

This Week in PHOTONICS



LightMachinery
Excellence in Lasers and Optics



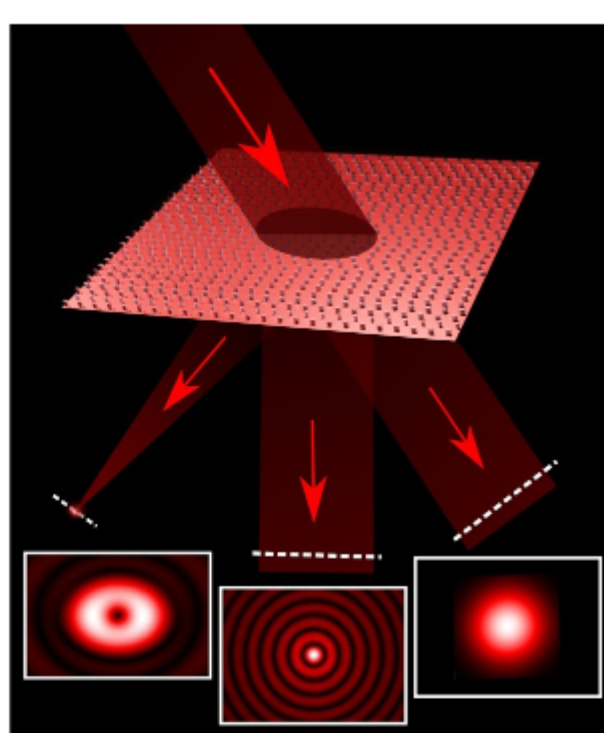
Hyperfine Spectrometer
A sub-picometer resolution spectrometer in a compact package.

.: Top Stories

Novel Metasurface Enables Precision Laser Control

Harvard researchers have introduced a single metasurface that can effectively tune the different properties of laser light, including wavelength, without additional optical components. The metasurface can split light into multiple beams and control their shape and intensity in an independent, precise, and power-efficient way.

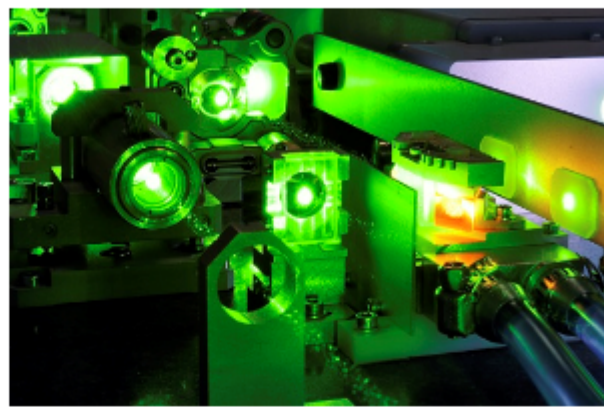
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3D Laser Beams Change Shape to Match Application

Researchers at the National Robotarium at Heriot-Watt University secured funding to develop 3D laser beams that can be shaped to match industry needs and tailored to the task at hand. The funding — from the Engineering and Physical Sciences Research Council, part of UK Research and Innovation — will support the development of lasers for industry and medical applications.

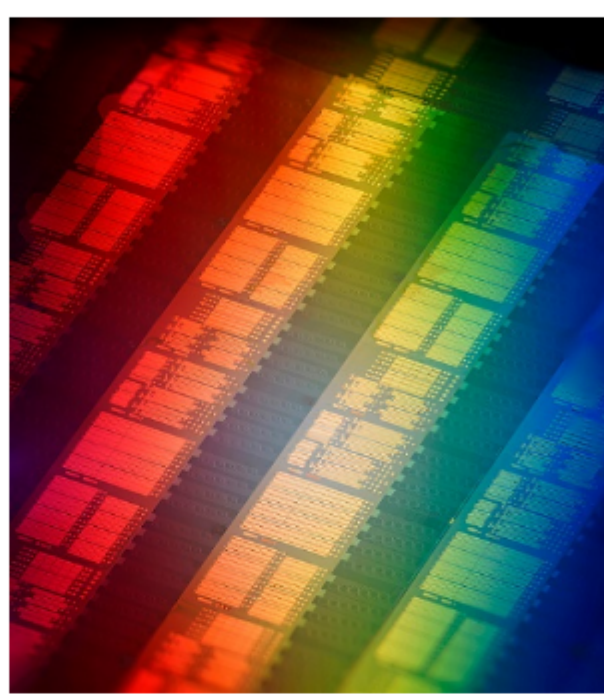
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Integrated Optical Frequency Can Now Be Manufactured at Scale

A collaboration between John Bowers from the University of California, Santa Barbara (UCSB) and Tobias J. Kippenberg from École Polytechnique Fédérale de Lausanne (EPFL) has yielded an integrated on-chip semiconductor laser and resonator capable of producing a laser microcomb.

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.: Vision Spectra Conference



MARKET ANALYSIS: Vision Tech in the 2020s: A Changing Landscape

Presented by: **Chris Yates, Vision Ventures**

The vision market has been a tremendous success story over the past decades, with vision technology now of central importance to almost every market vertical. As the vision industry looks beyond the uncertain start to the new decade, Yates' presentation will provide an opinion on what may be expected in the future. The historical performance and traditional structure of the vision sector provides the backdrop to identify new market drivers and technology enablers which will shape the continuing evolution and growth of the market. Potential impacts and new opportunities will be outlined, together with a commentary on those strategies which are being adopted to compete effectively in a highly innovative and global market.

The inaugural *Vision Spectra* Conference runs July 20 - 22. Registration is free for the event, which is offered exclusively online. For more information and registration, please visit www.photonics.com/vsc2021. Continued coverage of this inaugural event will also be available on vision-spectra.com and Photonics.com leading up to the conference.

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Machine Vision

Photonics Media

Machine Vision is a book for anyone designing or selecting machine vision systems, and implementing or considering the use of machine vision for a specific application. This engaging overview is a resource for designers, engineers, researchers, marketers and students looking for a broad survey of advancements in systems,...

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