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Thursday, March 22, 2018

This Week In PHOTONICS

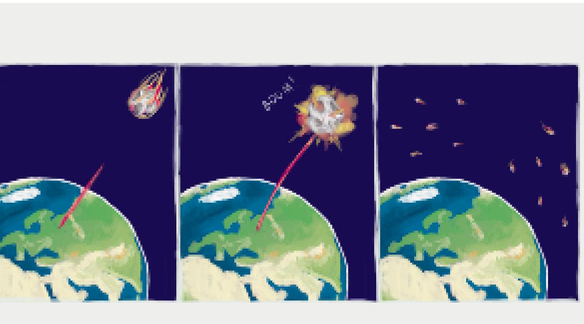
PHOTONICS MEDIA

Top Stories

Plasmons Triggered in Nanotube Quantum Wells Could Provide Optoelectronics Platform
Researchers' observation of gate-controlled quantum plasmons in aligned carbon nanotubes could pave the way for the development of carbon-based NIR optoelectronic devices and enable researchers to study the collective dynamic response of interacting electrons in one dimension.

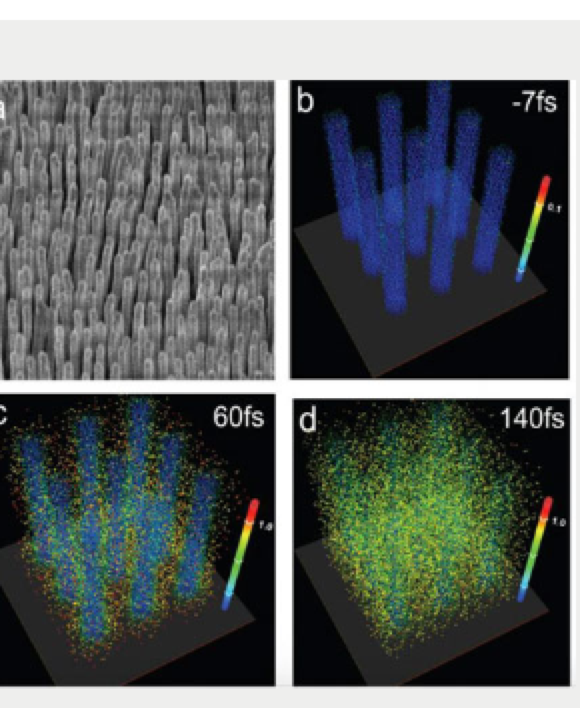
Read Article

Laser Simulations Model Impact of Nuclear Explosions on Asteroids
Researchers constructed miniature asteroids and blasted them with a laser to model the impact of a nuclear explosion on an asteroid threatening to collide with Earth. The research team showed that a brief laser pulse aimed at a miniature replica of an asteroid could produce effects similar to those of a nuclear explosion on an actual space rock.



Read Article

Laser-Heated Nanowires Produce Microscale Fusion
A dense fusion environment was created by irradiating arrays of nanowires using joule-level pulses from a compact, ultrafast laser. The irradiation of ordered nanowire arrays with femtosecond pulses created ultrahigh energy density plasmas in which deuterons (D) were accelerated up to mega electron volt energies, efficiently driving D–D fusion reactions and ultrafast neutron bursts.



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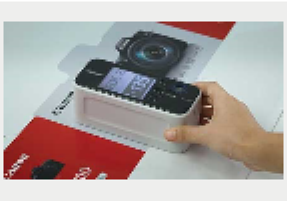
Featured Products



Canon Surface Reflectance Analyzer

Canon U.S.A. Inc., Industrial Products Div.
Canon RA-532H, Surface Reflectance Analyzer (goniophotometer), is a compact, portable device capable of measuring 4 surface appearance conditions in a single pass: Gloss, Haze, Image Clarity (IC), and BRDF (Bidirectional Reflectance Distribution Function).

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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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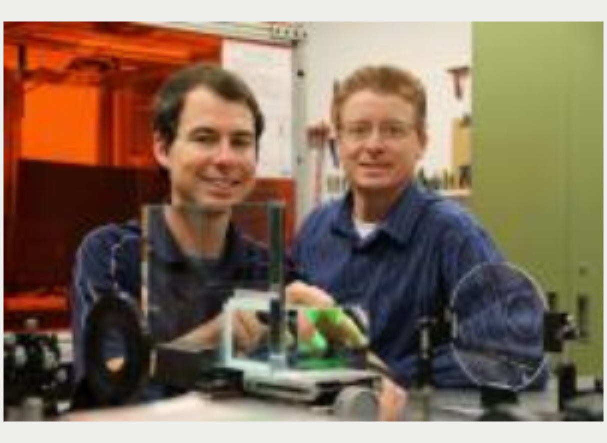
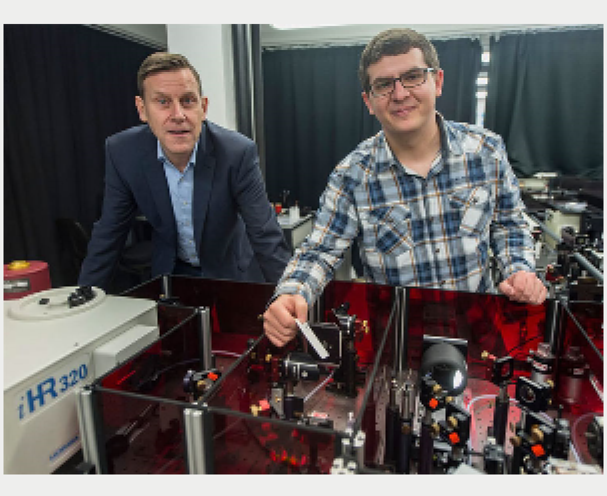
More News

Holographic Waveguide HUD Has Larger Eye Box for Enhanced Display
Researchers demonstrated a functional prototype head-up display (HUD) that uses optical holographic elements to achieve an eye box substantially larger than what is available without the holographic component. Current head-up displays have a small eye box, which can cause the displayed information to partially or wholly disappear from view if users shift their gaze.



Read Article

Ultrashort Laser Pulses Make Greenhouse Gas Reactive
A highly reactive form of carbon dioxide (CO_2), created using ultrashort laser pulses, could help reduce dependence on nonrenewable energy sources. Scientists used a so-called iron complex, whose center contained a positively charged iron atom, to which the constituents of the CO_2 were bound multiple times.



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Arecibo Observatory to be Led by UCF Consortium Read Article

Northrop Grumman Wins $95M Biometric Identification Contract from U.S. Homeland Security Read Article

Industry Events

Biophotonics Congress 2018
April 3-6, 2018 - The Diplomat Beach Resort - Hollywood United States
This OSA Congress will focus on technological solutions to medical challenges and medical applications. It will cover a diversity of cutting-edge research and innovative new tools and techniques, and will bring together an international group of leading engineers, optical and medical scientists, and physicians, as well as junior researchers and graduate students, who are engaged in optical methods to advance discovery and application of medical science to clinical practice.

More Info

Webinars

Fused Silica Selection: Solutions for Price vs. Performance
Wed, Apr 4, 2018 1:00 PM - 2:00 PM EDT
Fused silica is a key material in a multitude of optical applications, including high-power laser systems, spectroscopic instrumentation, astronomy and telecommunications. In this webinar, presented by Heraeus, you will learn how to choose which variety of fused silica best matches the price and performance points of a given application.

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