# CRYO-ELECTRON MICROSCOPY SUPPLIES AND ACCESSORIES





#### PELCO EASIGLOW™ GLOW DISCHARGE SYSTEM

The PELCO easiGlow™ Glow Discharge System is a compact, quick, easy to use and affordable standalone system. It is primarily designed for making TEM grids and support films hydrophilic. Carbon films in particular have the tendency to become more hydrophobic with storage, and even a freshly cast carbon film does not allow an aqueous sample or negative stain to spread properly. A glow discharge treatment with air will makes a carbon film surface negatively charged and hydrophilic which allows aqueous solutions to spread easily.

The practical chamber size with its newly designed glow discharge head and adjustable stage with glass slide holder allows for easy loading and fast turnaround times. The system is fully microprocessor controlled and includes an intelligent touch screen device for control and display of operation parameters. The PELCO easiGlow™ supports both hydrophilic and hydrophobic treatment with either negative or positive charge and features two separately controlled gas inlets. The required vacuum level is set by an electronically controlled precision proportional valve. This novel approach eliminates manual setting with a needle valve. A gentle venting procedure ensures that the TEM grids are not disturbed when the system is vented.

91000 PELCO easiGlow™ Glow Discharge Unit.....each

For more detail and ordering information, go to http://www.tedpella.com/easiGlow\_html/Glow-Discharge-Cleaning-System.htm

#### CRESSINGTON 208C HIGH VACUUM TURBO CARBON COATER

The 208C High Vacuum Carbon Coater from Cressington offers high quality carbon coating ideal for making carbon support films for TEM applications and other demanding methods such as FE-SEM, EDS/WDS, STEM, EBSD, and EPMA. This compact turbo-pumped system occupies less than two square feet of bench top space and offers a 150mm diameter chamber allowing for rapid pump down times while only requiring one standard electric outlet to operate. It is a cost effective, flexible modular system that permits customization for a variety of applications. For applications where coating thickness consistency is required, the MTM-10 thickness monitoring system can be added to give reliable repeatable results.

9620 208C High Vacuum Turbo Carbon Coater, 115V......each 9622 MTM-10 Thickness Monitor System for Standard Table, 115V.....each

For more detail and ordering information, go to http://www.tedpella.com/cressington\_html/Cressington-208C-High-Vacuum-Turbo-

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# **CRYO-ELECTRON MICROSCOPY SUPPLIES AND ACCESSORIES**



#### **CRYO GRID BOXES**

The Cryo Grid boxes are used for storing and transferring vitrified specimens crvo-EM prepared with cryo-devices like the FEI Vitrobot, Gatan CP3, Leica EM 6P, as well as other cryo vitrification systems. There are two versions of these boxes,

each with 4 storage positions. The round one is the most widely used and is available in two colors and three versions; with clear lid, pin type lid, and without lid. The round boxes can be used on the Gatan 626 and CT3500 cryo transfer systems and on the FEI Vitrobot and Gatan CP3. The square Cryo TEM grid box includes a non-static rotatable lid and fits the Gatan CT3500 Cryotrans and Gatan CP3. All of the boxes have a UNC 5/40 thread in the center. On versions with clear lids, the lid is held in place with a stainless steel screw.

160-40W	<b>NEW</b> Cryo Grid Box, round, White, with lideach
160-41W	<b>NEW</b> Cryo Grid Box, round, White, base onlyeach
160-42W	<b>NEW</b> Cryo Grid Box, round, White, w/ pin type lideach
160-40	Cryo Grid Box, round, Blue, with lideach
160-41	Cryo Grid Box, round, Blue, base onlyeach
160-42	Cryo Grid Box, round, Blue with pin type lideach
160-43	Cryo Grid Box lid, Cleareach
160-47	Cryo Grid Box lid, pin typeeach
160-44	Cryo Grid Box with lid, square for Gatan CT3500each

#### **NEW MULTICOLOR CRYO GRID BOX HANDLING ROD**



Now available in four different colors, the Handling Rod screws into the threaded center of #160-41 or 160-41W round cryo grid box for transfer and storage applications. Can be used to store the cryo grid box under liquid nitrogen. Multiple colors allow to color-code your samples for easy reference.

160-46	Cryo Grid Box Handling Rod, Whiteeach
160-46-4	Cryo Grid Box Handling Rod, Yelloweach
160-46-6	Cryo Grid Box Handling Rod, Blueeach
160-46-0	Cryo Grid Box Handling Rod, Blackeach

More colors available soon.

#### **NEW GRIPPER TOOL FOR CRYO GRID BOX**



An ergonomic and efficient device to open the pin type lid (#160-47) of a cryo grid box (#160-42 and 160-42W). Spring-loaded pin vise grips the pin type lid firmly and securely. High quality aluminum body construction is good for working in liquid nitrogen. Ribbed barrel design makes it easy to unscrew the lid. This handy tool can also be used to carry the covered cryo grid box.

160-48 Gripper tool for cryo grid box pin type lid.....each

#### CONSUMABLES FOR THE FEI VITROBOT™SYSTEM



#### TWEEZERS ASSEMBLY FOR VITROBOT™ MARK IV, III, II,I

Complete replacement tweezers assembly for the FEI Vitrobot™ Mark IV-I. Includes ultrafine point DUMONT #5 tweezers with clamping block mounted on dovetail.

47000-500 Replacement Tweezers Assembly for FEI Vitrobot Mark IV-I .....



47000-100 Standard Vitrobot Filter Paper, Grade 595 ...... pkg/100

#### TOUCH SCREEN STYLUS

Overall length 100mm x Ø4.5mm at widest point, with a Ø1mm tip. 91000-2 Replacement Touch Screen Stylus.....each



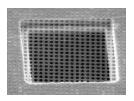
#### 60ml SYRINGES

115-55 Disposable Syringes, Luer Lock style, 60ml....each

For complete selection of syringes and needles, go to http://www.tedpella.com/Embedding\_html/Disposable\_Syringes

### **CRYO-ELECTRON MICROSCOPY SUPPLIES AND ACCESSORIES**

#### QUANTIFOIL® TEM SUBSTRATES



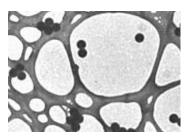
QUANTIFOIL® Holey Carbon Film is a perforated support foil with a pre-defined hole size, shape and arrangement. It is are offered with circular or square holes. The film is mounted on a standard Ø3mm Cu, Au, or Ni TEM grid with 200 or 300 mesh. It has advantages in electron microscopy

(EM) or low-energy electron point source (LEEPS) microscopy when compared with conventional holey film. The uniform size and pitch of the holes in the Quantifoil<sup>®</sup> facilitates automated image acquisition.

658-300-CU Orthogonal Array of 1.2µm Diameter Holes - 1.3µm Separation, mounted on a 300M Cu grid.....pkg/10

For complete selection, go to http://www.tedpella.com/calibration\_html/QUANTIFOIL\_TEM\_Substrates.htm

The graphene oxide film covers the entire lacey carbon or holey silicon nitride substrate. The user can expect to find around 70% graphene oxide coverage. The thickness of the single layer of graphene oxide film is 0.8 - 1.2nm as measured by EELS. The thickness of the 2-layer graphene oxide film is 1 - 1.5nm as measured by EELS.



## 0.26µm dia. Latex on Ultrathin Carbon Film on a Lacey Carbon Support Film.

#### ULTRATHIN CARBON FILM ON LACEY CARBON SUPPORT FILM

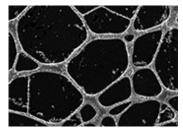
Pure carbon support films with no Formvar backing. This new product has an ultra thin (3-4nm) carbon film that is mounted on a lacey carbon film. This is the thinnest continuous support film available. It is particularly useful for high resolution

microscopy of low contrast specimens and also ideal for use with the Energy Filtering TEM.

01824 Ultrathin Carbon Film on Lacey Carbon Support Film, 400 mesh, Copper......pkg/25

01824G Ultrathin Carbon Film on Lacey Carbon Support Film, 300 mesh, Gold.....pkg/25

For complete, comprehensive selection of thin carbon and lacey support film products, go to https://www.tedpella.com/Support\_Films\_html/Support\_Films\_and\_Substrates\_Overview.htm



2-layer Graphene Oxide Film on Lacey Carbon

## PELCO® GRAPHENE OXIDE FILMS

The PELCO® Graphene Oxide films are based on the single and 2-layer PELCO® Graphene Films. The form in which they are offered is the same as the graphene films with the difference that the graphene films are oxidized using a proprietary oxidization process.

This makes the films hydrophilic and more suitable for life science applications and research.

