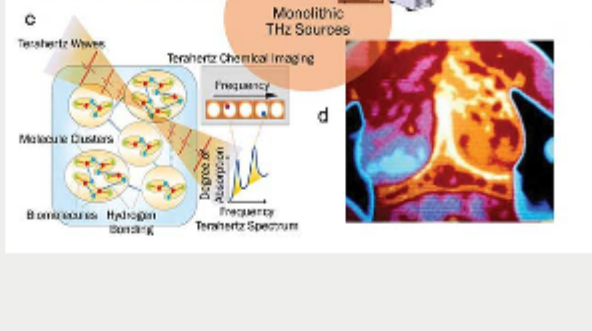
An Apple watch, a Samsung smartphone, an LG television, a virtual-reality headset. All are likely to make the short list of the most sought-after consumer electronics this holiday season. Soon these and other luxury consumer goods are likely to include OLED displays, prized for their crystal clear visual characteristics and compatibility with flexible and transparent materials.

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Breakthroughs Bring THz Spectroscopy, Sensing Closer to Mainstream

Thanks to the rapid development of THz technologies in recent decades, there has been exponential growth in companies, products and research. Advances in terahertz optical frequency comb operations have helped make possible single-mode THz emission in a wide spectral range at high powers.

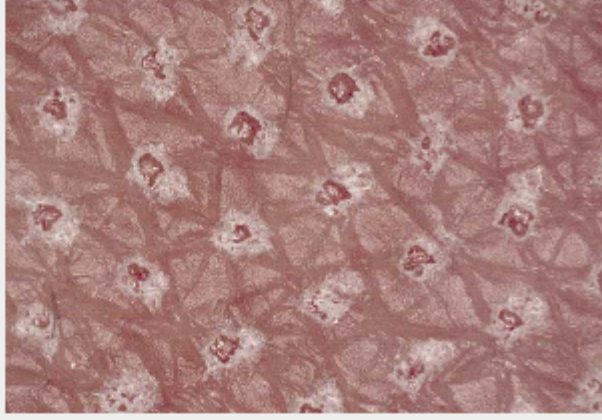


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Medical Lasers Cut and Heal

In medicine, lasers have traditionally been used for ablation, cutting and other processes that remove tissue. Now researchers and companies are looking into harnessing the power of light to stimulate a bioresponse, thereby triggering growth and an ushering in of an additive approach.



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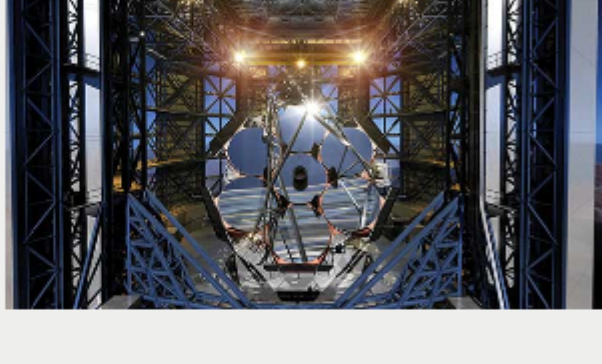
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In Case You Missed It

A High-Resolution View of the Universe

Adaptive optics on the Giant Magellan Telescope sense optical aberrations caused by atmospheric turbulence and correct them in real time using a deformable mirror.



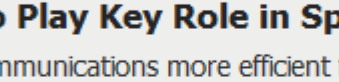
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Photoemission-Based Microelectronics Are Semiconductor-Free

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.

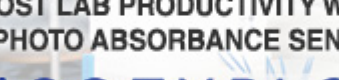
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Photonics to Play Key Role in Spaceflight Communications

Making space communications more efficient for both near-Earth and deep-space missions is a priority for NASA, and photonics may provide the solution. Laser communications could significantly improve data rates in all space regions, from low-Earth orbit to interplanetary.

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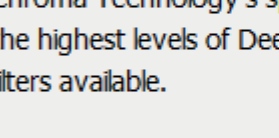
Featured Products



UV-enhanced Silicon Photodetector

Electro-Optics Technology Inc.
For time domain and frequency response measurements, Electro-Optics Technology (EOT) has released the new ET-2070 Silicon UV-enhanced Photodetector featuring a 3ns rise time and fall time and a large active area of 2.55mm.

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Sputtered Metal Deep-UV Interference Filters

Chroma Technology Corp.
Chroma Technology's sputtered metal UV interference filters offer the highest levels of Deep UV transmission of any UV metal coated filters available.

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PCS-100 Polyimide Coating Stripper

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Quick stripping – A razorblade is applied to the fiber with specific tension and the coating is precisely planed along the fiber automatically. The process requires less time than the conventional methods of acid or heat.

