

Jan Neuman, Ph.D.
NenoVision s.r.o., Purkyňova 127, Brno, Czech Republic

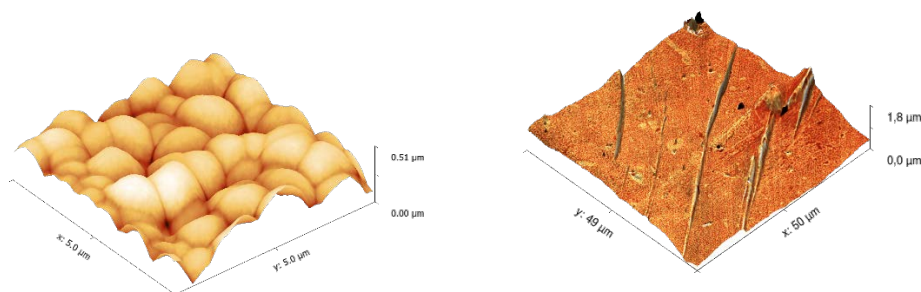
LiteScope SPM/SEM integration:
New possibilities of the correlative microscopy by CPEM
JUNE 27, 2017

Development of the scientific instrumentation and analytical methods was in the last decade significantly influenced by the integration of different techniques into the compact instrumentation. The scanning electron microscopy (SEM) equipped with the Focused Ion Beam (FIB) and scanning probe microscopy (SPM) are commonly used imaging techniques in the Material Sciences, Nanotechnology and Life Sciences. Integration of LiteScope SPM produced by NenoVision into the SEM extend the instrument capabilities and offer several benefits like 3D characterization, measurements of electrical and magnetic properties and others. On the top of that we present new measurement techniques for the true correlative imaging which enable direct comparison of the images from SEM and SPM. Unique measurement technique Correlative Probe and Electron Microscopy (CPEM) for correlative imaging has been developed by the SPM manufacturer NenoVision and tested in the TESCAN FIB-SEM instruments for various applications.

NenoVision is the first CEITEC spin-off company coming from group of prof. Šikola. LiteScope instrument is available for the users in the CEITEC Nano Core Facility and can be utilized by users. Within the workshop will be discussed several different applications of CPEM to present broad range of applications.

In the second half of the workshop participants will have a chance to see LiteScope directly operated in the CEITEC Nano facilities.

As a part of the workshop we expect the discussion about the challenges in the correlative microscopy and utilization of the CPEM technology in new application fields.



Scanning Probe and Electron Microscopy (CPEM) schematic view

