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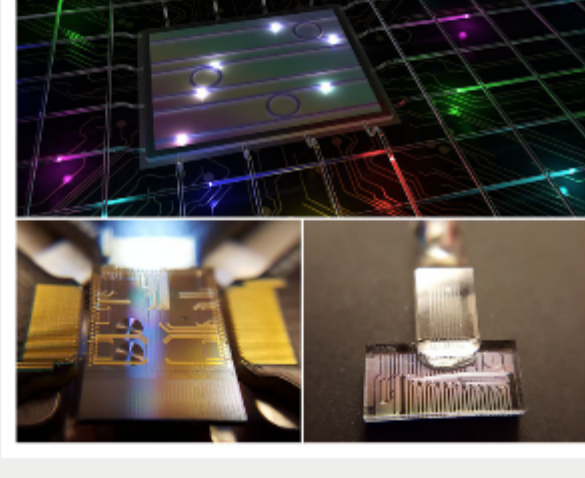
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Top Stories

Photonic System Enables Generation of Quantum States in Single Spatial Mode

A photonic system created using a lightweight, inexpensive photonic chip and off-the-shelf telecommunications components has been used to demonstrate that photons can become an accessible, powerful quantum resource. Integrated photonics has become a leading platform for the compact, cost-efficient, stable generation and processing of nonclassical optical states. However, so far, integrated entangled quantum sources have been limited to qubits.

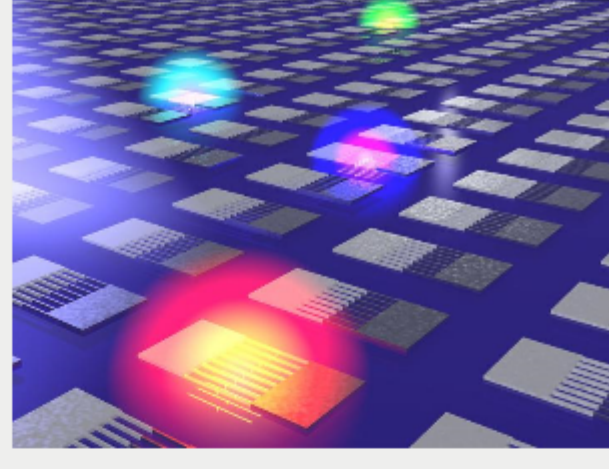


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Photodetector Uses Disparate Technologies to Identify Miniscule Differences in Wavelengths

A novel technology that combines nanophotonics and thermoelectrics has the potential to detect different wavelengths of light, including visible and IR, at high resolution. The detector operates about 10 to 100 times faster than comparable thermoelectric devices and can detect light across a broader range of the spectrum than traditional photodetectors.



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Michigan Tech Study Says Solar Saves Lives, Money

In a new study published in Renewable & Sustainable Energy Reviews, a team from Michigan Technological University calculated that 51,999 American lives per year could be saved by transitioning from coal to photovoltaic-powered electrical generation in the U.S. The study, focused on the cost of combusting coal in human lives along with the potential benefits of switching to solar, aimed to inform public health policy.



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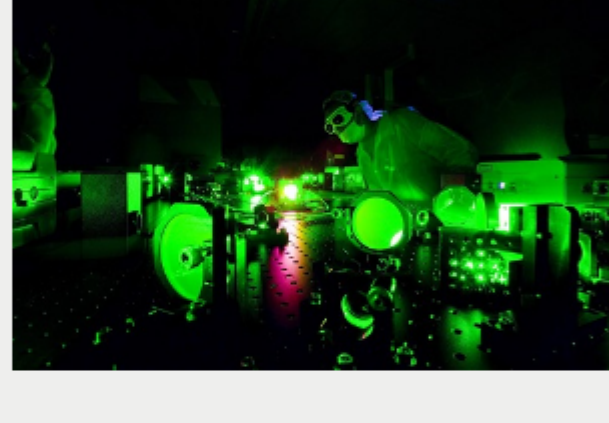
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Laser Sparks New Behavior in Light

By focusing laser light to a brightness one billion times greater than the surface of the sun, physicists at the University of Nebraska-Lincoln have observed changes in a vision-enabling interaction between light and matter. The changes produced unique x-ray pulses with the potential to generate extremely high-resolution imagery useful for medical, engineering, scientific and security purposes.

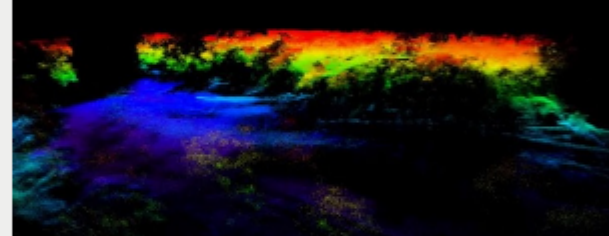


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Foliage-Piercing Lidar Surveys Hidden Ground

A new methodology based on gated digital holography paired with a specially designed laser system allows lidar to see through obscured elements of terrain like foliage or netting. Researchers from the Naval Research Laboratory in Washington D.C. developed the system, which can help lidar overcome environments such as dynamic weather patterns to detect 3D images behind obscurities. Potentially, the new lidar system could be used in disaster relief situations where help was needed to find people in trouble.



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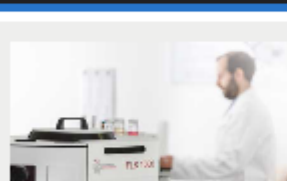
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Edinburgh Instruments Ltd.

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Quantum Cascade Laser (QCL) Module

Hamamatsu Corporation

Hamamatsu's pulsed QCL module (part number L14147-1278-02) combines a pulsed QCL, pulse driver, and a TE-cooler controller into a housing approximately 185 mm x 127 mm x 70 mm in size. The QCL emits pulsed mid-infrared radiation at 7.82 μm and has a typical output power of 100 mW.

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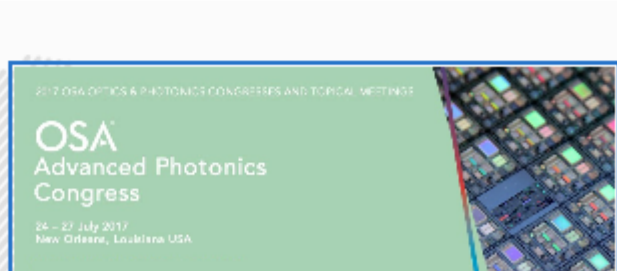
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Industry Events

OSA Advanced Photonics Congress 2017

July 24-27, 2017 - Astor Crowne Plaza - New Orleans United States

The OSA Advanced Photonics Congress will cover multiple aspects of optical data transfer and its technologies, from photonic integrated circuit design, fabrication and performance, advances in component design and performance, optical interconnects, switching and storage, optical computing, data and information processing. It also will cover the network design and the control, implementation and processing needed to mitigate system impairments and optimize network and link performance. Image courtesy of OSA, The Optical Society of America.



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