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Introducing the UltraBright Spectrometer

No slit, just a giant aperture and a huge field of view. Boom. Spectrum. Done.

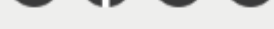
Top Stories

Ultrashort-Pulse Laser Could Solve Dilemma of Nuclear Waste Disposal

Researchers in Lithuania have developed an ultrashort-pulse laser that could eradicate nuclear waste and decrease the decay period from tens of thousands of years to seconds, hours, or months, depending on the material, they said. The Single Cycle Femtosecond high-intensity laser system (SYLOS) is a high-intensity, ultrashort-pulse laser that has the potential to solve the nuclear waste management problem.

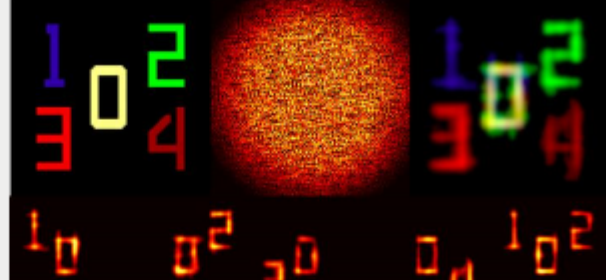


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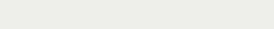


New Technique Retrieves Color Images from Scattered Light

Engineers at Duke University have developed a method for extracting a color image from a single exposure of light scattered through a mostly opaque material. The new approach overcomes the limitations of conventional optical memory effect techniques in the realm of color, by using spectral coding and compressed sensing to achieve snapshot color imaging through scattering media.

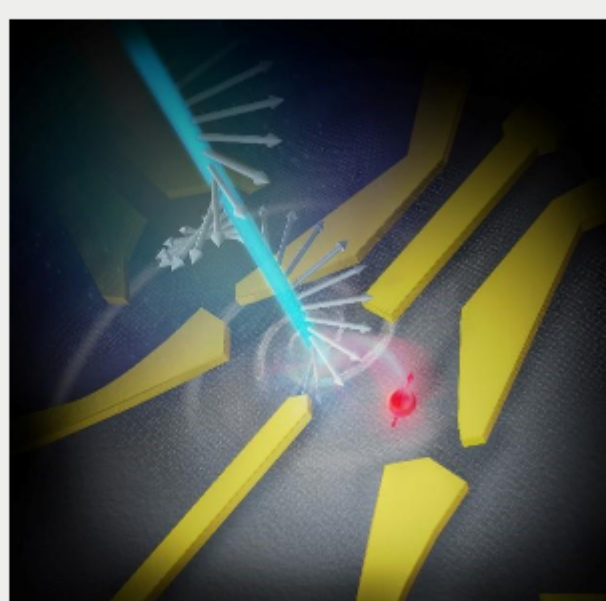


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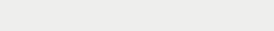


Sending Quantum Information Securely from Laser Light to a Quantum Dot

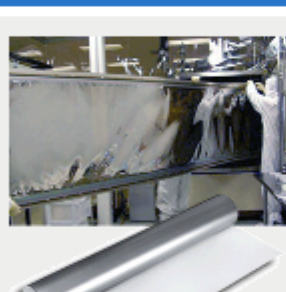
Scientists from Osaka University have demonstrated how information encoded in the circular polarization of a laser beam can be translated into the spin state of an electron in a quantum dot (QD). They used laser light to send quantum information to a QD by altering the spin state of a single electron trapped on the QD.



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Featured Products



Flexible Sputtered Coatings

Deposition Sciences Inc. (DSI)

Roll-to-roll processes present a number of challenges when coating flexible surfaces, including unbalanced stress on each side of the substrate and limited line speed. These limitations affect the thickness and possibility of complex coatings. To address these challenges, DSI developed their batch coating technology, MicroDyn®. This unique process utilizes a proprietary magnetron sputtering chamber that was custom designed to address the challenges of high throughput coating.

