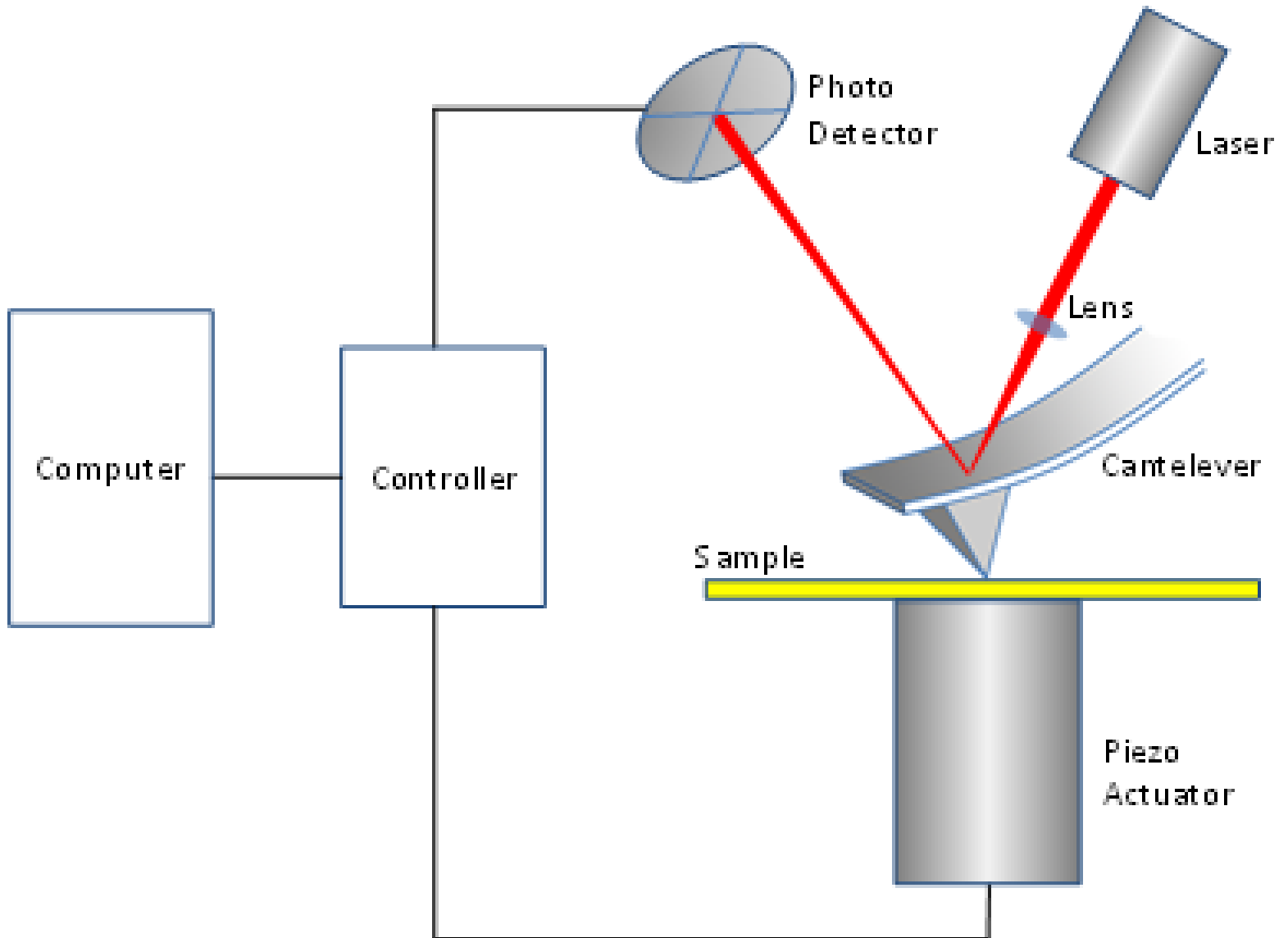
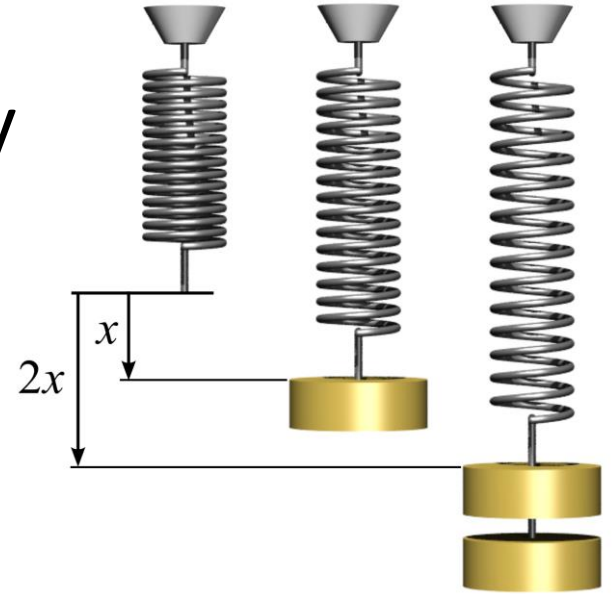


