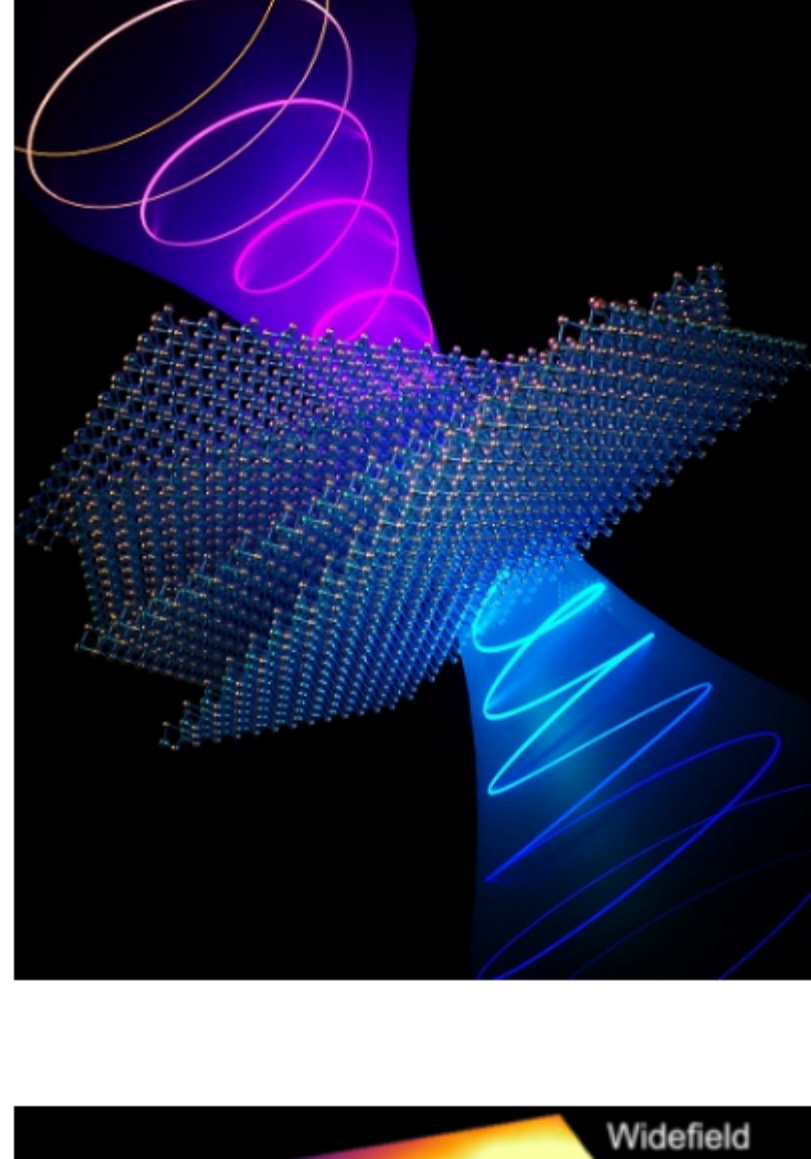


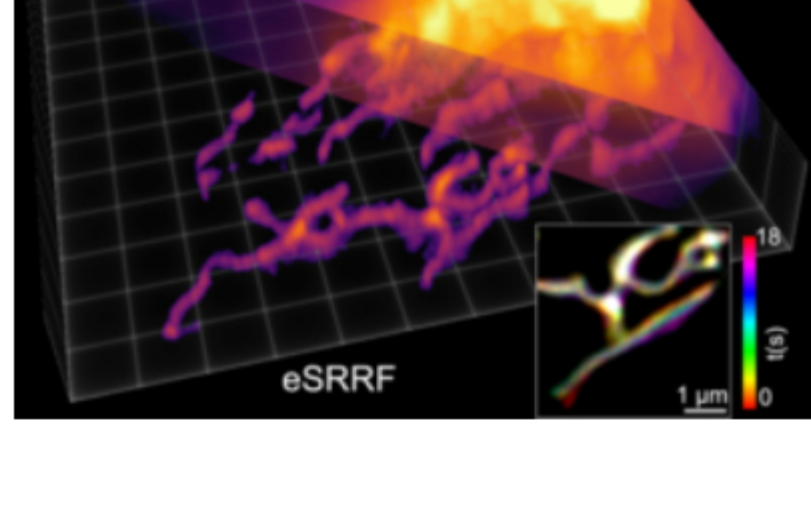


Shortwave Infra, Broadband Spectrum Solution Provider 
 State-of-the-Art of Customized Service and Simulation **WANT A QUOTE?**



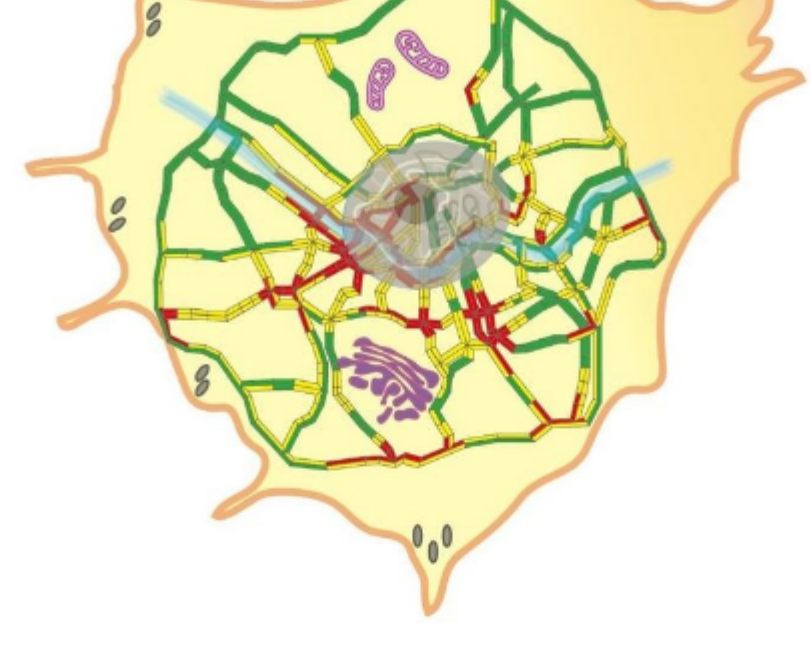
Fabrication Method Enables Novel Metamaterial Properties

A research team led by Bo Zhen of the University of Pennsylvania has developed an approach that directly engineers atomic structures of material by stacking the two-dimensional arrays in spiral formations to tap into novel light-matter interaction. This approach enables metamaterials to overcome the current technical limitations and paves the way for next-generation laser, imaging, and quantum technologies. [Read Article](#)



Imaging Algorithm Delivers Superresolution and Fidelity in 3D

A new implementation of superresolution radial fluctuations (SRRF), called enhanced superresolution radial fluctuations (eSRRF), was introduced by a team at the Gulbenkian Science Institute. According to the research team, eSRRF provides substantial improvements to image fidelity, resolution, and user-friendliness, compared to the original SRRF. [Read Article](#)



Label-Free Imaging Shows Dynamics of Intracellular Cargo Transport

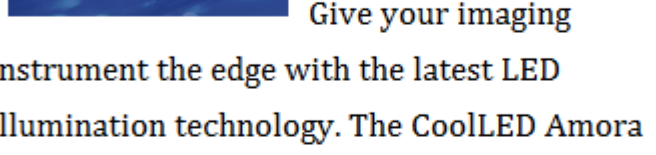
Researchers at the Institute for Basic Science Center for Molecular Spectroscopy and Dynamics, in collaboration with Korea University, developed a label-free, cargo-tracing microscopy technique to address the challenges of photobleaching and the visual isolation of cellular features associated with fluorescence microscopy. The Cargo-Localization Interferometric Scattering microscope enables label-free, real-time observation of cargo trafficking in the submicron cellular environment and allows researchers to selectively monitor the dynamic movement of active cargos within living cells. [Read Article](#)

