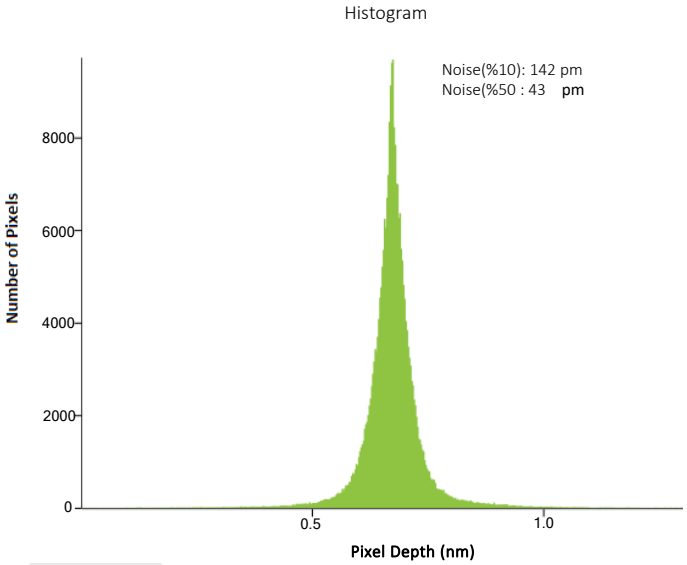
NanoMagnetics Instruments

Ultra Low Vibration Cryogen Free Cryostat

The integrated variable temperature insert controls sample temperature from 1.3K to 300K temperature. Simultaneous control of the applied magnetic field can reach up to 14.0 Tesla - all without the need for any liquid cryogens and by using a single cryocooler.

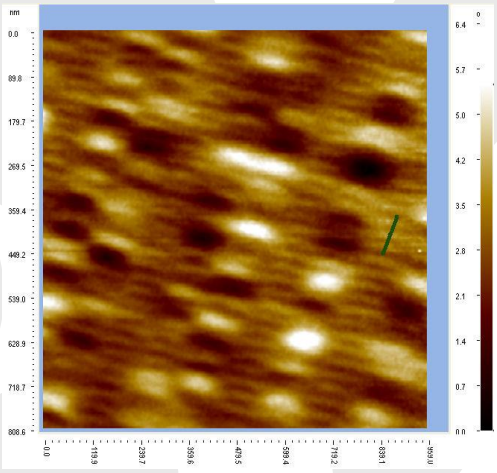
- Up to 14.0 Tesla Magnetic Field
- Aluminum cryostat compatible with the 14T solenoid superconducting magnet.
- Temperature range: 1.3K to 300K
- Sample size up to 49mm
- Pulse Tube Cryocooler with low vibration & Helium compressor
- A top-loading VTI is integrated into the cryostat/cryocooler assembly to enable user access to the high field region of the magnet.
- 1, 3, 5, 7, 9, 12 and 14 Tesla Magnetic field options
- 6-1-1 and 9-1-1 Tesla Vector Rotate Magnet options
- 0.1% field homogeneity over 1cm DSV.
- HTS Current leads
- Electronically controlled Helium gas with a MFC (Mass Flow Controller)
- Vacuum Pump for Helium gas flow
- Temperature controller & 7 Channel Temperature monitor
- Superconducting Magnet Power Supply
- Compressor
- Electronics cabinet
- Computer and Control Software

Noise Scans : Full Width at 10% & FWHM (50%)

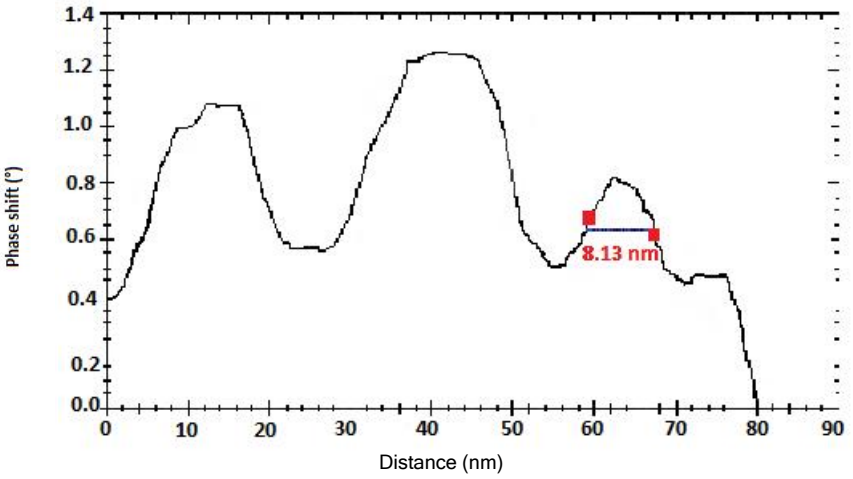


NanoMagnetics Instruments Low Temperature MFM image and crossections of 394 Gbpsi Seagate Momentus 5400.6 Hard disk drive obtained with our MFM in PPMS Cryostat at 300K & at 1 Bar Atmosphere.

Phase Backward in HDD Scan:

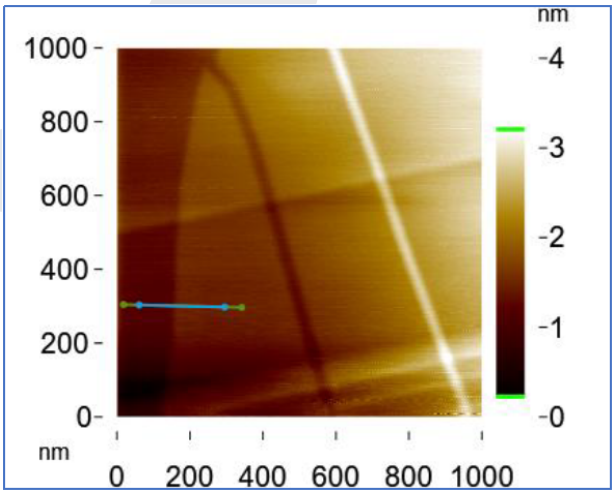
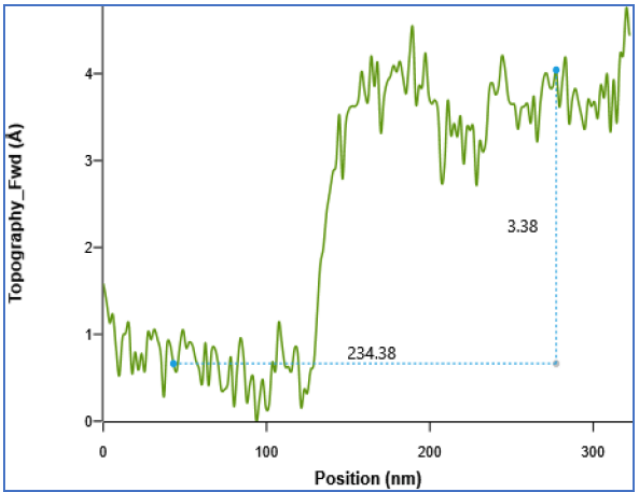


Cross Section Showing bit size



Atomic Steps in HOPG

HOPG 1mm X 1mm Scan:



Cross Section Showing Steps: