

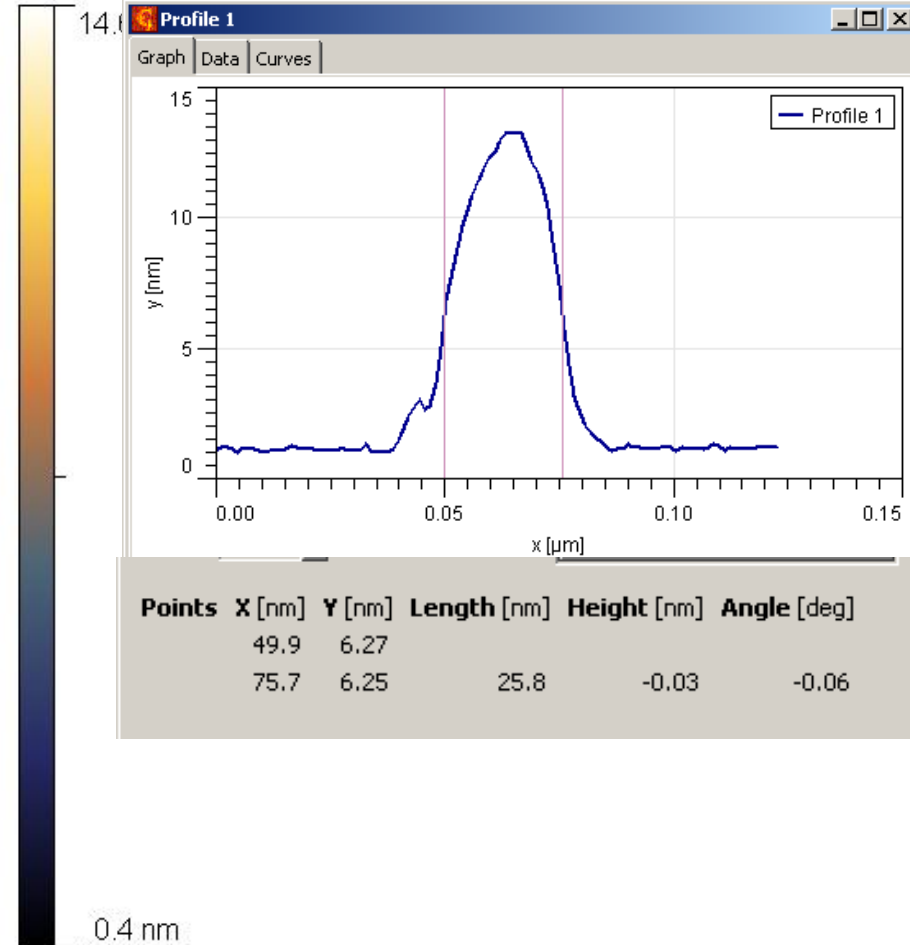
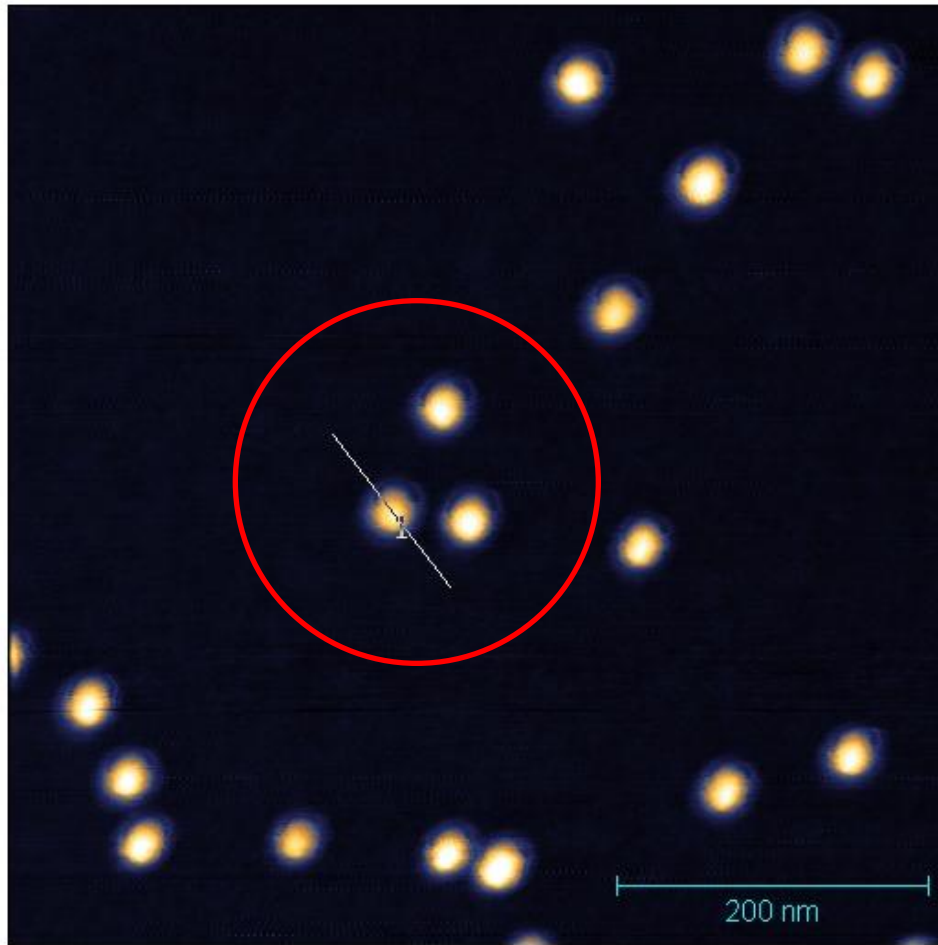
AIST-NT's SmartSPM



Fully motorized, no manual adjustment.

