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IMS KOREA
Products Overview

Imaging & Precision Analysis Instrument
SEM/TEM/FIB Consumable

IMS KOREA
Innovative Microscopy Supplies

Who We are?

Imaging & Precision Analysis Instrument
SEM/TEM/FIB Consumable

About IMS KOREA

Innovative Microscopy Supplies

저희 ㈜아이엠에스코리아는,

주사전자현미경(SEM) / **주사전자현미경 소모품**(Consumable)

SEM Sample **전처리장치**의 국내외 제품을 전문적으로 공급하는 회사입니다

MicrotoNano社(네덜란드)와 한국 독점 대리점 협약을 체결하고,

최첨단 기술로 제작된 고품질의 주사전자현미경 소모품을 공급하며,

이러한 샘플 준비과정을 거쳐 최상의 이미지와 신뢰할 수 있는

데이터를 얻는데 중요한 역할을 할 수 있도록 기여하고 있습니다.

다년간의 제품개발 Know-how를 바탕으로 보다 향상된 제품과 정보를

제공할 수 있도록 최선을 다해 노력하겠습니다.

㈜아이엠에스코리아 임직원 일동

IMS KOREA
Innovative Microscopy Supplies

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Innovative Microscopy Supplies

주식회사 아이엠에스코리아는,
전자현미경(SEM)/전자현미경 소모품 및
샘플 전처리장치 국내외 제품을 공급하고 있습니다

주사전자현미경(SCANNING ELECTRON MICROSCOPE)

Phenom Pharos G2

> 가장 우수한 분해능을 지닌 전세계 유일한 초소형 "Desktop FE-SEM"
> 최대 2,000,000배까지 확대
> 샘플 로딩 후 15초이내에 SEM 이미지를 확인 가능
> 16개의 채널 STEM(BF, DF, ADF, HAADF)

Phenom P-Series

> Long Lifetime Ceb6 source (빔수명 >1,500hr)
> 최대 175,000배(Pure), 350,000배(Pro/ProX) 까지 확대
> 샘플 로딩 후 SEM이미지 15초이내 초이내에 SEM 이미지를 확인 가능
> 바이오 시료 분석을 위한 쿨스테이지 장착

Phenom XL G2

> 100x100 홀더에 36개 시료 장착이 가능한 대면적 Desktop SEM
> 최대 200,000배까지 확대
> 샘플 로딩 후 SEM이미지 30초이내에 SEM 이미지를 확인 가능
> In situ 분석(인장강도, I-V전류전압 특성)

Axia ChemiSEM

> 실시간 정량적 구성 이미징 원소 분석 매핑 (ColorSEM)
> Fully Auto 모드를 통한 간단한 사용자 인터페이스 및 장비 유지 보수
> 5축 모터 스테이지이며 compucentric 스테이지를 통한 다양한 시료 측정 가능
> 현존하는 최대의 챔버 사이즈를 통하여 최대 25cm 무게 10kg의 샘플 수용 가능
> 150Pa의 저진공을 통하여 바이오 시료 및 절연 시료 수용 가능

시료 전처리 장비(SAMPLE PREPARATION SYSTEM)

폴리셔 & 마운팅(Poliser & Mounting)

> 재료 조직 관찰용 표면 연마
> Auto-Head를 이용한 자동 연마
> 매우작은 시료의 연마를 위한 성형
> 실린더와 히터 일체형으로 쾌속 성형

이온코터(Ion coater)

> 전자현미경용 전도성 코팅
> 금속 & 세라믹 박막 제작
> 자동 레시피 & 두께 측정 모드 지원

시료 전처리 장비(SAMPLE PREPARATION SYSTEM)

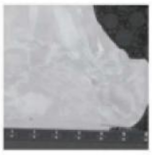
이온밀링기(Cross Section Poliser)

> 마이크로~밀리미터 단면 밀링
> 대기 노출에 민감한 소재 밀링
> 표면 밀링(Flat milling)
> EBSD용 시편 제작

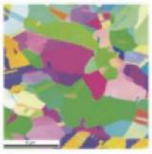
ION BEAM SLOPE CUTTING

To produce excellent quality planar cross-sections of different solid state materials for SEM/EBSD imaging and microanalysis.

