MECHANICS APPLICATION PRODUCTS BROCHURE

GoGo Instruments

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

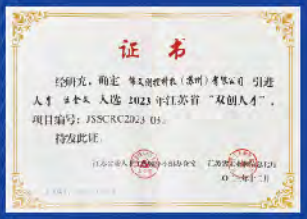
OVER 100 PATENTS APPLIED

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)


光学平台
Optical Table
GoGo
GoGo
GoGo


Bairoe

MECHANICS APPLICATION HEATING AND COOLING STAGE

In-situ Tensile Stage

Designed for studying the coupled evolution of material microstructure and mechanical properties, this in-situ tensile stage integrates multifunctional loading modules (tension, compression, shear, three-point bending) and supports force control, displacement control, and programmed cyclic loading modes. An optional thermal module enables synchronized, real-time characterization of mechanical response and microstructural evolution under varying temperatures.

Testing modes are interchangeable via specialized grips, while temperature compatibility allows multi-dimensional in-situ mechanical characterization across temperatures within a unified system.

Tensile Machine Heating and Cooling Stage

A specialized thermal extension module for universal testing machines (UTMs), this tensile stage enables in-situ characterization of stress-strain responses and dynamic mechanical behavior across temperatures. High-precision strain acquisition is achievable with optional DIC systems or video extensometers.

CONTENTS

FH5000-1000V
5000N RT~1000℃

SFH5000-1200
Suitable for SEM, 5000N RT~1200℃

UCH600
-190℃~600℃

UCH600-HT
-190℃~600℃

/

/

In-situ Tensile Stage

Product Features

Featuring a modular thermal design for rapid disassembly, the system enables swift switching between tension, compression, shear, and bending testing modes via specialized interchangeable fixtures. This integrated approach achieves comprehensive multi-dimensional mechanical characterization within a single platform.

FCH500-200

FH5000-1000V

Specifications

TYPE	FCH500-200	FH5000-1000V
Cooling/Heating Method	Liquid nitrogen cooling,Resistance heating	Resistance heating
Temperature Range	-190℃~200℃	RT~1000℃
Temperature Stability	±0.1℃	
Heating/Cooling Rate	Maximum Heating Rate:150℃/min, Maximum Cooling Rate:40℃/min	Maximum Heating Rate:150℃/min, Controllable Cooling Rate
Sample Holder	Silver ;35mm*12mm	Ceramic;φ7mm
Top Window Size	φ45mm*1mm	φ85mm*1mm
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	13mm	5mm
Chamber Height	5mm	3.5mm
Tension	Range: 20N, 500N; Accuracy: 0.5% F.S.	Range: 5000N; Accuracy: 0.5% F.S.
Displacement	100mm	20mm
Crosshead Speed	0.1~100mm/min	0.1~5mm/min
Testing Modes	Tension, Compression, Shear, Bending	
Chamber	Atmosphere	Vacuum
Dimensions	328mm*156mm*53mm	250mm*255mm*74mm
Net Weight	3.2kg	8.5kg

Configuration List

Stage	Software	Temperature Controller	Cooling Controller	Liquid Nitrogen Tank	Circulating Water Chiller	Force Controller	Others
FCH500-200	GoGo TCS	GTC-A	GRC-A	YDS-2-35	GCW-A	GMC-A	Accessories,etc.
FH5000-1000V		GTC-A	/	/	GCW-A	GMC-A	

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

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; ϕ10mm
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	Accessories,etc.

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

Tensile Machine Heating and Cooling Stage

Product Features

A specialized thermal extension module for universal testing machines (UTMs), this tensile stage enables in-situ characterization of stress-strain responses and dynamic mechanical behavior across temperatures. High-precision strain acquisition is achievable with optional DIC systems or video extensometers.