#### TWEEZERS FOR HANDLING GRIDS



505-NM DUMONT Biology Style 5 tweezers, non-magnetic stainless steel,  $0.05 \times 0.01 \text{mm}$  tips.....each



5388-5NM PELCO® Pro ESD Epoxy Coated tweezers, Style 5, non-magnetic stainless steel, extra fine tips......each

For complete, comprehensive selection of all styles and materials of DUMONT and PELCO  $^{\circledR}$  tweezers, go to http://www.tedpella.com/Tweezers\_html

#### PELCO® TWEEZER TRAP



A safe, convenient, and portable tweezer holder in 3 different models for 3, 5 or 8 tweezers or forceps. Made from strong white acrylic with stainless steel pins. Suitable for tweezers up to 140mm length.

The tweezer trap allows full view of tweezers making selection of the tweezers quick and easy. Since there are no slots or holes into which the

tweezer tips to fit into there is less chance of damaging the tweezer tips. The tweezer trap for 5 tweezers is our most popular model for a variety of lab applications.

5690 PELCO® Tweezer Trap, 5 Tweezers Capacity...... each

For more styles and for other tweezers' accessories, go to http://www.tedpella.com/twzr-mis\_html/twzr-acc.htm

#### LARGE CRYOGENIC DEWAR FLASKS



Sealed vacuum space between inner and outer shells. Outer shell is constructed of durable, lightweight aluminum. Vacuum space is filled with technologically advanced insulation. Thermally insulated necktube core minimizes liquid nitrogen loss. Sturdy aluminum interior. Superior vacuum performance and insulation provide maximum holding times.

81750-4	Cryo Dewar Flask, 4 Liters each
81750-10	Cryo Dewar Flask, 10 Liters each
81750-35	Cryo Dewar Flask, 35 Literseach



#### NEW HIGH CAPACITY DEWAR REFRIGERATOR FOR CRYO SPECIMEN STORAGE

The High Capacity (HC) series dewar refrigerators by Worthington Industries (formerly Taylor-Wharton) are designed for storing large quantities of a variety of materials at or close to liquid nitrogen temperature. The VHC35 model is convenient for storing frozen samples in a cryo-EM lab. VHC35 dewar features a wide 4.7" diameter neck for better visibility and easier access and six 3.7"-wide canisters (with a

possibility to add a seventh canister for extra storage capacity), all in a relatively compact form. A 10 or 4 liter dewar flask (#81750-10, 81750-4) can be used to conveniently maintain the level of liquid nitrogen without disturbing the stored samples.

81750-35VHC High capacity dewar for storing cryo samples, 35 Liters ...... each



#### LAB GRADE DEWARS

Pope Lab Grade Dewars are rated the most efficient glass Dewars in the World. Designed for use with Liquid Nitrogen, this superior ranking is due to rigid quality control and a number of outstanding design and manufacturing features.

350ml Dewar, Std. Base, Cylindrical, Wideeach
1000ml Dewar, Full Base, Cylindrical, Wide

For more detail and comprehensive selection, go to http://www.tedpella.com/cryo-supplies\_html/cryo-dewar.htm



#### **NEW FOAM CRYO DEWARS**

Foam dewars provide a neat and handy alternative to heavier vessels or the commonly utilized styrofoam shipping containers. The special foam material is chemically inert and mechanically durable enough to be exposed directly to liquid nitrogen, without leaking or degrading. Patented design makes the foam vessel easier to handle and safer to use than a traditional low profile glass dewar. Because of its lower thermal mass, a foam vessel will cause less liquid nitrogen boiling when it is filled. The foam surface will also accumulate less frost. As a result, less liquid nitrogen is consumed.

Available as 500ml, 800ml and 1400ml Cryo Cups featuring convenient protruding handle, a Tall (1800ml) vessel, and a Mini (130ml) vessel.

81760-500	Foam Cryo Cup, Small (500ml)each
81760-800	Foam Cryo Cup, Medium (800ml)each
81760-1400	Foam Cryo Cup, Large (1400ml)each
81760-1800	Foam Dewar, Tall (1800ml)each
81760-130	Foam Dewar, Mini (130ml)each



#### **CRYO-GLOVES**

Used in cryogenic atmosphere, ultra low temperature freezers, dry ice, steam autoclaves and ovens. Suitable for temperatures from -160°C (-250°F) to +148°C (300°F). Resistant to solvents, insulation without bulk, machine washable/dryable, breathable. Available in four length styles and sizes S through XL.

81729	Cryo-Gloves, Wrist Length, M, Size 91 pair
81724	Cryo-Gloves, Mid Arm Length, M, Size 9 1 pair

For more selection of cryoprotective equipment, go to http://www.tedpella.com/gloves\_html/gloves