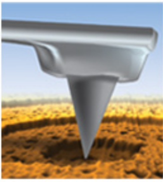
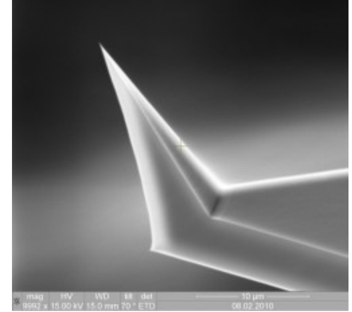


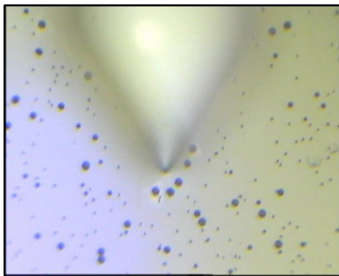
TOP VISUAL AFM probes with inclined tip



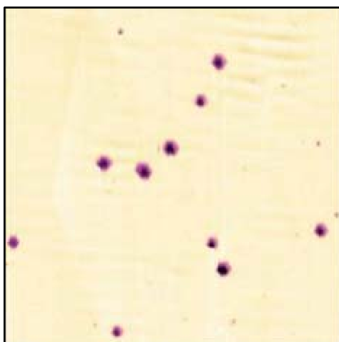
TOP VISUAL is a new series of AFM probes with tip inclined at a wide angle to cantilever.
Due to such design the probe is visible in regular AFM and look "transparent" in the high numerical aperture objective.

TOP VISUAL probes are the most effective for the following purpose:

1. Precise positioning of the tip over the point of interest and for direct real-time observation of sample scanning and modification (nanomanipulation) processes.

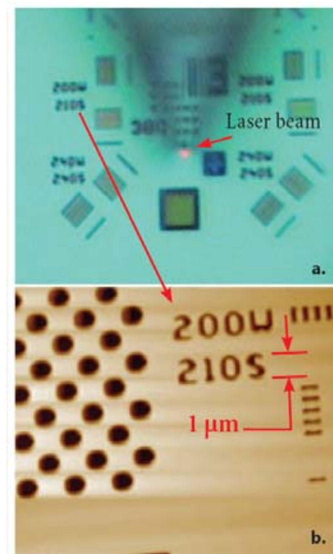


GaN sample. Image in optical microscope TOP VISUAL probe is under the investigated sample.



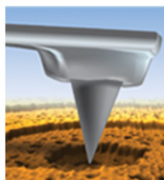
GaN sample. Topography image made by TOP VISUAL probe.
Image size: 40x40 um

2. Precise positioning of a tightly focused laser spot at the tip end. That may be useful e.g. in order to investigate the optical effects between tip and sample (TERS, TEFS, s-SNOM etc).



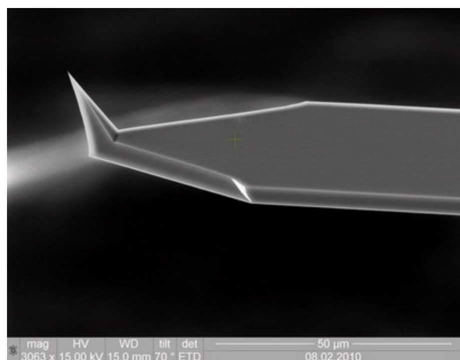
1 um high characters on Si substrate
a. Optical image
b. AFM image

Due to the NTEGRA Spectra objective high numerical aperture (0.7), opaque silicon AFM probe looks "transparent" on the image.



TOP VISUAL AFM probes with inclined tip

Specification



Material	Si
Chip size	3.4 x 1.6 x 0.3 mm
Reflective side coating	None
Front coating	None
Cantilever number	1 rectangular
Tip curvature radius	typical 6 nm, guaranteed 10 nm
Tip shape	Pyramidal
Tip height	14-16 um

Cantilever series	Cantilever length, L±5µm	Cantilever width, W±3µm	Cantilever thickness, T±0.5 µm	Resonant frequency, kHz			Force constant, N/m		
				min	typical	max	min	typical	max
VIT_P	140	50	5.0	200	300	400	25	50	95