

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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**THE NARROWEST BANDWIDTHS
AND HIGHEST TRANSMISSION
IN THE INDUSTRY**

Spectroscopy for the Masses

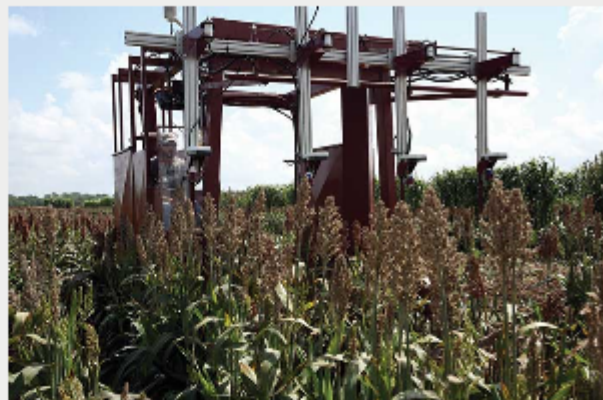
The availability of low-cost, compact spectrometers and sensors has driven developers to find numerous new usage models that may completely change our personal connection to fitness, health care and our homes. Advanced optical technology, along with creative programming, are birthing a whole new cadre of next-generation consumer devices that could create a billion dollar market by 2021.



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Optical Sensors Advancing Precision in Agricultural Production

Emerging methods for plant phenotyping involve optical sensors — from simple RGB image sensors to NIR and Raman spectroscopy. New sensor and imaging technologies are among the most important and exciting new tools that will be incorporated to see and respond to what has previously been intractable. Photonics will help researchers and farmers apply discoveries on the farm to more rapidly, cheaply and accurately manage crops.



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IoT Unlocks New Markets for Compact Optical Sensors

On a typical day, you may not even realize the plethora of smart technology permeating our homes, cars, offices, shops, hospitals and cities. The Internet of Things (IoT) is all around us, and this is just the beginning. IoT is primed to change our lives and businesses in ways we can't yet imagine. Technology companies from the biggest players to the smallest component makers are looking at ways to enhance their products and invest in the IoT trend.



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C-FLEX BEARING CO., INC.
FLEX PIVOT FRICTIONLESS BEARINGS

A flexure based bearing, utilizing internal flat crossed springs, capsuled in a cylindrical housing.

Photo courtesy of TRUMPF

ICALEO
36th INTERNATIONAL CONGRESS ON APPLICATIONS OF LASERS & ELECTRO-OPTICS

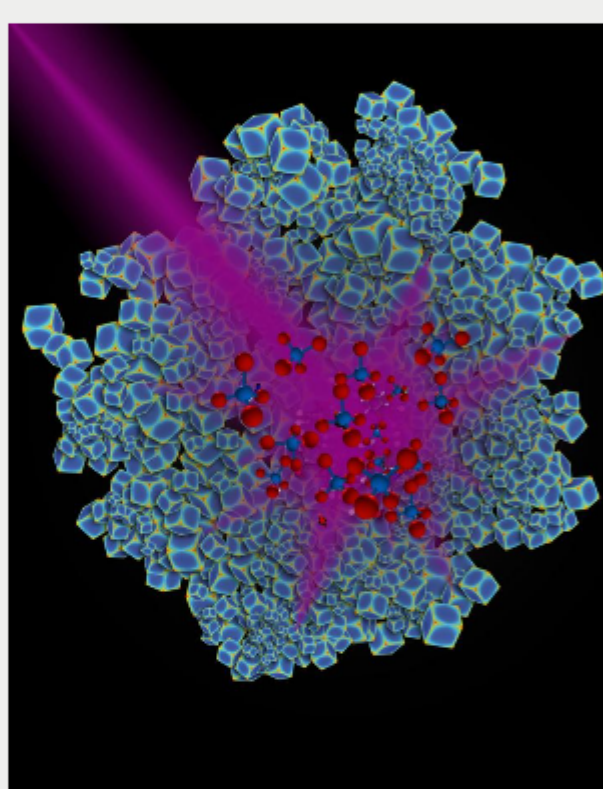
October 22-26, 2017
Sheraton® Atlanta Hotel
Atlanta, GA USA

The World's Premier Platform for Breakthrough Laser Solutions

In Case You Missed It

Light-Driven Nanoparticles Convert Carbon Dioxide to Fuel

Rhodium nanoparticles have demonstrated the ability to capture the energy in UV light and use it to selectively catalyze the conversion of carbon dioxide (CO₂) to methane. Such light-driven catalysis could be used to help reduce the level of CO₂ in the atmosphere and for industrial applications.



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A Breakthrough for Reference-Free Holography

Frosted glass can extract light intensity and phase information from a single image without a reference light.

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Luminar Enters Autonomous Vehicle Market With Breakthrough Lidar

Luminar Technologies Inc. has launched a new kind of lidar system designed to make autonomous vehicles safer and more scalable. With four strategic partners, two acquisitions and \$36 million in seed funding, the company will begin producing a 10,000-unit run this year out of their newly acquired 50,000 sq-ft manufacturing facility in Orlando.

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Featured Products

Pivot Bearings
C-Flex Bearing Co. Inc.

The C-Flex bearing or pivot is a cylindrical, limited rotational bearing, with a high relative radial and axial stiffness which is available in low, medium, or high torsional spring rates. It is typically available for maximum deflection angles of +/-30, but various configurations are supplied upon request.

[Visit Website](#) [Request Info](#)

AbsoluteLambda™ for C-WAVE, the Tunable Laser
HUBNER GmbH & Co. KG

HÜBNER Photonics announces a new feature of ultimate wavelength control, called AbsoluteLambda™, on its award winning C-WAVE cw tunable laser. AbsoluteLambda™ offers the opportunity for an automated selection of wavelength with high accuracy and a drift-free wavelength stabilization.

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Low-Cosmetic Defect IR Filters for Thermal Imaging
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.

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Alluxa Ultra Series Filters and Coatings
Alluxa

Alluxa Ultra Series Filters, including Narrowband, Dichroic, UV, IR, and Notch filters, provide the highest performance optical thin film solutions available today. For example, the Ultra Series Flat Top Narrowband filters offer the narrowest bandwidths and squarest filter profiles in the industry.

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The Aries Spectroradiometer
Gooch & Housego Orlando

We are proud to introduce our next generation spectroradiometer, the Aries. Based on the proven design and performance of the OL 770, the Aries offers an array of enhanced capabilities, including WiFi and Ethernet connectivity for easy integration into production environments.

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Stack Design Meets Current Mode
InfraTec GmbH, Infrarotsensorik und Messtechnik

The LRM-284 is the latest pyroelectric detector from InfraTec in TO39 housing. It extends the family of miniaturized multichannel detectors. Equipped with two double-operators amplifiers it combines the advantages of the innovative stack design with current mode.

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Coming in July...

Features

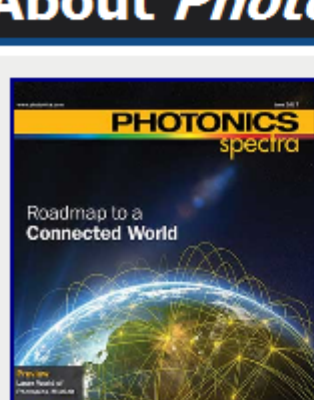
Optical Fabrication; Semiconductor Lasers; Confocal Microscopy; Test & Measurement; Advances in Liquid Crystal Displays

Issue Bonus

Ad Action Issue: Annual Brand Survey and Report for Advertisers

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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