UCH600

UCH600-HT

Specifications

TYPE	UCH600	UCH600-HT
Cooling/Heating Method	Liquid nitrogen cooling,Resistance heating	
Temperature Range	-190℃~600℃	
Temperature Stability	±0.1℃	
Heating/Cooling Rate	Maximum Heating Rate:150℃/min,Maximum Cooling Rate:40℃/min	
Sample Holder	Copper;30mm*25mm	Copper;30mm*50mm
Top Window Size	ϕ25mm*1mm	
Window Material	JGS2 Fused Silica Glass (Transmission Range: 220 nm - 2500 nm), manually removable and replaceable.	
Chamber	Atmosphere	
Dimensions	96mm*70mm*30mm	160mm*143mm*83mm
Net Weight	1kg	2kg

Configuration List

Software	Stage	Temperature Controller	Cooling Controller	Liquid Nitrogen Tank	Circulating Water Chiller	Others
GoGo TCS	Tensile Machine Heating and Cooling Stage	GTC-A	GRC-A	YDS-2-35	GCW-A	Accessories,etc.

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

➤ 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 In-situ Tensile 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-D: For Ultra-High-T In-situ Tensile 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-F: For Tensile Machine Infrared Heating Furnace

Rated Voltage	220V
Rated Frequency	50Hz/60Hz
Rated Power	3200W
Communication Port	Ethernet Port
Net Weight	8.2kg
Dimensions	460mm*334mm*120mm (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.

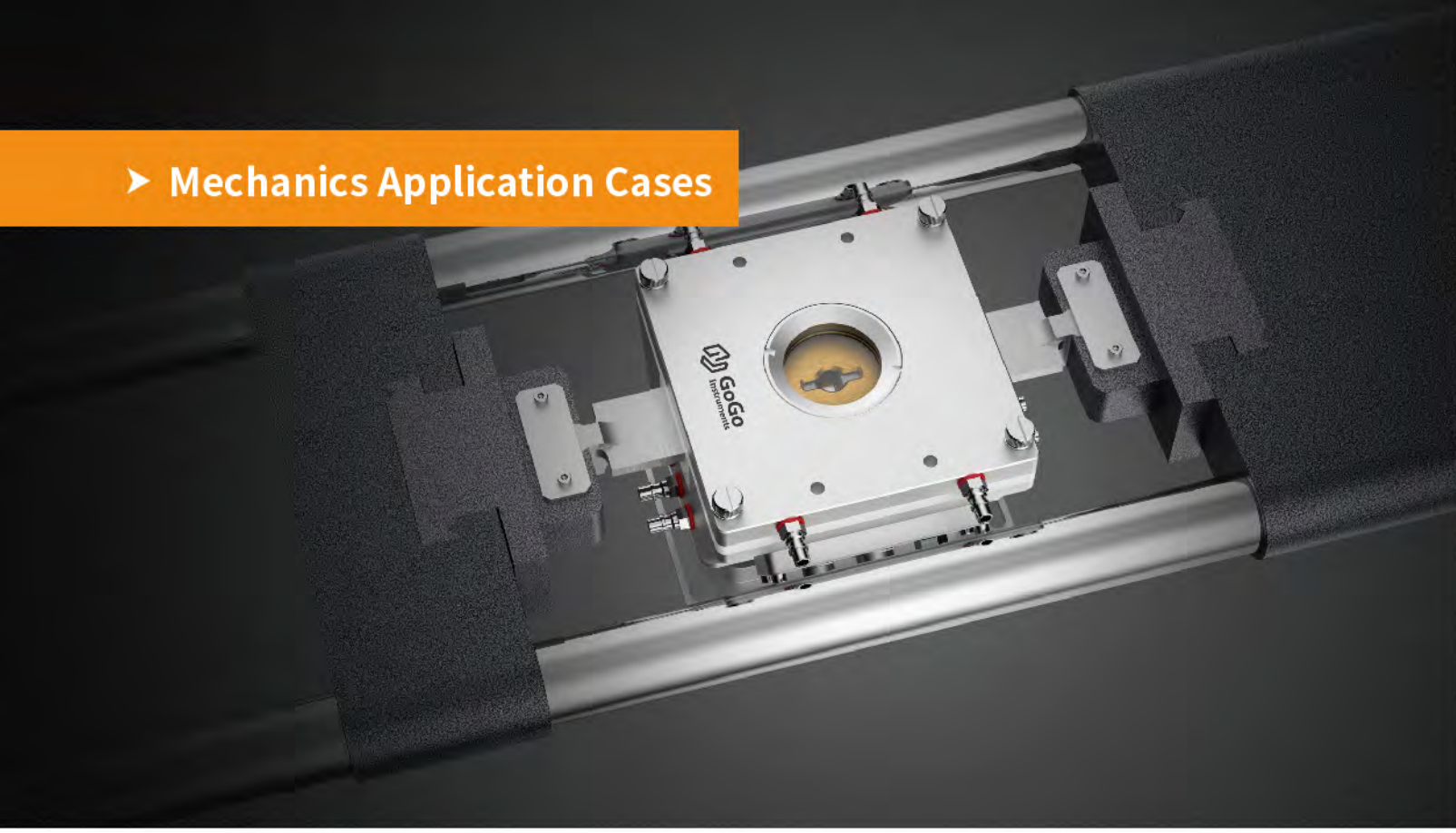
Voltage	220V
Operating Current	0.4A-2.7A
Frequency	50Hz/60Hz
Total Rated Power	450W
Water Tank Capacity	6L
Maximum Flow Rate	16L/min
Maximum Head	15m
Nominal Cooling Capacity	2995Btu/h
Inlet/Outlet	Φ8mm Barb Connector
Dimensions	560mm*285mm*470mm(L×W×H)
Net Weight	22kg

