

## Focus on test, measurement, and data acquisition **FREE**

Andreas Mandelis



*Physics Today* **72** (3), 64–65 (2019);

<https://doi.org/10.1063/PT.3.4170>



View  
Online



Export  
Citation

CrossMark



### New Career for a Full Professor in Experimental Physics

Wyatt Technology seeks a full professor in Experimental Physics to become its Director of Research & Development reporting directly to the CEO. The successful candidate should have broad experience in directing experimental physics programs and be interested in changing careers toward the latter part of her/his academic life. No more endless work writing grant proposals to support her/his research groups! The successful candidate will direct a group of Ph. D. level physicists and engineers in the development of new analytical technologies and instruments. Exceptional salary and benefit package at this 37 year old private firm located in Santa Barbara CA, a city ranked by the New York Times 3rd among the 100 best world places to visit. The successful candidate may elect to begin with a sabbatical leave from her/his university department. For further information, please contact (in confidence) the Company's Founder and Board Chairman, [pwyatt@wyatt.com](mailto:pwyatt@wyatt.com).

[www.wyatt.com](http://www.wyatt.com)



### FACULTY POSITION

School of Natural Sciences  
Institute for Advanced Study  
Princeton, New Jersey

The Institute for Advanced Study intends to make a new professorial appointment in physics in the School of Natural Sciences. Only candidates with distinguished scholarly accomplishments in this field will be considered.

We invite applications and nominations for this position. These should contain a curriculum vitae and bibliography, and be sent by June 30, 2019 to Michelle Sage, Administrative Officer, School of Natural Sciences, Institute for Advanced Study, Einstein Drive, Princeton, New Jersey 08540, USA. Email: [michelle@ias.edu](mailto:michelle@ias.edu). All communications will be held in strict confidence. The Institute for Advanced Study is an equal opportunity institution, and we especially welcome applications or nominations from under-represented groups.

# NEW PRODUCTS

## Focus on test, measurement, and data acquisition

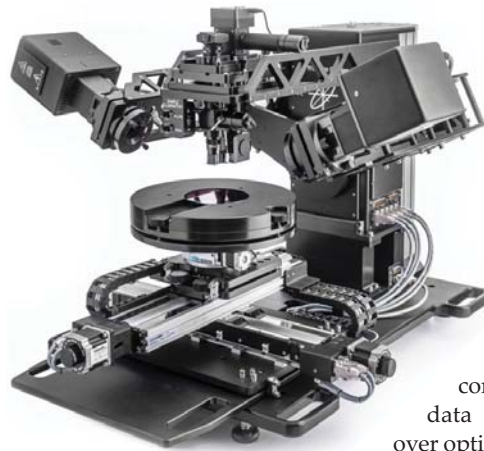
The descriptions of the new products listed in this section are based on information supplied to us by the manufacturers. PHYSICS TODAY can assume no responsibility for their accuracy. For more information about a particular product, visit the website at the end of the product description. For all new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

### Andreas Mandelis



### Programmable DC power platforms

Ametek Programmable Power's Asterion power-supply platform line now includes programmable DC supplies with high power density and either fixed or auto-ranging output. The compact DC-series supplies offer rated outputs of 40 V and 60 V for 1.7 kW, 3.4 kW, and 5.0 kW power levels. The fixed-range units are economical, traditional rectangular-wave output-power supplies; the auto-ranging supplies offer expanded current and voltage range at the full output-power level, so users can fulfill wider testing needs without purchasing additional models. An auto-parallelism capability supports operating multiple units in parallel to increase the total output-power level. Applications include electronics test, DC power simulation, R&D, and a wide range of automatic test equipment. *Ametek Programmable Power Inc, 9250 Brown Deer Rd, San Diego, CA 92121, [www.powerandtest.com](http://www.powerandtest.com)*



### Spectroscopic ellipsometer

The RC2 spectroscopic ellipsometer from J. A. Woollam combines the best features of previous models with innovative new technology. Dual rotating compensators provide complete Mueller-matrix measurements to characterize advanced samples and nanostructures. Synchronous operation of both compensators delivers highly accurate data without waiting to "zone-average" over optical elements. A patent-pending achromatic compensator design yields optimized performance over a wide spectral range. According to the company, the RC2 is the first commercial ellipsometer to use the latest thermoelectrically cooled, strained indium gallium arsenide array to collect hundreds of wavelengths in the IR out to 2500 nm. An advanced dual light source includes computer-controlled beam intensity to optimize the signal on low- or high-reflection samples. *J. A. Woollam Co Inc, 645 M Street, Ste 102, Lincoln, NE 68508, [www.jawoollam.com](http://www.jawoollam.com)*

