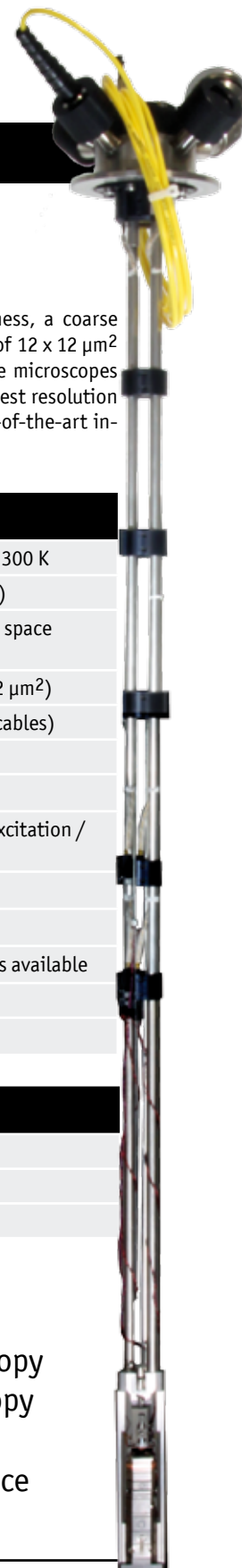


Product Announcement

Low Temperature SPMs with 1" outer diameter

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nanoSCOPY

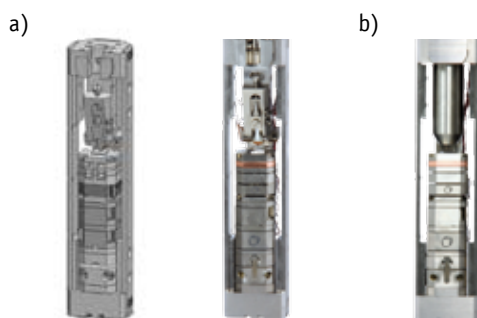
Scanning Probe Microscopes for Extreme Environments

attoSPMxs

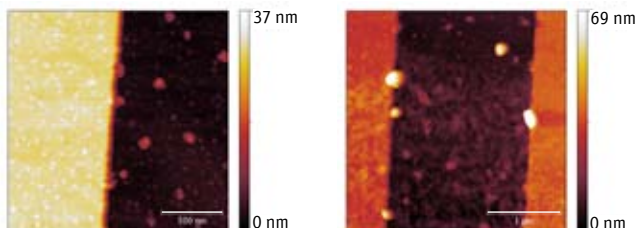
complete series of LT-SPMs with an outer diameter of 1 inch

attocube systems proudly presents its brand new series of low temperature compatible microscopes suitable for any 25 mm static sample space including the Quantum Design PPMS. Our complete scanning probe microscopy product range (CFM, AFM, SNOM, and STM) has undergone a redesign to fit the extreme dimensional constraints while still fulfilling the environmental

compatibility requirements. Despite the compactness, a coarse travel range of $3 \times 3 \times 2.5 \text{ mm}^3$ and a scan range of $12 \times 12 \mu\text{m}^2$ at 4 K is provided. The outstanding stability of the microscopes allows investigation of nm-sized features with highest resolution making these instruments versatile tools for state-of-the-art investigations at the nanoscale range.



Schematic and photos of the ultra compact attoSPMxs product line; (a) AFM module; (b) CFM module.



AFM non-contact mode image of a Si-substrate/SiO₂ layer, height: 20 nm +/- 2 nm recorded at 4 K (attocube application labs, 2009).

Key Features

- > suitable for a temperature range from mK to 300 K
- > compatible with high magnetic fields (15 T +)
- > compact design fits any 25 mm static sample space including QD PPMS
- > large cryogenic scan range available ($12 \times 12 \mu\text{m}^2$)
- > customized wiring (e.g. LT compatible coax cables)
- > easily exchangeable SPM heads

CFM

- > several objectives available (optimized for excitation / emission wavelength)

AFM

- > contact mode, non contact mode, MFM
- > tuning fork based and PLL controlled systems available

SNOM

- > high quality SNOM fiber probes available

Application Examples

- > polarization resolved photoluminescence
- > Raman spectroscopy on Graphene
- > vortex imaging of superconducting material

AVAILABLE FOR

- CFM** Confocal Microscopy
- AFM** Atomic Force Microscopy
- SNOM** Scanning Near-Field Microscopy
- AFM/STM** Combined AFM / STM System

SUITABLE FOR

- MFM** Magnetic Force Microscopy
- SGM** Scanning Gate Microscopy
- CFM** Raman Spectroscopy
- micro Photoluminescence

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For detailed information on dimensions and specifications please contact: info@attocube.com.