

This Week in PHOTONICS



LightMachinery
Excellence in Lasers and Optics



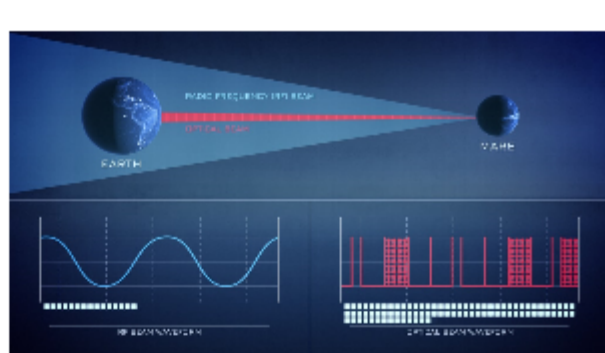
Hyperfine Spectrometer
A sub-picometer resolution spectrometer in a compact package.

.: Top Stories

NASA Turns to Laser Communications System for Data Transfer Boost

This summer, NASA will launch its Laser Communications Relay Demonstration (LCRD), setting the stage for high-speed transmission of data between planets. NASA missions have been using the same technology — radio frequency communications — since the 1950s and the beginning of spaceflight.

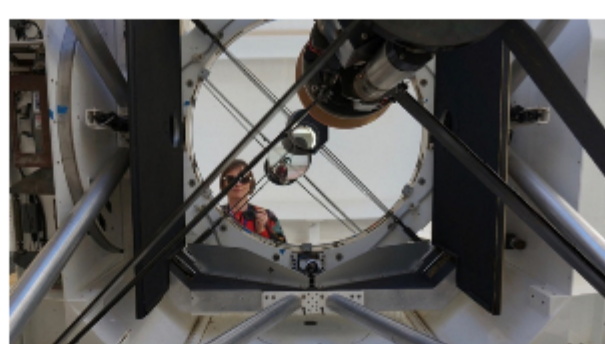
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Adaptive Optics Keep an Eye on Space Junk

Researchers at Australian National University (ANU) have employed an artificial guide star to bring objects orbiting Earth into focus. The approach may help mitigate risks from space debris. The guide star laser is a tool in adaptive optics, a field that eliminates the haziness caused by turbulence in the atmosphere.

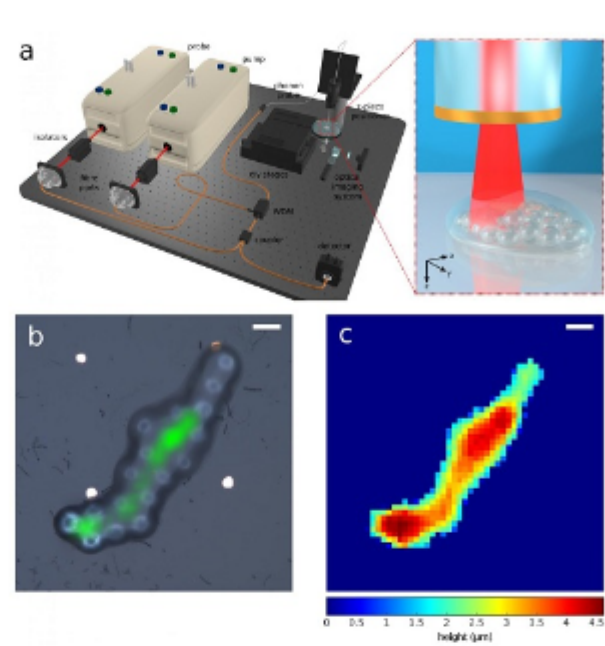
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Optical Fiber-Based Probe Enables Phonon Imaging in 3D

A University of Nottingham research team has developed a phonon probe device that can simultaneously access 3D spatial information and mechanical properties from microscopic objects. The probe operates at the GHz range, at which the wavelength of sound becomes comparable to ultraviolet optical wavelengths, providing opportunity for high-resolution imaging.

