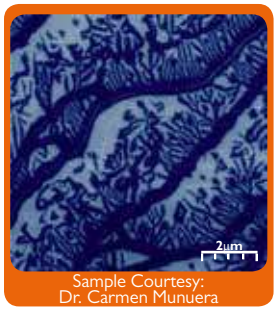
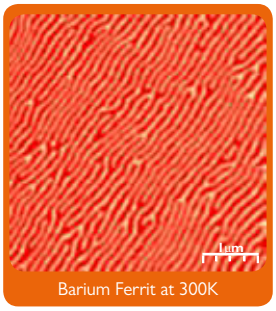
NanoMagnetics Instruments

PPMS®-MFM/AFM

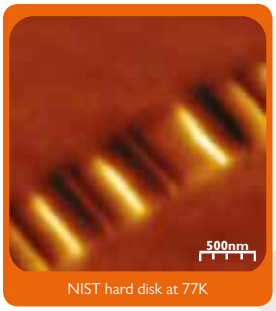
with high resolution fibre interferometer & alignment-free cantilevers



Sample Courtesy:
Dr. Carmen Munuera

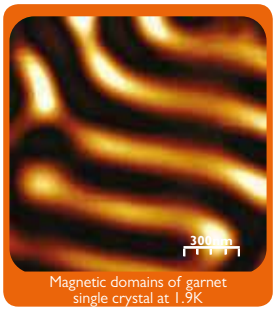


Barium Ferrit at 300K

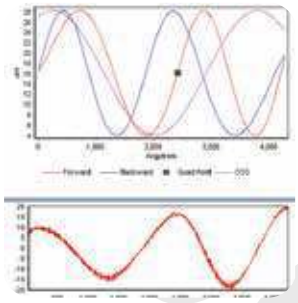


NIST hard disk at 77K


Alignment free cantilevers
from NanoSensors®


Magnetic domains of garnet
single crystal at 1.9K


Magnetic domains of garnet
single crystal at 300K



System Specifications

Imaging Modes	: MFM, Conductive AFM, EFM, STM, Contact/Semicontact/Non-Contact mode AFM using digital		
PLL Scan Size	: Large Area Scan	Head Standart Scan	Head Small Area Scan Head
	150 x 150 µm @ 300 K	52 x 52 µm @ 300K	8 x 8 µm @ 300 K
	36 x 36 µm @ 77 K	14 x 14 µm @ 77 K	3.5 x 3.5 µm @ 77 K
	18 x 18 µm @ 4.2 K	6 x 6 µm @ 4.2 K	1.5 x 1.5 µm @ 4.2 K
Z Range	: 7.0 µm @ 300 K	4.8 µm @ 300 K	2.4 µm @ 300 K
	1.8 µm @ 77 K	1.2 µm @ 77 K	0.6 µm @77K
	0.8 µm @ 4.2 K	0.5 µm @ 4.2 K	0.25 µm @ 4.2K
Head Dimensions	: 23.6 mm OD x 125 mm or 25.4 mm OD x 100 mm		
Sample Approach	: Stick-slip type; 10 mm Z, Ø3 mm XY range with 50 - 800 nm step size		
Fine Sample Positioning	: Capacitive encoder with 2 µm resolution		
Sample Size	: 15 x 15 x 5 mm maximum		
Sample Holder	: 5 pins connections for experiments: One bias voltage, 4 spares		
Temperature Range	: 1K-300 K (Limited by the PPMS or the cryogenic system)		
Magnetic Field	: >16 T		
Operation	: Vacuum or exchange gas environment		
Compatibility	PPMS. PPMS Evercool can also be compatible with switched off compressor during experiments. Oxford Instruments' Dilution Refrigerators and He3 systems. Can be customised to fit in to other mK systems if free space permits.		

Software upgrades are free for lifetime
Note: Specifications are subject to change without notice