AFM próby

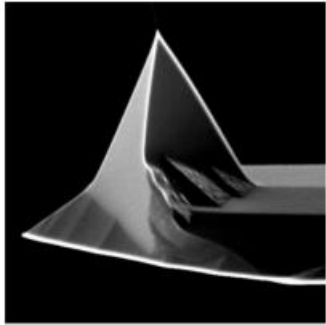


Hookův zákon elasticity

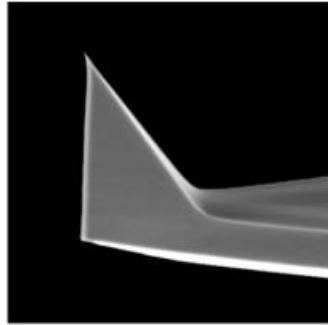
- Pružina
- Pružnost materiálu
- Ohýbání cantileveru



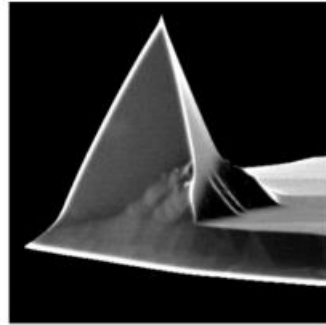
$$F = kX$$



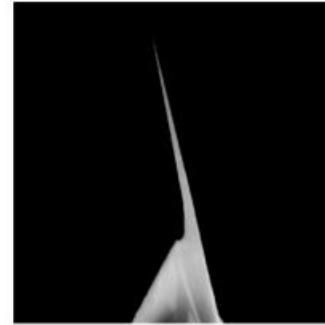
RTESPA



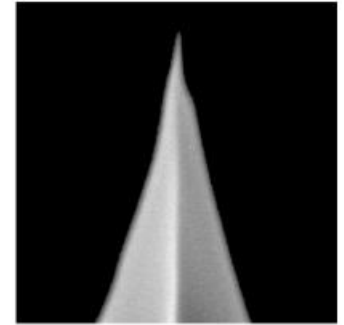
OTESPA



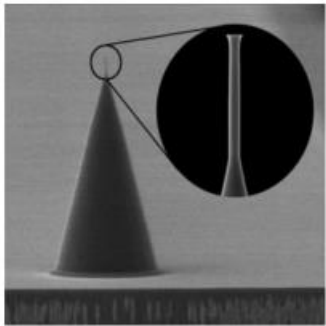
