

SPECIAL APPLICATION PRODUCTS BROCHURE

XRD / SEM / Electrochemistry / Others



GoGo Instruments
Innovating Constantly, Safeguarding Research.

COMPANY PROFILE

We specialize in thermal control technology (heating and cooling), focusing on the development and integration of in-situ testing systems that incorporate mechanical, electrical, and optical measurement capabilities. We are also a provider of professional technical services.

As a supplier of scientific equipment and technical support, we are dedicated to serving the R&D and industrial needs of various fields—including advanced materials, semiconductors, new energy, biopharmaceuticals, and geology—by delivering cutting-edge, high-quality, and cost-effective integrated testing solutions.

Guided by our brand philosophy of "Innovating Constantly, Safeguarding Research." we are committed to empowering scientific exploration and accelerating industrial innovation.

2017

2017: GoGo Instruments Technology (Shanghai) Co., Ltd. was established

2021: Recognized as a High-Tech Enterprise

2023: Shanghai Innovation Fund Program Project

2024: Partner Unit of Shanghai Demonstration Inspection and Verification Center

2020

2020: Jinwen Measurement & Control Technology (Suzhou) Co., Ltd. was established

2020: Recognized as a Leading Talent in High-tech Zone

2021: Recognized as a Leading Talent in Suzhou

2022: Recognized as a Private Technology Enterprise in Jiangsu Province

2023: Recognized as a "Dual Innovation Plan" Talent in Jiangsu Province

2023: Recognized as a High-Tech Enterprise

OVER 100 PATENTS APPLIED



CERTIFICATION CERTIFICATES



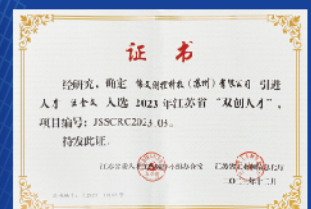
PATENT CERTIFICATES



HIGH-TECH ENTERPRISE CERTIFICATE
(GOGO INSTRUMENTS)



HIGH-TECH ENTERPRISE CERTIFICATE
(JINWEN MEASUREMENT & CONTROL)



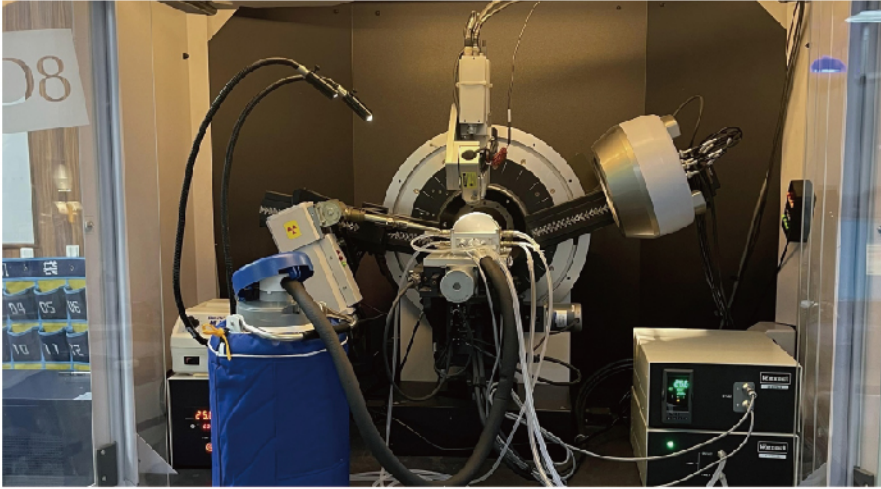
"DUAL INNOVATION TALENT" CERTIFICATE
OF JIANGSU PROVINCE

COOPERATION CLIENTS

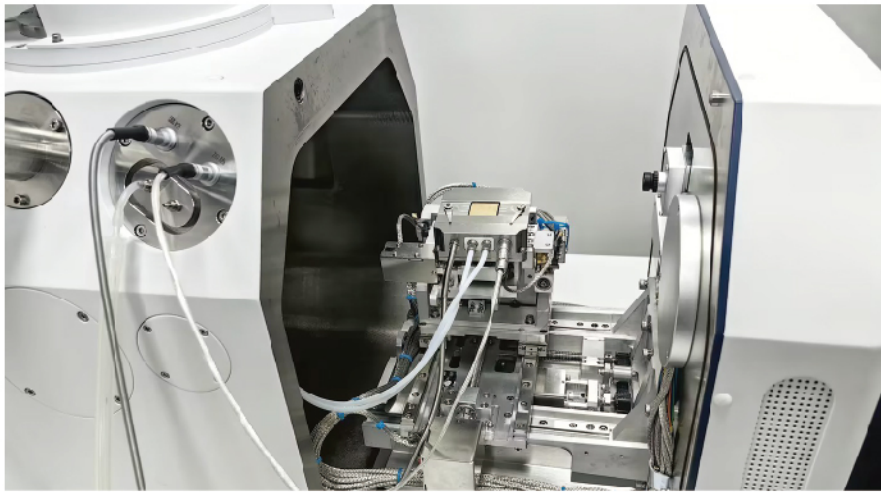
We have a cross-disciplinary professional technical team that deeply integrates software and hardware development experience and capabilities. Our independently developed instrumentation and equipment have been successfully applied in top domestic and international scientific research institutions and leading industry enterprises, including Tsinghua University, Peking University, Beihang University, Beijing Institute of Technology, Fudan University, Tongji University, University of Science and Technology of China, Institute of Geochemistry, Chinese Academy of Sciences, Hefei Institutes of Physical Science, Chinese Academy of Sciences, Institute of Metal Research, Chinese Academy of Sciences, Shanghai Institute of Microsystem and Information Technology, Chinese Academy of Sciences, China Institute of Atomic Energy, China Academy of Engineering Physics, National University of Defense Technology, Zhejiang University, Harbin Institute of Technology, Nanjing University of Science and Technology, Xi'an Jiaotong University, South China University of Technology, Shanghai Jiao Tong University, Songshan Lake Materials Laboratory, Sichuan University, Huazhong University of Science and Technology, National University of Singapore, Nanyang Technological University, Hong Kong University of Science and Technology, City University of Hong Kong, University of Macau, Singapore A*STAR, Germany HZDR, University of Washington (USA), Russia ANDREY, etc. These applications cover a wide range of testing fields, and have won deep trust and extensive recognition.



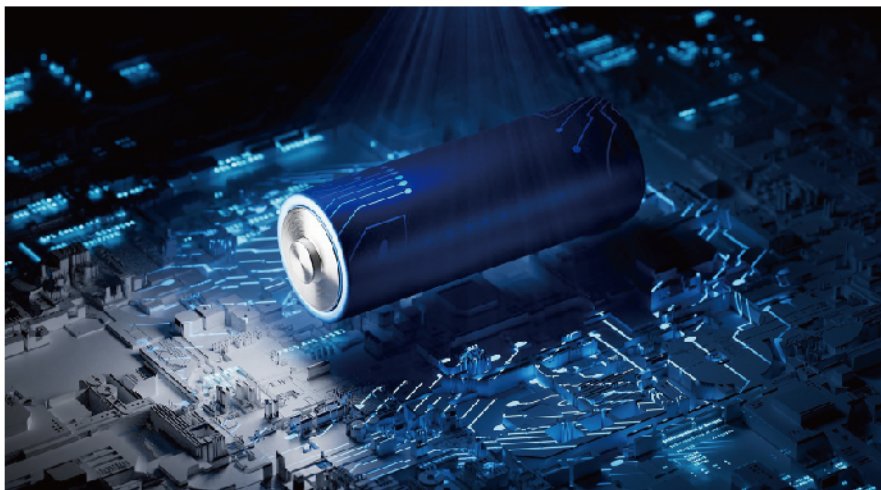
SOME OF OUR CLIENTS (LISTED IN NO PARTICULAR ORDER)



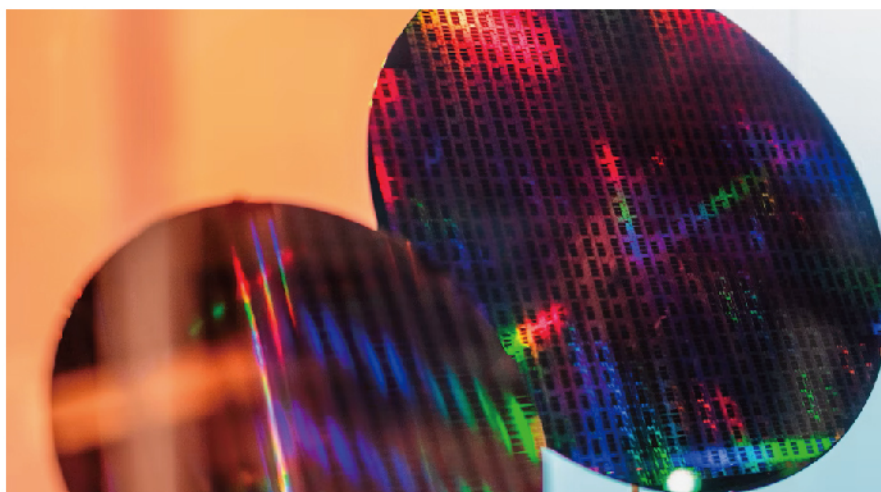
X-ray
APPLICATION



SEM
APPLICATION



ELECTROCHEMISTRY
APPLICATION



OTHERS

- Specially designed for X-ray diffractometers (XRD), small-angle X-ray scattering (SAXS) instruments, and synchrotron radiation light sources, these in-situ devices precisely control and capture the real-time responses of materials under multi-field coupling conditions such as variable temperature and mechanical loading. They can be accurately adapted to mainstream XRD equipment from Bruker, Thermo Fisher, Rigaku, Shimadzu, etc.

- SEM Heating/Cooling & Tensile Stages integrate seamlessly via external vacuum flanges without requiring instrument modification. By providing precise temperature control and mechanical loading on samples, they enable highly stable, real-time observation of microscopic dynamic processes. These stages are fully compatible with mainstream SEM systems from ZEISS, Hitachi, Thermo Fisher, Guoyi Quantum (GQ), etc.

- Y
- Primarily used for controlling temperature conditions in electrochemical experiments, these systems are suitable for various electrochemical studies, such as research on coin cells, lithium batteries, fuel cells, etc. Through precise temperature control, they facilitate the investigation of battery performance and reaction mechanisms at different temperatures.

- Other products related to temperature control and in-situ mechanical technologies, such as wafer heating systems, rapid thermal annealers, and high/low-temperature test chambers, can be customized to meet specific client requirements.

CONTENTS



XCH600
-190°C~600°C

X-ray Application

SEM Application

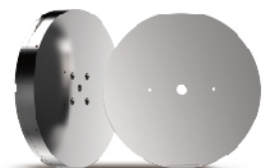


BE
RT

Electrochemistry Application



RTP600



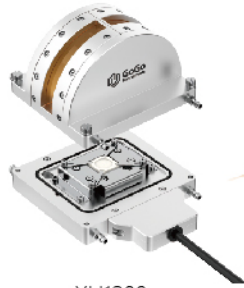
Wafer Heating Module

Others

Configuration Details



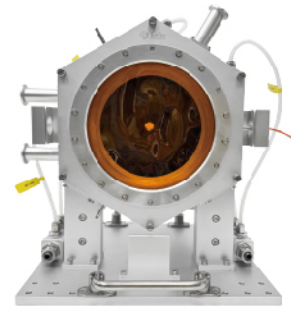
XCH400V
-190°C~400°C



XH1200
RT~1200°C



IH1700
RT~1700°C



IH1600-SR
RT~1600°C



SCH200
-190°C~200°C



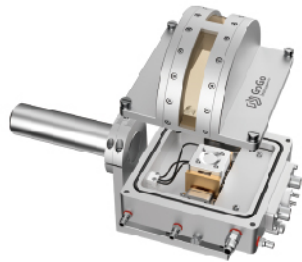
SCH200-RS
-180°C~200°C



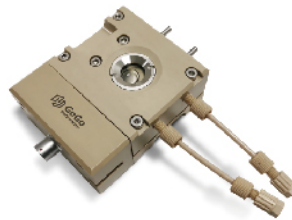
SFH5000-1200
5000N RT~1200°C



XCH100-PB
-100°C~100°C



XCH100-BB
-100°C~100°C



CH80-BE
-60°C~80°C



PE120V-BB
-25°C~120°C



BCH180



MFH1200



CP30000



FP16

► XRD Heating and Cooling Stage

● Product Features

XCH600: Temperature Range-190°C~600°C, Temperature Stability $\pm 0.1^\circ\text{C}$, Multi-mode precision temperature control: setpoint, ramp, and segment programming. Sample stage: reflection/transmission modes. Features an arc-shaped window design supporting a 2θ diffraction angle range of 0° to 164° , utilizing Kapton film as the window material. Customizable mounting brackets are available to ensure compatibility with various X-ray diffractometer models, including Rigaku, Bruker, Thermo Fisher, Shimadzu, and Malvern Panalytical.



