Alexandru Delamoreanu

EDEN INSTRUMENTS
In Situ NanoCharacterization Solutions

www.eden-instruments.com

Upgrade MEB/MET

point electronic

Rénovation de microscope
EBIC/EBAC
Topo 3D MEB

Packaging Technologies

PacTech
member of nagase group

Equipement de Packaging avancés
Solder jetting & Laser bonding

Equipement in-situ

NEW! FlowVIEW

Kit liquide in-situ MEB

NenoVision

AFM in-situ MEB
Microscopie corrélative

NEW!

Solutions de tests nano-mécaniques
Indenteurs in-situ MEB

NEW!

Caméras hybrides MET, micro-ED
Détection photons, x-rays, ions, neutrons

EVACTRON®
Xperts in carbon removal

Décontaminateur plasma

irmina technologies

Solutions de nano-probing
Nano-robots

Protochips

Mesures environnementales in-situ MET

delmic
Integration without compromise

Cathodoluminescence
Microscopie corrélative

Kammrath Weiss GmbH

Platine en température in situ
Platine de traction/compression in situ

Equipement ex-situ

RMC Products
by Boeckeler

safematic

Ultra-microtomie
Cryo-ultra-microtomie
Cryo-préparation

Evaporateur carbone
Métaliseur

FISCHIONE INSTRUMENTS

Amincisseur ionique MEB/MET
Porte échantillons (Tomo/Cryo)
Polissage (Mécanique/Electrochimique)
Plasma cleaner

Mieux comprendre l'infiniment petit

Début à 15h05

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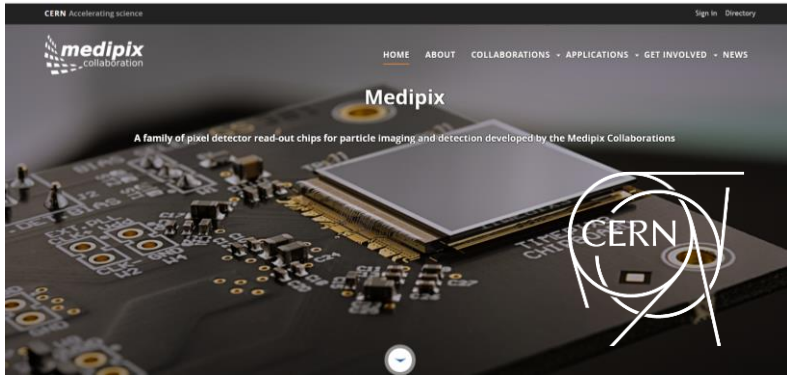
Rendre l'invisible visible



CheeTah

Nouveau !

Détecteur rétractable

512x512 pixels pour

port MET 35mm.

Tomographie par diffraction électronique 3D (3D ED)
MicroED
Diffraction électronique par précession
STEM 4D
Cryo-Microscopie
et bien plus…

Détecteur pour la Microscopie Electronique

Acquisition de données ultra faible bruit
Opérations sans temps mort
Gamme dynamique élevée
Lecture de données en continu
Haute fréquence d'images
Synchronisation logicielle

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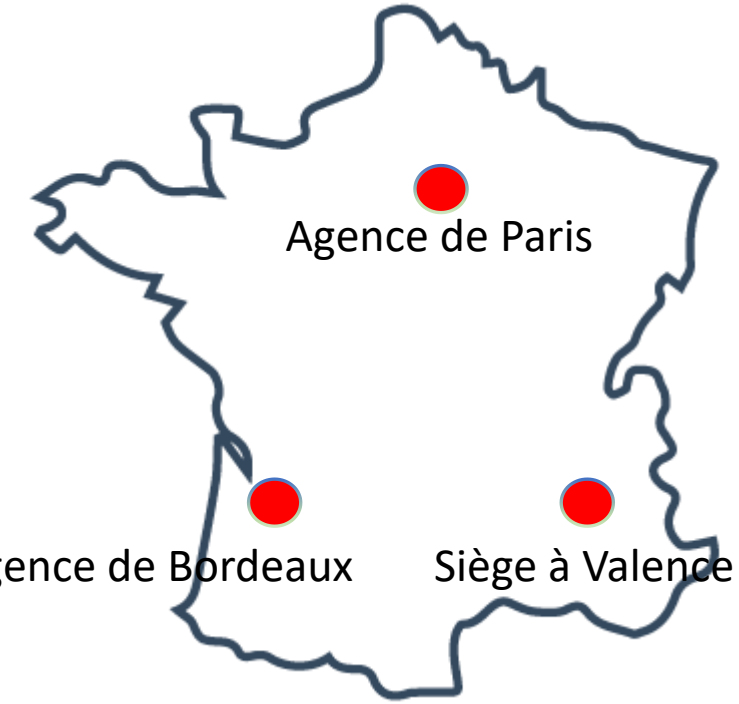
L'équipe EDEN



Création de la société en 2014

PDG & Directeur Commercial
Stéphane Aguy

Directeur Technique
Marc Lalande

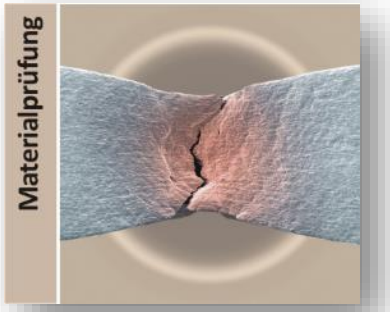
Office Manager
Nadège Roumane

Responsable des ventes
Alexandru Delamoreanu

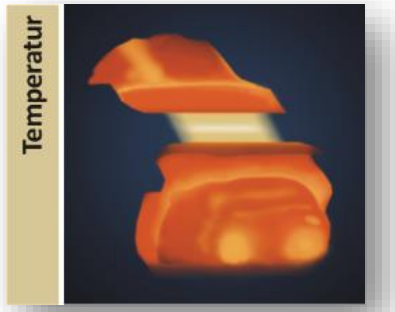
Support Ingénieur
Stéphane Brassac

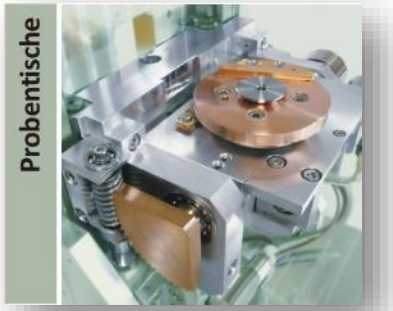
Kammrath Weiss GmbH

Special Developments for Microscopy



- Kammrath & Weiss a été crée en 1995 par Walter Kammrath et Konrad Weiss.
- Société basée à Dortmund, Allemagne.
- Société d'ingénierie dans la microscopie électronique.
- Solutions en micromécanique et température.
- Développement spéciaux.





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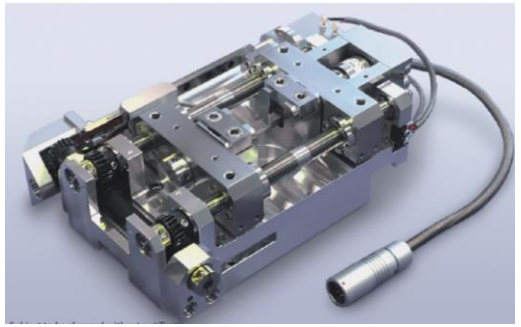
Plateformes de traction/compression

Kammrath Weiss GmbH
Special Developments for Microscopy

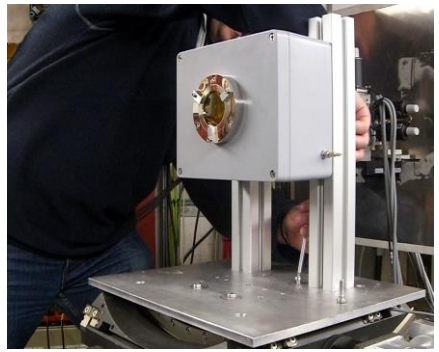
Traction / Compression

Capacité de force = jusqu'à 10 kN
Eprouvettes de 20 à 60 mm de long
0.3 to 50 µm/sec



Platine 5 kN
Compatible in situ MEB

Dédié TOMO X



Intégration synchrotron

Intégration MEB

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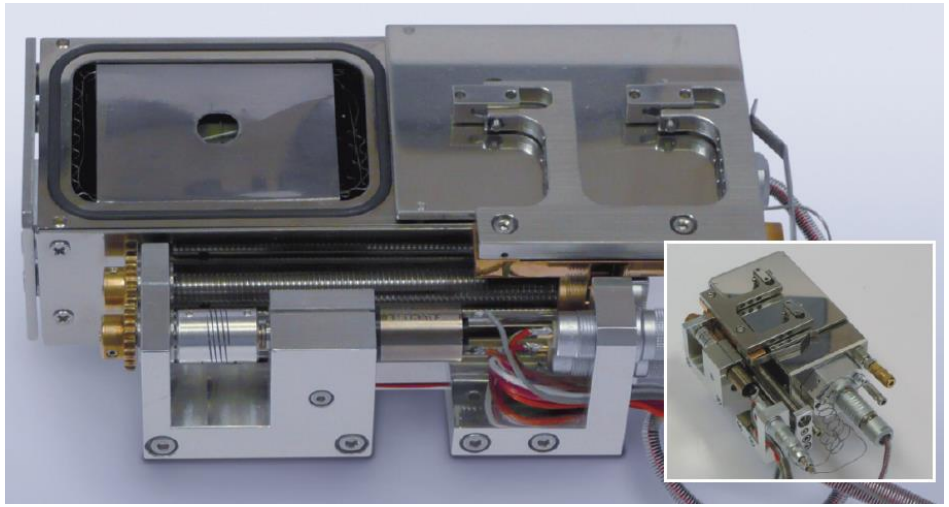
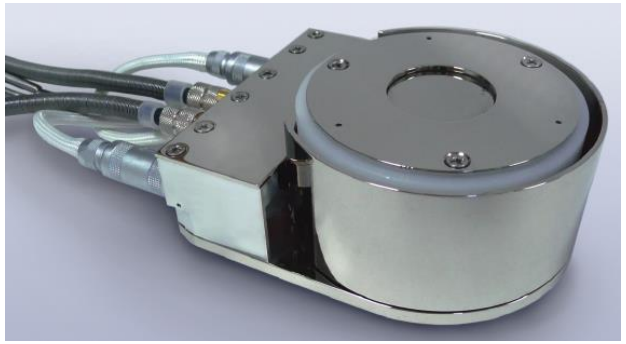
Platine en température in-situ

