

# This Week In PHOTONICS

PHOTONICS MEDIA



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## Top Stories

### Agarwal Group Puts Spin on Photons

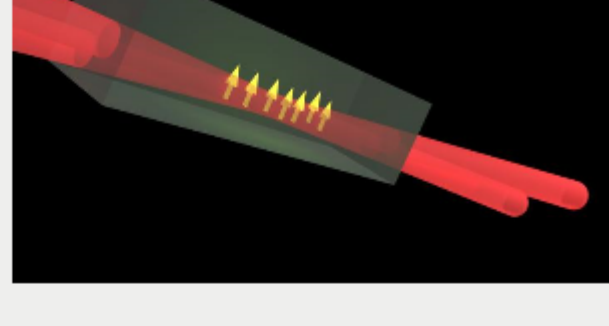
**LIGHT MATTERS BROADCAST:** The University of Pennsylvania's Agarwal Group, headed by professor Ritesh Agarwal, seeks to understand how light interacts with small-scale nanostructures. The group then uses that understanding to engineer useful and innovative optoelectronic devices. One area it is focusing on is photon spintronics.



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### Impurities in Semiconductor Enable Qubits That Emit Photons in IR

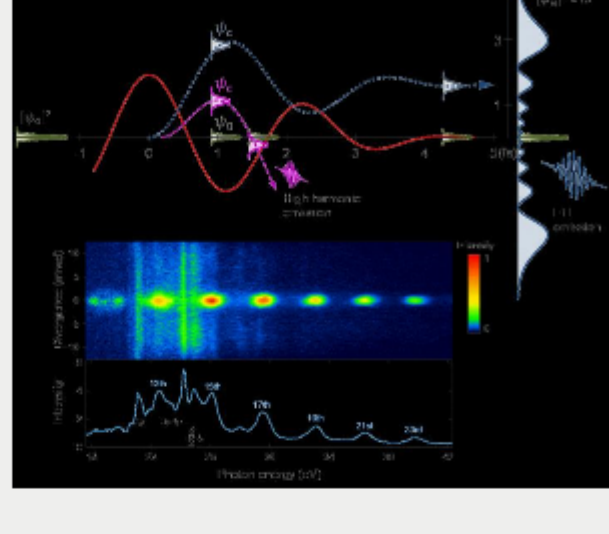
An international research team has constructed a qubit that transmits information on its status at a wavelength of 1100 nm. The researchers said it is likely that the approach they used could be tuned to wavelengths of 1300 to 1500 nm, which is close to those used by telecom providers.



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### New Approach to Coherent Extreme-UV Emissions Could Be Used in Spectroscopy, Imaging

An IBS research team produced coherent extreme-UV emission via frustrated tunneling ionization (FTI). The new way to generate extreme-UV emissions using intense laser pulses promises to find applications in high-resolution imaging, lithography, and ultrafast spectroscopy.



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## Featured Products



[Ensenso X: 3D Vision System Now With 5 MP Models](#)

**IDS Imaging Development Systems GmbH**

Ensenso X is a modular 3D camera system offered by IDS which is now also available with the high-resolution 5 MP IMX264 Sony sensor. This allows for an expanded field of view, higher resolution and lower noise levels.

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[A Smart Cloud-AI Handheld Raman Spectrometer](#)

**CloudMinds Technology Inc.**

The Cloudminds XI™ is the world's first cloud AI based handheld Raman spectrometer with 785nm laser excitation. The handheld Raman unit is fully integrated with the Cloudminds Data A1 Android smartphone.

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[Surface Mount InGaAs Pigtail Photodiodes](#)

**Fermionics Opto-Technology**

Technology offer direct-coupled performance in a space saving ceramic package. Part number FD80S8-F8 is a solderable, surface-mountable assembly with a high-speed InGaAs photodiode chip coupled directly to a single-mode or multi-mode fiber.

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[AR/VR Lens: Measure Displays in Headset](#)

**Radiant Vision Systems, Test & Measurement**

Displays viewed near to the eye, such as those in AR/VR devices, create immersive virtual experiences. However, as display images are magnified to fill a user's field of view, display defects are also magnified.

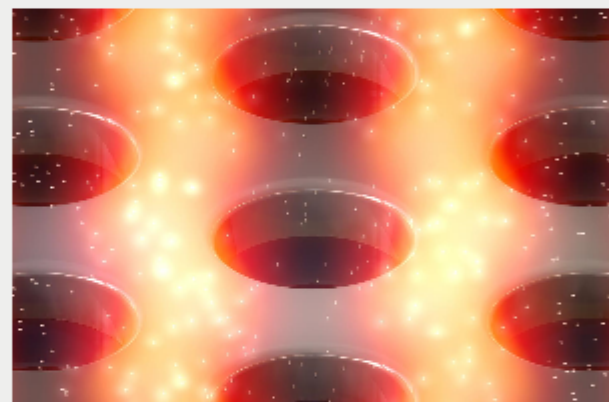
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## More News

