

ERGO

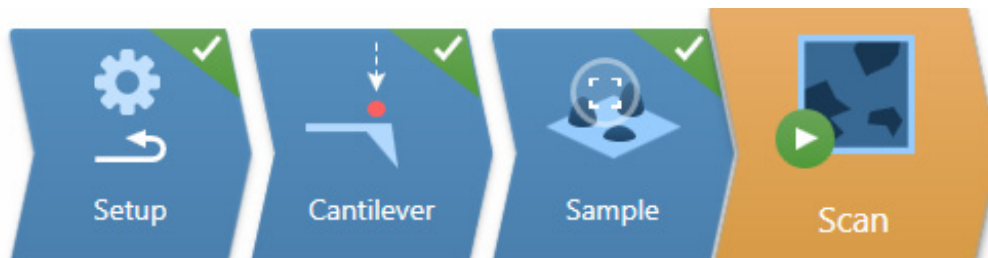
All-New AFM User Interface

Ergo: Repeatable Results in Minutes

Ergo is the all-new software interface that is included with all Asylum Research Cypher and Jupiter atomic force microscopes. Based on the powerful Oxford Instruments AZtec® software platform, it improves productivity for both infrequent users and experts. A streamlined workflow enables quick and simple AFM setup and acquisition of high-quality images.

Auto AFM Calibration in Seconds

Ergo's workflow makes setting up the AFM quick and simple for everyone. Go from loading a new probe to aligning the laser with only a few clicks. In the background, Asylum's proprietary GetReal™ technology automatically calibrates the cantilever each time to help ensure the most consistent results from day-to-day. This makes it easy to quickly image multiple samples.

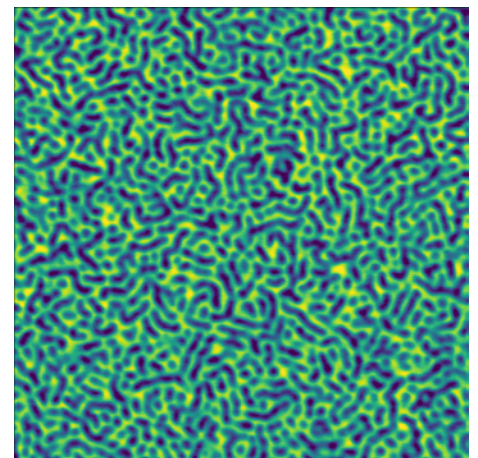


Rapid Generation of High-Quality Images

The most common AFM measurement is the acquisition of topographical images in air. Ergo has embedded Asylum's proprietary AUTOPILOT™ algorithm, which automatically calculates the optimal imaging settings and starts producing high-quality data from the first scan line.

Minimal Training Required

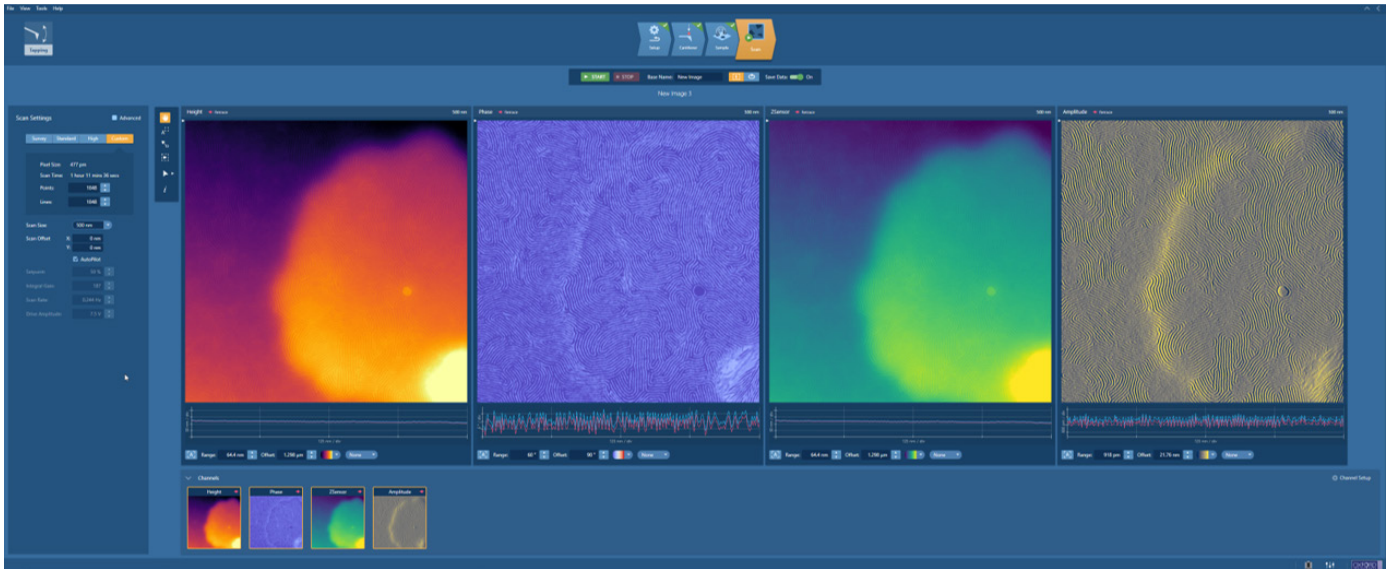
Ergo shares a common core and workflow concept with the Oxford Instruments AZtec software for SEM and TEM analyzers. This tried and tested platform allows users to focus on results and not on the equipment.



