CrossMar

Companies and their Products

Bruker Nano Analytics

Tel: (908) 256-2627 Email: info.bna@bruker.com www.bruker.com/nano-analysis



Electron Microscope Analyzers

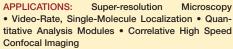


APPLICATIONS: • Energy-Dispersive X-ray Spectrometry (EDS) • Wavelength Dispersive X-ray Spectrometry (WDS) • Electron Backscatter Diffraction (EBSD) • Micro X-ray Fluorescence (Micro-XRF) on SEM • XFlash® Silicon Drift Detectors (SDD) for SEM and TEM

FEATURES: Bruker Nano Analytic's electron microscope analyzers QUANTAX EDS, QUANTAX WDS, QUANTAX EBSD and QUANTAX Micro-XRF on SEM offer unmatched comprehensive compositional and structural materials analysis.

www.bruker.com/nano-analysis

Vutara 352

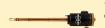




FEATURES: Vutara 352's speed, imaging depth, and resolution deliver significant advantages over competing approaches, adding real-time quantitative analyses and including pair-correlation, co-location, cluster, and live-cell analysis.

www.bruker.com/Vutara

Hysitron PI 95 TEM PicoIndenter®



APPLICATIONS: Nanoindentation and Compression
• Tensile Testing of Nanowires & Thin Films • nanoScratch • Fatigue • Electrical & Heating Options

FEATURES: Bruker's PI 95 TEM PicoIndenter interfaces with major TEM models for performing quantitative compression, tension, bending, scratch, and fatigue testing with real-time TEM observation.

www.bruker.com/products/surface-and-dimensional-analysis/ nanomechanical-test-instruments/nanomec

Bruker Nano Surfaces

Tel: 520-741-1044 ext. 1075 Email: productinfo@bruker.com www.bruker.com

Hysitron PI 88 SEM PicoIndenter



APPLICATIONS: In-situ Mechanical Experiments
• Nanoindentation with EBSD • Temperature Dependent Mechanical Properties • Films and Coatings • Ultrahard Materials & Large Structures

FEATURES: Hysitron PI 88 is Bruker's comprehensive in-situ nanomechanical test instrument for SEM and FIB/SEM, enabling nanoindentation, compression, tension and bending tests with your SEM.

www.bruker.com/nanomechanical-testing

Deben



Tel: +44 (0) 1359 244 870; +1 201 410 5028 Email: paulg@deben.co.uk www.deben.co.uk

In-Situ Testing for Microscopy



APPLICATIONS: • micro CT tensile scanning stages
• Centaurus scintillator CL and back scattered electron (BSE) detectors • STEM detectors for SEM
• SEM heating and cooling Peltier stages • Microtest tensile and compression stages

FEATURES: Deben manufacture in-situ testing stages as well as innovative accessories for SEM and TEM including SEM detectors, stages, stage automation and Peltier heating & cooling stages

http://deben.co.uk/products/

BioScope Resolve AFM



APPLICATIONS: BioAFM • Cell Mechanical Properties • Molecular Imaging • Cell Imaging

FEATURES: BioScope Resolve provides the highest resolution imaging, fast scanning capabilities on both molecules and cells, as well as a complete suite of cell mechanics measurements, in order to enable the ultimate integration of AFM with advanced optical microscopy techniques.

www.bruker.com/BioAFM

DIATOME U.S.



Tel: 215-412-8390 Email: sgkcck@aol.com www.emsdiasum.com

o coommuno

Cryo Immuno

APPLICATIONS: The first cryo knife with a diamond platform, guarantees the best possible sectioning for sucrose infiltrated samples (Tokuyasu).

FEATURES: The diamond platform guarantees an easy and gentle section pick-up. The sections are collected directly from the diamond surface using a loop and a sucrose/methyl-cellulose droplet.

Opterra II



APPLICATIONS: Multipoint Confocal Microscopy

• Live Cell Fluorescence Imaging • Photomanipulation • Spectral Imaging

FEATURES: Optorra II tailors speed resolution and

FEATURES: Opterra II tailors speed, resolution, and intensity for low photo-toxicity and photo-bleaching on biological specimens, with sub-10% illumination uniformity, photo-activation, spectral imaging and unmixing capabilities.

www.bruker.com/Opterra

7/S1551929518000251 Published online by Cambridge University Pr<mark>ess</mark>

EDAX, Inc.

Tel: (201) 529-4880 Email: info.edax@ametek.com www.edax.com



Octane Elite EDS System



APPLICATIONS: Scanning Electron Microscopes (SEMs) • Transmission Electron Microscope (TEMs) • Energy Dispersive Spectroscopy (EDS) • Light Element Detection • Low kV Microanalysis

FEATURES: The system has the highest throughput and best resolution stability available. The SDDs include Silicon Nitride windows to improve low energy sensitivity, light element detection, and low kV microanalysis.

http://www.edax.com/products/eds/octane-elite-eds-system

Electron Microscopy Sciences

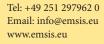
Tel: 215-412-8400 E-mail: stacie@ems-secure.com www.emsdiasum.com Electron Microscopy Sciences



EMS-002 Cryo Workstation

The EMS-002 Cryo Workstation is a complete ultra rapid freezing system that captures rapid events and labile structures that are not seen in chemically fixed materials.

EMSIS GmbH





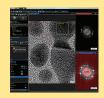


XAROSA - 20 MPix CMOS Camera

APPLICATIONS: • Life Sciences • Materials Sciences • HR-TEM • In-situ • Diffraction

FEATURES: Sensitive CMOS TEM camera up to 30 frames per second in full 20 megapixel. Full resolution Fourier (DFT and FFT) transform provided also in live.

https://emsis.eu/index.php?id=102



RADIUS 2.0 - TEM Imaging & Analysis Software

APPLICATIONS: • Camera and TEM control • HDR • Fourier analysis (DFT and FFT) • Image processing and analysis • Archiving

FEATURES: RADIUS 2.0 ideally completes the EMSIS camera portfolio with TEM alignment, drift correction, movie recording, averaging, HDR, Fourier, line profile, particle detection, mosaic imaging, full 64 bit, database.

https://emsis.eu/index.php?id=202

Energetiq Technology

Tel: 781-939-0763 Email: info@energetiq.com www.energetiq.com



EQ-77 Laser-Driven Light Source™



APPLICATIONS: • Fluorescence Microscopy • AFM/ FTIR Microscopy • Advanced Imaging and Illumination • Multispectral/Hyperspectral Imaging • UV-Vis-NIR Spectroscopy

FEATURES: Energetiq's ultra-bright light sources generate broadband light from 170nm to 2000nm with high reliability and long operating life in a compact package.

 $\label{lem:http://energetiq.com/extreme-high-brightness-laser-driven-light-source-eq-77-ldls.php$

Evactron by XEI Scientific, Inc.





Evactron® E50 Plasma De-Contaminator



APPLICATIONS: • In-situ hydrocarbon removal
• SEM/FIB large chamber cleaning • TKD/EBSD sample optimization • SEM sample and TEM holder cleaning • Accurate nanostructure characterization

FEATURES: 50 watt maximum power from new external hollow cathode plasma source gives fast cleaning/pumpdown of large chambers, "POP™" ignition at high vacuum – no venting needed.

https://evactron.com/evactron-e50/

Evactron® 25 Zephyr Plasma De-Contaminator



APPLICATIONS: • In-situ hydrocarbon removal
• SEM/FIB loadlock and chamber cleaning • Materials and life science SEM/TEM samples • Low voltage imaging • Failure Analysis

FEATURES: 20 watt maximum power to remove hydrocarbons without damaging sensitive samples, operates on DP/TP/RP systems using air to generate energy-efficient plasma.

