

Electrochemical Research Cells, Instruments & Systems

PRODUCT CATALOGUE & PRICE LIST

2026 EDITION

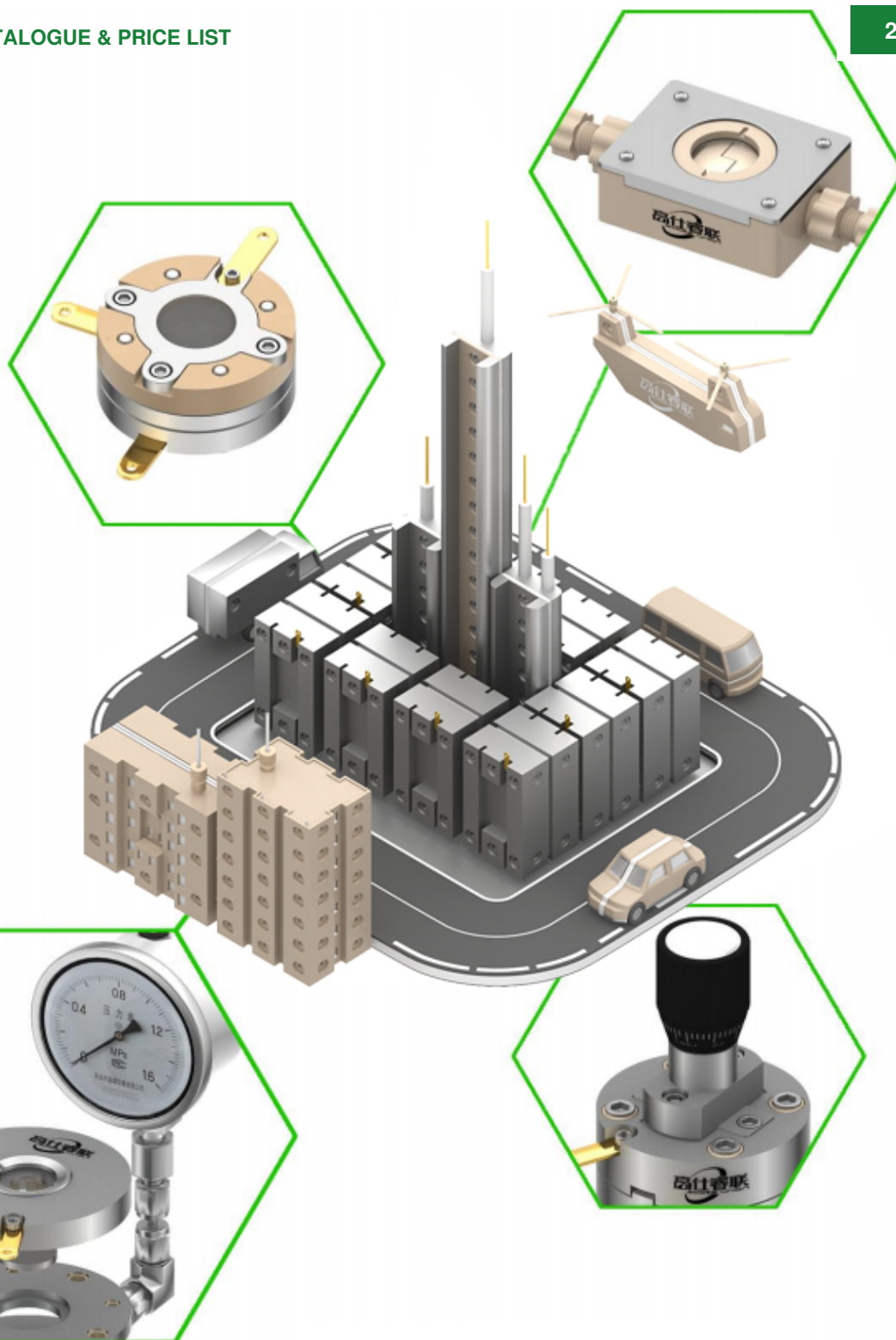


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In-situ Electrochemical Equipment Series

In-situ Raman Spectroelectrochemical Cell (Basic Model)

Model No.: C031-1

This in-situ electrochemical cell is designed to investigate the in-situ spectral and morphological evolution of electrode materials during electrochemical experiments. The working electrode (WE) is placed directly beneath the viewing window, allowing optical instruments to observe the working electrode through the quartz window.

The cell body is made of PEEK material. It supports rapid assembly and disassembly for easy cleaning.

It is applicable to in-situ electrochemical measurements under flow systems, and electrolyte can also be conveniently injected to fill the cell chamber.

Optical window diameter: 37 mm

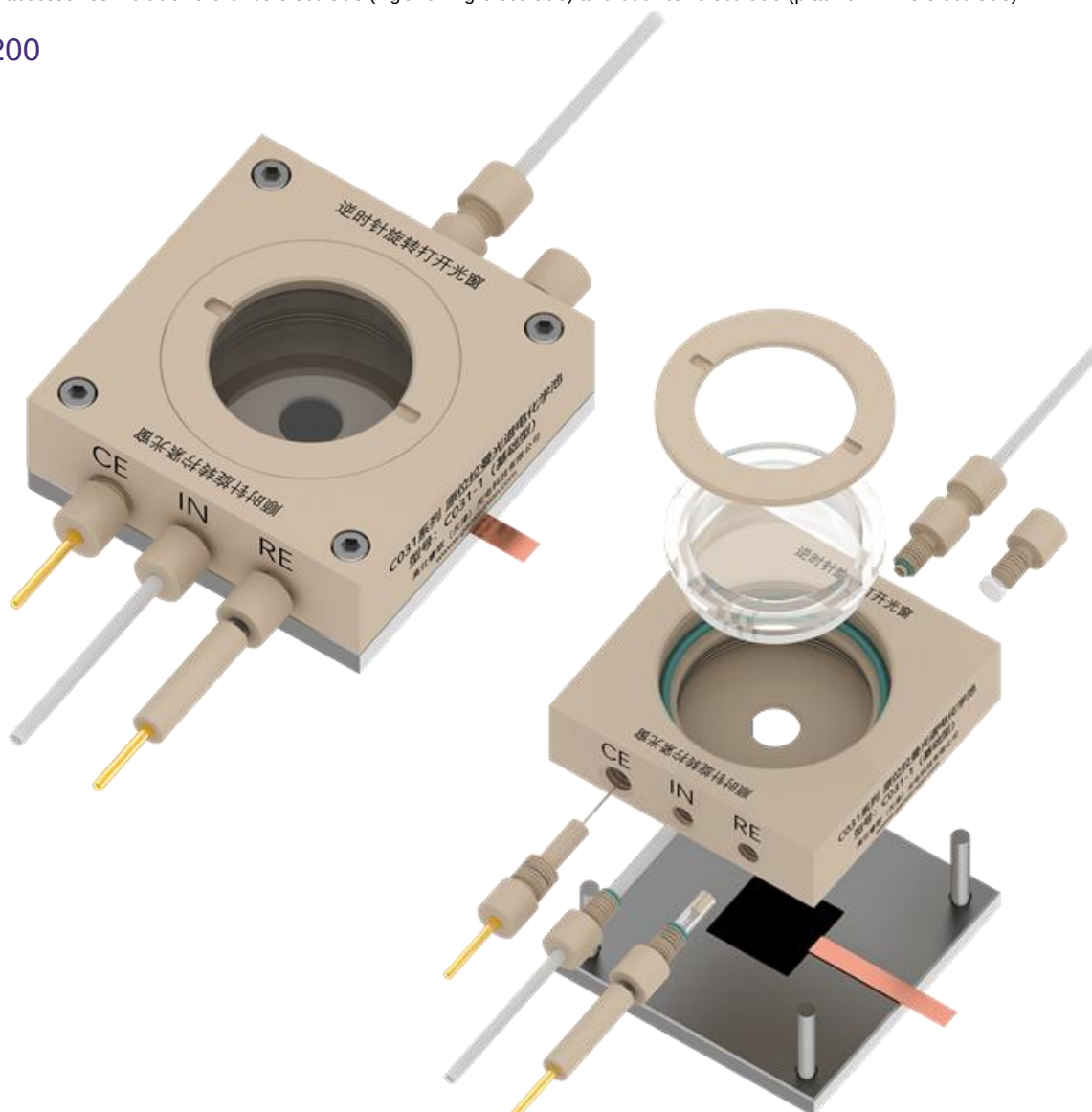
Distance between working electrode and optical window: less than 6 mm

Default working electrode area: 1 cm²; customized dimensions are available upon request.

The working electrode is a sheet-type electrode (gold sheet, platinum sheet, glassy carbon sheet, ITO, FTO, carbon paper, etc.), which needs to be purchased separately.

Standard accessories include reference electrode (AgCl or Ag electrode) and counter electrode (platinum wire electrode).

€ : 3200



In-situ Electrochemical Equipment Series

In-situ Raman Spectroelectrochemical Cell (2H Removable Membrane Type)

Model: C031-2

This in-situ electrochemical cell is designed to characterize the in-situ spectral and morphological changes of electrode materials during electrochemical tests. The working electrode (WE) is placed directly underneath the viewing window, enabling optical instruments to observe the working electrode through the quartz window.

The cell main body is constructed from PEEK, featuring quick assembly and disassembly for effortless cleaning.

Its two compartments are sealed and fastened with screws to facilitate diaphragm replacement. The cathode and anode chambers are separated by an ion-exchange membrane (to be prepared by the user), which effectively eliminates interference from the anode to the cathode.

The reference electrode is placed in the same compartment as the working electrode to minimize IR drop.

It is compatible with in-situ electrochemical testing under flow conditions; electrolyte can also be easily injected into the cell.

