LT-AFM/MFM

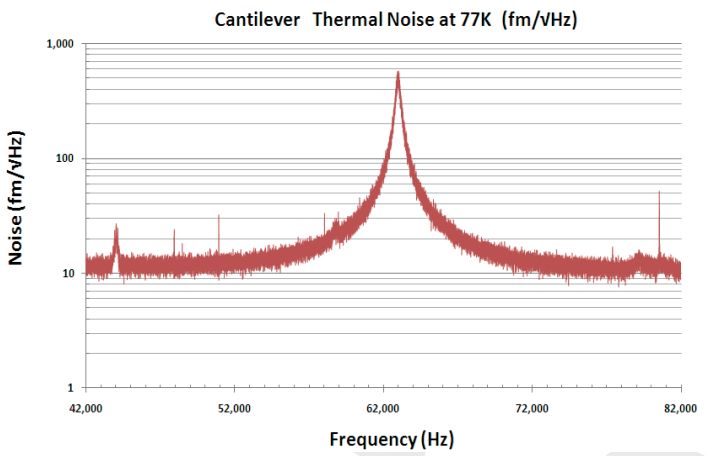
with high resolution fibre interferometer & alignment-free cantilevers

Cryogen Free MFM/AFM

- Rigid AFM design
- Magnetic Force Microscope
- Atomic Force Microscope
- Scanning Hall probe Microscope
- EFM, PFM, SSRM, STM, etc.

Cryogen Free Cryostat

- Vibration free design
- 100% dry system
- Closed-Cycle
- 1.5K - 400K
- Up to 20 Tesla
- Low operating costs

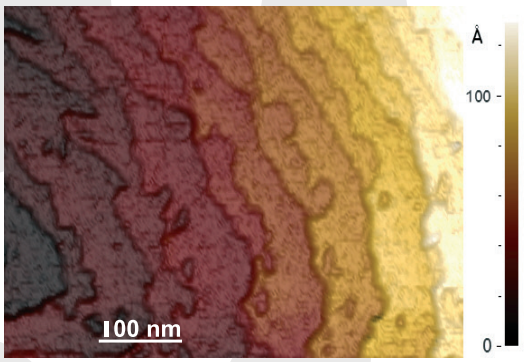


System Specifications

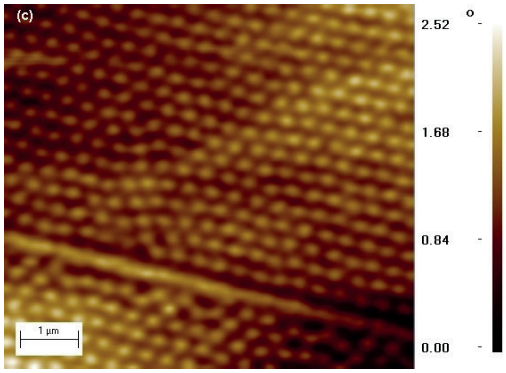
Imaging Modes: MFM, Conductive AFM, EFM, STM, Contact / Semi-Contact / Non-Contact mode AFM

Temperature		Ultra Large Area Scan Head	Large Area Scan Head	Standart Scan Head
300K	:	200x200x7.2 µm	150x150x7 µm	52x52x4.8 µm
77K	:	50x50x4.8 µm	36x36x1.8 µm	14x14x1.2 µm
4.2K	:	30x30x2.4 µm	18x18x0.8 µm	6x6x0.5 µm

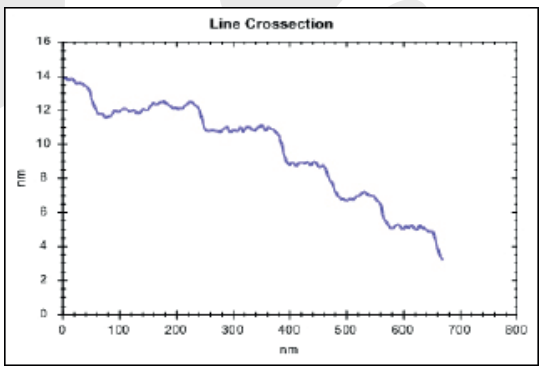
Sample Approach: Stick-slip type; 10mm Z, Ø3 mm XY range with 50 - 800nm
Fine Sample Positioning: Capacitive encoder with 2µm resolution
Sample Size: 15x15x5mm maximum
Sample Holder: 5 pins connections for experiments: One bias voltage, 4 spares
Temperature Range: 1K-300K (Limited by the system)
Magnetic Field: up to 20 T
Operation: Vacuum or exchange gas environment
Compability: PPMS®. PPMS® Evercool can also be compatible with switched off compressor during experiments. Dilution Refrigerators and He3 systems. Can be customized to fit in to other mK systems or cryostat if free space permits.

