CLEAN ROOM FACILITIES

at the Research Center in the Institute of Spectroscopy RAN

“Nanooptics & Nanoplasmonics”

Clean Room – View 1

Installed Equipments

- ✓ 65 m^2 of **ISO 7** clean room
- ✓ 16 m^2 **ISO 5** clean room
- ✓ 3 m^2 **ISO 3** clean room
- ✓ Atom Nanolithograph-I (for noble metal nanostructures with accuracy about 30 nm)
- ✓ Atom Nanolithograph-II (for hetero nanostructures with accuracy about 20 nm)
- ✓ AFM Veeco CP-II
- ✓ AFM NT-MDT Solver
- ✓ NIKON Ti-U inverted microscope
- ✓ Diode Laser systems Toptica
- ✓ Laser sources: 400 nm – 900 nm
- ✓ UHV equipment 1×10^{-10} Torr
- ✓ Spectrometers

Clean Room – View 2

Clean Room – View 3

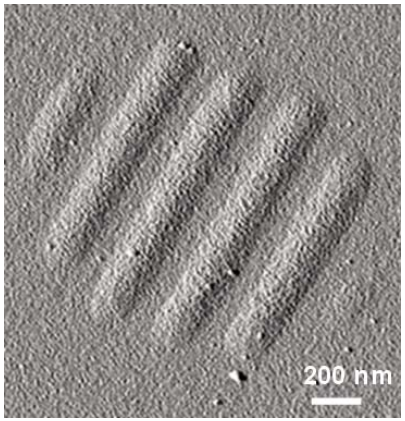
Clean Room – View 4

ATOM NANOLITHOGRAPHY

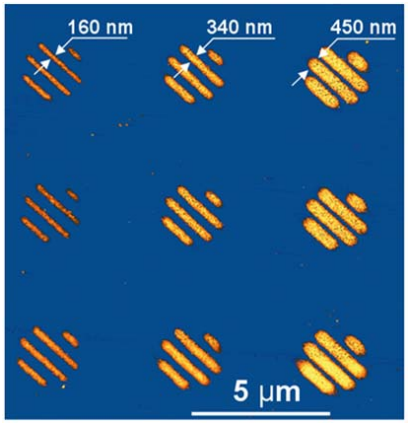
Photo of *Atom Nanolithograph-I*

Photo of *Atom Nanolithograph-I*

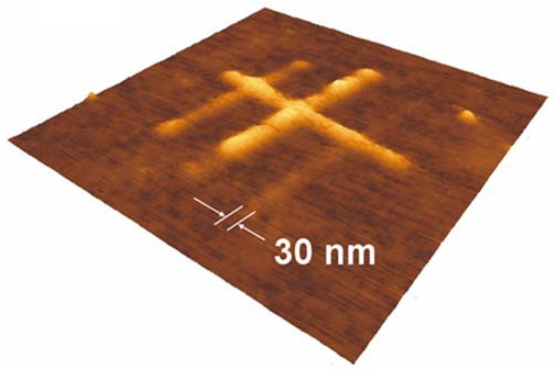
Nanostructures created by Atom Nanolithograph-I



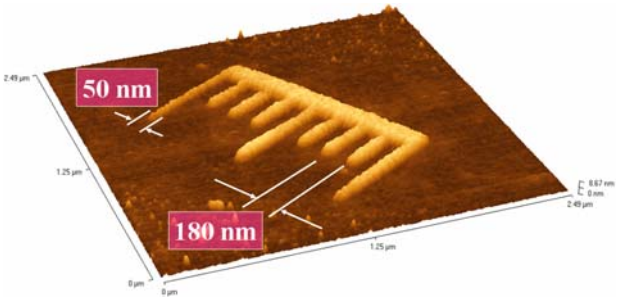
AFM Image of nanostructures created by *Atom Nanolithograph*. Nanostructures are created from In atoms in a shape of stripes.



AFM Image of nanostructures created by *Atom Nanolithograph*. Nanostructures are created from In atoms in a shape of stripes.



AFM Image of nanostructures created by Atom nanolithographer. Nanostructure is created from In atoms and represent ultimate resolution of *Atom Nanolithograph*.



AFM Image of nanostructures created by Atom nanolithographer. Nanostructure is created from Au atoms in a shape of nanoruler and demonstrates example of creation of calibration nanostructures with use of *Atom Nanolithograph*.