

Industry News

Excelitas Technologies Acquires Research Electro Optics

Excelitas announced that it has completed the acquisition of Research Electro Optics, a privately held company specializing in the volume manufacture of high-precision optical components, optical thin film coatings, and optical subassemblies, as well as high-performance HeNe lasers for instrumentation and metrology applications across a wide range of market sectors. The combination of Excelitas and REO offers an expanded range of products and capabilities for OEM customers and Defense Prime Contractors seeking single-source convenience.

Excelitas Technologies Corp
www.excelitas.com and www.reoinc.com

Attocube Wins Innovation Award



On July 13, the Nano Innovation Award 2018 was awarded at the Center for NanoScience (CeNS) of the Ludwig-Maximilians-Universität (LMU) Munich. Two young researchers received the award for promising results as part of their master's or doctoral thesis in application-oriented nanosciences. The Bavarian-wide prize is endowed with €9,000 and is awarded annually by a jury of experts from science and business. Since many years, attocube is one of the sponsors of the Award.

attocube systems AG
www.attocube.com

Vision Engineering Celebrates 60 Years

Vision Engineering Inc. reaches a milestone this month, celebrating 60 years of manufacturing inspection and non-contact measurement systems. Renowned for inventing Mantis, the world's first eyepiece-less stereo microscope, Vision Engineering holds several world patents for the optical technology used in their inspection and metrology systems. Mantis was launched nearly 25 years ago and is used across the world in electronics, medical device, packaging, automotive, and aerospace industries and for any application requiring inspection and rework.

Vision Engineering Inc.
www.visioneng.us

Bruker Announces Acquisition of JPK Instruments

Bruker Corporation announced that it acquired JPK Instruments AG (JPK), located in Berlin, Germany. In 2017, JPK Instruments had revenue of approximately 10 million Euro. JPK provides microscopy instrumentation for biomolecular and cellular imaging, as well as force measurements on single molecules, cells, and tissues. JPK adds in-depth expertise in live-cell imaging, cellular mechanics, adhesion, molecular force measurements, optical trapping, and biological stimulus-response characterization to Bruker. Financial details of the transaction were not disclosed.

Bruker Corporation
www.bruker.com

Nanomechanics Inc. Acquisition

KLA-Tencor Corporation ("KLA-Tencor"), the leading supplier of process control and yield management solutions for the semiconductor and related industries, is pleased to announce that it acquired Nanomechanics Inc. ("NMI") on July 12, 2018. The NMI products are complementary to KLA-Tencor's Nano Indenter® G200 product, recently acquired from Keysight Technologies. The acquisition extends KLA-Tencor's nanomechanical testing solutions to include the iNano®, iMicro, NanoFlip, and InSEM® HT products.

KLA Tencor Corporation
www.kla-tencor.com

Groundbreaking Microscope Technology Unlocks New Era for Label-Free Live Cell Imaging

HT microscopy is Tomocube's novel optical technology for all life scientists. It is an optical technique analogous to X-ray computed tomography (CT), which exploits laser holography and computed tomography to quantitatively and non-invasively investigate biological cells and thin tissues, simply and rapidly. The technique reconstructs the 3D refractive index (RI) distributions of biological material to resolve highly detailed structural and chemical information, including dry mass, morphology, and dynamics of the cellular membrane.

Tomocube, Inc.
www.tomocube.com

Basler Establishes a Joint Venture with Chinese Distributor Beijing Sanbao Xingye

Basler signed a joint venture agreement with its distributor, Beijing Sanbao Xingye (MVLZ) Image Tech. Co., Ltd—Basler's distribution partner in China for close to twenty years. The company distributes image processing components and consults in machine vision and scientific imaging. Both companies agree to transfer the Machine Vision division to the newly established Beijing-based Basler China. The management is staffed by employees of both companies.

Basler AG
www.baslerweb.com

ZEISS APEER, a Digital Microscopy Platform for Applications in Science and Industry

ZEISS presented the initial release of its cloud-based digital microscopy platform, known under the name APEER (a ZEISS initiative) at the Microscopy & Microanalysis conference (M&M) in Baltimore. Use cases at M&M demonstrated different workflows, from the acquisition of images to particle analysis and reporting. In addition to enabling the exchange of scientific applications on the platform, the plan is to promote collaboration between scientists and provide a discussion forum.

