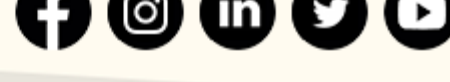


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Top Stories

Camera Design Mimics One of Nature's Most Sophisticated Visual Systems

The bio-inspired design of an ultrasensitive camera that is capable of sensing both color and polarization is based on the visual system of the mantis shrimp. The camera features a single-chip, low-power, high-resolution color-polarization imaging system. The imager captures co-registered color and polarization information in real time with high resolution by monolithically integrating nanowire polarization filters with vertically stacked photodetectors.



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Single Photon Reveals Quantum Entanglement of 16 Million Atoms

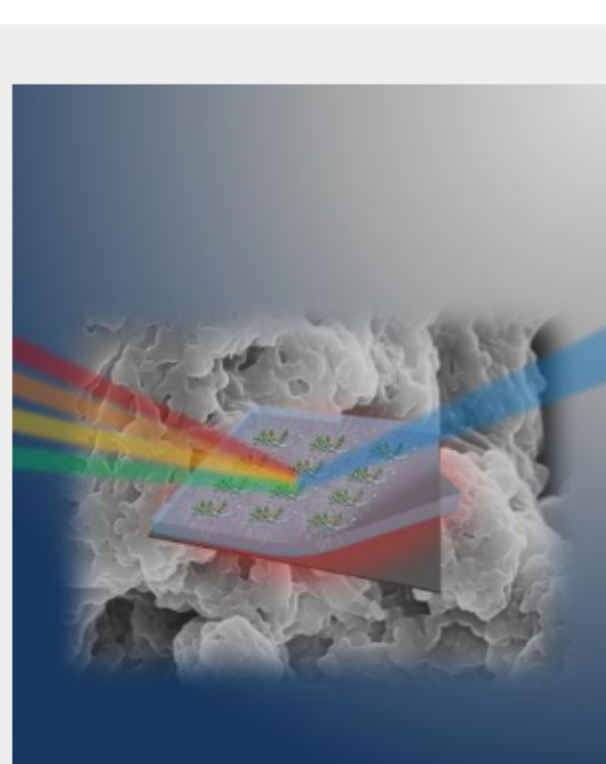
Scientists have demonstrated entanglement between 16 million atoms in a crystal crossed by a single photon, reinforcing the quantum theory that entanglement can persist in macroscopic physical systems. The scientists followed two basic steps: the preparation of an entangled system and the subsequent appropriate measurement verifying the presence of entanglement.



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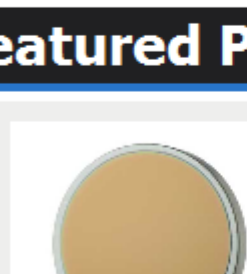
Scientists Fine-Tune Process for Making Thin Films from DNA

To further investigate the optical properties of a DNA-based lipid complex that is widely used in current DNA thin-film research, researchers developed a refinement process to minimize the relative bound water content and control binding of the surfactant onto the DNA backbone. Organic thin films made from DNA, fine-tuned to provide control over the material's optical and thermal properties, could be used in biomedical and other photonic devices.



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Featured Products



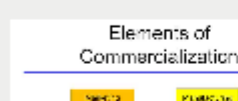
Infrared Narrow Bandpass Filters

Deposition Sciences Inc. (DSI)

DSI manufactures custom high performance narrow bandpass filters for use throughout the MWIR and LWIR spectral regions. The coatings are produced by sputtering or evaporation on either customer- or DSI-supplied substrates. Applications include industrial gas detection, medical monitoring, and atmospheric sensing.

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A new, 12-lecture course from successful scientist-turned-businessman David Krohn will show you how to identify market opportunities and develop a roadmap for successful commercialization. Commercialization of Innovative Technology through Entrepreneurship – CITE – demonstrates how to move advanced technology into successful commercial products.

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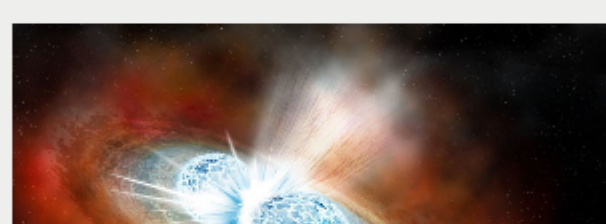
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Optical Systems Capture First Light From Colliding Neutron Stars