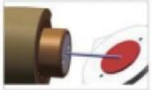
Sn-Ag solder ball grid array (BGA)



Metal wire bonding

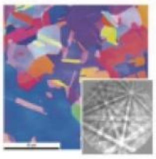


EBSD image (OIM) made on an as-cut surface of copper



FINAL POLISHING

To produce samples for Electron Backscatter Diffration (EBSD) study and Orientation Imaging Microscopy (OIM).

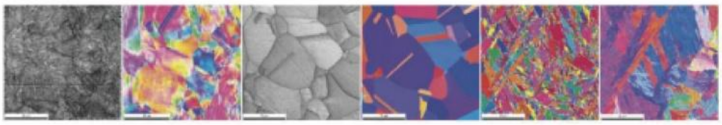


Copper

Nickel

Martensitic steel

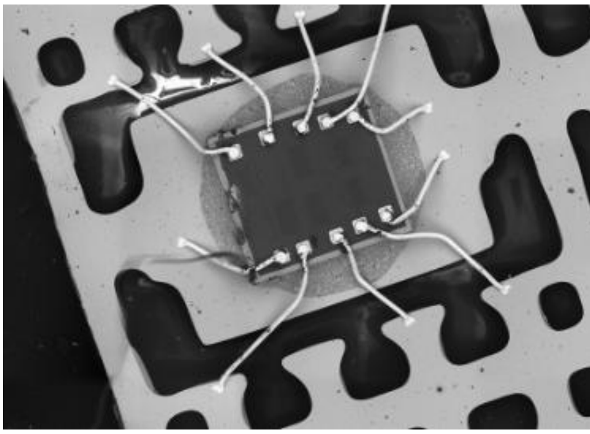
Limestone



(주)아이엠에스코리아 (34324) 대전광역시 대덕구 신일동로 17번길 5, 테크노시티 904호 T. 070-4126-5926 E. ims@imsko.com

Supply Products

Imaging & Precision Analysis Instrument
SEM/TEM/FIB Consumable



µ-n Micro to Nano
Innovative Microscopy Supplies

TED PELLA, INC.
Microscopy Products for Science and Industry

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A CALIBRE SCIENTIFIC COMPANY

Electron
Microscopy
Sciences

OXFORD
INSTRUMENTS

Cole-Parmer®

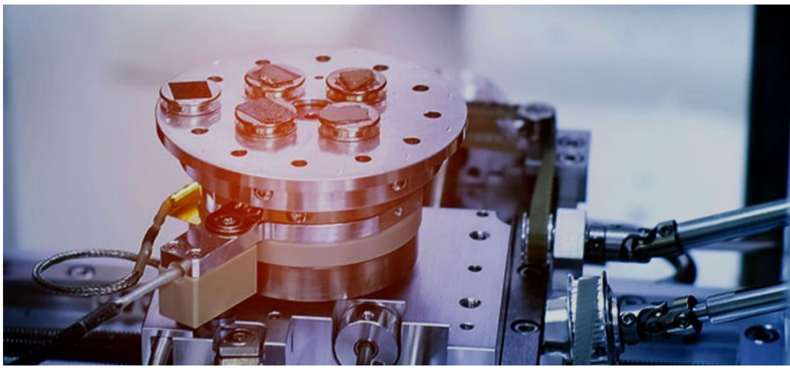
COXEM
KOSDAQ
LISTED COMPANY

ThermoFisher
SCIENTIFIC

HORIBA

NanoSystem
www.nanosystemz.com

Business Line



주사전자현미경(SEM)

Mini-SEM(Tabletop-SEM)

Normal-SEM

FE-SEM

TEM / FIB

Supply BRAND

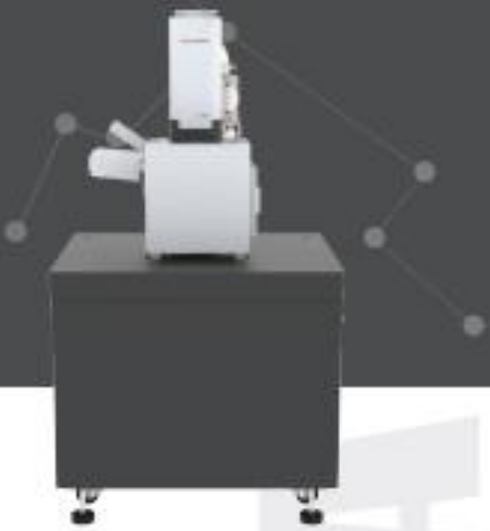
ThermoFisher SCIENTIFIC

COXEM

GSEM

주사전자현미경

SCANNING ELECTRON MICROSCOPE



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주사전자현미경

SCANNING ELECTRON MICROSCOPE

EM-30

- W 텅스텐 필라멘트
- 최대 x100,000배 확대, 10nm 고분해능
- SE Detector
- X(35mm), Y(35mm), Tilt(0~45°) XYT 3축 자동 스테이지

