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Thursday, March 23, 2017

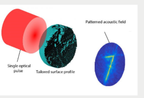
This Week in PHOTONICS

PHOTONICS MEDIA

Top Stories

Tailored Optoacoustics, 3D Printing Generate Sound Fields With Specific Shapes

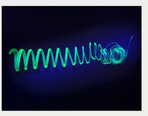
A method for generating ultrasound via light, coupled with 3D printing, has demonstrated the ability to form sound fields with specific shapes, for potential use in biological cell manipulation and drug delivery. This method could provide a simpler, less expensive alternative to the use of piezoelectric arrays to produce sound waves.



Read Article

Polymer-Coated Silicon Nanosheets, An Alternative to Graphene

Silicon nanosheets are thin, two-dimensional layers with exceptional optoelectronic properties very similar to those of graphene; however, alone nanosheets are less stable. Researchers at the Technical University of Munich (TUM) have produced a novel composite material combining silicon nanosheets and a polymer that is both UV-resistant and easy to process, bringing about possible future industrial applications like flexible displays and photosensors.



Read Article

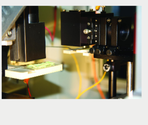
Flexible Sensor Holds Potential for Foldable Touchscreens

The development of bendable, stretchable and transparent touch sensors is an emerging technological goal in a variety of fields, including electronic skin, wearables and flexible handheld devices. A new, inexpensive sensor developed at the University of British Columbia (UBC) could help make advanced devices like these a reality. The sensor uses a highly conductive gel sandwiched between layers of silicone that can detect different types of touch, including swiping and tapping; it can do so even when it is stretched, folded or bent.

Read Article

Laser Ablation Technique Images Non-Flat Surfaces

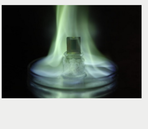
A custom-built laser-based technique for mass spectrometry enables the imaging of samples with non-flat surfaces. The tool uses a distance sensor to record a height profile of the sample before the actual chemical imaging. Since most samples encountered in chemical ecology do not have flat surfaces, the novel tool could be useful in measuring the distribution of chemical compounds in these samples in order to answer ecological questions more accurately.



Read Article

Nanotube Film Increases Longevity of Challenger Solar Cells

"Random network" nanotube films could improve the long-term stability of solar cells made of perovskite. Researchers from Aalto University in Finland, Uppsala University in Sweden, and École polytechnique fédérale de Lausanne (EPFL) in Switzerland are using these films, composed of single-walled carbon nanotubes, to increase the lifetime of solar cells.



Read Article

Featured Video

TRIOPTICS GmbH - Online Events: Strategies for Active Alignment of Lenses

As today's optical systems require higher performance, we present solutions for the alignment of doublets and triplets that guarantee smaller tolerances in a shortened production time. Tradition alignment methods are compared to the highly efficient automated OptiCentric® solution from TRIOPTICS.

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More Headlines

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Pitt Receives NSF Award to Develop Exoskeleton Sensors for Spinal Cord Injuries Read Article

Univ. of Exeter, Cineon, Collaborate on Worker Safety Organization Read Article

Featured Products

CITE - A 12-Lecture Course in Technology Commercialization

Photonics Media

This 12-lecture digital course is for anyone involved in technology development and the business development opportunities based on technology. CITE provides a roadmap and methodology for moving advanced technology into successful commercial products.

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Thin Film Coating

United Lens Company Inc.

For over forty years ULC has been providing high-quality Thin Film Coatings for the photonics industry. We use a robotic multi-station aqueous ultrasonic system with 18 meg. ohm deionized water to prep the optics for coating.

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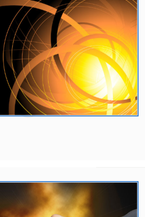
Industry Events

OSA Biophotonics Congress: Optics in the Life Sciences

April 2–5, 2017 - Sheraton San Diego Hotel & Marina - San Diego United States

The latest advances in molecular probe development, life science imaging, novel optical instrumentation and its application to the study of fundamental biological processes and clinical investigations will be presented at the OSA Biophotonics Congress. It will provide a forum designed to report on recent progress in instrumentation development and its rapid application, and will bring together leaders in the field whose contributions are significantly advancing the state of the art in biological and medical research through the use of optical technologies. Photo courtesy of OSA, the Optical Society of America.

More Info

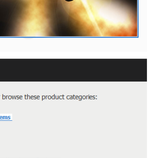


Webinars

Table-Top Fabrication of Plasmonics-Based Ultrathin Optical Components

Thu, Apr 6, 2017 1:00 PM - 2:00 PM EDT

Professor Toussaint will begin with an overview of his group's work with plasmonic nanoantennas and then describe how these structures can be harnessed to develop a simplified, table-top approach to producing flat, ultrathin optics using plasmon-assisted etching. Kimani C. Toussaint, Jr., Ph.D., is an associate professor in the Department of Mechanical Science and Engineering, and an affiliate faculty in the Departments of Electrical and Computer Engineering and Bioengineering, as well as the Beckman Institute for Advanced Science and Technology at the University of Illinois at Urbana-Champaign (UIUC). Toussaint also directs the laboratory for Photonics Research of Bio/nano Environments (PROBE Lab) at UIUC, an interdisciplinary research group that focuses on quantitative nonlinear optical imaging of biological tissues and on investigating the optical properties of plasmonic nanostructures for light-driven control of matter.



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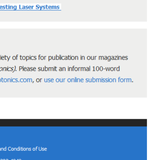
Technology Business Champions' Guide to Successful Commercialization

Thu, Apr 13, 2017 1:00 PM - 2:30 PM EDT

This webinar, presented by David Krohn, Managing Partner of Light Wave Venture LLC, is for scientists, engineers and others seeking potential opportunities for marketing and selling a new technology, whether it is a product, a service or a groundbreaking idea. You will learn how to focus R&D with an eye toward commercialization; how to source funding and much more. The instructor has over 50 years of experience in the photonics industry. A trained scientist turned businessman, Krohn has assisted more than 127 companies and organizations, working with key management on product development, commercialization, funding and acquisitions. Please note: there is a registration fee for this webinar.



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