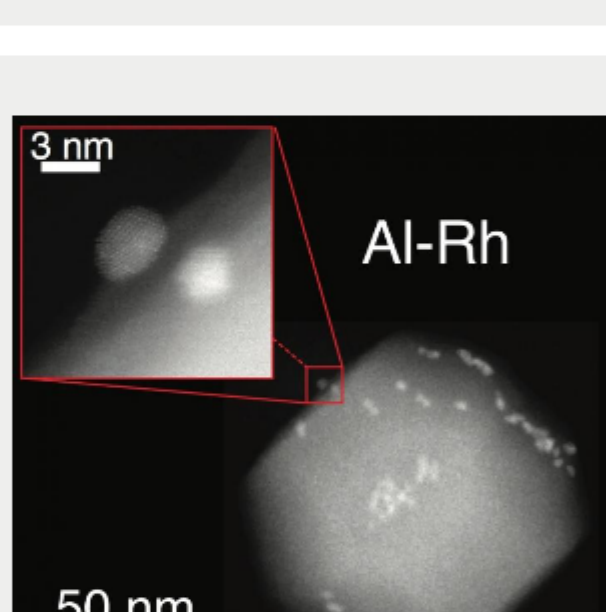
Scientists from the international LIGO and Virgo Scientific Collaborations have announced the detection of the bright spark of two neutron stars colliding. This event has been dubbed GW170817 because it sent ripples through space-time that reached Earth on August 17, 2017. GW170817 lasted more than a minute and a half and is the first ever detection of light from a gravitational wave source.



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Plasmonic Platform for Photocatalysis, Spectroscopy

Researchers have developed a way to build multifunctional nanoscale structures using aluminum nanocrystals. The structures have an aluminum core and are dotted with even smaller metallic islands. The nanocrystals are used as a base for creating size-tunable transition-metal nanoparticle islands that enable localized surface plasmon resonances.



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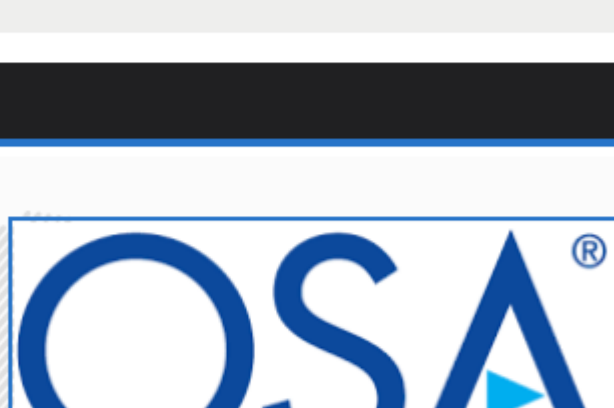
BGN, Ram to Develop Diagnostic Sensor [Read Article](#)

Industry Events

Optics & Photonics for Energy & the Environment

November 6-9, 2017 - National Center for Atmospheric Research - Boulder CO United States

This OSA Congress will examine the development of optical technologies for energy production, transmission, monitoring and use. It will bring together researchers, engineers and managers to foster timely information exchange between the disciplines involved in these fields. Topical meetings include: Optics and Nanostructures and Advanced Materials for Photovoltaics; Optics and Photonics for Energy & the Environment; Optics for Solar Energy; and Solid-State Lighting. The International Photonics Advocacy Coalition (IPAC) will host a session to discuss photonics-based technology solutions for accurate and reliable environmental monitoring, reporting and effective policy implementation. Image courtesy of OSA, The Optical Society.



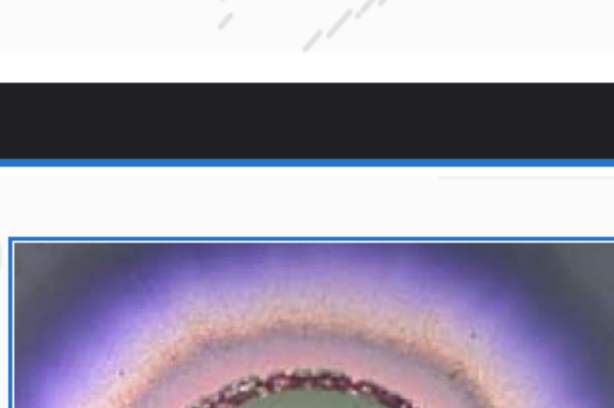
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Webinars

Laser-Induced Damage Threshold Values and How They Impact You

Wed, Oct 25, 2017 1:00 PM - 2:00 PM EDT

Avoid unnecessary manufacturing costs by knowing more about Laser-Induced Damage Threshold (LIDT) specifications and how they can affect optics manufacturing. This webinar will cover ISO LIDT specifications in detail, providing you with a better understanding of LIDT testing and laser optics manufacturing. You will learn what a specified LIDT value means and how it affects your application. In addition, you will learn the difference between achieving a single LIDT test value in small quantities and consistently meeting a specified LIDT in production. Who should attend: Optical engineers, design engineers, solutions engineers, application engineers who want to learn more about LIDT.



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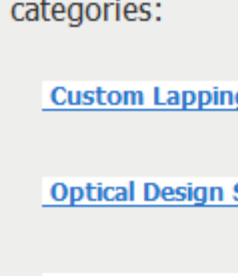
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