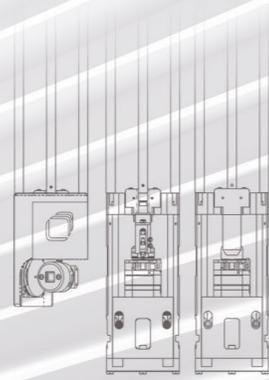


Cool down.



Measure.

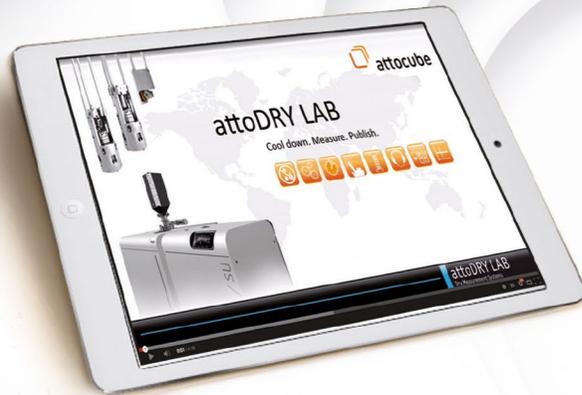


Publish.



attoDRY LAB

Low Vibration Cryogenic Equipment



Visit attodRY LAB online



Cryostat Platforms

Fully Automated & Low Vibration

At the basis of the attoDRY LAB concept, there are two of the most remarkable closed-cycle cryostats on the market. Besides being cryogen-free, which takes away all the heavy logistics as well as high costs associated with liquid helium, the attoDRY1100 & attoDRY2100 are the only dry cryostats on the market with proven low vibration performance. This makes them ideally suited for sensitive measurement techniques such as scanning probe microscopy for surface characterization on the

Cryogen-free



Tired of helium costs? The attoDRY closed-cycle cryostats require no liquid helium at all, and hence liberate the user from the increasingly unreliable and ever more expensive supply of liquid helium.

Large sample space



While most magnet systems feature only 1" diameter sample space, our toploading attoDRY cryostats provide twice the diameter, and four times the area in cross-section. This leaves ample space for sophisticated cryogenic experiments, and is compatible with our complete line of measurement options.

Automation & touchscreen



Routine procedures such as temperature and magnetic field control are fully automated by a clever gas handling system consisting of integrated pumps, valves and electronics. Moreover, the attoDRY1100 & 2100 are the first cryostats featuring an integrated touchscreen for intuitive control even without a PC.

Versatile platform



A variety of measurement options is available, spanning from a fully 3-dimensional double rotator resistivity module to distinguished characterization techniques such as atomic/magnetic force microscopy (AFM/MFM), scanning Hall probe microscopy (SHPM), confocal microscopy (CFM).

nanoscale and confocal microscopy with free beam optics for a multitude of quantum optics experiments.

On top of that, both cryostats feature a fully automated touchscreen interface for temperature and magnetic field control, outstanding temperature stability, unmatched cooling performance via fast cooldown times, and unusually silent operation.

Ultra-low vibration



Due to a proprietary design, mechanical vibrations created by the coldhead are well decoupled from the measurement platform, thus enabling the use of sensitive techniques such as scanning probe microscopy in a dry low temperature environment.

Silent operation



Special care was taken to reduce the acoustic noise of the inherently loud cold heads by an order of magnitude at the most relevant frequencies. This guarantees a pleasant working environment in your lab.

Fast cooldown



The extremely efficient exchange gas coupling enables unmatched cooldown times as fast as 5-10 hours for the complete system (without magnet), and as fast as 1-2 hours for a measurement insert after sample exchange.

Temperature stability



The attoDRY cryostats enable precise temperature control over the complete range with a stability measured to be much better than +/- 10 mK at low temperatures. This enables long unattended measurement cycles during your experiment.

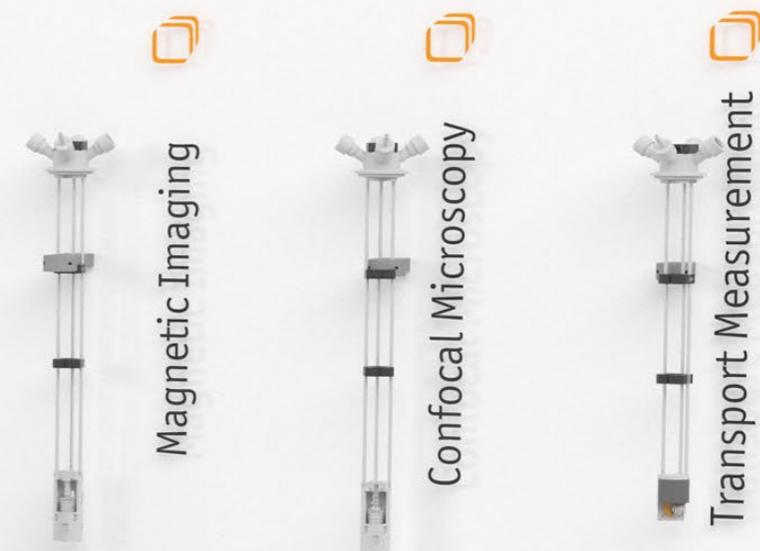


attoDRY LAB: Cool down. Measure. Publish.

Fundamental research and materials science are evolving at a phenomenal pace. Papers and research results are published faster, and in higher volumes than ever before. To keep up with this rapid development, fully automated highly reliable research platforms are gaining in importance tremendously. They considerably help to reduce time consuming setup, training and maintenance procedures, and hence resources are set free for more valuable tasks in scientific questions and the day-to-day lab work. Additionally, research institutes and universities have to prove cost responsibility and to justify investment decisions in terms of sustainability and long term relevance.

All of this comes together in the brand-new attoDRY LAB concept, attocube's state-of-the-art 21st century nano-characterization solution. These dry and fully automated variable temperature cryostat platforms help to save unpredictably high running costs caused by ever more expensive and less reliable liquid helium supplies.

A variety of measurement options and superconducting magnets for the convenient characterization of nanomaterials offer highest flexibility and immediately deliver first class research results. We combined all our know-how & scientific experience to develop a cutting-edge, yet easy-to-use measurement solution.



attoDRY LAB
Dry Measurement Systems

attoDRY LAB

Dry Measurement Systems

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automated closed-cycle cryostat platforms with a large variety of measurement options

Historically, researchers have often bought bits and pieces from different suppliers, especially concerning complex nanotools, losing valuable research time while trying to get such setups to run. Instead, the attoDRY LAB concept delivers complete solutions, consisting of closed-cycle cryostats and a whole variety of measurement options. This results in low running costs, and carefree operation through automation even for extended low temperature measurement cycles. Our sophisticated tools for nanocharacterization are designed to have a shallow learning curve, in order to minimize the time between purchase and first results significantly.

Smart features such as an integrated touchscreen on the cryostats, quick exchange sample holders & chip carrier solutions, an alignment-free AFM cantilever holder, inspection optics, closed loop scanning including sample navigation and a robust and versatile confocal optics head are just a few examples of how attocube puts user-friendliness in the focus of product development. Based on this 'convenience despite complexity', our measurement systems are also well suited for multi-user facilities.

Besides, with about 30% of all employees holding a PhD related to our measurement techniques, we are offering truly expert support in every regard, be it in sales, development and production, or service. Every measurement system is installed by one of our skilled engineers on site including an extensive training session to kick start your research, and enable you to concentrate on science. But the excellent support extends far beyond that – our experts are available on the phone as well as via remote desktop sessions, and never leave you alone with any open questions around your measurement task.

