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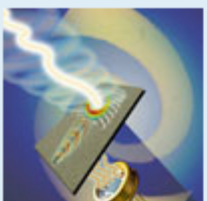
THE PULSE OF THE INDUSTRY

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Photodetector IDs Individual Vortex Beams



A new device that simply adds a metallic pattern to the window of a commercially available, low-cost photodetector could contribute to a major speed increase in optical communications through its ability to distinguish between various types of vortex beams. "Sophisticated optical detectors for vortex beams have been developed before, but they have always been complex, expensive and bulky," said principal investigator Federico Capasso of Harvard University. In contrast, the new device adds a pattern to the photodetector that couples with a particular type of incoming vortex beam by matching its orbital angular momentum.

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Fireflies Mimicked for Brighter LEDs

The twinkling of fireflies inspired an international team to replicate the structure on the bioluminescent insects' abdomens and apply it to a coating to increase LED efficiency. Their method increased LED light extraction by up to 55 percent.

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nLight Acquires Fiber Laser Maker Arbor Photonics

nLight said the investment in Michigan-based Arbor Photonics' technology will enable state-of-the-art high-power fiber lasers for new material processing, defense, and medical applications.

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Photonics Pioneer Tingye Li Dies

During his 41-year career at AT&T, Dr. Li collaborated in developing crucial early understanding of laser cavities and made pioneering contributions to laser-based communication through optical fibers.

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In this edition of the industry's premier weekly newscast: fireflies inspire brighter LEDs, lasers tune common nanoparticles to near-IR wavelengths, we talk with Prism Award finalist Linden Photonics, and a fiber laser pioneer gets knighted as we say goodbye to another visionary in the field. Hosted by Photonics Media's Melinda Rose and Laura Marshall.

For Highly Efficient Organic PV Cells, Size Matters

Working at Lawrence Berkeley National Laboratory's Advanced Light Source to simultaneously measure the domain size, composition and crystallinity of an organic solar cell for the first time, an international team found that for highly efficient polymer/organic PV cells, size matters.

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Queen Knights Fiber Laser Pioneer

University of Southampton professor David N. Payne, the man behind the technology we use every day when we surf the Internet, make mobile phone calls or draw money from an ATM, now has another feather added to his cap: He has been knighted by Queen Elizabeth for services to photonics.

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Aegis Lightwave, Photop Technologies Brands Merge

II-VI Inc. subsidiaries Aegis Lightwave and Photop Technologies have merged under the Photop brand. Massachusetts-based Aegis Lightwave will now operate as Photop Aegis Inc. Its subsidiary in Australia, AOFR Pty Ltd., has been renamed Photop AOFR Pty Ltd.

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Thorlabs Extends Mid-IR Capabilities with iGuide Purchase

Thorlabs said the acquisition of the iGuide optical fiber products segment of Montreal-based IRphotonics adds mid-IR fiber capabilities to its portfolio.

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Industry Events

Automate 2013 - January 21 - 24, 2013 · Chicago, IL

Visit us at booth 127



Automate – formerly the International Robots, Vision & Motion Control Show – is the largest solutions-based showcase of automation technologies in North America. The biennial event demonstrates the latest robotics, vision, motion control and automation technologies and solutions for a broad array of industries. The 2013 event features four full days of classes taught by experienced industry professionals, Certified Vision Professional (CVP) basic and advanced certification opportunities, and keynote presentations on the impact of robotics on economic growth and navigating the new political climate for business growth and success.

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Photonics West 2013 - February 2 - 7, 2013 · San Francisco, CA

Visit us at BIOS Booth 8600 and Photonics West Booths 600 & 601



Photonics West 2013, to be held at the Moscone Center, will feature more than 4450 technical presentations, 18 plenary talks, 40 technical events and 70 continuing education accreditation short courses. The technical conferences - up about 5 percent over last year - are organized around four symposia: BIOS (Biomedical Optics), LASE (Lasers and Applications in Science and Engineering), OPTO (Integrated Optoelectronic Devices) and MOEMS-MEMS (Micro- and Nanofabrication). A virtual symposium on Green Photonics also will be held. The trade show and conference kicks off with BIOS, where the latest optical and photonic technologies used in diagnostics, therapeutics, and imaging are presented and discussed.

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Live demo - JEOL InTouchScope - with Dave Edwards at SPIE/Scanning-Defense 2012

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