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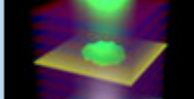
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Quantum Phenomenon Shown with Plastic Film
Instead of the usual ultrapure crystals, a plastic film similar to the material used in light-emitting smartphone displays has been used to demonstrate a complex quantum mechanical phenomenon. The first-time demonstration of a Bose-Einstein condensation (BEC) at room temperature using a luminescent polymer, achieved by scientists at IBM Research, has potential applications in the development of novel optoelectronic devices, such as energy-efficient lasers and ultrafast optical switches. Such components are critical for powering the future computer systems needed to process massive Big Data workloads, and using the polymer material would be less costly and easier to apply.

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FEATURED VIDEO



Edmund Optics - TECHSPEC Cage System
Katie Walker, a Product Line Engineer at Edmund Optics, showcases Edmund Optics' Optical Cage System and how it can be used to build a digital video fluorescence microscope. The Optical Cage System is a collection of optomechanical components that can be used to easily construct complicated optical systems.

Nano-FTIR Offers Versatility in Protein Studies
A new technique called Fourier transform infrared nanospectroscopy (nano-FTIR) overcomes the diffraction limits of mid-infrared spectroscopy for label-free chemical and structural imaging of protein structures with high resolution (less than 30 nm) and extreme sensitivity.

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First Horizon 2020 Photonics Projects Open
The European Commission presented its first calls for projects under the Horizon 2020 program, the European Union's seven-year, €80 billion research and innovation program. Those calls include €47 million specifically earmarked for photonics-related proposals.

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Mobile Laser Takes On Mortars, UAVs
Boeing's vehicle-mounted 10-kW class laser engaged more than 90 mortar rounds and several unmanned aerial vehicles (UAVs) in flight in tests in November and December, the US Army said.

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Laser Helmet for Thinning Hair Launches in U.S.
The first clinical-level laser hair restoration product – the Theradome Laser Helmet LH80 PRO – is now available for in-home treatment of thinning hair and male pattern baldness, maker Theradome said this week.

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Georgia State Creates Nano-Optics Center
Georgia State University created a research center to focus on developing nanotechnology tools and instruments, The Center for Nano-Optics.

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Optogenetics Moves Closer to Primate Brains
The most definitive demonstration yet that optogenetics can be safe and effective in brains larger and more complex than those of rodents could incorporate the use of light pulses to genetically alter brain cells in primates.

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VDMA Photonics Forms Steering Committee
The German Engineering Association (VDMA) Photonics Forum appointed high-ranking representatives from various sectors to a new, industry-led steering committee.


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Bandgap Boosts Solar Cell Efficiency with Nanowires
The average efficiency of standard commercial solar cells has been increased by 0.4 percent, just by replacing the standard surface texture with nanowire technology, Bandgap Engineering Inc. said.

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Industry Events

SPIE Photonics West 2014 - February 1 - 6, 2014 - San Francisco, CA




Participate at the SPIE Photonics West 2014 conference (20,000 attendees, two exhibitions, 1300 exhibiting companies, 4500+ papers) for biophotonics, biomedical optics, translational research, industrial lasers, optoelectronics, microfabrication, optical MEMS, and more.

In 2013, the exhibition sold out with more than 1234 companies. This year's exhibition will include five days of presentations, courses, and special events that offer opportunities for face-to-face interaction with potential customers.

The Job Fair will be held in conjunction with the SPIE Photonics West Exhibition. An 'Exhibit-Only' badge or any other type of Photonics West badge is needed to enter the exhibit hall. Upload your CV or resume in advance to be found by employers. In-person attendance is not required to upload your resume.

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