NCHV-A



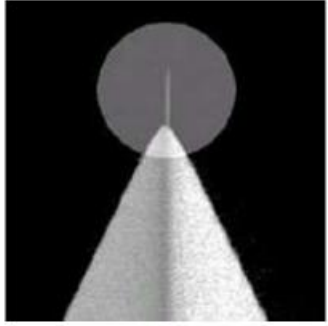
TESP-HAR



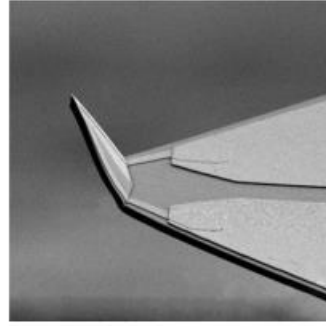
TESP-SS



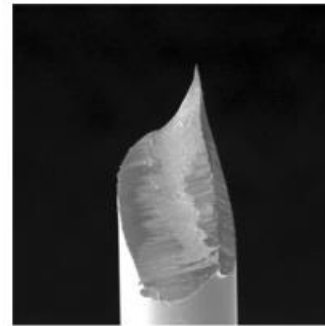
CDR50C



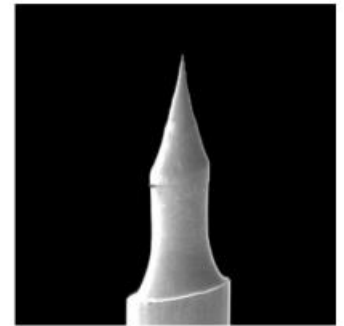
MCNT-500



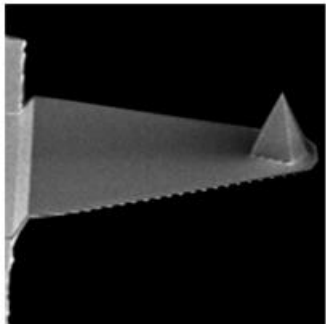
VITA-DM-GLA-1



DPT10



TT10



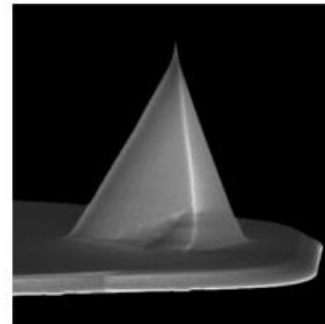
FASTSCAN-A



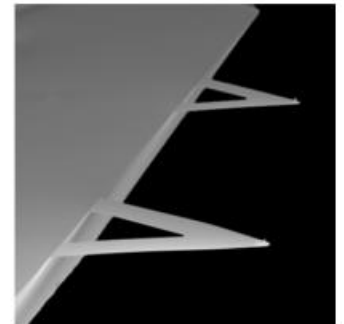
SCANASYST-AIR-HR



SCANASYST-AIR



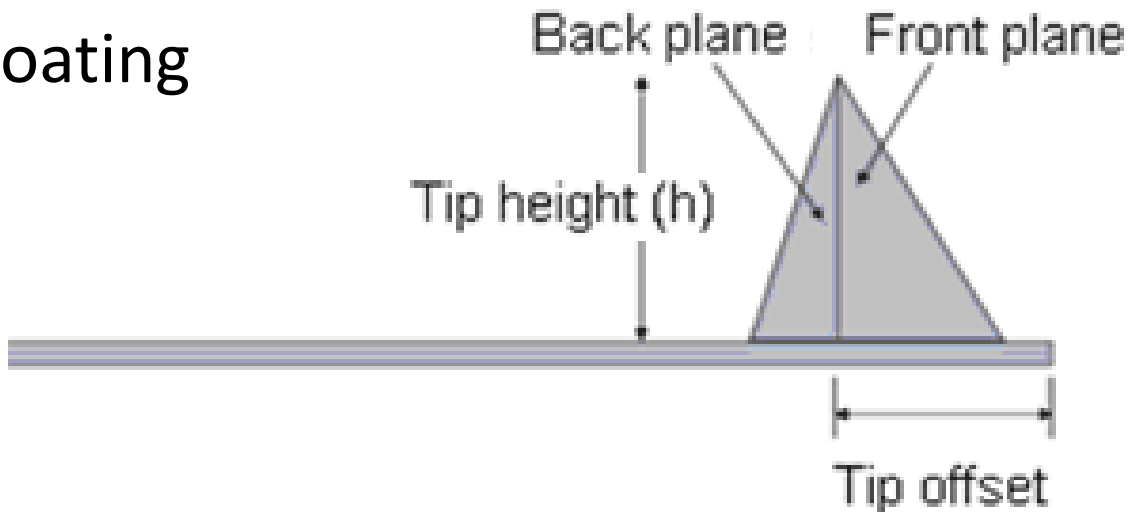
SNL-10



DNP

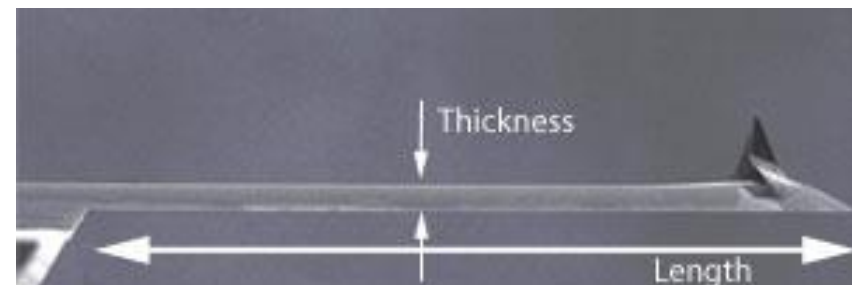
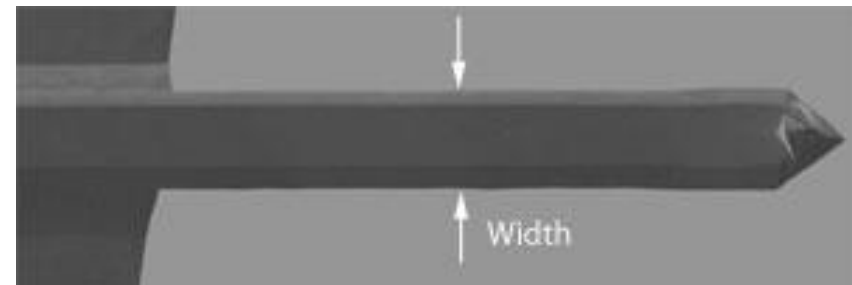
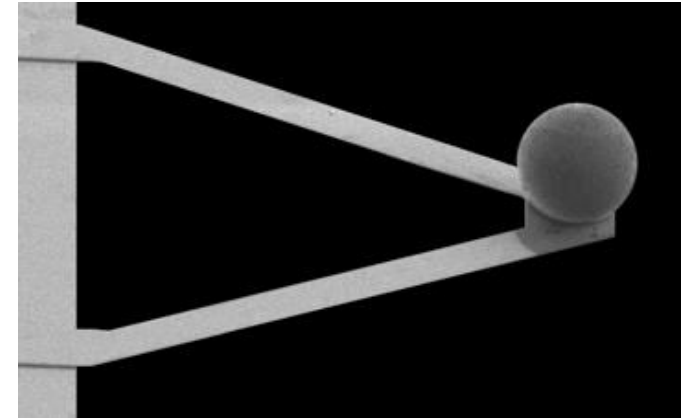
Hrot

- <https://www.nanoandmore.com/afm-tips.php>
- Materiál: křemík, Si_3N_4 , diamant
- Poloměr zakřivení: 1 – 7 500 nm
- Výška: 3 – 28 μm
- Coating

