

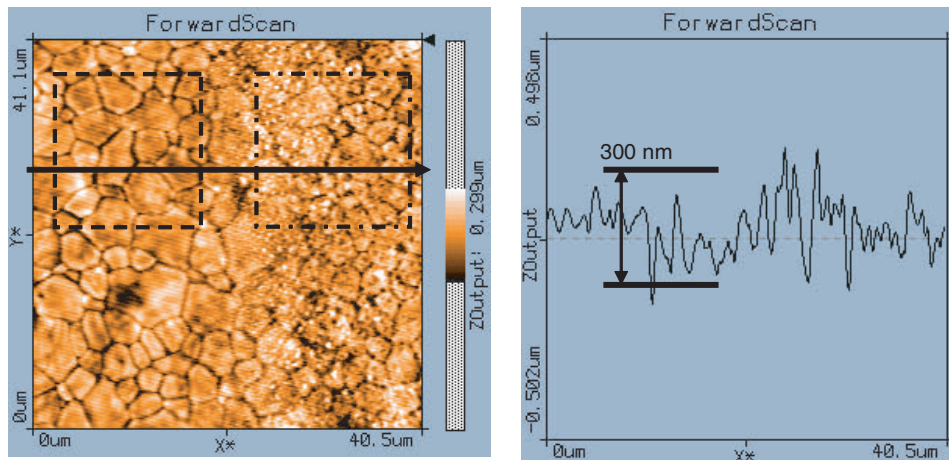
Gold film on polished ceramics

Nanosurf® AFM Application Note

The measurements were done on the standard sample holder. Pointprobe Sensors from Nanosensors (CONTR) were used without special damping. Half the tip apex angle is 20-25°.

The topographical image below was taken at the step between the ceramics and the gold film. (left square ceramics, right square gold). In the section (taken along the black arrow in the topographical image) no step is evident. The distance between the lowest and the highest value is approx. 300 nm.

The surface roughness of the whole surface, inset left and inset right is revealed as 43nm, 36nm, 55nm, respectively. Thus we can see that the surface roughness of the gold film is 50% higher than the uncovered ceramics. The step height can not be measured because the ceramics is too rough.



Ceramic grains between 2-4 µm in size can be seen. With AFM it's easy to study the form of the individual ceramic grains. On the left ceramic grains are clearly visible. On the right the grains of the ceramics can still be made out through the gold film.