

HQ:NSC19/Cr-Au

Gold Coated Soft Tapping Mode and LFM AFM Probe

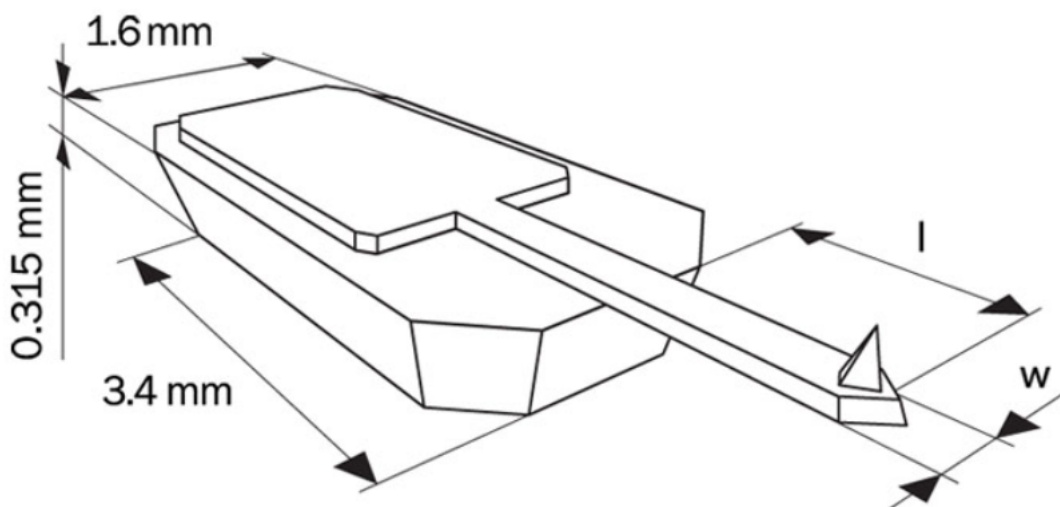
AFM probes of the HQ:NSC19 series combine relatively high resonance frequency and low force constant, which makes them suitable for imaging soft and fragile surfaces at relatively high speeds in Soft tapping mode. They are compatible with Bruker ScanAsyst® PeakForce Tapping™*. These AFM probes are also used in Lateral force microscopy due to their high sensitivity to lateral forces.

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

The overall 30 nm Au coating with 20 nm Cr sublayer is electrically conductive and chemically inert. It also enhances 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



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	0.5 N/m (0.05 – 2.3 N/m)*	65 kHz (25 – 120 kHz)*	125 μm (1 – 130 μm)*	22.5 μm (19.5 – 25.5 μm)*	1 μm (0.5 – 1.5 μm)*

* typical values