https://evactron.com/evactron_zephyr_plasma_cleaners/

Excelitas Technologies



Tel: 905-821-2600 Email: x-cite@excelitas.com www.excelitas.com

X-Cite® Fluorescence Illumination



APPLICATIONS: Digital Pathology or Virtual Microscopy • Fluorescence in Situ Hybridization (FISH) • Fluorescence Resonance Energy Transfer (FRET) • Live Cell Imaging • Optogenetics • Photoactivation

FEATURES: X-Cite offers innovative and reliable fluorescence illumination solutions for researchers and OEM integrators, with high power, control and stability required for their applications.

www.excelitas.com/x-cite

Companies and their Products

Optem Micro-Inspection Lens Systems



APPLICATIONS: Machine vision • Variable magnification imaging • Non-contact optical dimensional metrology • OEM integrated microscopy • Automated Optical Inspection

FEATURES: Optem Lenses feature interchangeable Mounting, Camera Tube, Optomechanical Function and Lower Magnification modules to enable users to configure their exact form, function and performance requirements.

http://www.qioptiq.com/optem-micro-inspection-lenses.html

Qioptiq mag.x System 125



APPLICATIONS: Technical microscopy • Flat-panel display inspection • Semiconductor inspection & processing • Widefield biomedical imaging • Micro measurement & metrology • Scientifc R&D

FEATURES: Ideal for micro-inspection with large-sensors, Mag.x 125 combines precision engineering with innovative optical design to deliver exceptional resolution across broad fields-of-view (up to 12.5mm Ø).

http://www.qioptiq.com/mag-x-125

iFLEX Diode Lasers



APPLICATIONS: Confocal microscopy • Optogenetics • Flow cytometry • Test & measurement • Biomedical imaging & instrumentation

FEATURES: iFLEX Lasers deliver exceptional power stability with low amplitude noise. kineFLEX™ fiber delivery options ensure stable intensity with submicron positional accuracy and streamlined system integration.

http://www.gioptig.com/diode-lasers.html

EXpressLO LLC

Tel: +1-321-663-3806 Email: info@EXpressLO.com www.EXpressLO.com





Nicola ex situ lift out and micromanipulator system

APPLICATIONS: • ex situ lift out • micromanipulation • particles, fibers, thin films • backside manipulation

• FIB/SEM/TEM specimen preparation

FEATURES: EXpressLO™ grids and methods allow fast, easy, and flexible manipulation of FIB lift out specimens, fibers, particles, thin films, CNTs, and more.

www.expresslo.com/ex-situ-lift-out-systems.html

ibss Group, Inc.







Mobile Cubic Asher

APPLICATIONS: • In-Situ Contamination Control • Ex-Situ Sample Cleaning & Storage • SEM/FIB/TEM

SIMS/XPS/Review SEM • Semiconductor

FEATURES: Mobile DS plasma center for ex-situ specimen & in-situ EM chamber contamination control employs ibss GV10x Qwk-switch source, user-friendly 3 position switch, data entry by touchscreen, fitted into a mobile cart

http://ibssgroup.com/products/mca/

International Centre for Diffraction Data

Tel: 610-325-9814 Email: Sales@icdd.com www.icdd.com





Powder Diffraction File

APPLICATIONS: • X-ray Powder Diffraction • Database • Software • Electron Diffraction • Education

FEATURES: PDF-4+ 2018 is a comprehensive collection of inorganic materials containing 398,726 entries, produced in a standardized format that can be rapidly searched for unknown phase identification.

http://www.icdd.com/products/2017-2018-Sales-Catalog.pdf

IXRF Systems, Inc







EDS System

APPLICATIONS: • SEM • Microanalysis • Trace Elemental • Feature Analysis • EDS/XRF

FEATURES: The EDS Microanalysis for the SEM is the most flexible EDS system you will ever use. Iridium Ultra will change the way you analyze data.

ixrfsystems.com/xrf-products/microanalysis-iridium-ultra.html

This -

ATLAS Micro-XRF

APPLICATIONS: • Microanalysis • Trace Elemental • Thin Film • Large Area Stage Mapping • Micro-XRF

FEATURES: The ATLAS Micro-XRF spectrometer boasts the largest chamber volume and SDD detection area as well as the smallest spot size available on the market.