Distance between working electrode and optical window: <6 mm

Optical window diameter: 37 mm

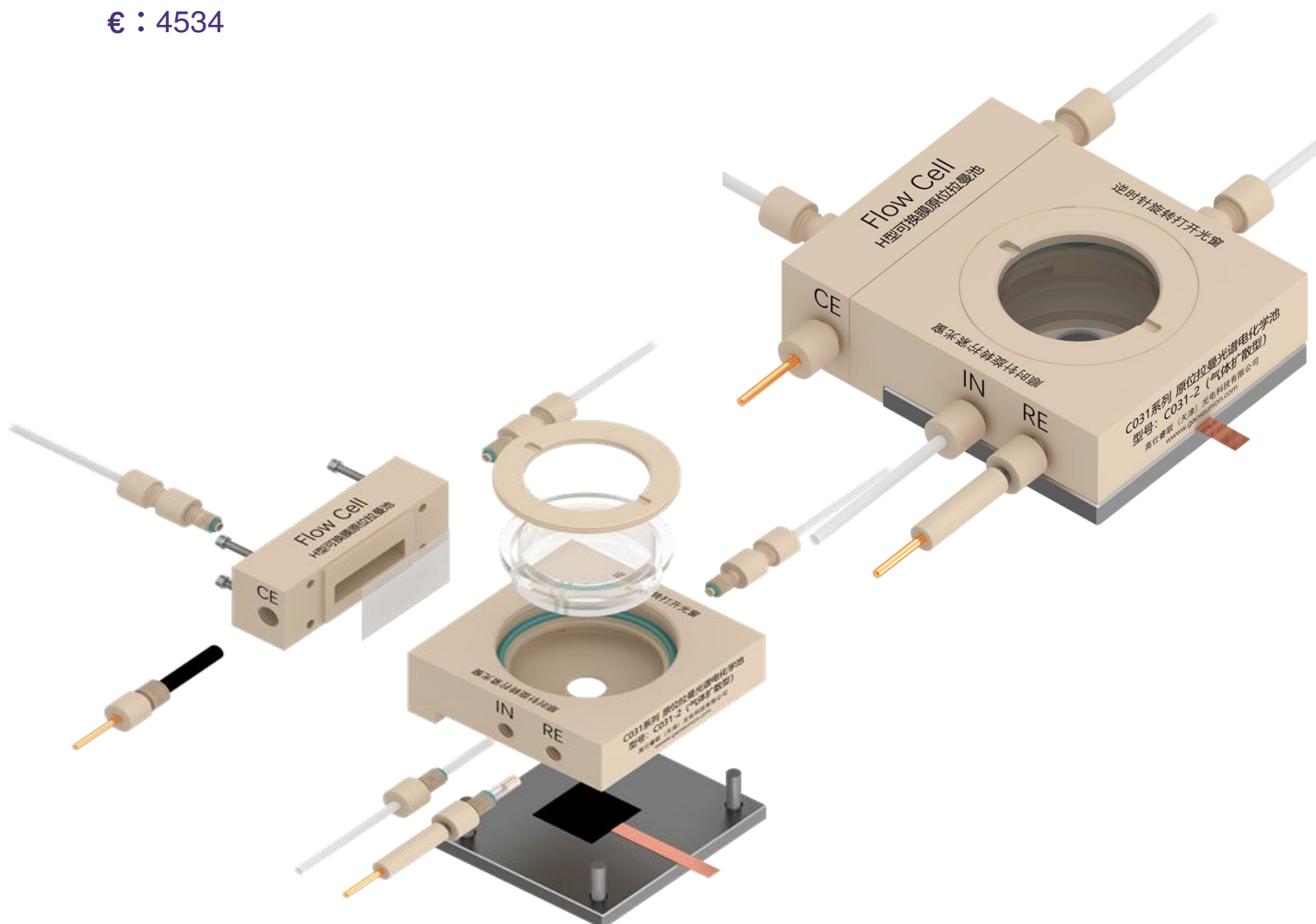
Standard working electrode area: 1 cm²; customized sizes are available on demand

Compatible with sheet working electrodes (gold foil, platinum foil, glassy carbon plate, ITO, FTO, carbon paper, etc.)

Standard configuration includes an AgCl reference electrode and imported graphite rod counter electrode.

Free-of-charge replacement options are available: Ag reference electrode or platinum wire counter electrode.

€ : 4534



In-situ Electrochemical Equipment Series

In-situ Raman Spectroelectrochemical Cell (3H Gas Diffusion Type)

Model No.: C031-3

This in-situ electrochemical cell is designed to investigate the in-situ spectral and morphological evolution of electrode materials during electrochemical experiments. The working electrode (WE) is placed directly below the viewing window, allowing optical instruments to observe the working electrode through the quartz window.

The two compartments of the cell are sealed and connected with screws for convenient diaphragm replacement. The cathode and anode chambers are separated by an ion-exchange membrane (to be supplied by the user), which effectively avoids interference of the anode on the cathode.

A gas channel is added at the bottom layer of the cathode chamber, endowing the cell with gas diffusion capability.

It supports in-situ electrochemical measurements for flow systems, and electrolyte can also be conveniently injected to fill the cell cavity.

Distance between working electrode and optical window: <6 mm

Optical window diameter: 37 mm

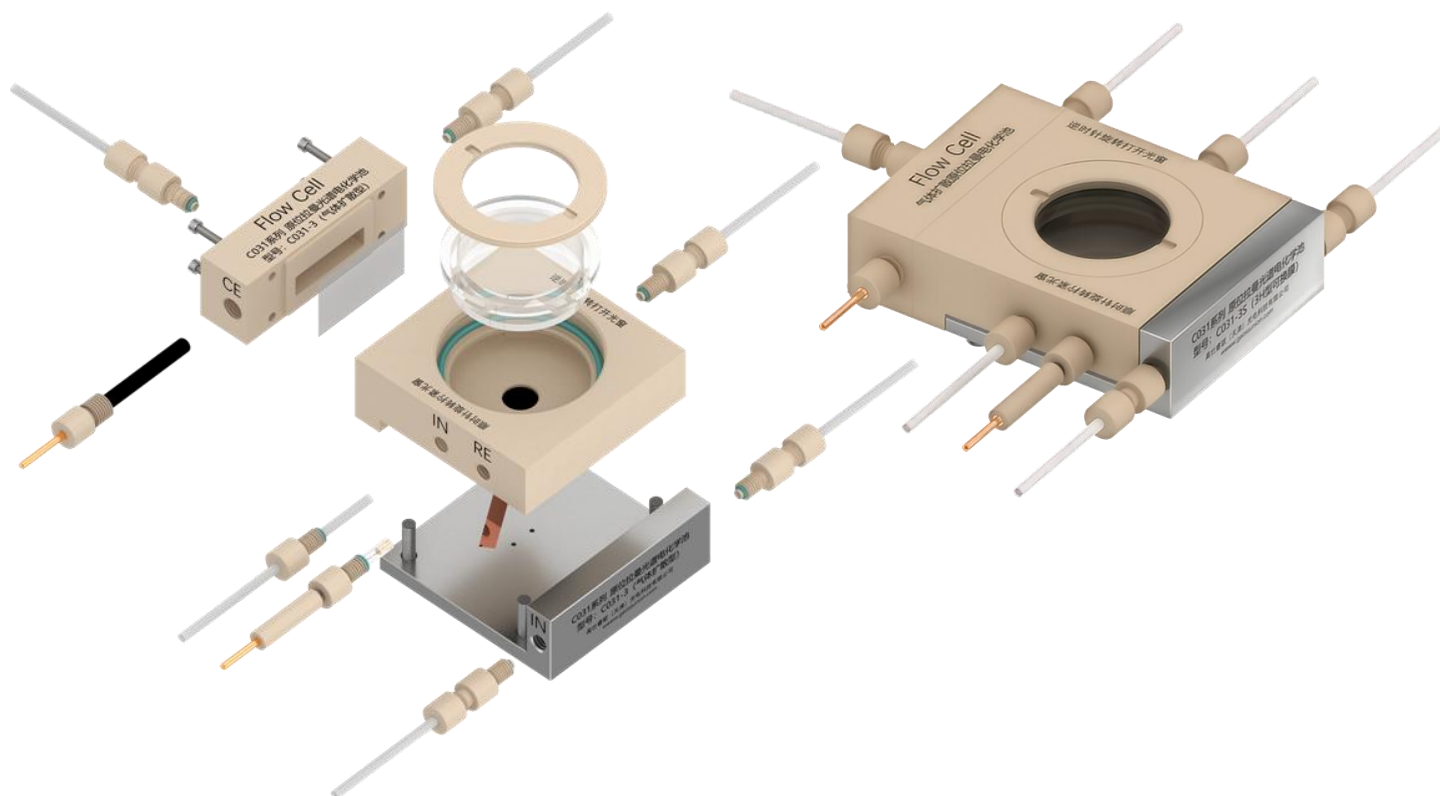
Default working electrode area: 1 cm²; customized specifications are available upon request.

A gas diffusion electrode is normally adopted as the working electrode to match the gas channel. Sheet materials including metal foil, glassy carbon plate, ITO and FTO can also be used as working electrodes. Working electrode materials need to be purchased separately.

Standard accessories: AgCl reference electrode and imported graphite rod counter electrode.

Free-of-charge alternative options: Ag reference electrode or platinum wire counter electrode.

€ : 5868



In-situ Electrochemical Equipment Series

In-situ Raman Spectroelectrochemical Cell (Gas Diffusion Type with Serpentine Flow Channel)

Model: C031-3S

This model is an upgraded version of the C031-3 in-situ Raman electrochemical cell. Its gas chamber adopts a serpentine flow channel design, which extends the contact duration between gas and catalyst, enabling gas to participate in experimental reactions more efficiently.

