Probe calibration in magnetic force microscopy

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Quantitative image interpretation in magnetic force microscopy requires information about the geometric and magnetic configuration of the employed microprobe. If the magnetic microfield of a given sample is known in detail, a calibration of the probe is possible. Using the well-defined current-induced microfield of a nanolithographically structured conducting pattern, calibration measurements combined with model calculations provide an insight into the effective domain configuration of magnetic force microscopy probes.