

NEW PRODUCTS

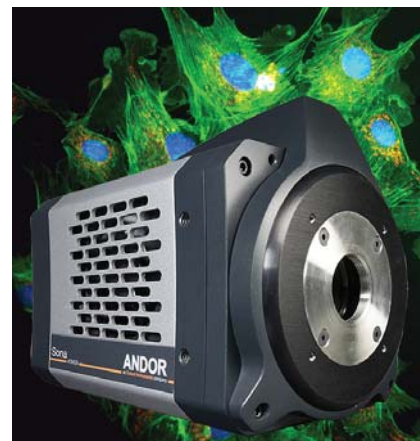
Focus on lasers, imaging, and microscopy

The descriptions of the new products listed in this section are based on information supplied to us by the manufacturers. PHYSICS TODAY can assume no responsibility for their accuracy. For more information about a particular product, visit the website at the end of the product description. For all new products submissions, please send to ptpub@aip.org.

Andreas Mandelis

Multichannel event timer

PicoQuant has announced the MultiHarp 150, its newest benchtop event timer with a USB 3.0 interface. The device's high data throughput allows the count rate limits of time-resolved single-photon experiments to be fully exploited. With four or eight detector channels and a common sync input, the MultiHarp 150 is suitable for photon coincidence measurements in quantum optics. According to the company, it is the first commercial event timer developed for use in a White Rabbit timing network. That feature, which allows two modules to be synchronized over ranges as high as tens of kilometers, makes the MultiHarp 150 a suitable time tagger for long-distance quantum entanglement experiments. The versatile instrument can also be used in time-resolved applications in the life and materials sciences and in metrology. **PicoQuant**, Rudower Chaussee 29, 12489 Berlin, Germany, www.picoquant.com



Scientific CMOS camera platform

Andor Technology, an Oxford Instruments company, has launched its ultra-sensitive Sona back-illuminated camera platform for fluorescence microscopy. Sona features vacuum cooling down to -45°C and 95% quantum efficiency. Its sensitivity allows for reduced fluorophore concentrations and therefore minimal perturbation of cell physiology. The camera is offered in two formats, each with an $11\text{ }\mu\text{m}$ pixel size. The 4.2 MP Sona 4.2B-11 features a 32 mm sensor diagonal and captures the microscope's entire field of view. It can be adapted to a range of objective lens magnifications from $40\times$ to $100\times$. The Sona 2.0B-11 features a 2 MP array sized to maximize the field of view through 22 mm C-mount microscope ports. The platform has low fan vibration, so measurement precision is not compromised in vibration-sensitive setups such as super-resolution and electrophysiology. **Andor Technology Ltd**, 7 Millennium Way, Springvale Business Park, Belfast BT12 7AL, UK, <https://andor.oxinst.com>



High-frame-rate camera

The midrange i-Speed 508 camera from iX Cameras offers a balance among speed, size, and memory. With a full HD sensor running at 8 GPs/s, the 508 has sufficient power for laboratory, research, and test-range applications. It has 144 GB of memory for long-duration recording. A novel internal cooling system makes the camera an environmentally sealed unit suitable for use in demanding environments. The 12-bit CMOS light-sensitive image sensor can record 3980 fps at full HD resolution, with a maximum speed of 500 000 fps. The 508 can achieve 250 ns exposure times with an optional fast-mode shutter. Other features include an internal solid-state drive of up to 8 TB, an external SSD of up to 2 TB, high-speed image download, memory segmentation, and camera control via the touchscreen CDUE control device or the i-Speed PC software suite 2.0. **iX Cameras**, 8 Cabot Rd, Ste 1800, Woburn, MA 01801, www.ix-cameras.com