Distance between working electrode and optical window: <6 mm

Optical window diameter: 37 mm

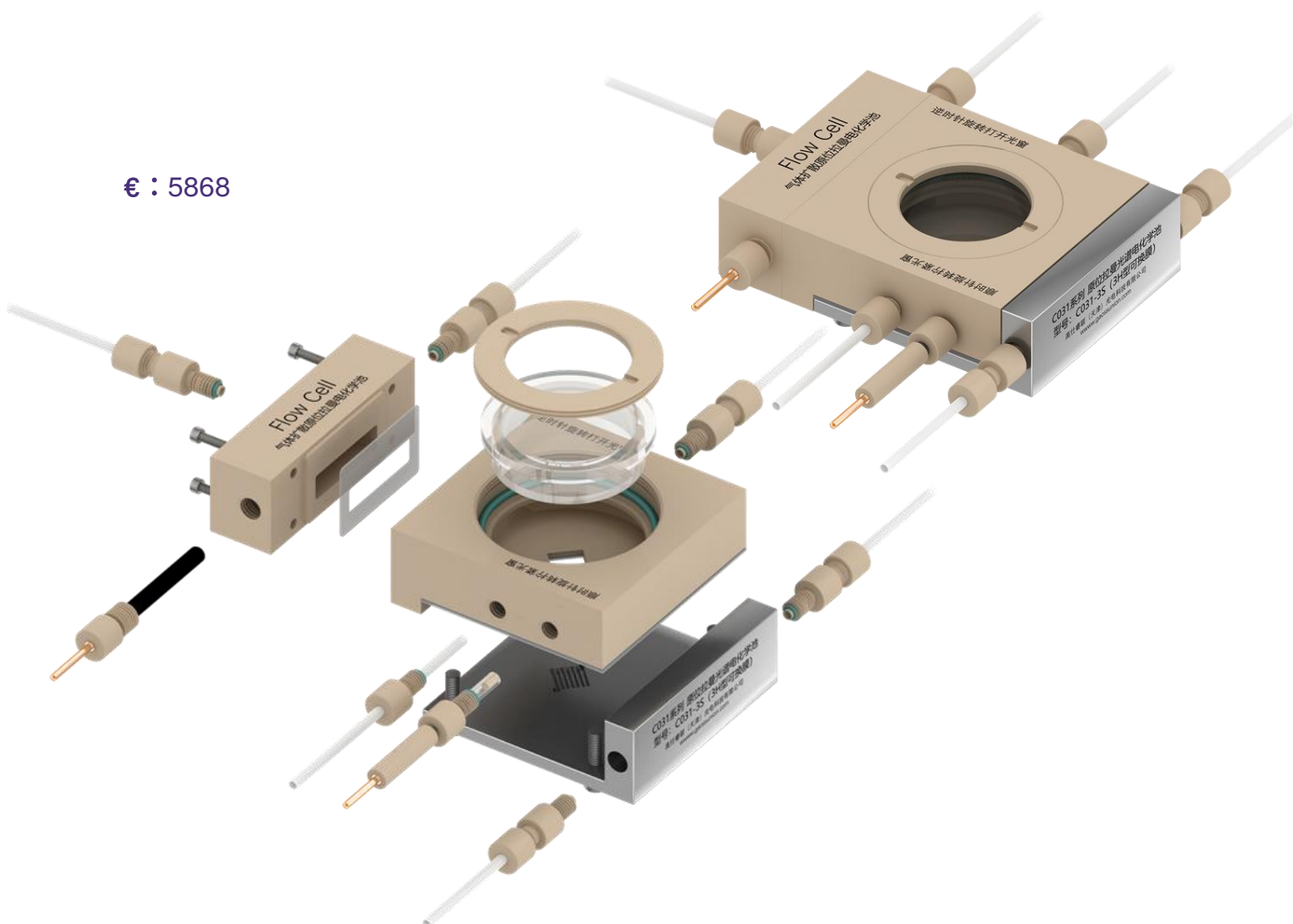
Standard working electrode area: 1 cm²; customized sizes are available on demand

A gas diffusion electrode is generally used as the working electrode to match the gas flow channel. Sheet materials such as metal foil, glassy carbon plate, ITO and FTO are also acceptable. Working electrode materials need to be purchased separately.

Standard configuration includes AgCl reference electrode and imported graphite rod counter electrode.

These can be replaced with Ag reference electrode or platinum counter electrode at no extra cost.

€ : 5868



In-situ Electrochemical Equipment Series

In-situ Raman Spectroelectrochemical Cell (Gas Diffusion Serpentine Flow Channel Type)

Model No.: C031-S

This in-situ electrochemical cell is designed to characterize the in-situ spectral and morphological changes of electrode materials during electrochemical experiments. The working electrode (WE) is placed directly beneath the viewing window, so optical instruments can observe the working electrode through the quartz window.

The cell consists of three independent chambers: gas chamber, working electrode chamber, and counter electrode chamber. The three compartments are separated respectively by a gas diffusion electrode (to be prepared by the user) and an ion-exchange membrane (to be prepared by the user). It is specially developed for in-situ Raman testing on gas diffusion electrodes.

The gas chamber adopts a serpentine flow field, which greatly prolongs the contact time between gas and the gas diffusion electrode compared with Model C031-3, enabling more sufficient catalytic reactions.

For Model C031-S Raman spectroelectrochemical cell, the working electrode is a user-supplied gas diffusion electrode with a fixed effective area of 1 cm². It is equipped with an imported flat sapphire window with a light transmittance above 95%. The flat window has a diameter of 45 mm, and the distance between the window surface and the working electrode is less than 3 mm. This optimized design makes the cell compatible with most commercial Raman spectrometers. The reference electrode (standard AgCl or Ag electrode) shares the same compartment with the working electrode to effectively reduce IR drop.

Cell body material: Polyetheretherketone (PEEK)

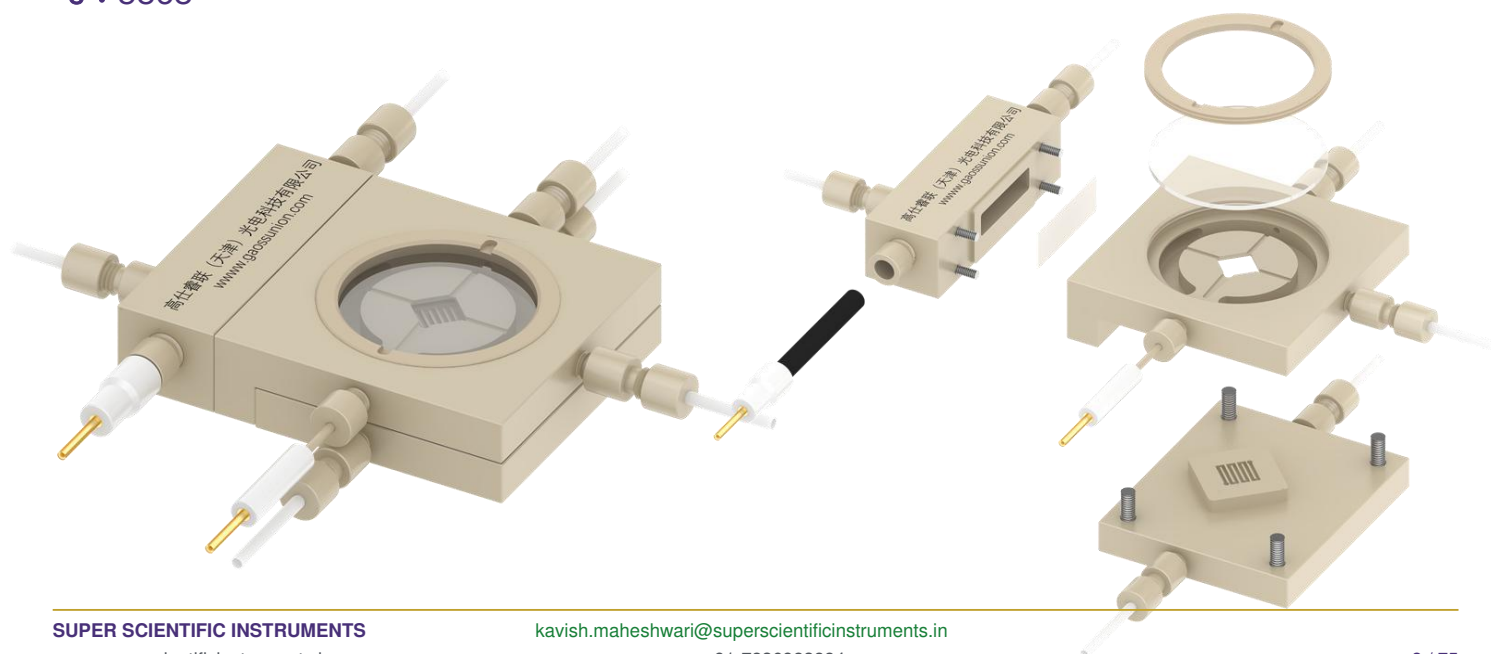
Window material: Sapphire; Window diameter: 45 mm

Normally, a gas diffusion electrode is used as the working electrode to match the gas flow channel. Sheet materials such as metal foil, glassy carbon plate, ITO and FTO are also applicable. Working electrode materials need to be purchased separately.

Standard configuration includes AgCl reference electrode and imported graphite rod counter electrode.

They can be replaced with Ag reference electrode or platinum wire counter electrode at no extra cost.

€ : 5868



In-situ Electrochemical Equipment Series

In-situ Raman Spectroelectrochemical Cell (Disc Electrode Type)

Model No.: C031-4

This in-situ electrochemical cell is designed to investigate the in-situ spectral and morphological evolution of electrode materials during electrochemical experiments. The working electrode (WE) is placed directly below the viewing window, allowing optical instruments to observe the working electrode through the quartz window. The cell body is made of PEEK and high-purity titanium. It supports rapid assembly and disassembly for easy cleaning.

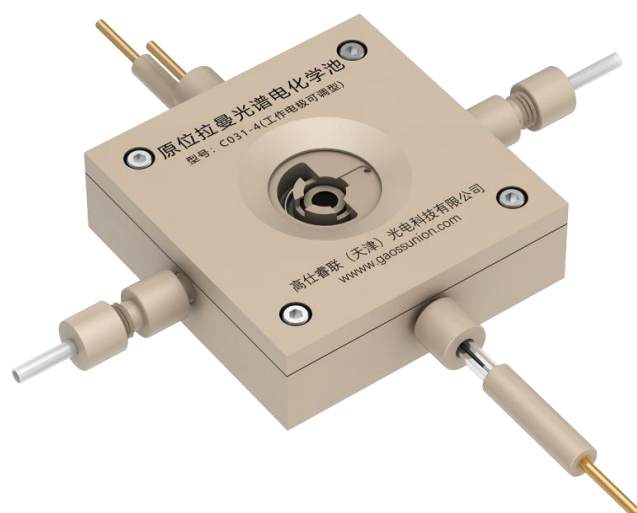
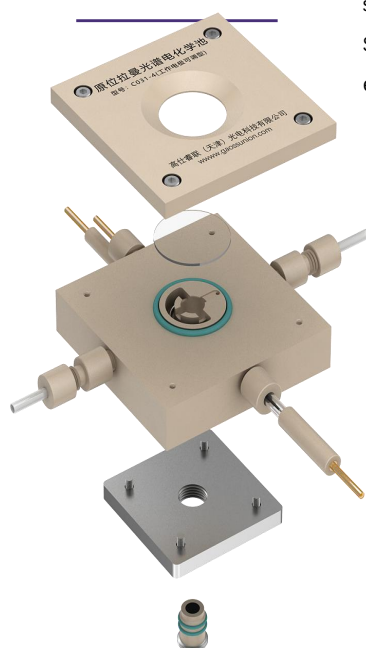
It is applicable to in-situ electrochemical testing under flow systems; electrolyte can also be conveniently injected to fill the cell chamber.

Optical window diameter: 25 mm

Distance between working electrode and optical window: less than 3 mm

The standard working electrode is a 5 mm glassy carbon disc electrode. It can be replaced with disc electrodes such as gold disc, platinum disc and silver disc upon request (price difference will be charged if applicable).

Standard accessories include reference electrode (AgCl or Ag electrode) and counter electrode (platinum wire electrode).