NYFORS
 ADVANCED LASER FUSION SPLICING AND GLASS PROCESSING
[LEARN MORE](#)

Northrop Grumman SYNOPTICS
 Now Offers IBS Coatings

Featured Products & Services

LED Technology for OEM Applications

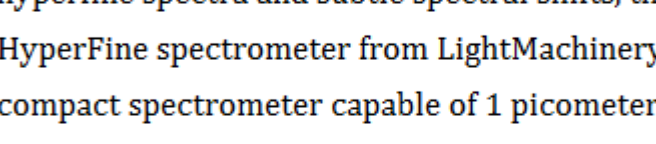


CoolLED Ltd.
 Give your imaging instrument the edge with the latest LED illumination technology. The CoolLED Amora Series combines the proven performance of an established product range with unparalleled customization opportunities.

[Visit Website](#)

[Request Info](#)

HyperFine Spectrometer



LightMachinery Inc.
 Designed for measuring hyperfine spectra and subtle spectral shifts, the HyperFine spectrometer from LightMachinery is a compact spectrometer capable of 1 picometer resolution. It is ideal for pulsed laser characterization and for measuring the small spectral shifts from Brillouin or Raman scattering.

[Visit Website](#)

[Request Info](#)

SK-1300 Fused Silica

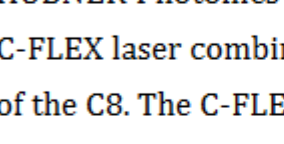


Ohara Corporation
 Ideal for semiconductor equipment, filters, and high energy laser applications. SK-1300 Fused Silica advantages include extremely low bulk absorption and fluorescence, no laser damage at 1070 nm, high transmission from UV through near IR, high homogeneity, and low stress birefringence.

[Visit Website](#)

[Request Info](#)

C-FLEX C8: Up to 8 Lasers Combined!



HUBNER Photonics GmbH
 HÜBNER Photonics announces an expansion of the C-FLEX laser combiner family with the introduction of the C8. The C-FLEX C8 is designed to integrate up to 8 Cobolt lasers making it ideal for solutions in bioimaging, Raman spectroscopy and holography.

[Visit Website](#)

[Request Info](#)

OHARA
 Optical Glass, Polished Substrates, Fused Silica & More

Difficult Coatings Made Possible
[CONTACT US](#)
DEPOSITION SCIENCES, INC.

More News

[Laser Technique Accelerates Metamaterial Studies](#)

[Researchers Fabricate Back-Contact Micrometric Photovoltaic Cells](#)

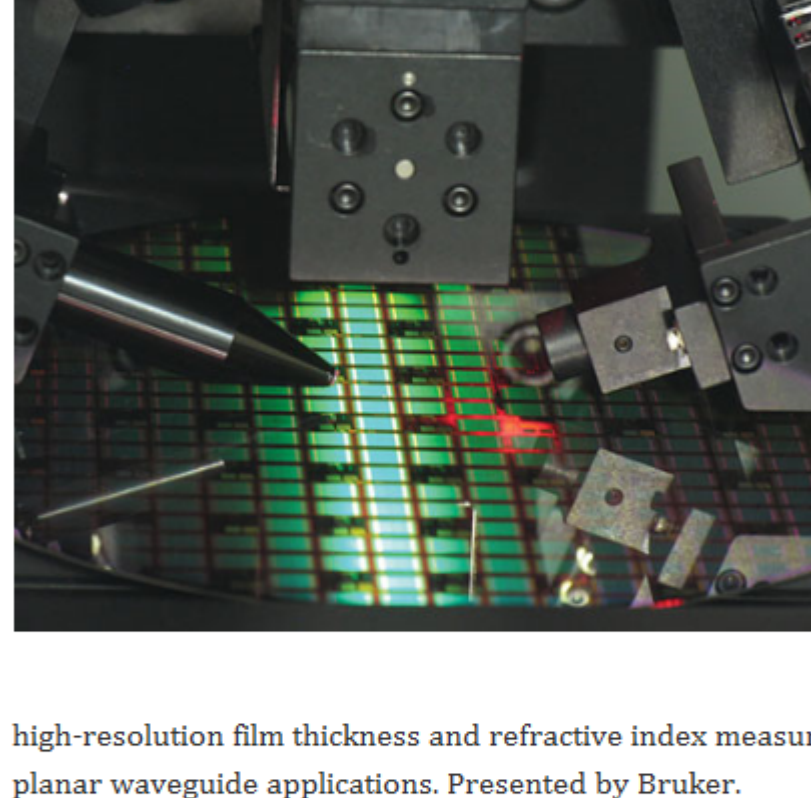
[Evident Collaborates with CrestOptics and 89 North to Advance Live-Cell Imaging](#)