SEBS triblock copolymer

Tapping mode phase image of a triblock copolymer (SEBS) spuncoat onto a silicon wafer, 1 μm scan. The cover image shows the same sample but a 7 μm scan.

The Future of AFM Control

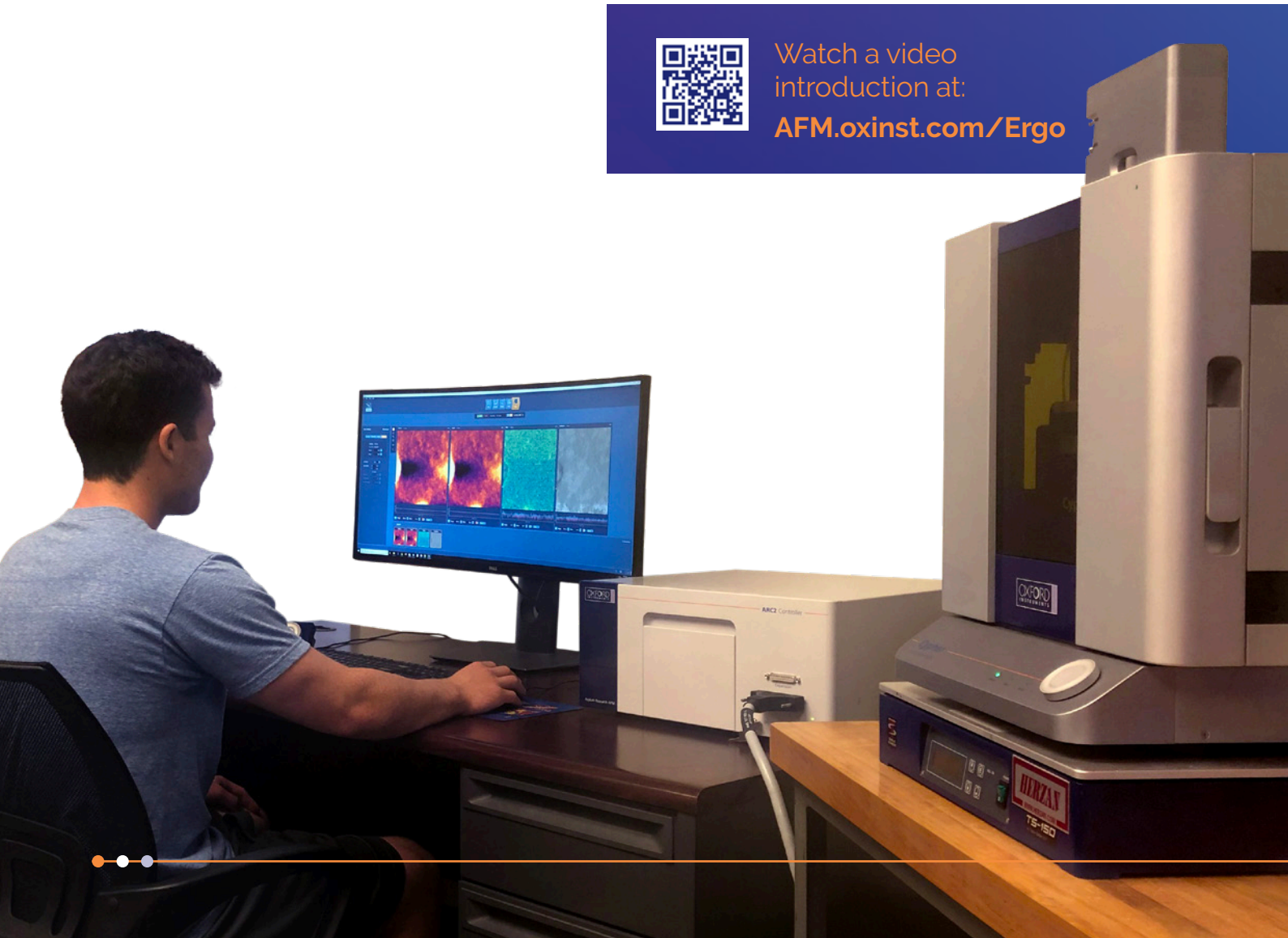


Ergo user interface is simple and organized

A clear workflow guides users through setup and allows them to start imaging quickly. Only a few key parameters are shown by default.



Watch a video
introduction at:
AFM.oxinst.com/Ergo

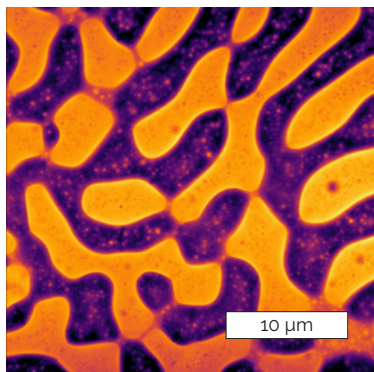


“Ergo has made the high performance of our Cypher AFM accessible to more users at our facility, including those who are newer and less experienced with AFM.”

Justin Jureller, PhD, MRSEC MPML Manager, University of Chicago