EM-30N

- 국내에서 제일 많이 판매되는 Table-top SEM
- 최대 x150,000배 확대, 10nm 고분해능
- SE+BSE Dual Detector
- NaviCAM (Snapshot)
- X(35mm), Y(35mm), Tilt(0~45°) XYT 3축 자동 스테이지

EM-40

- 최대 배율 x250,000배 확대, 10nm 고분해능
- 50,000 ~ 80,000배의 유효배율
- X(40mm), Y(40mm), Z(40mm), XYZ 3축 자동 스테이지
- 5세대 DSP(디지털 신호 처리) 기술 탑재
- 세계 최초 컴팩트 EBSD와 완벽히 통합되는 Table-top SEM

Business Line

Sample Preparation

Ion Coater

Ion Milling / Polisher

Cutting (절단기)

Mounting (성형기)

Polisher / 연마기

Supply BRAND

MTDI

VAC COAT

TECHNOORG LINDA

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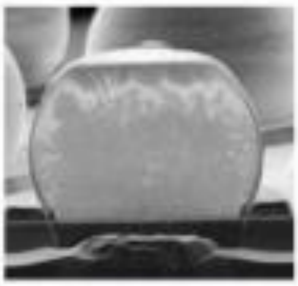

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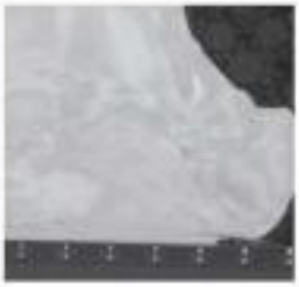

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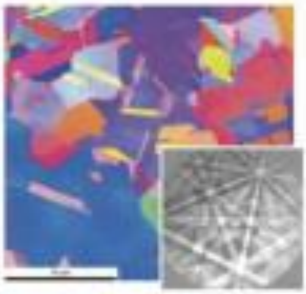

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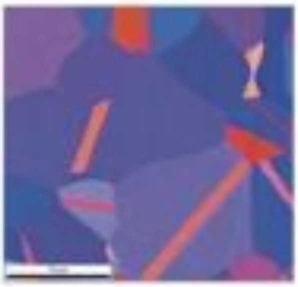
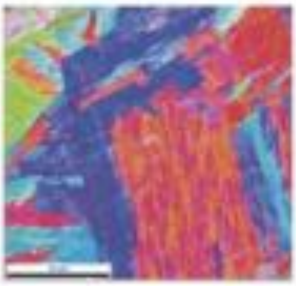
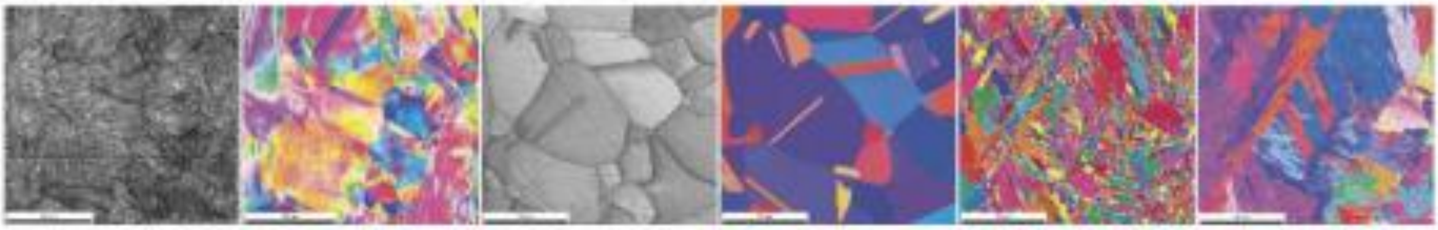