€ : 3200

In-situ Observation Cell for Powder Samples

Model No.: C031-6

€ : 800



In-situ Electrochemical Equipment Series

H-type Removable Membrane In-situ IR Test Cell

Model No.:

IFA-1 (Internal Reflection Mode)

IFA-2 (External Reflection Mode)

Internal Reflection Mode

A nano-gold film is deposited via chemical plating on window substrates such as monocrystalline silicon (Si) to serve as a conductive base. The electrocatalyst is loaded onto its surface to form the working electrode.

External Reflection Mode

The electrocatalyst is coated on the surface of a base glassy carbon electrode to fabricate the working electrode. A micrometer is integrated into the electrode to flexibly adjust the gap between the working electrode and the crystal, so as to regulate the thickness of the infrared liquid layer and the intensity of reflected signals.

Electrode & Cell Parameters

Working electrode for internal reflection cell: Monocrystalline silicon (without gold plating)

Working electrode for external reflection cell: 10 mm core glassy carbon electrode (with integrated micrometer)

Counter electrode: Graphite electrode

Reference electrode: Silver/Silver Chloride (Ag/AgCl) electrode

Infrared window material: Monocrystalline silicon

Anode & cathode gas inlet/outlet ports: Equipped

Cell volume: Less than 20 mL

IFA-1 : Internal Reflection

Internal Reflection Cell € : 5868

External Reflection Cell € : 10534



Optical Path Matching for Internal Reflection Cell



IFA-2 : External Reflection



External Reflection Cell Matching Optical Path

In-situ High-Pressure IR Test Cell

In-situ Electrochemical Equipment Series

Model No.: IFA-P

This reaction cell is upgraded for high pressure resistance based on the atmospheric-pressure H-type in-situ IR test cell. The cell body is fabricated from high-purity titanium and sealed and fastened with stainless steel bolts. Electrodes are fixed internally to ensure safety and reliability.

IR window material: Monocrystalline silicon (customizable windows of calcium fluoride or zinc selenide are available)

Housing material: High-purity titanium

Chamber material: High-purity polytetrafluoroethylene (PTFE)

Chamber volume: 20 mL + 20 mL

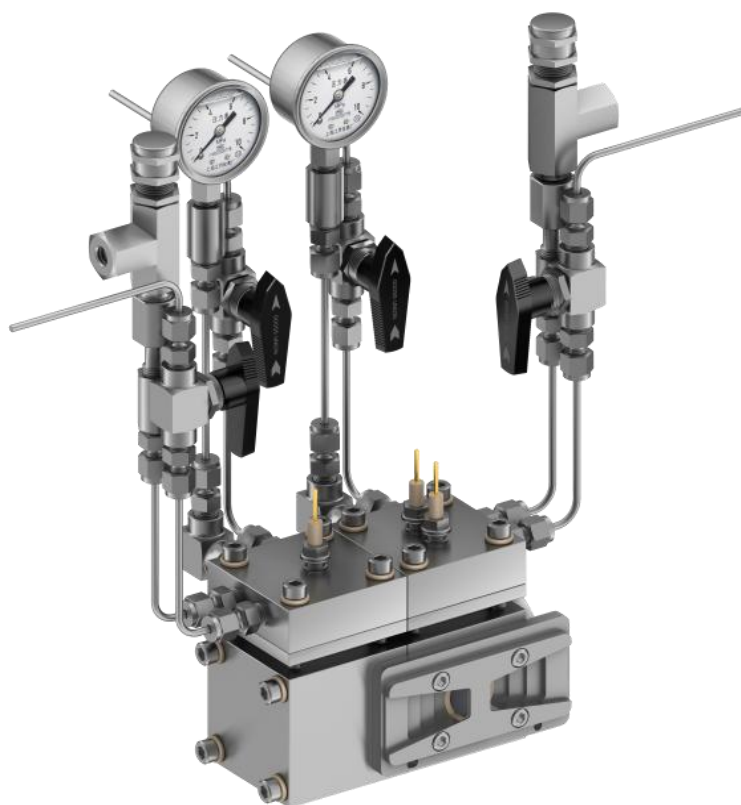
Observation window material: High-pressure-resistant sapphire

Maximum working pressure: 6 MPa

Standard high-pressure resistant three-electrode system for electrochemistry: glassy carbon electrode holder, silver chloride electrode, platinum sheet electrode

Note: This reaction cell must be used with a matched optical path.

€ : 32668



In-situ Electrochemical Equipment Series

In-situ IR Test Cell (Transmission Mode)

Model: Infraredlight

Working Electrode: Platinum Mesh

Counter Electrode: Platinum Electrode

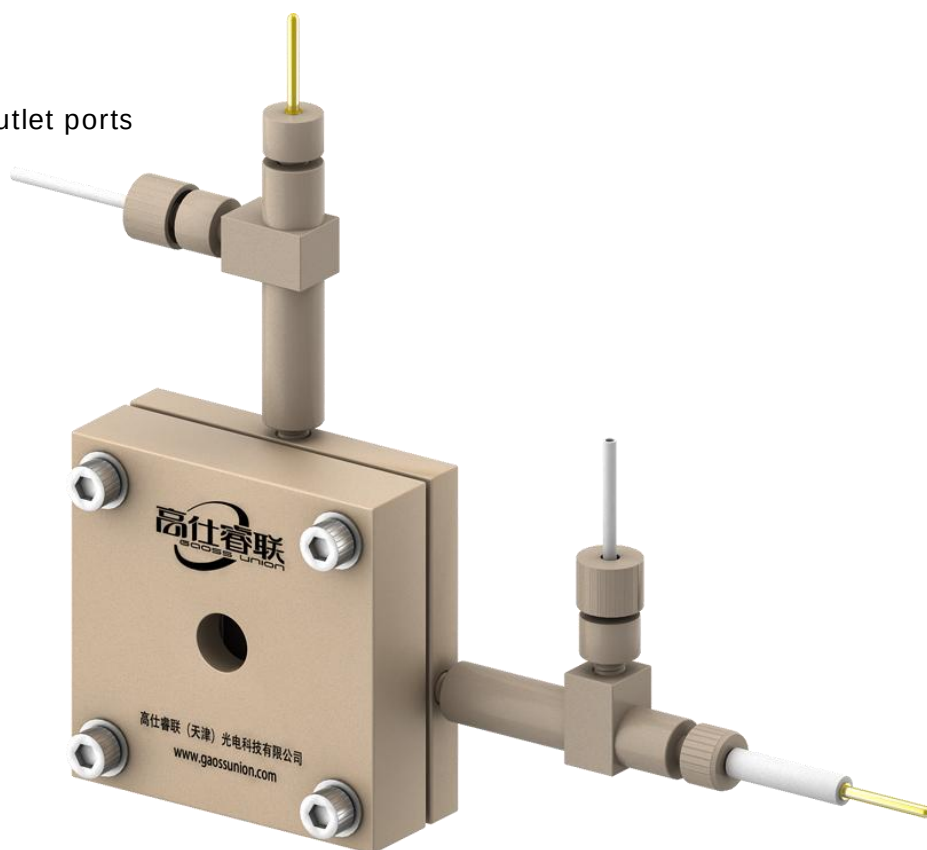
Reference Electrode: Platinum Electrode

IR Window: Calcium Fluoride (CaF)

Solution Thickness: 0.5 mm

Cell Body Material: PEEK

Equipped with gas inlet and outlet ports



Product Name	Model	Price	Remarks
Infrared ATR (H-type Removable Membrane Cell)	IFA-1 (Internal Reflection)	5868	Supplied with reference electrode and counter electrode
Infrared ATR (H-type Removable Membrane Cell)	IFA-2 (External Reflection)	10534	Equipped with micrometer and 10 mm glassy carbon electrode
Infrared ATR (H-type Removable Membrane Cell)	IFA-P (High-pressure Internal Reflection)	98000	Electrodes included
Infraredlight (Transmission Mode Cell)		9600	Electrodes included
Variable Incident Angle Optical Stage		176000	Supports side and bottom refraction
Crystal Gold Plating Cell		300	
Crystal Gold Plating Solution	50ml	3200	
Our company provides optical path retrofitting services for customers' existing setups to achieve magnetic stirring and infrared signal enhancement. Please contact our customer service for more details.			
All dimensions listed are standard sizes. Custom fabrication is available per specific requirements. Prices are subject to adjustment, and the latest price quotation shall prevail.			

In-situ XRD Spectroelectrochemical Cell

In-situ Electrochemical Equipment Series

Model No.: C031-XRD

This in-situ electrochemical cell is designed to investigate the spectral and morphological evolution of electrode materials during electrochemical experiments. The working electrode (WE) is positioned directly beneath the optical window, enabling optical instruments to characterize the working electrode through the window.

The cell body is constructed from PEEK and high-purity titanium. It supports rapid assembly, disassembly and easy cleaning.

It is applicable to in-situ electrochemical testing in flow systems; electrolyte can also be conveniently injected and filled via a syringe.