Kammrath Weiss GmbH
Special Developments for Microscopy

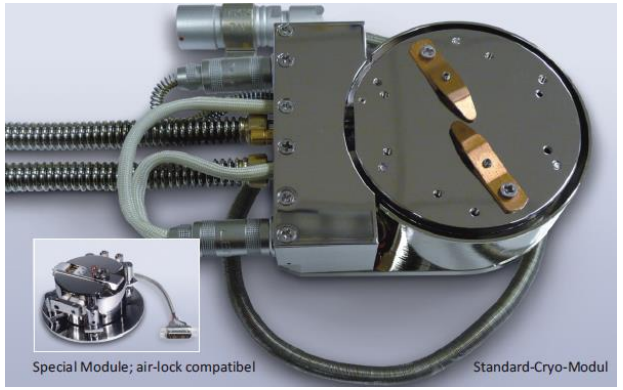


Platine chaude in-situ MEB
300°C / 500°C / 800°C / 1050°C / 1500°C



Platine froide in-situ MEB
Peltier
-25/+50°C ; -50/+100°C

Platine froide in-situ MEB
Cryo LN2
-190/+100°C



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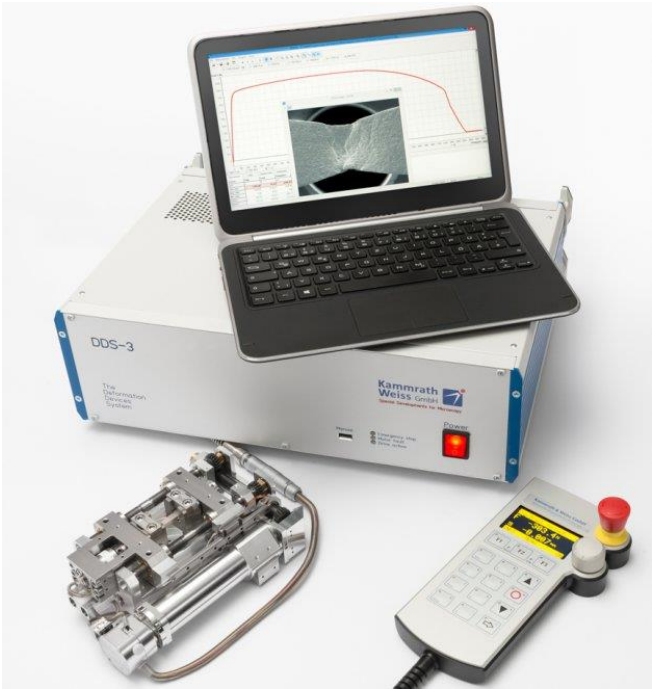
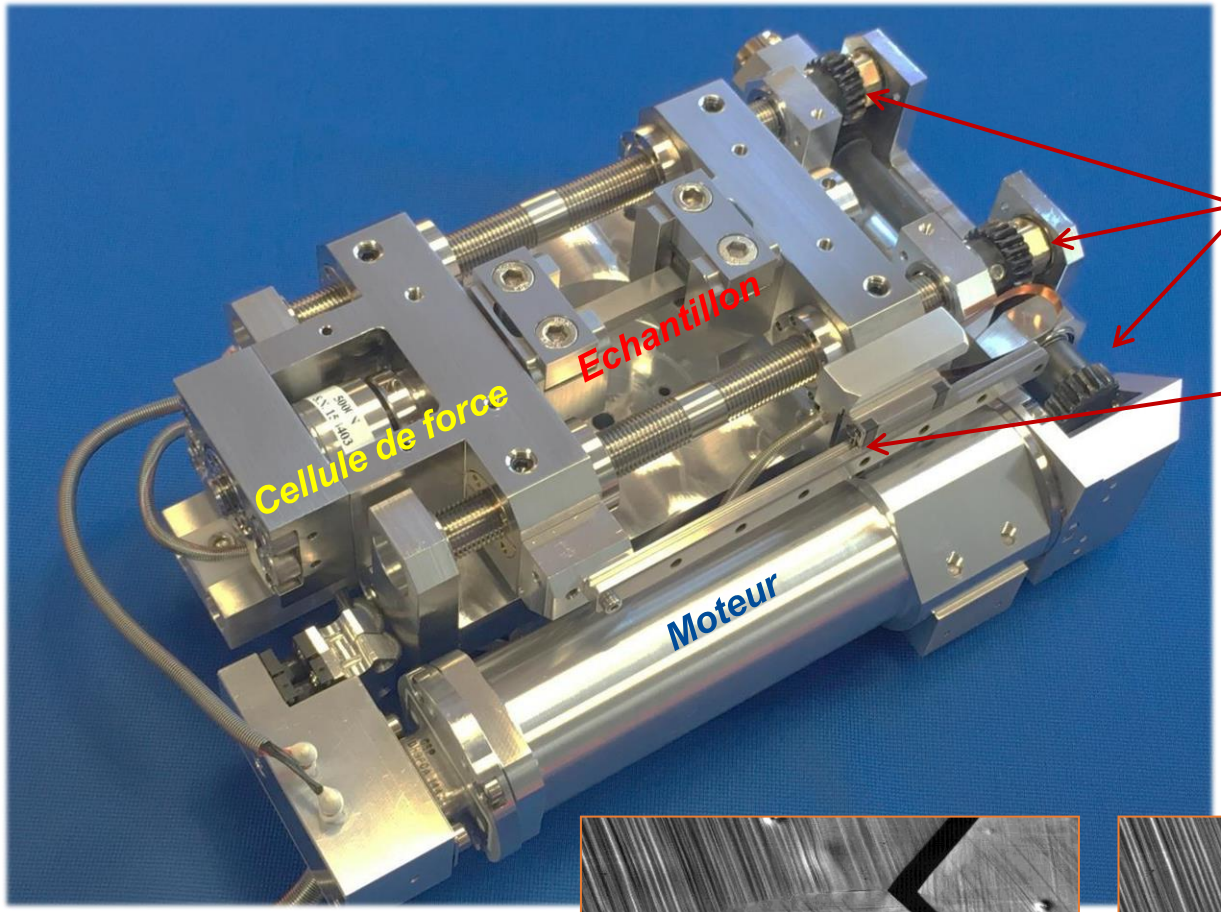
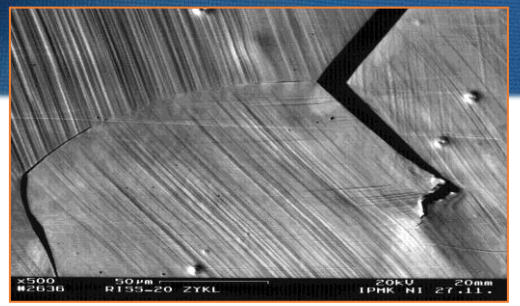
- **Platine de traction 5kN**
- **In-Situ sur platine motorisée du MEB**

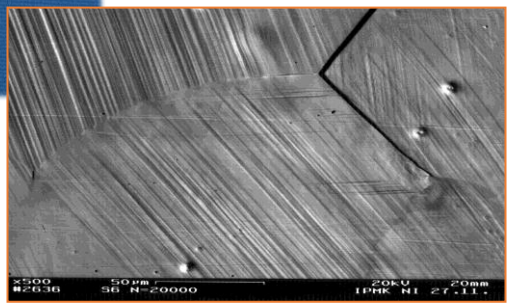




- **Encodeur linéaire**
- **Cellule de force interchangeable**
- **Contrôleur électronique**
- **Logiciel MDS dédié**



Traction 5kN



Compression 5kN

Sur Cuivre

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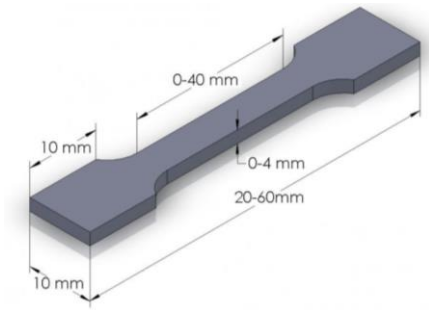
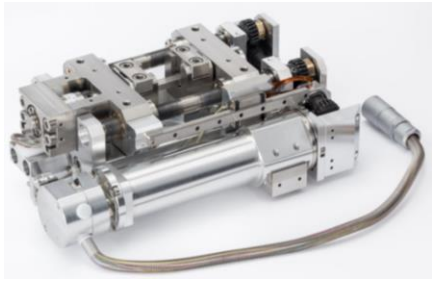
Taille d'échantillon typique

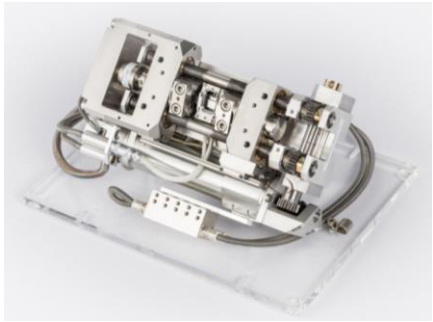


Spécifications :

- Traction/Compression
- Montage : sur platine MEB standard/personnalisable
- Vitesse : 0.1 µm à 20 µm / seconde (option 150 et 300 µm/sec)
- Mesure du déplacement : Déplacement maximal 45mm
- Taille d'échantillon : longueur 50 à 60 mm / largeur jusqu'à 10 mm / épaisseur jusqu'à 4 mm
- Force max : 5kN (option 10kN)
- Cellule de force interchangeables : 10N, 20N, 50N, 100N, 200N, 500N, 1 kN, 2 kN, 5 kN, 10 kN
- Elongation : encodeur linéaire de résolution standard 100nm (10nm possible)
- Chauffage : en option 300/500/800/1000/1200°C



Version renforcée 10kN



Support compatible EBSD (50°+20°)

Option chauffage

Extensomètre

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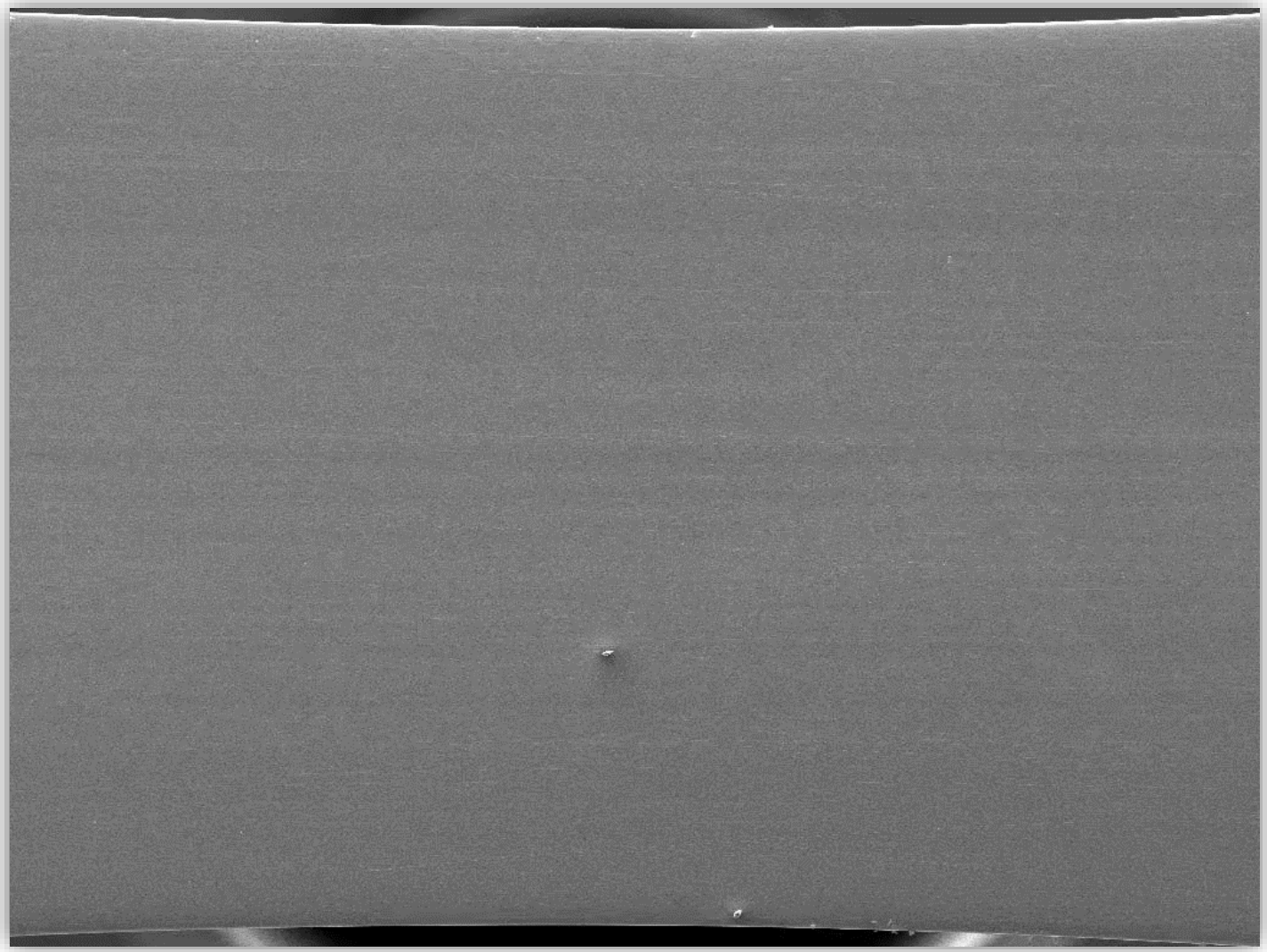
Traction sur du Cuivre