ixrfsystems.com/xrf-products/micro-xrf.html

Kammrath and Weiss





5k Newton Tensile / compression module for SEM/FIB



APPLICATIONS: • In-situ materials testing • Mechanical engineering • EBSD analysis • Failure analysis • Quality analysis

FEATURES: 5k Newton tensile/compression module for use with SEM/FIB with optional heating to 1200 deg. C, water cooling, EBSD, image capture and comprehensive MDS software

www.kammrath-weiss.com/en/products/materials/tensile-compression.html

Heating module for SEM/FIB to 1500 deg. C



APPLICATIONS: • In-situ materials testing • Mechanical engineering • Quality control • Failure analysis • Custom solutions available

FEATURES: SEM/FIB Heating modules available from 300°, to 1,500° Celsius. Sub-chamber with motorized lid for harsh environment and/or transfer to glovebox. Vibration-free water cooling included.

https://www.kammrath-weiss.com/en/products/heating-cooling/heating-1500c.html

Companies and their Products

Linkam Scientific Instruments

Tel: +44 (0) 1737 363476 Email: Duncanstacey@linkam.co.uk www.linkam.co.uk



CMS196M Cryo CLEM stage

APPLICATIONS: Self-contained cryo correlative system keeping the sample vitrified at constant -196°C and avoiding contamination, automated liquid nitrogen refilling • High precision encoded motorized XY with high speed automated mapping • Short start up time with high long-term stability and low drift • Selfaligning magnetic sample cassette system for up to three samples • Integrated condenser optics for transmitted light - brightfield and phase contrast as well as Fluorescence observation with high resolution objectives with NA of up to 0.9"

FEATURES: The Linkam Cryo-CLEM stage allows vitrified samples to be imaged in brightfield and fluorescence without contamination. Grids can be mapped to provide correlative information.

http://www.linkam.co.uk/clem

Optical DSC450 Stage



APPLICATIONS: • -180°C to 450°C temperature range with liquid nitrogen • Heating and cooling rates from 0.1°C/min to 30°C/min • Ideal for measuring glass transitions and melting peaks • Optimized for high quality image capture and recording • Highly sensitive at low heating rates and small sample sizes

FEATURES: The Optical DSC450 system has been optimized to measure transition temperatures and enthalpy changes while simultaneously being able to image physical changes in morphology and colour.

http://www.linkam.co.uk/dsc450

THMS600 Heating/Cooling stage



APPLICATIONS: • -196°C to 600°C temperature range with liquid nitrogen • Heating rate to 150°C/min; cooling rate to 100°C/min • Better than 0.1°C accuracy and stability • Options for gas control, humidity, pressure, vacuum and electrical measurements • Mounts to enable vertical operation in IR or X-ray spectrometers

FEATURES: The most versatile heating and cooling stage available. Precise temperature control. Ideal for use with light microscopy, FT-IR, UV, Raman, X-ray, SAXS and Synchrotron.

http://www.linkam.co.uk/thms600-features/

RH95 Humidity Generator



APPLICATIONS: Fully self-contained humidity control from 10% to 90%RH. No dry air supply required • Highly stable +/- 0.5%. Ideal for long term material testing • Compatible with a range of Linkam stages and other sealed chambers up to two liters • Monitor the effects of environmental changes on a wide variety of materials • Optional calibration kit including chamber and salt ampoules

FEATURES: The RH95 Humidity Generator provides precise control of RH% for a range of Linkam stages, ideal for sample characterization under changing environmental conditions.

http://www.linkam.co.uk/humidity-controller/

Microtome Service Company

Tel: 315-451-1404

Email: Microtome.Svc.Co@verizon.net http://www.microtomeserviceco.com

MTS

7/S1551929518000251 Published online by Cambridge University Press

Microtome Sales, Service and Parts



APPLICATIONS: • Sorvall Microtomes and Ultramicrotomes • Rotory Microtome Repair • KnifeMaker Repairs • AO 820 & AO 860 Repairs • Fabricate & Modify Lab Equipment

FEATURES: Sales & Service of Sorvall, RMC, AO:820, 860 and Rotary Microtomes and GKM Knife Makers. Microtome & Lab accessories, fabrication and modifications to meet your specific needs. Microtome Rentals.

http://microtomeserviceco.com/index.php?route=information/information&information_id=7

Minitool Inc.