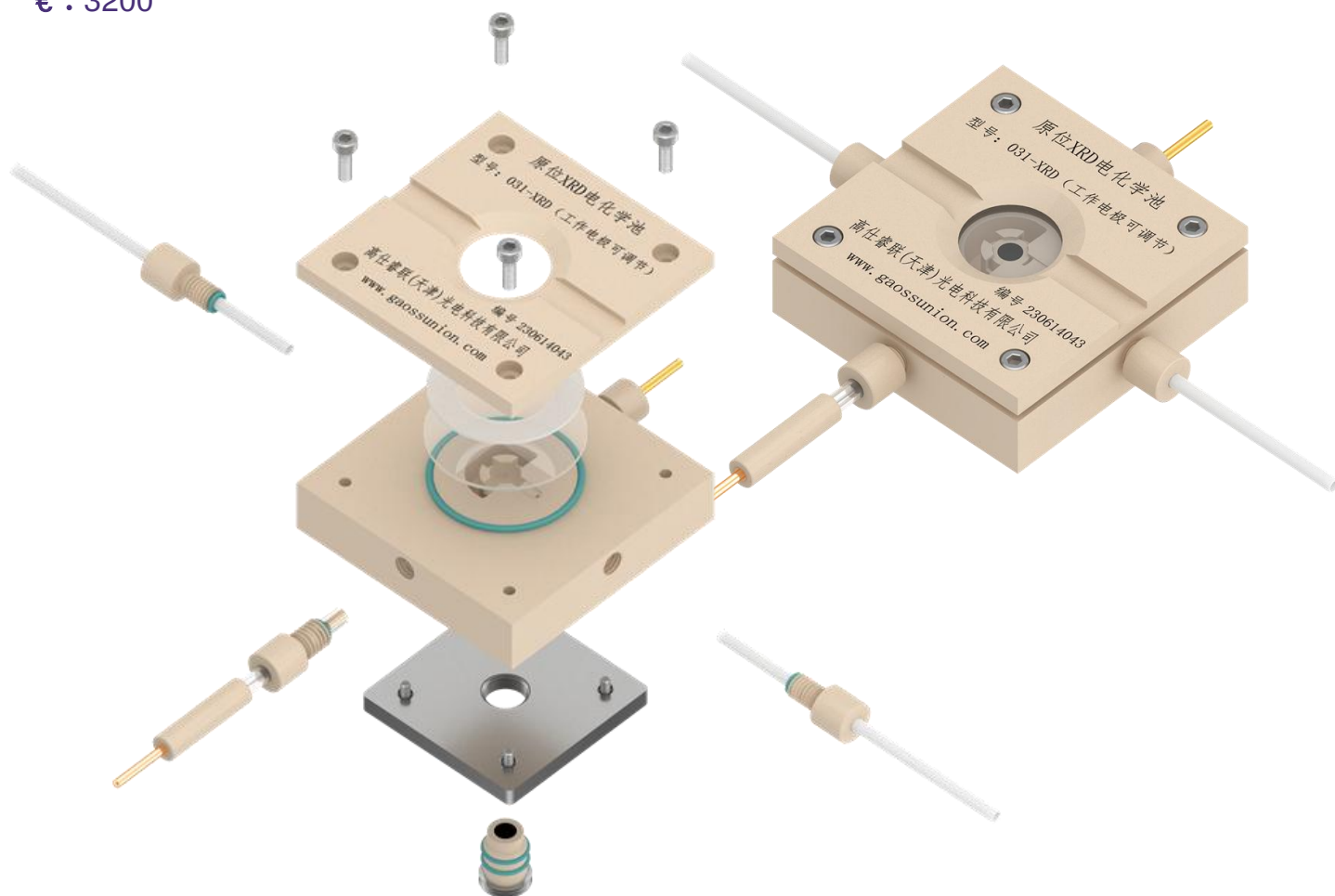
Optical window material: PI (Polyimide)

Distance between working electrode and optical window: less than 3 mm

Standard working electrode: 5 mm glassy carbon electrode. Alternative disk electrodes (Au, Pt, Ag, etc.) are available upon request with price difference applicable.

Standard accessories: reference electrode (Ag/AgCl or Ag electrode) and counter electrode (platinum electrode)

€ : 3200



In-situ Electrochemical Equipment Series

In-situ X-ray Absorption Spectroscopy Reaction Cell

Model: XAFS

This is an in-situ electrochemical reaction cell designed for synchrotron radiation X-ray absorption spectroscopy tests.

Core Features

The main body is fabricated from PEEK material; the internal cell volume can be customized according to customer specifications.

The device supports both two-electrode and three-electrode working configurations. The working electrode is tailor-made, while the other two electrodes can be configured on demand.

Inlet and outlet gas ports are reserved on the cell body, to meet the atmosphere control and airtightness requirements for diverse electrochemical reaction environments.

Model : XAFS-1



Model Differences

XAFS-1: Single-chamber cell

XAFS-2: H-type dual-chamber cell

XAFS-3: Electrode-free version, dedicated to pure gas-phase experiments

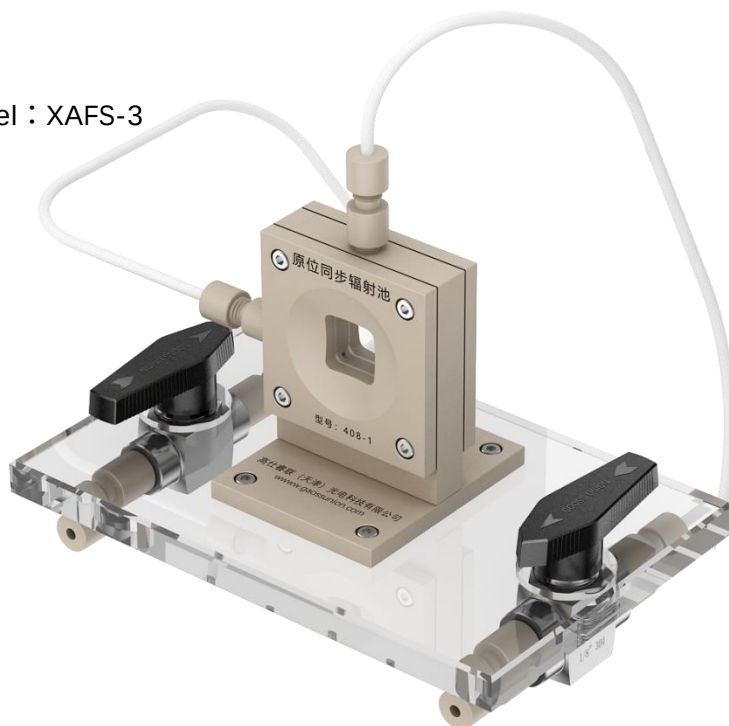
XAFS-4: Gas diffusion type cell

Optical window material: Kapton film (to be provided by the user)

Model: XAFS-2



Model : XAFS-3



In-situ Electrochemical Equipment Series

In-situ X-ray Absorption Spectroscopy Reaction Cell (Gas Diffusion Type)

Model: XAFS-4

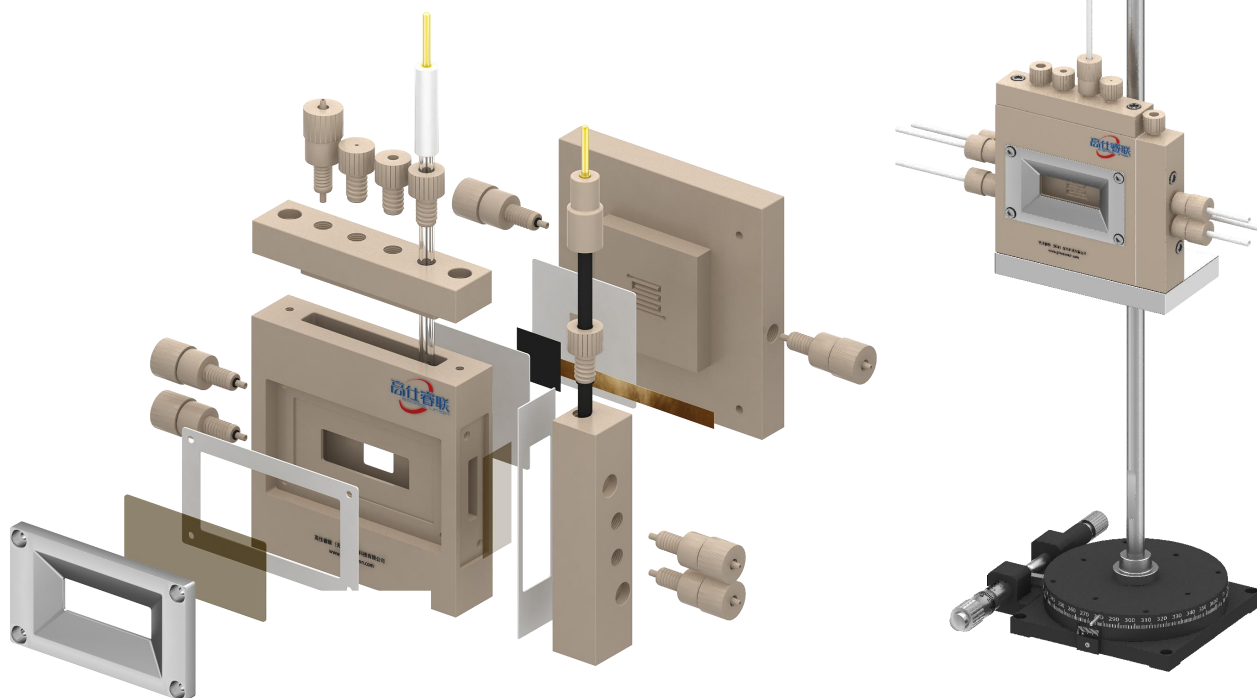
The electrolytic cell adopts a high-efficiency gas diffusion design to ensure uniform delivery of reaction gas, improving the response speed and stability of experiments.

Wide-angle Kapton window: Kapton film is applied as the viewing window, offering an ultra-wide viewing angle of 120° and a larger window area, which greatly enhances observation and detection performance.

Optimized electrode gap design: The distance between Kapton film and gas diffusion electrode is minimized, effectively boosting signal sensitivity and real-time monitoring precision.

Replaceable chamber structure: The gas diffusion chamber can be flexibly swapped with a transmission chamber to meet diverse electrochemical characterization needs and broaden applicable scenarios.

Compatibility with classic configurations: It retains replaceable membrane structures for single-cell and H-type setups, compatible with traditional electrolytic testing systems.



Model	Type	Price	Remarks
XAFS-1	Single-Chamber Type	3200	
XAFS-2	Dual-Chamber Type	4534	
XAFS-3	For Gas Reaction Only	1588	
XAFS-4	Gas Diffusion Type	5868	
All listed dimensions are standard specifications. Custom tailor-made sizes are available upon request. Prices are subject to change, and the latest quotation shall prevail.			

In-situ Electrochemical Equipment Series

In-situ Sum Frequency Generation Spectroscopy Electrochemical Cell

Model: 19008

Internal dimension: 20×5×5 mm

The cell is compatible with flow-phase measurement.

The working electrode holder of the cell can be customized according to experimental demands.

Standard configuration includes a reference electrode (Ag/AgCl or Ag electrode) and a counter electrode (platinum wire electrode).

€ : 3200



MS-In-situ IR Hyphenated Electrochemical Cell

Model: MS-IFA

This electrochemical cell integrates mass spectrometry and in-situ infrared spectroscopy technologies. It supports flow-phase testing.

Window material: Monocrystalline silicon.

Standard accessories: reference electrode (Ag/AgCl or Ag electrode) and counter electrode (platinum wire electrode).

€ : 7868



In-situ Electrochemical Equipment Series

In-situ UV Electrochemical Cell

Model : UV2600-1

This electrochemical cell is co-developed with Lanzhou University, and it is compatible with Shimadzu UV2600 spectrophotometer from Japan.

