

NEW PRODUCTS

Focus on test, measurement, and analytical equipment

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



Large Helmholtz coils

Bartington Instruments now provides large-size Ferronator Helmholtz coil sets from Serviciencia to operate with Bartington's PA1 power amplifier and CU1 control unit. The assembly consists of up to three pairs of coils with diameters of 300 mm (model BH300) and 2 m (model BHC2000). Each pair generates a magnetic field in the X-, Y-, or Z-axis. The sets are available in single, dual, or three-axis configurations. The CU1 control unit connects to a data acquisition card from National Instruments and provides system control from LabVIEW-based software; compensation potentiometers on the PA1 are used to cancel the local DC magnetic field. Applications include calibrating three-axis magnetic field sensors and creating a known magnetic environment. **Bartington Instruments Ltd**, 5, 8, 10, 11, 12 Thorney Leys Business Park, Witney, Oxfordshire OX28 4GE, UK, www.bartington.com

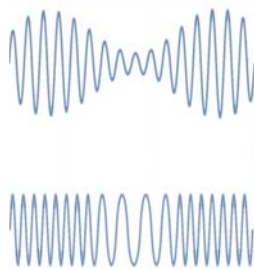
Metabolic analysis and imaging platform

In a joint endeavor, Agilent Technologies and BioTek Instruments have combined cellular metabolic analysis and imaging to help researchers study cellular metabolism. The companies have integrated Agilent's Seahorse XFe96 and XFe24 extra-cellular flux (XF) analyzers with BioTek's Cytation 1 cell imaging multimode reader. The Seahorse analyzers simultaneously measure in real time mitochondrial respiration and glycolysis in live cells. The multimode reader can be configured for fluorescence and high-contrast bright-field cellular imaging with up to 60 $\times$ magnification. According to Agilent, referencing the images while analyzing XF data can provide evidence and guidance on how to limit variability and improve the reproducibility of XF assays. **Agilent Technologies Inc**, 5301 Stevens Creek Blvd, Santa Clara, CA 95051, www.agilent.com

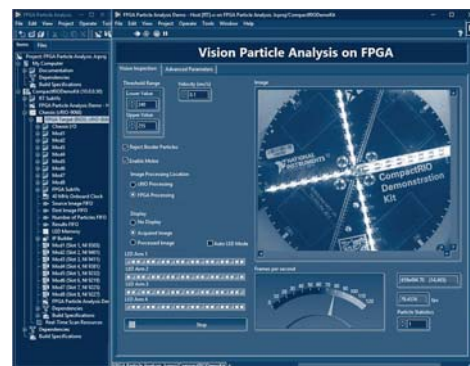


Multifrequency lock-in amplifiers

Zurich Instruments has added a new option to its lock-in amplifiers so they can be equipped with amplitude and frequency modulation capabilities. It enables coherent generation and detection of signals with multiple frequency components. In contrast to conventional methods in which two cascaded lock-ins are used for tandem demodulation, Zurich Instruments' lock-in amplifiers can perform single-stage demodulation using the multiple demodulators available in each instrument. According to the company, that overcomes the bandwidth limitation of cascaded demodulation filters and leads to more accurate results. The tool set in the LabOne user interface includes a scope, sweeper, spectrum analyzer, signal generator, spectrogram, and plotter, and it reduces experiment complexity. Applications include MEMS systems, fluorescence spectroscopy, and Kelvin probe force microscopy. **Zurich Instruments AG**, Technoparkstrasse 1, 8005 Zürich, Switzerland, www.zhinst.com



Test, measurement, and control software



To help users quickly develop and improve the performance of automated test and measurement systems, National Instruments' LabVIEW 2018 includes new tools to simplify system integration and increase control through hardware accessibility. Users can incorporate more third-party internet protocol from tools such as Python. To strengthen code reliability, new functionality automates the building and execution of software and integrates open interface tools such as Jenkins for continuous data delivery. Users of field-programmable gate arrays for high-performance processing can reduce time to market with LabVIEW 2018's new deep learning functions and improved floating-point operations. **National Instruments Corporation**, 11500 N Mopac Expy, Austin, TX 78759-3504, www.ni.com