XCH600



XCH400V

● Specifications

TYPE	XCH600	XCH400V
Cooling/Heating Method	Liquid nitrogen cooling, Resistance heating	
Temperature Range	-190°C~600°C	-190°C~400°C
Temperature Stability	$\pm 0.1^\circ\text{C}$	
Heating/Cooling Rate	Maximum Heating Rate: 150°C/min, Maximum Cooling Rate: 40°C/min	
Sample Holder	Silver; 23mm*23mm	
Optical Path	Reflection	
Diffraction Angle 2θ	$\angle 0^\circ \sim \angle 164^\circ$	
Window Material	Kapton Film	
Chamber	Atmosphere	Vacuum
Dimensions	100mm*100mm*73mm	
Net Weight	0.8kg	

● Configuration List

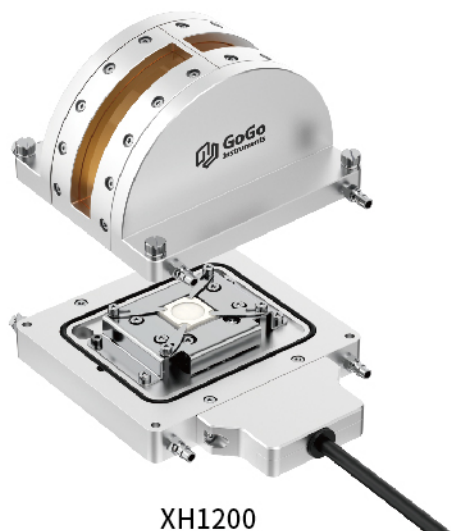
Software	Stage	Temperature Controller	Cooling Controller	Liquid Nitrogen Tank	Circulating Water Chiller	Others
GoGo TCS	XRD Heating & Cooling Stage	GTC-A	GRC-A	YDS-2-35	GCW-A	Cables, Tubing, Accessories, etc.

Optional accessories: Adapter plates / Custom liquid nitrogen tanks / Custom circulating water chillers / Vacuum systems / Computer hosts / Custom temperature control software, etc.

► XRD超高温热台 XRD Ultra-High-T Heating Stage

● Product Features

XH1200: Temperature Range RT~1200°C, Temperature Stability $\pm 0.1^{\circ}\text{C}$, Multi-mode precision temperature control: setpoint, ramp, and segment programming. Sample stage: reflection/transmission modes. Features an arc-shaped window design supporting a 2θ diffraction angle range of 0° to 164° , utilizing Kapton film as the window material. Customizable mounting brackets are available to ensure compatibility with various X-ray diffractometer models, including Rigaku, Bruker, Thermo Fisher, Shimadzu, and Malvern Panalytical.



XH1200

● Specifications

TYPE	XH1200
Cooling/Heating Method	Resistance heating
Temperature Range	RT~1200°C
Temperature Stability	$\pm 0.1^{\circ}\text{C}$
Heating/Cooling Rate	0.1~20°C/min
Sample Holder	Ceramic; 20mm*20mm
Diffraction Angle 2θ	$\angle 0^{\circ} \sim \angle 164^{\circ}$
Window Material	Kapton Film
Chamber	Atmosphere
Dimensions	120mm*120mm*88.5mm
Net Weight	0.8kg

● Configuration List

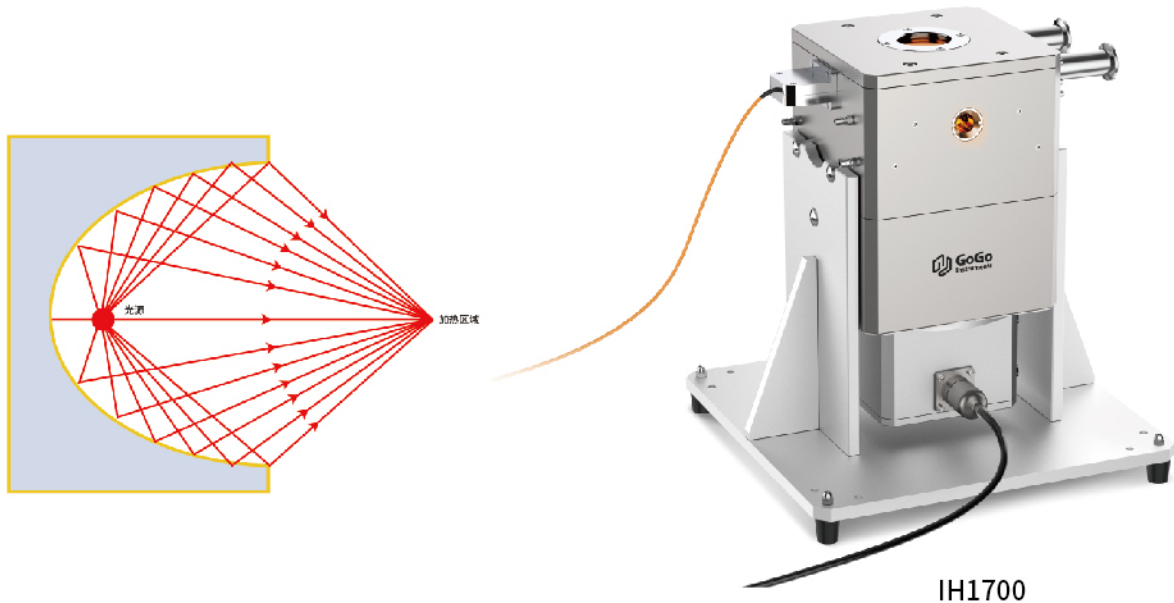
Software	Stage	Temperature Controller	Circulating Water Chiller	Others
GoGo TCS	XRD Ultra-High-T Heating Stage	GTC-D	GCW-A	Cables, Tubing, Accessories, etc.

Optional accessories: Adapter plates / Custom circulating water chillers / Computer hosts / Custom temperature control software, etc.

► Synchrotron Radiation Ultra-High-T Infrared Heating Furnace

● Product Features

IH1700 is designed for studying the microstructural evolution of materials in high-temperature environments, enabling synchrotron radiation scanning analysis of phase transition processes such as melting and solidification. Its innovative infrared focusing heating structure and technology achieve a breakthrough in ultra-fast temperature control, with heating rates up to 30°C/s. The core heating components feature a modular design, supporting rapid disassembly and replacement, which significantly enhances equipment maintenance efficiency.



● Specifications

TYPE	IH1700
Cooling/Heating Method	Infrared Heating
Temperature Range	RT-1700°C
Temperature Stability	±0.1°C
Heating/Cooling Rate	Maximum Heating Rate: 30°C/s, Controllable Cooling Rate
Sample Holder	Platinum; φ10mm
Optical Path	Reflection / Transmission
Window Size	φ7mm
Window Material	JGS2 Fused Silica Glass (Transmission Range: 220 nm - 2500 nm), manually removable and replaceable.
Distance from Window Upper Surface to Sample Holder Upper Surface	17mm
Chamber	Atmosphere/ Vacuum
Dimensions	140mm*160mm*265mm
Net Weight	12.5kg

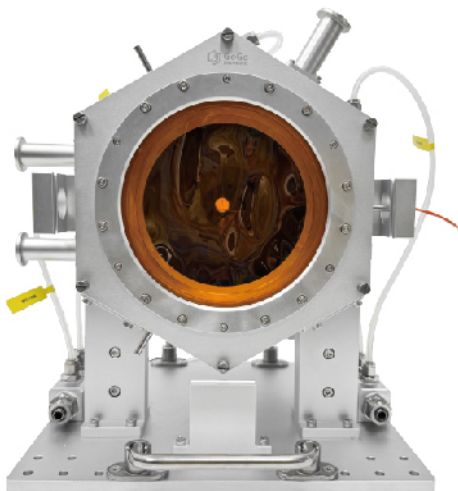
● Configuration List

Software	Stage	Temperature Controller	Circulating Water Chiller	Others
GoGo TCS	Infrared Heating Furnace	GTC-F	HLUL-15	Cables, Tubing, Accessories, etc.

Optional accessories: Adapter plates / Custom circulating water chillers / Vacuum systems / Computer hosts / Custom temperature control software, etc.

● Product Features

IH1600-SR is specially designed for studying the microstructural evolution of materials under high-temperature environments. It enables synchrotron radiation scanning analysis of phase transition processes such as melting and solidification, and supports samples of various shapes (e.g., sheet, bulk, column). Featuring an innovative infrared-focused heating structure and process, it achieves a breakthrough in ultra-fast heating control, with rates up to 30°C/s. The core heating components adopt a modular design, allowing for quick disassembly and replacement, which significantly enhances equipment maintenance efficiency.



IH1600-SR

● Specifications

TYPE	IH1600-SR
Cooling/Heating Method	Infrared Heating
Temperature Range	RT-1600°C
Temperature Stability	±0.5°C
Heating/Cooling Rate	Maximum Heating Rate: 30°C/s, Controllable Cooling Rate
Sample Holder	Platinum; φ10mm
Optical Path	Transmission
Entrance Window Size	φ15mm
Exit window size	φ130mm
Entrance and Diffraction Window Material	Kapton Film
Window Material	JGS2 Fused Silica Glass (Transmission Range: 220 nm - 2500 nm), manually removable and replaceable.
Chamber	Atmosphere/ Vacuum
Dimensions	300mm*300mm*350mm
Net Weight	13.5kg

● Configuration List

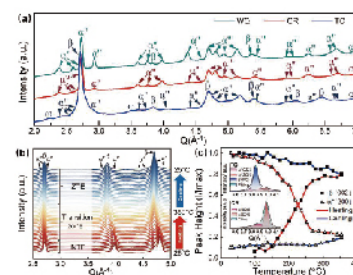
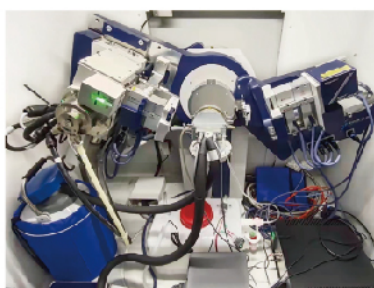
Software	Stage	Temperature Controller	Circulating Water Chiller	Others
GoGo TCS	Infrared Heating Furnace	GTC-F	HLUL-15	Cables, Tubing, Accessories, etc.

Optional accessories: Adapter plates / Custom circulating water chillers / Vacuum systems / Computer hosts / Custom temperature control software, etc.

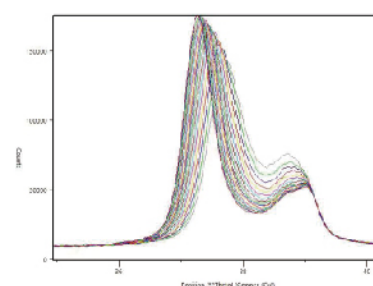
► X-ray Application Cases



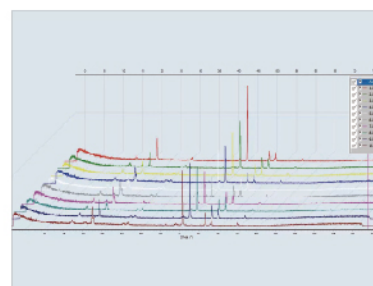
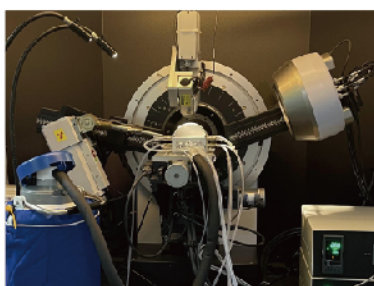
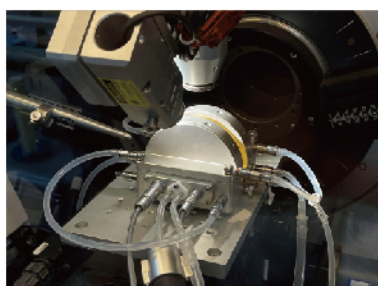
■ XRD In-situ Heating/Cooling Stage Compatible with Rigaku X-ray Diffractometers



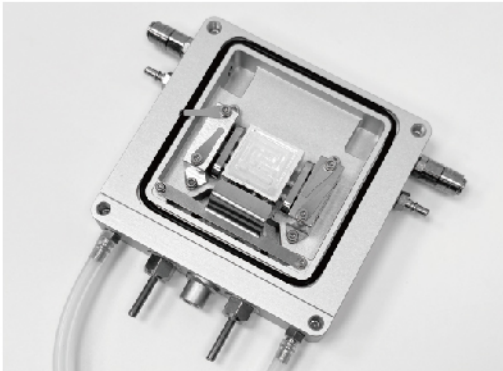
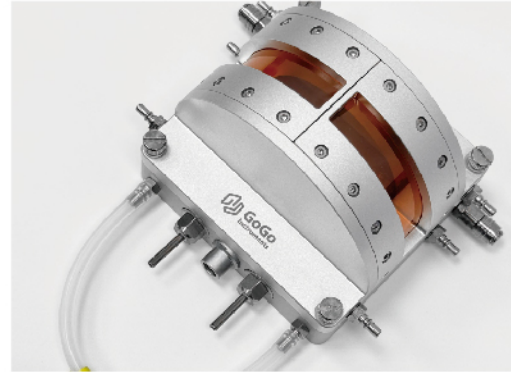
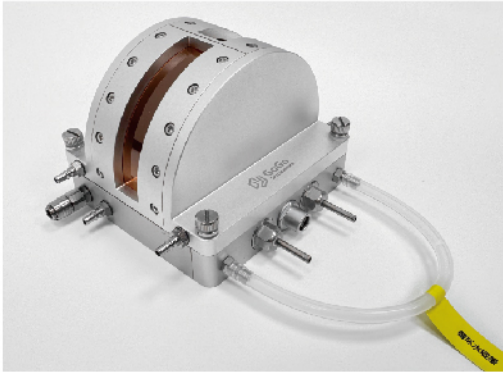
■ XRD In-situ Heating/Cooling Stage Compatible with Thermo Fisher X-ray Diffractometers



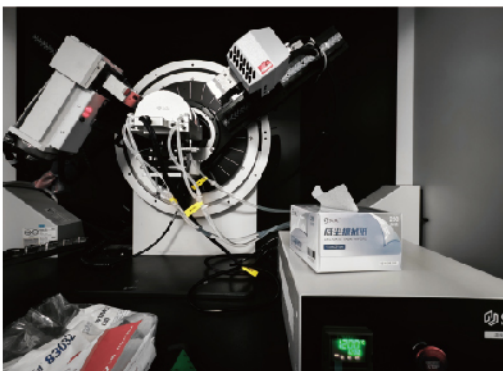
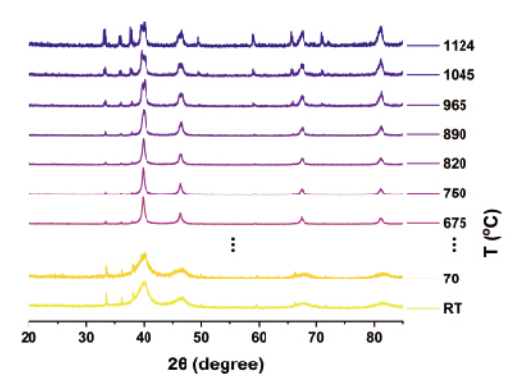
■ XRD In-situ Heating/Cooling Stage Compatible with Bruker X-ray Diffractometers



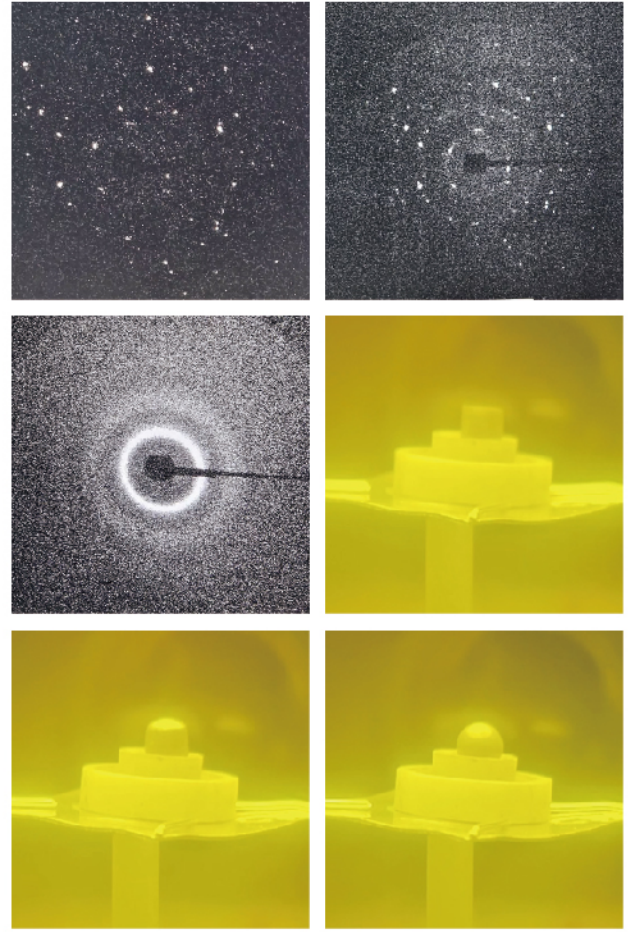
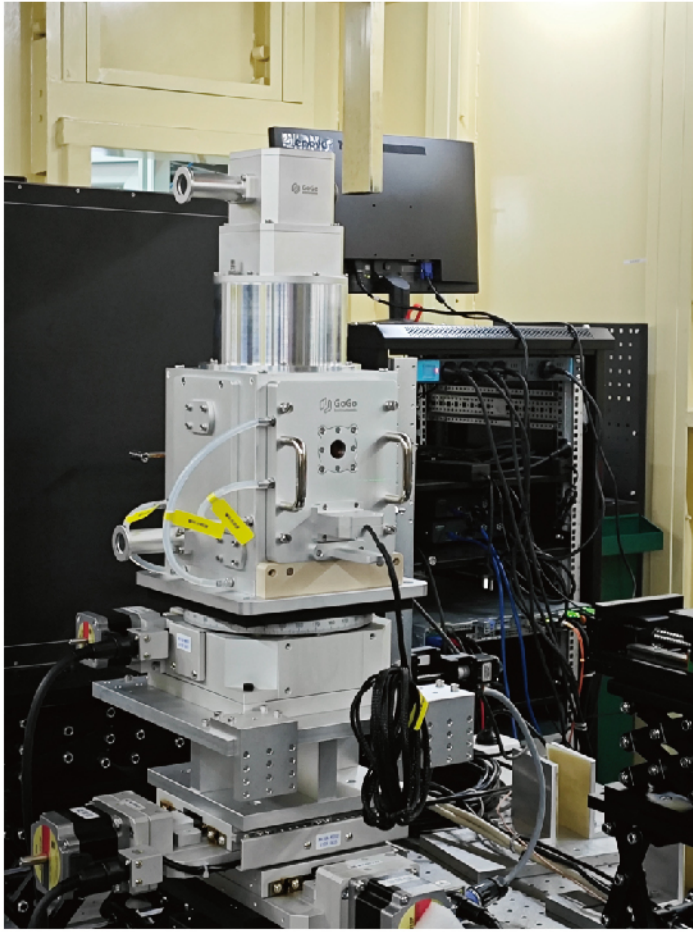
- XRD In-situ Heating/Cooling Stage, compatible with Rigaku 9kW X-ray diffractometers, for testing samples such as powders and thin films.



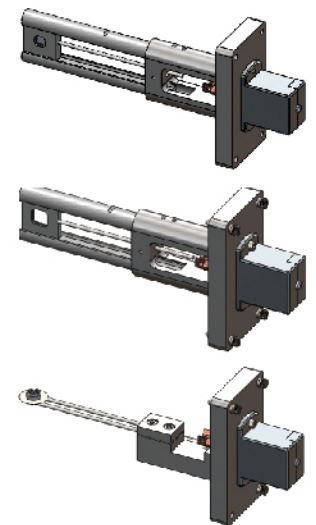
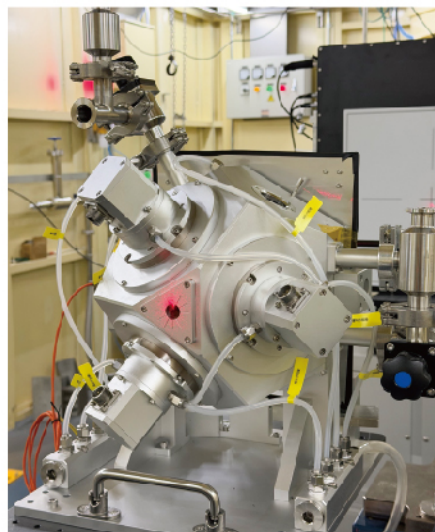
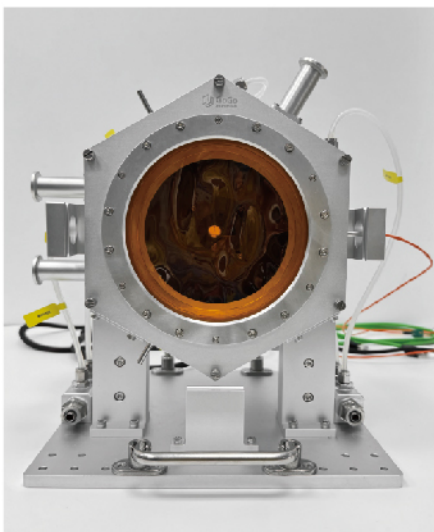
- XRD Ultra-high Temperature Heating Stage, compatible with Bruker D8 series, for testing 68%Pt/C



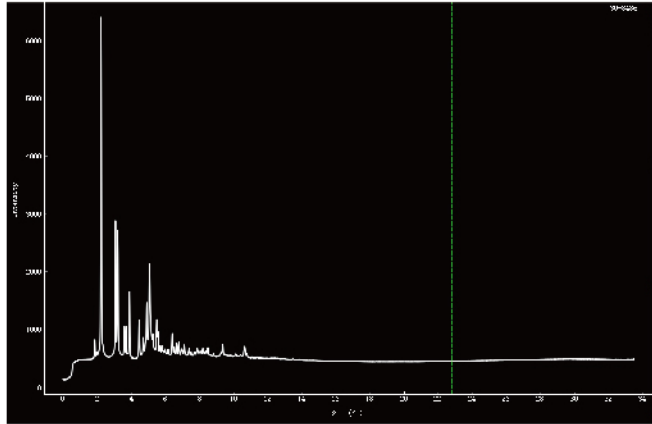
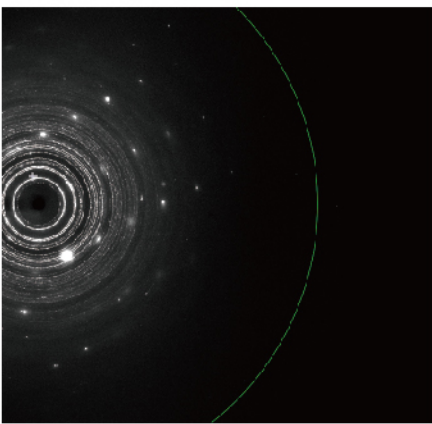
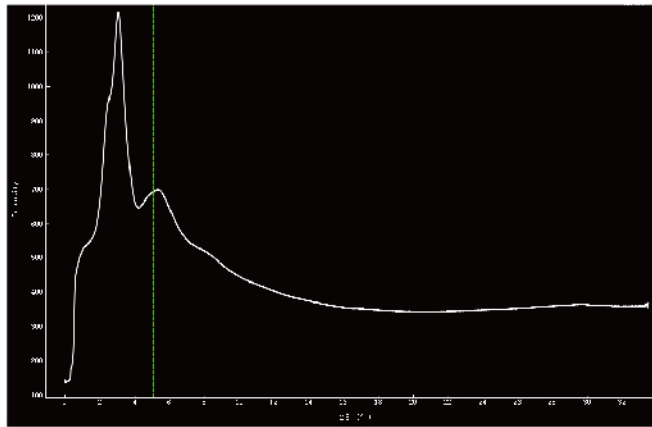
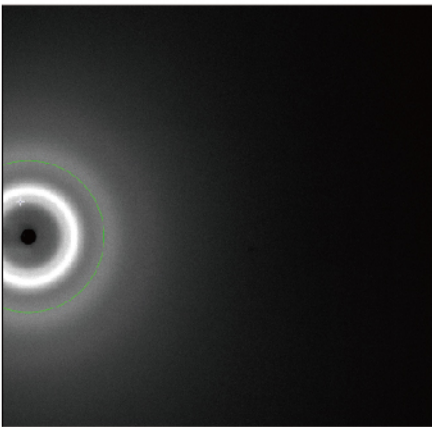
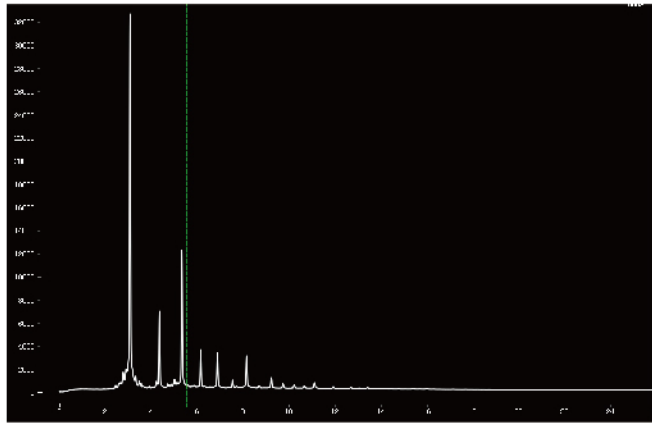
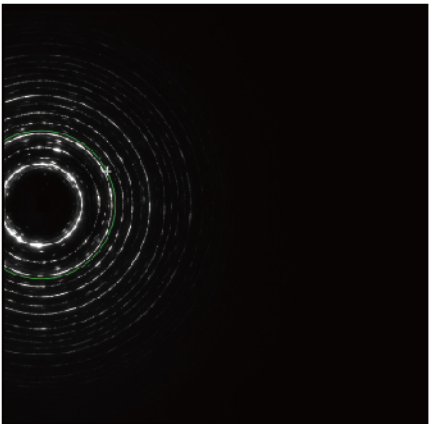
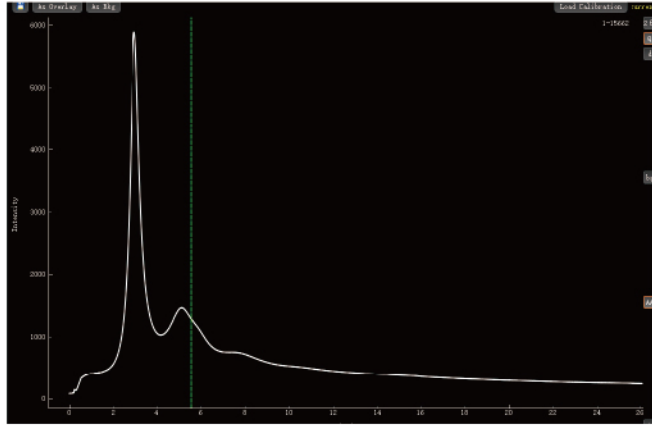
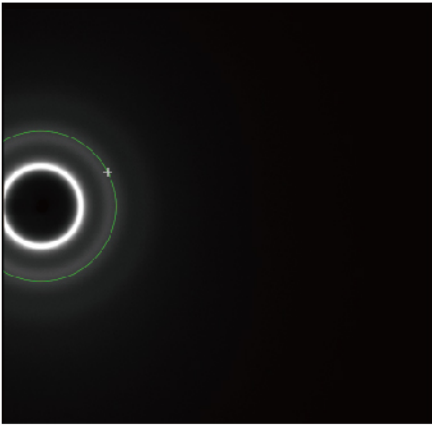
- Custom Ultra-High Temperature Infrared Focused Heating Furnace, Conducting High-Temperature Alloy Melting Diffraction Experiments at the Shanghai Synchrotron Radiation Facility



- Custom Ultra-High Temperature Infrared Focused Heating Furnace, Performing High-Temperature Melting Experiments on Samples of Various Sizes and Specifications



● Synchrotron Radiation Metal Melting and Solidification Testing



► SEM Heating and Cooling Stage

● Product Features

The SCH200 offers a temperature range of -190°C to 200°C with a stability of $\pm 0.1^\circ\text{C}$. It requires no modification to the internal structure of the microscope and enables precise multi-mode temperature control (fixed-point, slope, and programmable segments) through a customized external flange. This allows real-time observation of microscopic dynamic processes in samples, while providing excellent electromagnetic interference shielding capability.



SCH200

● Specifications

TYPE	SCH200
Cooling/Heating Method	Liquid nitrogen cooling, Resistance heating
Temperature Range	-190°C~200°C
Temperature Stability	$\pm 0.1^\circ\text{C}$
Heating/Cooling Rate	Maximum Heating Rate: 150°C/min, Maximum Cooling Rate: 30°C/min
Sample Holder	Gold-Plated Copper; 23mm*23mm
Dimensions	85mm*95mm*23mm
Net Weight	0.3kg

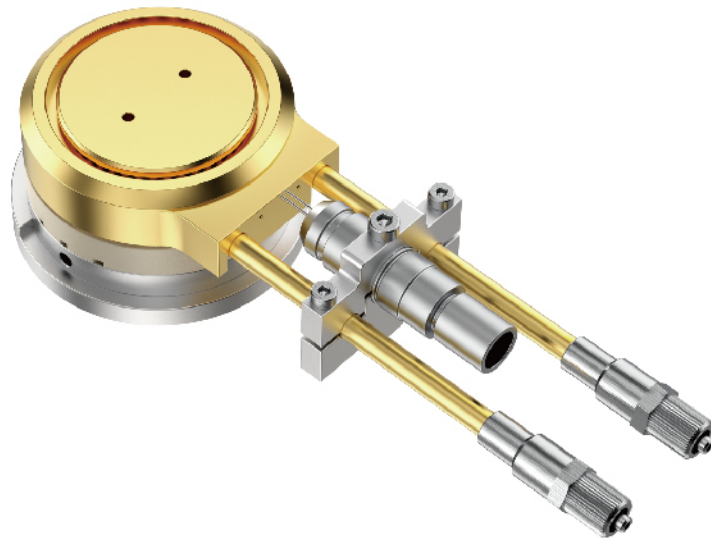
● Configuration List

Software	Stage	Temperature Controller	Cooling Controller	Liquid Nitrogen Tank	Circulating Water Chiller	Others
GoGo TCS	SEM Heating & Cooling Stage	GTC-S	GRC-A	YDS-2-35	GCW-A	Cables, Tubing, Accessories, etc.

Optional accessories: Adapter plates / Custom liquid nitrogen tanks / Custom circulating water chillers / Computer hosts / Custom temperature control software, etc.

● Product Features

SCH200-RS Rotating Heating/Cooling Stage enables five-axis (X/Y/Z/R/T) motion freedom within an FIB/SEM system, providing precise temperature control from -180°C to 200°C. It allows for the transportation and testing of samples under low-temperature conditions.



SCH200-RS

● Specifications

TYPE	SCH200-RS
Cooling/Heating Method	Liquid nitrogen cooling, Resistance heating
Temperature Range	-180°C~200°C
Temperature Stability	±0.1°C
Heating/Cooling Rate	Maximum Heating Rate:30°C/min, Maximum Cooling Rate:15°C/min
Sample Holder	Copper; φ30mm
Dimensions	100mm*41mm*36.5mm
Net Weight	0.2kg

● Configuration List

Software	Stage	Temperature Controller	Cooling Controller	Liquid Nitrogen Tank	Circulating Water Chiller	Others
GoGo TCS	SEM Rotating Heating & Cooling Stage	GTC-S	GRC-A	YDS-2-35	GCW-A	Cables, Tubing, Accessories, etc.

Optional accessories: Adapter plates / Custom liquid nitrogen tanks / Custom circulating water chillers / Computer hosts / Custom temperature control software, etc.

► SEM Modular Force Stage

● Product Features

The SEM In-Situ Tensile Stage serves as a functional accessory for scanning electron microscopes (SEMs), requiring no instrument modification. It maintains EBSD compatibility and offers optional thermal modules (e.g., a 1200°C ultra-high temperature module) to enable synchronous study of microstructural evolution and in-situ mechanical responses in materials.



SFH5000-1200

● Specifications

TYPE	SFH5000-1200
Cooling/Heating Method	Resistance heating
Temperature Range	RT~1200°C
Temperature Stability	±0.1°C
Heating/Cooling Rate	Maximum Heating Rate: 150°C/min, Controllable Cooling Rate
Sample Holder	Ceramic; ϕ 10mm
Tension Range	5000N
Tension Accuracy	0.1%F.S.
Displacement	10mm
Crosshead Speed	0.03~2mm/min
Testing Modes	Tension, Compression, Shear, Bending
Dimensions	230mm*161mm*60mm
Net Weight	4.5kg

● Configuration List

Software	Stage	Temperature Controller	Force Controller	Circulating Water Chiller	Others
GoGo TCS, GoGo Test	SEM In-situ Tensile Stage	GTC-S	GMC-A	GCW-A	Cables, Tubing, Accessories, etc.

Optional accessories: Adapter plates / Custom Flange / Custom circulating water chillers / Computer hosts / Custom temperature control software, etc.

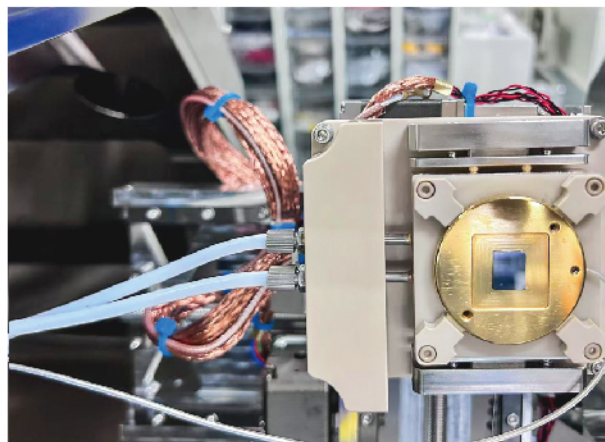
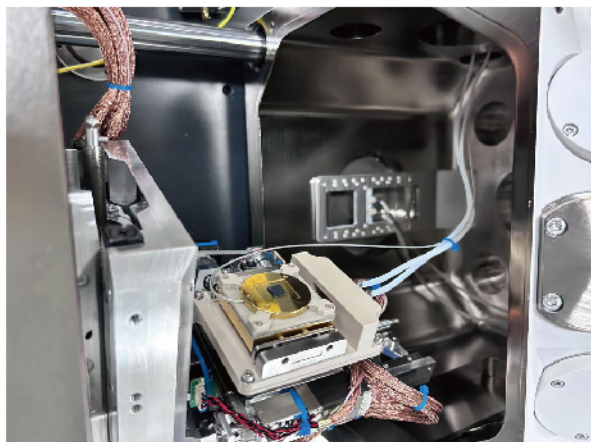
► SEM Application Cases

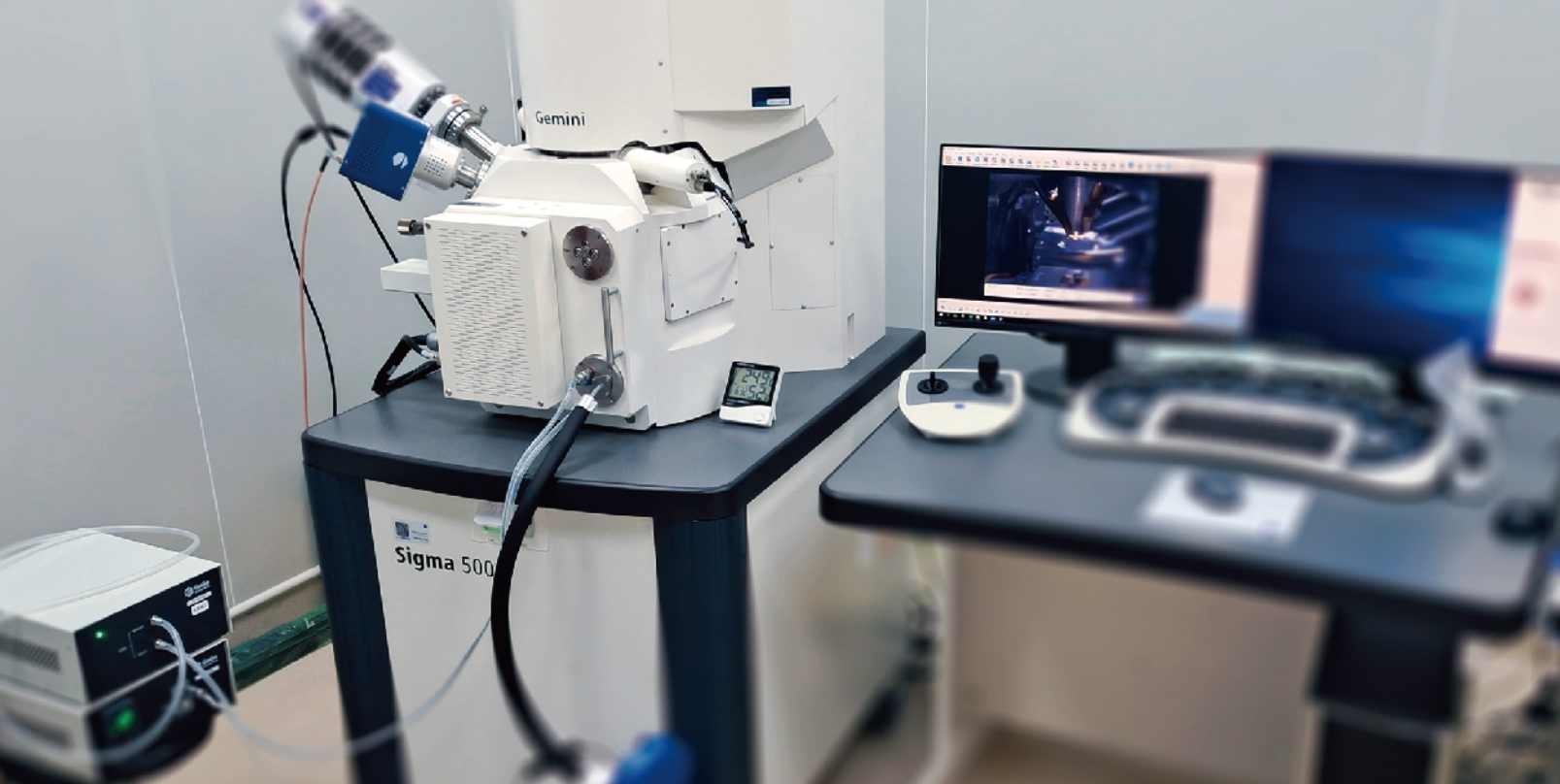


- SEM Heating/Cooling Stage, -180°C to 100°C , compatible with Guoyi Quantum SEM3200 scanning electron microscope.