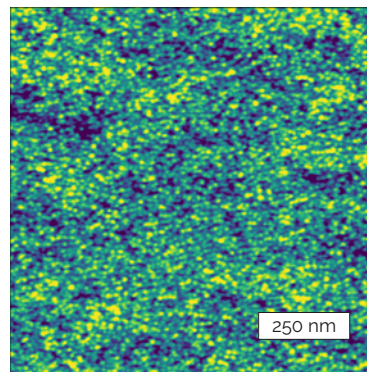
Automated Image Optimization Works on a Wide Variety of Sample Types

Asylum's AUTOPILOT algorithm has been developed to work on all sample types commonly found in academic and industrial research, even very challenging samples, for example, samples that have high roughness or traditionally cause high tip-sample adhesion.



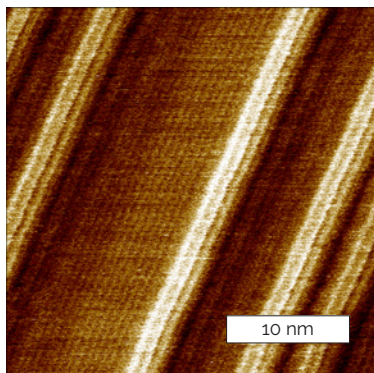
Polymer blend

AFM is a powerful tool for visualizing the microstructure of polymers, here a polystyrene-polycaprolactone blend.



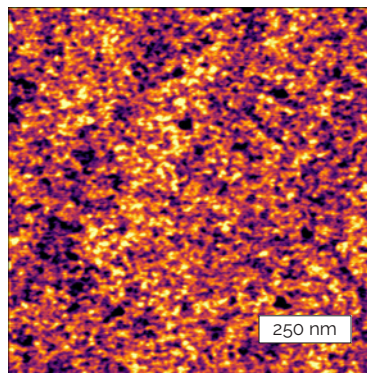
PMR disk drive media

Roughness and defects are key quality control metrics on disk drive media that affect data storage density.