Nickel



Martensitic steel

Limestone



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이온코터(Ion coater)

- 전자현미경용 전도성 코팅
- 금속 & 세라믹 박막 제작
- 자동 레시피 & 두께 측정 모드 지원

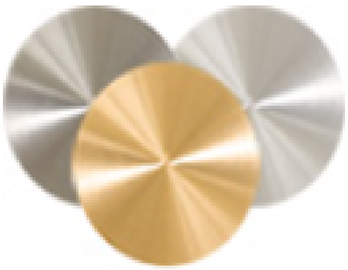
SEM Sample Preparation

Ion Sputter Coater (SPT-20)

- SEM 분석을 위한 시료 전처리 장비
- 시료 위에 얇은 전도성 물질 증착
- 시료 표면 손상 보호 및 고퀄리티의 SEM 이미지 제공
- Various metal targets available : Au, Pt, Pt-Pd
- Chamber size Ø100mm / Target size 50mm
- Coating time : 10~300sec

Ion Beam Polisher (IP-10K)

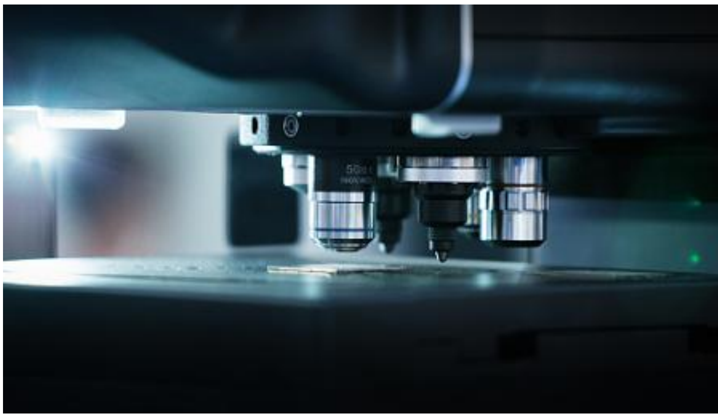
- 시료 표면 및 단면을 식각하는 전처리 장비
- 마이크로 스케일 수준 시료의 정밀한 밀링 분석 솔루션 제공
- Flat-milling, cooling stage 및 air-protection module
- A fast milling speed of 1,000um/h (Si, 8kV)
- A fast pump/vent time with easy sample loading
- Minimizes thermal damage with the cooling stage



Sputter Coater Metal Target

- 99.99% 이상의 높은 순도
- Disc 타입 고순도 금속 포일 사용
- Various metal targets available Size
- Material : Au, Pt, Pt-Pd, Ag, Cr, Cu, Ni

Business Line



Analyzer & Measuring Equipment

WSI 3D Profiler (3차원 측정기)

Particle size analyzer (입도분석기)

Thermal analyzer (열분석기)

Rheometer (유변물성 분석기)

Supply BRAND

NanoSystem www.nanosystemz.com

HORIBA

Waters™ | TA Instruments

Malvern Panalytical a spectris company X micromeritics®

IMS KOREA
Innovative Microscopy Supplies

Contactless 3D Surface profiler

나노 레벨 3차원 단차 측정기

Nanoview-1800

COMPACT Model

- Vertical Resolution : WSI : 0.5nm / PSI : 0.1nm
- Scanning range(Z축) : ≤270μm / Speed : 12μm/sec
- Stage size : 150 x 150mm
- Manual stage(X/Y) : 50 X 50mm
- F.O.V Lens 0.1x(Default)
- Single Lens available

Nanoview-2400

Economic Model

- Vertical Resolution : WSI : 0.5nm / PSI : 0.1nm
- Scanning range(Z축) : ≤270μm / Speed : 12μm/sec
- Stage size : 230 x 230mm
- Motorized stage(X/Y) : 100 X 100mm
- F.O.V Lens selectable(0.5x , 0.75x, 1.0x, 1.5x, 2.0x)
- Manual Turret(Motorized Probe Tip/tilt ±5˚)

Nanoview-F2700

Advanced Model

- Vertical Resolution : WSI : 0.5nm / PSI : 0.1nm
- Scanning range(Z축) : ≤270μm / Speed : 101.5μm/sec
- Stage size : 230 x 230mm
- Motorized stage(X/Y) : 100 X 100mm
- F.O.V Lens selectable(0.5x , 0.75x, 1.0x, 1.5x, 2.0x)
- Motorized Turret(Motorized Probe Tip/tilt ±5˚)