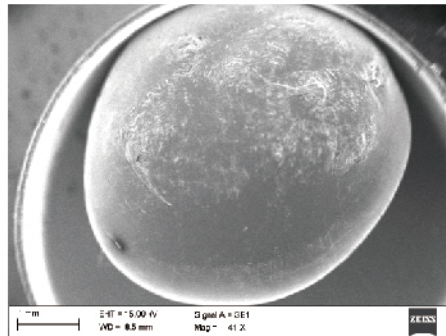
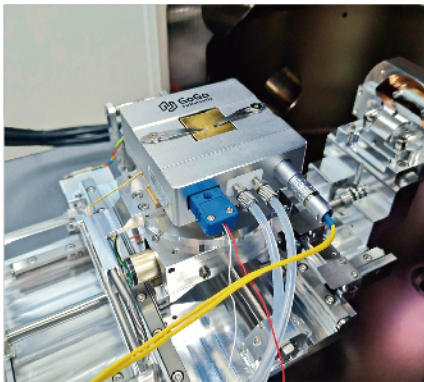


- SEM High-Voltage Cooling Stage, -170°C , 10 kV, compatible with Guoyi Quantum FIB-SEM DB500

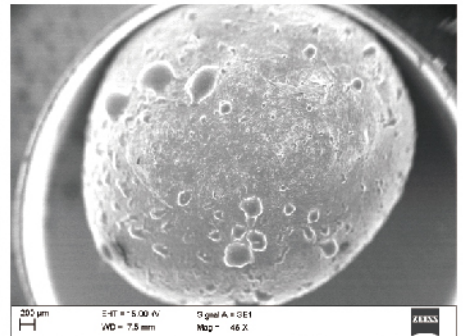




- SEM Heating/Cooling Stage, -190°C to 200°C , compatible with ZEISS Sigma 500 scanning electron microscope

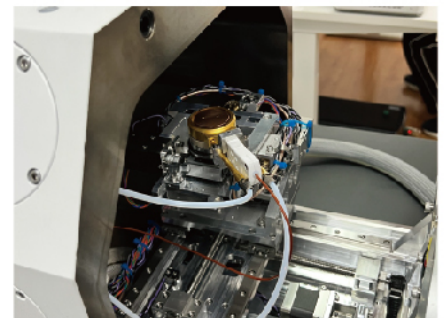
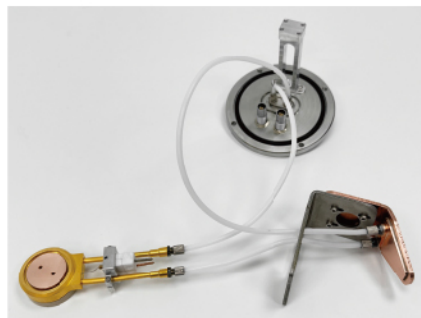
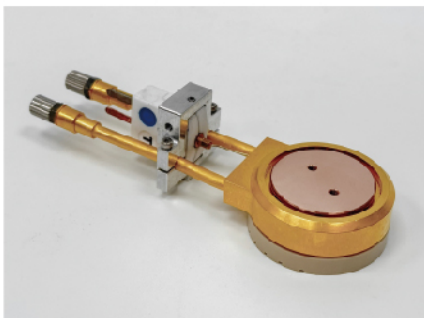


Liquid Gallium at Room Temperature



Liquid Gallium at -50°C

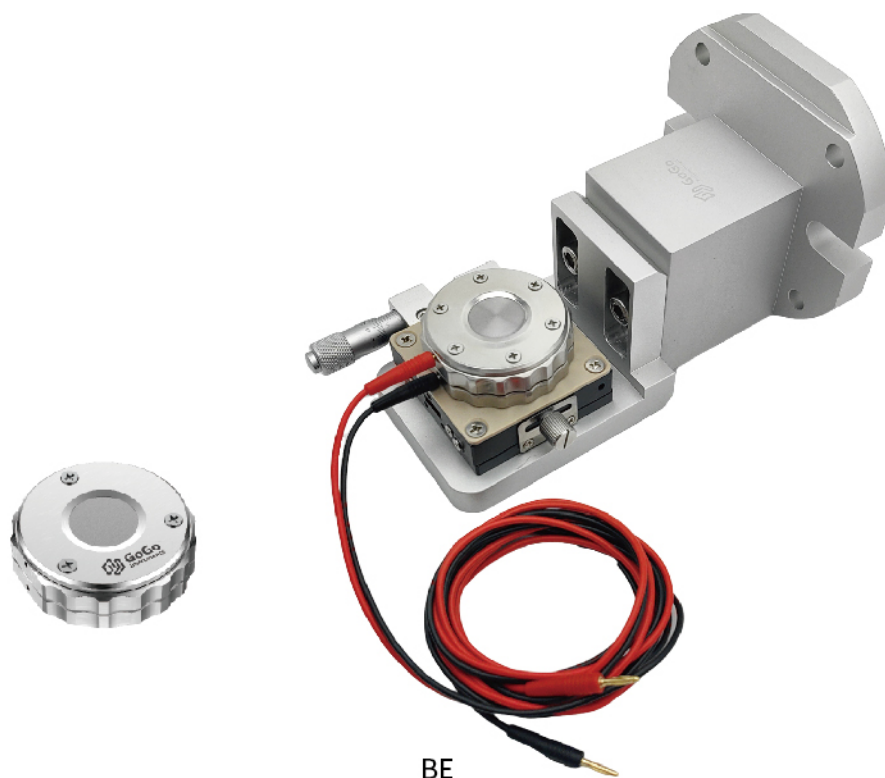
- SEM Rotating Cooling Stage, -160°C to RT, capable of 360° continuous rotation at sub-zero temperatures



► In Situ Battery Thermal Stage

● Product Features

BE in-situ battery cell is specifically designed for XRD testing during the charge/discharge processes of lithium batteries. It supports X/Z directional adjustment while combining quick assembly/disassembly with high repeatability in sealing, significantly enhancing experimental efficiency.



● Specifications

TYPE	BE
Material	316L
Sample Holder	316L
Optical Path	Reflection
Diffraction Angle 2θ	$\angle 10^{\circ} \sim \angle 180^{\circ}$
Window Material	Be Window
Dimensions	$\phi 54\text{mm} * 19.2\text{mm}$
Net Weight	0.8kg

● Configuration List

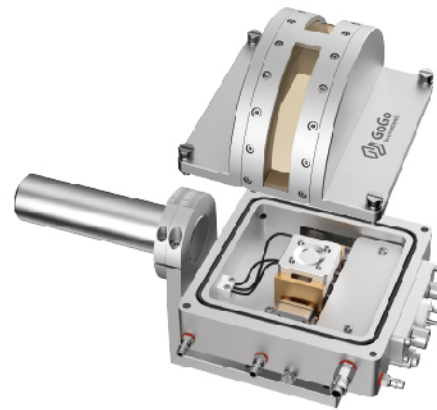
Stage	Others	Optional
In Situ Cell	Cables, etc.	Adjustable Mount

● Product Features

XCH100-PB is an in-situ heating/cooling accessory designed specifically for XRD testing of pouch cells.
XCH100-BB is an in-situ heating/cooling accessory designed for XRD testing of electrochemical cell types.



XCH100-PB



XCH100-BB

● Specifications

TYPE	XCH100-PB	XCH100-BB
Cooling/Heating Method	Liquid nitrogen cooling,Resistance heating	
Temperature Range	-100°C~100°C	
Temperature Stability	±0.1°C	
Heating/Cooling Rate	Maximum Heating/Cooling Rate:10°C/min	
Sample Holder	Silver;75mm×85mm	Copper;30mm×30mm
Optical Path	Transmission	Reflection
Diffraction Angle 2θ	∠0°~∠164°	
Window Material	Kapton Film	
Chamber	Atmosphere	
Dimensions	126mm×205mm×32mm	120mm×120mm×97.5mm
Net Weight	2.1kg	3kg

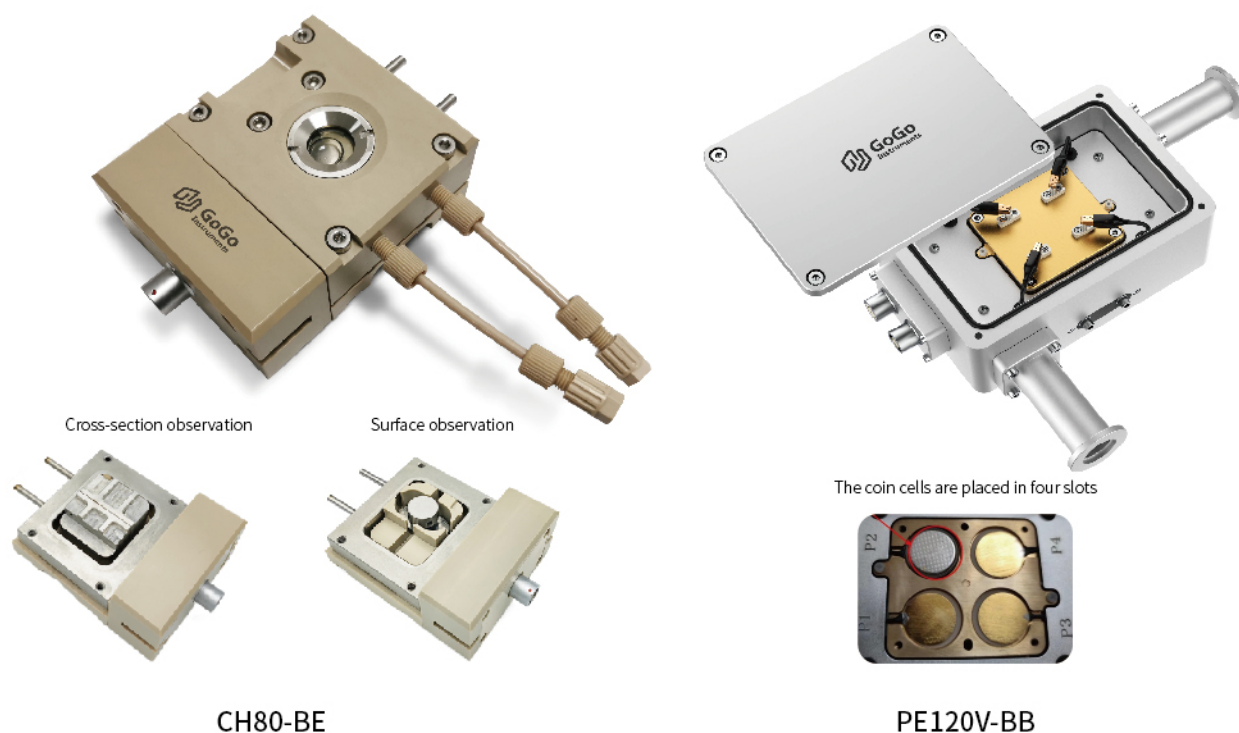
● Configuration List

Software	Stage	Temperature Controller	Cooling Controller	Liquid Nitrogen Tank	Circulating Water Chiller	Others
GoGo TCS	XRD Heating & Cooling Stage	GTC-A	GRC-A	YDS-2-35	GCW-A	Cables, Tubing, Accessories, etc.

Optional accessories: Adapter plates / Custom liquid nitrogen tanks / Custom circulating water chillers / Vacuum systems / Computer hosts / Custom temperature control software, etc.

● Product Features

CH80-BE in-situ battery module enables in-situ Raman/microscopy dual-mode observation of lithium-ion battery charge–discharge processes within a temperature range of -60°C ~ 80°C, supporting both surface and cross-sectional viewing angles. PE120V-BB testing platform allows efficient charge–discharge testing for four coin cell channels across a temperature range of -25°C ~ 120°C.