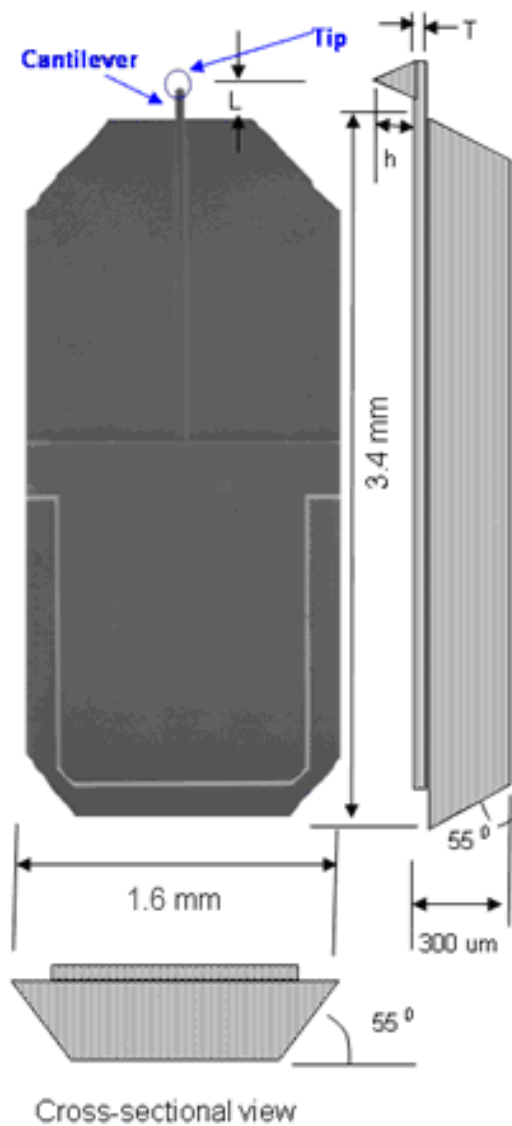


Cantilever (nosník)

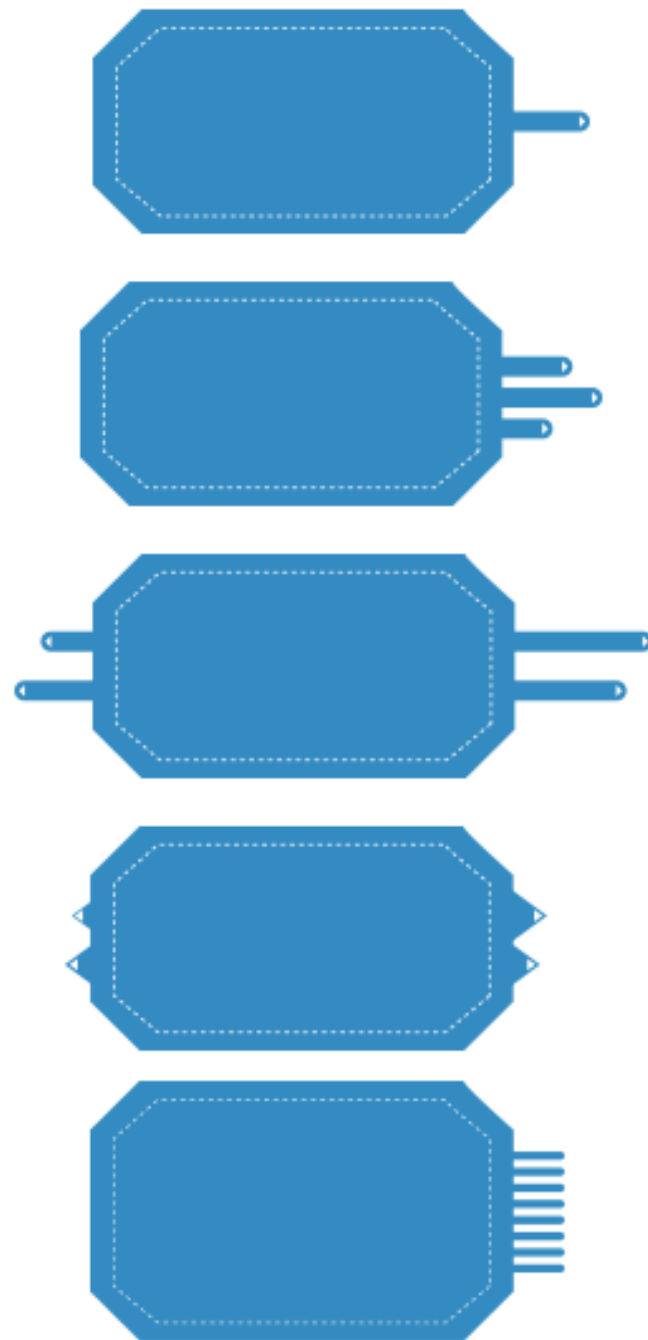
- <https://www.nanoandmore.com/afm-cantilevers.php>
- Materiál: křemík, Si_3N_4
- Silová konstanta: 0.01 - 120 N/m
- Resonanční frekvence: 6 - 5000 kHz
- Délka: 7 - 500 μm
- Šířka: 2 - 100 μm
- Tloušťka: 0.06 - 8 μm
- Reflexní vrstva