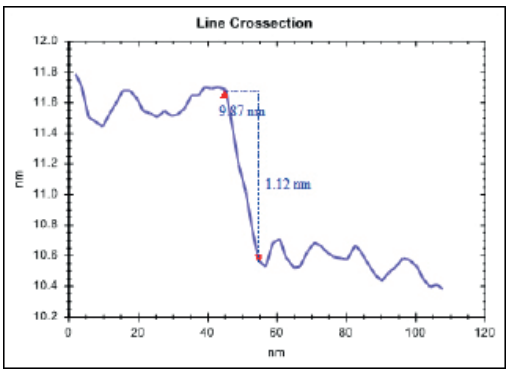


LT-AFM Image of the etched mica surface

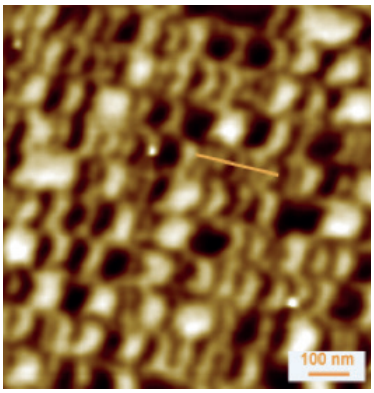


Vortex Imaging LT-MFM on BSCCO single crystal at 4.5 K

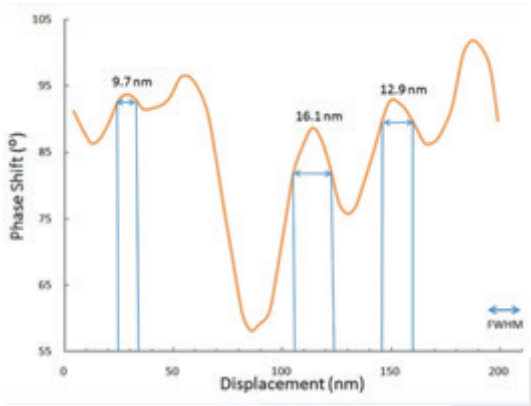




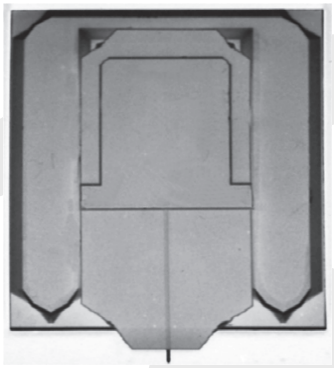
Cross-section of the double mica step



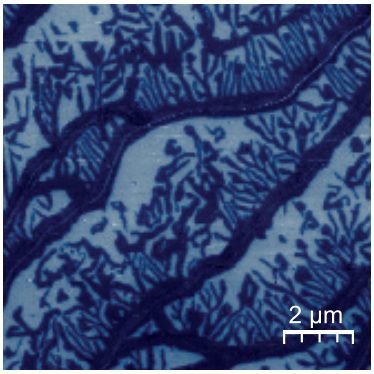
MFM image of HDD @ 77K, k=8 N/m



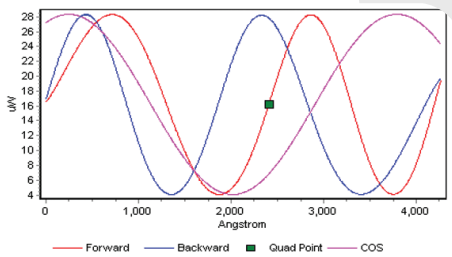
Cross section

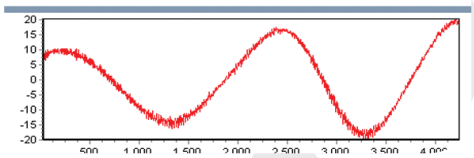


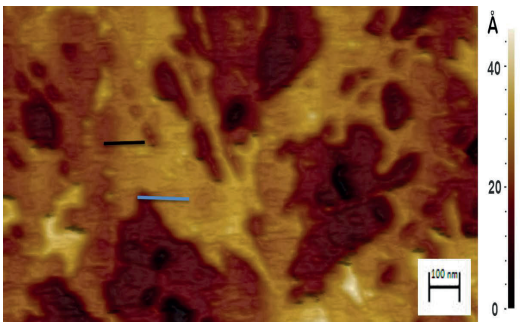
Alignment free cantilevers from NanoSensors®



Work Function Image of $CaFe_2As_2$ at 300K







HF Etched Mica at 77K