● Specifications

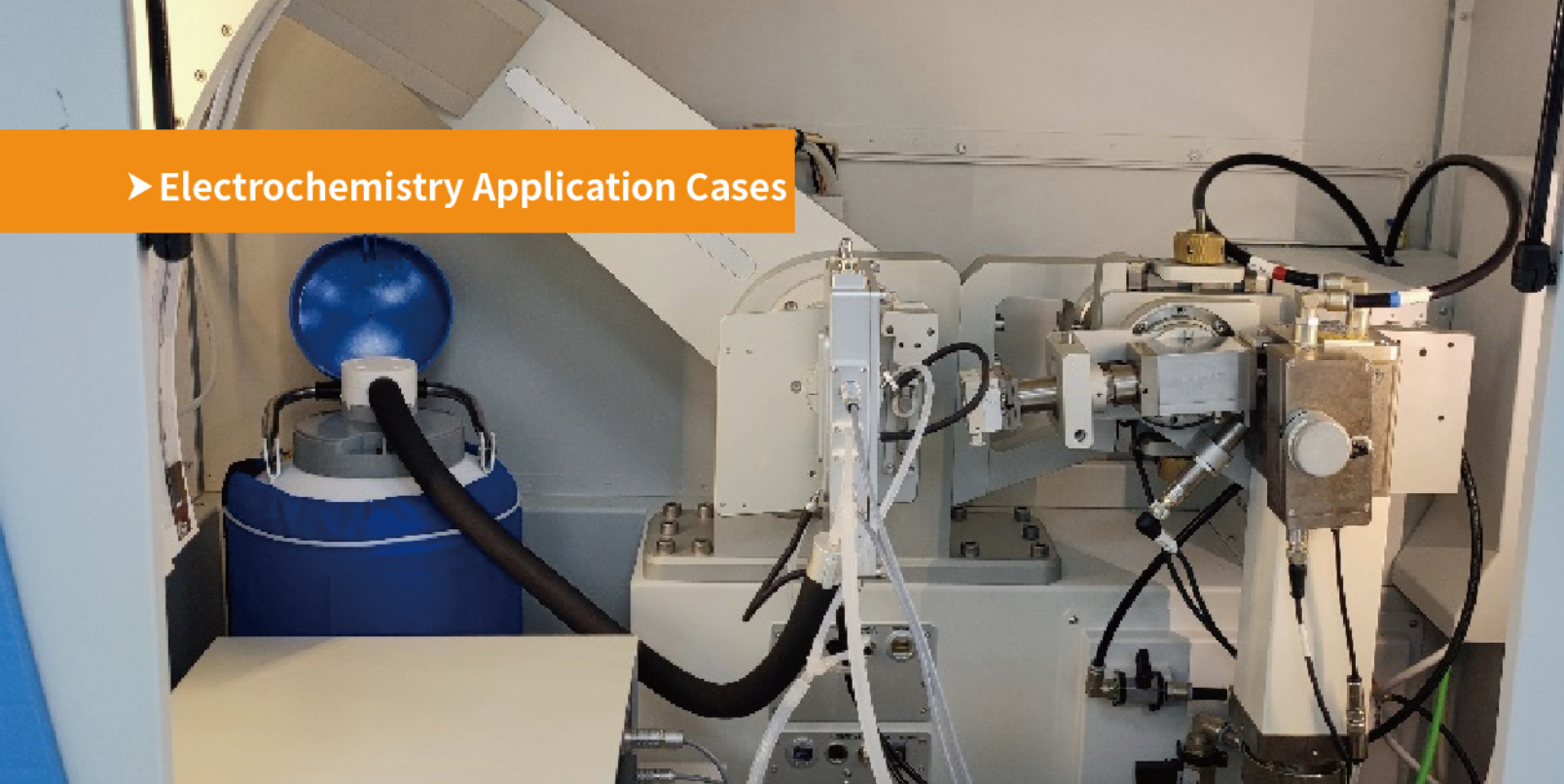
TYPE	CH80-BE	PE120V-BB
Cooling/Heating Method	Liquid nitrogen cooling, Resistance heating	TEC
Temperature Range	-60°C~80°C	-25°C~120°C
Temperature Stability	±0.1°C	
Heating/Cooling Rate	Maximum Heating/Cooling Rate: 10°C/min	
Sample Holder	Suitable for lithium batteries	Suitable for button cells
Dimensions	92.5mm*75mm*38mm	130mm*90mm*54.5mm
Net Weight	0.6kg	1.2kg

● Configuration List

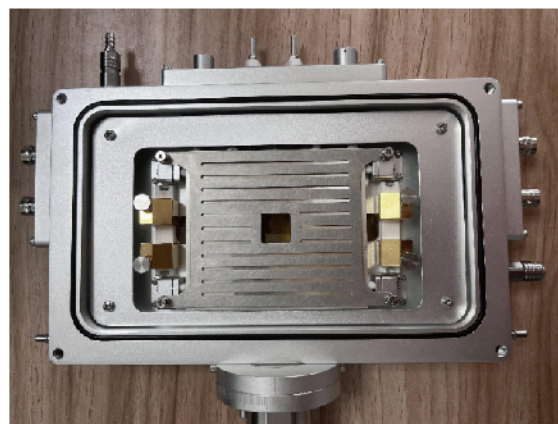
Stage	Software	Temperature Controller	Cooling Controller	Liquid Nitrogen Tank	Others
CH80-BE	GoGo TCS	GTC-A	GRC-A	YDS-2-35	Cables, Tubing, Accessories, etc.
PE120-BB	GoGo TCS	GTC-B	/	/	

Optional accessories: Adapter plates / Custom liquid nitrogen tanks / Vacuum systems / Computer hosts / Custom temperature control software, etc.

► Electrochemistry Application Cases



- Compatible with Thermo Fisher XRD for X-ray diffraction studies of pouch cells during temperature-variable charge-discharge cycles.



- Customized in-situ cell heating/cooling stage for microscopic observation during charge-discharge at different temperatures, supporting both surface and cross-sectional views.



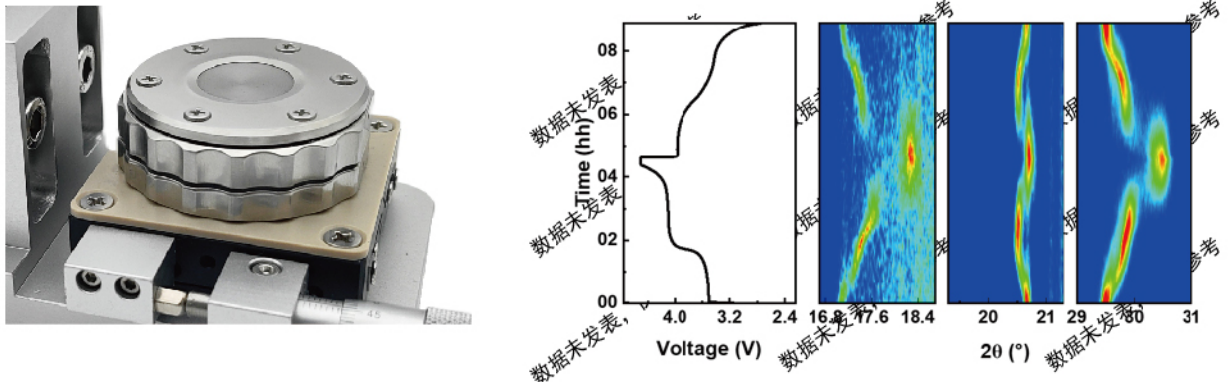
■ Customized SEM Solid-State Battery Fixture



■ Customized SEM temperature-variable vacuum transfer box, operable from $-100^{\circ}\text{C} \sim 100^{\circ}\text{C}$, supports sample loading inside a glovebox and transfer under protective atmosphere into the SEM for temperature-variable testing.



■ Customized SEM Solid-State Battery Fixture



► Rapid Thermal Processing

● Product Features

RTP600 rapid thermal annealing furnace is specifically designed for high-temperature semiconductor processing. It supports oxidation, diffusion, and rapid annealing processes within a temperature range of 500°C to 1000°C. Equipped with a dual-layer 21×1 kW high-power lamp array, it achieves ultra-fast heating control at rates up to 150°C/s. The system ensures temperature uniformity through a water-cooled aluminum outer shell and a quartz inner chamber, accommodates wafer sizes from 2 to 6 inches, and delivers an efficient solution integrated with precision gas control.



RTP600

● Specifications

TYPE	RTP600
Chamber	Quartz
Temperature Range	Dual-zone heating (upper and lower) with a maximum temperature of 1000°C
Heating/Cooling Rate	Maximum Heating Rate: 150°C/s
Sample Holder	Quartz substrate holder for 2~6 inch round substrates
Chamber	Vacuum/Atmosphere
Power	21kW
Dimensions	534mm*608mm*272mm
Net Weight	42kg



● Applications

RTP equipment is being increasingly adopted in the field of advanced integrated circuit manufacturing. In addition to its extensive use in Rapid Thermal Annealing (RTA) processes, RTP equipment is now also being applied to Rapid Thermal Oxidation, Rapid Thermal Nitridation, Rapid Thermal Diffusion, Rapid Chemical Vapor Deposition, as well as to metal silicide formation and epitaxy processes.



Phosphosilicate Glass



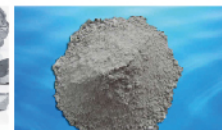
Integrated Circuit Fabrication



Metal Alloying



Polysilicon Annealing



Carbide Annealing



Silicide Annealing

► Wafer Heating Module

● Product Features

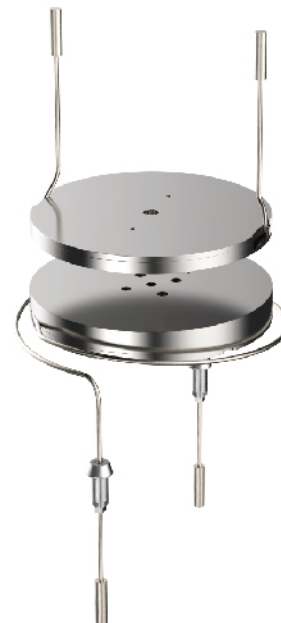
Wafer Heating Device: It plays a critical role in semiconductor processing, particularly in key steps such as wafer annealing, bonding, photoresist coating, etching, and chemical vapor deposition. It delivers a stable thermal environment and highly uniform temperature distribution across the platen, meeting precise heating requirements across various temperature zones to support both manufacturing and R&D of semiconductor devices.



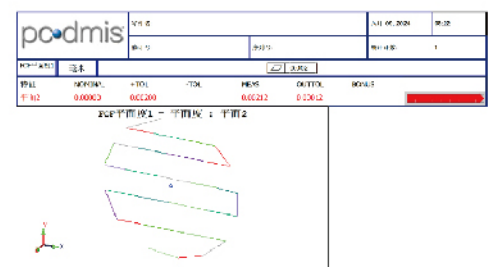
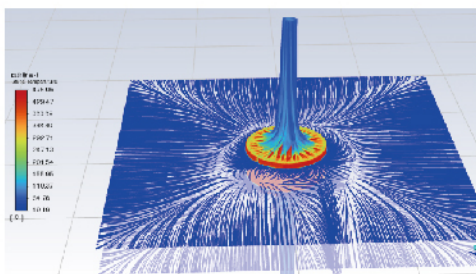
Custom

● Specifications

TYPE	Custom
Size	2 / 4 / 6 / 8 / 10 / 12 Inch
Temperature Range	RT~600°C
Temperature Stability	±0.1°C
Material	Aluminum alloy, stainless steel, Invar®, etc.
Flatness	≤10μm, Can achieve 3μm, depending on the material
Suitable Environment	Vacuum/Atmosphere
Cooling System	Options: Water cooling, air cooling, etc.
Bonding Pressure	Options: 0~100kN



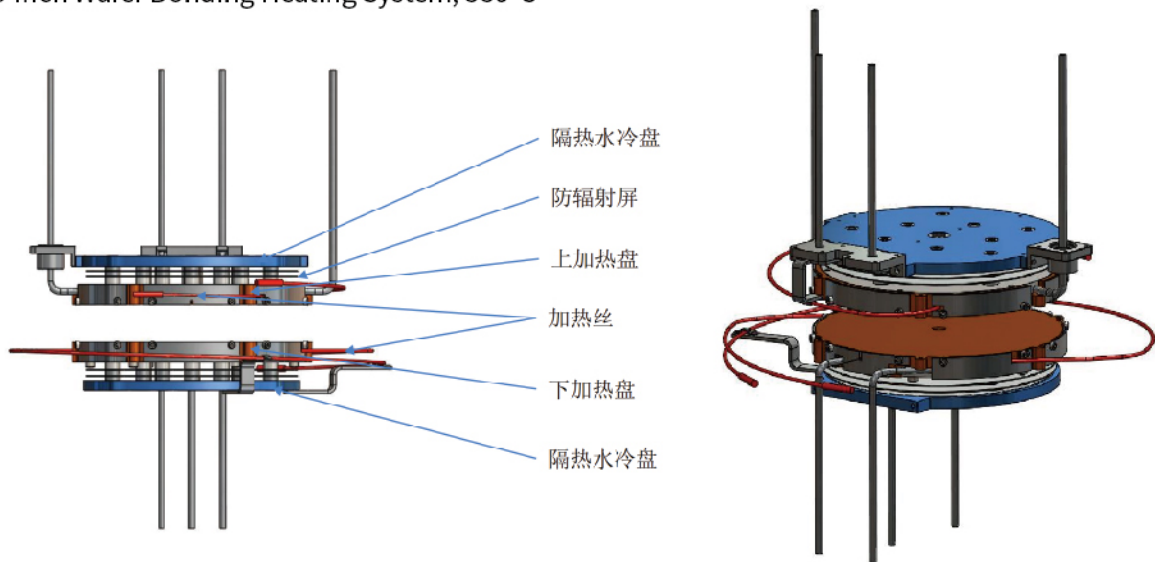
● Simulation and Measurement



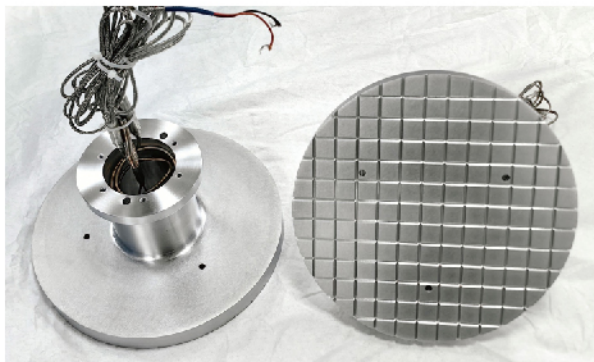
▶ Semiconductor industry
Application Cases



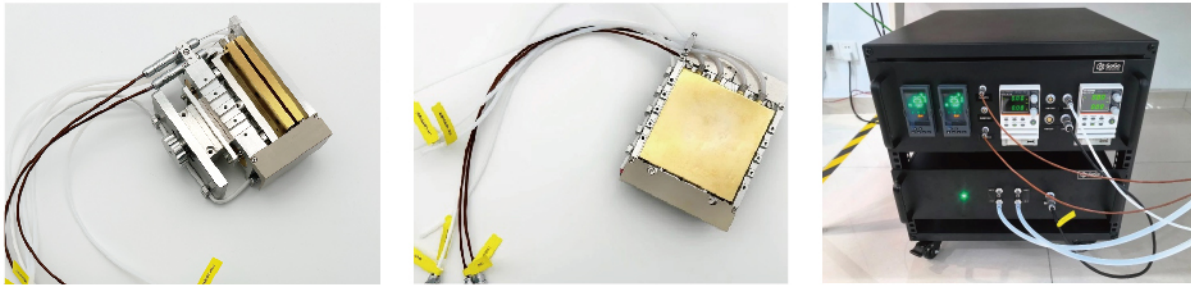
■ 8-Inch Wafer Bonding Heating System, 550°C



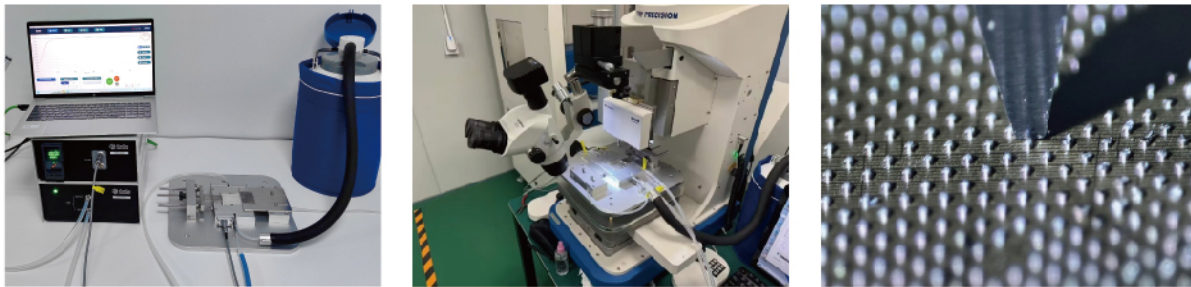
■ 8-Inch Aluminum Alloy Heating Plate, 400°C



- SEM Chip Testing Heating/Cooling Stage, -60°C to 260°C, supports both surface and cross-sectional observation



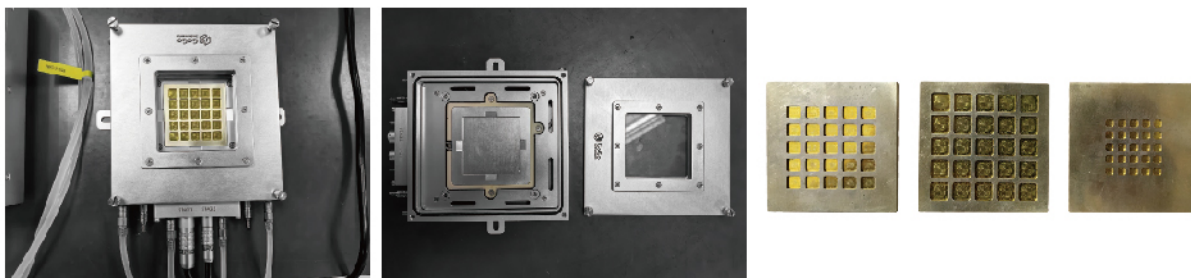
- Customized chip solder joint shear/push testing heating/cooling stage



- Peltier-based heating/cooling stage for temperature-variable testing of electronic screens



- Customized chip DIC (Digital Image Correlation) heating/cooling stage for temperature-variable testing



► High-Low Temperature Test Chamber

● Product Features

A climate chamber designed for variable-temperature testing of samples, suitable for simultaneous optical, electrical, and other measurements. By introducing low-temperature nitrogen gas for cooling and electric heating into the chamber, temperature control within the range of -120°C to 180°C (model dependent) is achieved. It can be integrated with other optical and electrical instruments for in-situ variable-temperature testing.



BCH180

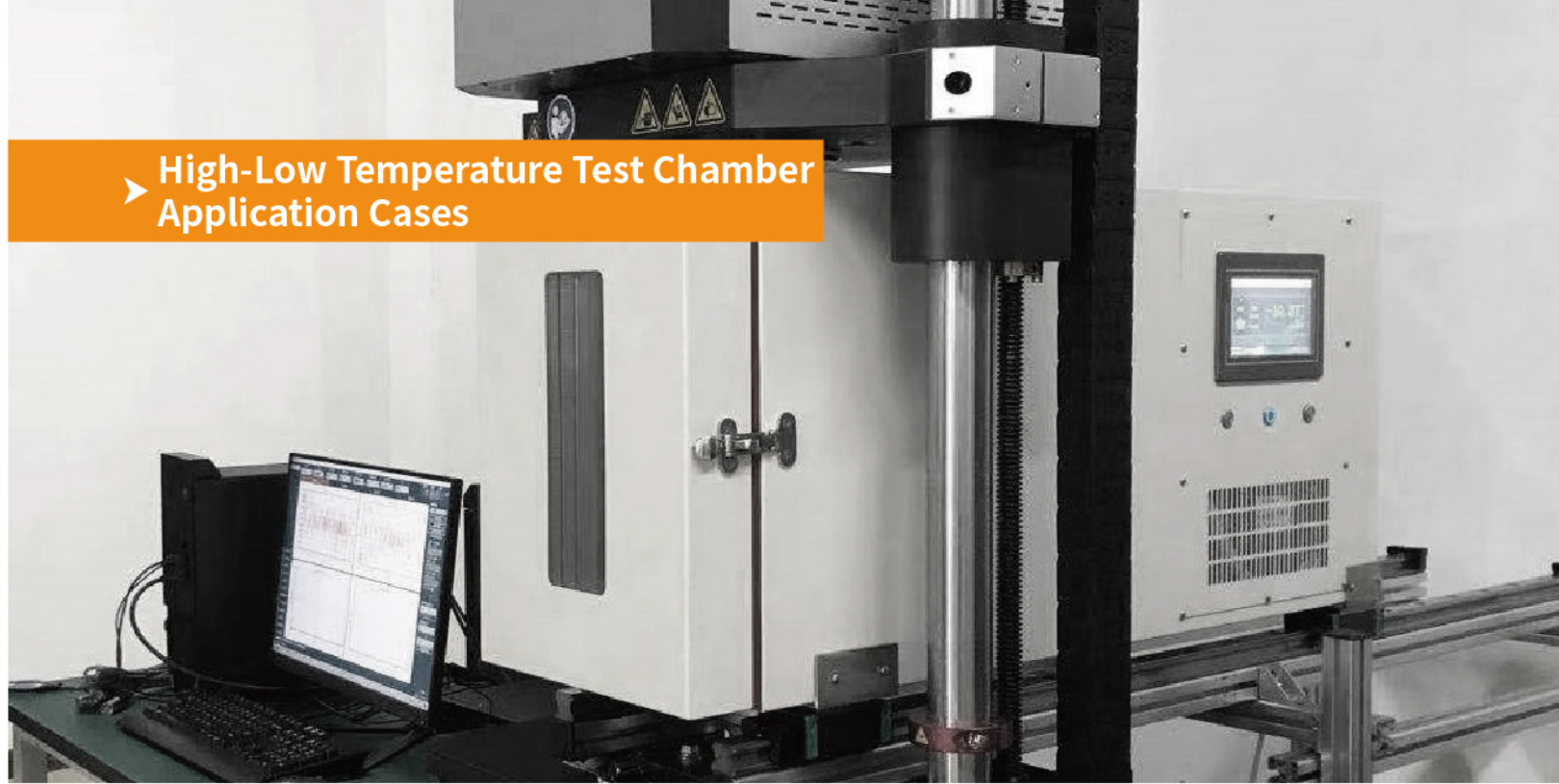
● Specifications

TYPE	BCH180
Cooling/Heating Method	Liquid nitrogen cooling, Electric Heating
Temperature Range	-120°C~180°C
Temperature Stability	±0.5°C
Heating/Cooling Rate	Maximum Heating/Cooling Rate: 5°C/min
Dimensions	500mm*470mm*396mm
Chamber Dimensions	240mm*170mm*230mm
Chamber	Atmosphere
Net Weight	30kg

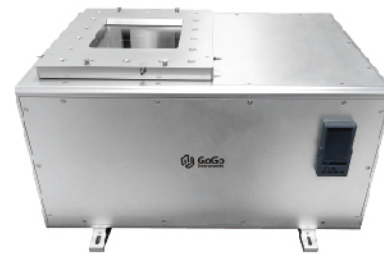
● Configuration List

Software	Stage	Intelligent Liquid Nitrogen Tank	Others
GoGo TCS	High-Low Temperature Test Chamber	YS-YDB-2001	Cables, Tubing, Accessories, etc.

High-Low Temperature Test Chamber Application Cases



- Customized high/low temperature test chamber, compatible with DIC systems, universal testing machines, and other equipment.



► Muffle Furnace

● Product Features

Muffle furnaces provide a highly stable thermal environment for material heat treatment (sintering/annealing, etc.). Their ceramic fiber-reinforced furnace chamber and armored insulation shell design ensure a long service life, comprehensively meeting the needs of material synthesis, performance testing, and high-temperature process development.



MFH1200

● Specifications

TYPE	MFH1200
Cooling/Heating Method	Electric Heating
Temperature Range	RT~1200°C
Temperature Stability	±5°C
Heating/Cooling Rate	0~10°C/min
Dimensions	296mm*282mm*406mm
Chamber Dimensions	100mm*100mm*118mm
Chamber	Atmosphere
Net Weight	21kg

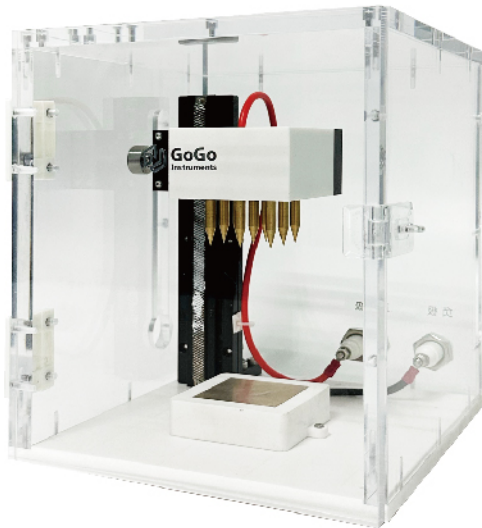
● Configuration List

Stage	Others
Muffle Furnace	Cables,etc.