Reference electrode: standard electrode with a diameter of 6 mm

Counter electrode: platinum wire electrode or graphite rod electrode is optional

Working electrode: ITO electrode

Cell body material: Polyetheretherketone (PEEK)

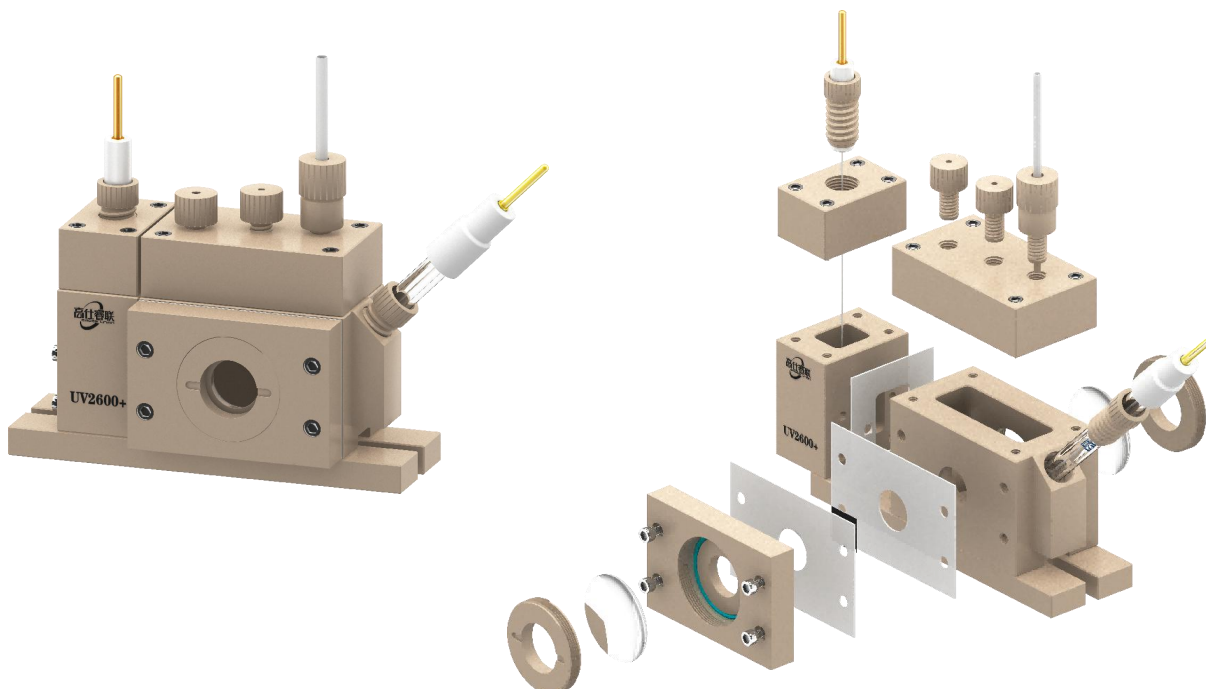
Window material: Sapphire glass



In-situ UV Electrochemical Cell

Model: UV2600-2

This model is upgraded from UV2600-1 to an H-type cell structure, which is an H-type in-situ UV electrochemical cell with replaceable diaphragm. The working chamber is equipped with gas inlet and outlet ports.



Model	Specification	Price	Remarks
UV2600-1	Single-chamber	3200	
UV2600-2	H-type dual-chamber	4534	
All listed dimensions are standard sizes. Customized specifications are available upon request. Prices are subject to adjustment, and the latest quotation shall prevail.			

In-situ Electrochemical Equipment Series

In-situ Mass Spectrometry Flow Electrochemical Cell

Model: MS-FC

This is a new-generation integrated multifunctional in-situ differential electrochemical mass spectrometer (PM-DEMS), designed for online qualitative and quantitative analysis of gaseous products, volatile intermediates and final products generated during electrochemical reactions. The in-situ differential electrochemical mass spectrometer is an on-site electrochemical testing technique combining electrochemistry and mass spectrometry. It adopts a hydrophobic gas-permeable membrane as the interface between electrochemical reaction and mass spectrometry, paired with a high-performance vacuum system to realize ultrafast detection immediately after electrochemical products are generated. It can in-situ detect volatile gaseous products, kinetic parameters, intermediates and their structural properties in electrochemical reactions. When multiple products are generated simultaneously from electrode reactions, this technique can quantify the Faradaic current variation of each product with electrode potential or reaction time. During potential scanning, the ion current corresponding to specific substances is recorded synchronously with Faradaic electrode current to obtain mass spectrometric voltammograms.

Product Features

Integrated sampling and detection for both gas and liquid phases, applicable to electrocatalysis, photocatalysis, thermocatalysis and battery gas evolution without requiring multiple sets of instruments.

High sensitivity with precise real-time monitoring; test results are fully consistent with reaction behaviors with zero detection delay.

Millisecond-level response time and scanning speed to support rapid online analysis.

Dual detectors consisting of Faraday cup and electron multiplier enable high-sensitivity detection covering a wide concentration range from 100 % down to ppb level.

Professional analytical software supports multi-component sampling for qualitative and quantitative analysis of gas species.

Temperature-controllable gas inlet pipeline effectively prevents condensation of sampled gas during delivery.

Bakeable mass spectrometry chamber greatly reduces interference from background gas.

Multi-channel input and output signals support automatic linkage and control with external instruments.

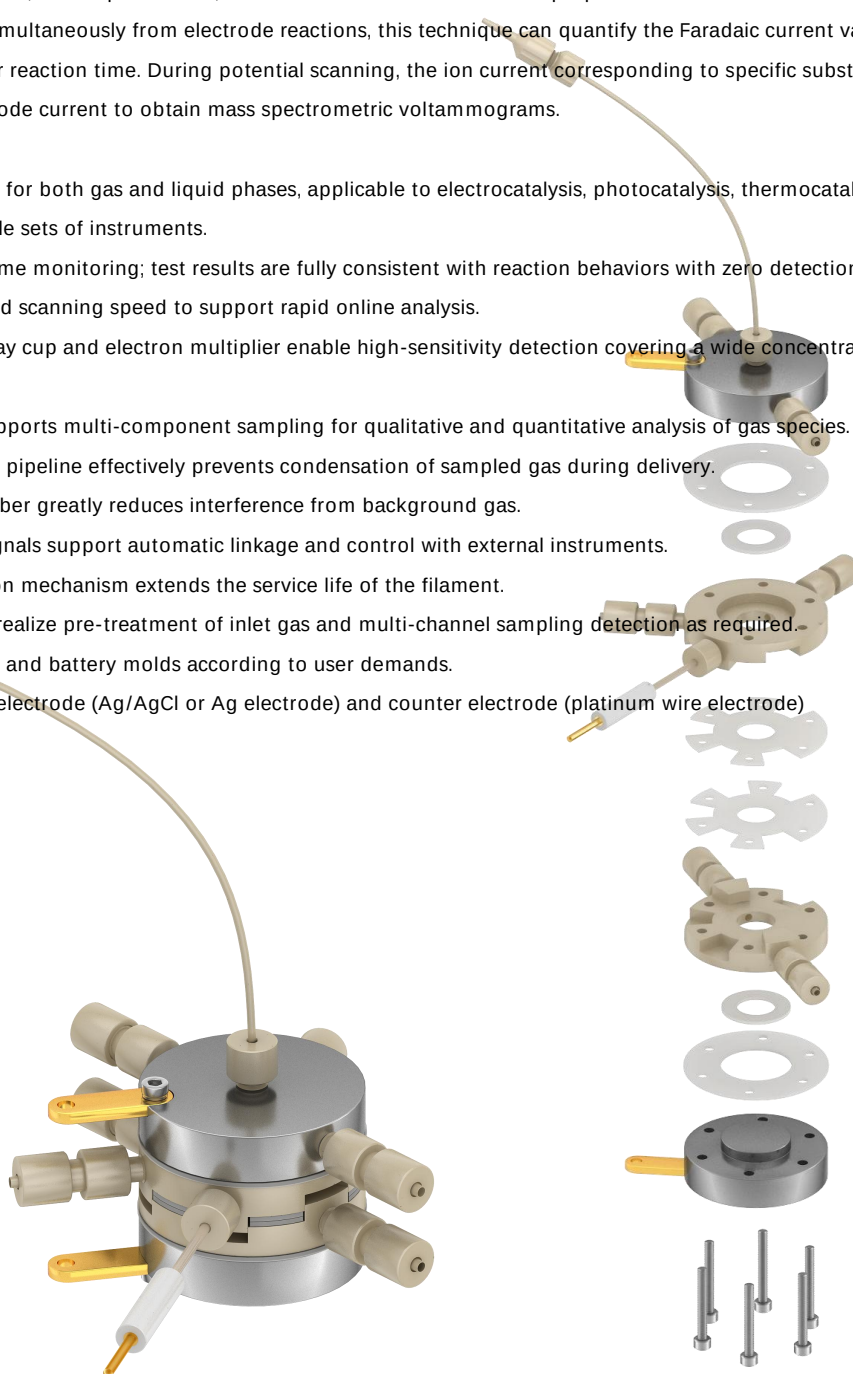
Built-in filament pressure protection mechanism extends the service life of the filament.

Customizable sampling system to realize pre-treatment of inlet gas and multi-channel sampling detection as required.

Customizable electrochemical cells and battery molds according to user demands.

Standard configuration: reference electrode (Ag/AgCl or Ag electrode) and counter electrode (platinum wire electrode)

€ : 7868



In-situ Electrochemical Equipment Series

Multi-functional In-situ Test Electrochemical Cell

Model: In-situ-X

This is a versatile FlowCell electrochemical cell. The electrolyte flows into the cell cavity through the reference electrode, makes contact with the working electrode, then passes the counter electrode and drains out of the cell body to form a complete closed circulation loop.

The working electrode module supports two contact configurations: standard type and gas diffusion type.

