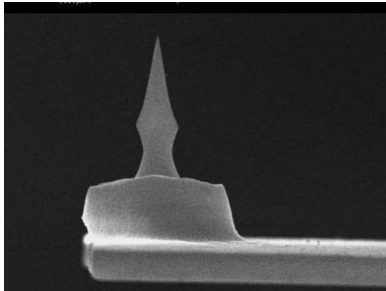


ETALON – next generation of AFM probes

ETALON is a new series of excellent AFM probes. In terms of quality-to-price ratio it has no analogues at the world market.

The brand-new technology of NT-MDT combines all critical advantages in one chip:



- ✓ sharp tip (curvature radius about 10 nm)
 - ✓ resonance frequency, specified with high accuracy (+/- 10%)
 - ✓ vertical chip sides for convenient operating
 - ✓ high aspect ratio tip (5:1)
 - ✓ enhanced back-side reflection of cantilever
- special price: 7.8 € for 1 probe*

Highly specified resonance frequency

ETALON series probe consists of polysilicon lever with silicon probe of high accuracy. Due to patented cantilever manufacturing technique the ETALON probes are characterized by highly reproducible parameters:

- typical dispersion of probe resonant frequency is $\pm 10\%$;
- typical dispersion of force constant is $\pm 20\%$.

Low noise

Low noise operation of ETALON probes in contact and noncontact AFM modes achieved due to polysilicon lever, that is softer than usual silicon one.

Easy-to-use

Vertical chip sides make operating convenient, as it prevents probe slipping and turning while holding by tweezers.

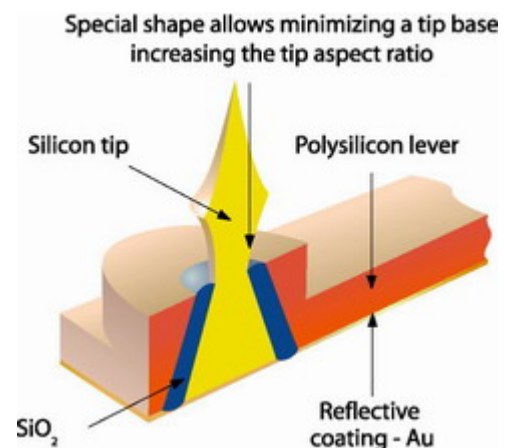
High reflection

Extremely smooth cantilever back-side provides enhanced back-side reflection.

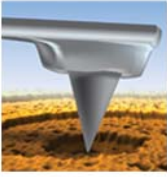
Cantilever back-side roughness (RMS on the area 20x20 μm as measured by AFM) is less than 2 nm. Reflection is also enhanced by Au coating.

More about ETALON probes

For detailed specification of ETALON probes, please, see the booklet - Etalon AFM probes (pdf; 294Kb).



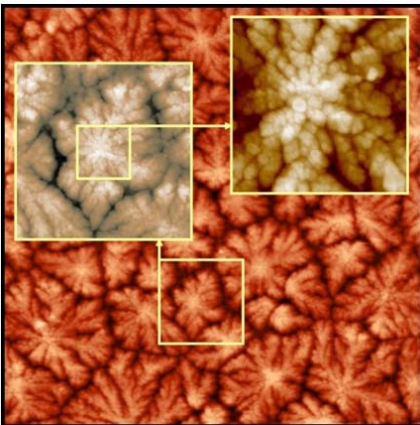
* The price is valid for order of 400 of any NT-MDT chips at once.



ETALON – next generation of AFM probes

Results obtained by ETALON probes

The new probes were successfully tested by NT-MDT customers. The [ETALON probes](#) are used for research of molecular scaled objects (DNA, nanotubes) as well as objects scaled up to 100 μm . Please, find the gallery of AFM images obtained with the help of ETALON probes below.

