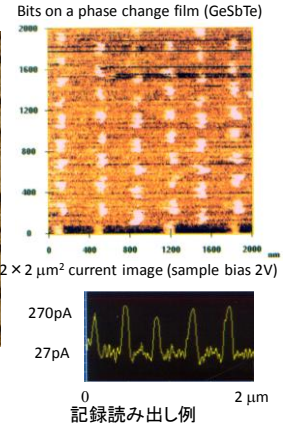
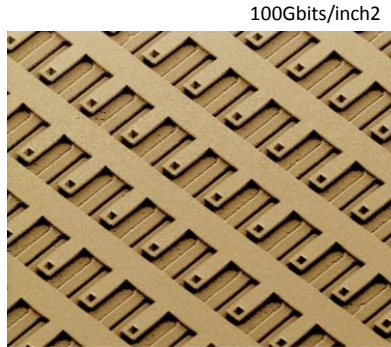
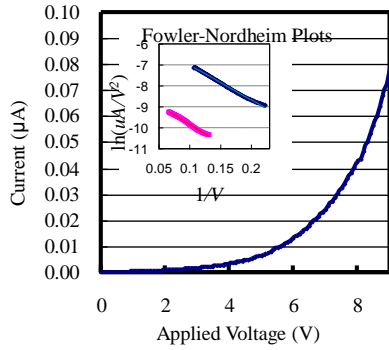
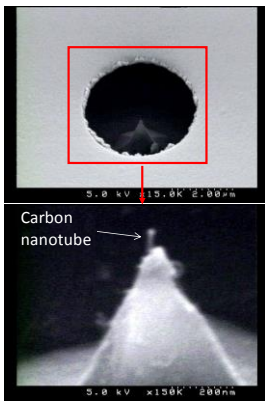
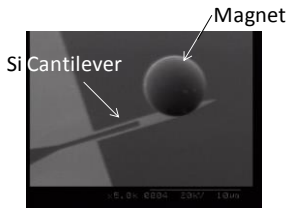


# ナノマシンング (小野 他)

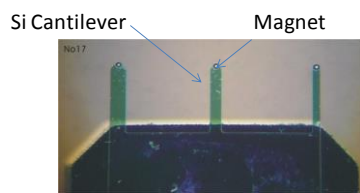


Si 先端上へのカーボンナノチューブの選択成長を利用したゲート付きエミッタと電界放出特性

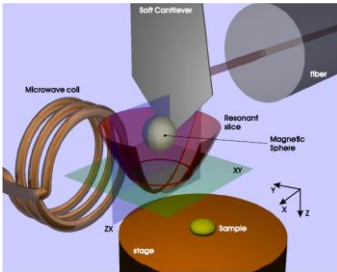
試作したマルチプローブ型の記録ヘッドと相変化膜に記録した記録ビット



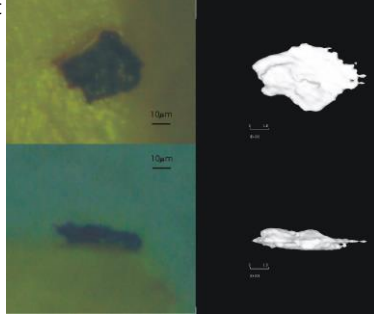
Nanocantilever with a NdFeB magnet



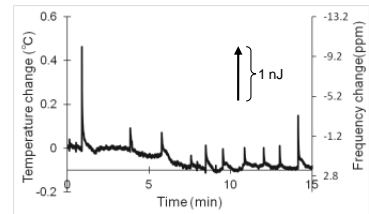
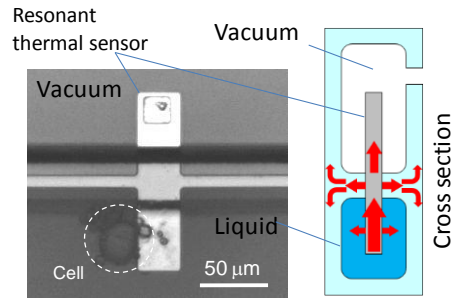
200 nm-thick cantilevers with the magnet



Working principle of MRFM



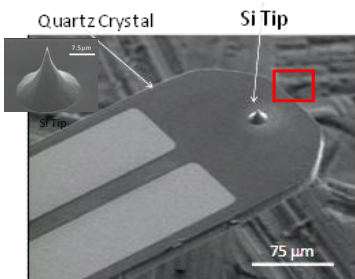
Demonstrated MRFM imaging of electron spin: Detection of radical (sample DPPH)



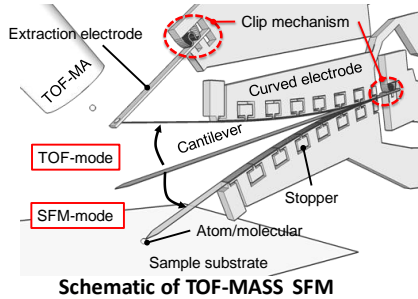
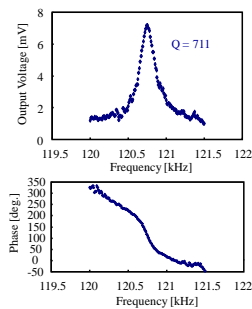
Heat detection of brown fat cell

磁気共鳴力顕微鏡 (MRFM) 用のプローブと MRFM の原理図、およびラジカル密度の 3D イメージング例 (JEOL との共同研究)

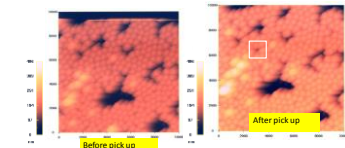
振動型熱量センサと単一細胞の熱計測



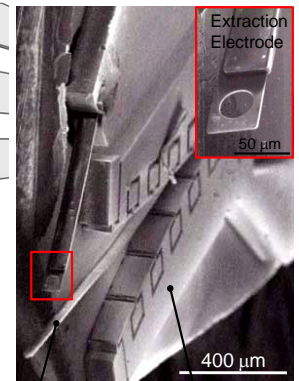
Spring constant  $1 \sim 30$  N/m  
Resonant frequency  $10^4 \sim 10^6$  kHz



Schematic of TOF-MASS SFM



Demonstration of particle manipulation



Fabricated TOF-MASS

水晶の振動子からなる液中AFM用の自己励起・検知型カンチレバーと電気的な検出例

Time-of-flight 型質量分析が可能な走査型力顕微鏡 (SFM)、および 200nm 径のビーズのマニピュレーション例