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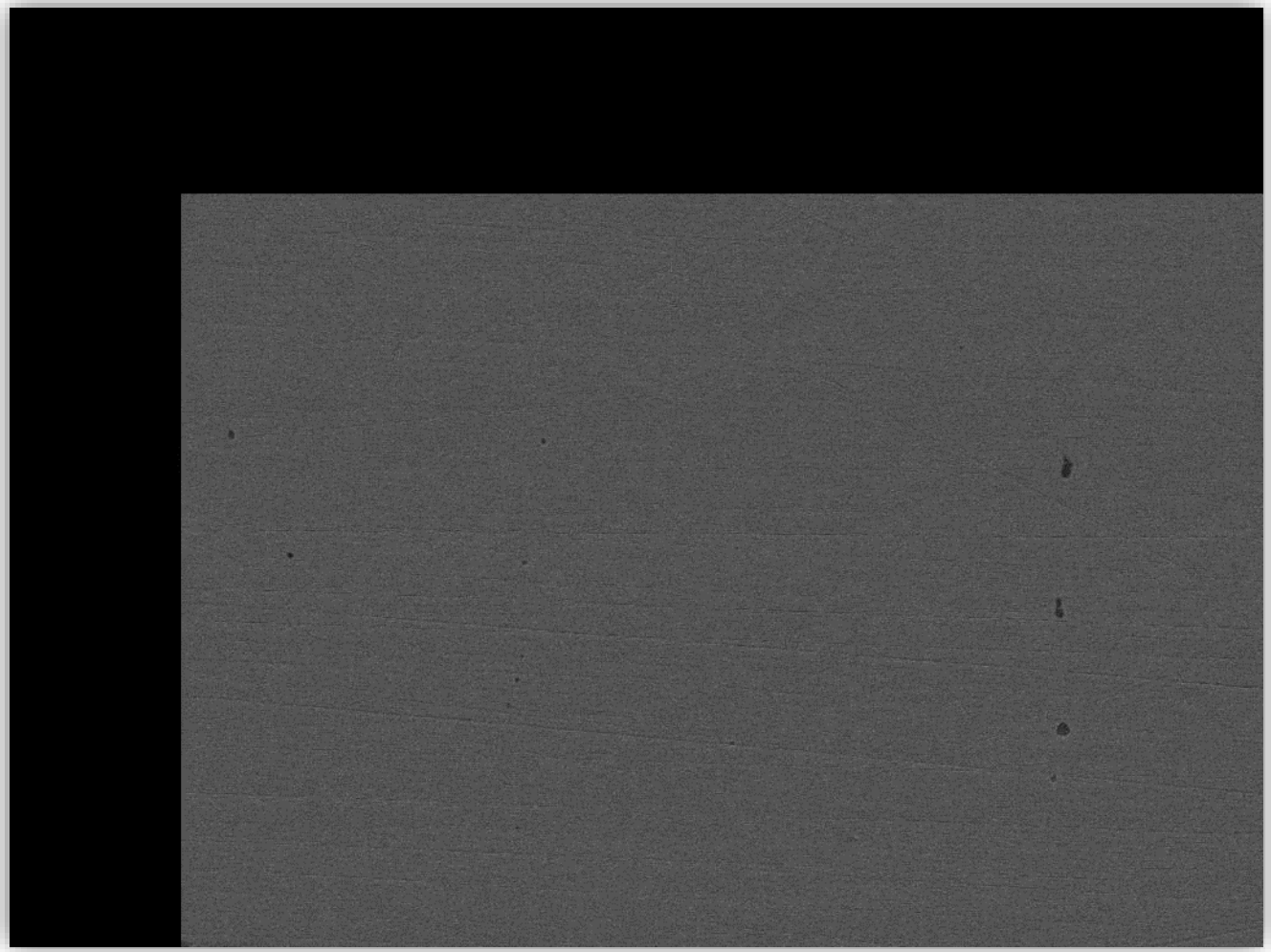
Traction sur du Cuivre, empilement d'images MEB, plans de glissement



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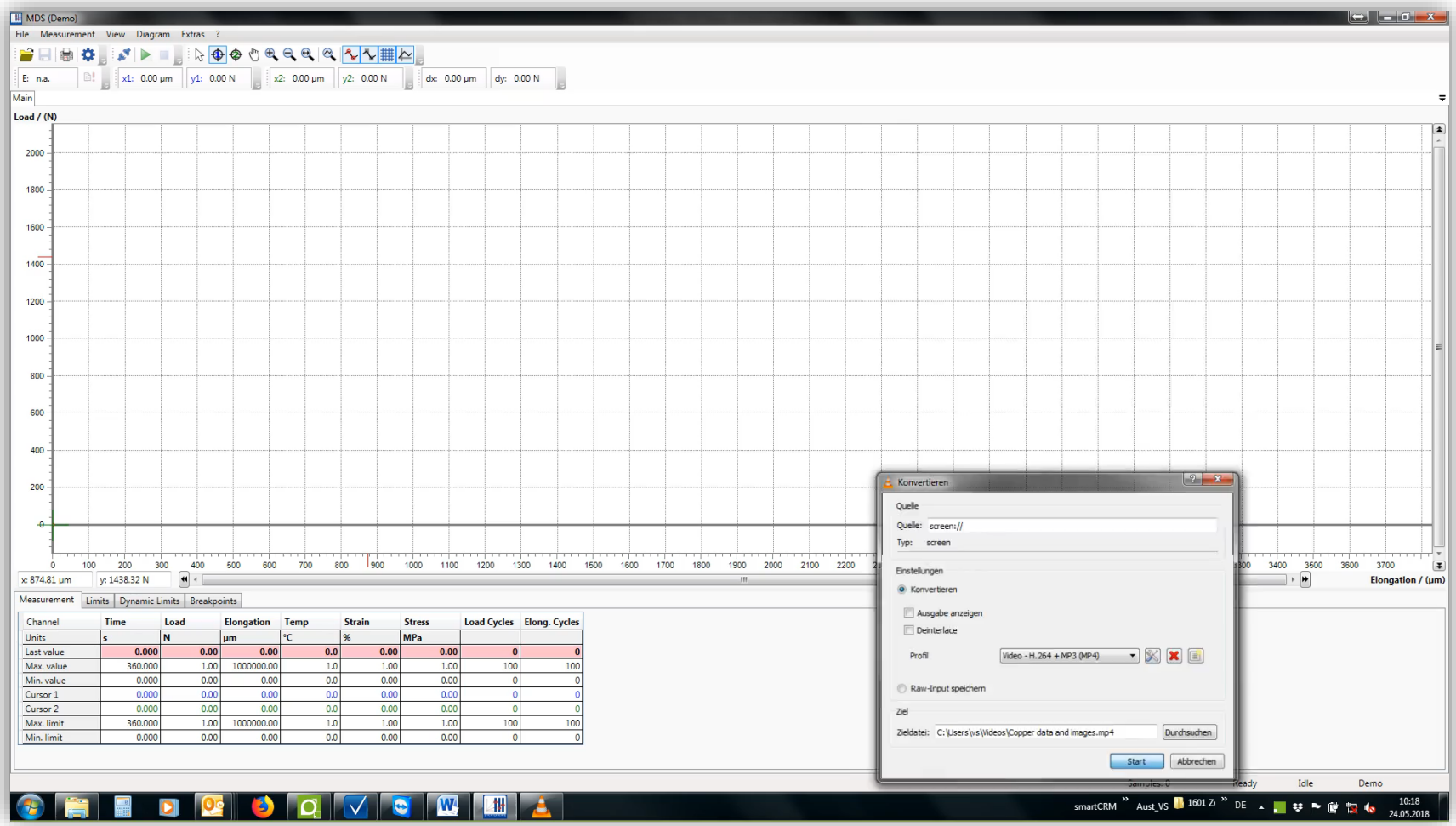
Traction Cuivre corrélation courbes et imagerie MEB



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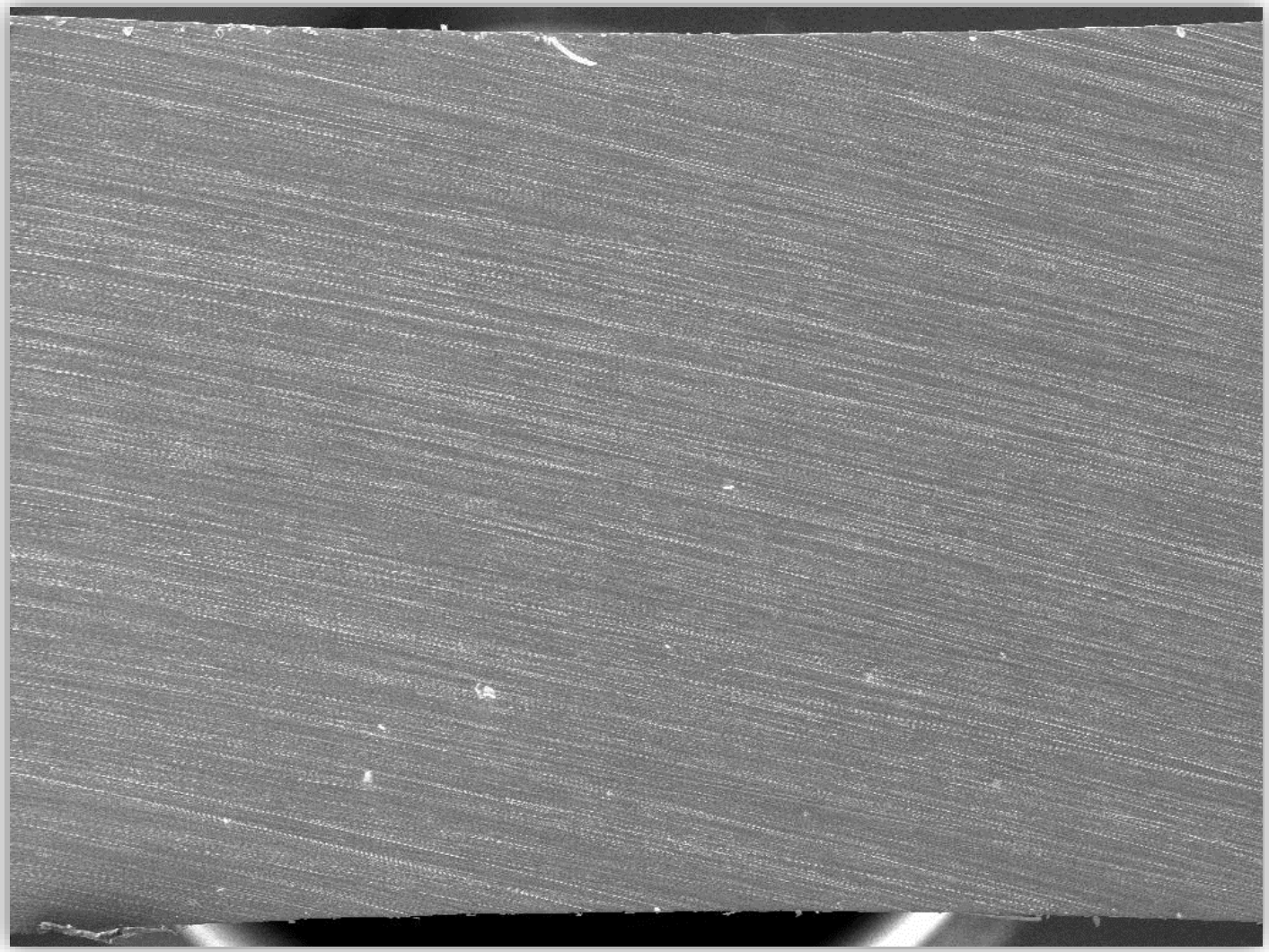
Traction Laiton, rupture