PTFE membrane

Ergo easily achieves high resolution using AUTOPILOT, here resolving the individual PTFE molecule chains.



Silicon wafer

Substrate roughness is one of the most common AFM measurements. Ergo makes it simple and repeatable.

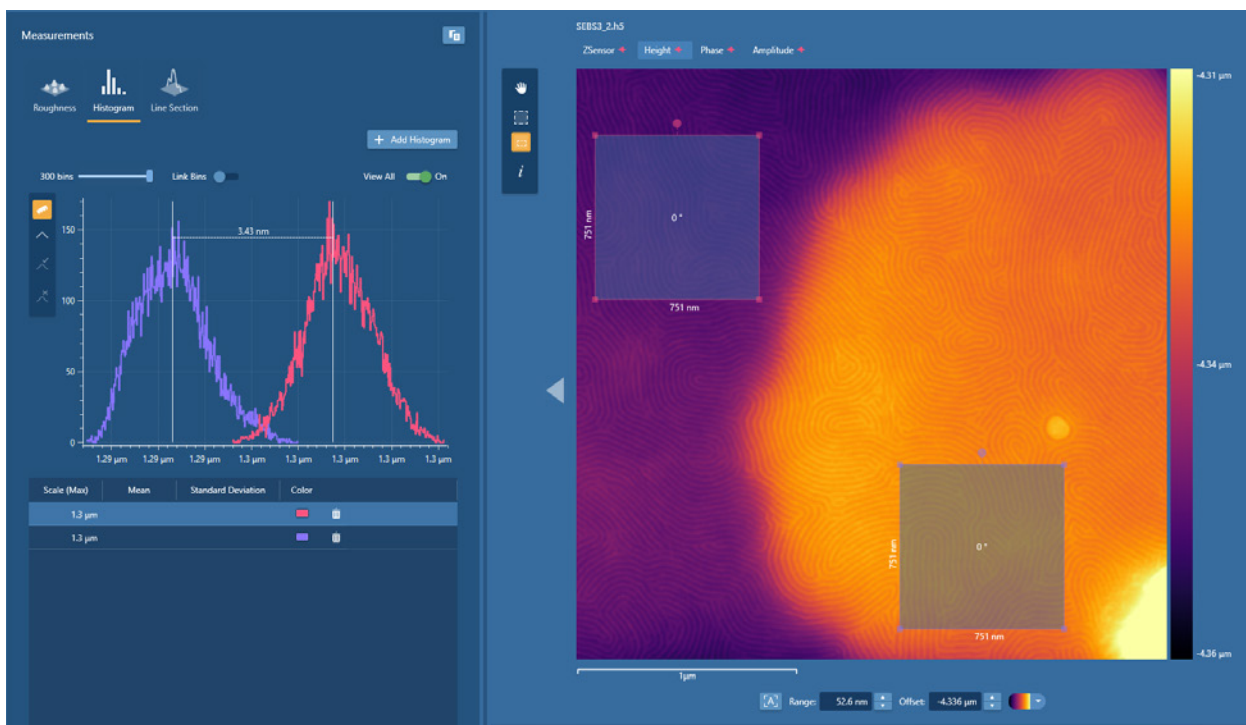
Advanced Mode Operation

Ergo works in concert with Asylum's IGOR Pro-based software that is supplied with every system. Expert users have the ability to operate more advanced modes and exercise the full customization capabilities of the AFM. The combination of the two provides users with unmatched flexibility.

