

Product release: NuNano launches conductive AFM probes for electrical characterisation in both contact mode and AC modes

Bristol – 2nd April, 2019 – NuNano are excited to announce the release of Spark – conductive AFM probes enabling their consistent tip sharpness and minimal variation of mechanical properties to be applied to electrical AFM measurements.

The [Spark 70 Pt](#) is their conductive AFM probe for electrical characterisation in both contact mode and AC modes (non-contact/soft-tapping). With a nominal 2 N/m spring constant and 70 kHz resonant frequency, the Spark 70 Pt has the same mechanical specifications as the Scout 70 probe. Applications include; Electrical AFM measurements in contact mode; including conductive AFM (CAFM) and piezoresponse microscopy (PFM), and in AC mode; electrostatic force microscopy (EFM), scanning kelvin probe microscopy (SKPM) and scanning impedance microscopy (SIM).

The [Spark 350 Pt](#) is their conductive AFM probe for electrical characterisation in AC modes (non-contact/tapping). With a nominal 42 N/m spring constant and 350 kHz resonant frequency, it has the same mechanical specifications as the Scout 350 probe. Applications include; Electrical AFM measurements using AC modes; including electrostatic force microscopy (EFM), scanning kelvin probe microscopy (SKPM) and scanning impedance microscopy (SIM).

“We tested NuNano’s Spark 70 Pt probes on an Asylum Cypher AFM.” said Prof. Peter Beton, University of Nottingham. “Over a range of length scales, we saw excellent resolution in both topography and C-AFM contrast comparable to, and in some cases better than many conductive AFM probes that we have used.”

“Electrical modes of AFM are growing in popularity and scope, so we’re really excited to be expanding our product range by releasing our Spark conductive AFM probes.” said Dr James Vicary, NuNano Co-founder & Managing Director. “Since these are based on our high-quality Scout probes, the same tight dimensional tolerances on the cantilever remain, as does the guarantee of tip sharpness.”

About Spark Probe Models

The two models of conductive AFM probes have 40 nm platinum coating with a 5nm titanium adhesion layer on both sides of the probe and a tip radius of less than 30 nm exhibiting exemplary dimensional tolerances and tip sharpness, characteristic of all [our AFM probes](#). Click on the links below for more detailed specifications and pricing.

- [Spark 70 Pt](#) - conductive AFM probe for electrical characterisation in both contact mode and AC modes (non-contact/soft-tapping) with Pt conductive coating on both sides
Spring constant: 2 N/m. **Resonant frequency:** 70 kHz
- [Spark 350 Pt](#) - conductive AFM probe for electrical characterisation in AC modes (non-contact/tapping) with Pt conductive coating on both sides
Spring constant: 42 N/m. **Resonant frequency:** 350 kHz

The Spark model is compatible with most commercially available AFMs capable of electrical characterisation.

For more information, to request a datasheet, free sample or a meeting with one of the team to discuss your needs further please call - +44 117 299 3093 or email info@nunano.com

About NuNano

NuNano is a UK-based company specialising in the design and manufacture of consistently high-performance probes for atomic force microscopy and cantilever-based sensor devices.