

This Week In PHOTONICS

PHOTONICS MEDIA



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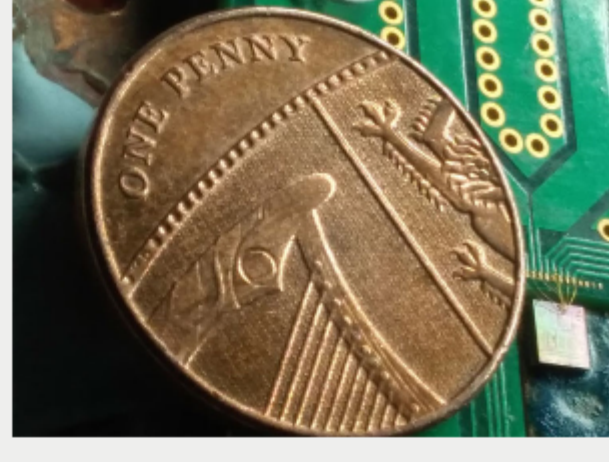
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Top Stories

Researchers Use Silicon Photonics to Create Quantum Random Number Generator

A chip-based device measuring just 1 sq mm has demonstrated the potential to generate quantum-based random numbers at gigabit (Gb)-per-second speeds, using minimal power. The tiny device, which is enabled by silicon photonics, could be used as a stand-alone or in devices such as laptops and smartphones to encrypt data in real time.



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Narrow Spectrum Blue Light Images Progressive Effects of Fire

A simple method for increasing visibility through clean-burning flames, using ordinary blue LED light, could lead to new opportunities to perform optical metrology in fire research. The method combines narrow-spectrum, blue illumination, and matched optical filters to reduce the influence of optical emissions from a glowing hot target and a large natural gas diffusion flame.



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Researchers Create New Class of High-Energy, Tunable Laser Materials

Engineers doped alumina (Al₂O₃) crystals with neodymium (Nd) ions to develop a new laser material capable of emitting ultrashort, high-power pulses. Their approach to materials processing resulted in a Nd-Al₂O₃ laser gain medium that has 24x higher thermal shock resistance than one of the leading solid-state laser gain materials.



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Featured Products



Dark Mirror Coatings

Deposition Sciences Inc. (DSI)

Dark mirror coatings absorb incident light, rather than reflecting or transmitting it. Thus, they simultaneously exhibit both the low transmittance of a metal blocking filter and the low reflectance of an antireflection coating. Dark mirrors are typically used to define the aperture of an optical system where control of stray light...

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Broadband Wire-Grid Polarizers

Moxtek Inc.

Moxtek offers a variety of wire-grid polarizers and polarizing beamsplitters designed for demanding applications. Our polarizers are made from heat tolerant inorganic materials that enable exposure to temperatures that degrade film based polarizers. Our polarizers are designed for narrow and broadband UV-VIS-IR wavelengths.

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Machine Vision

Photonics Media

Machine Vision is a new book for anyone designing or selecting machine vision systems, and implementing or considering the use of machine vision for a specific application. This engaging overview is a resource for designers, engineers, researchers, marketers and students looking for a broad survey of advancements in systems, components and processes.

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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). Additionally, Canon has released its own new parameter,...

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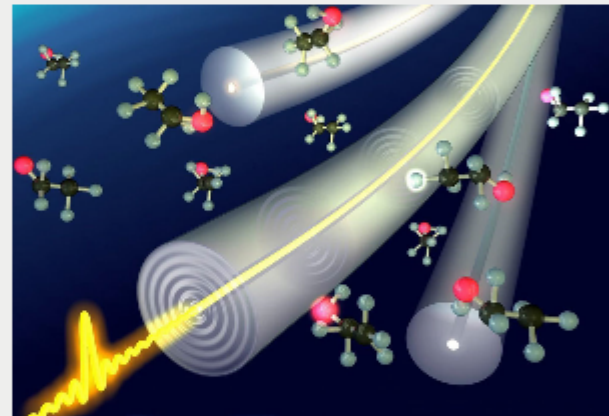
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More News

Optical Fibers Can Detect Type of Materials Around Them

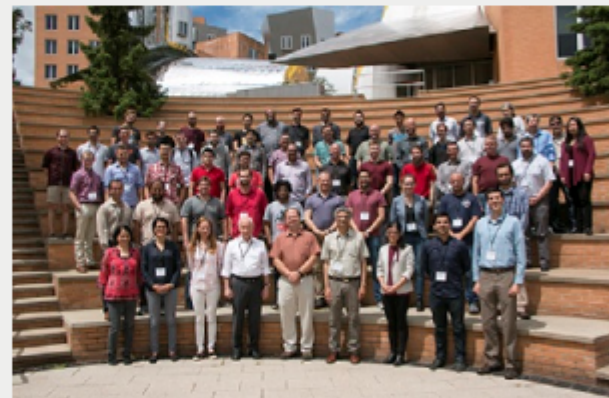
Forward stimulated Brillouin scattering (FSBS), because of its resonating transverse acoustic waves, has the potential to facilitate detections in an optical fiber's surroundings. Researchers have now demonstrated a technique to measure the distributed FSBS spectrum of an optical fiber and retrieve the local acoustic impedance of the surrounding materials.



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AIM Photonics Academy Teaches Fundamentals, Design of Photonic Integrated Circuits

LIGHT MATTERS BROADCAST - AIM Photonics recently held a week-long boot-camp-style academy at the Massachusetts Institute of Technology. MIT professor and executive at AIM Photonics, Lionel Kimerling, told Photonics Media that the AIM Summer Academy brings together students from big and small enterprises, providing practical access and technology on-ramps for U.S. industry, government, and academic communities.



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Industry Events

World Congress on Computer Science, Machine Learning and Big Data Analytics

August 30-31, 2018 - JW Marriott Hotel Dubai - Dubai United Arab Emirates

This conference will provide an overview of machine learning techniques to explore, analyze, and leverage big data, and will cover the most recent techniques and tactics in machine learning, artificial intelligence, and big data analytics. The congress will offer 15 sessions/tracks, which will include computer science and technology, machine learning, deep learning, artificial intelligence, data mining, cloud computing, AR and VR, IoT, and more.



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