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Feature doubling in MFM imaging ZHIFENG DENG, Department of Physics, Stanford University, Stanford CA 94305, USA, ERHAN YENILMEZ, HONGJIE DAI, KATHRYN MOLER — Recently, magnetic material coated nanotube tips have been used for high resolution magnetic force microscopy. It is convenient to control the total thickness of a metal-coated nanotube by change the nominal deposition thickness. The thinner the coating is, the less magnetic material attaches to the nanotube. With cobalt coated nanotube tip eleven nanometers in diameter, we measure twenty-five nanometer features clearly. We also observe feature doubling with cobalt coated carbon nanotube tips in an experimental hard drive sample, indicating paramagnetic behavior for the smallest tips.

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