

This Week in PHOTONICS



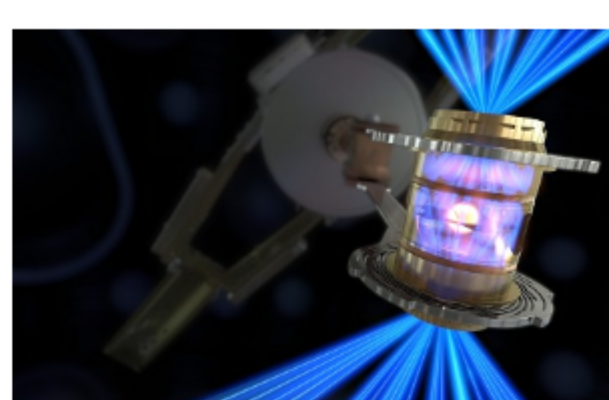
Shortwave Infra, Broadband Spectrum Solution Provider
State-of-the-Art of Customized Service and Simulation

Top Stories

NIF Scientists Claim Repeat Fusion Breakthrough

Scientists at Lawrence Livermore National Laboratory (LLNL) and the National Ignition Facility (NIF) have reportedly advanced last December's laser fusion breakthrough result. For the second time, scientists obtained more energy from a fusion reaction than the process consumed — achieving a so-called net energy gain.

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CSU and Marvel Fusion to Build \$150M Facility

Colorado State University (CSU) and Marvel Fusion have partnered to build a \$150 million laser facility to enable research into inertial fusion energy and high energy density physics. The public-private partnership will see the facility constructed on the CSU Foothills Campus.

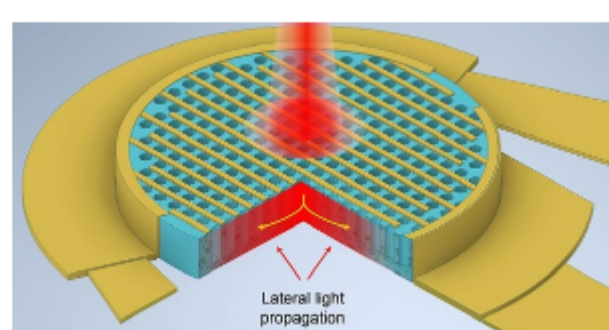
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Silicon Photodetector Rivals III-V Counterparts

Researchers at the University of California, Davis (UC Davis) are developing a strategy to boost the light absorption of thin silicon films. The team demonstrated silicon-based photodetectors with light-trapping micro- and nano-surface structures, achieving performance gains that rival that of gallium arsenide (GaAs) and other group III-V semiconductors.

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Featured Products & Services



NIT's HD SWIR Camera Smart Version

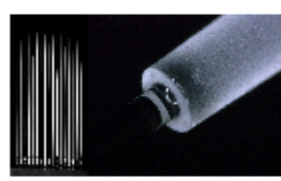
New Imaging Technologies (NIT)

SenS 1280 — Smart version

integrates NIT's HD resolution 1280 × 1024 px@10 μm sensor, French-made SWIR camera. CameraLink, SDI output, GenICam compliant with On-board Image processing: AGC, AIT, NUC & BPR, 80%. 60 Hz frame rate. ROI. Ideal for machine vision and surveillance applications.

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CO₂ Laser Glass-Processing

NYFORS Teknologi AB

CO₂ laser glass-processing is

designed to produce high-power and sensitive photonic components and complex structures. It guarantees contamination-free processing for fiber linear, 2D and gapless array splicing, ball lensing, end-capping, and many other challenging processes.

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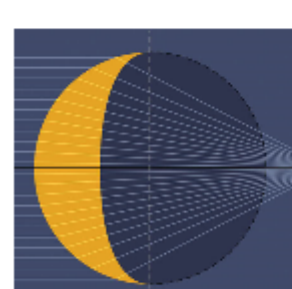
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Upcoming Webinars

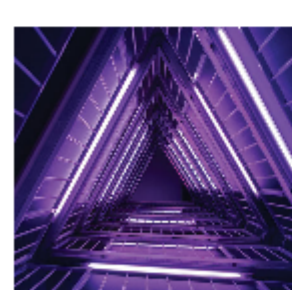


Stigmatic Optical Imaging: The Past, Present, and Future

Tue, Aug 22, 2023 1:00 PM - 2:00 PM EDT

The exact equation to design a stigmatic lens has recently been found and extensively studied. This equation allows researchers to explore several stigmatic optical systems showing the systems share several properties. In this presentation, Rafael González-Acuña of Huawei Technologies reviews those properties, starting from the history of the problem in ancient Greece to its solution that was published in 2018. He addresses that solution step by step and explores the mathematical details. He also shares the benefits, applications, and future possibilities of this equation.

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Advanced Packaging for Integrated Photonics: From Research to Manufacturing

Tue, Aug 29, 2023 10:00 AM - 11:00 AM EDT

Advanced packaging enables researchers to combine different technology platforms such as photonics, electronics, micro-electromechanical, and fluidics to address a vast array of exciting applications. Professor Peter O'Brien presents the packaging capabilities established by his research team at the Tyndall Institute, including details about the group's diverse range of research projects in areas such as telecommunications, quantum, and medical devices. The webinar outlines how these advanced packaging processes can be transferred to early-stage manufacturing through the group's leadership of the European Pilot Line, and discusses recent developments by the group to establish the European Photonics Academy to train industry and students in a wide range of advanced photonic technologies. Sponsored by Aerotech Inc.

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