

This Week In PHOTONICS

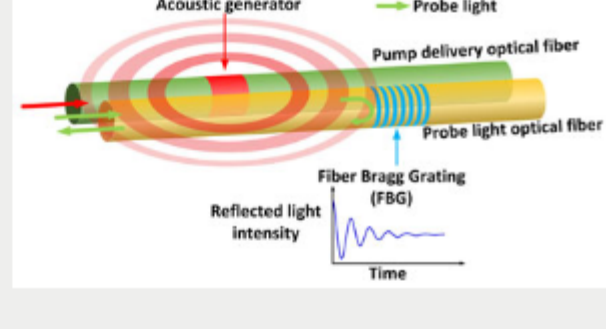
PHOTONICS MEDIA



Top Stories

Fiber-Optics-Based Sensing System Monitors Structural Health Under Severe Conditions

An all-fiber-optics-based system for monitoring structure health shows promise as a reliable means to oversee structural soundness under extreme conditions. Active ultrasonic nondestructive evaluation (NDE), currently a widely used technique in structural health monitoring, has traditionally employed piezoelectric transducers (PZTs), which can be of limited use in corrosive environments or under extremely high temperatures.



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Heliatek Raises €80M to Expand Manufacturing

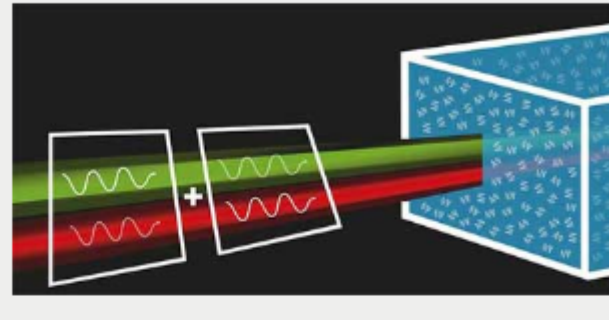
Organic photovoltaic and solar film developer Heliatek GmbH has raised €80 million (\$88 million) to finance the expansion of its HelaFilm manufacturing capacity. This financing round comprises €42 million (\$46.8 million) in equity, €20 million (\$22.3 million) in debt and about €18 million (\$20 million) in subsidies.



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Quantum Approach Measures Optical Molecular Activity With Precision

Quantum optical rotatory dispersion, a technique that uses quantum methods to differentiate and measure molecules when light passes through chiral media, could offer a precise way to measure intricate molecular properties, even when low light or a low concentration of the molecule is used.



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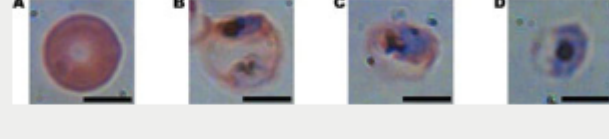
Custom, Flat-Surfaced Parallel & Wedged Optics

Wafers, Windows, Optical Flats and Glass Substrates [\(click to learn more\)](#)



Holographic Imaging Technique Diagnoses Malaria Automatically, Accurately

A quantitative phase spectroscopy (QPS) system that incorporates digital holography has been used to spot malaria-infected cells from a simple, untouched blood sample without any help from a human. The technique employs machine learning algorithms and has been shown accurate in detecting malaria infection 97 to 100 percent of the time. The research could form the basis of a fast, reliable test for malaria that could be given by most anyone, anywhere in the field.



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Novel Pathway to Light Suppresses Kasha's Rule

A discovery about how some molecules produce light, in apparent contradiction of Kasha's Rule, could have several applications, from industrial to biomedical. To explore the origin of aggregation-induced emission, researchers from the University of Vermont and Dartmouth College assessed the emission properties of a series of BF₂-hydrazone-based dyes as a function of solvent viscosity. They found these molecules to be highly efficient fluorescent molecular rotors.



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Featured Products

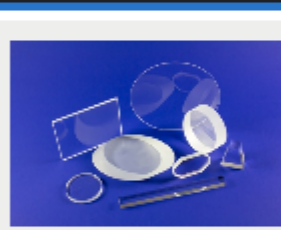


5400 TECSource Temperature Controller

Arroyo Instruments LLC

The new 5400 TECSource pushes temperature control power to new levels, with up to 960 Watts of power available for your most demanding thermal applications.

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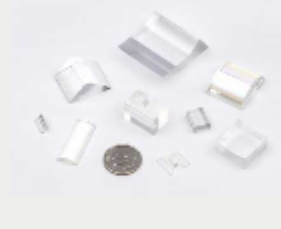


Thin-Film Coatings

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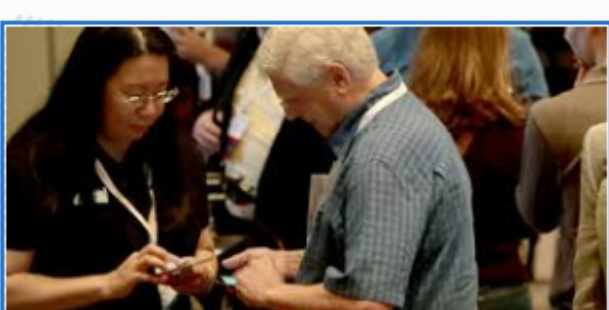
OSA Frontiers in Optics: The 100th OSA Annual Meeting and Exhibit/Laser Science XXXII 2016

October 17-21, 2016 - Rochester Riverside Convention Center - Rochester United States

Photonics Media Booth: 102

Frontiers in Optics 2016—the 100th OSA Annual Meeting—encompasses the breadth of optical science and engineering and provides an atmosphere that fosters the exchange of information between those working on fundamental research and those looking for solutions to engineering problems. Special symposia and other major events further highlight major advances in many selected areas. With over 1,000 presentations and more than 60 participating companies and industry leaders, this will be one of the year's most comprehensive conferences in optics and photonics. Photo courtesy of OSA, the Optical Society of America.

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Webinars

Choosing the Right LED for Medical Diagnostics and Bioanalytical Systems

Wed, Oct 19, 2016 1:00 PM - 2:00 PM EDT

With recent advancements in LED technology, OEMs are presented with new possibilities through a growing number of light source options. There are key factors to consider when determining which light source is best suited for your application, including: wavelength; uniformity; and economy of platforms; which light management; light delivery; power budget; and economy of space. Which light source will provide reliable and repeatable results? How can these factors expedite path to market and ensure success? In this webinar, Dr. Kavita Aswani and Dr. Tom Papanek will discuss these factors in detail and their impact on biomedical or diagnostic design, engineering and integration. Dr. Kavita Aswani is the Senior Applications Scientist for the Life Sciences products at Excelitas Technologies. Dr. Tom Papanek is Director of Global Product Development for Excelitas Technologies, Solid State Lighting.



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