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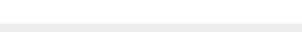
Top Stories

Laser Surgery Opens Blood-Brain Barrier to Chemotherapy

A laser probe has been used to open the brain's protective cover, enabling delivery of chemotherapy drugs to patients with glioblastoma — the most common and aggressive form of brain cancer. In a pilot study conducted by the Washington University School of Medicine in St. Louis, Mo., 14 patients with glioblastoma underwent minimally invasive laser surgery to treat a recurrence of their tumors. Heat from the laser was already known to kill brain tumor cells but, unexpectedly, the researchers found that the technology penetrated the blood-brain barrier.



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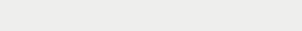


Material Controls Excitons at Room Temperature

A material that can control excitons — bound pairs of electrons and electron holes — at room temperature could enable optoelectronic devices for commercial applications. Excitons are created when a laser is shone onto a semiconductor device. They can transport energy without transporting net electric charge. Inside the device, excitons interact with each other and their surroundings, and then convert back into light that can be detected by sensitive CCD cameras.

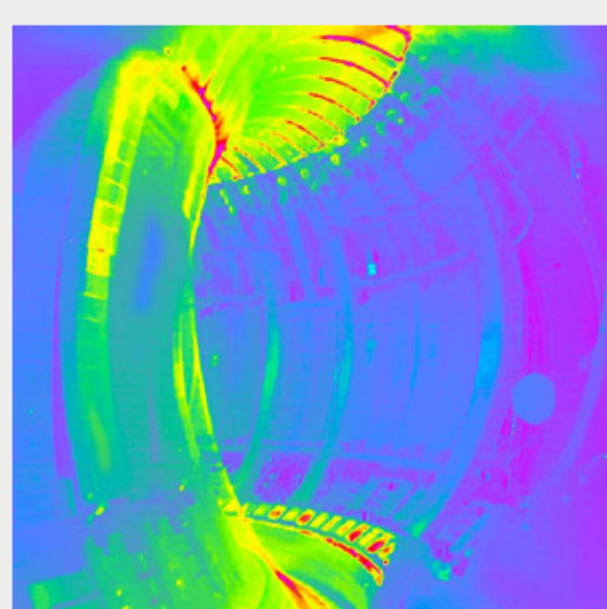


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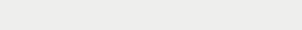


Optical Surfaces to Fill Order for Joint European Torus Project

Optical component and system manufacturer Optical Surfaces Ltd. has announced an order from the Culham Centre for Fusion Energy (CCFE), the U.K.'s national fusion research laboratory, to manufacture relay imaging reflective optics for two of its critical viewing diagnostic assemblies. The order will be used for the Joint European Torus (JET), the world's largest operational magnetic confinement plasma physics experiment at CCFE, when operating with a deuterium-tritium fuel mixture.



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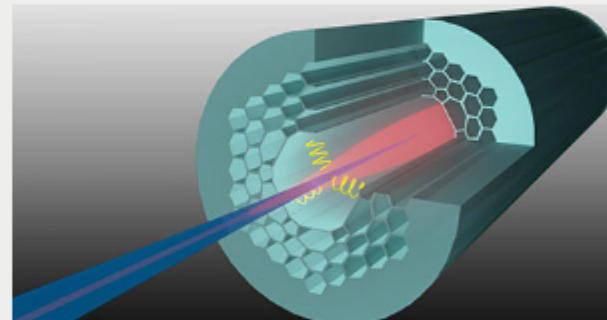
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Optical Fibers 'Nanospikes' Effectively Trap, Focus Laser Light

Using laser light to manipulate a glass optical fiber tapered to a sharp point smaller than a speck of dust, in the middle of an optical fiber with a hollow core, has been demonstrated. Optical forces cause the sharp point, or "nanospike," to self-align at the center of the hollow core, trapping it more and more strongly at the core center as the laser power increases. The new work could add to the number of applications for hollow-core fibers, a new class of fiber that features a hollow core rather than one made of glass like traditional optical fibers.



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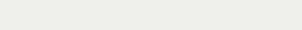


Precision Glass & Optics Components Used for Avotec MRI Device

Glass, optics and coating provider Precision Glass & Optics (PG&O) has announced the customization of two thin-film optical components for Avotec Inc.'s Real Eye Nano high-field magnetic resonance imaging (MRI) accessory. The dielectric cold mirror and cylindrical prism mirror were developed for the Real Eye Nano. The system allows an MRI patient to view a unique visual demonstration concurrently while the patient's eyes are illuminated with NIR light supplied by an IR LED, fused fiber cable or fiber bundle.