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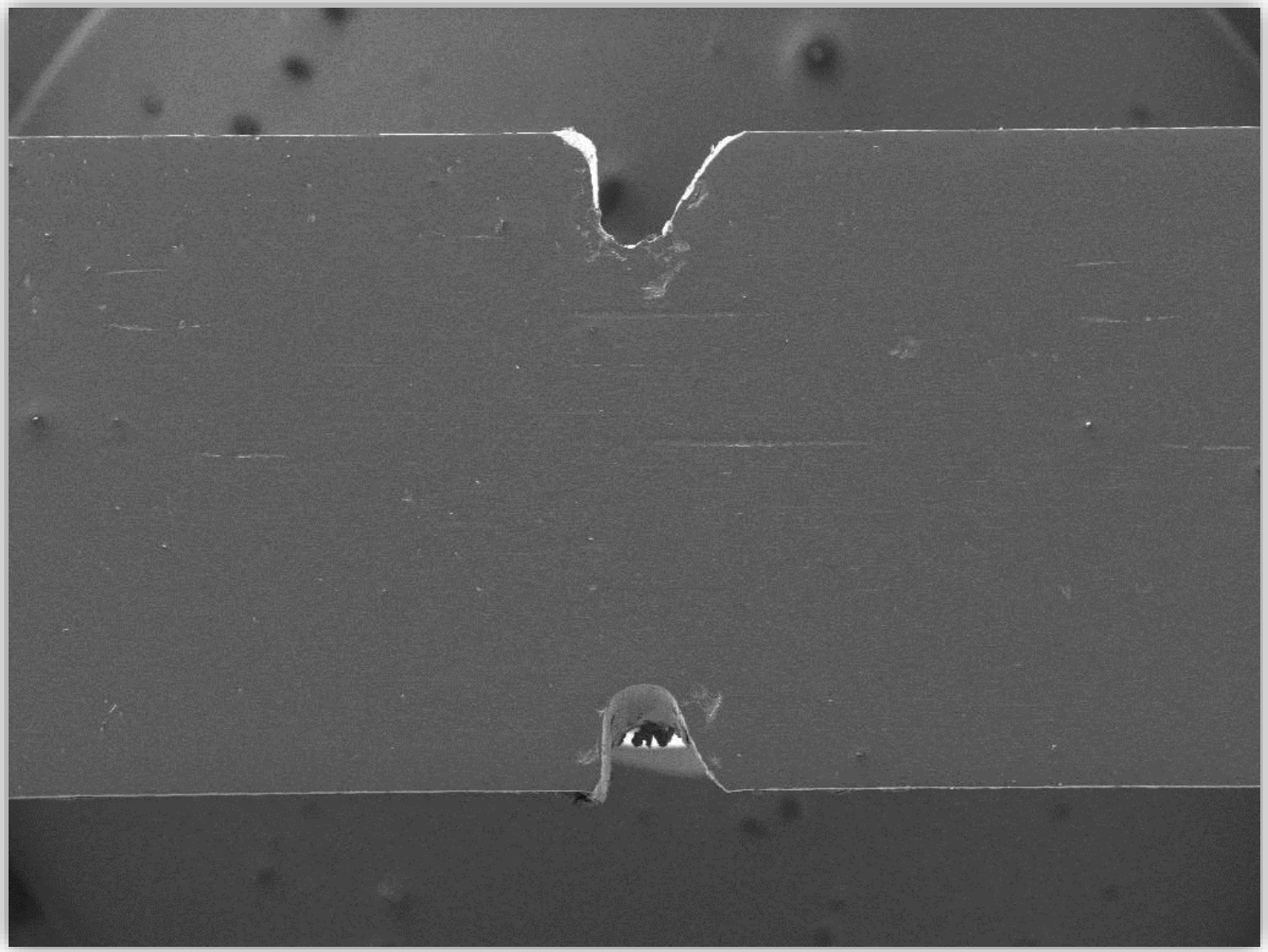
Traction Acier avec encoches pré-coupées



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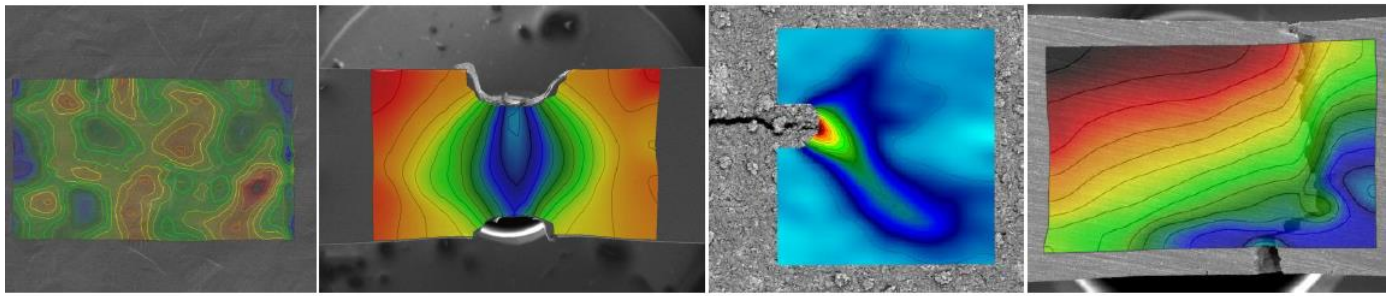
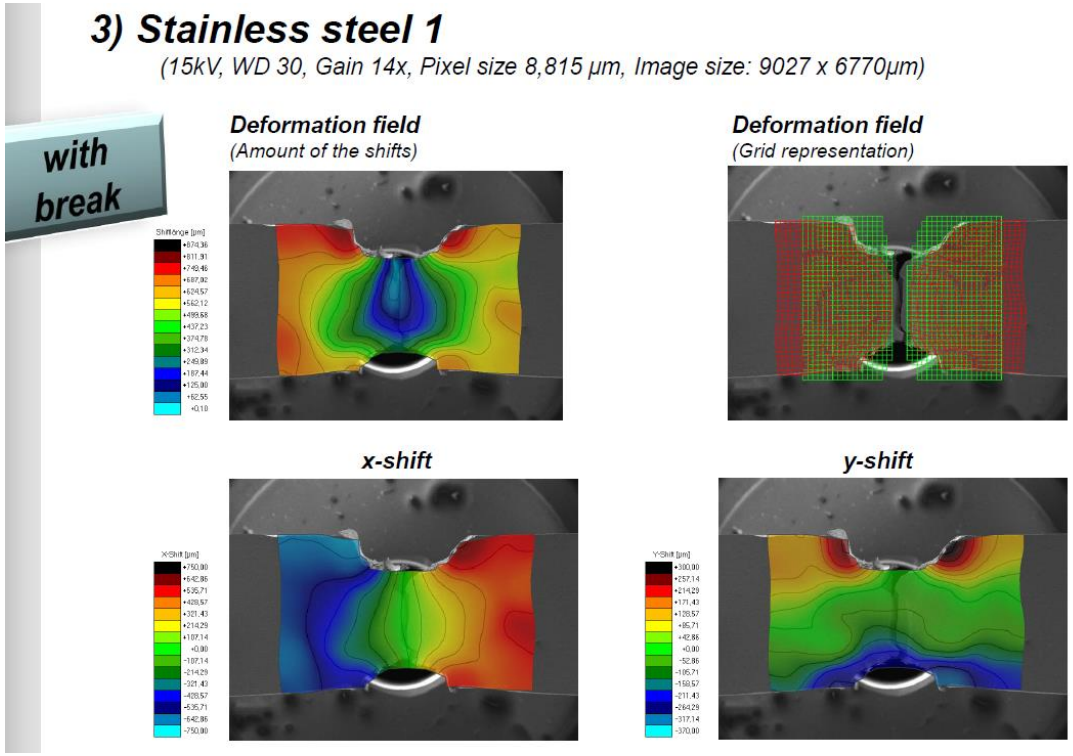
Extensomètre vidéo

