Tools for Microscopic Manipulation and Testing

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Engineering at the nanometer scale is moving rapidly from the research stages into the production of commercial products. To fully characterize products at the near-atomic scale, new technologies are needed to measure, test, move, and otherwise conduct experiments at extremely high magnifications. Electron microscopes have become increasingly necessary to provide the observational acuity needed to develop these products. Ascend and Kleindiek provide a variety of tools for sample manipulation and test inside the hostile, cramped quarters of an electron microscope, as well as for conventional light microscopes.

This poster session will present Nanoscale methods for manipulation, test, and characterization in the following applications:

- Electrophysiology (neurosensing and patch clamping)
- TEM sample preparation
- Picoampere level electrical probing
- Nano-manipulation
- Nanoindentation and force measurement.