NanoMagnetics Instruments

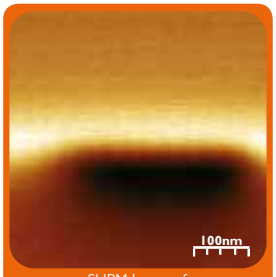
LT - SHPM

Low Temperature Scanning Hall Probe Microscope

A Unique Quantitative and Non-invasive Instrument to Image Surface Magnetic Fields at Nanometer Scale

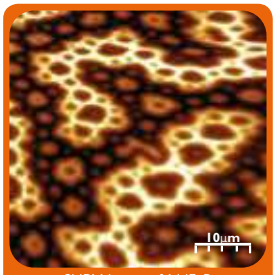
World's Smallest Hall Sensor, 50 nm

SHPM Image of
NIST Calibration Sample

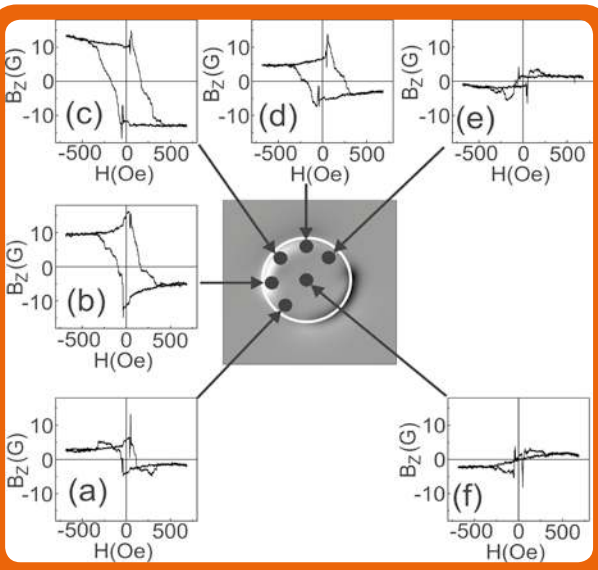


SHPM Image of
Tape Head

SHPM Image of
Vortices in BSCCO Single Crystal



SHPM Image of NdFeB
Demagnetised Magnet



Experimental B2(H) hysteresis loops measured
above the indicated positions on the Fe disk

System Specifications

Imaging Modes : SHPM, STM, AFM, MFM, EFM, SNOM

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

Sample Size : 15 x 15 x 5 mm maximum

Temperature Range : 1 K - 300K for LT-SHPM (limited by the cryostat)

Magnetic Field : >16 T

Suitable cryostats are also available
Software upgrades are free for lifetime
Note: Specifications are subject to change without notice.