Software to Measurement of **local** strains

VEDDAC 7
- system expansion -

Characterization of deformation and damage processes





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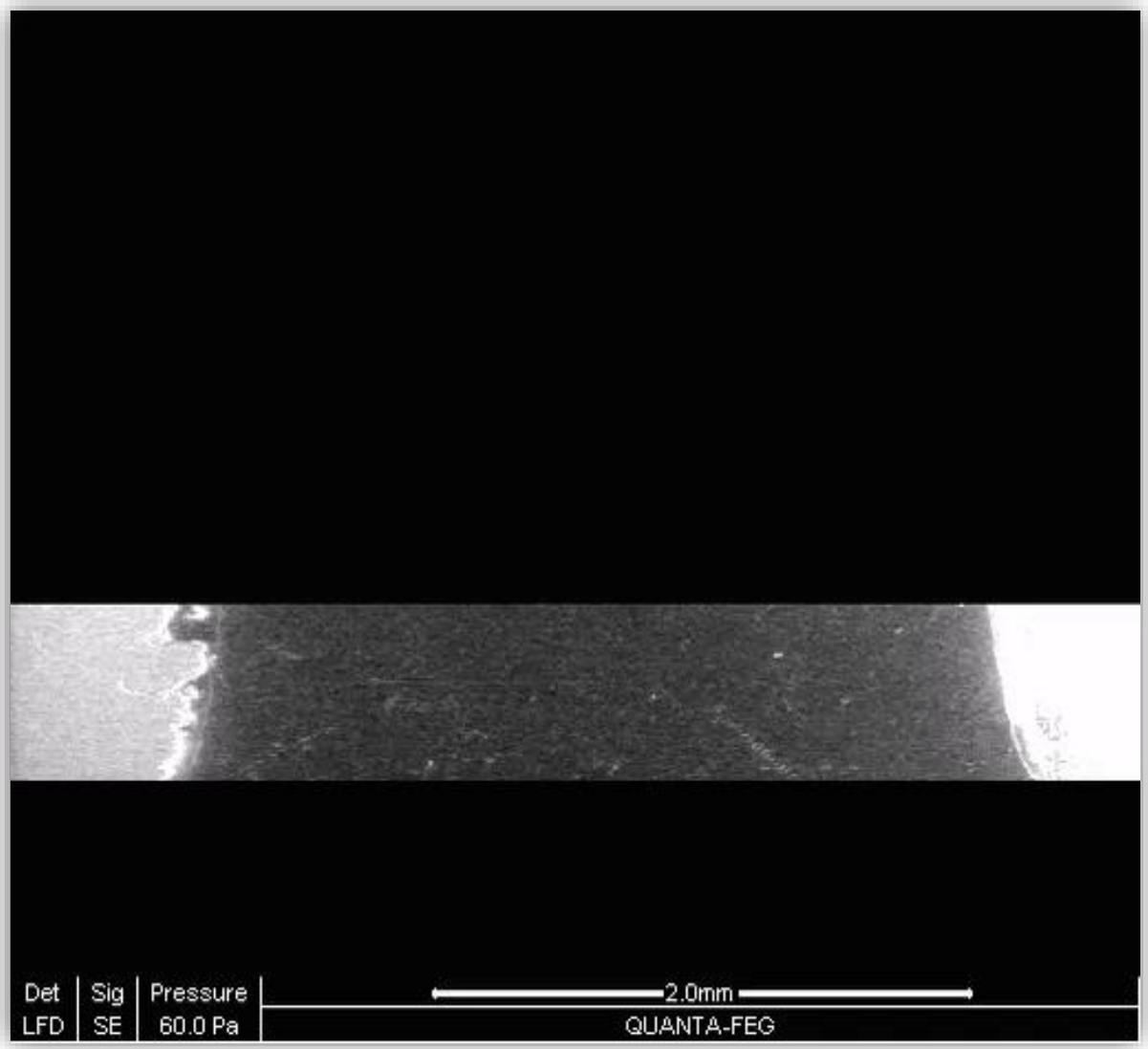
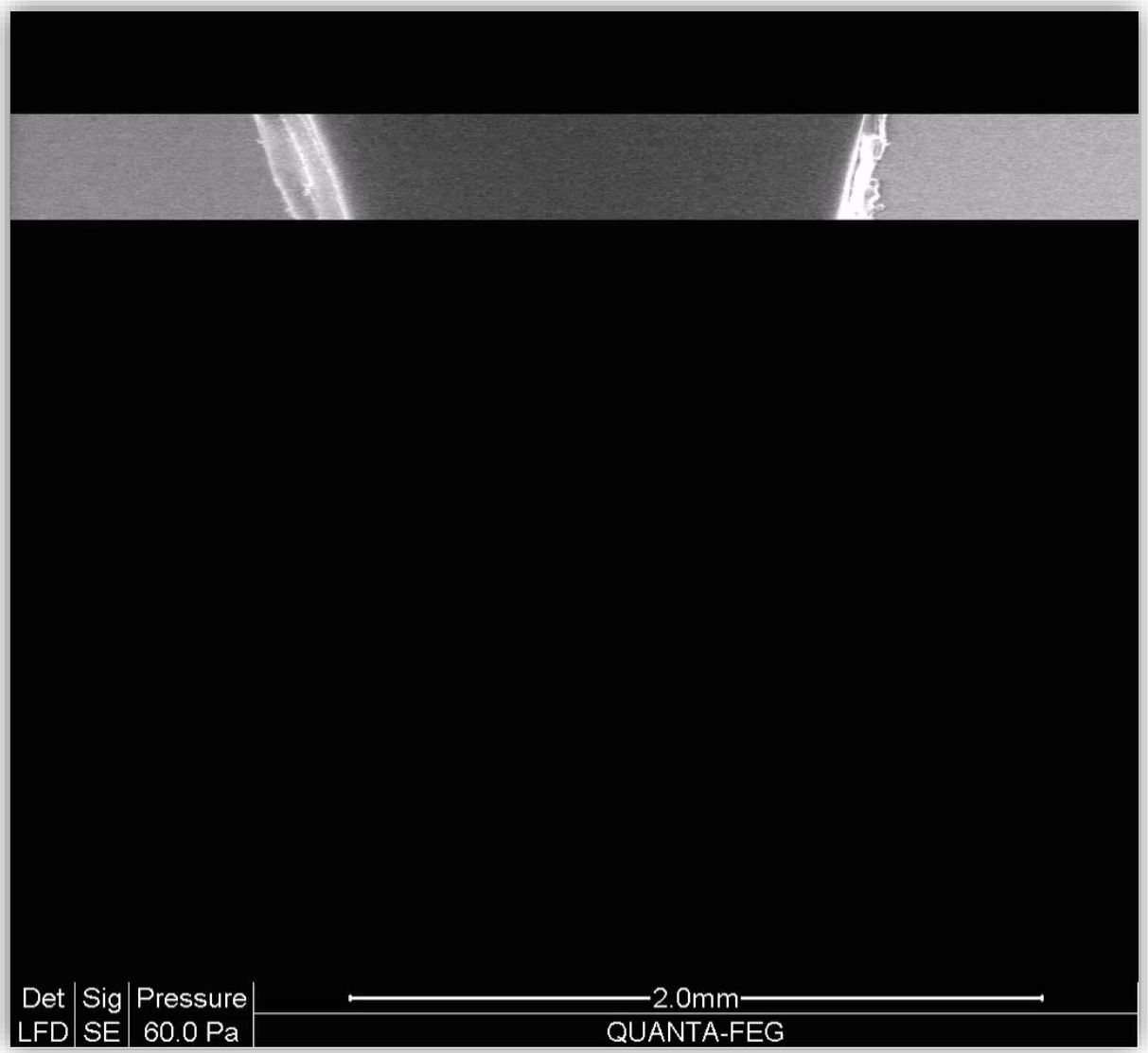
Traction sur matériaux mous, papier



EDEN INSTRUMENTS
In Situ NanoCharacterization Solutions

Traction sur matériaux mous, polymère



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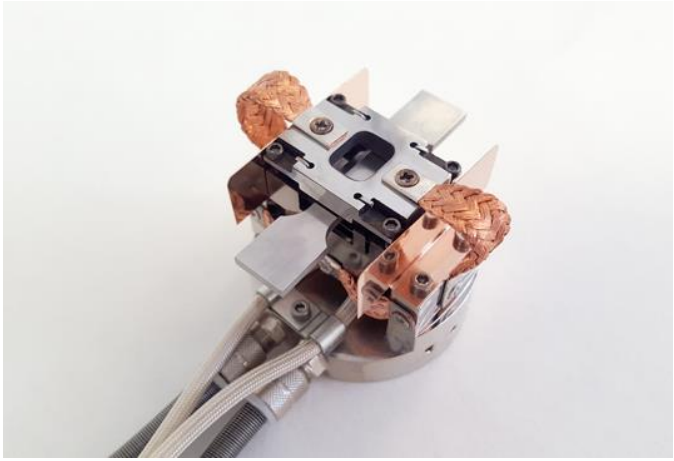
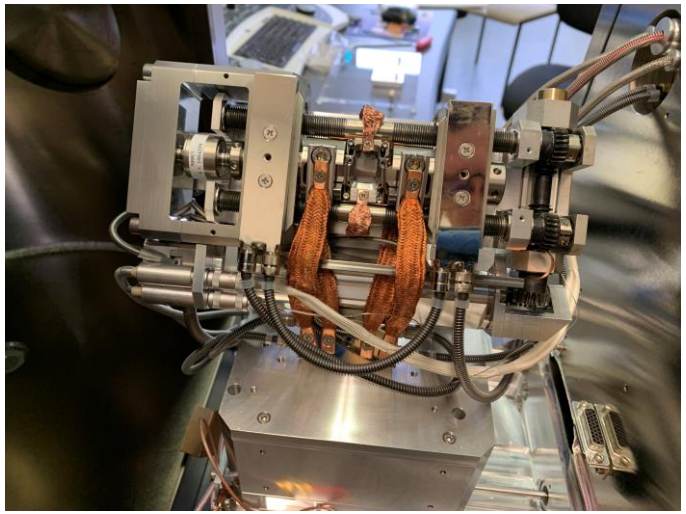
Options température : 300 / 500 / 800 / 1000 / 1200 °C

Module température 1000°C

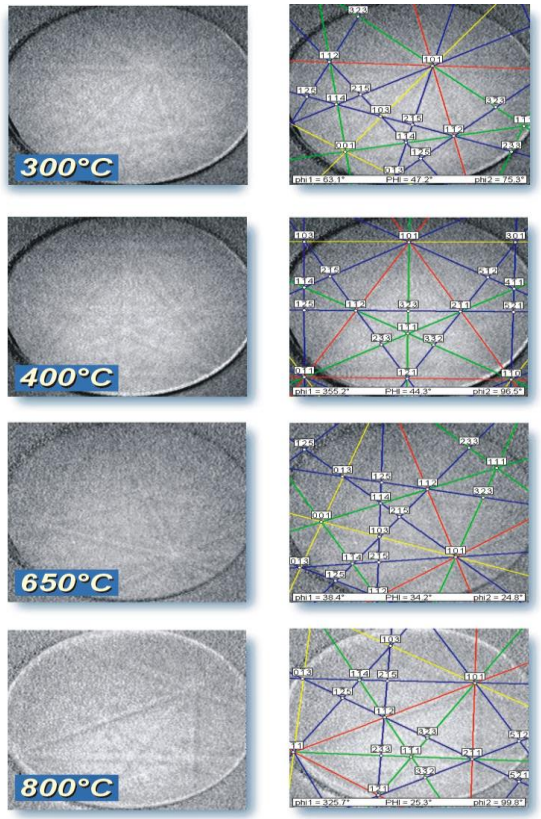


Module température 800°C



Module température 1200°C

Compatibilité EBSD



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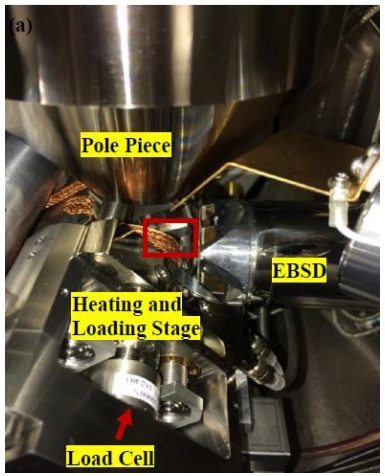
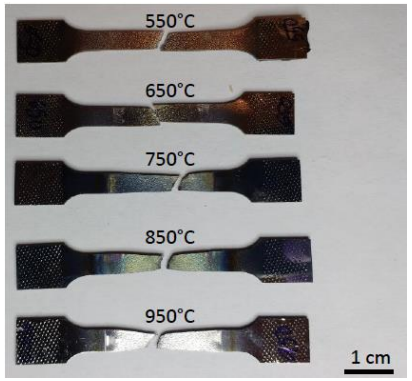
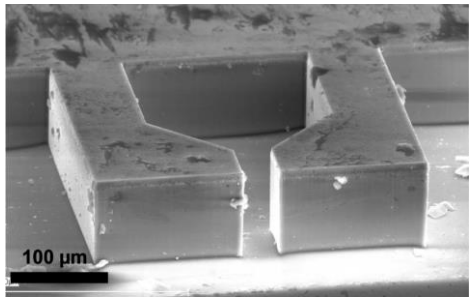
Publications

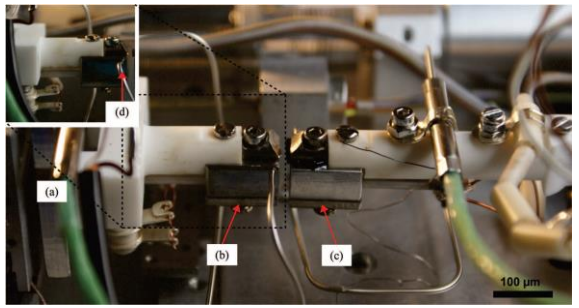
A Study on Tensile Properties of **Alloy 709**, at various temperatures.

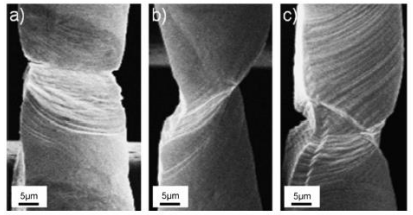


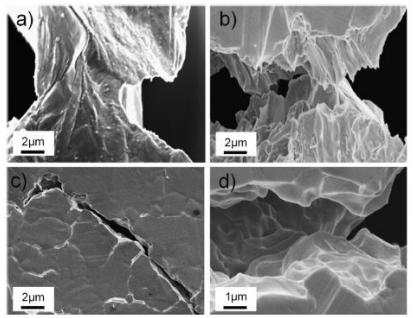


Novel temperature dependent tensile test of freestanding **copper thin film structures.**









Temperature dependent transition of intragranular plastic to intergranular brittle failure in electrodeposited Cu micro-tensile samples.

