3D-SHPM*

3D-Scanning Hall Probe Microscopy at nanometer scale: measure B_x, B_y & B_z simultaneously!

- Non-invasive & quantitative
- Wide temperature range 10mK-400K
- Compatible with PPMS®, other cryostats and DRs
- STM or AFM tracking
- Localised B-H curves
- Room Temperature version available

50 nm Hall Sensor

PPMS is trademark of Quantum Design Inc.

* Patent pending

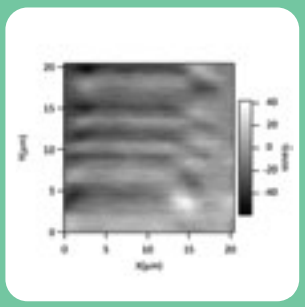
NanoMagnetics Instruments

NanoMagnetics Instruments

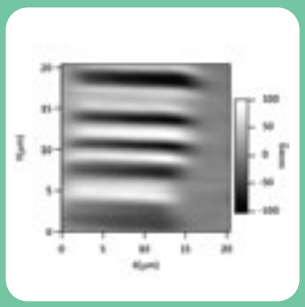
3D -SHPM

A Unique Quantitative and Non-invasive Instrument to Image 3D Surface Magnetic Fields at Nanometer Scale

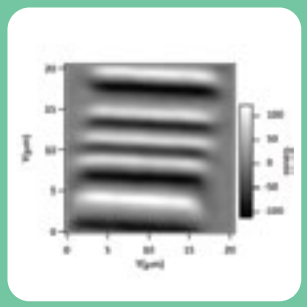
Measurement of 3 components of Magnetic Field on the surface of a hard disk sample using 3D-SHPM at 77K



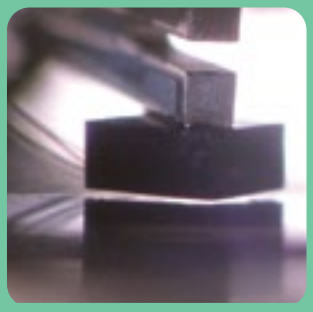
B_x



B_y



B_z



AFM guided Hall sensor on sample

System Specifications

Imaging Modes	: SHPM, STM, AFM, MFM, EFM, SNOM (in development)		
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, ϕ 3 mm XY range with 50 - 800 nm step size		
Sample Size	: 15 x 15 x 5 mm maximum		
Temperature Range	: 10mK - 400K 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.

Suite 290, 266 Banbury Road Oxford OX2 7DL U.K.
Tel: +44 7906 159508 • Fax: +44 870 7620573
www.nanomagnetics-inst.com • info@nanomagnetics-inst.com