Liquid Nitrogen Tank

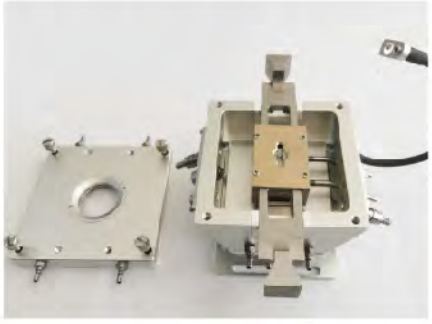
YDS-2-35

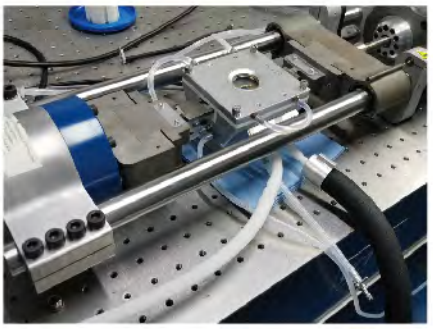
Capacity	2.5L
Neck Diameter	35mm
Dimensions	Φ220mm*410mm
Empty Weight	2.99kg
Other Models Available	YDS-6-50、YDS-10-50

Mechanics Application Cases

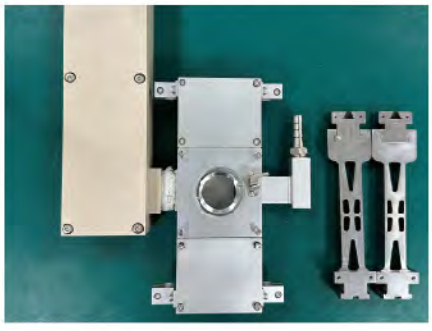


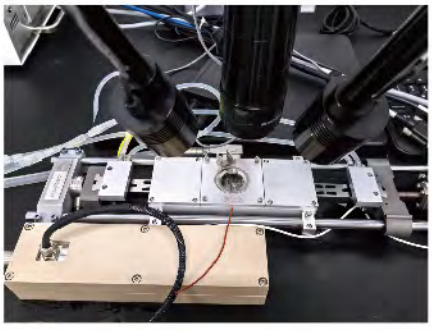
■ Custom μTS tensile machine heating/cooling stage,-190°C~500°C



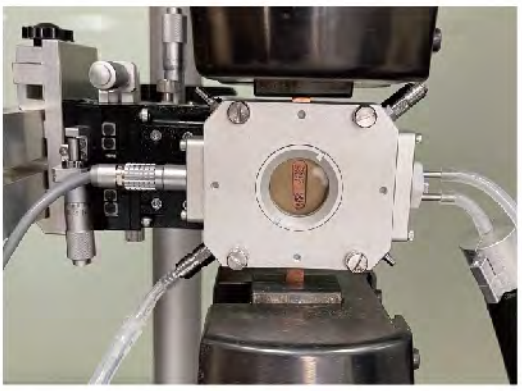


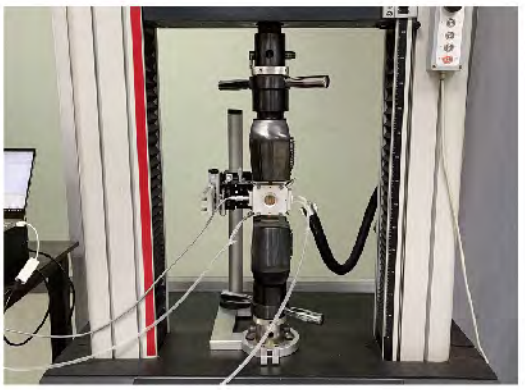
■ Custom μTS tensile machine small environmental chamber,-100°C~50°C