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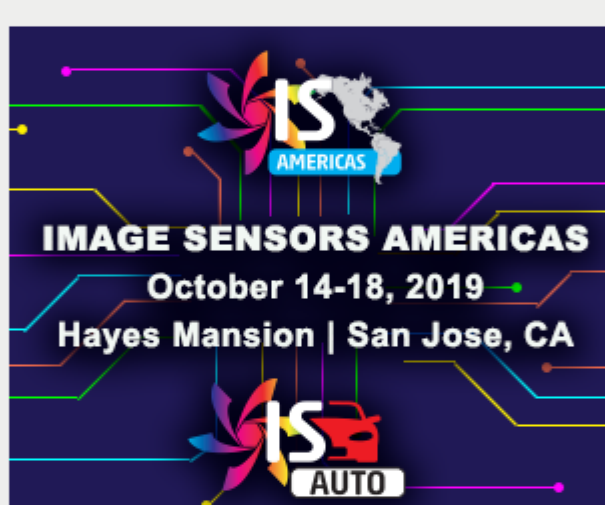


Canon Surface Reflectance Analyzer

Canon U.S.A. Inc., Industrial Products Div.

Canon RA-532H, Surface Reflectance Analyzer (goniophotometer), is a compact, portable device capable of measuring 4 surface appearance conditions in a single pass: Gloss, Haze, Image Clarity (IC), and BRDF (Bidirectional Reflectance Distribution Function). Additionally, Canon has released its own new parameter, "Scattering" parameter, overcoming the shortage of both IC and DOI (Distinctiveness of Image) when evaluating matte and textured surfaces as well as orange peel surface.

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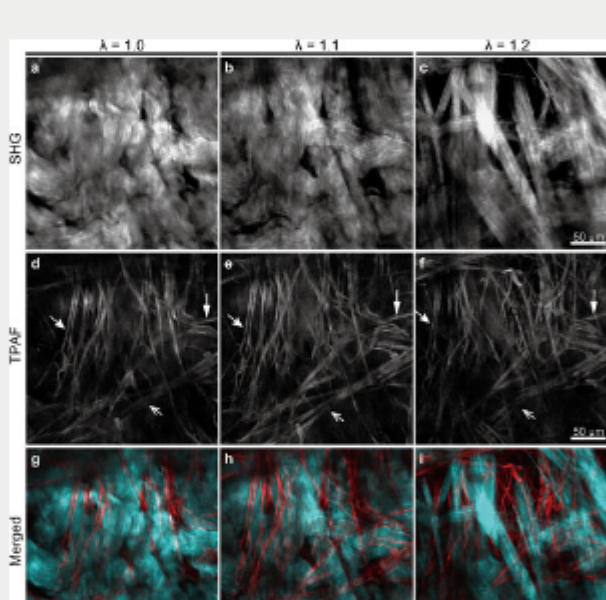
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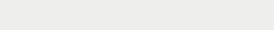
More News

Multiphoton Microscopy Uncovers the Architecture of Collagen and Elastic Fibers

Using multiphoton microscopy (MPM), researchers at Kyoto University showed that the collagen fibers in the skin are arranged in a mesh-like lattice and not in a clear geometric orientation as previously thought. They further found that the connective tissue in the skin, known as elastic fibers, is arranged in the same way as the collagen.

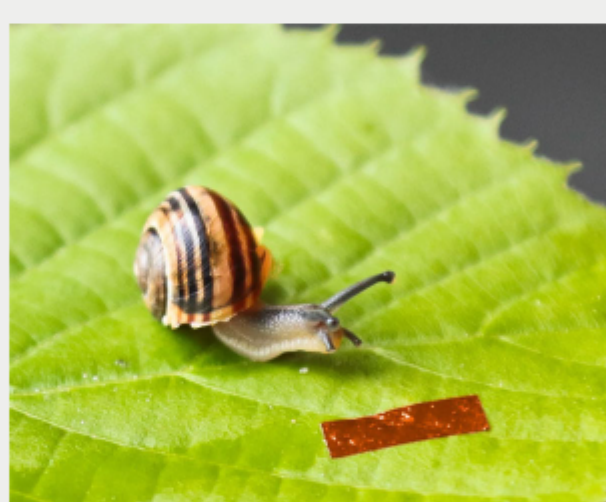


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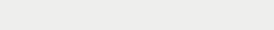