[Poznan Supercomputing and Networking Center Set to Install First Quantum Computers](#)

iDS
 New: Ensenso C
 3D camera with an eye for space AND color
 Higher projector power, more details, ready-to-use.

OFC
 Register Today
 Register by 23 February 2024 for reduced rates.
ofcconference.org/registration

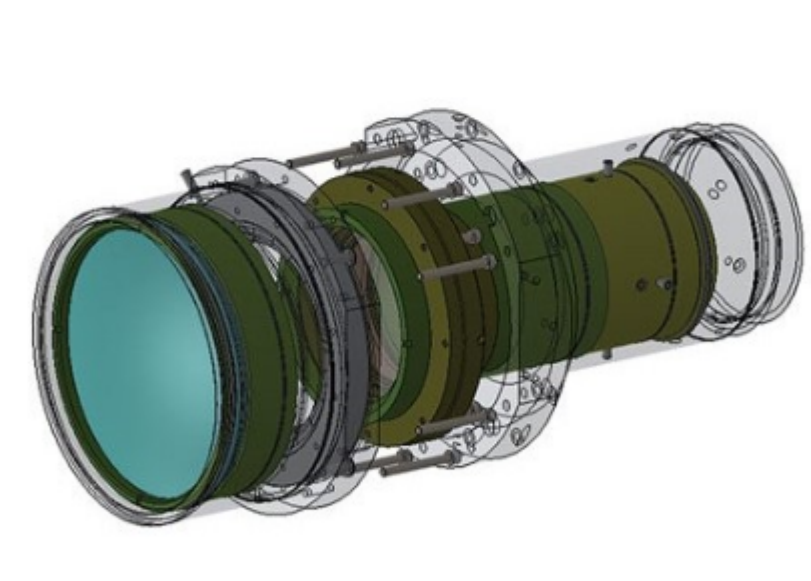
Latest Webinars



High-Resolution Measurement of Film Thickness and Refractive Index for Silicon Photonics and Planar Waveguide Applications

Wed, Dec 6, 2023 1:00 PM - 2:00 PM EST
 The precise characterization of film thickness and refractive index within these structures is paramount for optimizing device performance. This webinar provides an overview of advanced measurement techniques tailored to meet the high-resolution demands of silicon photonics and planar waveguide applications. Lawrence Rooney of Bruker shares about state-of-the-art film thickness and refractive index measurement techniques, including multi-angle spectroscopic reflectometry and ellipsometry, and discusses their respective advantages, limitations, and suitability for different types of multi-layer photonic structures. He also highlights the critical importance of measurement techniques in the advancement of silicon photonics and planar waveguide applications. Presented by Bruker.