Its multi-functional feature is realized by replacing the front optical window; different window materials are selected to match various characterization experiments:

UV & Raman testing: Quartz or sapphire window

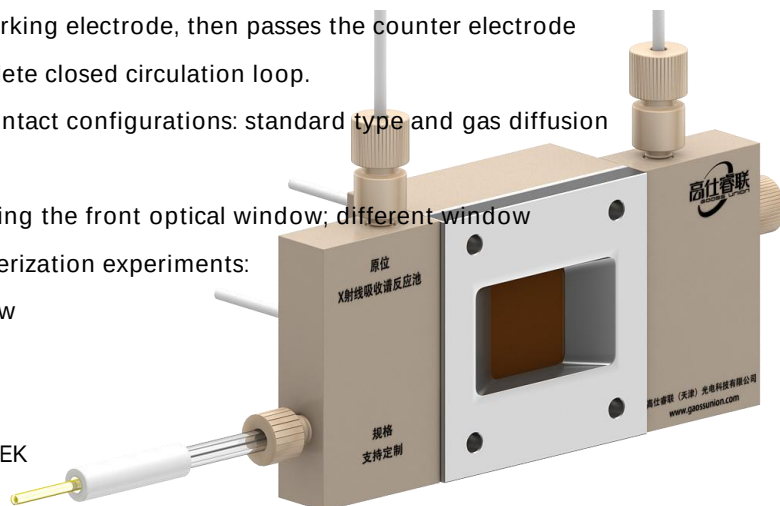
XAFS testing: Kapton film

XRD testing: Beryllium window

Cell body material: High-purity titanium and PEEK

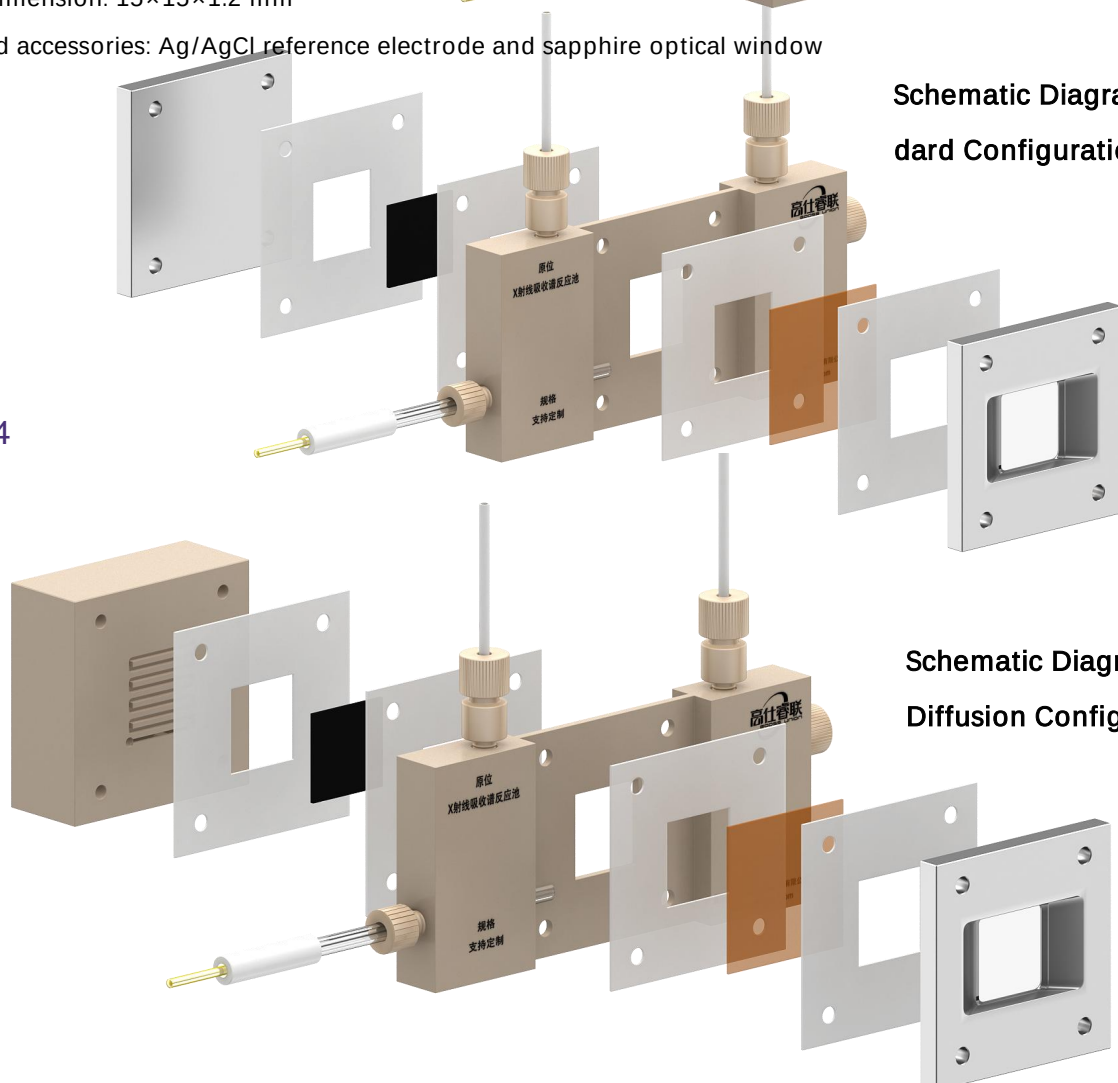
Cavity dimension: 15×15×1.2 mm

Standard accessories: Ag/AgCl reference electrode and sapphire optical window



Schematic Diagram of Standard Configuration

€:4534



Schematic Diagram of Gas Diffusion Configuration

In-situ Electrochemical Equipment Series

In-situ Raman Two-Electrode Battery Test Cell Model: B002-RM

This in-situ Raman electrochemical cell is designed to investigate the in-situ spectral and morphological evolution of electrode materials during electrochemical experiments.

The cell body is made of high-purity titanium. Internal spring components are adopted to adjust the compression load for performance evaluation.

The cell features excellent sealing performance and assembly repeatability.

When connected to charge/discharge testing equipment, it is applicable to a wide range of battery cycling and performance characterization tests.

Tighten the screws to compress the chemically resistant O-ring and guarantee airtight sealing.

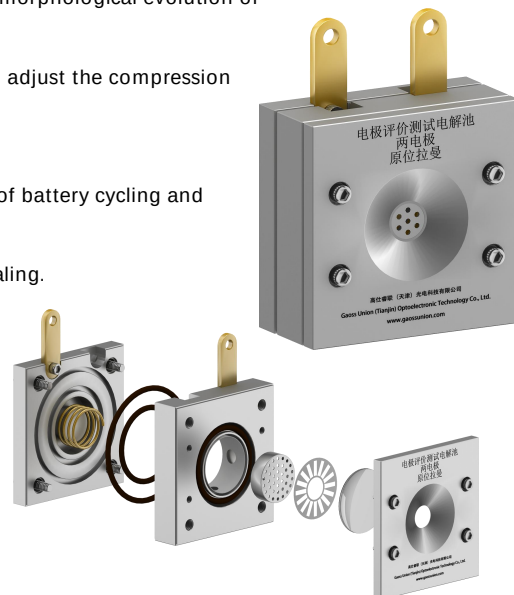
It can be assembled inside a glove box and then operated under ambient atmosphere.

Supports rapid assembly, disassembly and easy cleaning.

Distance between working electrode and optical window: less than 2 mm

Diameter of optical window: 8 mm

Overall dimension (Length × Width × Height): 50 × 50 × 20 mm



In-situ XRD Two-Electrode Battery Test Cell Model: B002-XRD

The cell body is made of high-purity titanium. The compression load can be adjusted via internal springs for performance evaluation, and the cell delivers outstanding airtight sealing and assembly reproducibility.

When connected to charge/discharge test instruments, it is suitable for a wide range of battery cycling and performance characterization tests.

It can be assembled inside a glove box and then applied under open ambient conditions.

Easy to disassemble; the cell can be taken apart after charge/discharge testing without damaging the sample.

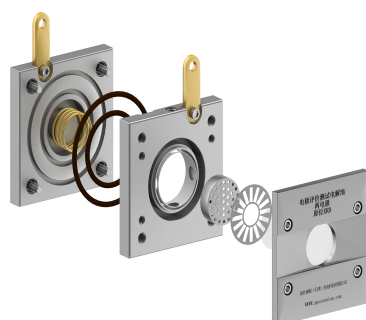
It supports fast assembly and disassembly for convenient cleaning.

Distance between the working electrode and optical window: less than 2 mm

Diameter of the optical window: 8 mm

Channel width of the cell: 8 mm

Overall dimension (Length × Width × Height): 50 × 50 × 20 mm



Model	Specification	Price	Remarks
B002-RM		3200	
B002-XRD		3200	
All listed dimensions are standard specifications. Custom tailor-made sizes are available upon request. Prices are subject to adjustment, and the latest quotation shall prevail.			

In-situ Electrochemical Equipment Series

In-situ Raman Three-Electrode Battery Test Cell

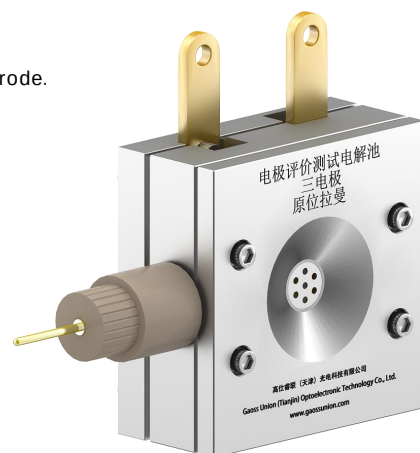
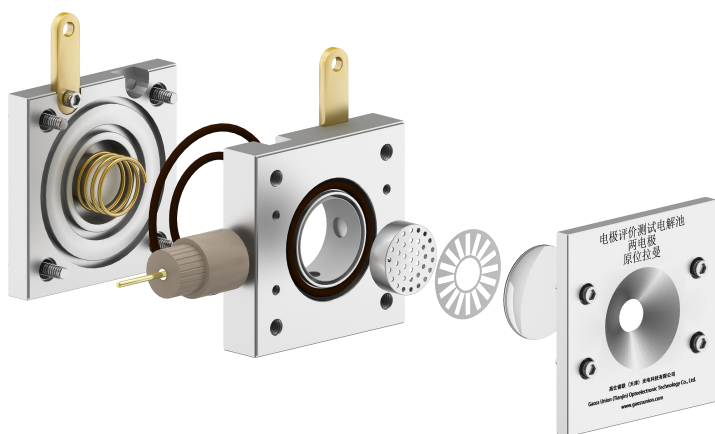
Model: B003-RM

This electrochemical cell is upgraded on the basis of B002-RM with an additional reference electrode.