NanoSystem

IMS KOREA
Innovative Microscopy Supplies

PSA 입도분석기

PARTICLE SIZE ANALYZER

LA-960V2

레이저 회절/산란식 입자경 분포 측정 장치

- 측정범위 10nm (0.01μm) ~ 5,000μm
- 1분 이내 분석 결과 확인 가능
- 고정밀도 보증
  (1μm 표준시료 측정 시 0.6% 보증)
- 물 공급 자동
- 샘플무게 : approx. 10mg ~ 5g
- 건식 분석 가능(Option)

LA-350

레이저 회절/산란식 입자경 분포 측정 장치

- 측정범위 100nm(0.1μm) ~ 1,000μm
- 샘플무게 : approx. 10mg ~ 5g
- 측정샘플
  Powders, slurries, emulsions etc.
- 물 공급 수동
- 건식 분석 불가
- 2분 이내 분석 결과 확인 가능

SZ-100V2

나노입자 분석장치

- Size 측정범위
  0.3nm(0.0003μm) ~ 10μm
- Zeta 측정범위 -500mV ~ +500mV
- 입자의 안정성까지 측정 가능
- 2분 이내 분석 결과 확인 가능
- 입자크기 / 제타전위 / 분자량 측정
- 희석 시료부터 고농도 시료까지 측정

Business Line

Laboratory Tools

Laboratory consumable

Scientific equipment

Lab supplies

Balances & Scales

Test & Measurement tools

Supply BRAND

Cole-Parmer DAIHAN Scientific JEIO TECH

Business Line

SEM/TEM/FIB Consumable

SEM Supplies

TEM Supplies

FIB Supplies

AFM/SPM Supplies

Adhesive / Tweezer

Supply BRAND

Micro to Nano
Innovative Microscopy Supplies

TED PELLA, INC.
Microscopy Products for Science and Industry

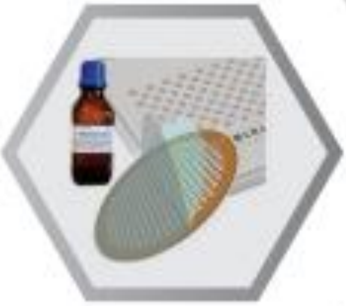
agar scientific
A CALIBRE SCIENTIFIC COMPANY

Electron Microscopy Sciences

OXFORD INSTRUMENTS

IMS KOREA
Innovative Microscopy Supplies

SEM Consumables
SEM, TEM, FIB, AFM



- ✓ SEM Supplies
- ✓ TEM Supplies
- ✓ FIB Supplies
- ✓ AFM Supplies
- ✓ SEM Stubs
- ✓ Sample coating Supplies
- ✓ Adhesives
- ✓ Tweezers

SEM Sample Stubs

The SEM samples stubs are compatible with the respective brands of SEM for which they have been designed. We offer SEM sample stubs for all leading brands of SEMs. Each of the type of SEM sample stubs has a wide selection of platform size to accommodate different sample sizes and is available with 45°, 45/90° and even double 90° pre-tilt, there are four major types of SEM sample stubs:

- Standard pin stubs with 3.15mm diameter and 8mm pin length for TFS, FEI, Philips, Tescan, Phenom, AmRay, Cambridge Instruments, Leica, CamScan, Aspex, RJLee, Etec and Novascan SEMs. Some special pin stubs might come with a 9.5mm pin length.
- Short pin Zeiss stubs with 3.15mm diameter and 6mm length for Zeiss and LEO SEMs
- JEOL cylinder stubs for JEOL SEMs
- Hitachi M4 cylinder stubs with an M4 threaded hole in the base


SEM Standard pin stubs for : FEI, Tescan, Phenom etc. pin length: 8mm


Zeiss SEM pin stubs, pin length: 6mm


Hitachi, M4 cylinder SEM stubs


JEOL, cylinder SEM stubs


Carbon sample stubs


Hitachi in lens stubs


Stub Gripper Tweezers


Sample Stub Adapters


Gatan 3View stubs, tweezers and storage box


FEI VolumeScope stubs


ISI-ABT-Topcon stubs


Pre-tilt pin stubs for FIB/SEM systems

SEM Stub Adapters

✓ Enables the use of SEM sample stubs, from a different type as your SEM specifies

