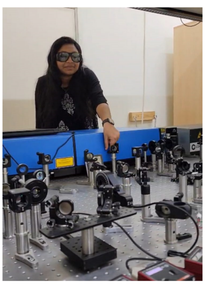
Thursday, June 27, 2024

PHOTONICS spectra

Weekly News

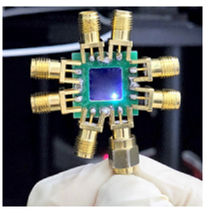
Water-Born Glass Shows Transparent, Adhesive, Self-Healing Properties

Researchers from Tel Aviv University have created a type of glass that is formed spontaneously when a powdered substance comes into contact with water at room temperature. The glass is a strong adhesive, fully transparent, and has self-healing properties. It is expected to have applications in a broad range of industries, from satellite communications to medical fields. Read Article



Nonlinear Optics Upconverts IR to Visible for IR Imaging at Local Level

Researchers at the Indian Institute of Science (IISc) developed a device to upconvert the frequency of short infrared light to the visible range. According to a release from the IISc, the researchers designed a nonlinear optical mirror stack and used it to achieve widefield upconversion imaging from the near-infrared to the visible wavelengths. Read Article



Multifunctional Diode Speeds and Integrates Optical Computing

A multifunctional three-terminal diode (TTD) developed by a team at the University of Science and Technology of China can function as both an optical emitter and a photodetector. The TTD boosts communication bandwidth significantly. It is easily reconfigured, making it useful for integrated optical computing. According to the researchers, it sets a new benchmark in light emission and detection control. Read Article

Featured Products & Services

Compact Optical-to-Electrical Converter

Highland Technology Inc.

The Highland Technology Model J736 is a single-channel, high-voltage, optical-to-electrical converter, useful for distributing pulse, logic, and trigger signals over long distances without the losses and noise problems typically associated with coaxial cables. The compact design of this small but rugged device transports easily, allowing the o/e transition to be located wherever most convenient.

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Laser Crystals

Princeton Scientific Corporation

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More News

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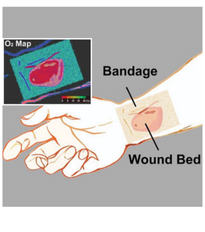
Cytometer Detects Rare Cancer Cell Subpopulations Concurrently

Additive Manufacturing Materials Consortium Working on Standards

Space Force Issues Four Contracts for Optical Communications

Latest Webinars

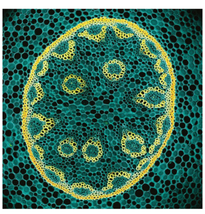


Photonic Oxygen Sensing Tools for Health Care

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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