

PHOTONICS spectra®

www.PhotonicsSpectra.com

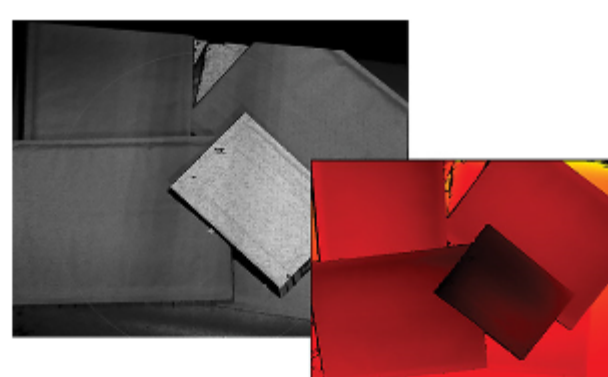
Monthly newsletter from the editors of Photonics Spectra, with features, popular topics, new products, and what's coming in the next issue. Manage your Photonics Media membership at [Photonics.com/subscribe](https://www.Photonics.com/subscribe).



Discover the latest trends, technical advancements, and best practices in photonics. #PSC2023 Register for FREE

Navigating the Options for 3D Imaging

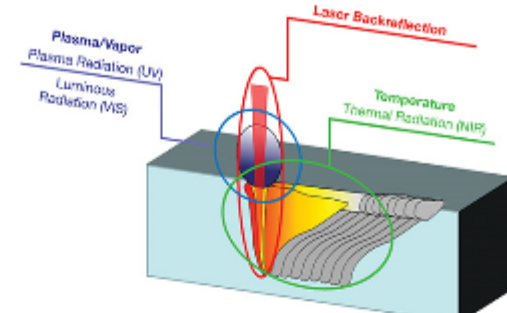
While 3D imaging in machine vision has been applied in key use cases for many years, use of the technology has recently grown and expanded, making it increasingly common in a wider range of applications. The best practices that can help to ensure a successful 3D imaging project involve component specification and project implementation. However, it's important to start with an overview of 3D imaging and a review of the methodologies available in the marketplace.



[Read Article](#)

New Sensors and AI Optimize Laser Welding

Welding is an ancient technology. Five thousand years ago, Egyptians used it to join copper water pipes together. Over the centuries it evolved into an essential technology to fuse various types of metals as experienced welders learned to optimize the process by observing and reacting to colors in the material and the flames. Welding technology has made more progress in the last 50 years than it did in the preceding millennia. A crucial part of this development relies on optical sensing of process parameters far beyond what our eyes can perceive.



[Read Article](#)

Tiny Quantum Dot Sensors Solve Big IR Application Problems

As a second quantum revolution begins, many mysteries remain in the quantum realm. Perhaps this is unsurprising given the notoriously confounding properties of this new frontier. However, as time passes, it seems increasingly likely that the development of new technological advancements and applications depends on understanding these mysteries.



[Read Article](#)

.: Featured Products & Services



[IR Filters for Thermal Imaging](#)

Spectrogon US Inc.

Spectrogon manufactures infrared filters and windows with high transmission, high rejection outside the passband, while maintaining excellent coating uniformity for thermal imaging and gas detection applications such as cryogenically cooled IR detectors and uncooled microbolometers. Our filters and windows range in dimension from Ø6.0 to Ø200.0 mm with dicing capabilities down to as small as 1.0 × 1.0 mm.

[Visit Website](#)

[Request Info](#)



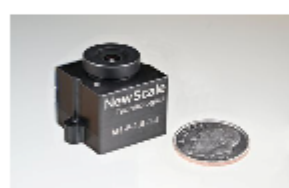
[Norland Optical Splice](#)

Norland Products Inc.

Norland's optical splice provides a high-performance connection for optic fibers in a unique one-piece design.

[Visit Website](#)

[Request Info](#)



[Compact focus for NGS instruments](#)

New Scale Technologies Inc.

Embed M3-F Focus Modules in Next-Gen Sequencing (NGS) instruments for precise laser spot size and imaging volume. Optimize excitation and detection in channels/nanowells. High repeatability and accuracy, no thermal drift. Built-in 3.3V controller (I2C or SPI) minimizes size and time to market.

[Visit Website](#)

[Request Info](#)



[SL160 Slide Loader](#)

Prior Scientific Inc.

The SL160 automated microscope slide loader combines reliability and high capacity with easy set up to provide automated slide scanning to a wide variety of existing upright microscopes or with the use of Prior's OpenStand microscope.

