



attocube

WITTENSTEIN group



cryogenics anywhere:
infrastructure autonomy



attoCMC800xs

autonomous free-beam optical cryostat

CRYOGENIC INSTRUMENTS

cool tools for cold science

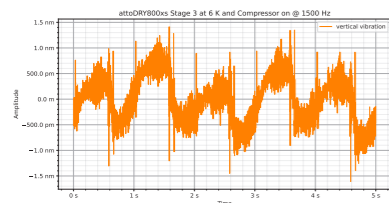
Features

attoCMC800xs



IGLU Compressor

The attoCMC800xs, with its compact IGLU compressor, fits 19-inch racks and works in most vented or climatized rooms. Plug it into any wall socket for infrastructure-free, sustainable cryogenics.



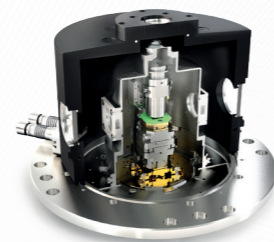
Ultra-low Vibration

Despite its compact design, the attoCMC800xs delivers ultra-low vibration performance: vertical vibrations are < 2 nm (3 nm), and lateral vibrations are < 10 nm (40 nm) within a 200 Hz (1500 Hz) bandwidth.



Electrical and Optical Feedthrough Options

The attoCMC800xs comes equipped with 36 DC user lines by default. Additional DC and HF wiring as well as optical fibers can be provided as upgrades.



Standard and Customizable Configurations

We offer standard vacuum shrouds and cold shields optimized for positioners, sample holders, working distances, and objectives. For further customization, anything above the table surface can be tailored to user requirements.



Cryogenic Apochromatic Objectives

attocube offers a range of cryogenically compatible apochromatic objectives with high NA (up to 0.82), 3 different WDs (0.65 .. 12 mm), and for a number of color bands ranging from the UV to the IR.



eNSPIRE Control System

The control electronics features a convenient touchscreen and remote interface providing live plots & data logging, superior temperature control, an integrated webserver, and a powerful API for a truly joyful user experience.

Autonomous free-beam optical cryostat

for low temperatures & cryogenic apochromatic high NA objectives

The attoCMC800xs combines the compact attoDRY800xs cryostat with the innovative IGLU compressor, making it infrastructure-free and highly efficient. Operating at 3.8K with just 1.4 kW input

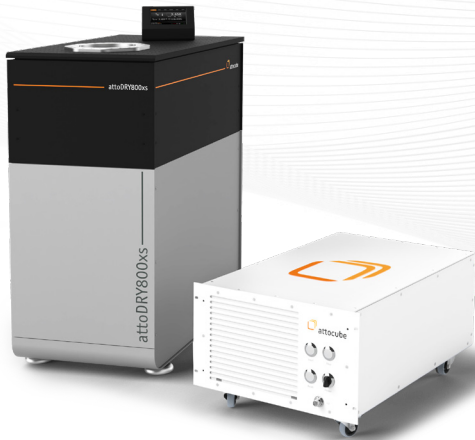
power, it runs off a wall plug, addressing space constraints and supporting real-world application in quantum technologies outside of lab environments with its compact low vibration design.

- rack based IGLU compressor system
→ ready for industrial quantum applications
- low energy consumption, low heat generation
→ infrastructure autonomy for quick and easy setup
- low vibration free beam optics
→ bring lab performance to real-world applications



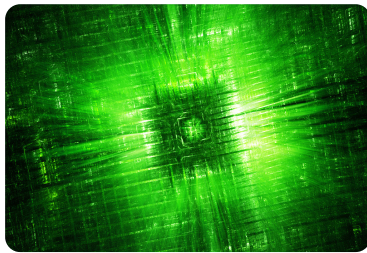
attoCMC800xs

autonomous free-beam optical cryostat

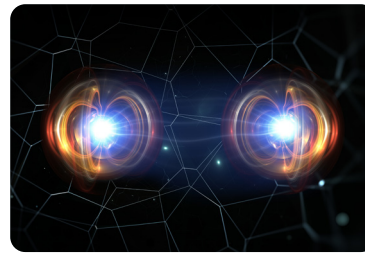


- compact low vibration cryostat
- rack footprint with rack integrateable compressor
- integrated optical breadboard
- wide temperature range (3.8 K ... 300 K)
- user-friendly, versatile and modular
- compatible with cryogenic apochromatic objectives
- customizable vacuum shrouds
- same height as optical table (805 mm)
- automated temperature control
- 36 DC customer wires included

Fields of Applications



Optics & Spectroscopy
quantum optics



Single Photon Sources
communication technology
for the quantum age

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