Use Hitachi and JEOL stubs in SEMs using a standard pin stub

Use Hitachi and JEOL stubs in Zeiss SEMs using the shorter Zeiss pin stub

Use Hitachi stubs and pins stubs in JEOL SEMs

Use JEOL stubs and pins stubs in Hitachi SEMs

Pin stub adapter with support rim for Hitachi M4 stubs / holders and ISI/ABT/Topcon adapter

Stub adapter for SEC SEMs

Pin stub adapter for light microscopes

Universal SEM sample stub adapter set

SEM versatile stage adapters

The EM-Tec versatile SEM stage adapters are fully compatible with FEI, Philips, Zeiss, LEO, JEOL, Hitachi, Tescan, Pemtron SEMs, FESEMs or tabletop SEMs and the EM-Tec SEM sample holders with M4 thread. The EM-Tec versatile stage adapters give access to an unprecedented choice of SEM sample holders which can be used across multiple SEM platforms. Features of the EM-Tec versatile SEM stage adapters are:

- Access to all EM-Tec SEM sample holders with M4 thread (incl. Hitachi sample holders and Hitachi stubs)
- Use the same SEM sample holders across SEM platforms by exchanging the SEM stage adapters
- Examine the same sample on different SEM platforms
- Protect your investment in custom and special SEM sample holders
- Cost savings for labs with multiple SEMs
- Cost-efficient replacement for worn out original SEM stage adapters
- Use one calibration standard or resolution standard across multiple SEMs

All EM-Tec SEM versatile stage adapters comprise an M4 screw which is compatible with the M4 threaded hole in the EM-Tec sample holders.


FEI FV24, FV44 and FV54 stage adapters, M6 fine thread


Zeiss / LEO ZV9 and ZV11 stage adapter, dovetail


Pin stub to M4 adapters


JEOL NeoScope stage adapter, disc type


JEOL JV70 stage adapter, dovetail


: JEOL JV60 stage adapter, dovetail


: JEOL JV50 stage adapter, dovetail


JEOL JV35 stage adapter, dovetail


Hitachi HV48 stage adapter, new style T-base


Hitachi HV40 stage adapter, old style T-base


Hitachi HV50 stage adapter, dovetail


Hitachi HV35 stage adapter, dovetail

SEM sample holders

The EM-Tec range of SEM sample holders comprises a wide variety of holders to make it easier and quicker to mount your samples directly in the SEM. Samples are held by clamping between jaws or secured with screws. When samples are secured correctly, the sample won't move which increases spatial resolution both for imaging and analysis. With the EM-Tec SEM sample holders there are no out-gassing or contamination issues.

- All EM-Tec SEM sample holders are, either directly, or with a EM-Tec SEM stage adapter fully compatible with nearly any standard SEM.
- Holders, that fit tabletop SEMs can be found our tabletop SEM supplies page.

Small stub based sample holders
Pin stub based
JEOL stub based
Hitachi stub based

EM- Tec versatile vise clamp sample holders

S-Clip sample holders:
Standard pin stub
Zeiss pin stub
JEOL pin stub
Hitachi stubs pin stub

Pre-tilt sample holders
Fixed tilt angle
Variable tilt angles

Low Profile S-Clip SEM

Centering vice sample holders

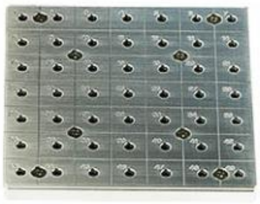
EBSD sample holders

Swivel tilt sample holders

Multiple metallographic mount holders

Filter disc holders for SEM EDS analysis

t-EBSD holder



C-Square multi SEM pin stub holders

Compact spring loaded

Compact vise holder

90 degree and off-set

Universal Spring-loaded vice

SEM supplies

We offer a special selection of EM-Tec sample holders and sample stubs that are compatible with your tabletop SEM.

