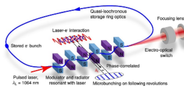
Thursday, July 4, 2024

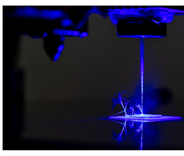
PHOTONICS spectra

Weekly News



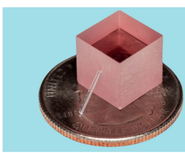
EUV Light Source Could Meet Chip Makers' Future Lithography Needs

Scientists from Helmholtz-Zentrum Berlin, Tsinghua University, and Germany's national metrology institute Physikalisch-Technische Bundesanstalt, are building the foundation for a future source for coherent UV radiation, known as steady-state microbunching (SSMB). According to the researchers, SSMB could provide a way to generate coherent synchrotron radiation at an electron storage ring in order to supply kilowatt-level average power radiation in the extreme UV regime. **Read Article**



3D Printing Technique Streamlines Multi-Materials Prototyping

A 3D printing and laser process developed at the University of Missouri opens the door to simplified manufacturing of multi-material, multi-layered sensors, circuit boards, and even textiles with electronic components. Called the Freeform Multi-material Assembly Process, the technique allows complex devices to be crafted from multiple materials — including plastics, metals, and semiconductors — using a single machine. **Read Article**



Researchers Shrink Titanium-Sapphire Laser to Chip-Scale

Making a jump from tabletop to the microscale, engineers at Stanford University have built a titanium-sapphire (Ti:sapphire) laser on a chip. According to the researchers, the prototype is four orders of magnitude smaller (10,000×) and three orders less expensive (1,000×) than any Ti:sapphire laser ever produced. **Read Article**

Featured Products & Services

Precision Polished Substrates

Ohara Corporation

Ohara is a leading manufacturer of double-side polished substrates with extremely low surface roughness (RMS ~2 Angstroms) and flatness (~1 µm) values. Sizes 25- to 360-mm diameter, thin (down to 50 µm) and ultra-clean. Fused silica, optical glass, etc.

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Duplex Logic To Fiber Optic Converter

Highland Technology Inc.

The Highland K420 is a bi-directional, electrical-optical/optical-electrical data link with differential logic input and output, capable of transporting single or bi-directional digital data at speeds up to 2 GHz. The included Cisco SFP-10G-SR plugin module can operate at distances up to 400 meters with 50-micron OM4 or better fiber.

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More News

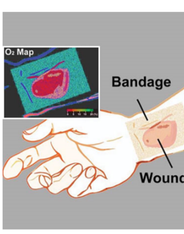
onsemi Acquires SWIR Vision Systems

Nokia to Acquire Infinera for $2.3B

Production Process Lowers Quantum Dot Laser Manufacturing Costs

Fraunhofer Developing Silicon-Based NIR Photodiodes

Latest Webinars

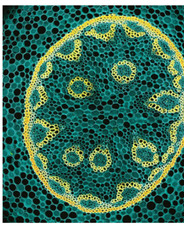


Photonic Oxygen Sensing Tools for Health Care

Tue, Jul 9, 2024 1:00 PM - 2:00 PM EDT

A central challenge in the clinical care of patients is the measurement of tissue oxygen. While numerous tools exist to measure aspects of tissue perfusion and oxygenation, such as doppler and NIR oximetry, these methods only indirectly provide information regarding oxygen content in tissue. Researchers have developed a platform technology based on ultrabright porphyrin photochemistry that enables direct, quantitative measurement of tissue oxygen concentration. They have also translated sensor, imaging, and implantable sensors to preclinical and clinical application for patient care challenges ranging from post-surgical monitoring to chronic wound care.

Register Now



Beam Steering with Galvos: Common Configurations and Their Uses

Wed, Jul 24, 2024 1:00 PM - 2:00 PM EDT

Galvanometer scanning systems are highly configurable tools for steering laser beams and are used in applications including microscopy, lidar, and the laser processing of materials. Choosing the correct configuration for a particular application requires the consideration of a wide range of factors. In this webinar, Carol Borsa from Thorlabs compares commonly available configurations and discusses the merits of each. She provides key insights to specifications on data sheets, and guides users to suitable solutions. This presentation also covers basic integration steps and requirements, as well as helpful tools for finding the limits of a system. Participants will gain insights into best practices when choosing a system and will have the opportunity to learn ways to use other available equipment to integrate confidently. Presented by Thorlabs.

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