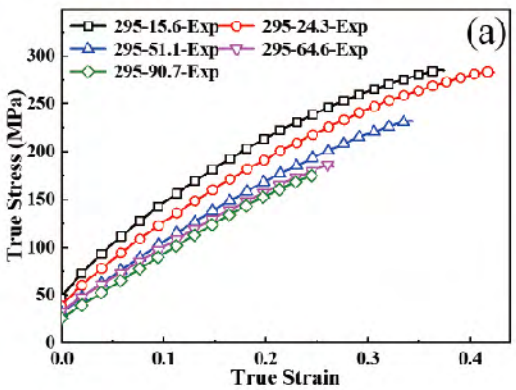


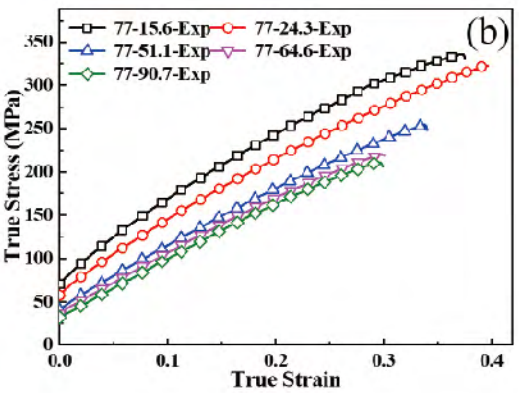


- Custom universal testing machine heating/cooling stage for high-entropy alloy research