Microtools and Instruments



APPLICATIONS: • Microscopy • Microbiology • Specimen Manipulation & Placement • Medical Research • Spectroscopy

FEATURES: Efficient, precise and realistically proportioned instruments in tip diameters from .025mm (.001") to 1.0mm (.040") are ideal for microscopists. Our line of micro-tools includes needles, gravers, chisels, knives, mirrors, probers, spatulas, hooks, scribes and microrulers. Also featured are micromalipulators, micro-sharpeners and micro-forceps. Tools are offered singly or in sets of eight tools with one handle to 32 tools with six handles.

www.minitoolinc.com

Navitar







High Quality Optical Solutions

APPLICATIONS: Life Science / Research • Industrial Imaging • Microscopy • Metrology • Defense & Security

FEATURES: Navitar's products range from high magnification motorized zoom imaging systems to fisheye projection lenses used in a wide variety of industries including life sciences, industrial imaging, microscopy and projection.

https://navitar.com/products/imaging-optics/

www.cambridge.org/mto 25

Oregon Physics



Tel: +1 503-601-0041 Email: info@oregon-physics.com www.oregon-physics.com



Hyperion II Dual Polarity Ion Source

APPLICATIONS: • Negative and positive ion extraction • Bolt-on to existing optical system • Utilize variety of gas species • Supports surface analysis (SIMS) applications • Supports high current micromachining (PFIB) applications

FEATURES: Integrates on existing ion optical systems to deliver the highest brightness, best imaging resolution and longest source lifetime for SIMS applications or high current FIB.

http://www.oregon-physics.com/hyperion2.php

FIB Consumable Parts



APPLICATIONS: For FEI FIB columns • Suppressors • Extractors • Custom aperture strips • Standard aperture strips

FEATURES: High quality FIB replacement parts for FEI DualBeam and FIB systems at substantial cost savings. We offer fast delivery and discounts for large orders.

http://www.oregon-physics.com/supressors-extractors.php

Park Systems Inc.

Tel: 408-986-1110 Email: inquiry@parkafm.com www.parkafm.com



Park NX12



APPLICATIONS: SECCM/SECM • EC-AFM and EC-STM • Chemical force microscopy with Functionalized Tip • Electric Force Microscopy (EFM) • Dynamic Contact EFM (EFM-DC) • Piezoelectric Force Microscopy

FEATURES: Park NX12 is an affordable versatile platform for analytical and electrochemistry researchers and multi-user facilities featuring a versatile Inverted Optical Microscope (IOM) based SPM platform for SICM, SECM, and SECCM, in addition to AFM.

www.parkafm.com

Park NX20



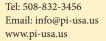
APPLICATIONS: Conductive AFM (ULCA and VECA)

• Electric Force Microscopy (EFM) • SCM/SKPM/
SSRM/STM/Tr-PCM • Piezoelectric Force Microscopy
(PFM) • Force Modulation Microscopy (FMM) • ForceDistance (F-d) Spectroscopy/Force Volume Imaging)

FEATURES: Park NX20 is a high-end, large sample atomic force microscope (AFM) for falure analysis (FA) and quality assurance (QA) laboratories that delivers accuracy, productivity and reliability using Park's True Non Contact mode technology

www.parkafm.com

PI (Physik Instrumente) LP





Nanopositioning Solutions for Light-Sheet & Super-Resolution Microscopy APPLICATIONS: Super Resolution Microscopy • Microscopy Stages • Atomic Force Microscopes (AFMs)



