

This Week in PHOTONICS



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Excellence in Lasers and Optics



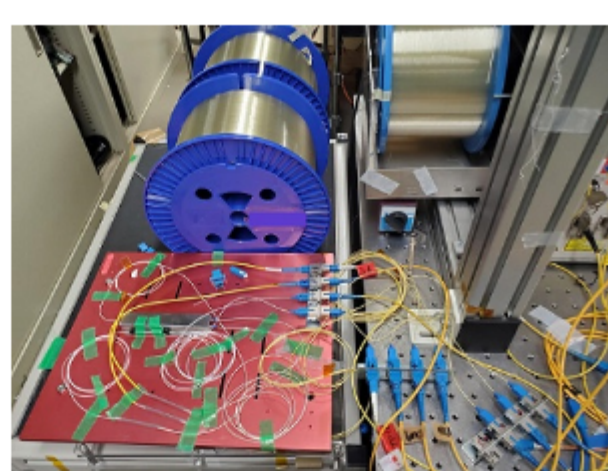
Hyperfine Spectrometer
A sub-picometer resolution spectrometer in a compact package.

Top Stories

Researchers Break Record for Long-Distance Broadband Data Transmission over 4-Core Optical Fiber

A research team led by Benjamin J. Puttnam at the National Institute of Information and Communications Technology (NICT) reported that it transmitted data over a distance of more than 3000 km (1860 miles) at a rate of 319 Tbit/s and a transmission bandwidth of greater than 120 nm, across the S-, C-, and L-bands.

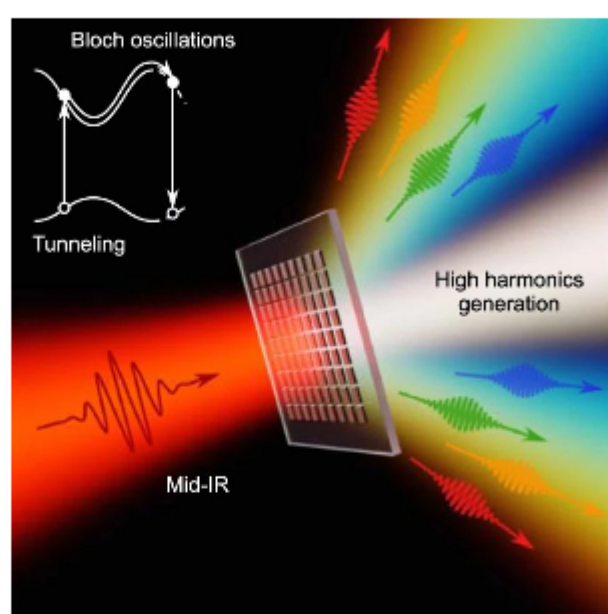
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Nanostructures Allow High Harmonic Generation with Pulsed Lasers

Cornell University researchers have developed nanostructures that enable record-breaking conversion of laser pulses into high-harmonic generation. The work paves the way for new scientific tools for high-resolution imaging, as well as the study of physical processes that occur at the scale of an attosecond.

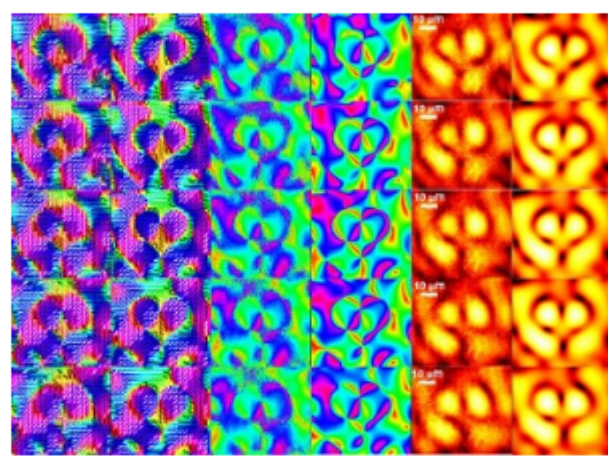
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On-Demand Optical Singularities Strengthen Range of Applications

A group led by Federico Capasso at the Harvard John A. Paulson School of Engineering and Applied Sciences (SEAS) has broadened the study of optical singularities to include zero-dimensional (point) and 2D (sheet) optical singularities. The group developed a way to engineer 2D singularity sheets on demand.

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Featured Products

Optical Fabrication

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Optical Fabrication is a new book for anyone working on or interested in the methods, materials and measurement techniques used in modern lens and optical component manufacturing. The book will serve as an introduction or update, moving beyond methods and materials to design and complex modern applications.

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Optical Filters for Point of Care

Delta Optical Thin Film A/S

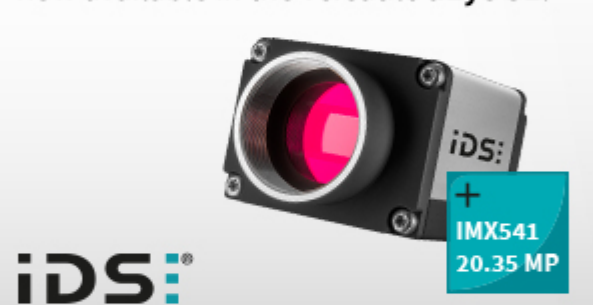
Point of Care (PoC)

instruments have various uses in medical diagnostics, including the detection of infectious diseases such as Covid-19. These types of tests only require a single drop of blood, saliva, or urine and can be performed by a GP within minutes.

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Toward Global Quantum Networks

Thu, Aug 12, 2021 1:00 PM - 2:00 PM EDT

In this webinar, Liang Jiang, Ph.D., professor at the University of Chicago Pritzker School of Molecular Engineering, introduces quantum technologies demonstrated to boost communication rates over long distances. The end goal: global quantum networks, realized. This webinar is the third presentation in Hamamatsu's Quantum Technologies Series, presented by Hamamatsu Corporation.

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