Nosič – support chip



Cross-sectional view



Hrot + cantilever

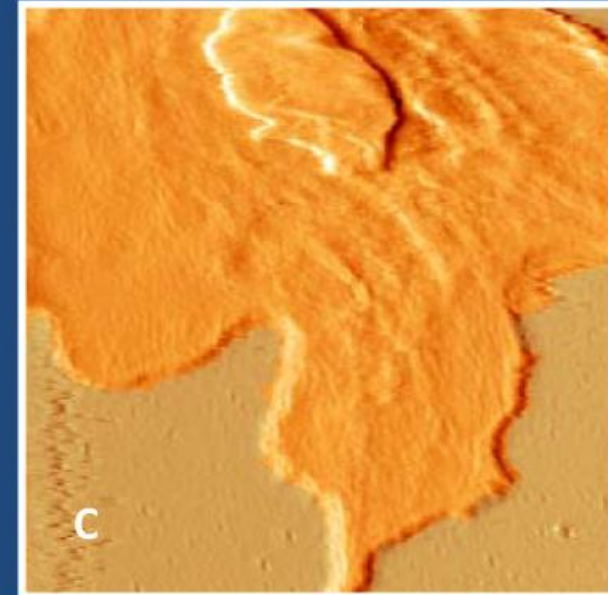
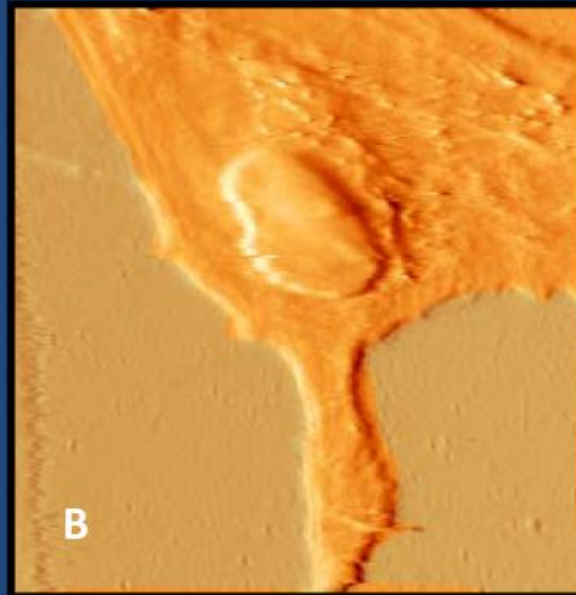
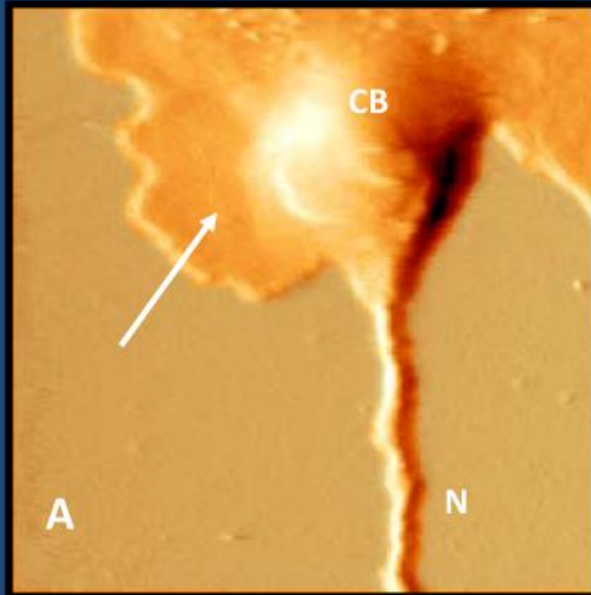
→ vlastnosti

