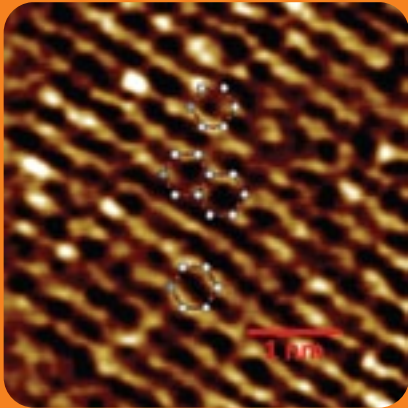


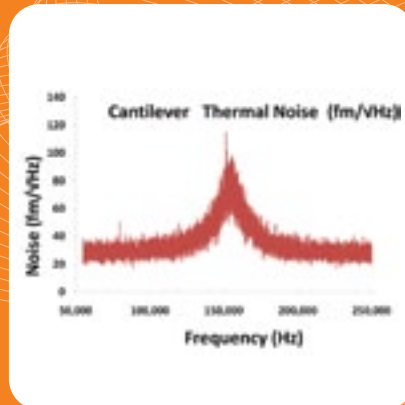
New

AQUA nc-AFM

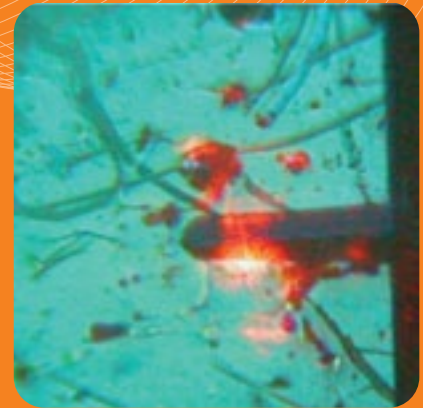
non-contact Atomic Force Microscope
in Liquids/Air



Mica in PBS solution,
 $\Delta f = +50$ Hz, $A=0.9$ nm ,
 $Q=11$, $k=32$ N/m.



Thermal noise in water



Video microscope
image of cantilever in water



- Atomic Resolution on Mica in Liquids
- Closed Liquid Cell (PEEK)
- nc-AFM operation with digital PLL
- Spurious free cantilever excitation (Fukuma Method)
- Low Noise <30 fm/ $\sqrt{\text{Hz}}$ in liquid & air
- Full ambient operation capability
- $2 \mu\text{m}$ scan area



NANOMAGNETICS
INSTRUMENTS

AQUA nc-AFM

non-contact Atomic Force Microscope in Liquids/Air



All PEEK Cantilever holder



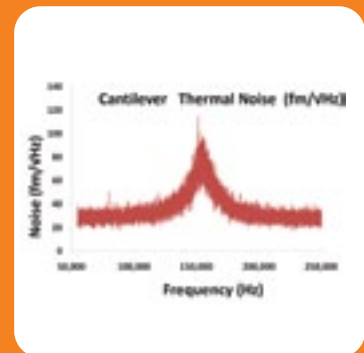
Peristaltic pump or syringe operation



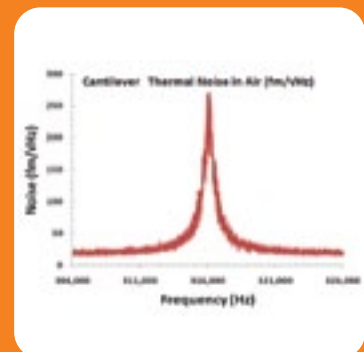
Easy to use Closed Liquid Cell

AQUA nc-AFM System Specifications

- Ultra Low noise RF Modulated Laser Diode
- $<30\text{fm}/\sqrt{\text{Hz}}$ noise level in Liquids & Air
- Spurious free cantilever excitation in liquids
- $2 \times 2 \times 0.7 \mu\text{m}$ scan Range with 24 Bit resolution
- Motorised 50mm range Z-stage with 43nm steps
- $8 \times 8 \times 2 \text{ mm}$ maximum sample size
- Closed Liquid Cell, PEEK
- Compatible with peristaltic pumps
- Integrated Video Microscope/ $2\mu\text{m}$ optical resolution
- Adjustable white light source
- Separate Air & Liquid Cantilever Holders
- All the AFM options are available in air
- nc-AFM Control Electronics & Software
 - Flexible FPGA Based Control Electronics
 - Simultaneously running DSP Loops
 - Digital PLL
 - 24 Bit XYZ DACs
 - f-d curves etc.
 - Free software upgrades for lifetime
 - Unlimited user licence



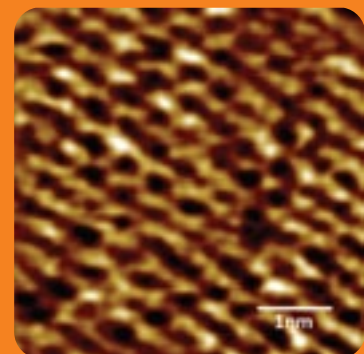
Thermal noise in water



Thermal noise in air



Note: Specifications are subject to change without any notice



Mica in PBS solution,
 $\Delta f = +50 \text{ Hz}$, $A = 0.9 \text{ nm}$,
 $Q = 11$, $k = 32 \text{ N/m}$.