

From Cryogenic Depths to 1,100 °C

Autosorb Series

Single instrument, full thermal range: The Autosorb spans 20 K (Cryocooler) to 1,100 °C (furnace) in one seamless system.



Push the Limits of Gas Adsorption with Cryogenic Precision

Anton Paar's Autosorb instruments open new dimensions in gas adsorption analysis.

With CryoSync, experiments achieve the precision of liquid argon temperatures while using liquid nitrogen – delivering unmatched thermal stability and multi-gas flexibility for extended, reproducible measurements.

For studies demanding even greater range and autonomy, the CryoCooler introduces fully cryogen-free operation, cooling samples to cryogenic levels within an hour and sustaining stable conditions from deep cryogenic to ambient temperatures.

Together, they turn complex adsorption studies into a routine part of scientific discovery.

CryoSync

- Enables analysis at liquid argon (87.3 K) temperature, but with liquid nitrogen (77 K)
- Provides multi-gas, multi-temperature capabilities when up to three CryoSync options are attached and independently operated
- Maintains temperature stability of at least 0.01 K (standard deviation) for a minimum of 50 hours (when controlling at liquid argon temperature)

CryoCooler

- Wide temperature range (from 20 K to 320 K) enables experimentation with novel materials and unconventional gases
- Refrigerant capability cools samples to a stable 77 K in as little as an hour
- Independence from liquid nitrogen extends experiment runs indefinitely

Autosorb Furnace

- Wide temperature range up to 1,100 °C
- Fast heating rate up to 50 °C per minute
- Built-in cooling fan for rapid cooldown
- Dual thermocouple control with over-temperature protection
- In-situ flow-based pretreatment capability