### Using Machine Learning to Selectively Optimize Photonic Nanostructures

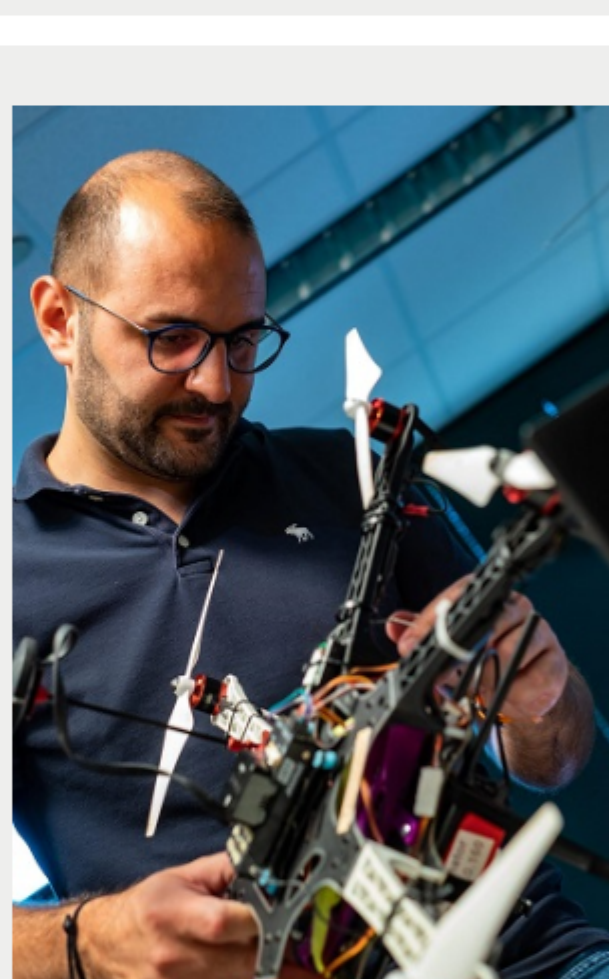
Using machine learning and computer simulations, the Nano-SIPPE team at Helmholtz-Zentrum Berlin (HZB) has identified the most important patterns of field distribution in a photonic nanostructure. The method the researchers present could enable the systematic optimization of nanophotonic structures for biosensing, bioimaging, and photon upconversion applications.



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### Rice, Baylor, TFA Collaborate for Drone Air Monitoring

Rice University researchers, in collaboration with Baylor College of Medicine and technology nonprofit Technology For All (TFA), are developing a fleet of autonomous aerial drones that coordinate with each other to detect, track, and model the environment to let neighborhoods know of airborne threats that can be especially hazardous following extreme weather events.



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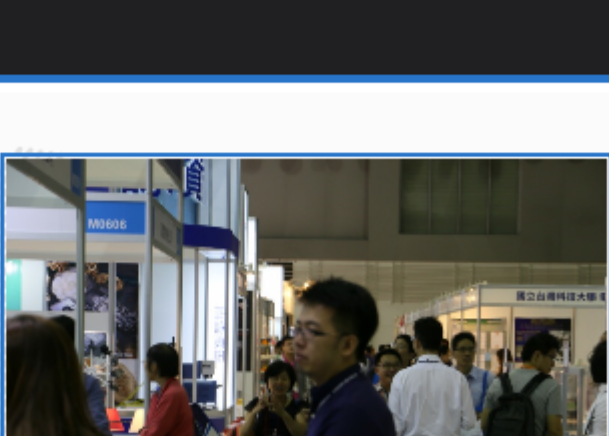
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## Industry Events

### Laser Taiwan 2018

October 17-19, 2018 - Taipei Nangang Exhibition Center, Hall 1 - Taipei City Taiwan

Since it was first held in 2013, Laser Taiwan has become the largest laser exhibition in Taiwan. The exhibition attracts over 10,000 buyers and hundreds of exhibitors and has earned great acclaim in the laser industry. This year, Laser Taiwan will showcase laser process applications, laser sources, optics, biomaterials, additive manufacturing, and scientific research. A Laser Industry Application Seminar will be held, during which experts, scholars, buyers, and associations related to the field will share the newest techniques and knowledge about laser applications.



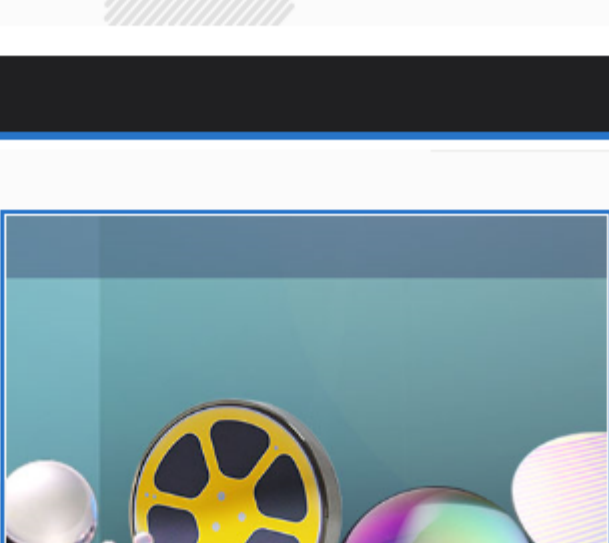
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## Webinars

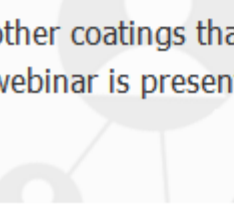
### Protective Coatings Extend Optics Lifetimes

Wed, Oct 10, 2018 1:00 PM - 2:00 PM EDT

From military airborne applications to harsh industrial uses, optics can be subjected to considerable environmental abuse over their expected lifetime. That lifetime can be extended by the use of protective coatings. In this one-half hour webinar, you will learn about the challenges to the integrity of optics due to abrasion, corrosion, oxidation, and other phenomena. The speaker will also provide an overview of the types of protective coatings that are used and their deposition technologies, and he will tie the various coating types to the environmental challenges they are intended to address. The webinar will cover environmental testing and durability, and touch on other coatings that have functional properties besides protection. This webinar is presented by Deposition Sciences, Inc.



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