

This Week In PHOTONICS

PHOTONICS MEDIA



sponsor

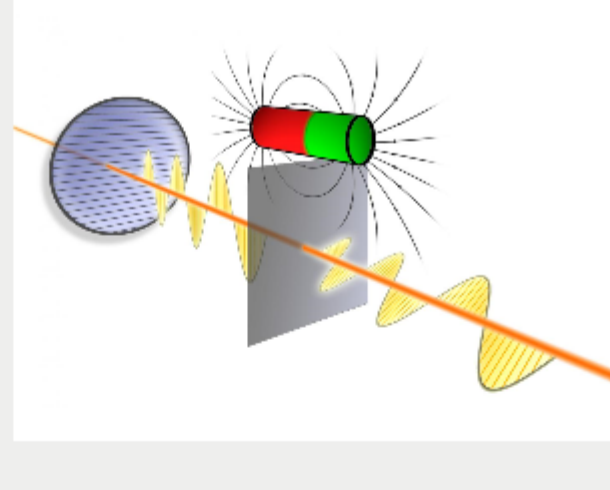


Have an Idea for a Book?
Check out our [Book Proposal Form](#)

Top Stories

Quantum Effect Changes Direction of Light Waves

In a variation of the magneto-optical effect, special materials called "topological insulators" (TI) demonstrated the ability to switch the direction of a light wave in clearly defined quantum leaps rather than continually. This "quantized magneto-electric effect" could open up new and highly accurate methods of measurement. The extent of these quantum steps was found to depend solely on fundamental physical parameters.

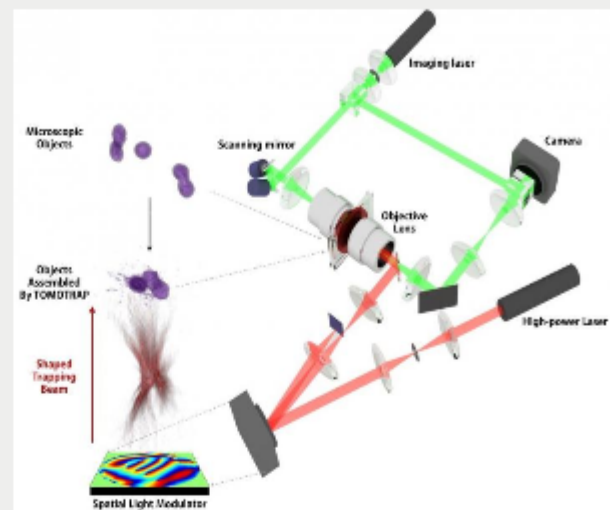


[Read Article](#)



Holographic Technique Traps Microscopic Objects With Irregular Shapes

An optical manipulation technique that can securely control the position, orientation and shape of non-spherical microscopic samples, such as living cells, could have direct applications in biophotonics and soft matter physics.

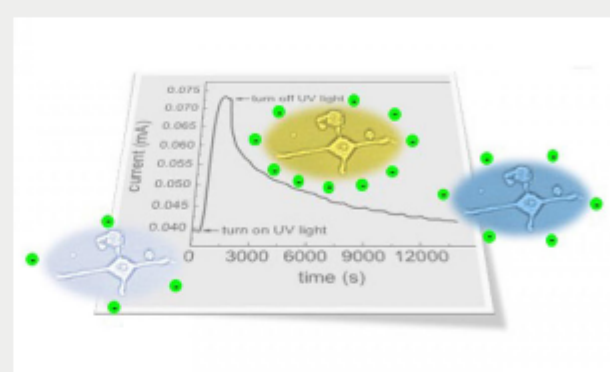


[Read Article](#)



Persistent Photoconductivity Used to Control Semiconductor Cells

Use of light to alter the conductivity of semiconductor material could provide a new way to control cell behavior on semiconductors used for bioelectronics. The approach draws on persistent photoconductivity, a phenomenon that causes some materials to become much more conductive when light is shined on them. When conductivity in these materials is elevated, the charge at the surface of the material increases.



[Read Article](#)

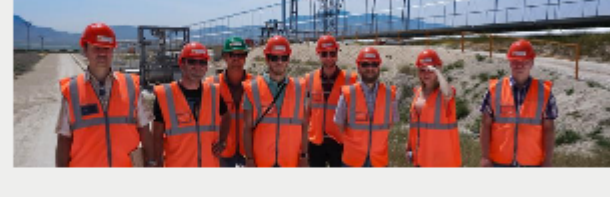


sponsors



VTT Project Develops Solar Energy Production Concept

The COMBO-CFB project led by VTT Technical Research Centre of Finland Ltd. has developed an innovative concept to increase solar energy production in the energy system. According to its research, the concept can reduce fuel consumption and emissions stressing the climate by more than 33 percent.



[Read Article](#)



Light Exposure in the Evening Improves Sports Performance

A new study shows that athletes who are exposed to blue light before competing can significantly improve their end performance. Researchers at the University of Basel's Department of Sport, Exercise and Health investigated whether light exposure before a cycling time trial could compensate for the time of day the event was held.



[Read Article](#)



More Headlines

[Merck, University of Leeds to Collaborate on Liquid Crystal Technologies](#) [Read Article](#)

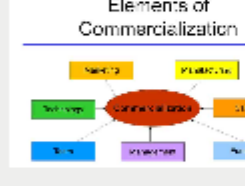
[Zecotek, Shanghai EBO Establish Chinese Subsidiary](#) [Read Article](#)

[IPG Photonics Acquires OptiGrate Corporation](#) [Read Article](#)

[Jordan's SESAME Inaugurated by King Abdullah II](#) [Read Article](#)

[Osram Licht Acquires Agrilution Stake](#) [Read Article](#)

Featured Products



Successful Advanced Technology Commercialization for Everyone!

