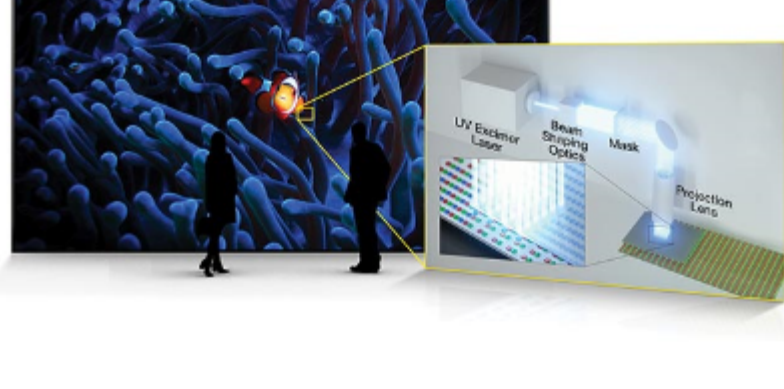




Monthly newsletter from the editors of Photonics Spectra, with features, popular topics, new products, and what's coming in the next issue. [Photonics.com/subscribe](https://www.photonics.com/subscribe).

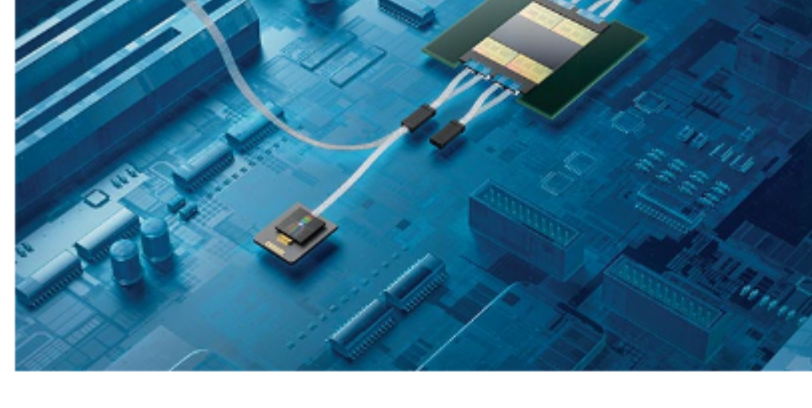


## DUV Lasers Scale Up Pulse Energy and End Markets

In the early 2000s, a husband-and-wife team, Hongxing Jiang and Jingyu Lin of Texas Tech University, first demonstrated the range of outstanding features provided by micro-LED displays. Since then, the technology has seen increasing adoption in the display screens of a growing number of popular electronic devices. Their applications range from large video walls to microdisplays for wearables and AR/VR

devices. With additional advancements in deep-ultraviolet laser manufacturing systems, experts predict micro-LEDs will further disrupt the display market and help to add new functionalities, such as cameras and sensors, to the screen.

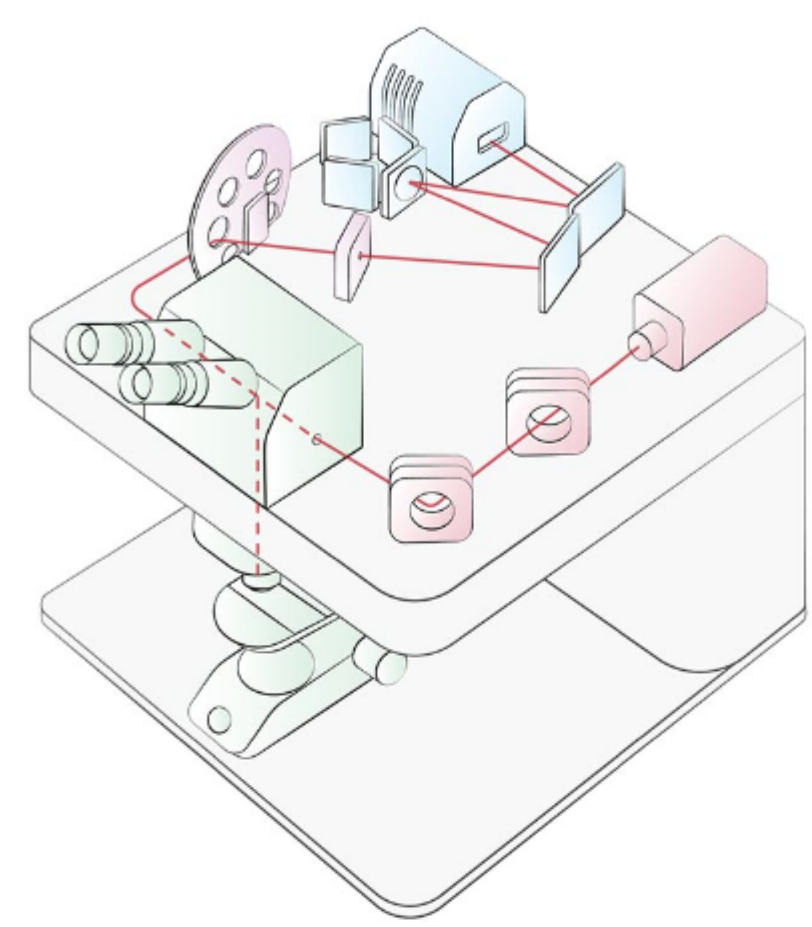
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## Photonics Reshapes the Future of Computing

