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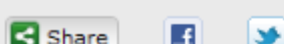
Thursday, October 23, 2014

Magnetic Mirror Reflects Light in New Ways



A new magnetic mirror uses non-metallic metamaterial properties to reflect IR light. Scientists at Sandia National Laboratories developed the magnetic mirror by placing nanoscale antennas at or very near the mirror's surface, thereby allowing the researchers to harness IR radiation.

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Edmund Optics Announces Education Awards

With innovations ranging from fluorescence-guided cancer surgery to water quality assessment, nine graduate and undergraduate optics programs are the recipients of Edmund Optics' 2014 Education Awards.

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Carbon Nanotube-Based Lights More Efficient than LEDs

A new carbon nanotube-based light source touts power consumption that is about a hundred times lower than that of an LED.

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Fiber Optic Switches

JGR Optics
JGR Optics' SX4 fiber optic switches are benchtop instruments ideal for manufacturing production testing. A single common input connects with multiple output channels.

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Centrifuges for Continuous Filtration

Sanborn Technologies
Sanborn Technologies manufactures centrifuge systems for filtering and recycling grinding coolants used in optical processes. Complete systems including tanks, pumps and chillers are available.

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Mini and Micro Lens Elements

Argyle International
Argyle International has added a new series of miniature and micro lens elements to its diverse line of custom optics. Lens designs range from single and double convex, single and double concave, meniscus and more.

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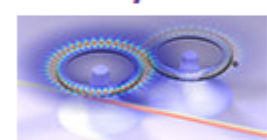
Time-Resolved Filter Fluorometer

Optical Building Blocks
Optical Building Blocks (OBB) announces the introduction of the EasyLife-X fluorescence lifetime system. The EasyLife-X is the simplest, smallest and least expensive fluorescence lifetime system commercially available.

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Intensity Increases With Loss in Microlaser



Increasing energy loss in a laser system could actually enhance its energy, performance and efficiency.

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Photon Emission Rate Enhanced in Fluorescent Molecules

Fluorescent molecules can be made to emit photons more quickly by sandwiching them between metal nanocubes and a gold film.

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Rare-Earth Substitute Found for LEDs

An abundant copper compound could replace rare-earth metals in household LEDs, making them more environmentally friendly.

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In this edition of the industry's **premier weekly newscast**: A new imaging technology could help fight HIV, energy loss enhances optical system performance, magnetic nanoparticles could aid bioimaging, and a group of innovators will receive Edmund Optics' 2014 Education Awards.

Orbital Imager to Track Lightning for Early Warning System

A satellite imager planned for launch in 2016 will detect lightning flashes across the U.S. to provide early warnings for severe weather.

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Wang Named 2015 Britton Chance Award Winner



Lihong Wang, an innovator in photoacoustic imaging, has been chosen to receive the 2015 Britton Chance Biomedical Optics Award.

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Laser Scanner Captures 3-D Info in Real Time

A 3-D laser scanner based on the human eye can focus on key sections of an image, capturing it with correspondingly higher resolution.

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WHITE PAPER



Spatial Light Interference Microscopy

Andor Technology plc, Corporate Headquarters

Spatial light interference microscopy (SLIM) is a highly sensitive quantitative phase imaging method, which is capable of unprecedented structure studies in biology and beyond. SLIM combines two classical ideas in optics and microscopy: Zernike's phase contrast method, by revealing the intrinsic contrast of transparent samples, and Gabor's holography, by quantitatively retrieving the phase information. SLIM provides the spatial uniformity associated with white light methods and the stability associated with common path interferometry. In addition, due to the short coherence length of the illumination, SLIM also provides excellent optical sectioning, enabling three dimensional tomography.

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WEBINAR



Man-Machine Collaboration: Safety Sensors

Thursday, October 30, 2014 1:00 PM - 2:00 PM EDT

FREE WEBINAR



Frank Bertini

The Man-Machine Collaboration: Safety Sensors webinar will focus on the new technologies enabling this shift. Machine vision, sensors, safety scanners and safety light curtains are just a few of the enabling technologies that are being deployed in man-machine collaborative manufacturing projects. As this trend develops, new and innovative solutions will emerge such as 3-D bubble safety and faster machine-learning algorithms. This webinar will explore some of the business opportunities within this space, as well as discuss the remaining technological hurdles that must be overcome.



Industry Events

Vision 2014 - Nov. 4-6, 2014 · Stuttgart, Germany



The Vision 2014 machine vision trade fair offers a look at the latest developments and applications in machine vision, as well as advances in traditional processes.

Targeting OEMs and mechanical engineering companies, the event will feature the latest innovations from the world of machine vision components. It also provides end users with information for specific machine vision solutions and the opportunity to meet numerous system integrators.

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FEATURED VIDEO



Rick Sebastian
Product Manager

Newport Corporation - OpticsCage+

OpticsCage+™ utilizes an easy-to-use snap in design to expedite the creation of optical systems. Most cage systems only use a closed-hole captive design for adapting optic carriers to the 4-rod cage structure. This restriction requires a nearly complete teardown of a cage system to simply add or remove a component. The open-slot design of OpticsCage+ allows optical elements to be inserted directly into an assembled cage without the need for disassembly.

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