Natural-Scale Snail Robot Is Powered by Light

A soft snail robot, developed by a team at the University of Warsaw with colleagues from Xi'an Jiaotong-Liverpool University, is capable of mimicking the adhesive locomotion of snails and slugs on a natural scale. The bioinspired robot is made from liquid crystalline elastomer (LCE), a smart material that can change its shape under different stimuli, including illumination with visible light.



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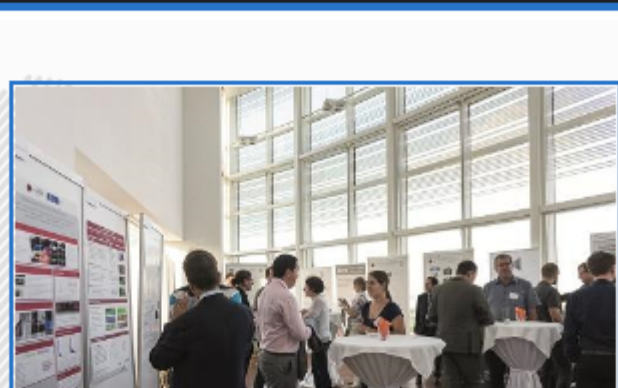
[Argonne's Advanced Photon Source Gets Green Light for Upgrades](#) [Read Article](#)

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Industry Events

European Machine Vision Forum 2019

September 5-6, 2019 - Palais de la Bourse - Lyon France
The European Machine Vision Forum, an annual event of the European Machine Vision Association (EMVA), aims to foster interaction between the machine vision industry and academic research. The overall goal of the forum is to accelerate innovation by facilitating the translation of new research results into practice. The forum offers conference-style presentations and a table-top exhibition that is directed to scientists, development engineers, software and hardware engineers, and programmers from both research and industry.



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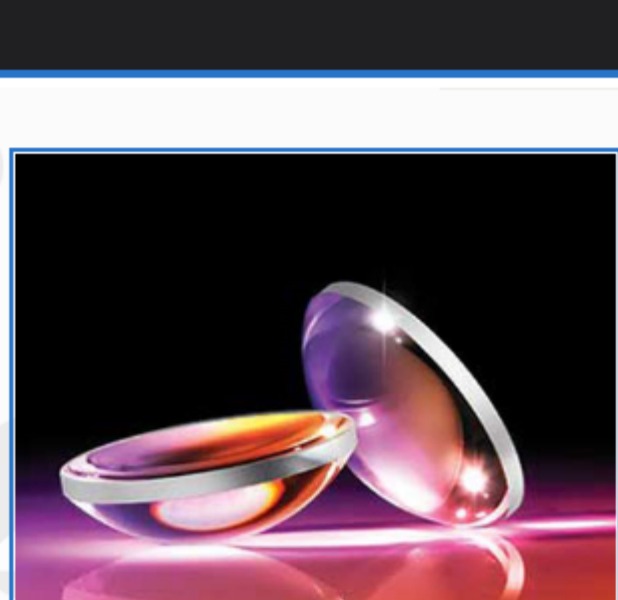
Webinars

High-End Asphere Design for Manufacturability

Wed, Aug 28, 2019 1:00 PM - 2:00 PM EDT

In this webinar, Edmund Optics asphere experts will discuss the benefits of using aspheres in optical system design and the factors to take into account during the design process. You will learn how to improve manufacturability, performance, and cost through better asphere design. This webinar is sponsored by Zygo Corp., Edmund Optics, FISBA, and Lambda Research Corp.

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