

This Week in PHOTONICS



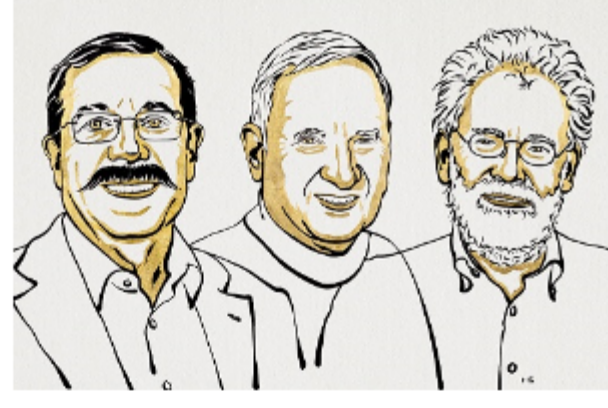
Active Thermography for panel paintings Inspection

Free Webinar 2022, Nov. 2
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:: Top Stories

Nobel Prize in Physics Recognizes Three for Achievements in Quantum Photonics

The 2022 Nobel Prize in physics has been awarded to Alain Aspect, John F. Clauser, and Anton Zeilinger. The trio will share the prize "for experiments with entangled photons, establishing the violation of Bell inequalities and pioneering quantum information science."



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Laser Method Sandblasts, Without Sand, for Expedited Manufacturing

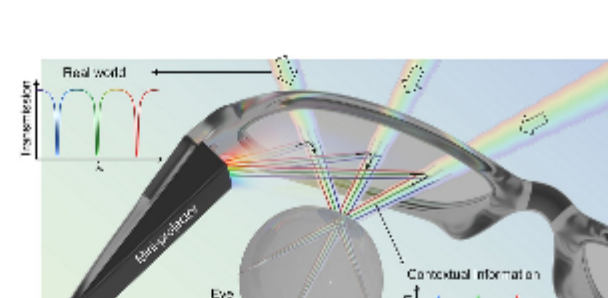
In the past, sandblasting has been a necessary part of production in a number of industrial processes. Now, the process may be replaced with a faster, cleaner, and more environmentally friendly process. A team from the Fraunhofer Institute for Material and Beam Technology IWS developed the technology LIGHTblast, which, is now being transferred to the semiconductor manufacturing, automotive supply, and other industries.



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Nonlocal Metasurface Distinguishes Augmented Reality Platform

Researchers at Columbia Engineering have invented a glass that shows promise for applications in AR glasses. A flat optical device engineered by the team focuses only a few selected narrowband colors of light while remaining transparent to nonselected light over the vast majority of the spectrum.



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:: Featured Products & Services



[New Filters Enable Compact, Lower Cost Fluorometer](#)

Delta Optical Thin Film

A/S
Delta Optical Thin Film has introduced new advanced excitation and emission bandpass optical filters for fluorescence spectroscopy/microscopy that enable more compact and lower cost fluorometers to be built.

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[671 Series Laser Wavelength Meter](#)

Bristol Instruments Inc.

The 671 Series Laser Wavelength Meter uses a proven Michelson interferometer-based design to measure the wavelengths of CW lasers to an accuracy as high as ± 0.2 parts per million. Operation is available from 375 nm to 12 μm . Continuous calibration with a built-in wavelength standard guarantees the reliable accuracy that is required for the most meaningful experimental results.

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[Fiber Optic De-Speckler](#)

MKS/Newport

A DeSpeckler averages the modal noise within an optical fiber. For many fiber coupled applications, modal noise interferes with optimal performance. The Newport™ small, simple and integrated de-speckling system maximizes performance and reliability in illumination, with no optical loss.

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[IR Filters](#)

Deposition Sciences Inc. (DSI)

DSI designs and manufactures bandpasses, beamsplitters, ARs, and absorption coatings for use in the MWIR thru LWIR wavelength regions, customized to specific applications. Using photolithography, we can also pattern these coatings with feature sizes as small as 20 μm .

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:: More News

Groupe Gorge Finalizes Acquisition to Complete iXblue-ECA Merger [Read Article](#)

Microlens Array Fabrication Method Aims to Reduce Device Costs [Read Article](#)

Bendable GRIN Lens Widens Imaging Potential of Endoscopic Probes [Read Article](#)

Nanofilms Optimize Raman Thermometry for Extreme Manufacturing [Read Article](#)

Tech Soft 3D Acquires Redway3D [Read Article](#)

:: Upcoming Webinars

Battery Research and Failure Analysis Using Vibrational Spectroscopy
 Tue, Oct 11, 2022 1:00 PM - 2:00 PM EDT
 Sergey Shilov, Ph.D., of Bruker Optics, shares about how the combination of electrochemistry with vibrational spectroscopy is helpful for studying electrochemical reactions, battery research, and failure analysis. He presents an overview of the different spectroelectrochemical tools, the optimization of their setup, and details of the communication between the potentiostat and the spectrometer.
 Applications for this combination include electro-oxidation of metal-organic complexes, carbon analysis in flexible electrodes, chemical mapping of the solid electrolyte interface of lithium metal battery, and the analysis of gases evolved during the battery's decomposition. Presented by Bruker Optics.

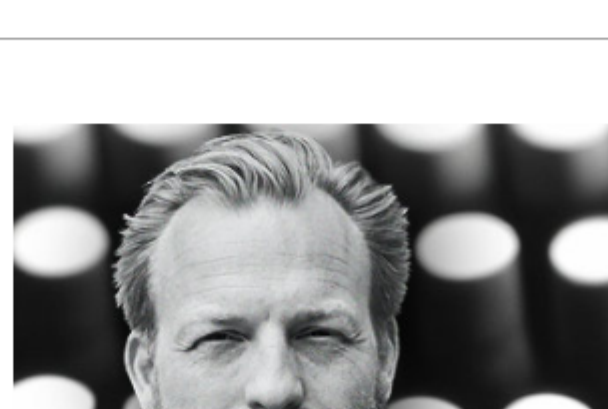
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The Next Step in Optical Design: How the Modeling of Optics Fabrication Avoids Common Pitfalls
 Wed, Oct 12, 2022 10:00 AM - 11:00 AM EDT
 Oliver Faehnle, Ph.D. shares on a new methodological analysis of optics fabrication technologies that enables the modeling and simulation of whole fabrication chains — by reading in lens design data. To that aim both optical systems and optical fabrication technologies have been classified and thus enabled to digitally interconnect. Consequently, the optimal fabrication chain for a given optical element can be determined out of the about 340 existing optical manufacturing technologies. Sponsored by Lambda Research Corporation.

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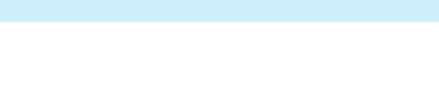
:: All Things Photonics

NIL Technologies CEO and founder **Theodor Nielsen** discusses the road to commercialization for meta-optical elements, metalenses, diffractive optical elements, and other ultrasmall components. The interview spans the complete product life cycle — from conceptualization and design to fabrication and market placement, and focuses on high-growth, high potential industries at a critical juncture for the technology.



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