► Corona Polarization Device

● Product Features

Corona Polarization is equipment used to polarize materials such as polymer films. By generating corona discharge, it induces surface charges on the material, thereby modifying its surface properties.



CP30000

● Specifications

TYPE	CP30000
Range of Electric Field Strength	50*50mm
High-Voltage Power Supply	0~30kV
Current	1mA
Electrode Height	0~100mm
Dimensions	200mm*220mm*235mm
Net Weight	5kg

● Configuration List

Stage	High-Voltage Source	Others
Corona Polarization	DW-P303-1ACH2	Cables, etc.

Optional: Custom high-voltage supply, etc.

► Corona Polarization Application Cases

■ 30kV High-Voltage Polarization Device



■ Custom TSD Corona Polarization Testing Device



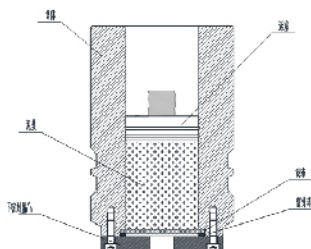
► Filter Press

● Product Features

Specifically designed for slurry pressure filtration simulation testing, this system employs a pneumatic cylinder to replicate plate and frame filtration. It allows for precise adjustment of parameters, including pressure values (with multi-stage settings) and pressing duration, delivering a repeatable and standardized testing environment. Filtrate is measured in real-time via an electronic balance positioned beneath the test cylinder, with automatic data logging. The system also supports parameter configuration and features visual data display capabilities.



FP16



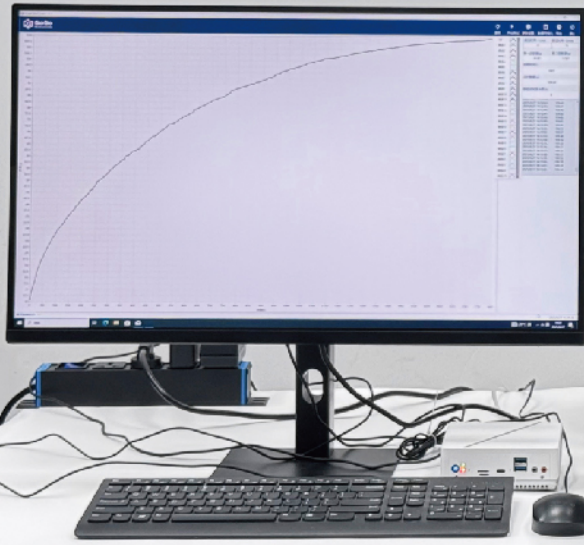
● Specifications

TYPE	FP16
Dimensions	367mm*223mm*710mm
Primary Extraction Pressure	0~1.6MPa
First-Press Time	0~30min
Secondary Extraction Pressure	0~1.6MPa
Second-Press Time	0~30min
Electronic scale	Capacity: 3 kg; Resolution: 0.01 g; Data Transmission
Bulk	785mL
Inside diameter	100mm
Height	100mm
Control Software	Total Real-Time Filtrate Volume and Filtrate Volume vs. Time Curve
Net Weight	38kg

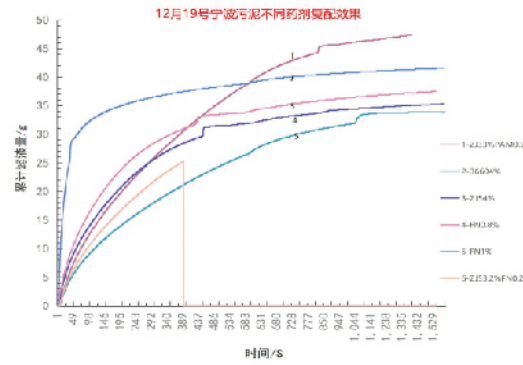
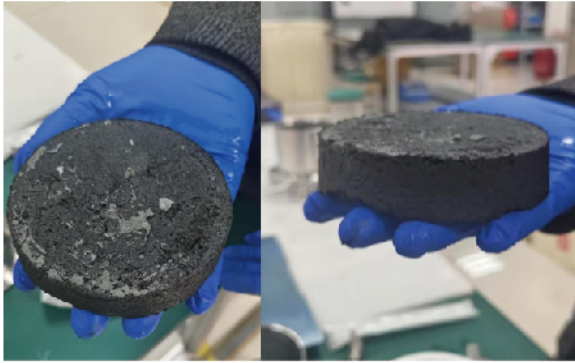
● Configuration List

Software	Stage	Force Controller	Electronic Balance	Air Compressor	Others
GoGoSLST	Filter Press	GPC-A	Not fixed	Not fixed	Cables, Accessories, etc.

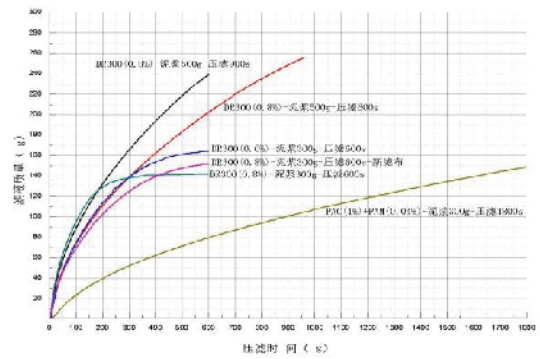
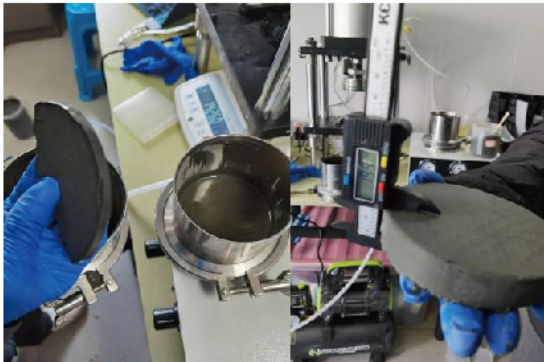
► Filter Press Application Cases



■ Rapid Screening of Municipal Sludge Agents



■ Rapid Dosage Selection of Dewatering Agents for River Sludge in a Nanjing University



► Configuration Details

Temperature Controller

Through PID control, it automatically adjusts the heating and cooling power output of the stage to achieve fast, precise, and stable closed-loop temperature control.



■ GTC-A: For Heating/Cooling Stage

Rated Voltage	220V
Rated Frequency	50Hz/60Hz
Rated Power	200W
Communication Port	Ethernet Port
Net Weight	3.3kg
Dimensions	310mm*260mm*120mm (L×W×H)



■ GTC-B: For Peltier Heating/Cooling Stage

Rated Voltage	220V
Rated Frequency	50Hz/60Hz
Rated Power	150W
Communication Port	Ethernet Port
Net Weight	2.9kg
Dimensions	310mm*260mm*120mm (L×W×H)



■ GTC-D: For Ultra-High-T Heating Stage

Rated Voltage	220V
Rated Frequency	50Hz/60Hz
Rated Power	600W
Communication Port	Ethernet Port
Net Weight	4.1kg
Dimensions	310mm*260mm*120mm (L×W×H)



■ **GTC-S: For SEM Heating/Cooling Stage**

Rated Voltage	220V
Rated Frequency	50Hz/60Hz
Rated Power	300W
Communication Port	Ethernet Port
Net Weight	7kg
Dimensions	310mm*210mm*135mm (L×W×H)

Cooling Controller

Adjust the cooling/heating rate of the stage by controlling the flow rate.



■ **GRC-A02**

Rated Voltage	220V
Rated Frequency	50Hz/60Hz
Rated Power	80W
Liquid Port	Φ8mm Barb Connector
Net Weight	3.7kg
Dimensions	310mm*260mm*80mm(L×W×H)



■ **GRC-A03/GRC-A04**

Rated Voltage	220V
Rated Frequency	50Hz/60Hz
Rated Power	80W/120W
Liquid Port	Φ8mm Barb Connector
Net Weight	5.5kg/6kg
Dimensions	310mm*260mm*120mm(L×W×H)

Force Controller



■ GMC-A

Rated Voltage	220V
Rated Frequency	50Hz/60Hz
Rated Power	100W
Communication Port	USB
Net Weight	3kg
Dimensions	310mm*210mm*135mm(L×W×H)

Circulating Water Chiller

Used to circulate water through the heating/cooling stage enclosure to prevent overheating or excessive cooling, ensuring experimental safety.



■ GCW-A

Rated Voltage	220V
Rated Frequency	50Hz/60Hz
Rated Power	48W
Power Adapter	DC 12V 4A
Rated Water Capacity	300mL
Maximum Head	6m
Maximum Flow Rate	9L/min
Inlet/Outlet	Φ8mm Barb Connector
Net Weight	3.1kg
Dimensions	323mm*154mm*165mm(L×W×H)

- **HLUL-15:** Provides higher flow rate and cooling capacity, capable of extending the temperature control range of Peltier heating/cooling stages or cooling enclosures of ultra-high-temperature equipment.



Voltage	220V
Operating Current	0.4A-2.7A
Frequency	50Hz/60Hz
Total Rated Power	450W
Water Tank Capacity	6L
Maximum Flow Rate	16L/min
Maximum Head	15m
Nominal Cooling Capacity	2995Btu/h
Inlet/Outlet	Φ8mm Barb Connector
Dimensions	560mm*285mm*470mm(L×W×H)
Net Weight	22kg

Pressure Controller

GPC-A



Rated Voltage	220V
Rated Frequency	50Hz/60Hz
Rated Power	800W
Communication Port	USB-RS485
Net Weight	3.3kg
Dimensions	310mm*310mm*145mm(L×W×H)

Liquid Nitrogen Tank



YDS-2-35

Volume	2.5L
Oral Diameter	35mm
Dimensions	Φ220mm*410mm
Empty Weight	2.99kg
Other models available	YDS-6-50、YDS-10-50

Intelligent Liquid Nitrogen Tank

The intelligent liquid nitrogen tank can automatically replenish the target container based on set parameters or sensor feedback. Upon completion of replenishment, it automatically releases pressure from the tank to eliminate safety hazards. The remote monitoring function allows users to check the operational status of the pump in real time and adjust refill intervals, power on/off, and other operations remotely. If an abnormality is detected, the system automatically triggers an alarm to notify personnel.



YS-YDB-2001

Operating Voltage	≤26.4V
Operating Current	≤5A
Pressure Constant Error	±0.2Kpa
Pressure Monitoring and Adjustable Range	30Kpa
Liquid Level Error	±2cm
Liquid Output	≤1.9L/min
Evaporation Rate	0.994L/Day
Emergency Relief Pressure	50Kpa



Independent intellectual property rights



High-precision temperature control



Professional temperature control software



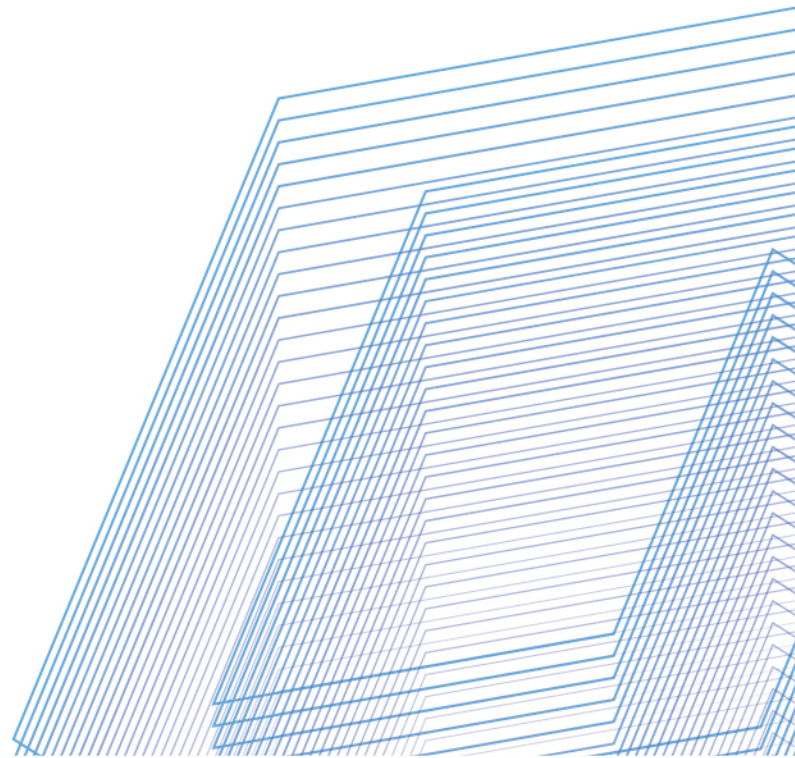
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Multi-industry application



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