

This Week In PHOTONICS

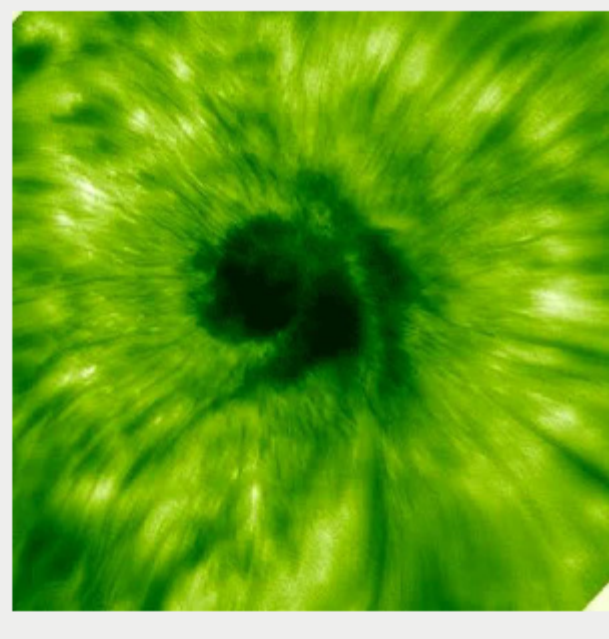
PHOTONICS MEDIA



Top Stories

Solar Imaging Tool Enables Better Understanding of Sun's Atmosphere

The ability to track a particular kind of solar wave as it sweeps upward from the sun's surface through the sun's atmosphere is widening astrophysics' understanding of how solar material travels throughout the sun. Though scientists have long suspected that the waves they spot in the sun's photosphere are linked to those seen in the sun's chromosphere, novel imaging tools have now enabled scientists to actually watch the wave travel up through the various layers into the sun's atmosphere.



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Creating 3-D Hands to Increase Security

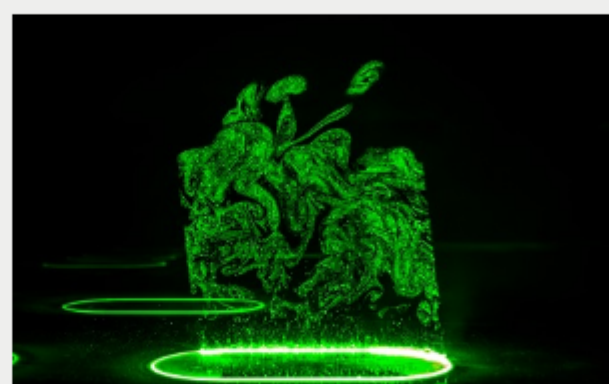
Biometrics researchers from Michigan State University have created a lifelike 3D hand model, complete with all fingerprints, to test the accuracy of fingerprint scanners. These scanners are commonly found at banks, police departments, airport immigration counters and even amusement parks.



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Etching Microstructures With Lasers

Consumer interest in analytics applications has prompted scientists in Germany to investigate how to use lasers to etch microstructures into thin glass. Through research, they found that irradiating glass in a particular way with an ultrafast laser has the effect of making the glass up to a thousand times more sensitive to subsequent wet chemical etching.



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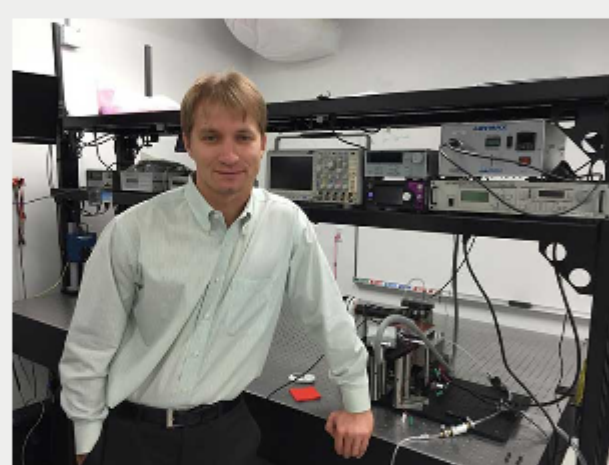


Custom, Flat-Surfaced Parallel & Wedged Optics

Wafers, Windows, Optical Flats and Glass Substrates ([click to learn more!](#))

Novel Design May Make QCLs More Efficient, Easier to Produce

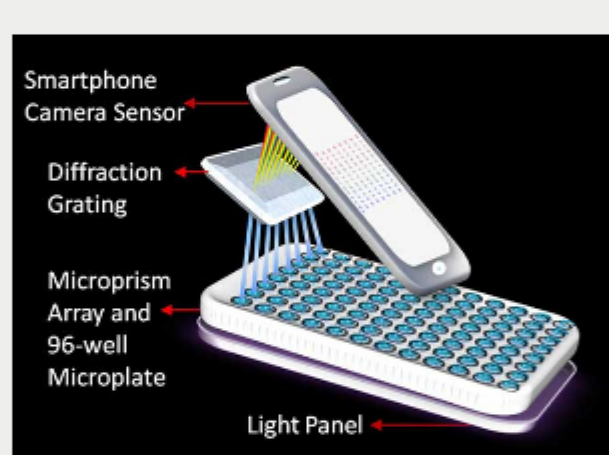
Quantum cascade lasers (QCLs) developed using just two different materials have been demonstrated to be performance-comparable to QCLs manufactured using more costly, complicated methods. Previous approaches to QCL production have required the QCL to be situated atop a substrate comprised of more than 1,000 layers. Each layer, barely thicker than a single atom, was composed of one of five different materials, making production challenging and expensive.



