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# Cypher ES Environmental AFM



The Asylum Research **Cypher ES** builds on the exceptional performance of the Cypher S and adds full environmental control features. The same high resolution, speed and stability are maintained while easily operating in controlled gas or liquid environments, at temperatures from 0-250°C, and in some of the harshest chemical environments. The Cypher ES is the ultimate AFM for the most demanding experimental requirements.

- Routinely achieve higher resolution than other AFMs
- Fast scanning with results in seconds instead of minutes
- Every step of operation is simpler for remarkable productivity
- Small footprint in the lab, huge potential to grow in capability
- Support that goes above and beyond your expectations
- Enables gas and liquid perfusion through a sealed cell
- Controls sample temperature over a wide 0–250°C range
- Broadest compatibility with harsh chemicals

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Features and Benefits

**Operating Modes**

Accessories

Software

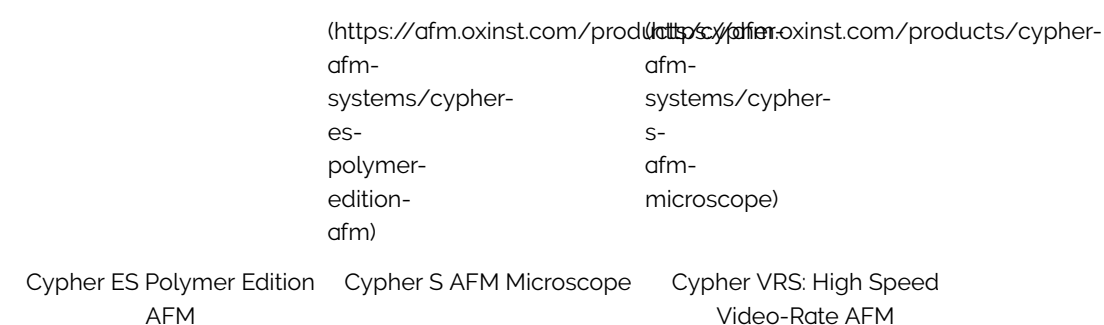Support

## Included Operating Modes

Contact mode
DART PFM
Dual AC
Dual AC Resonance Tracking (DART)
Electrostatic Force Microscopy (EFM)
Force curves
Force Mapping Mode (force volume)
Force modulation
Frequency modulation
Kelvin Probe Force Microscopy (KPFM)
Lateral Force Mode (LFM)
Loss tangent imaging
Magnetic Force Microscopy (MFM)
Nanolithography
Nanomanipulation
Phase imaging
Piezoresponse Force Microscopy (PFM)
Switching spectroscopy PFM
Tapping mode (AC mode)
Tapping mode with digital Q control
Vector PFM

## Optional Operating Modes

AM-FM Viscoelastic Mapping Mode
Contact Resonance Viscoelastic Mapping Mode
Conductive AFM (CAFM) with ORCA™ and Eclipse™ Mode
Current mapping with Fast Force Mapping
Electrochemical Strain Microscopy (ESM)
Fast Force Mapping Mode
High voltage PFM
Nanoscale Time Dependent Dielectric Breakdown (nanoTDDB)
Scanning Microwave Impedance Microscopy (sMIM)
Scanning Tunneling Microscopy (STM)

Note: Some optional modes on the Cypher ES require blueDrive photothermal excitation. sMIM requires the Cypher S scanner.

# You may also be interested in...

Cypher ES Polymer Edition AFM

Cypher S AFM Microscope

Cypher VRS: High Speed Video-Rate AFM

# Related Applications

Nanomaterial Growth and Characterisation (/applications/nanomaterial-growth-and-characterisation)

Measurement of Chemical and Molecular Composition (/applications/measurement-of-chemical-and-molecular-composition)

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The AFM for Mechanobiology Webinar is an insightful overview of atomic…

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