IR laser wavelength meter

The latest version of Bristol Instruments' 871 series laser wavelength meter, the model 871B-NIR2, uses a Fizeau etalon design to measure the wavelength of pulsed- and continuous-wave lasers over the range of $1\text{--}2.5\text{ }\mu\text{m}$. The measurements, which have an accuracy of $\pm 0.75\text{ ppm}$ at 1000 nm, are made at the fastest sustained rate of 1 kHz. Automatic calibration with a built-in wavelength standard and prealigned fiber-optic input ensure high accuracy. The system operates with a PC via standard USB and Ethernet interfaces. Measurement data can also be displayed anywhere in the laboratory on a tablet or smartphone via a Web-based application. An integrated proportional-integral-derivative controller can help researchers who need active regulation of their laser's frequency. **Bristol Instruments Inc**, 770 Canning Pkwy, Victor, NY 14564, www.bristol-inst.com



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Average* 13 945 August** 13 260
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Average* 80 011 August** 76 751
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 - 1,2. Free or nominal rate mail copies
Average* 7 755 August** 8 236
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Average* 91.22% August** 90.78%

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I certify that the statements made by me above are correct and complete.

Larry Fishbein, Publisher

NEW PRODUCTS

Beam profiler for mid-IR laser wavelengths

MKS Instruments, through its Ophir brand, has added to its NanoScan 2s line of high-power, scanning-slit laser-beam profilers. NanoScan products are NIST-calibrated profilers that instantly measure beam position and size with sub-micron precision for CW- and kilohertz-pulsed lasers. The new NanoScan 2s Pyro/9/5-MIR is a lower-cost profiler designed to measure mid-IR wavelengths from 900 nm to 5 μ m and beam sizes from 20 μ m to 6 mm. NanoScan 2s profilers use moving slits to measure beam sizes. The slit's natural attenuation allows the measurement of many beams, with little or no additional attenuation needed. A built-in digital controller provides 16-bit digitization of the signal for a high dynamic range of up to 35 dB of power. Beam size and pointing can be measured with 3-sigma precision to several hundred nanometers. **Ophir-Spiricon LLC, 3050 N 300 W, North Logan, UT 84341, www.mksinst.com**



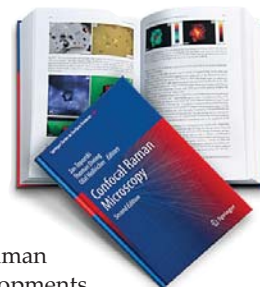
Compact device for measuring wavelengths

Laser Components has introduced WaveEye, a compact, versatile wavelength-measuring device for CW and quasi-CW lasers between 450 nm and 950 nm. It can be used with an optical input power range between 0.1 μ W and 1 mW. The measurement data are delivered at a rate of 1 kHz without warm-up delay. The measured digital value output is transmitted via a USB connection, which also serves as a power supply. Wavelength information is available for up to 4.096 V at the analog output. WaveEye has an easy-to-use software; it can also be operated by simple serial text commands. Due to its small size, WaveEye is suitable as both an OEM component for various applications, such as tunable lasers, and as part of a larger measuring device. **Laser Components USA Inc, 116 S River Rd, Bldg C, Bedford, NH 03110, www.lasercomponents.com**

NEW LITERATURE

Book on Raman microscopy

WITec scientists Olaf Hollricher, Thomas Dieing, and Jan Toporski edited the revised and expanded second edition of *Confocal Raman Microscopy*, part of the Springer Series in Surface Sciences. Like the first edition, it provides a comprehensive overview of the fundamentals, practical considerations, and real-world applications of Raman microscopy. The updated version features the latest developments in Raman techniques and instrumentation; has subsections on theory and technology, novel materials, geosciences, life and pharmaceutical sciences, and materials science; and provides a historical overview of the Raman effect. It explores the rapidly evolving field of correlative microscopy by detailing how 3D Raman imaging can be integrated with other investigative methods to achieve a greater understanding of a sample's properties. **WITec Instruments Corp, 130G Market Place Blvd, Knoxville, TN 37922, www.witec-instruments.com**



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