

ATOMIC FORCE MICROSCOPY (AFM)

Make: Veeco, Model: CP II



“The CP-II offers the full complement of SPM techniques, making it ideal for such applications as surface studies in material science, polymer characterization, nanolithography, and nanomanipulation”

SPECIFICATIONS AND PERFORMANCE

1. System Configurations

Probe Head : Operates in C-AFM, NC-AFM, IC-AFM, LFM,STM, EFM, MFM, Nanolithography and Conducting AFM modes.

2. Measurement Performance

Standard

Scanner : Large Area(~90 μ m) piezoelectric scanner.
Scan Range : Maximum lateral scan range: ~90 μ m.
Maximum vertical scan range: 7.5 μ m.
Control Resolution : Maximum DAC lateral resolution: 0.25A°.
Maximum DACvertical resolution: 0.025A°.

Optional

Scanner : 5 μ m piezoelectric scanner.
Scan Range : Maximum lateral scan range: 5 μ m.
Maximum vertical scan range: 2.5 μ m.
Control Resolution : Maximum DAC lateral resolution: 0.0013A°.
Maximum DACvertical resolution: 0.009A°.

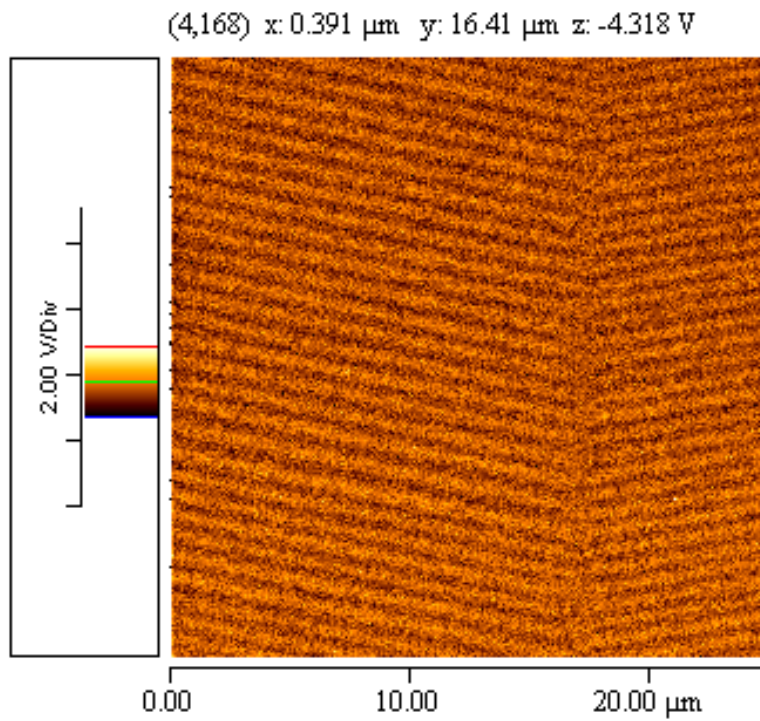
3. Microscope Stage :

Translation Range : 8mm x 8mm.
Sample Size : 50mm (w) x 50mm(l) x 20mm(h).
Tip-Sample Approach : Automatic with 3 independent stepper motors.
Optical Microscope : Optional on-axis microscope with color video monitor for Probe tip and sample view.
5.1 Zoom, up to 3,500X magnification.
Standard 20X objective.
Acoustic Isolation : Optional Acoustic Isolation Chamber.

4. Operating Environment

Temperature : 0°C to 30°C, 32°F to 112°F.
Humidity : 90% ; non condensing .

Image Done by CP-II at Nanolab, S.N.Bose. National Centre For Basic Sciences.



MFM Image of a Standard Sample.