

# NenoCase™



NenoCase™ is a new accessory for an Atomic Force Microscope (AFM) - LiteScope™. NenoCase™ is not only easy to use storage case but also opens new possibilities of usage LiteScope™ as a stand-alone device. It incorporates passive antivibration system to ensure high quality imaging outside the SEM chambers. NenoCase™ can be purged with different gases used for measurements under different atmospheres.

## Key Features

- Storage of LiteScope™ in vacuum or desiccated environment to eliminate unwanted water adsorption during the storage out of SEM.
- LiteScope™ full operation outside of SEM in vacuum or various of atmospheres.
- Possibility of using controlled atmospheres such as N<sub>2</sub>, Ar, etc.

## Atomic Force Microscope LiteScope™

This microscope can be integrated into a Scanning Electron Microscope (SEM), which significantly extends measuring capabilities, especially correlative imaging – the unique technique Correlative Probe and Electron Microscopy™ (CPEM). CPEM makes it possible to acquire both SPM and SEM images of the same area at the same time and in the same coordination system.

- Equipped with an passive anti-vibrational protection.
- Levelling the adjustment of the platform is allowed.
- The transparent design of top cover allows the use of an optical or stereomicroscope to find structures or tip navigation.

### Design

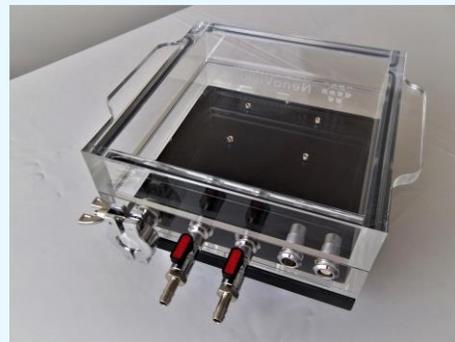
Platform of NenoCase™ is compact box made from transparent acrylic with appropriate adapters for the LiteScope™ connection to the control electronics. It incorporates also four self-contained units that provide both vertical and horizontal vibrational isolation. Lightweight materials are used and transparent design allows the usage of optical and stereomicroscopes when the NenoCase™ is closed. Of course, it is possible to add user feedthroughs.

### Summary

The NenoCase™ can be used as a storage space for the microscope in a vacuum, which allows to reduce the adsorption of gases on its surface and to increase the pumping speed in SEM, purity of vacuum etc. On the other hand, it is also possible to perform the measurements themselves in a vacuum, which increases the resolution of the images in the meaning of stand-alone device. A wide range of applications is then made possible by the use of controlled atmospheres of gases, such as nitrogen or argon. Not only because of that, the NenoCase™ becomes an indispensable accessory for the LiteScope™, which significantly extends its application capabilities. Discover them.

### Technical specs

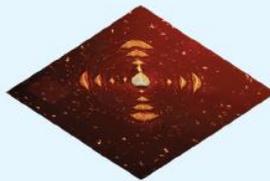
Horizontal isolation, resonance	5.8 Hz
Vertical isolation, resonance	7.8 Hz
Horizontal amplification at resonance	12 dB
Vertical amplification at resonance	20 dB



### Image Gallery



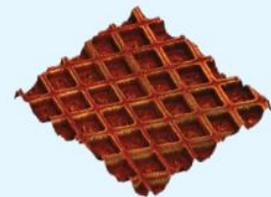
Textured PIN diode



Anisotropic silicon wet etching



Crack propagation in metallic sample



FIB milled structure