

This Week In PHOTONICS

PHOTONICS MEDIA



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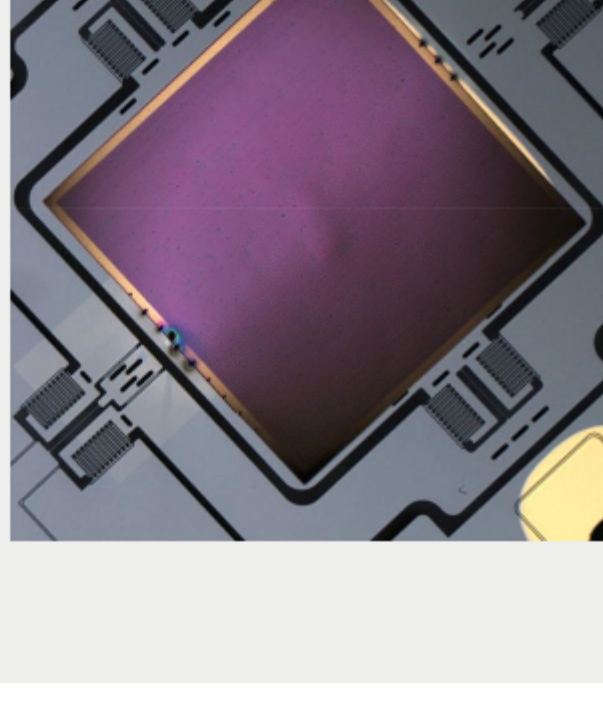
Apple Rubber

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Top Stories

Lens-on-MEMS Technology Could Lead to More Compact Optical Devices

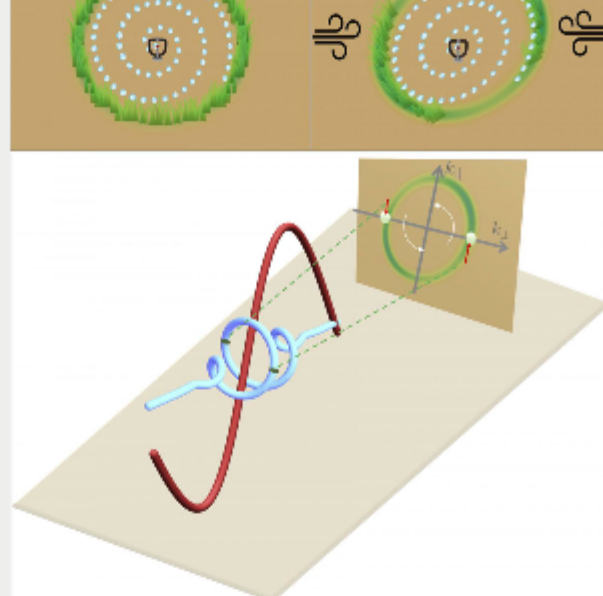
Researchers have built a metasurface-based lens on top of a MEMS platform, creating a "lens-on-MEMS" device that focuses light in the MIR spectrum. The MEMS-integrated metasurface lens combines the best features of both technologies while reducing the size of the optical system.



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Polarization State Is Characterized on Attosecond Scale

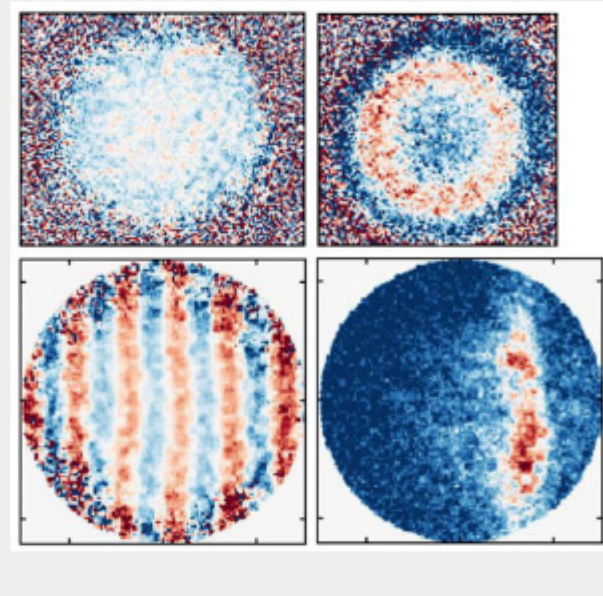
Researchers have characterized the exact polarization state of light on the attosecond timescale. This discovery could facilitate the use of short, rotating pulses of light to learn more about the inner structure of materials.



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Precise Imaging of Optical Frequencies Using Spectroscopy and Microscopy

An imaging technique combining spectroscopy with high-resolution microscopy to produce rapid, precise measurements of quantum behavior in an atomic clock has been developed. Physicists believe the technique could improve atomic clock precision and provide a path toward measuring many-body interactions and testing fundamental physics.



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Featured Products



The New Collar Workforce

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U.S. manufacturing companies are expected to face a shortage of two million skilled workers by the year 2020, according to reports. As a result, manufacturers and educators are looking for real, actionable ideas to train workers, reduce the shortfall and realize the potential of the new age of manufacturing.

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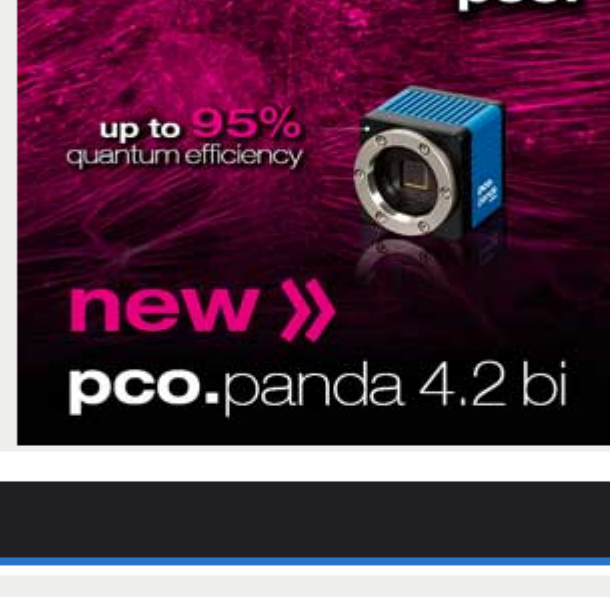
Pioneering sCMOS Back Illuminated!

PCO-TECH Inc.
To see or not to see: If every single photon counts, PCO's back illuminated sCMOS camera system pco.panda 4.2 bi can lead you to the answer. Enabled by PCO's new back illuminated sensor and based on the latest innovations in sCMOS technology, the pco.panda 4.2 bi reaches a quantum efficiency of up to 95%.

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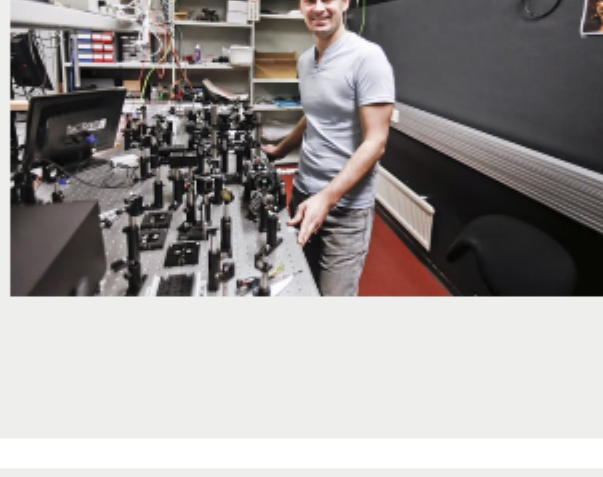
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Ultrafast Measurement Technique Shows How Laser Pulses Begin

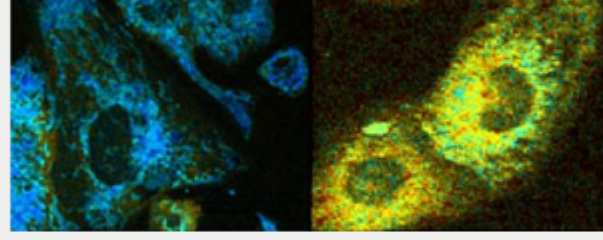
Researchers have demonstrated how laser pulses emerge from noise, then collapse and oscillate before stabilizing. The discovery was made possible by real-time measurement of the laser's temporal intensity with subpicosecond resolution and the laser's optical spectrum with subnanometer resolution.



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Optical Tool Uses Fluorescence to Detect Metabolic Changes

An optical tool that can read metabolism at subcellular resolution could be used to identify specific metabolic signatures indicative of disease. The method detects functional and structural metabolic biomarkers noninvasively using endogenous two-photon excited fluorescence (TPEF) from two coenzymes.



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Industry Events

AeroDef Manufacturing 2018

March 26-29, 2018 - Long Beach Convention Center - Long Beach United States

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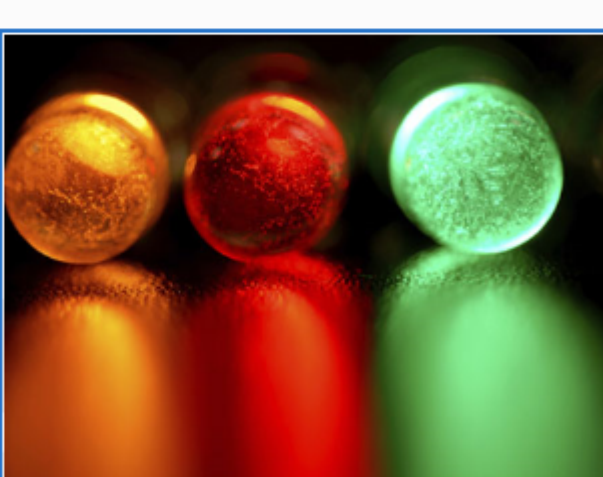
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Webinars

Optics and Lighting Solutions for Machine Vision

Tue, Mar 20, 2018 1:00 PM - 2:00 PM EDT

A crucial first step in any good machine vision application is developing the right optics and lighting for the application. This webinar will address the basic principles and methods of machine vision optics and lighting and review advances in methods and components that have made machine vision easier to implement in recent years. Sponsored by Smart Vision Lights and Euresys S.A. and Chroma Technology.



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