Photronics Media

A new, 12-lecture course from successful scientist-turned-businessman David Krohn will show you how to identify market opportunities and develop a roadmap for successful commercialization. Commercialization of Innovative Technology through Entrepreneurship – CITE – demonstrates how to move advanced technology into successful commercial products, and gives you a current view of just what investors are funding.

[Visit Website](#)

[Request Info](#)



MEMS-FPI Sensors Detect NIR Spectra

Hamamatsu Corporation

Hamamatsu's MEMS-FPI spectrum sensors (C13272 series) are a more compact and less expensive option for measuring NIR spectra than a multichannel detector and associated optics. These sensors consist of an InGaAs PIN photodiode and a miniature Fabry-Perot interferometer (FPI) that scans through a range of NIR wavelengths from 1550 nm to 1850 nm. The FPI is fabricated using MEMS (micro-electro-mechanical systems) technology.

[Visit Website](#)

[Request Info](#)

sponsors



Industry Events

Optical Interconnects Conference 2017

June 5-7, 2017 - Hilton Santa Fe Historic Plaza - Santa Fe United States
The sixth IEEE Photonics Society Optical Interconnects Conference seeks to facilitate the collaboration required to drive new interconnect architectures and technologies from concepts in research labs to commercial realities. The conference will cover the complete spectrum of high performance interconnect challenges in network systems, architectures, applications, subsystems and devices. Topics that will be addressed include the pros & cons of on-board optics in datacenters and how the need for 100Gb/s will be met in backplanes and chip-to-chip. System architects, programmers and anyone researching the interconnect role in a more self-aware next generation platform will benefit by attending this conference.



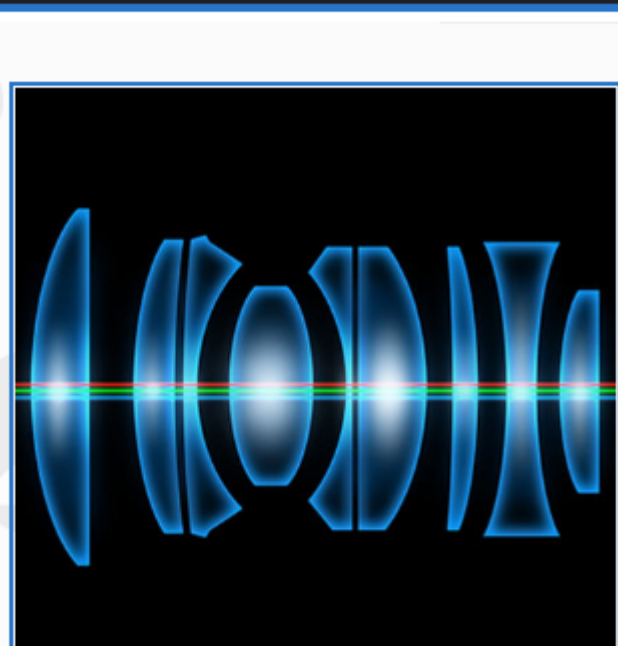
[More Info](#)

Webinars

International Surface Imperfection Standard

Thu, Jun 8, 2017 1:00 PM - 2:00 PM EDT

Presenter Dave Aikens will clarify the role of "scratch and dig," a method for specifying and inspecting optics for imperfections by visually comparing imperfections to a set of optically made and certified scratches to determine the grade. Although the "scratch and dig" method is used broadly in the industry, it is an approach that is often misunderstood and applied incorrectly. Since 1945, MIL-PRF-13830B has been used as the standard for surface imperfections specification and measurement throughout the world. Increasingly demanding applications have been making this standard obsolete. Now the optics industry has a choice of which standard to use, and it's not always clear which is the best path. Aikens will address this issue and the factors to consider regarding each potential option. Aikens is president and founder of Savvy Optics Corp. and has been involved in optics drawings and specifications for over 30 years.



[Register Now](#)

PHOTONICSbuyers' guide®

Looking for Imaging and Sensing products? Search [PhotonicsBuyersGuide.com](#), or browse these product categories:

[Missile- and Satellite-Borne Optics](#)

[Line-Scan Cameras](#)

[Photometric Detectors](#)

[Microscope Illumination Systems](#)

[Power Meters](#)

[Noncontact Automatic Inspection Systems](#)



CALL FOR ARTICLES!

Photronics Media is currently seeking technical feature articles on a variety of topics for publication in our magazines (*Photonics Spectra*, *Industrial Photonics*, *BioPhotonics* and *EuroPhotonics*). Please submit an informal 100-word abstract to Managing Editor Michael Wheeler at Michael.Wheeler@Photonics.com, or use our [online submission form](#).

Questions: info@photonics.com

[Unsubscribe](#) | [Subscribe](#) | [Subscriptions](#) | [Privacy Policy](#) | [Terms and Conditions of Use](#)

Photronics Media, 100 West St., PO Box 4949, Pittsfield, MA 01202-4949
© 1996 - 2017 Laurin Publishing. All rights reserved. Photonics.com is Registered with the U.S. Patent & Trademark Office. Reproduction in whole or in part without permission is prohibited.