→ aplikace

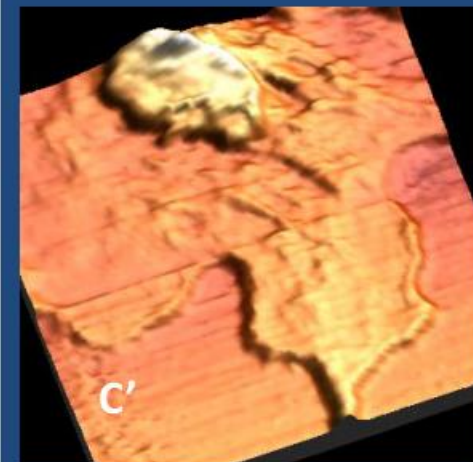
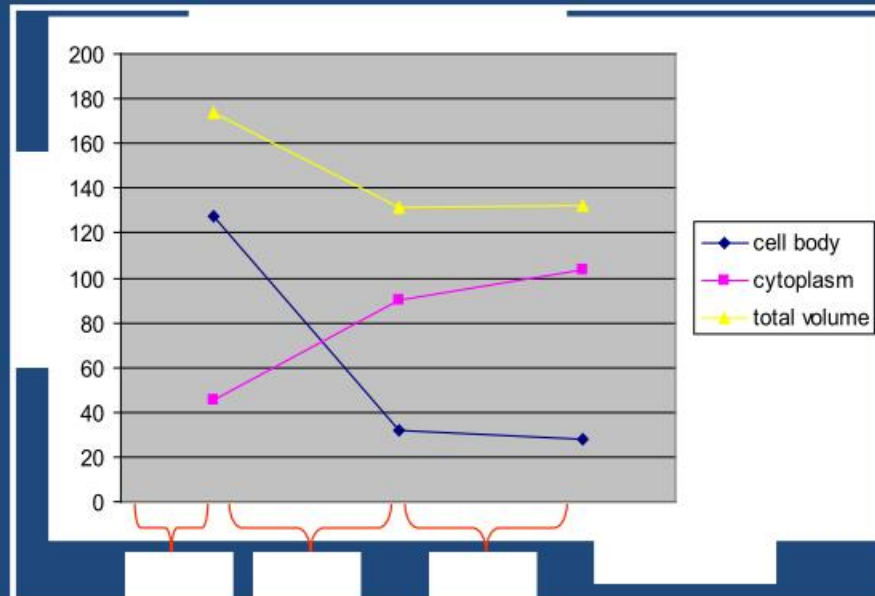
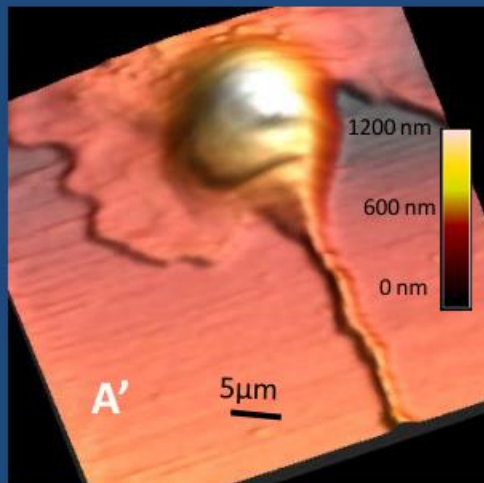
Cell Death by AFM Probe



PURDUE
UNIVERSITY



time →



Probes

- FastScan A
 - <http://www.brukerafmprobes.com/Product.aspx?ProductID=3759>
- ScanAssyst Fluid +
 - <http://www.brukerafmprobes.com/Product.aspx?ProductID=3728>
- PEAKFORCE-HIRS-F-B tip DNA
 - <http://www.brukerafmprobes.com/Product.aspx?ProductID=3958>

Artefakty

- Pozorujeme realitu?
- <https://www.ntmdt-si.com/spm-basics/view/effect-tip-radius-cone-angle>

