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## **Nanosurf® Nanite – System Design for simpler handling**

Changing the sensor is a major problem for current Atomic Force Microscope (AFM) users. The cantilever sensor is difficult to handle because of its small size and it has to be adjusted after each exchange. Now Nanosurf has developed a new solution for this problem.

The Nanosurf Nanite system is the first AFM to use the Akiyama-Probe, a novel self-sensing and self-actuating probe based on a quartz tuning fork. This probe concept was invented at the Institute of Microtechnology (IMT) of the University of Neuchâtel, Switzerland, by Dr. Terunobu Akiyama, continuing a long-standing Swiss tradition of standing at the forefront of AFM technology.

Changing the Akiyama-Probe is extremely easy compared to the usual cantilevers. A magnetic probe mount allows for snapping the probe carrier onto the AFM head where it is self-centred by the three electrical ball contacts. No further mechanical adjustment is required, and because of the Akiyama-Probe's self-sensing nature, there is no need for a laser nor for its adjustment. This reduces downtime during measurement to an absolute minimum. The great advantage of this novel probe and its operation consists of combining the advantages of the tuning fork's extremely stable frequency with the silicon cantilever's softer spring constant.

With the Nanosurf Nanite, you can nano-measure hundreds of samples in one day, without having to be present during measurements, and without having to attend specialist nano-training. The Nanite's efficiency will make nano-surface analysis the industry standard. Its scripting capability and motorised X/Y/Z stage make it possible for users to prepare a series of routine measurements and leave the microscope to measure on its own, focusing their skills on more challenging tasks.

### **Kontakt**

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