

## AFM Fluid Delivery/Liquid Extraction Surface Sampling/Electrostatic Spray Cantilever Probe

### Disclosure Number

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### Technology Summary

This invention is an Atomic Force Microscope (AFM) Fluid Delivery/Electrostatic Spray Cantilever for Liquid Extraction-Based Surface Sampling/Ionization Mass Spectrometry that enables sub-micrometer scale spatial sampling of materials from surfaces with direct transfer of those materials for ionization and mass spectral analysis. The invention provides high spatial resolution liquid extraction that is 10 to 100 times better than conventional liquid extraction probes using a combined extraction and spray system. Because the device is incorporated in an AFM the system also has multimodal imaging capability incorporating all the normal physical measurement capabilities of traditional AFM systems.

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