HQ:NSC15/Cr-Au

Gold Coated Tapping Mode AFM Probe

AFM probes of the HQ:NSC15 series are generally used in tapping mode for imaging hard samples when high topographic and phase contrast are necessary. These AFM probes are also suitable for non–contact mode.

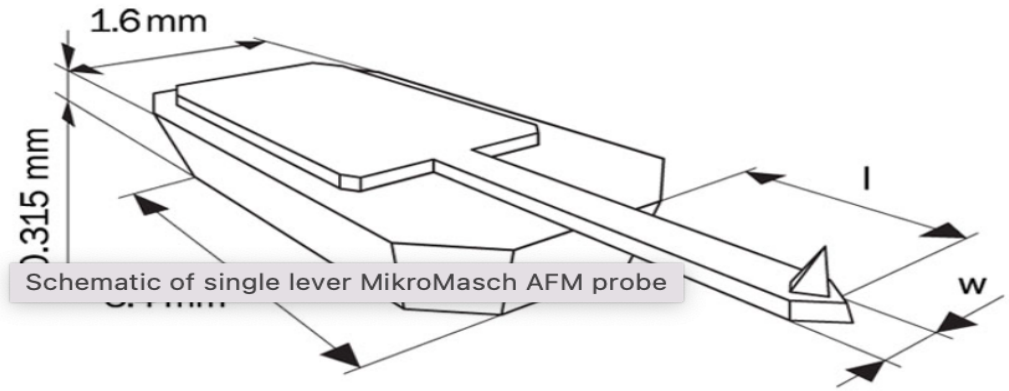
The HQ AFM probes offer high consistency of the AFM tip radius, the AFM cantilever reflectivity and the quality factor.

The gold reflective coating enhances the laser reflectivity of the AFM cantilever for operation in air and liquids.

The overall 30 nm Au coating with 20 nm Cr sublayer is electrically conductive and chemically inert. It also ehnances the laser reflectivity of the AFM cantilever in air and liquids. The resulting coated AFM tip radius is below 35 nm. The coating may cause AFM cantilever bending up to 3°.

Coating

Gold Overall



Schematic of single lever MikroMasch AFM probe

AFM Probe Specifications

AFM Tip

SHAPE	HEIGHT	FULL CONE ANGLE	RADIUS
Rotated	15 µm (12 – 18 µm)*	40°	< 35 nm

AFM Cantilever

CANTILEVER	SHAPE	FORCE CONST.	RES. FREQ.	LENGTH	WIDTH	THICKNESS
Cantilever A	Beam	40 N/m (20 – 80 N/m)*	325 kHz (265 – 410 kHz)*	125 µm (1 – 130µm)*	30 µm (27 – 33µm)*	4µm (3.5 – 4.5 µm)*

* typical values