Moore's law has been challenged many times during the past sixty years, but semiconductor engineers always found new tricks to continue doubling the density of transistors on a chip. In the meantime, the cost to do so has skyrocketed. Today, chip makers create structures on silicon chips that are as thin as a few atoms. It will not be long before physics

prevents these structures from getting any smaller. [Read Article](#)

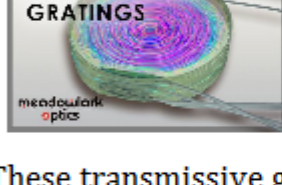


## Part by Part: The Anatomy of a Raman Microscope

Raman microscopy is a fantastic technique for analyzing the chemical composition of samples. It is a nondestructive technique that mitigates the need for material preparation and the use of stains or dyes. Further, combining Raman spectroscopy with microscopy enables high spatial resolution to be obtained that can be applied to particles measuring a few micrometers in size. This versatility has prompted use of the technology in a wide range of applications and end markets, from semiconductors to bioscience, making it an extremely useful tool for any laboratory. [Read Article](#)



## Featured Products & Services



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## In Case You Missed It

### SPIE Names 2024 Prism Award Winners

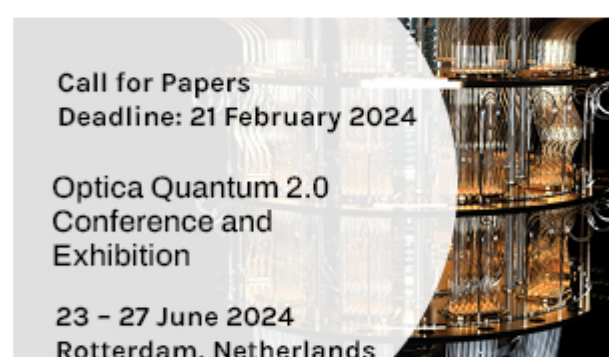
SPIE, the international society for optics and photonics, recognized the top innovations in new optics and photonics products at the 2024 Prism Awards held at Photonics West on Jan. 31. The gala event marked the Prism Awards' 16th anniversary. [Read Article](#)

### Ultrafast Laser Pulses Could Increase Data Storage Energy Efficiency

A recent discovery from the University of California, Davis, could enable faster and more efficient magnetic hard drives by using ultrafast laser pulses to process data. The findings could significantly reduce energy consumption for data centers. [Read Article](#)

### Semiconductor Ink Offers High-Efficiency, Sustainable Emission for OLEDs

A new, 3D-printable material that is a highly efficient emitter could lead to cheaper, more sustainable manufacturing processes for OLED devices. The material, called superparamagnetic ink, demonstrated the ability to convert nearly all absorbed light into visible light during the emission process. [Read Article](#)



## Latest Webinars



## Quantum Efficiency Measurements: Fundamentals for Solar Cell Research, Part 2

Wed, Feb 21, 2024 1:00 PM - 2:00 PM EST

In part two of this series, representatives from MKS Newport present an in-depth discussion on equipment and test configurations used for cutting-edge cell development such as perovskites and multi-junction cells. These configuration topics include device interfacing, light generation techniques, and signal detection. They discuss specific requirements that are needed to take these measurements as well as the key challenges researchers run into during experimentation. In addition to quantum efficiency measurements, they also review I-V curve generation and analysis for solar module level parameter testing. Join MKS Newport experts to learn and dig into the world of solar cell design measurements and how to set up a lab

for success. Presented by MKS Newport.

[Register Now](#)

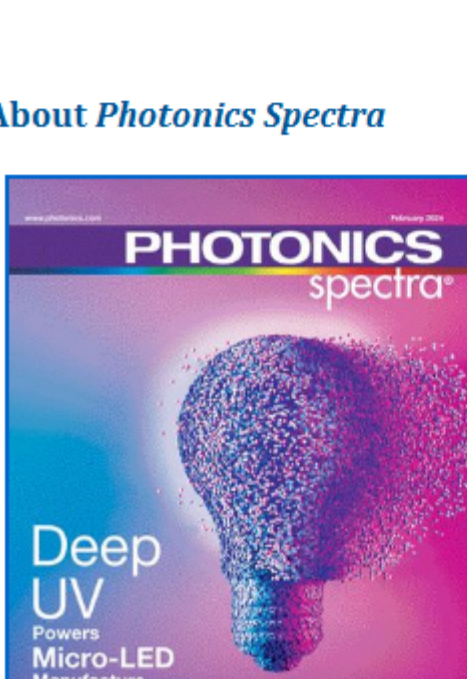
## Next Issue

### Features

Optical Filters, Quantum Optical (Laser) Communications, Optical Interconnect, and Silicon Photonics

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