[Register Now](#)



Custom Optics Unleashed: Rapid Prototyping and Engineering

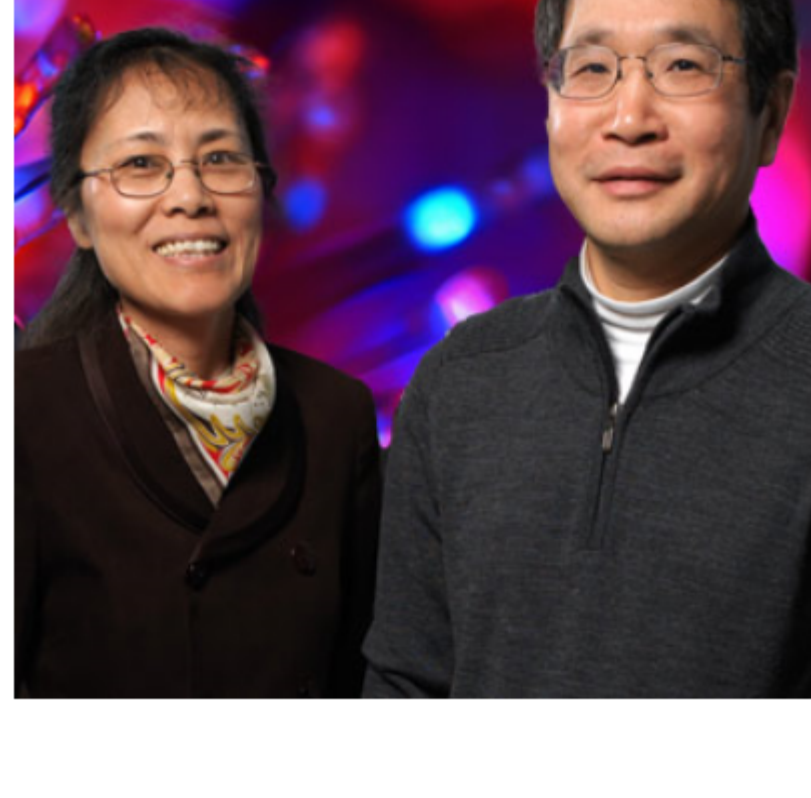
Thu, Dec 7, 2023 1:00 PM - 2:00 PM EST
 When the design of custom optics shortens lead times and can decrease bill of material (BOM) costs. However, it can be challenging to find a product that meets all the required specifications. This leads to the question: When is it appropriate to consider a custom solution? Large wavelength ranges, extreme resolution requirements, and tight packaging constraints are some of the design drivers toward custom solutions. To be able to achieve these requirements and overcome the challenge of leads times, Thorlabs has developed the processes to get custom components, designs, and assemblies to their customers quickly. In this webinar, Nate Burdick addresses the challenges in detail to include fast track quotes, QuickTurn™ optics manufacturing, and priority assembly and testing. He covers the different avenues that can be taken to reduce lead times and ship the product to customers sooner. Presented by Thorlabs.

[Register Now](#)

PHOTONICS spectra
 HYPERSPECTRAL IMAGING SUMMIT
 December 6, 2023
 #PhotonicsSpectra
 Register for FREE

WEBINARS on Demand
 • In-Depth Presentations
 • Q&As Featuring Top Industry Experts
www.photonics.com/webinars

All Things Photonics



About 20 years ago, **Hongxing Jiang** and **Jingyu Lin** published a paper describing the microLED. Since the publishing of that seminal work, microLEDs have seen commercialization in automotive and industrial lighting applications, but for much of that time, Jiang and Lin's envisioned application in display technology had been simmering on the backburner. Now, the technology is becoming a household name. With the holiday season approaching, consumers shopping for a new TV are noticing that the top of the line isn't just populated with OLED models. While manufacturing challenges remain, microLEDs offer a wonderful marriage of efficiency, brightness, and sheer possibility, even beyond display and lighting applications. In this episode, Jiang and Lin discuss the path from paper to commercialization, and the road ahead and what possibilities the future holds.

[Listen Now](#)

Call for Articles

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