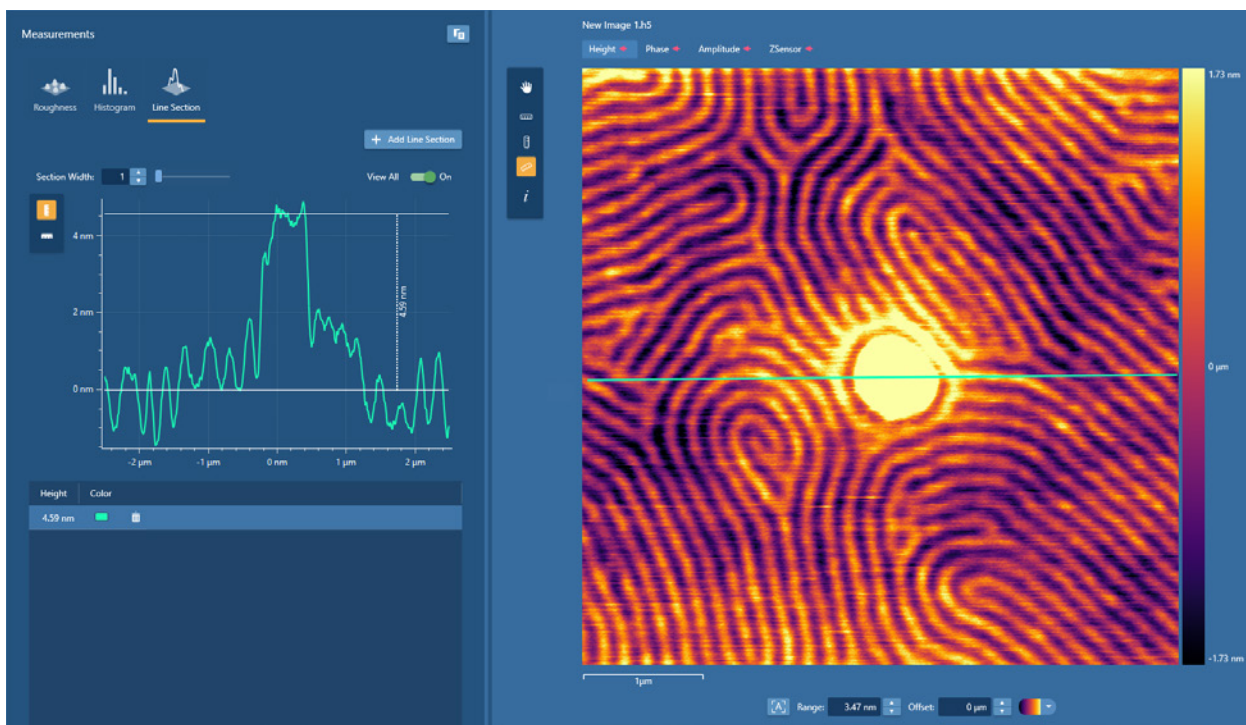


Easily Analyze and Present AFM Images

AFM images can be analyzed directly in Ergo without the need for other software. An intuitive workflow guides the user to sort, process, and analyze AFM data. Results are stored directly with the images so they cannot be lost, and the raw data is never altered.



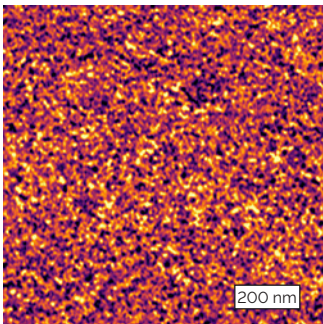
Measuring the height differences between two regions on a polymer sample.



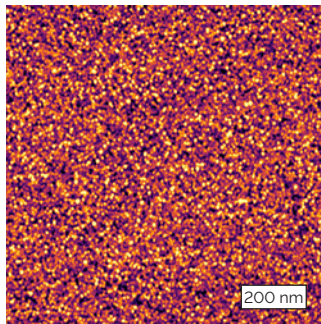
Measuring the height of a feature on a line section.



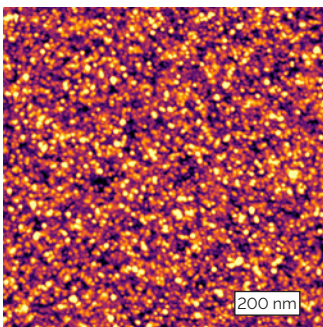
Measuring roughness parameters on several material types.



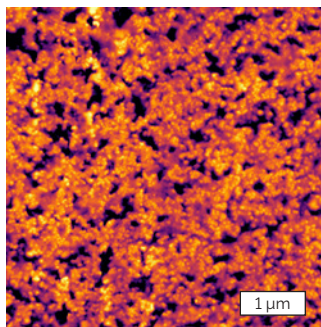
Polished silicon wafer



Glass disk drive media substrate



Chemically strengthened display glass



Coated photo paper

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Learn more about Ergo: <https://AFM.oxinst.com/Ergo>

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