



NenoVision

Next level of imaging

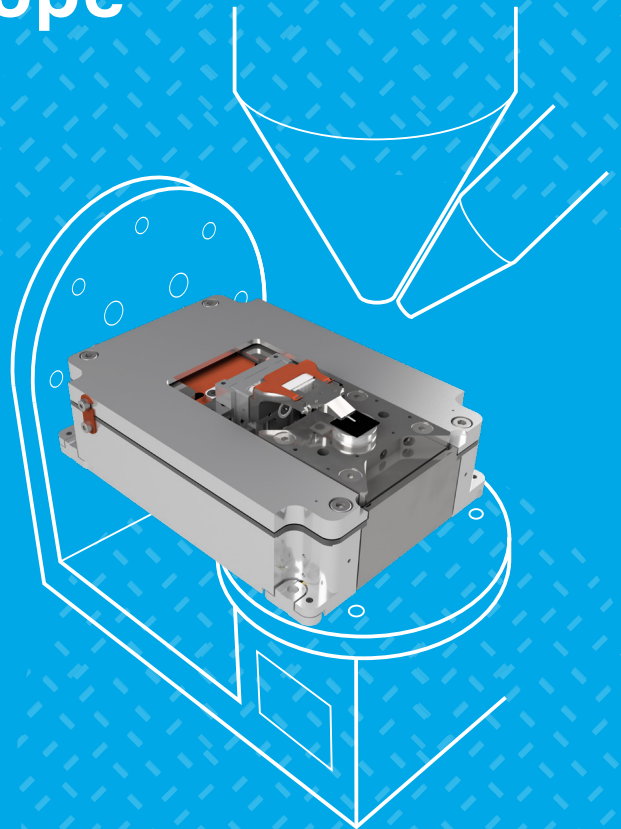
AFM-in-SEM LiteScope™

Product note

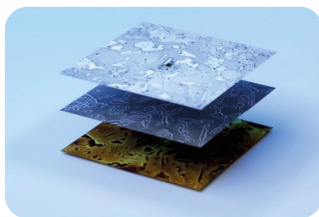
LiteScop is a unique Atomic Force Microscope (AFM) designed for "plug & play" integration into Scanning Electron Microscopes (SEMs).

The novel Correlative Probe and Electron Microscopy (CPEM) technology allows **nanometre precise in-time AFM and SEM data correlation**.

- Fast, plug and play integration into SEMs
- **Compatible with FIB, GIS, EDX** and other standard SEM accessories
- Highly customizable
- Can be used as a stand-alone AFM as well



Key technology benefits



1 Complex and correlative sample analysis

Unique CPEM technology enables **simultaneous acquisition of AFM and SEM channels** and their seamless **correlation into 3D** images.



2 In-situ sample characterization

In-situ conditions inside the SEM ensure sample analysis at the **same time**, in the **same place** and under the **same conditions**.



3 Precise localization of the region of interest

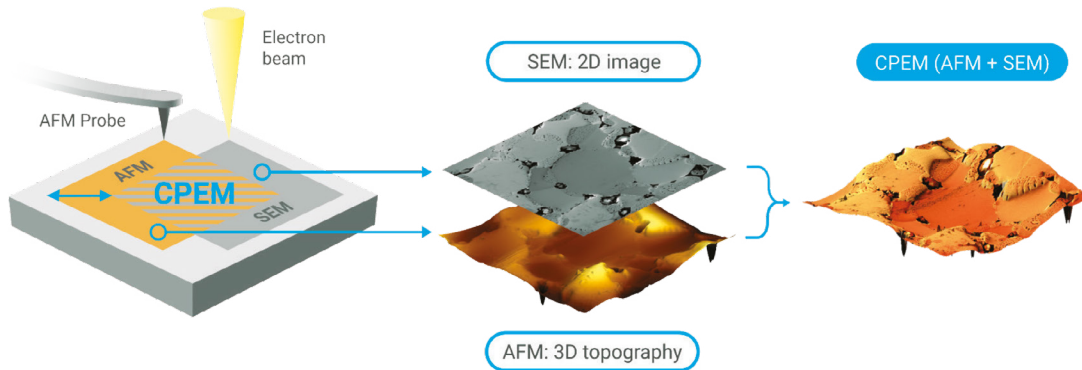
Extremely precise and time-saving approach **uses SEM to navigate the AFM tip** to the region of interest, enabling its fast & easy localization.



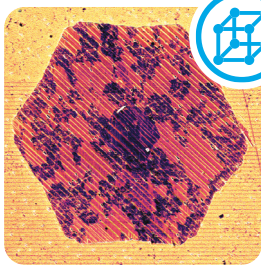
CPEM technology

Correlative Probe and Electron Microscopy (CPEM) is a unique technique, representing a **hardware correlative technology**.

It enables **simultaneous acquisition of SEM and AFM data**, and their **seamless correlation** into one 3D image.

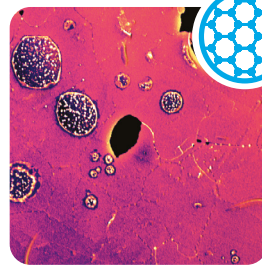


Application areas



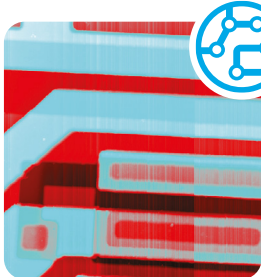
Material Science

- 1D / 2D materials
- Steel & metal alloys
- Batteries
- Ceramics
- Polymers & Composites



Nanostructures

- Modified surfaces FIB/GIS
- Quantum dots
- Nanostructured films
- Nano-patterning
- Nanowires



Semiconductors

- Integrated circuits
- Solar cells
- MEMS / NEMS
- Failure analyses
- Dopant visualization
- Current leakage localization



Life Science

- Cell biology
- Marine biology
- Protein technology

Measurement modes

- **Topography modes:** AFM and surface roughness
- **Mechanical modes:** Energy dissipation (tapping mode), FMM (contact mode), nanoindentation
- **Electrical modes:** C-AFM, KPFM
- **Magnetic modes:** MFM
- **Electro-mechanical modes:** PFM
- **Spectroscopy modes:** F-z curves, I-V curves