

This Week in PHOTONICS

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Excellence in Lasers and Optics

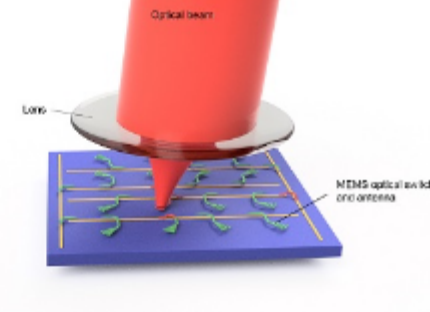


Hyperfine Spectrometer
A sub-picometer resolution spectrometer in a compact package.

Top Stories

Chip-Based Lidar Packs the Pixels for Use in Vehicles and More

A research team led by professor Ming Wu at the University of California, Berkeley is developing a high-resolution, chip-based lidar system that could be used in a range of devices, from autonomous cars to smartphones. The researchers used a focal plane switch array (FPSA) with MEMS switches to pack 16,384 pixels onto a single chip.



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Spectroscopy Deems Biexciton Binding Energy Usable in Electronics

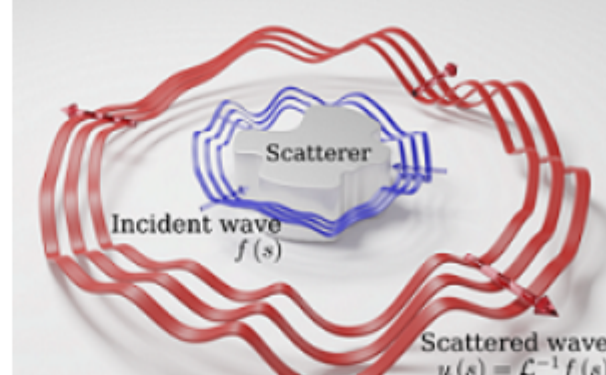
Researchers at Swinburne University of Technology used an advanced spectroscopy technique to quantify the energy required to bind two excitons into a biexciton state. The team directly measured the biexciton binding energy in tungsten disulfide a 2D material that belongs to the transition metal dichalcogenide (TMDC) family of semiconductors. The findings could be used to develop applications based on the flow of biexcitons in TMDCs.



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Efficient, Nano-Size Optical Computer Crunches Complex Data

A research team led by Andrea Alù at the City University of New York (CUNY) and Heedong Goh at the Advanced Science Research Center at the CUNY Graduate Center (CUNY ASRC) developed a design for a nano-size, wave-based computer that solves advanced mathematical computations at the speed of light.



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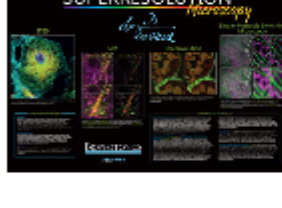
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With interest in the

superresolution microscopy field growing rapidly, the editors of BioPhotonics magazine — in collaboration with acknowledged experts — created a poster with readers in mind that is suitable for lab, classroom and office. It features visually stunning, high-resolution images...

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Synopsys Inc., Optical

Solutions Group

Optical designers are often tasked with correcting more aberrations and using fewer surfaces for compact applications ranging from medical instruments to AR systems. To support this design work, CODE V offers unique freeform optics design and optimization tools. Read our blog to learn more.

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The conference for Sensors, IR, laser systems, spectral imaging, radar, lidar, and more
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Orlando, Florida, USA

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LASER Photonics

Upcoming Webinars



Adaptive Optics: From Design to Application

Wed, Mar 30, 2022 10:00 AM - 11:00 AM EDT

Adaptive optics (AO) is a technology originally used for removing the blurring effect of atmospheric turbulence on images in ground-based telescopes. Since then, it has become invaluable in other fields, such as vision science and microscopy. For example, by correcting for blur due to the optics of the eye, AO has revolutionized ophthalmology by allowing diseases to be detected and monitored at the single-cell level, thus providing earlier diagnoses. Karen Hampson, Ph.D., of Oxford University overviews AO technology and its application considerations for astronomy, vision science, and microscopy.

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OPTICS & PHOTONICS International Exhibition
OPIE '22
Co-located with **OPIC 2022**
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20-22 April 2022
PACIFICO YOKOHAMA, Japan

PHOTONICS spectra
SPECTROSCOPY CONFERENCE
April 12-13, 2022
PHOTONICS MEDIA
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All Things Photonics

Bob Hess, one of the world's leading collectors of lasers, laser accessories, and holograms, takes us through his exhibit, "Vintage Lasers & Holograms," on now in Tempe, Ariz. Hess is a career holographer and photonics technician, and his collection features more than 500 lasers and upward of 600 holograms. Also, a check-in with the University of Southampton's **Pearl John** to discuss the artform of holography and its ties to photonics outreach and education.

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