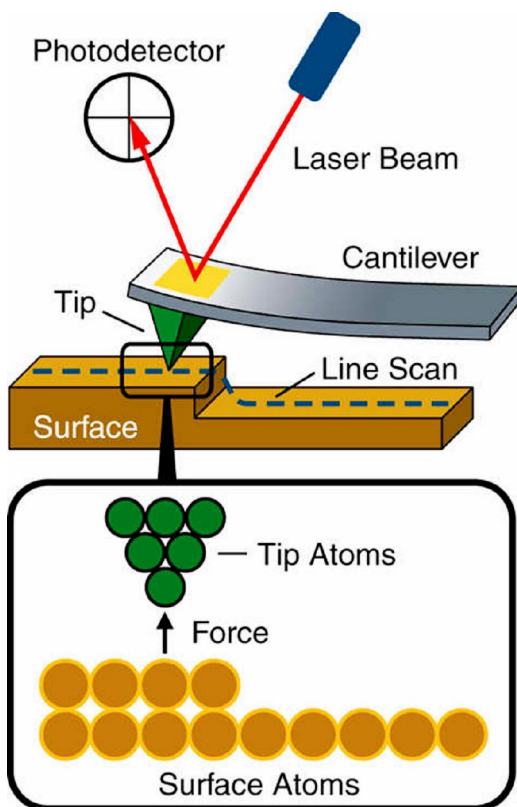


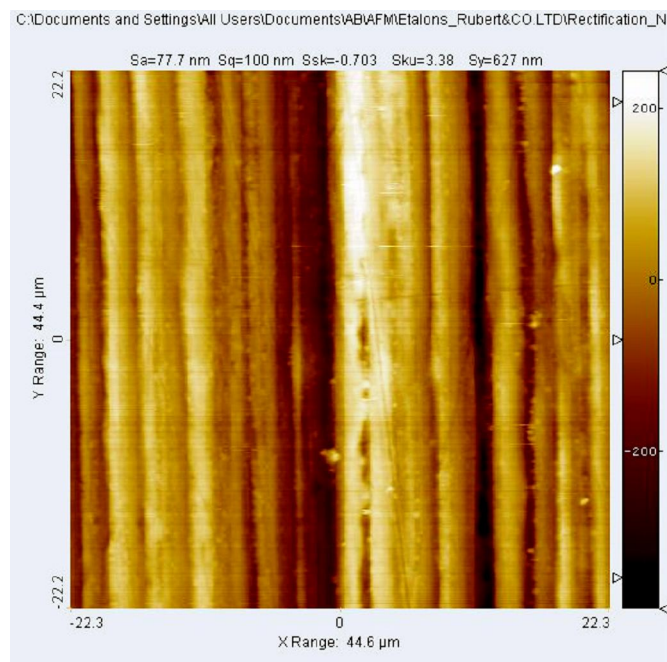


Atomic Force Microscopy, a new asset for Laboratoire Dubois

The principle is based on an extremely fine silicon tip scanning the surface of interest. The tip is placed at the extremity of a cantilever beam, which deflection can be associated with the surface topography. The measuring principle is illustrated herebelow.



Measuring principle



AFM Image of a metallic surface ($S_a=77.7\text{nm}$)

Starting from the AFM image, linear or surfacic roughness parameters can be obtained.

With a z resolution of some nm and a measuring range of 45 x 45 x 4 microns, the AFM equipment of the Laboratoire Dubois is designed to characterize flat/polished surfaces of any nature, when other topographic means are out of scale or the sample size is too small.

Because AFM requires only little or no sample preparation, it has a vast number of potential applications. For example, one can control the roughness of small components, measure the thickness of a thin film or visualize defects and cracks at a very early stage of development.

Information at info@laboratoiredubois.ch or by Materials section Head.