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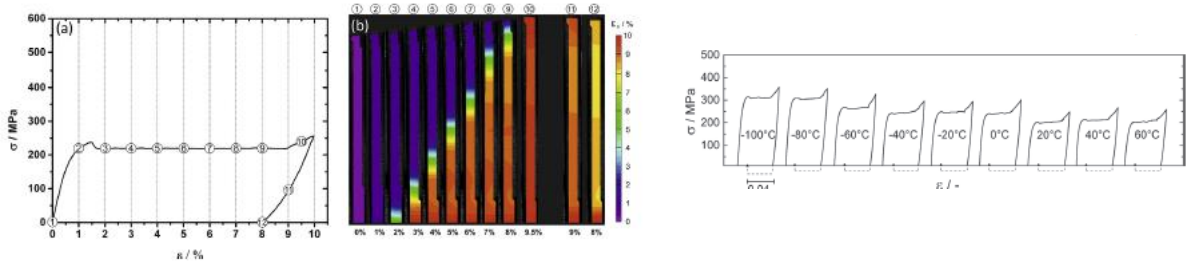
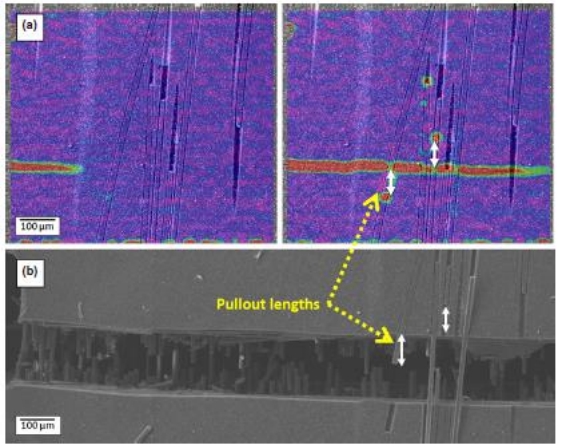
Publications

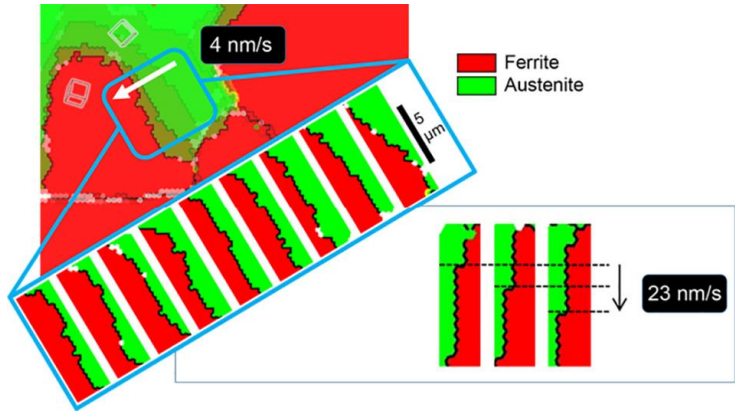
Effect of temperature and texture on the reorientation of martensite variants in NiTi shape memory alloys.



A New Experimental Approach for In Situ Damage Assessment in Fibrous **Ceramic Matrix Composites** at High Temperature.



Interphase boundary motion elucidated **through in-situ high temperature electron back-scatter diffraction.**



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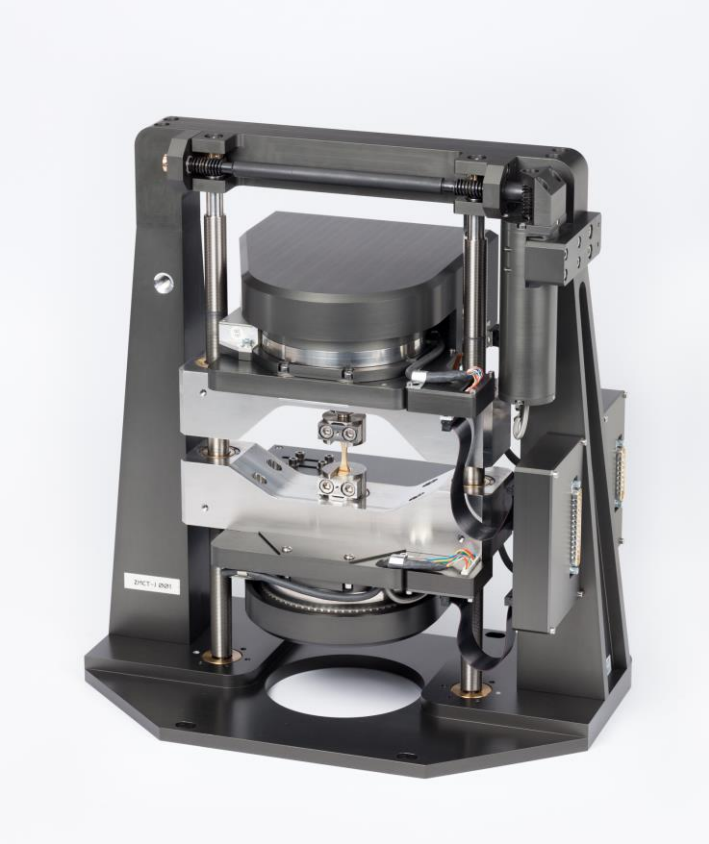
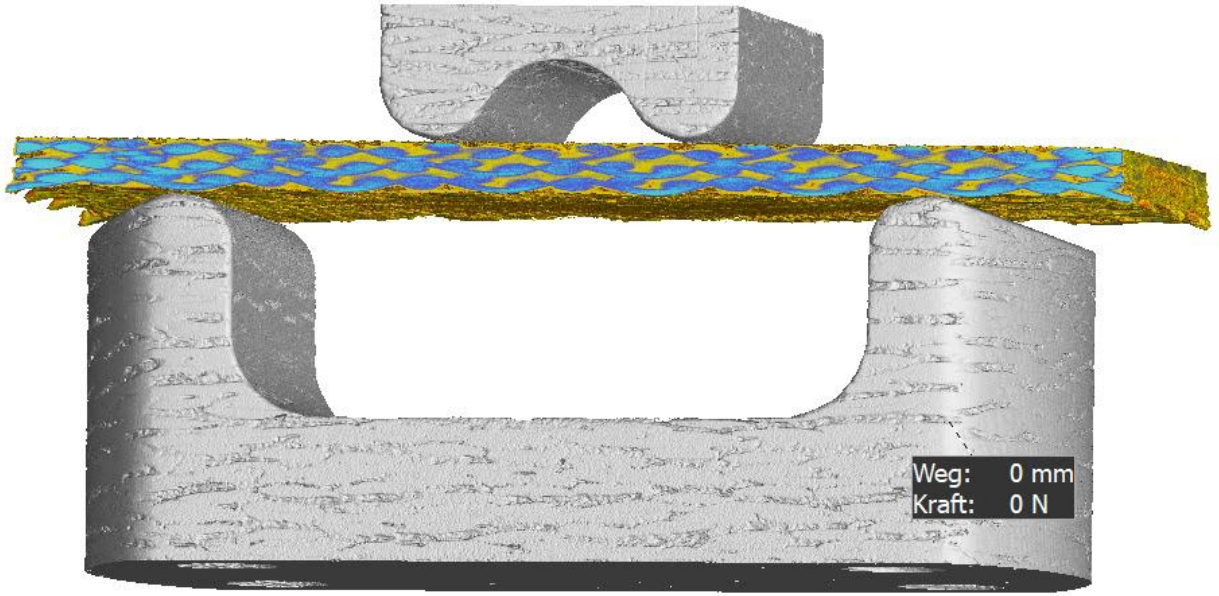


Tomo en flexion 4 points



DITF
DEUTSCHE INSTITUTE FÜR
TEXTIL+FASERFORSCHUNG

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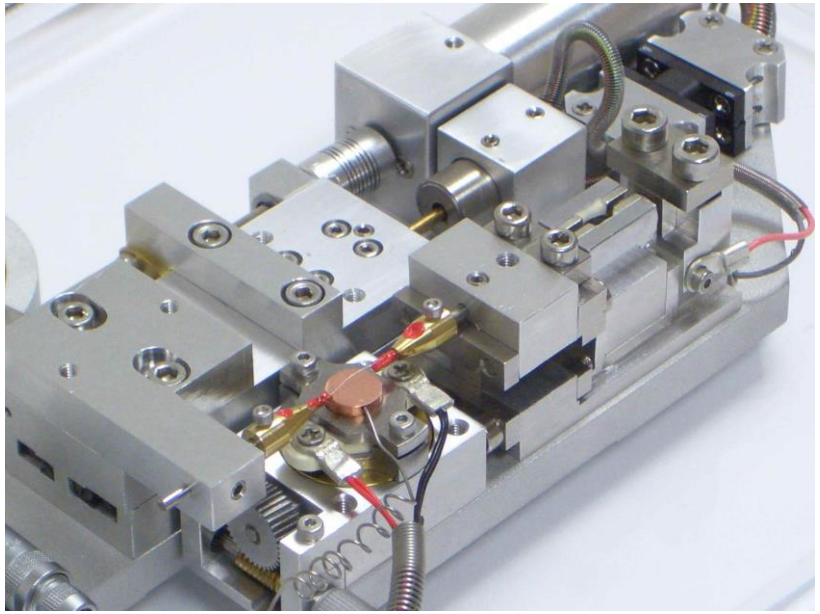
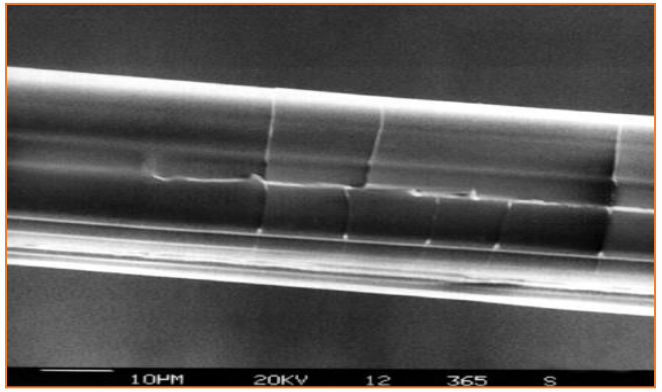
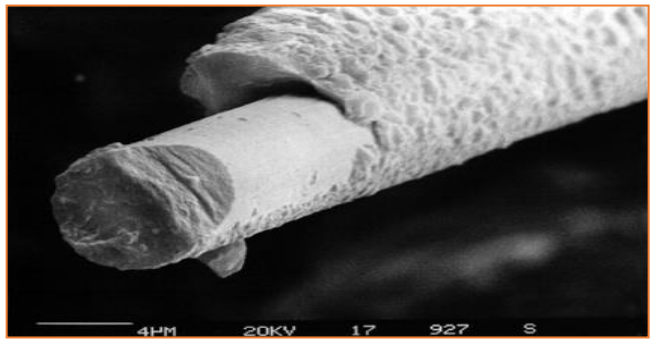
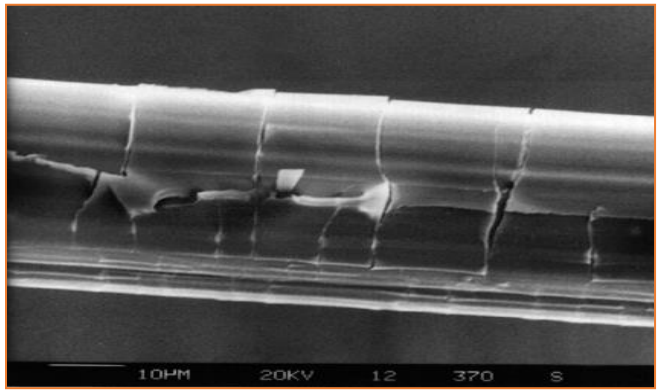
Module fibres (µN jusqu'à 3N)