13 December 2024 21:07:28

## Entry-level oscilloscopes

Keysight Technologies designed its 200 MHz, four-channel InfiniiVision 1000 X-Series oscilloscopes to provide professional-level measurements and capabilities at lower cost. They feature the same user interface and measurement technology as the company's higher-performance InfiniiVision oscilloscopes, and are bandwidth-upgradable via software license as designs evolve. The InfiniiVision 1000 X-Series oscilloscopes are available at 70, 100, and 200 MHz bandwidth. Custom Keysight MegaZoom IV application-specific integrated-circuit technology delivers an update rate of 50 000 waveforms/s and sample rate of 2 GSa/s, which allow visualization of random, infrequent glitches and anomalies that similarly priced oscilloscopes might miss. **Keysight Technologies Inc**, 1400 Fountaingrove Pkwy, Santa Rosa, CA 95403-1738, [www.keysight.com](http://www.keysight.com)



## Hall effect measurement controller

The MeasureReady M91 measurement controller from Lake Shore Cryotronics features the company's patented FastHall technique, which allows for fast, accurate, and convenient measurements of electronic materials, especially when using high-field superconducting magnets and when measuring very-low-mobility materials. By eliminating the need to switch the polarity of the applied magnetic field during the measurement, the M91 fundamentally changes the way the Hall effect is generated and measured. It combines all the necessary Hall-effect measurement functions into a single instrument, automates and optimizes the measurement process, and directly reports the relevant parameters. The M91 performs Hall analysis, including calculation of derived parameters for van der Pauw and Hall bar samples. **Lake Shore Cryotronics Inc**, 575 McCorkle Blvd, Westerville, OH 43082, [www.lakeshore.com](http://www.lakeshore.com)



## High-speed semiconductor test pulser

The AVRQ series of semiconductor test pulsers from Avtech Electrosystems is suitable for generating the high-speed, high-voltage waveforms needed for transient immunity testing of optocouplers and other semiconductor devices. The instruments can also be used for applications that require a high-voltage

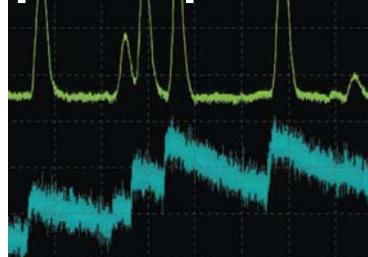
“sweep” waveform, such as sweep-control of particle-beam systems. The company's latest common-mode transient immunity tester, model AVRQ-5-B, provides 1.5 kV pulses with linear leading edges, followed by a slower exponential decay back to zero. The transition time (10–90%) of the leading edge is less than 10 ns into a non-capacitive load, which provides transition rates of up to 120 kV/ $\mu$ s. The transition time may be increased up to 50 ns by adding capacitance across the load. **Avtech Electrosystems Ltd**, PO Box 265, Ogdensburg, NY 13669-0265, [www.avtechpulse.com](http://www.avtechpulse.com)

## Fast time-domain terahertz system

According to Toptica Photonics, its TeraFlash smart time-domain terahertz (TD-THz) platform sets new standards for measurement speed. Using the company's proprietary technique called electronically controlled optical sampling or “ECOPS,” the system replaces the mechanical delay of conventional TD-THz systems with two synchronized femtosecond lasers and an electronic scanning scheme. The new platform attains scanning speeds up to 1600 pulse traces per second. It is suitable for measurements on rapidly moving samples such as extrusion lines, particularly if high spatial resolution is required. Other potential applications include measurements under rapidly changing environmental conditions and studies of the properties of samples in pulsed magnetic fields. Both transmission and reflection measurements can be made. **Toptica Photonics Inc**, 5847 County Rd 41, Farmington, NY 14425, [www.toptica.com](http://www.toptica.com) **PT**



## charge sensitive preamplifiers



readout signals from:  
**pin photodiodes**  
**CdTe/CZT semiconductor detectors**  
**photomultipliers**  
**proportional tubes**  
**surface barrier/PIPS**

*shaping amplifiers* *detect femtojoule light pulses*

Great for amplifying pulsed optical signals or pulses from nuclear radiation detectors. Our modules are designed to be plugged into your detection instrumentation. Evaluation boards and housings are available.

product specifications and application notes at:  
**<http://cremat.com>**  
Cremat Inc. West Newton, MA USA