

## 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). The company is located in Brno, Czech Republic which is a global center of electron microscopy.

### NEXT LEVEL OF CORRELATIVE MICROSCOPY: AFM-in-SEM

The need to analyze and characterize objects from micro to nanoscale is fastly growing. SEM and AFM techniques are the most common with an extensive user pool. These are standards in micro-nano characterization and almost the only ones available. In-situ AFM-in-SEM measurement enables to combine advantages of both techniques. It is time-efficient, precise and it provides complex sample analysis while preventing sensitive samples from surface contamination and oxidation.

Besides, NenoVision has developed a unique measurement technique for correlative measurements called CPEM™ (Correlative Probe and Electron Microscopy). CPEM enables you to simultaneously acquire various AFM and SEM signals covering surface topography, mechanical properties, SE, BSE, and other SEM images. Due to the patented technology, all images can be directly correlated with exceptional precision and provide the most powerful correlative imaging on the market.

### LITESCOPE IS UNIQUE COMPACT AFM

- Plug-and-play integration into SEM
- Compact design – compatible with most of the SEM systems
- Precise AFM tip navigation to the region of interest by SEM
- Self-sensing replaceable probes without optical detection, no laser adjustments
- Operates in tilted position (0°–60°; WD ≥ 5 mm)
- Works also as a stand-alone AFM

### APPLICATION BENEFITS OF AFM-in-SEM

- Precise AFM tip navigation using SEM
- CPEM correlative imaging – material vs. topography contrast
- In-situ 3D topography sub-nm precision and depth profiling
- Surface roughness measurement
- Electrical properties
- Mechanical properties

### MAIN APPLICATION AREAS

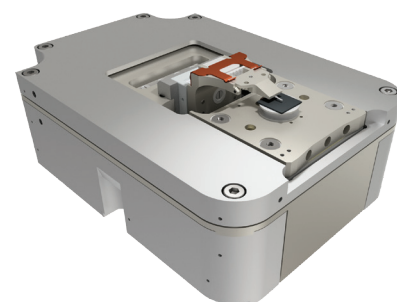
- 1D and 2D materials, 3D nanostructures
- FIB and GIS modified surface
- Graphene, graphene oxides
- Nanowires
- Metals

### MEMS, NEMS

- Semiconductor, failure analyses
- Solar cells
- Zeolites
- Thin films
- Quantum dots
- Life-Science



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### How to find us

NenoVision  
Purkyňova 649/127  
612 00 Brno  
Czech Republic  
Tel: +420 605 287 732  
Email: