euroPHOTONICS NEWSLETTER

Quarterly newsletter from Photonics Media highlighting the latest photonics news, features, and products from Europe.
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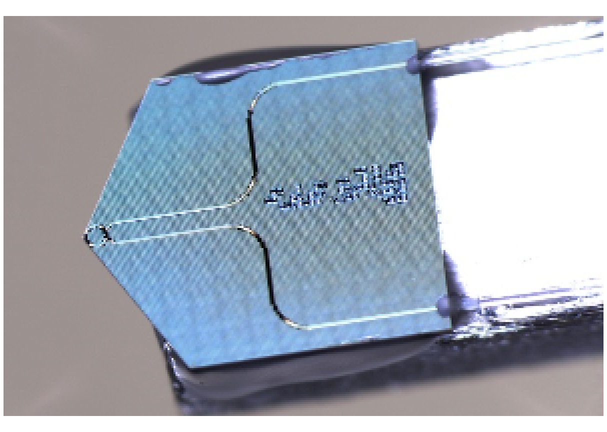
Quantum Advancement Combines Free Electrons and Photons



A collaboration between Swiss and German researchers demonstrated the generation of electron-photon pair states for the first time in a controlled way, using integrated photonic circuits on a chip. Using a new technique, they precisely detected the involved particles. The experiment could enable quantum-enhanced electron microscopy and adds free electrons to the toolbox of quantum technologies.

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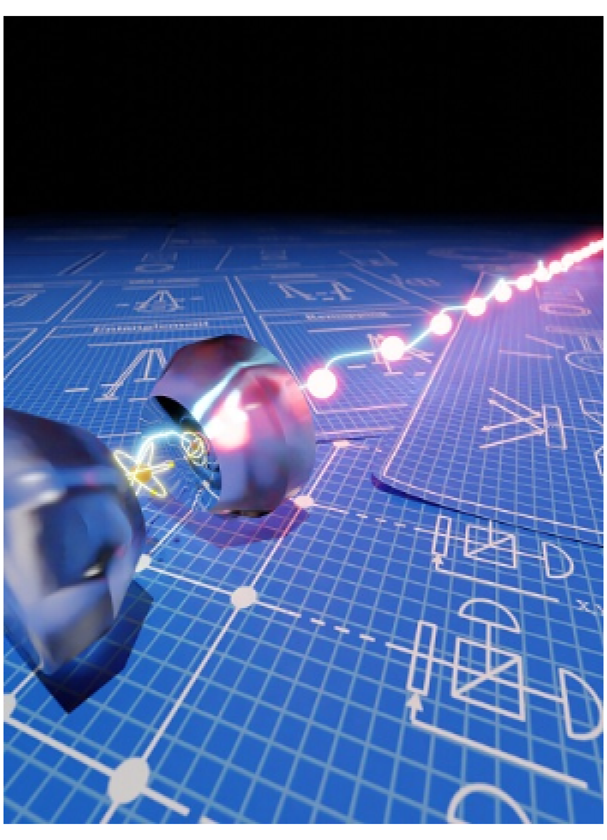
Fourteen Entangled Photons Expel a Quantum Computing Bottleneck



Physicists at the Max Planck Institute of Quantum Optics developed a method that could facilitate the construction of powerful and robust quantum computers, as well as the secure transmission of data. The physicists generated up to 14 entangled photons, in an optical resonator, which could be prepared into specific quantum physical states in a targeted and efficient manner.

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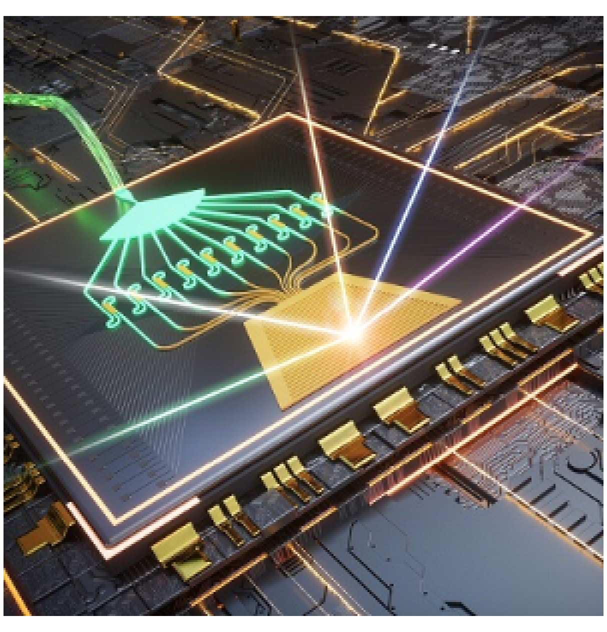
Chip-Based Beam-Steering Lights the Way to Smaller, Cheaper Lidar



Researchers from the Technical University of Denmark have developed a chip-based beam-steering device to reduce the size and cost of high-performance lidar technology. The device could have applications in autonomous diving, free-space optical communications, 3D holography, biomedical sensing, and virtual reality.