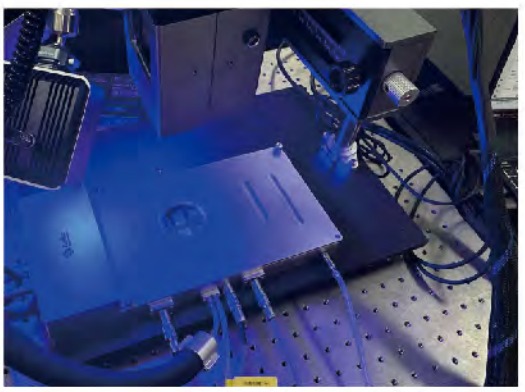


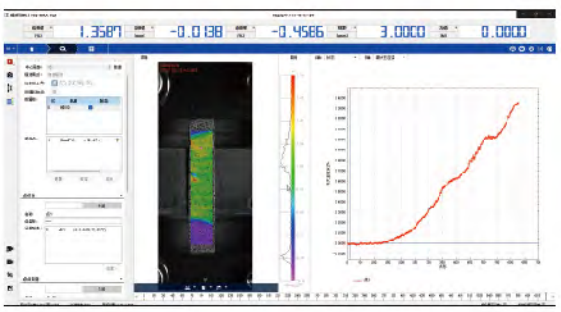


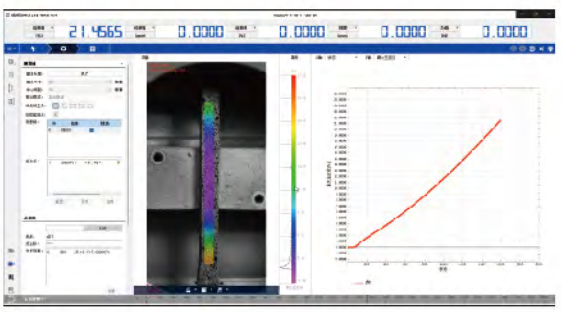




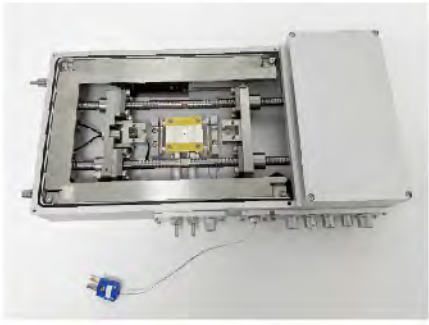
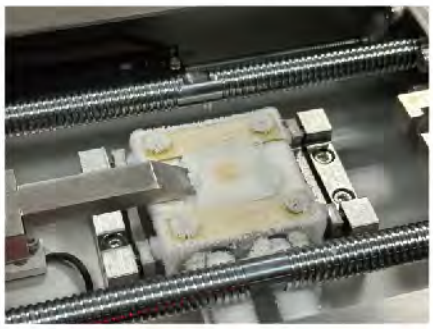
- In-situ tensile heating/cooling stage, compatible with 20N/200N mechanical modules, -80°C ~ 300°C, with DIC for stress-strain testing





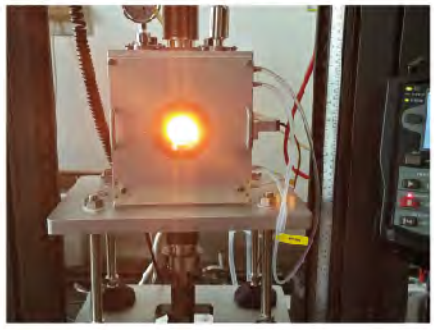


- Custom 20N in-situ tensile cooling stage for ice adhesion mechanics research

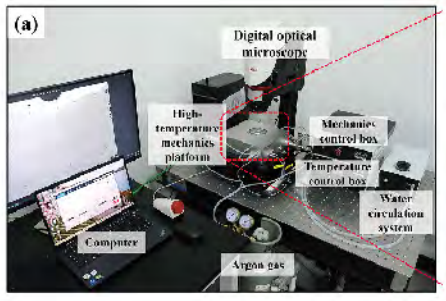



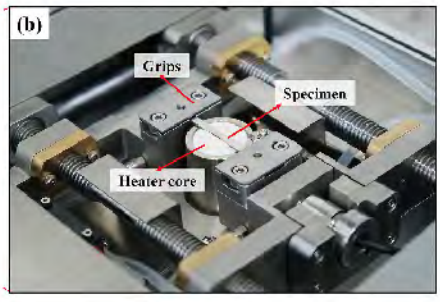

- Custom 1000°C universal testing machine ultra-high-temperature infrared focusing heating system



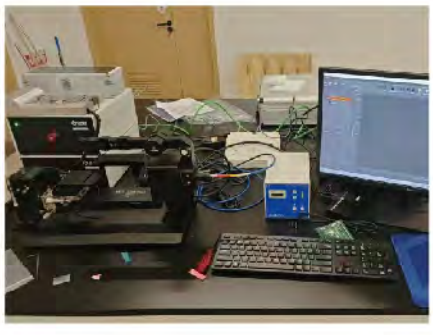
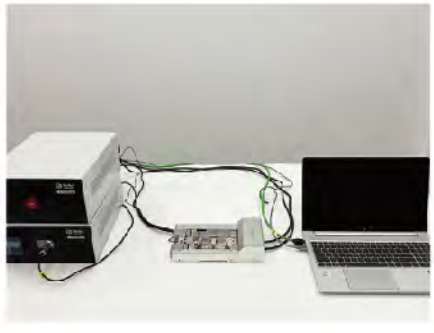


- Custom in-situ tensile heating stage, 5000N, 1000°C, for new high-temperature-resistant grating technology research



- Custom 500N in-situ tensile heating stage, compatible with the Fuxiang Optics angular-resolved spectrometer, for elastic polymer hydrogel research

Independent intellectual property rights

High-precision temperature control

Professional temperature control software

Custom development

Multi-industry application

High-quality service

Distribution in the UK & Ireland

Lambda

Characterisation, Measurement & Analysis

Lambda Photometrics Limited
Lambda House Batford Mill
Harpenden Herts AL5 5BZ
United Kingdom
E: info@lambdaphoto.co.uk
W: www.lambdaphoto.co.uk
T: +44 (0)1582 764334
F: +44 (0)1582 712084

Version No:2025.11