Basic supplies needed:

- adhesives
- small handtools
- tweezers
- calibration standard
- sample storage boxes
- picks and probes
- conductive tabs and pads
- sputter targets


Phenom stubs & holders


Phenom basic supplies


JEOL NeoScope stubs & holders


JEOL NeoScope basic supplies


Hitachi TM series stubs & holders

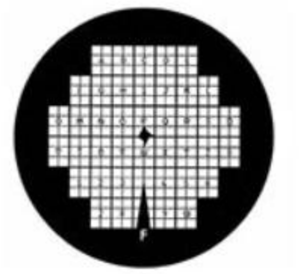

Hitachi TM series basic supplies


Semplor Nanos stubs & holders

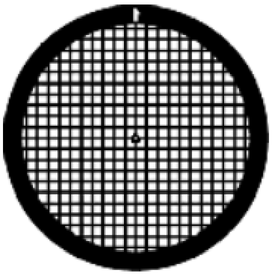

Semplor Nanos basic supplies

TEM supplies

TEM supplies Overview

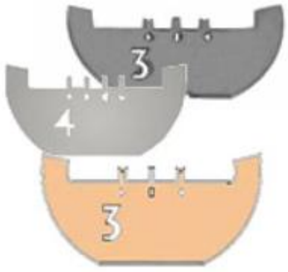


EM-Tec TEM grids

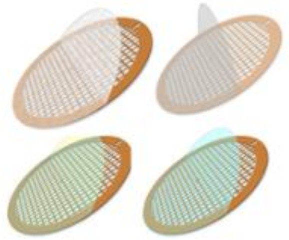


Gilder TEM grids

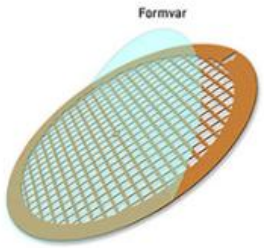
Value-Tec TEM grids



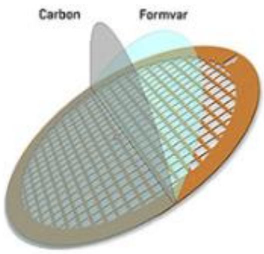
Lift-out FIB grids



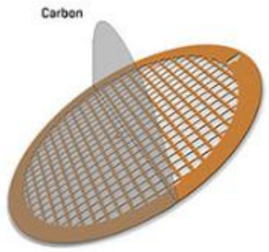
selection guide support films



Formvar only support films



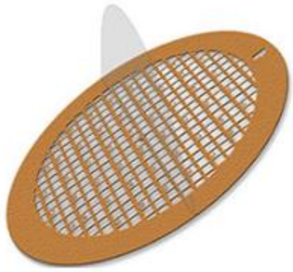
Formvar carbon films



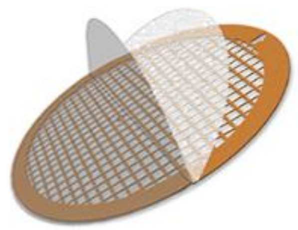
Carbon only films

Holey carbon films

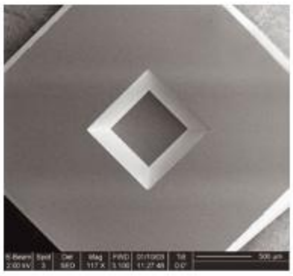
Lacey carbon films



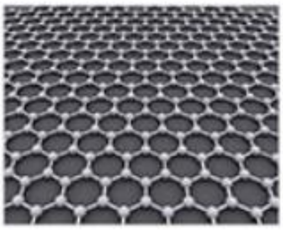
support films on finder grids



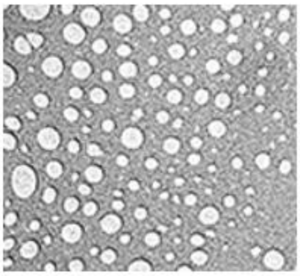
Ultra-thin carbon films



Silicon nitride films



Graphene films



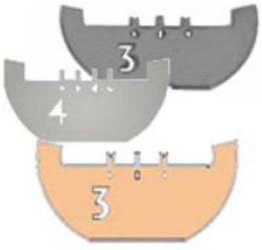
TEM calibration

Grid storage boxes

FIB supplies

FIB supplies Overview

The comprehensive range of EM-Tec FIB supplies (Focused Ion Beam) for all brands of FIB/SEM systems include a wide choice of FIB lift-out grids, FIB lift-out grid storage boxes and FIB lift-out grid holders. Additionally, the compact combined FIB lift-out grid + sample holders places sample and FIB lift-out grids close together for efficient FIB lift-out operations. Both sample stubs and FIB grid holder can be rotated and height adjusted for optimum FIB lift-out operations.