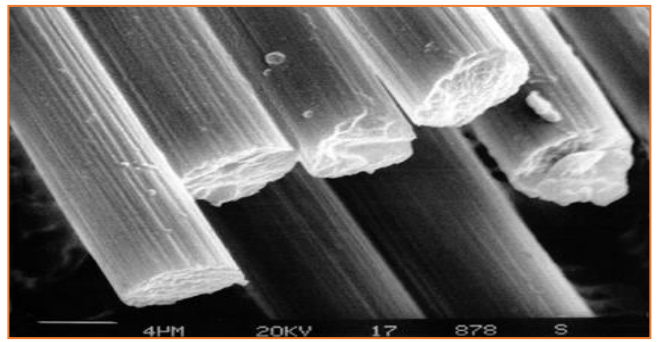




Fibres de carbone







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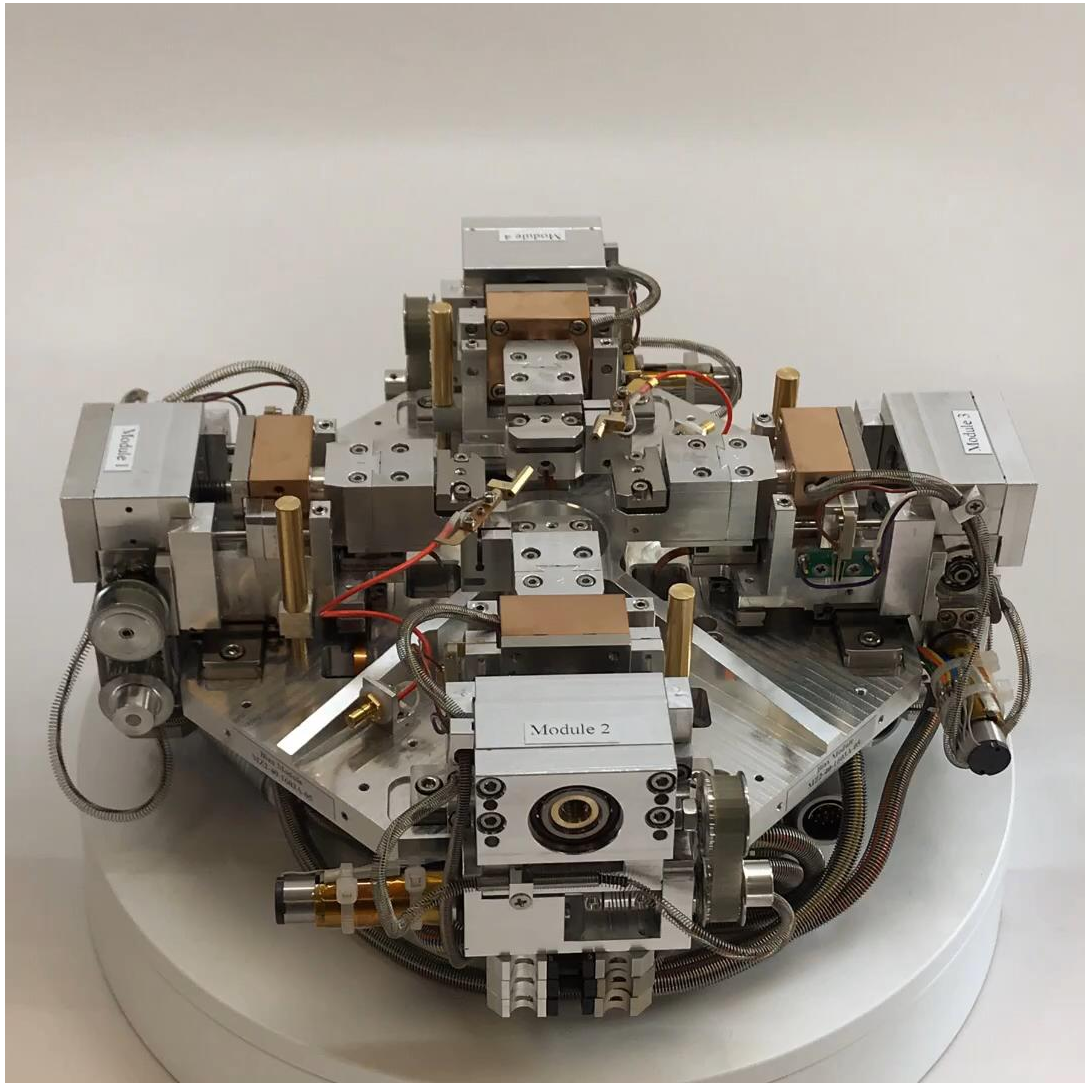
Bi-axial



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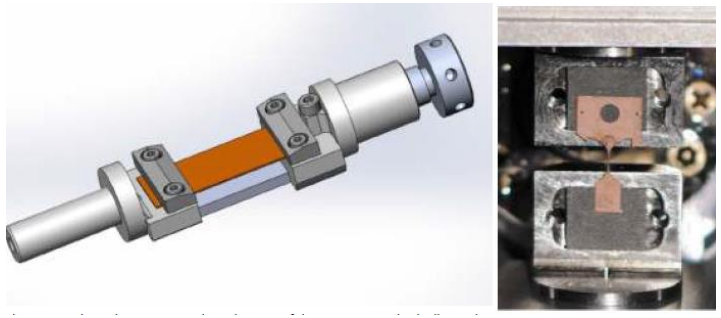
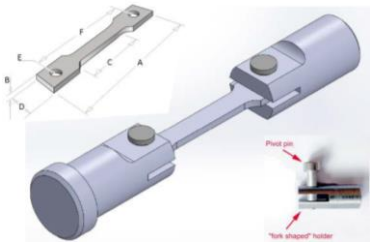
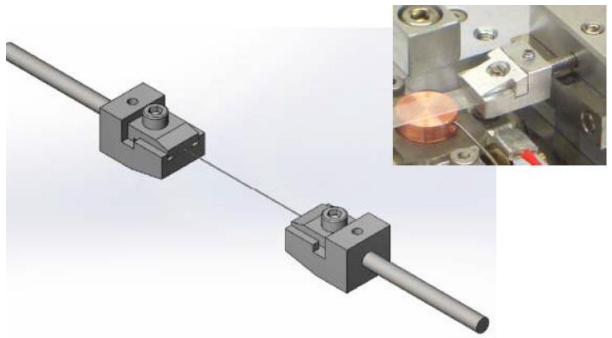
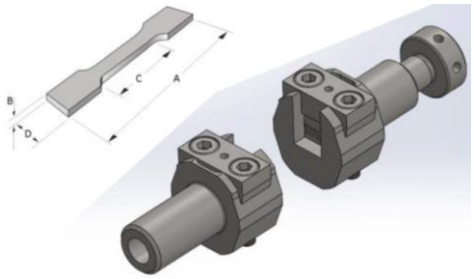
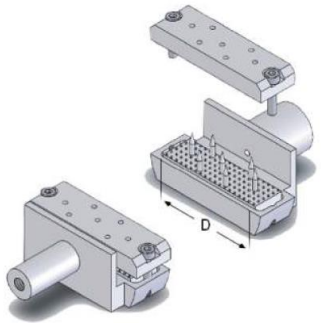
Catalogue de mors

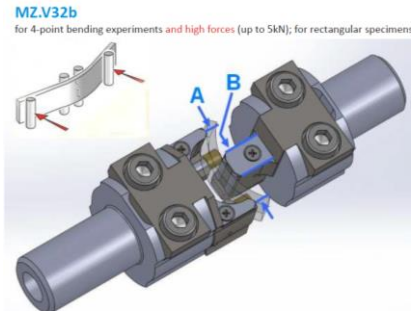


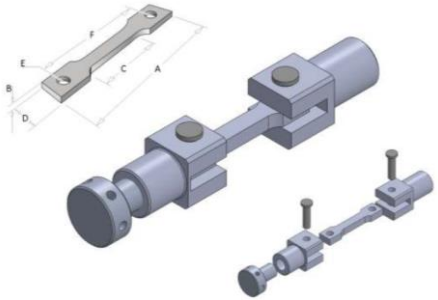


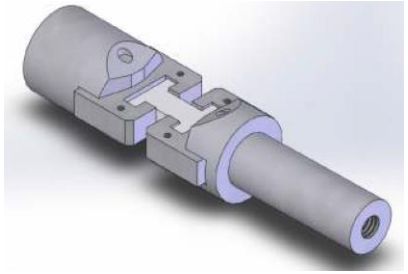


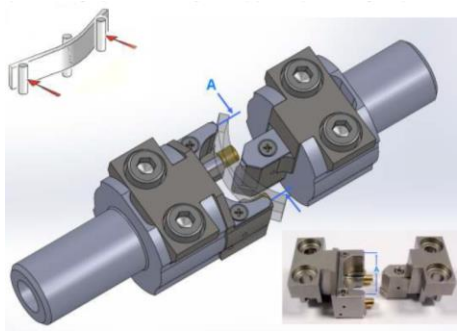


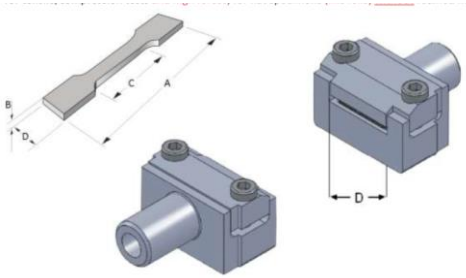












Workshop Traction-Chauffant in-situ : Tescan / Kammrath&Weiss

Quand : 1ère semaine de février 2021 (1-5 fév.)

Où : TESCAN Demo Center, Aix-en-Provence

ZAC Saint Charles, 3ème Avenue, 13710 Fuveau

Contact : EDEN Instruments

alex.delamoreanu@eden-instruments.com

06 95 70 03 58

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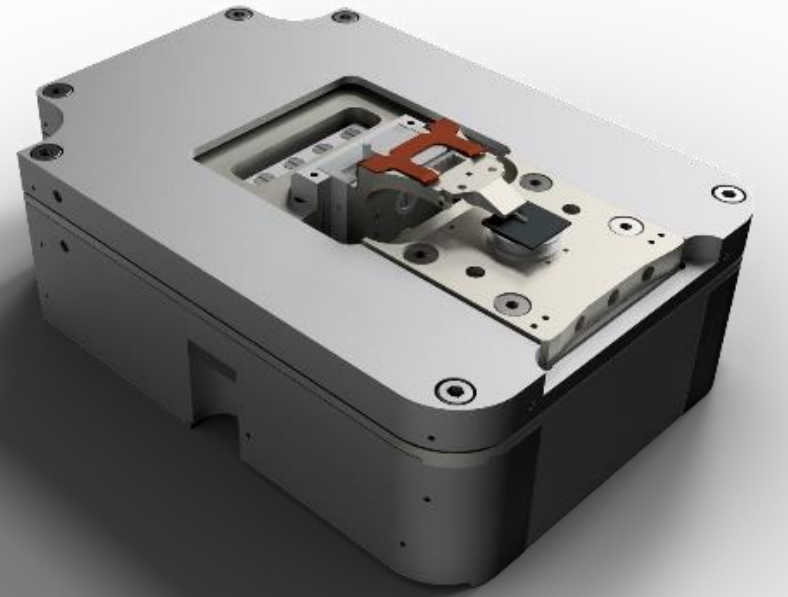
NenoVision