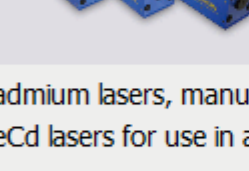
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USHIO Introduces New Analytical Tool, PICOEXPLORER™ Photo Absorption Sensor (PAS)

USHIO America Inc.
The USHIO PICOEXPLORER™ model PAS-110 handheld photo absorption sensor utilizes patent pending, Silicone Optical Technology™ (SOT), a unique new concept designed to suppress optical scattering and reduce scattering light noise.

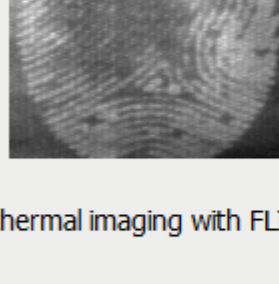
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Ultraviolet Helium Cadmium Lasers

Kimmon Koha USA Inc.
Kimmon Koha, the world leader in Helium Cadmium lasers, manufactures a full line of ultraviolet (325nm) HeCd lasers for use in a wide variety of applications.

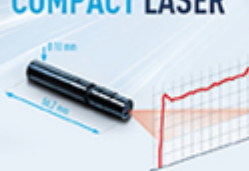
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Forensic Research Using FLIR Thermal Cameras

FLIR Systems Inc.
Researchers have been looking for an alternative method of detecting the presence of dilute concentrations of blood on fabric. They have found a solution in thermal imaging with FLIR thermal imaging cameras.

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3D Machine Vision Laser

Oselo Inc.
High performance, high reliability compact laser with superior beam shaping capabilities allows for easy integration for demanding industrial applications.

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High Speed Optical Tunable Filter

HBM FiberSensing SA, Optical Sensing
The FS02 – BraggMETER Optical Tunable Filter is an industrial component in test and integrating most of the optical filtering applications in ideal for measurement, telecommunications and fiber optic sensing.

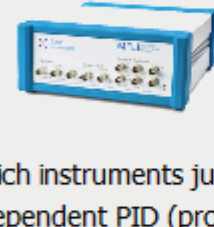
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Laurin Publishing Announces Poster Series

Photonics Media
Photonics Publishing Co., whose titles include Photonics Spectra and BioPhotonics magazines and the Photonics Buyers' Guide, announces the availability of two posters featuring art that takes a lighthearted look at the early days of the photonics industry.

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Quad-PID Feedback Loop with PLL Capability

Zurich Instruments AG
Zurich instruments just added the MF-PID option with 4 independent PID (proportional - integral - derivative) controllers to their MFLI, a 500 kHz / 5 MHz lock-in amplifier.

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Webinars

Silicon Photomultiplier: Theory and Applications

Wed, Jan 11, 2017 1:00 PM - 2:00 PM EST

Please join us for a FREE webinar presented by Hamamatsu Corporation. The goal of this webinar is for you to develop a strong theoretical understanding of how a silicon photomultiplier (SiPM) functions; become familiar with its key optoelectronic characteristics; and understand the pros and cons of SiPMs. The presenter, Slawomir S. Plakke, Ph.D., will also discuss realistic applications which use SiPMs. Hamamatsu Corporation is the North American subsidiary of Hamamatsu Photonics K.K. (Japan), a leading manufacturer of devices for the generation and measurement of IR, visible and UV light.

[Register Now](#)



LAM Technology, Opportunities and Challenges

Thu, Jan 12, 2017 1:00 PM - 2:00 PM EST

Laser Additive Manufacturing (LAM) is one of the breakthrough technologies facilitating the transition from traditional subtractive machining to 3D printing. This FREE webinar will provide you with a solid foundation in LAM and 3D printing, covering advantages, possibilities and challenges. Presenter Wayne Penn, applied physics consultant and former president of Alabama Laser Systems, will draw on over 40 years of experience to provide you with unique insight into LAM and its potential uses on the industrial production floor.

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Coming in January...

Features

Trends in Integrated Photonics; Data & Telecom, Life Sciences & Medicine, Aerospace & Defense, Quantum Communications

Issue Bonus

Highlighting the Prism Awards: The "Photonics Oscar"

Photonics Media is currently seeking technical feature articles on a variety of topics for publication in our magazine *Photonics Spectra*. Please submit an informal 100-word abstract to Managing Editor Mike Wheeler at mike.wheeler@photonics.com or use our online submission form www.photonics.com/submitfeature.aspx.

About Photonics Spectra



Since 1967, *Photonics Spectra* magazine has defined the science and industry of photonics, providing both technical and practical information for every aspect of the global industry and promoting an international dialogue among the engineers, scientists and end users who develop, commercialize and buy photonics products.

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