FEATURES: • 2nd Gen System • Two Versions: High Precision / High Precision and Stability • Cost-effective Piezoresistive Feedback Version Available • Extremely Fast Step & Settle, From 5msec • Low Profile: 20mm (0.8") • 200μm Travel Ranges

www.pi-usa.us/microscopy

Rigaku Corporation





The state of the s

Rigaku nano3DX

APPLICATIONS: X-ray microscopy • computed tomography • XRM • CT • High Resolution

FEATURES: nano3DX is an X-ray microscope (XRM) with the ability to measure relatively large samples at high resolution using a high powered rotating anode X-ray source and a CCD imager.

http://www.rigaku.com/products/xrm/nano3dx

Rigaku CT Lab GX series

APPLICATIONS: Ultra-high-speed CT scan and image reconstruction • High-resolution wide field-of-view measurement • Uses "Sample-Stationary Method" • Low running cost

FEATURES: CT Lab GX series, for ultra-high-speed, high-resolution 3D X-ray micro CT. Using the Sample-Stationary Method, devices can perform CT scans in 8 seconds at top speed, with a minimum resolution of $4.5~\mu m$.

http://www.rigaku.com/en/products/xrm/ctlab

SCHOTT North America, Inc. Lighting and Imaging

Tel: +1-508-765-9744 Email: lightingimaging@us.schott.com www.us.schott.com/lightingimaging





KL Light Sources & Accessories for Microscopy Applications

APPLICATIONS: • Stereo Microscopy • Laboratory Equipment • Industrial Applications • Life Science Applications • Microscopy Applications

FEATURES: Light is a key element in stereo microscopy. By using the correct illumination it can make hidden details visible and enhance the contrast.

http://www.us.schott.com/lightingimaging/english/microscopy/products.html

Companies and their Products

Cold Vision Series Halogen and LED Light Sources & Accessories



APPLICATIONS: • Stereo Microscopy • Laboratory Equipment • Industrial Applications • Life Science Applications • Microscopy Applications

FEATURES: SCHOTT offers a full range of fiber optic, halogen and LED lighting products with an extensive range of accessories to meet your needs in microscopy.

 $http://www.us.schott.com/lightingimaging/english/microscopy/products. \\ html \#block 362623$

SmarAct Inc



Tel: +1 415-766-9006 Email: info-us@smaract.com www.smaract.com

Electron Microscopy Stage



APPLICATIONS: Microgrippers, micro-and nanomanipulators • Multi DOF, vacuum-compatible piezo stages • Probing and testing systems • PicoScale laser interferometer • Microscopy stages for optical and electron microscopy

FEATURES: SmarAct offers piezo-based high-performance micro- and nanopositioners, advanced control systems, complete miniaturized manipulation systems and compact custom positioning systems that have sub-nm resolution.

www.smaract.com

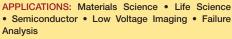
SPI Supplies

Tel: 610-436-5400 Email: sales@2spi.com www.2spi.com



Al

UV Prep



FEATURES: The UV Prep is designed to remove hydrocarbon contamination from a sample surface prior to FE-SEM examination. The result is enhanced imaging and resolution at low accelerating voltages.

Plasma Prep™ III



APPLICATIONS: Materials Science • Life Science • Semiconductor • Asbestos • Failure Analysis • PDMS Bonding.

FEATURES: Solid state RF generator capable of 1 to 100W operations; Low Temperature asher/etcher; small footprint; 4" diameter x 6" depth Pyrex or Quartz Chamber; Optional Process Controller; Optional system for cleaning TEM Specimen Holders.

Wet Cell II



APPLICATIONS: Materials Science • Life Science • Microfluidic Analytical Techniques • Self-contained Interface • Vacuum Compatible

FEATURES: The next generation device for the examination of liquids in SEM/EDS and TOF-SIMS instruments. The self-contained high vacuum compatible device enables the analyst to characterize a fluid in its natural state.

REBEKA BSE Detector for SEM



APPLICATIONS: Materials Science • Low Voltage Imaging • Backscatter Imaging • Semi-Conductor • Failure Analysis

FEATURES: REBEKA™ represents a new retractable BSE detector for electron microscopy which combines the best available single crystal scintillators manufactured by Crytur with precise high vacuum mechanics and readout electronics in one package.