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Multichannel Optical Biosensor May Offer Low-Cost, Portable Means to Detect Cancer

An eight channel smartphone spectrometer has been developed that can detect human interleukin-6 (IL-6), a known biomarker for lung, prostate, liver, breast and epithelial cancers. Unlike current smartphone spectrometers, which are used to monitor or measure one sample at a time, the multichannel smartphone spectrometer (MSS) can optically analyze several samples simultaneously, adding to its potential value as a high-throughput device.



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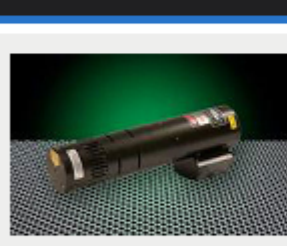
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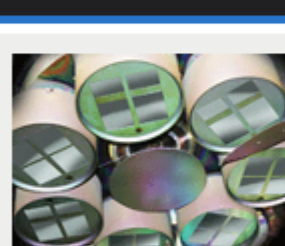
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Known as one of the highest quality replacement lasers, the NLC 488nm argon laser outputs and outperforms competitive models. It is one of the most robust lasers in the industry for Semiconductor Inspection Tools.

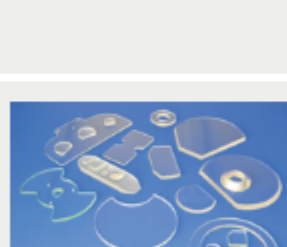
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ISP Optics' Coating Capabilities

ISP Optics Corporation
ISP Optics manufactures and designs in house a full spectrum of IR coatings from protective coating on KBr optics, Extreme High Durability AR coating on Silicon to DLC coating on IG6 and ZnSe.

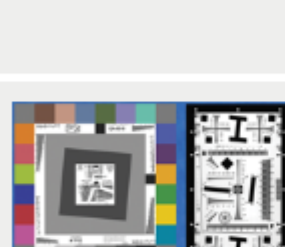
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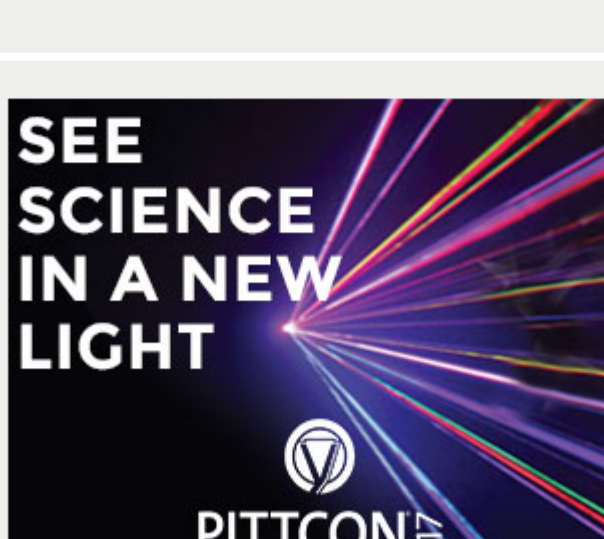


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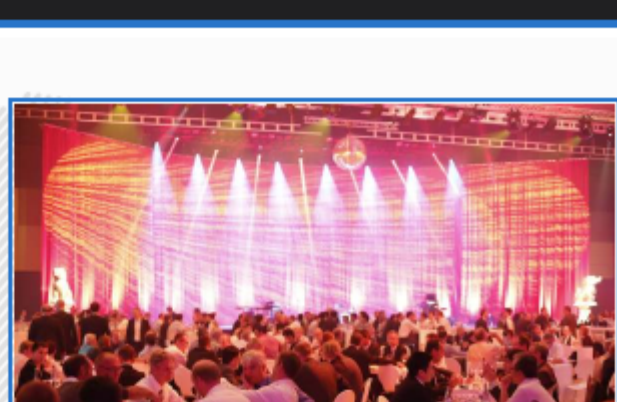
Industry Events

VISION 2016

November 8-10, 2016 - Stuttgart Germany

Photonics Media Booth: Hall 1D-01

At VISION 2016, a leading trade fair for machine vision professionals, a range of products and services will be on exhibit: from sensors to processors, from cables to cameras, from software to illumination systems. Complete machine vision systems as well as specific applications will be exhibited. Talks, panels, educational and professional training opportunities are also part of VISION 2016. Photo courtesy of Messe Stuttgart.



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