ZEISS Group
www.apeer.com

Vision Engineering TVM Field of View Instant Measurement System



Vision Engineering's TVM Field of View (FOV) video measurement system combines a small footprint with larger system performance and ease of use. Time-saving instant FOV measurements and a moving stage allow larger components to be measured quickly and easily.

The TVM series includes TVM20 and TVM35, with FOV sizes of 20 mm and 35 mm respectively. Components can be instantly measured within the field of view with a click of the mouse.

Vision Engineering Inc.
www.visioneng.us

The Natural History Museum Uses Linkam Temperature- Controlled Microscopy

Dr. Jamie Wilkinson worked with various Linkam stages. The Linkam temperature stages are used to study fluid inclusions—microscopic droplets of liquid that can be trapped inside growing crystals when they form. Wilkinson said, “I have become more and more impressed with the Linkam family of temperature-controlled stages. They provide precise and accurate measurement capability, they are designed with a small thermal mass so they respond quickly, and they require small temperature calibration corrections.”

Linkam Scientific Instruments Limited
www.linkam.co.uk

Basler AG Acquires Silicon Software GmbH

Basler AG took over 100% of the shares of Silicon Software GmbH with immediate effect. Basler continues to expand its product portfolio for Computer Vision applications with this transaction. Camera customers will benefit from comprehensive and easy-to-integrate solutions for capturing and processing images in the future. With a view to next-generation image sensors and their associated higher data rates, easy-to-use, high-performance image acquisition cards are becoming increasingly important.

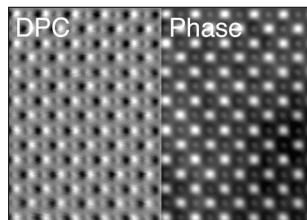
Basler AG
www.baslerweb.com

JPK Talks with Dr. Frank Lafont, Director of the BioImaging Center Lille

Dr. Frank Lafont heads a research group and the BioImaging Center Lille (BICeL). There are several different AFMs at BICeL, so it was interesting to learn about why Dr. Lafont and his colleagues chose to add JPK systems. Dr Lafont: “We appreciate the user-friendly interface and the design of the system. Together with options such as ULTRA, the BioMAT™, and CellHesion® modules, the NanoWizard® provides us with an excellent platform for our studies.

JPK Instruments AG
www.jpk.com

qDPC (Quantitative Differential Phase Contrast) Plug-In for DigitalMicrograph



Differential phase contrast (DPC) imaging in STEM using a segmented detector has become a routine technique. Since the DPC signal is proportional to the gradient of the phase distribution, we can retrieve the phase distribution of the sample by integrating the DPC signal. The qDPC uses the DCT (discrete cosine transform) to integrate the DPC signal and eliminates the slowly varying artifact that is frequently observed by the routine based on FFT.

HREM Research Inc.
www.hremresearch.com/Eng/plugin/qDPCEng.html

“AFM Characterization of Emerging Photovoltaics” Application Note

The atomic force microscope (AFM) is superbly suited to characterize PV materials such as hybrid organic-inorganic perovskites and organic semiconductors, measuring nanoscale structure and electrical behavior to gain deeper insight into relations between structure, properties, processing, and performance. The new application note “AFM Characterization of Emerging Photovoltaics” from Oxford Instruments Asylum Research discusses how AFMs are being used to image nanoscale electrical and functional response and map morphology in PV materials.

Oxford Instruments Asylum Research
<http://afm.oxinst.com/AFM-Emerging-Photovoltaics>

Prior Scientific Continues Global Expansion with New Office in Suzhou, China

Prior Scientific announced the opening of its new office in Suzhou, China, to give local presence with support and sales. CEO Tom Freda said, “The opening of this new office in China marks another milestone in the proud history of Prior. This new office will allow us to have a local presence in the China region, so we can support our customer base more closely.”

Prior Scientific Instruments Ltd.
www.prior.com

Applied Thermal Control Celebrates One Year with Scientific Digital Imaging

SDI manufactures scientific and technology products for use by the life science and healthcare markets, among others. As part of the SDI group we work with Atik Cameras, Opus Instruments, Synoptics brands, and Quantum Scientific Imaging. Recirculating chiller specialist Applied Thermal Control was acquired by Scientific Digital Imaging plc in August 2017. ATC has benefited from being part of a wider group and strengthened its commitment to R&D.

Applied Thermal Control Ltd
www.app-therm.com