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Featured Video

OSA Centennial – Audrey Ellerby Bowden, Stanford University

The Optical Society members share their reflections on 100 years of optics innovation, what inspired their interest in the field and how OSA has impacted their career.

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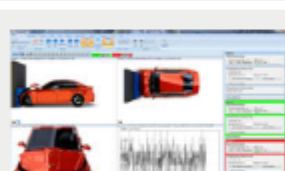
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Featured Products



Streampix 6 DVR Software

NorPix, Inc.

Streampix 6 is a multiple camera capture software that supports over 200 different brands of scientific and machine vision cameras including GigE Vision, USB3, and Camera Link.

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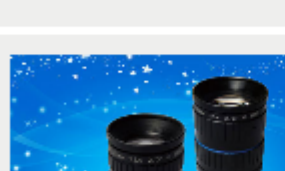
Automatic Goniometer GONIOMAT A5

Moeller-Wedel Optical

Objective, precise and reliable prism angle measurement with the GONIOMAT A5.

MÖLLER- WEDEL OPTICAL GmbH, a leading company in high precision angle metrology, offers a simple to use automatic goniometer.

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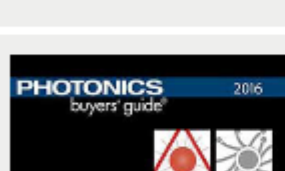


ITS Lens/Starlight Lenses

FOCtek Photonics

FOCtek has developed a series of new products -- ITS/Starlight Lenses which are used for matching 2/3", 1", 4/3" CCD and CMOS in intelligent transportation systems.

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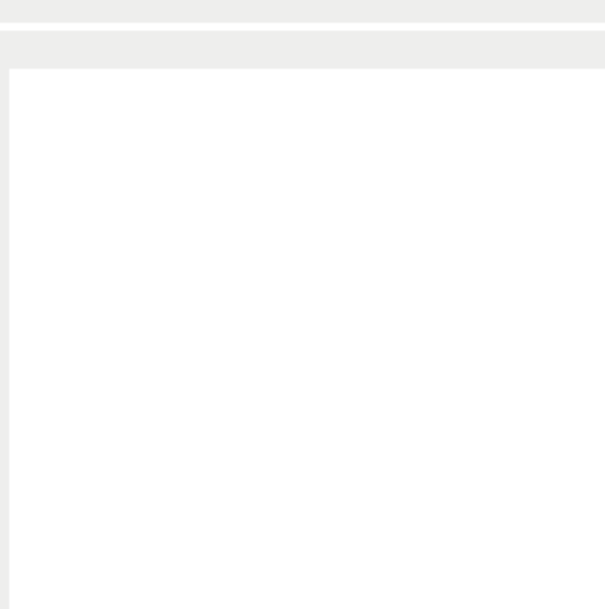
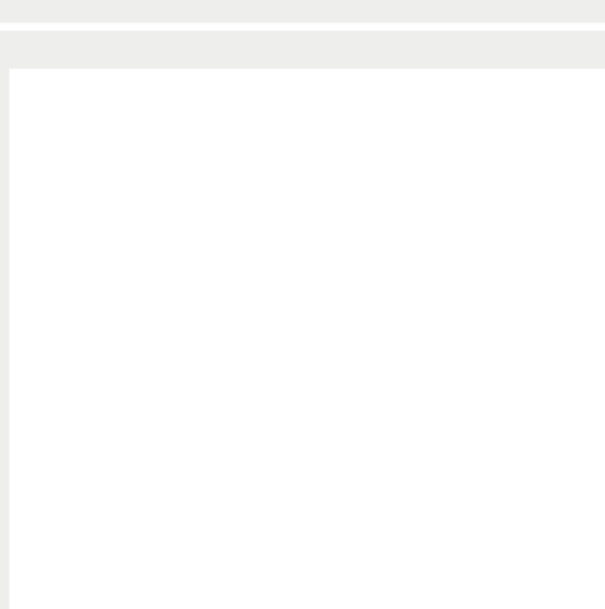
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Photonics Media

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March 30-April 3, Boston

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