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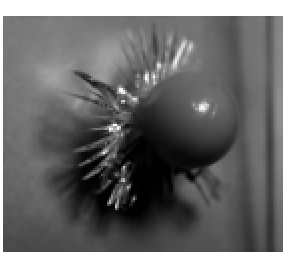

6,000 km/h - Fracture Observation on Smartphone

Shimadzu Europa GmbH
Detailed fracture observation of tempered glass used for smartphones by Ultra high- speed camera HPV-X2 and high-speed impact testing machine HITS-PX. In total two types of tempering methods were investigated: electric field assistance and immersion.

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Alluxa Ultra Series Filters, including Narrowband, Dichroic, UV, IR, and Notch filters, provide the highest performance optical thin film solutions available today. For example, the Ultra Series Flat Top Narrowband filters offer the narrowest bandwidths and squarest filter profiles in the industry.

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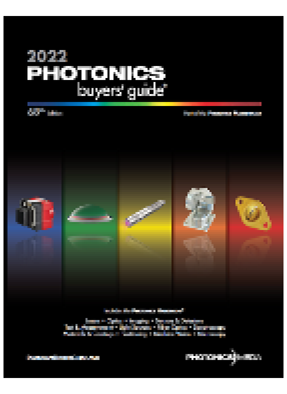

The 2022 Photonics Buyers' Guide

Photonics Media
If you buy products and services related to lasers, optics, imaging, sensors, detectors, test and measurement, light sources, fiber optics, spectroscopy, materials and coatings — you need the Photonics Buyers' Guide. Our editors verify all 4000+ company listings annually, making it the most trusted, accurate and comprehensive global photonics buyers' resource available.

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Laser Optics

Edmund Optics GmbH
Edmund Optics offers a wide variety of Laser Optics, including Laser Lenses, Laser Mirrors, Laser Filters, along with a variety of other components designed for laser use. Laser Lenses are designed to focus, homogenize, or shape laser beams. Laser Mirrors are ideal for beam steering applications.

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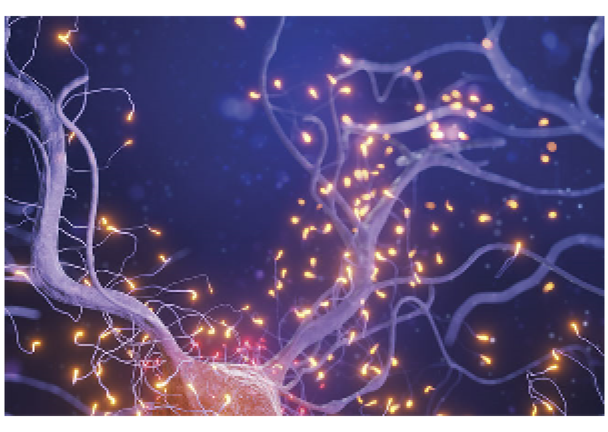
.: More News From Europe

The BioPhotonics Conference Places Biomedical Imaging and Medical Laser Innovations at the Fore



Photonics Media's second annual online BioPhotonics Conference, highlighting the latest advancements in optical biomedical and life sciences technology, will run Oct. 25-27. Attendees can expect an expansive lineup of presentations detailing the cutting-edge research and innovative technologies that are leading to improved diagnostics, treatments, and heightened understanding of the biophotonics field.

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Self-Emergent Microcombs Flip Switch for Precision Timekeeping

Researchers from the universities of Strathclyde, Loughborough, and Sussex have demonstrated how optical clocks can be reliably switched on and made to keep running. The collaborators' work resolves what had emerged as a persistent problem in the development of ultraprecise optical clocks and, specifically, the microcombs on which they rely to move from an "off" state to an "on" state.

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Quantum Sensors for Satellite Control Enable High-Speed Connectivity

A German consortium composed of Q.ANT, Bosch, TRUMPF, and the German Aerospace Center plans to use quantum technology to permanently enhance satellite measurement stability. The partners will develop space-qualified attitude sensors in a project will improve internet access, particularly in remote regions.

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