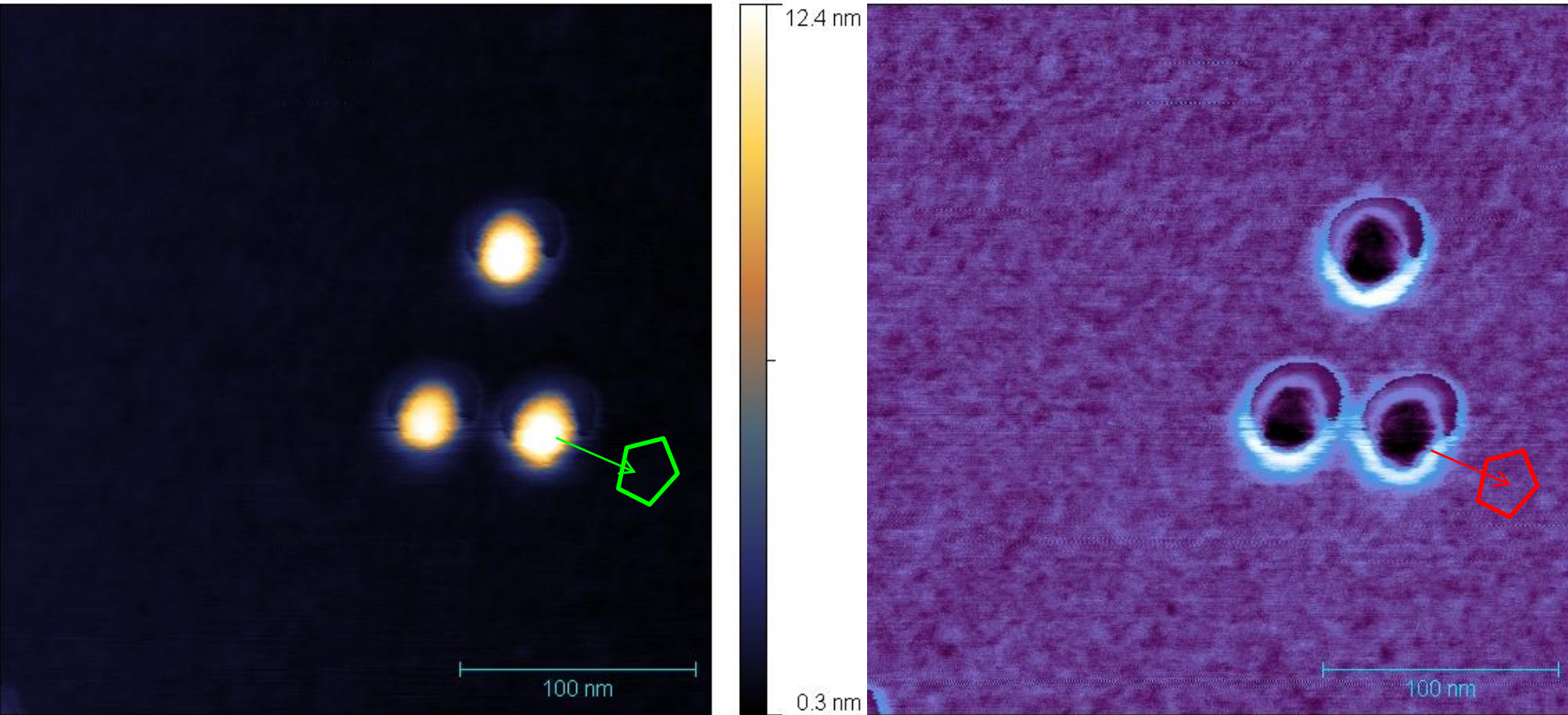
Perfect alignment and quick start.

Fast and convenient probe and sample replacement



600x600 nm topography image of the 14 nm goldnanoparticles taken with sharp probe. Apparent width a typical nanoparticle is about 26 nm, which is consistent with the 3nm tip radius and the tip's aspect ratio claimed by the probe's manufacturer. Image was obtained in semicontact mode with closed loop in XY-ON.

Zoom –in scan of the nanoparticles within the red circle is presented in the following slide.



300x300 nm topography (left) and the phase Image of the 14 nm gold nanoparticles from the red circle in previous slide.

For the right lower nanoparticle the pentagonal shape (actually this nanoparticle is a decahedron) is clearly seen both in topography and especially in the phase images. The ability to distinguish the shape of such small nanoprticles despite of significant convolution effect is quite an impressive result.