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.: Featured Products



Optical Filters for Point of Care

Delta Optical Thin Film A/S
Point of Care (PoC)

instruments have various uses in medical diagnostics, including the detection of infectious diseases such as Covid-19. Our optical filters are all designed for the next generation of PoC instruments...

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Telecentric 48 mm F-Theta Lenses for High-Power Short Pulse Lasers

Sill Optics GmbH & Co. KG

Extended series of telecentric F-Theta optics with short focal length for high power short pulse lasers. Available optics for 355 nm, 515 nm - 532 nm and 1030 nm - 1090 nm. Smallest foci can be achieved.

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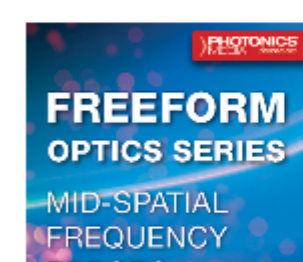
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.: Upcoming Webinars

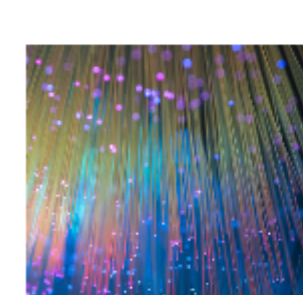


Freeform Optics for Imaging: Mid-Spatial Frequency Errors

Wed, Jun 2, 2021 1:00 PM - 2:00 PM EDT

Residual mid-spatial frequency (MSF) surface errors are common byproducts of the computer-controlled sub-aperture manufacturing techniques needed for fabrication of freeform optics. In this presentation, Thomas Suleski, Ph.D., provides an overview of MSF surface error signatures, specification methods, and performance impacts. Part 3 of the 2021 Freeform Optics Series.

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Polarization Extinction Ratio Measurement in Highly Birefringent Materials: Challenges and Solutions

Wed, Jun 23, 2021 1:00 PM - 2:00 PM EDT

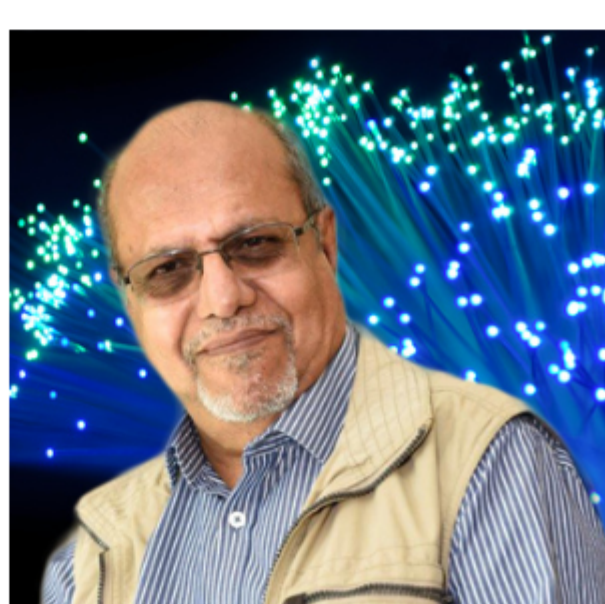
This webinar with Wajih Daab, product line manager for Luna Innovations, discusses the Polarization Extinction Ratio (PER) testing solutions offered by Luna which help manufacturers accelerate the testing time and improve measurement accuracy. Presented by Luna Innovations, Inc.

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.: All Things Photonics

Bishnu Pal, author of "Frontiers in Guided Wave Optics and Optoelectronics" and dean of academics at Mahindra University's Ecole Centrale School of Engineering, is our guest. From his start in semiconductor physics to numerous collaborations in the areas of fiber optics, silicon photonics, specialty fibers, and optical materials, Pal walks us through his journey in optics and photonics, which earlier this year saw him recognized with the SPIE Maria J. Yzuel Educator Award in recognition of four decades of educational leadership and sustained contributions in the field.

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