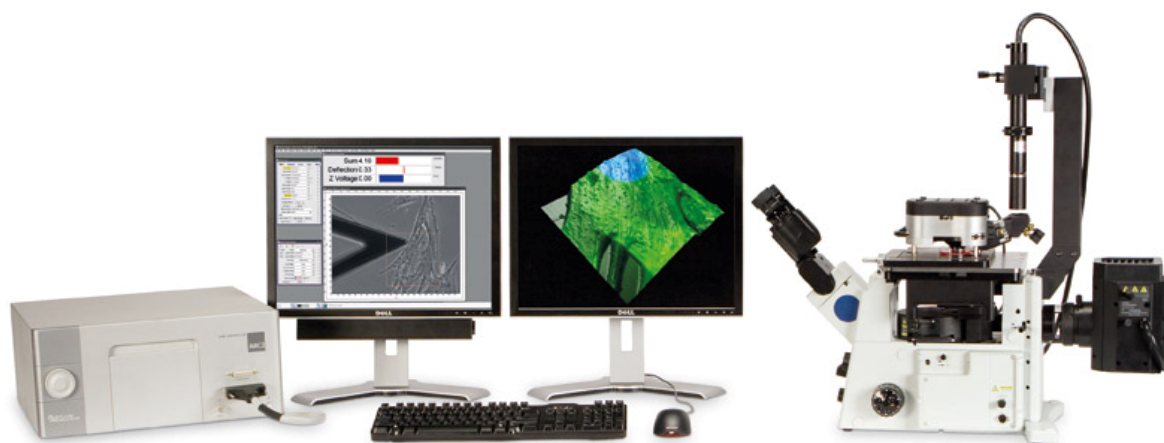


Asylum Research MFP-3D BIO Atomic Force Microscope (with inverted optical microscope)

Asylum Research MFP-3D BIO Atomic Force Microscope is a high resolution type of scanning probe microscopy while a sharp tip mounted on the end of cantilever scans over the sample surface. The cantilever bends in response to the force between the tip and sample. It provides 3D topographic features of sample surface with high resolution.



Superior Usability

Included Modes: Contact mode; Non-Contact mode; Electrostatic Force Microscopy (EFM); Kelvin Probe Force Microscopy (SKPM).

Optional Modes: Conductive AFM (CAFM) with ORCA module.

Sample Format: 75x25mm typical. Maximum 80mm diam. x 5mm height, mass 2kg. Up to 22mm height with option.

High Precision 3D Motion

X&Y axes: 90 μ m range in closed loop; resolution 0.5nm limited only by sensor noise. Sensor linearity better than 0.5%.

Z axis: >15 μ m range; resolution 0.25nm limited only by sensor noise. Sensor linearity better than 0.05%. Optional

Extended Z Head with range >40 μ m and resolution 0.3nm.

Ultra-Quiet Z Drive: Voltage noise A_{dev} < 70 μ V in a bandwidth of 1Hz to 10kHz.

Height: Noise in the tip-sample distance is < 0.06nm.

Optical Microscope Integration

Includes stage unit for mounting on inverted optical microscope: Olympus IX81/71/51, IX70/50.

All standard objective lenses including high NA oil- and water-immersion and TIRF objectives are supported.

Infrared Source: 860nm SLD for compatibility with far-red fluorophores.

Analog CCD Camera (640x480) included for positioning with transmitted light techniques.