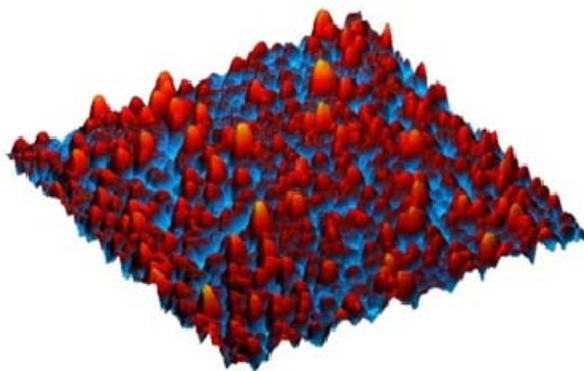


Dried stem cells

Author: Mr. Jozef Martaus

Organization: Institute of Electrical Engineering,
Slovak Academy of Sciences

Scan size: 50 x 50 μm



RuO₂

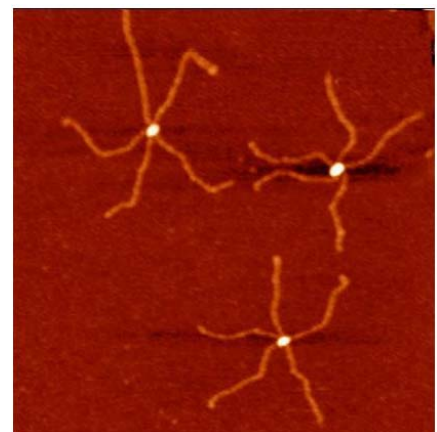
Author: Mr. Jan Soltys

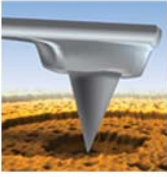
Organization: Institute of Electrical
Engineering, Slovak Academy of Sciences

Scan size: 500 x 500 nm

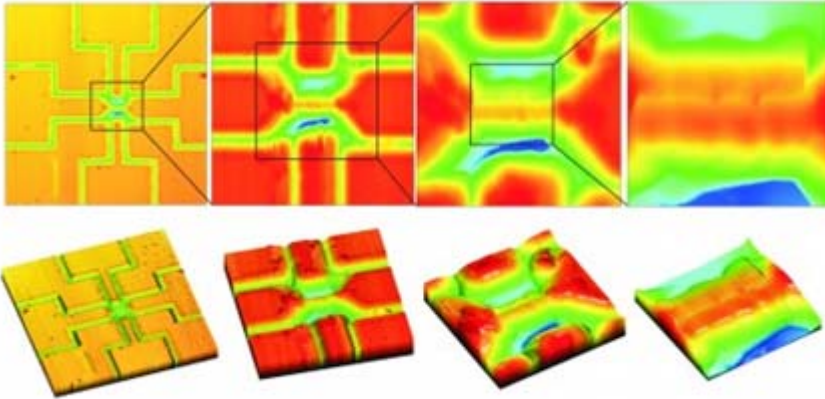
Five DNA molecules connected to gold nanoparticles

Author: Prof. Alexander Kotlyar
Organization: Tel Aviv University
Scan size: 1 x 1 μm





ETALON – next generation of AFM probes



Planar NanoElement

Author:

Mr. Vladimir Smirnov

Organization:

Southern Federal University
of Technology

Scan size: 9 x 9 μm

Two silver nanoparticles linked by DNA

Author:

Prof. Alexander Kotlyar

Organization:

Tel Aviv University

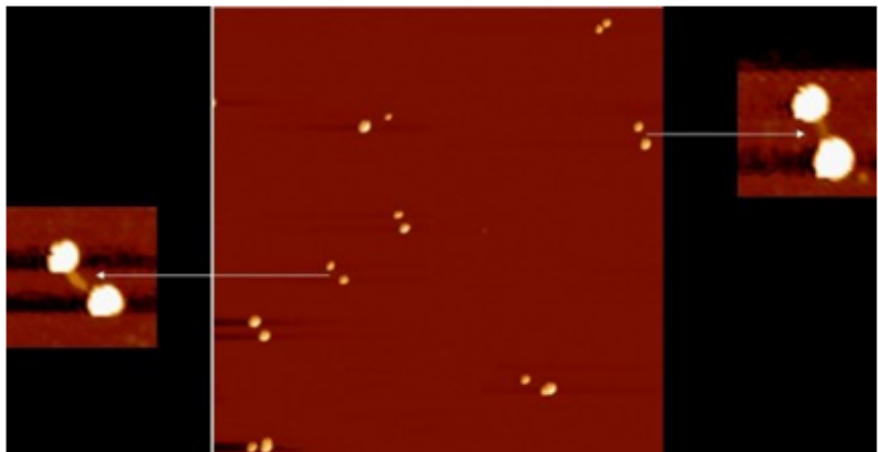
Scan size:

left, right images:

135 x 135 nm;

middle image:

1.2 x 1.2 μm .



All the above scans were sent for participation in the [ProIMAGE Contest 2009](#), the competition of images obtained with [NT-MDT probes](#).

NT-MDT invites all AFM users to take part in the ProIMAGE Contest 2009. Send your AFM images and get the prize certificate for 1000 USD.

In case you still don't use NT-MDT probes, please, apply us by [Ask for help](#) service. At your instance we'll gladly send you free test probes. Thus you'll be able to participate in ProIMAGE Contest.