EM-Tec FIB lift-out grids
copper / molybdenum / smooth Mo

EM-Tec FIB lift-out grid holders for preparation & storage

EM-Tec FIB pre-tilt holders for FEI, Zeiss and Tescan FIB/SEM systems

EM-Tec FIB lift grid storage boxes for up to 100 FIB lift-out grids

EM-Tec FIB low profile stubs for FEI, Zeiss and Tescan FIB/SEM systems

EM-Tec FA-4 FIB lift-out grid box for 4 grids with coloured thumb screw

SEM paints & tapes

Conductive paints and conductive adhesive tapes are indispensable for SEM and FIB specimen preparation and specimen mounting. They enable quick sample mounting and deliver the conductivity needed for SEM and FIB applications. The selection of conductive adhesive include:

- Specially formulated conductive paint and cements for SEM, FIB and lab applications
- Double sided carbon tapes for mounting specimens
- Conductive metal tapes for making grounding paths

The non-conductive adhesive are useful for sample preparation in vacuum systems and for application where conductivity is not required. The selection of non-conductive adhesives include:

- UHV compatible single and double sided Kapton tapes
- HV compatible single sided PET mylar tapes
- Double sided adhesive SEM tabs


Carbon paint,
water based


Carbon paints,
cement solvent based


Nickel paint,
cement solvent based


Silver cement,
strong, highly conductive


Silver paint,
solvent based


Silver paint,
water based


High temperature
carbon paste


Silver filled epoxies


Silver micro-tip pen


Carbon tapes & tabs,
double sided


Super smooth,
conductive tapes


Copper SEM tapes

Storage for stubs, slides, TEM grids, wafers etc.

Sample storage is an important aspect in sample processing in any microscopy laboratory. We offer a wide range of storage boxes and options for short term storage, archiving storage and sample shipping. There are multiple options for SEM stub and mount storage, TEM grid storage and FIB lift out grid storage, AFM/SPM sample discs and microscope slides. We also offer general storage boxes for parts and samples.

For sensitive samples which need protection against oxygen, humidity and contamination we offer the EM-Storr vacuum desiccator, the Vacu-Storr vacuum containers and the EM-Tec Save-Storr inert gas sample storage box.

Sample storage for SEM/TEM/FIB Applications


Pin stub storage boxes


JEOL SEM stub storage box


Hitachi SEM stub storage boxes


TEM grid storage boxes


FIB lift-out grid boxes


Cryo grid boxes


EM-Storr vacuum desiccator


EM-Tec Save-Storr inert gas sample storage


Gatan 3View pin sample storage


Vacu-Storr vacuum containers


field and lab sampler kits


Vacuum Desiccators

Tweezers

Micro to Nano offers a wide selection of tweezers to cover virtually all applications areas.

The choice of tweezers includes both general tweezers and highly specialized tweezers.

The tweezers are divided in five distinct groups:

- EM-Tec high quality tweezers, high precision tweezers for EM, sample prep and special applications in microscopy. Made from anti-magnetic stainless steel, titanium or carbon fiber filled plastics
- EM-Tec SEM stub gripper tweezers are special tweezers to handle the grooved pin stubs and the cylinder stubs varying in size form 10-32mm diameter.
- EM-Tec special tweezers for Gatan 3View pins and Cryo grid boxes
- Micro-Tec tweezers for AFM application to handle AFM/SPM cantilevers and AFM discs, made from anti magnetic stainless steel
- Value-Tec general purpose and industrial tweezers are fine, medium and strong tweezers with an excellent price point.

EM-Tec ultra-precision biology tweezers

EM-Tech high precision anti-magnetic tweezers

EM-Tec high precision titanium tweezers

EM-Tec high precision mini tweezers

EM-Tec high precision slim tweezers

EM-Tec high precision super alloy tweezers

EM-Tec high precision action reverse tweezers

EM-Tec wafer tweezers

EM-Tec SEM stub tweezers/grippers

IMS KOREA

Innovative Microscopy Supplies

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