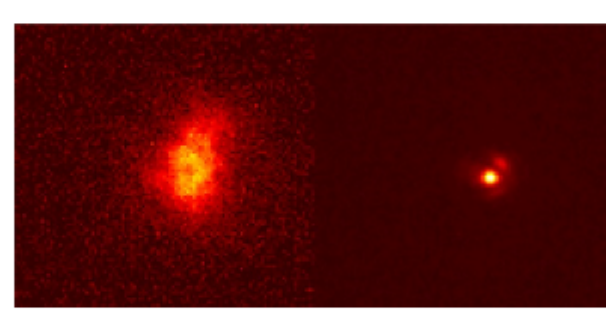
[Visit Website](#)

[Request Info](#)

.: In Case You Missed It

Adaptive Optics Elevates Ground-Based Telescopes' Image Quality

After starlight enters the atmosphere, it passes through layers of turbulence that grant the light a twinkling or flickering effect when viewed from Earth. This turbulence also affects the quality of images taken with ground telescopes. This effect can be mitigated with adaptive optics, which serve to correct the distortion caused by atmospheric turbulence.



[Read Article](#)

Durable Coating Self-Heals in 30 Minutes Upon Sunlight Exposure

Researchers at the Korea Research Institute of Chemical Technology (KRICT) developed a transparent protective coating material that can self-heal in 30 minutes when exposed to sunlight.

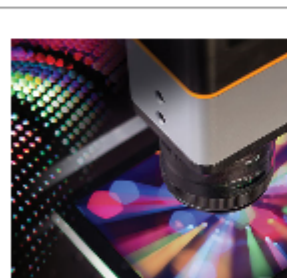
[Read Article](#)

Laser-Based Silicon Crystallization Improves MEMS Sensor Performance

Researchers from the Fraunhofer Institute for Laser Technology, in collaboration with colleagues from Fraunhofer ISIT and IST, developed a CMOS-compatible deposition and laser crystallization process for the production of micro-electromechanical systems. In contrast to other common processes, the method eliminates the need for wires and solder joints — an advantage that can significantly reduce the component size and enhance the sensor performance.

[Read Article](#)

.: Upcoming Webinars



Introduction to Display Metrology: Evaluating the Quality of Displays Using Scientific Systems and Methods

Thu, Nov 17, 2022 1:00 PM - 2:00 PM EST

Using scientific methods and equipment, display metrology solutions capture and assess the quantitative values of a display's output to evaluate its visual quality and performance. Jessy Hosken of Radiant Vision Systems shares the science behind display testing, including measurement equipment and techniques used by manufacturers throughout labs and production lines to ensure high-quality display products from microLED to AR/VR devices. Presented by Radiant Vision Systems.

[Register Now](#)

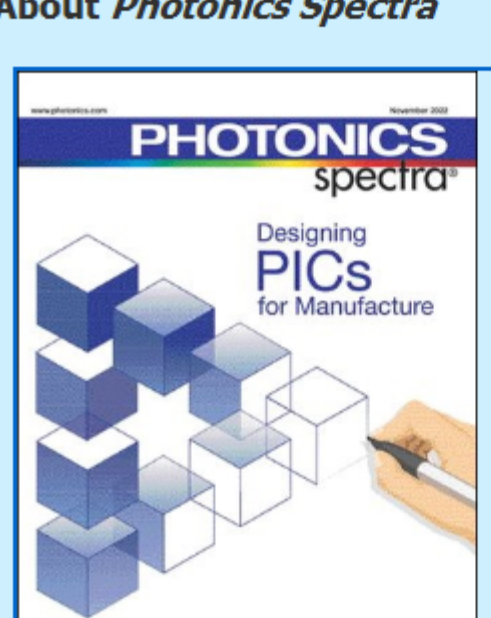
.: Next Issue:

Features

Optical Materials, Photoacoustic Imaging, sCMOS for XUV and Soft X-Ray, Materials Science: Fused Silica

Photonics Media is currently seeking technical feature articles on a variety of topics for publication in our magazine *Photonics Spectra*. Please submit an informal 100-word abstract to Daniel McCarthy, Senior Editor, at Daniel.McCarthy@Photonics.com, or use our online submission form www.Photonics.com/submitfeature.aspx.

About Photonics Spectra



Since 1967, *Photonics Spectra* magazine has defined the science and industry of photonics, providing both technical and practical information for every aspect of the global industry and promoting an international dialogue among the engineers, scientists and end users who develop, commercialize and buy photonics products.

Visit [Photonics.com/subscribe](https://www.Photonics.com/subscribe) to manage your Photonics Media membership.

[View Digital Edition](#) [Manage Membership](#)



We respect your time and privacy. You are receiving this email because you are a Photonics Media subscriber, and/or a member of our website, Photonics.com. You may use the links below to manage your subscriptions or contact us.

Questions: info@photonics.com

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

Photonics Media, 100 West St., PO Box 4949, Pittsfield, MA 01202-4949
© 1996 - 2022 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.