Special Optics



Tel: 973-366-7289 Email: info@specialoptics.com specialoptics.com

Custom Microscope Objectives APPLICATIONS: Laser Micro-machini



APPLICATIONS: Laser Micro-machining • Physical Science Research • Microscopy • Long Range Surveillance • Defense & Security

FEATURES: Special Optics designs, develops and manufactures precision optical components and offers a wide range of optical fabrication and optomechanical assembly capabilities.

http://specialoptics.com/custom-solutions/

Sutter Instrument





SUTTER INSTRUMENT



SOM - Simple Moving Microscope

APPLICATIONS: Fluorescence microscope • *In vivo* microscopy • Life Sciences • Photostimulation

FEATURES: The SOM is a small, simple microscope designed to allow a single experimental setup to be used for both *in vivo* and *in vitro* experimentation.

Companies and their Products

Ted Pella, Inc.



Tel: 800-237-3526 Email: sales@tedpella.com www.tedpella.com

High Resolution FE-SEM Sputter and Carbon Coaters



APPLICATIONS: • Life Sciences • Materials Science Semiconductors
 SEM

FEATURES: • Fine-grained, ultra-thin uniform and conformal coating • Wide choice of operating parameters to accommodate all sample types • Purpose designed with optimized vacuum pumping system Rotary-Planetary-Tilting stage and high resolution thickness controller • Easy to operate with fast cycle

www.tedpella.com/cressington.htm

NEW PELCO BioWave® Pro+



APPLICATIONS: • Microwave Tissue Processing for EM • Light Microscopy • Immunolabeling and Decal-

FEATURES: User-friendly run screens with live runtime graph • Simplified protocol selection • Report Protocol Manager App and two USB ports for simplified data transfer and custom protocol upload

www.tedpella.com/microwave_html/pelco-biowave-pro-plus-microwavesystem.htm



PELCO easiGlow™

APPLICATIONS: • Life Sciences • Materials Science • TEM • Tomography

FEATURES: Precise and easy vacuum settings • Short cycle times . Consistent results . Intuitive touch screen for control and display • Supports hydrophilic/ hydrophobic and negative/positive modes

www.tedpella.com/easiGlow.htm



PELCO® Silicon Nitride Support Films and

APPLICATIONS: • TEM • STEM • Thin Film Research

Life Sciences
 Materials Science

FEATURES: Holey SiN films down to 100nm • Solid membrane thickness of 8, 15, 35, 50 and 200nm

- 3mm diameter frame fits standardTEM holders
- EasyGrip[™] edges for improved handling
 Variety of window shapes and sizes

www.tedpella.com/TEM-supplies.htm

PELCO® Modular SEM/FIB Sample Holders and Supplies



APPLICATIONS: • SEM • FE-SEM • FIB • FIB/SEM

FEATURES: Stage adapters for all major SEM brands Large selection of effective and practical sample holders • Correlative microscopy sample holders • Conductive adhesives • Carbon tabs • Conductive tape

www.tedpella.com/SEM-supplies.htm

Optical Light Microscopy & SEM Calibration Standards



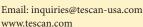
APPLICATIONS: Calibration Specimens for SEM, TEM, AFM • SPM, FIB, EDS • WDS and Optical Microscopes

FEATURES: X-Ray References Calibration for SEM: PELCO X-CHECKER™ • Pelcotec™ CDMS-XY: Critical Dimension Magnification Standards • AFM Gold Calibration Kit • AFM TipChecker • Magnification Calibration Calculators • Pelcotec™ LMS-20G Magnification Calibration Standard • Stage Micrometers • Fluorescence Reference Slides

www.tedpella.com/calibration_html/Calibration_Overview.htm

Tescan USA







TESCAN S8000G



APPLICATIONS: Ultra-thin TEM lamellae preparation with energies down to 500 eV . Very fast cross-sectioning and large volume tomography • Field-free ultra-high resolution imaging at extremely low voltages • Sample nanocharacterization without limitations (incl. magnetic, non-conductive and beam sensitive samples) • Microanalysis (WDS, CL, EBSD, EDS) at high electron currents (up to 400 nA)

