new products

**Thermal Imaging Camera**
The FLIR T420 imaging camera can detect hot spots of less than 125 μm × 125 μm in size that may indicate a printed circuit board (PCB) component is likely to fail. When something goes wrong in a PCB, whether improper soldering of a circuit or a failing component, the PCB will heat up. Therefore, thermal imaging offers a good way to diagnose problems in the design phase of a PCB and to test it before it is supplied to a customer or reaches the qualification stage. The traditional alternative to using thermal imaging for fault diagnosis in PCB electronics has been to use thermocouples. Unlike thermocouple measurements that require contact with the PCB board, thermal imaging is a noncontact temperature measurement technology that does not risk disturbing or damaging microelectronic components. FLIR T420 is an affordable thermal imaging camera combining excellent ergonomics with top performance and high-image quality.

**FLIR Systems**
For info: +32-(0)-3665-5100
www.flir.com

**Microscope Stage**
The Prior Scientific H112 microscope stage offers a travel range of over 300 mm × 300 mm, making it ideal for accurate and precise scanning of semiconductor wafers, photomasks, flat panel displays, and printed circuit boards. Fully compatible with a wide range of microscopes, the H112 can easily accommodate wafers up to 12 in. (300 mm) in diameter, or samples up to 25 kg in weight, and works with many robot arm wafer loaders. Furthermore, the large transmitted light area (250 mm × 250 mm) allows both transmitted and reflected light applications to be performed. The large area scanning capability of the H112 stage is exceptionally precise, with a minimum step size of 0.04 μm and a repeatability of ±0.7 μm. 100-nm encoders can be added for challenging applications requiring the very highest precision.

**Prior Scientific**
For info: +44-(0)-1223-881711
www.prior.com

**Chiral Columns**
The Lux i-Cellulose-5 Lux columns are more robust than other chiral offerings on the market thanks to a manufactured chemical crosslinking between the polysaccharide and silica supports. This modification enables use of the i-Cellulose-5 columns with even the strongest organic solvents, and offers greater sample loading and method development flexibility. The dichlorophenylcarbamate selector of the new media combines well with Phenomenex’s other Lux chiral stationary phases to provide an even more comprehensive toolkit for chiral separations. Lux i-Cellulose-5 is an affordable alternative to other chiral selectivities on the market, and is available in both 3-μm and 5-μm particle sizes to meet the needs of analytical and preparative applications. Ideal applications for Lux columns include the separation of drug enantiomers in the pharmaceutical sector, chiral pesticides in agrochemical settings, and a range of other chiral chemicals such as raw materials, inter-mediates, and finished goods.

**Phenomenex**
For info: 310-212-0555
www.phenomenex.com

**Benchtop 1,536-Well Pipetting**
Integra Biosciences has introduced a new plate holder that enables 1,536-well pipetting on its VIAFLO 384 electronic handheld pipette. This capability provides screening labs with a unique alternative to fully automated robotic liquid-handling systems. Most screening assays start in larger formats (96- to 384-well plates) before they are upscaled to the 1,536-well-plate format. For assay development, fully automated robotic systems are often not the best choice, because they are costly, complex, and require long setup times. In the assay development phase, when fewer plates need to be processed, a quickly adaptable and easy-to-use benchtop pipetting system offers a superior choice. For optimal alignment of the pipetting head with the target 1,536-well plate, the new plate holder is adjustable in the y-direction. The easy-to-use slide function of the plate holder shifts the plate, giving access to all 4 quadrants with a 384-channel pipetting head.

**Integra Biosciences**
For info: +41-(0)-81-286-9530
www.integra-biosciences.com

**Microvolume Spectrophotometer**
VersaWave is an innovative microvolume spectrophotometer that provides the ability to analyze samples directly in a pipette tip, allowing fast measurement and full sample recovery. This method of sample measurement overcomes many issues encountered with other microvolume spectrophotometers, such as the risk of cross-contamination, sample evaporation, surface tension effects, and nonfixed pathlength. VersaWave can also read standard cuvettes and is easily compatible with a number of attachments due to its external optical fibers. It can accurately measure sample volumes as low as 2.5 μL directly in the pipette tip, and its 1-mm pathlength means that most samples do not need to be diluted. These features are especially useful for those working with very small volumes of precious or unique samples such as crystallographers or clinical/forensic investigators.

**Expedeon**
For info: +44-(0)-1223-873364
www.expedeon.com

**3D Printer**
The DragonFly 2020 3D printer combines 3D mechanics, inkjet technology, nano inks, and software in order to make in-house, 3D-printed multilayer printed circuit board (PCB) prototypes a reality. It deposits two materials, one conductive and one dielectric, in order to build a complete PCB. The printer uses inkjet print heads containing hundreds of small nozzles that allow for very exact picoliter deposition of nanotech inks. Each pass of the print heads deposits a 2-μm-thick layer of material at the exact locations specified by the design file. An additional process cures the material to ensure a durable end product. Nano Dimension’s proprietary software allows the conversion of standard PCB Gerber design files, along with drills and routes, into a 3D printable file. The software also accepts STEP, JPG, and TIFF file formats.

**Nano Dimension**
For info: 917-607-8654
www.nano-di.com/3d-printer

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