

TECH PULSE

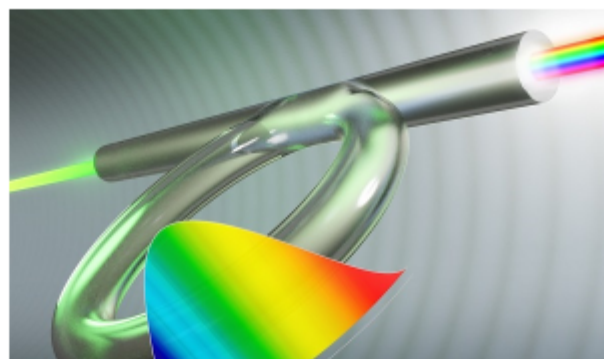
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Rochester Researchers Use Spectral Filter in Kerr Resonator to Create Highly Chirped Laser Pulses

Researchers have produced ultrashort, extremely high-energy (chirped) laser pulses using a spectral filter in a Kerr resonator. The pulses created in the work remained stable in low quality-factor resonators, despite large dissipation.

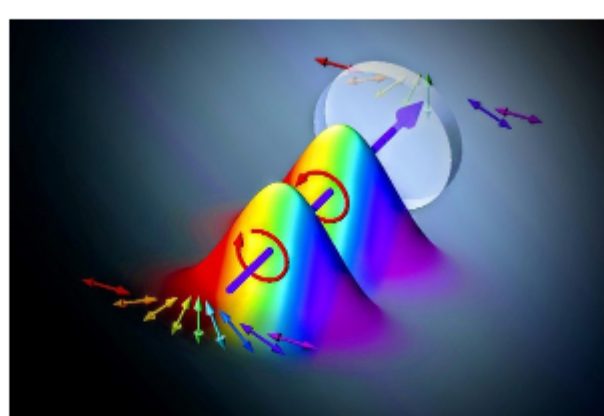
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Spectroscopy Method Looks at Polarization, Not Spectra

Researchers at Tampere University and their collaborators have shown how the speed of spectroscopic measurements can be made much faster.

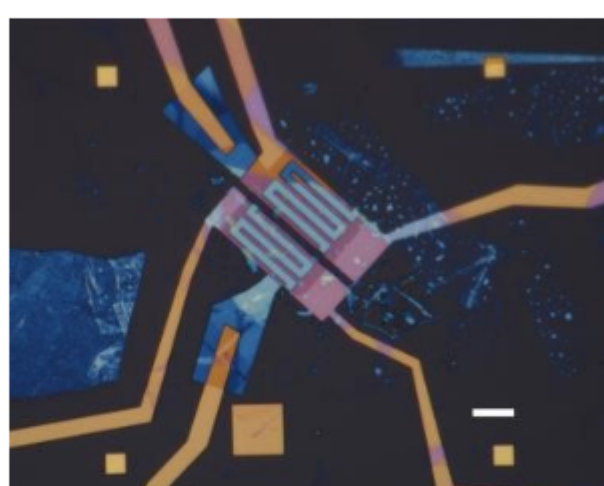
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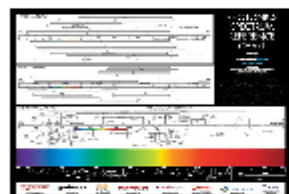
Clinical, Commercial Applications Loom for Ultracompact On-Chip Spectrometer

An ultracompact, mid-infrared spectrometer developed by scientists from Yale University, Bar-Ilan University, and the National Institute of Materials Science (NIMS) uses a 10-nm thick, single tunable black phosphorus photodetector and shows promise as an on-chip device for sensing, surveillance, and spectral imaging.

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.: Featured Products



Photonics Spectrum Reference Chart

Photonics Media

This full-color, 30 × 20.5-inch poster of the photonics spectrum displays the major commercial laser lines, detectors and optical materials in the ultraviolet to the far-infrared and beyond. The chart was updated in 2018 to reflect the changing technologies in the photonics industry.

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Apple Supplier Rockley Photonics Unveils Wearable Health-Monitoring Tech

Rockley Photonics unveiled a health monitoring solution that it is calling a "clinic-on-the-wrist" digital health sensor system. Through the technology, which uses a miniaturized chip that provides continuous, noninvasive monitoring of core biomarkers, Rockley expects to be able to overcome the key challenges associated with mobile wellness monitoring.

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NIST's Comb Systems Measure All Primary Greenhouse Gases in the Air

National Institute of Standards and Technology (NIST) researchers upgraded their laser frequency-comb instrument to simultaneously measure nitrous oxide, carbon dioxide, water vapor, and the major air pollutants ozone and carbon monoxide. The work specifically involves a shift from the spectrum of light analyzed in the near-infrared to the mid-infrared to enable the identification of more and different gases

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Technique Reveals Glass Surface Damage at the Nanolevel

A team of collaborators from Penn State, Southwest University of Science and Technology (SWUST), and neaspec GmbH produced a spectroscopy technique to enable the study of nanolevel imperfections in the surface of glass.

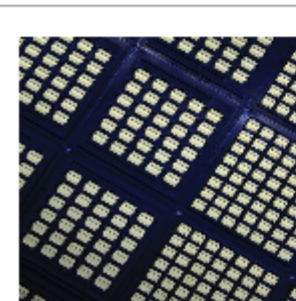
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Interferometry Enables Measurement of Brain Blood Flow, Activity

A spectroscopy technique developed at the University of California, Davis is able to noninvasively measure brain blood flow and activity. The method, called functional interferometric diffusing wave spectroscopy, has the potential for use in assessing brain injuries and in neuroscience research. It also promises to be cheaper than existing technology, which cannot be applied continuously or at the bedside.

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.: Upcoming Webinars



AuSn Thin-Film Technology and AuSn Pre-deposited Substrates for Optoelectronics

Wed, Aug 25, 2021 10:00 AM - 11:00 AM EDT

AuSn thin film is a critical technology to enable an optoelectronic device to ensure durability, anti-oxidation ability and reliability compared with Indium, SnPb, SnBi, and others. In this webinar, Allen Liu of FocusLight Technologies Inc. explains the design, key processes, and application data of high-power laser diode devices. Presented by FocusLight Technologies Inc.

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