FEATURES: The S8000G is equipped with new BrightBeam™ SEM column with angle-selective and energy-filtering electron detection for superb analytical imaging and novel ion column Orange™ for fast and precise sample preparation.

https://www.tescan.com/en-us/technology/fib-sem/s8000g

ΧΕΙΔ3



APPLICATIONS: Vast area cross-sections with minimal curtaining . Huge 3D tomography and volume analysis • High quality, large TEM lamellae with minimal amorphous layer • Delayering of state-of-the-art chips . Circuit edit and failure analysis in semiconductors

FEATURES: XEIA3 combines powerful plasma ion column (2µA) with immersion lens electron column (400 nA), a multitude of detectors and crossover-free beam path delivering UHR imaging and extremely fast mico-/nano- FIB machining.

https://www.tescan.com/en-us/technology/xeia3

The C-flat™ Advantage

C-flat™ leads to better data sets.

Made with patent pending technology, C-flat™ provides an ultra-flat surface that results in better particle dispersion and more uniform ice thickness. Patterning is done using deep-UV projection lithography, ensuring the most accurate and consistent hole shapes and sizes down to submicron features. The precise methods by which C-flat™ is manufactured eliminate artifacts such as excess carbon and edges around holes.

C-flat™ is affordable

C-flat[™] is available in 25, 50, and 100 packs at a per-grid price less than competing products.

Applications

C-flat holey carbon grids provide the ideal specimen support to achieve high resolution data in cryoTEM making C-flat the perfect choice for:

- Single particle analysis
- · Cryo electron tomography
- Automated TEM analysis

...EMS has it!

CONTACT US FOR MORE INFORMATION...

Electron Microscopy Sciences

P.O. Box 550 • 1560 Industry Rd. Hatfield, Pa 19440 Tel: (215) 412-8400 • Fax: (215) 412-8450 email: sgkcck@aol.com or stacie@ems-secure.com

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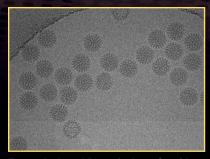


the premier holey carbon grid for cryo-transmission electron microscopy

$\mathsf{C}\text{-}\mathsf{FLAT}^{\scriptscriptstyle\mathsf{TM}}$

Holey Carbon and Gold Grids for Cryo-TEM

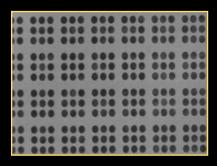
C-Flat[™] is a clean, ultra-flat holey carbon film TEM grid primarily used for Cryo TEM and Automated TEM. With a variety of available hole diameters, mesh size, film thicknesses, and mesh material, there is a C-Flat[™] product suitable for any application in the TEM.



Frozen-hydrated Bacteriophage Capsid (data acquired on CF-1.2/1.4-4C).

Consistent

Researchers around the world have reported that the ultra-flat surface of C-flat™ leads to even ice thickness and uniform particle distribution, allowing for superior 3-D reconstructions. 2 µm hole sizes are standard, but various hole sizes are available to accommodate different particle sizes and magnifications.



Compatible

C-flat™ provides a regular array of analysis sites compatible with automated data collection software such as Leginon. This compatibility, in combination with the more uniform ice thickness and particle distribution reported by numerous researchers, results in more high-quality target sites per grid.



Clean

C-Flat™ uses no plastics or polymers in its production. This means C-Flat™ is shipped clean, so it's ready to use out of the box and requires no solvent washing steps prior to use, leading to less breakage of the holey carbon film.

Expanded Product Line

The breadth of applications in cryoTEM necessitate a wide range of holey carbon film patterns. And now, with the recent expansion of the product line, a C-flat™ holey carbon film is available for almost any application. Whether 600nm holes are needed for very high magnifications with ultra-high resolution cameras or large open areas are needed for larger specimens, C-flat™ is the perfect holey carbon grid.