

NenoVision

NenoVision is a technology company developing and manufacturing a unique atomic force microscope (AFM) LiteScope™, designed for fast and easy integration into scanning electron microscopes (SEMs). It allows scientists do measurements and analyses, which are normally nearly impossible, time consuming or very expensive. The company is located in Brno, Czech Republic, the city considered as a global center of electron microscopy.

APPLICATION BENEFITS OF AFM-in-SEM

- Fast region of interest localization, thanks to the precise AFM tip navigation using SEM
- Safe in-situ measurements without risk of sample contamination
- Complex information about samples thanks to extremely precise CPEM correlative imaging in one scan

AFM-in-SEM CORRELATIVE MICROSCOPY, FUTURE OF NANO-SCALE IMAGING

SEM and AFM are standard micro—nano characterization techniques. In-situ AFM-in-SEM measurement enables to combine advantages of both techniques otherwise used individually. It is time-efficient, precise and provides complex sample analysis while preventing surface contamination and oxidation of sensitive samples.

NenoVision has developed a unique technique for correlative measurements called CPEM™ (Correlative Probe and Electron Microscopy). CPEM enables to simultaneously acquire various AFM and SEM signals covering surface topography, mechanical, electrical, electromechanical and magnetic properties, SE, BSE, and other SEM images. Unique technology allows for various AFM and SEM signals to be directly correlated with exceptional precision and provides the most powerful correlative imaging on the market.

LITESCOPE: AFM INTEGRATION TO SEM

- Compatible with most of the SEM systems
- Plug-and-play integration into SEM
- Self-sensing replaceable probes without optical detection, no laser adjustments
- Operates in tilted position (0°–60°; WD ≥ 5 mm), compatible with FIB/GIS, EDX etc.
- Works also as a stand-alone AFM

MAIN APPLICATION AREAS

- Material science (1D and 2D materials, Steels & metal alloys)
- Nanostructures (various special applications including FIB/GIS modified structures, EBIC, ToF-SIM etc.)
- Semiconductors (Solar cells, Integrated circuits)
- Life science (Cell biology, Marine biology, Protein technology)

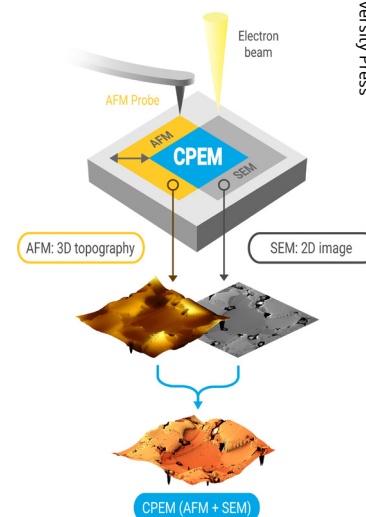
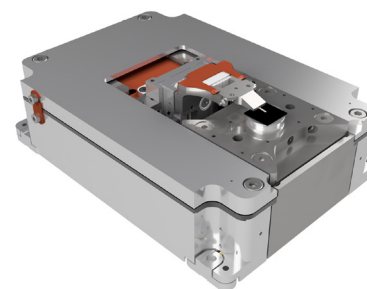
PRINCIPAL MEASURING METHODS

- Topography (standard or STM)
- Mechanical properties (Energy dissipation, FMM, F-z curves, Nanoindentation, Nanomanipulation)
- Electrical properties (C-AFM, C-CPEM, KPFM, Electrical Spectroscopy)
- Electro-mechanical properties (PFM)
- Magnetical properties (MFM)

Do not hesitate to contact us to discuss your application and find out how LiteScope can help to achieve your goal.



NenoVision



How to find us

NenoVision s.r.o.
Purkyňova 649/127
612 00 Brno
Czech Republic
Tel.: +420 605 287 732
info@nenovision.com
<https://www.nenovision.com/>
LinkedIn: <https://www.linkedin.com/company/nenovision/>
Facebook: <https://www.facebook.com/nenovision>