NenoVision LiteScope



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AFM in-situ MEB

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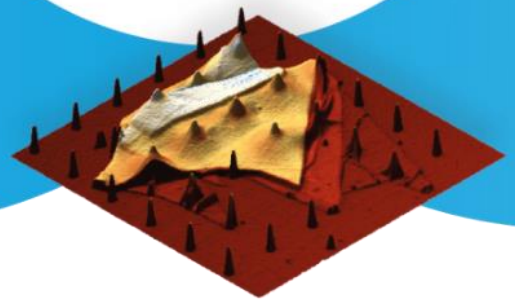
AFM

- 3D topography
- Mechanical properties
- Electrical properties
- Magnetic properties
- High resolution (to sub-nm)

3D topography

LiteScope™



3D CPEM image

SEM

- 2D imaging
- Chemical analysis
- Surface modification
- Fast imaging
- Resolution range (mm–nm)

2D image

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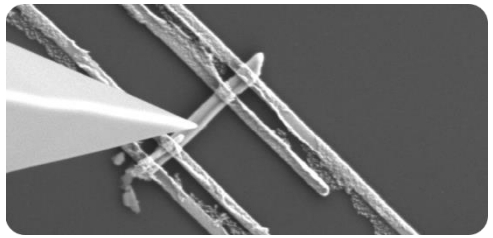
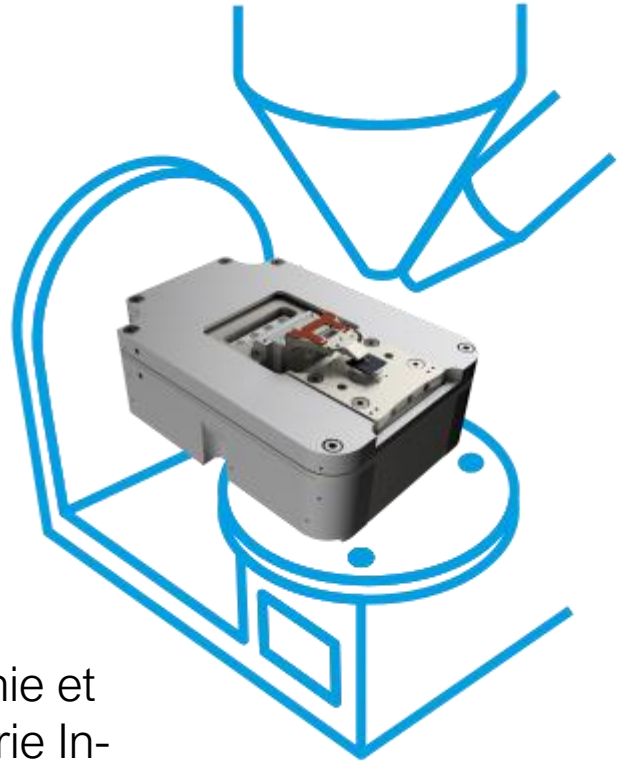
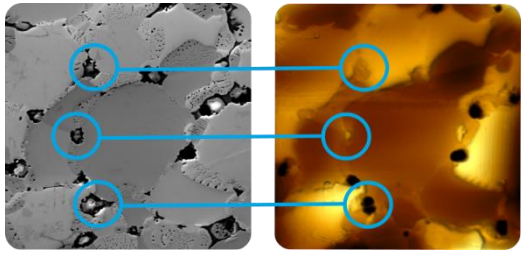
Avantages de l'AFM in-situ MEB

Navigation AFM précise

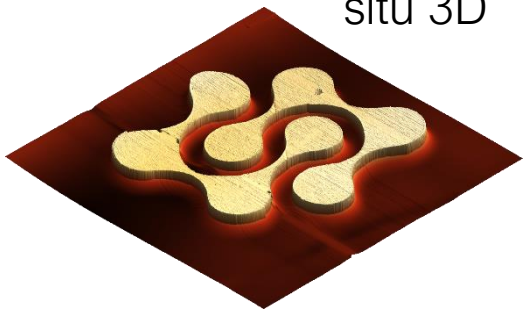




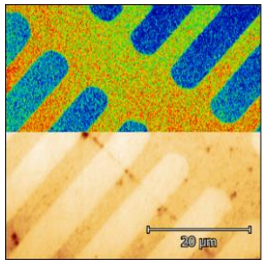
Contraste VS Topo



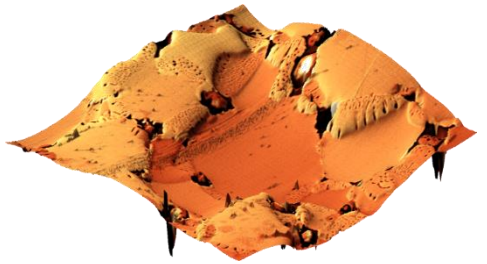
Topographie et profilométrie In-situ 3D



Caractérisation multi-propriétés



Corrélation In-situ AFM et MEB (CPEM)



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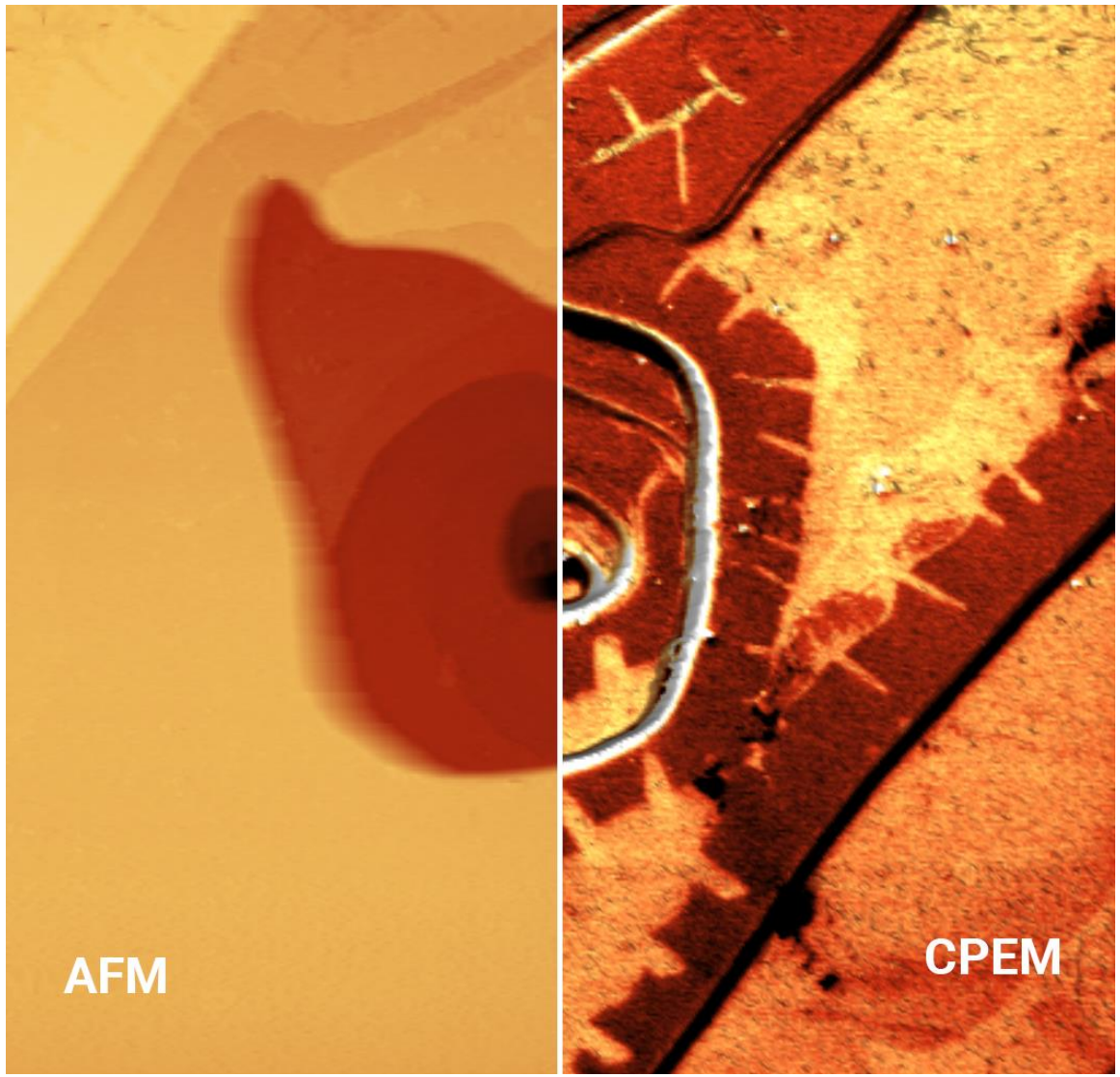
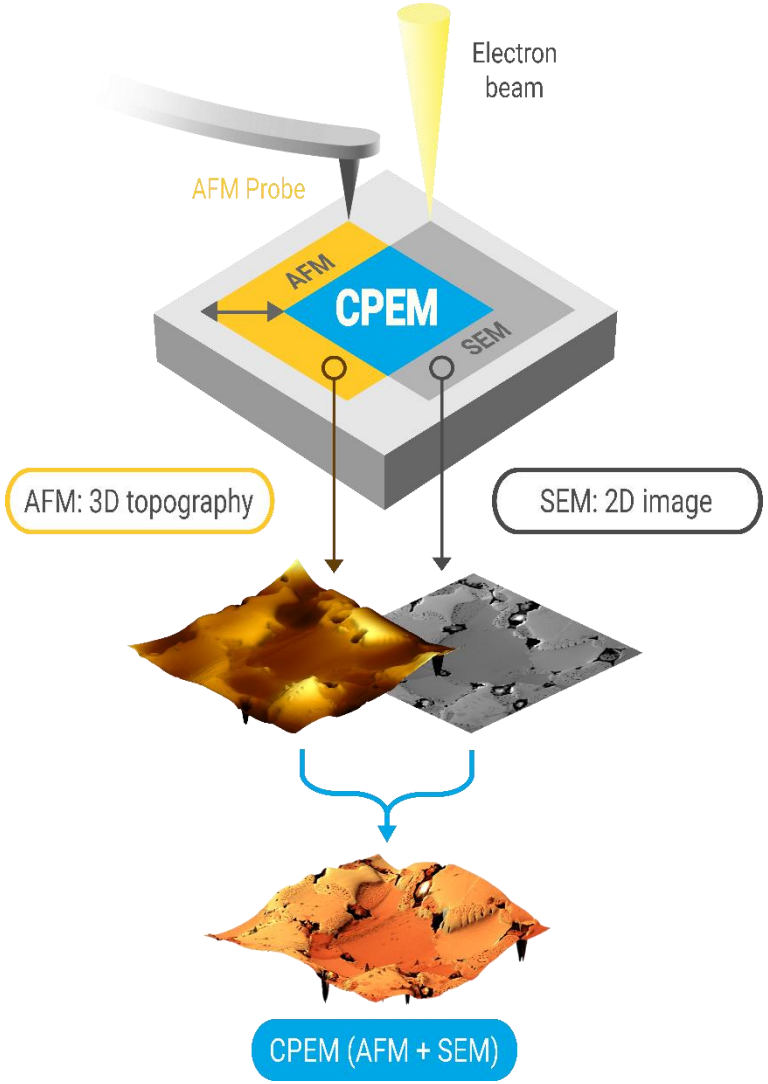
Mesures CPEM





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www.eden-instruments.com

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Workshop Traction-Chauffant in-situ :
Tescan / Kammrath&Weiss

Kammrath Weiss GmbH

TESCAN
PERFORMANCE IN NANOSPACE

Quand : 1ère semaine de février 2021 (1-5 fév.)
Où : TESCAN Demo Center, Aix-en-Provence