Thursday, December 19, 2024

PHOTONICS spectra

Weekly News

Ayar Lands Funding from Big Companies, R&D News: Electrically Pumped Laser Grown on Silicon Wafer

Ayar Labs lands $155 million in funding from big names including NVIDIA, AMD Ventures, and Intel Capital. Lightwave Logic announces a change in leadership. A German research team makes a breakthrough in lasers, developing a first-of-its-kind electrically pumped laser grown on silicon wafer. IBM says they've found a way to make AI training 5 times faster. The Yole Group releases a market report on the semiconductor laser industry. And using light to train professional soccer players could increase reaction times. These stories and more on Photonics Spectra Now. Sponsored by scia Systems and TRIOPTICS.

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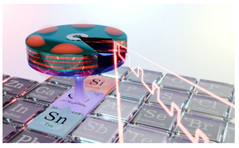

Electrically-Pumped Laser Grown on Silicon Wafer

An international research team has developed an electrically-pumped continuous wave semiconductor laser suitable for seamless silicon integration. According to the team, this is the first laser of its kind directly grown on a silicon wafer.

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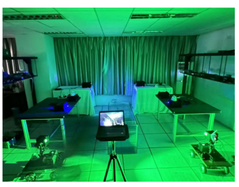

Light-Based Communication Connects Air, Land, Sea

A team of researchers from Nanjing University of Posts and Telecommunications has demonstrated a prototype mobile all-light communications network, paving the way for seamless connectivity across air, land, and underwater environments, even when communication nodes are on a moving vehicle. The advance could enable uninterrupted data exchange in dynamic and challenging settings for navigation, emergency response, research, and commercial operations.

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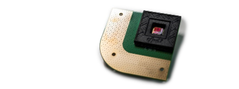

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SWIR Sensor Utilizes Lead-Free Quantum Dot Photodiodes

As part of the Belgian research project Q-COMIRSE, researchers presented a prototype SWIR image sensor with indium arsenide quantum dot (QD) photodiodes. The sensor successfully demonstrated 1390 nm imaging results, offering an environmentally friendly alternative to first-generation QDs that contain lead, which has limited their widespread manufacturing. **Read Article**

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More News

Focused Energy and Amplitude Strike Partnership Agreement

Lightwave Logic Makes Changes to Leadership

Compact Device Combines Light Sensing and Modulation

SCANLAB Names CEO, Additional Personnel Changes

All Things Photonics

Fiber Optics and Fiber Lasers (With Sir David Payne) and Time and Frequency (With Tara Fortier)

In season ten's finale, "All Things Photonics" speaks with its first knighted guest: **Sir David Payne**, Director of the Optoelectronics Research Centre at the University of Southampton. Sir David is recognized as a pioneer in fiber laser research, having broken the kilowatt output barrier, and in fiber optics research, where he contributed to the development of the erbium-doped fiber amplifier. Later, we speak with **Tara Fortier**, project leader at the Time and Frequency Division at the National Institute of Standards and Technology. Fortier's research is focused on precision optical and microwave metrology, and the development of optical clocks.

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