Distance between the working electrode and optical window: less than 2 mm

Diameter of the optical window: 8 mm

Overall dimension (Length × Width × Height): 50 × 50 × 24 mm



In-situ XRD Three-Electrode Battery Test Cell

Model: B003-XRD

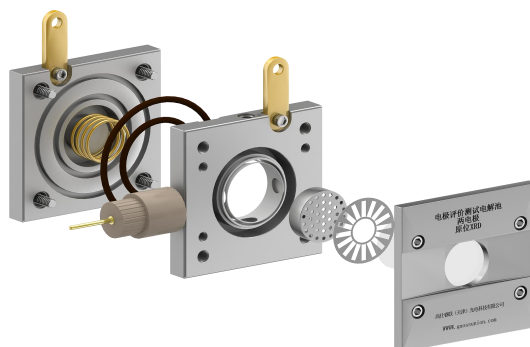
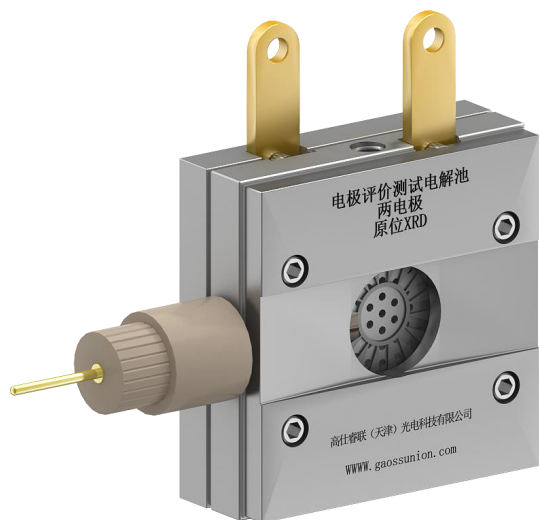
This electrochemical cell is upgraded from B002-XRD with an extra reference electrode added.

Distance between working electrode and optical window: less than 2 mm

Optical window diameter: 8 mm

Channel width of the cell: 8 mm

Overall dimension (Length × Width × Height): 50 × 50 × 24 mm



Model	Specification	Price	Remarks
B003-RM		3468	
B003-XRD		3468	
All listed dimensions are standard sizes. Customized specifications are available upon request. Prices are subject to revision, and the latest quotation shall prevail.			

In-situ Electrochemical Equipment Series

In-situ Raman Pressurized Two-Electrode Battery Test Cell

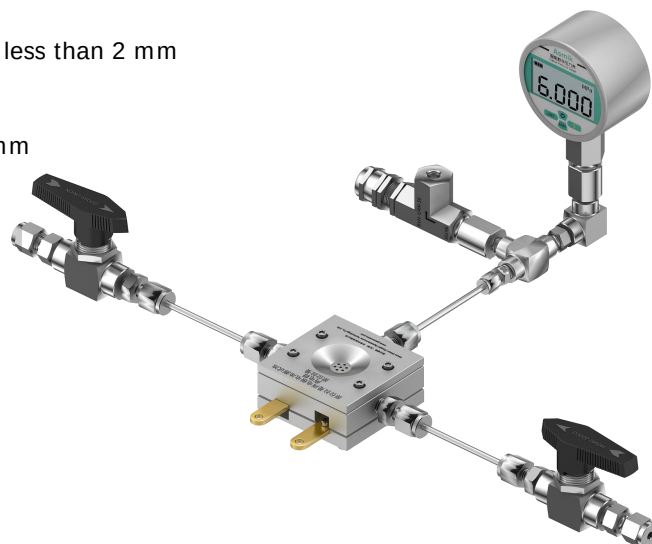
Model: PB002-RM

Equipped with an extra pressure system based on the B002-RM model, with a maximum withstand pressure of 6 MPa. It is specially designed to investigate the in-situ spectral and morphological evolution of electrode materials under high-pressure electrochemical conditions.

Distance between the working electrode and optical window: less than 2 mm

Diameter of the optical window: 8 mm

Overall dimension (Length × Width × Height): 50 × 50 × 24 mm



In-situ Raman Pressurized Three-Electrode Battery Test Cell

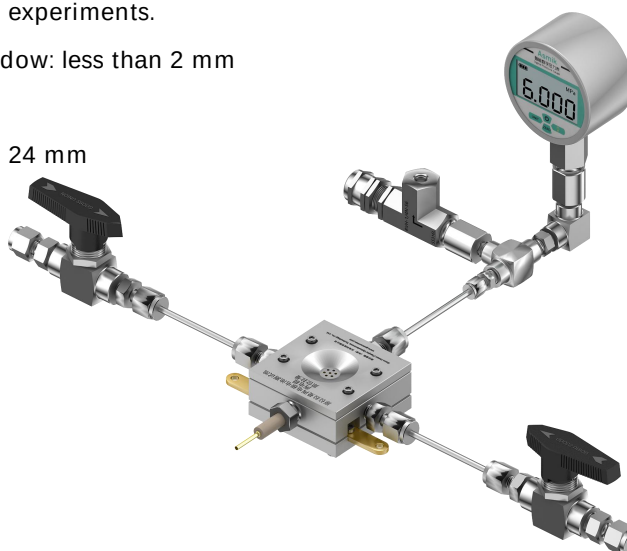
Model: PB003-RM

This electrochemical cell is upgraded from B003-RM with an added pressure system, with a maximum bearing pressure of 6 MPa. It is designed to study the in-situ spectral and morphological changes of electrode materials under high-pressure electrochemical experiments.

Distance between the working electrode and optical window: less than 2 mm

Diameter of the optical window: 8 mm

Overall dimension (Length × Width × Height): 50 × 50 × 24 mm



	pecification	Price	Remarks
PB002-RM		27600	
PB003-RM		27600	
All standard dimensions are provided; customized sizes are available on demand. Prices are subject to change, and the latest quotation shall prevail.			

In-situ Infrared Lithium Battery Test Cell

Model: B-IFA

Infrared window material: Monocrystalline silicon

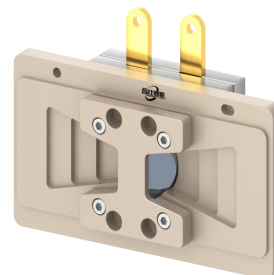
Cell body material: High-purity titanium

Cell dimension: 50 × 50 × 20 mm

Crystal material: Si

Among conventional infrared window materials including Ge, ZnSe and Si, Ge is relatively chemically active. Cu and Ag thin-film electrodes deposited on Ge substrates can only deliver acceptable electrochemical responses at potentials negative to open-circuit potential. During anodic potential scanning, the high anodic current of the Ge substrate will mask the electrochemical signal of the metallic electrode and even cause peeling of the metal thin film. In addition, ZnSe is unstable in acidic and alkaline solutions, so it is not suitable as the window material for electrochemical ATR-SEIRAS measurements.

The electrochemical cell adopts a spring structure to adjust compression load, enabling tight contact between positive/negative electrode sheets and the separator inside the test battery. Double O-rings are applied to ensure airtight sealing. After assembly inside a glove box, the cell can be taken out and operated under ambient atmosphere with excellent sealing performance and assembly repeatability.



Variable Incident Angle Optical Stage

It provides continuously variable incident angles and multiple crystal plates to selectively control the penetration depth.

High throughput (over 50% for 45° ZnSe crystal), which greatly shortens sampling time and enables component detection in low-concentration samples with complex compositions.

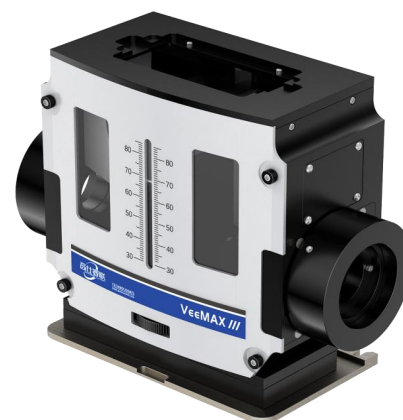
Continuously adjustable incident angle range: 30° to 80°.

Penetration depth ranges from 0.4 μm to 46 μm, offering ideal depth selection for analytical research.

High throughput for high-quality spectrum acquisition.

Optional high-pressure fixture is available for sampling thin films, coatings or powder samples.

Reserved mounting position for integrating manual or automatic polarizers.



Product Name	Model	Price	Remarks
In-situ Infrared Lithium Battery Test Cell	B-IFA	7868	
Variable Incident Angle Optical Stage		58668	
The company provides optical path retrofitting service for customers' existing equipment to realize magnetic stirring and infrared enhancement effects. Please contact customer service for details.			
All listed dimensions are standard specifications. Customized products are available upon request. Prices are subject to change, and the latest quotation shall prevail.			

In-situ Battery Simulation Observation Cell (for Lithium Dendrite Observation) In-situ Assembly System for Lithium Batteries

Model: C031-5

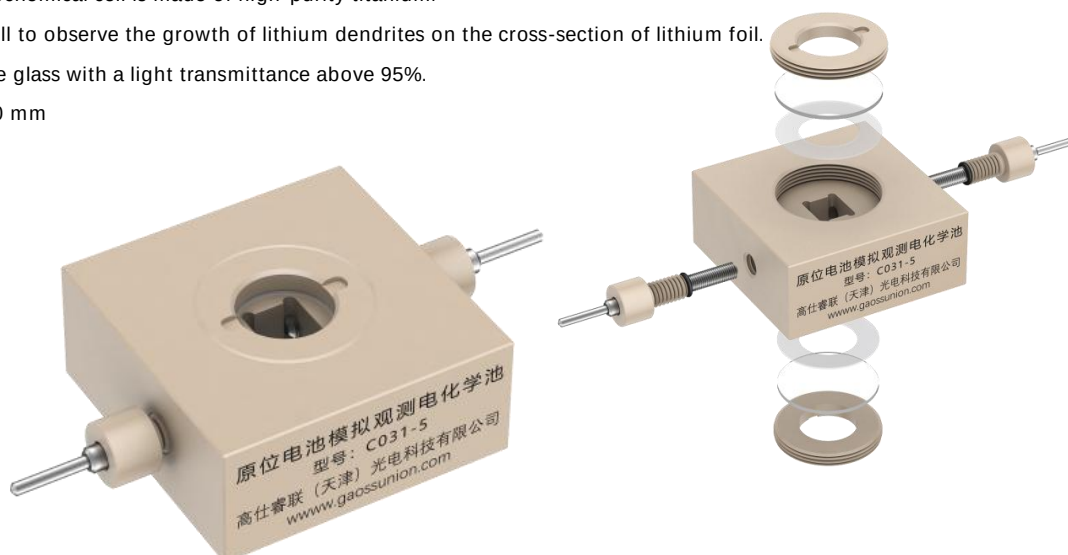
The conductive substrate of this electrochemical cell is made of high-purity titanium.

This cell simulates a lithium-ion coin cell to observe the growth of lithium dendrites on the cross-section of lithium foil.

The optical window is made of sapphire glass with a light transmittance above 95%.

Size of the working lithium foil: 10 × 10 mm

€:1866



In-situ Battery Simulation Observation Cell (for Lithium Dendrite Observation)

Model: C031-5-1

A reference electrode is added on the basis of model C031-5.

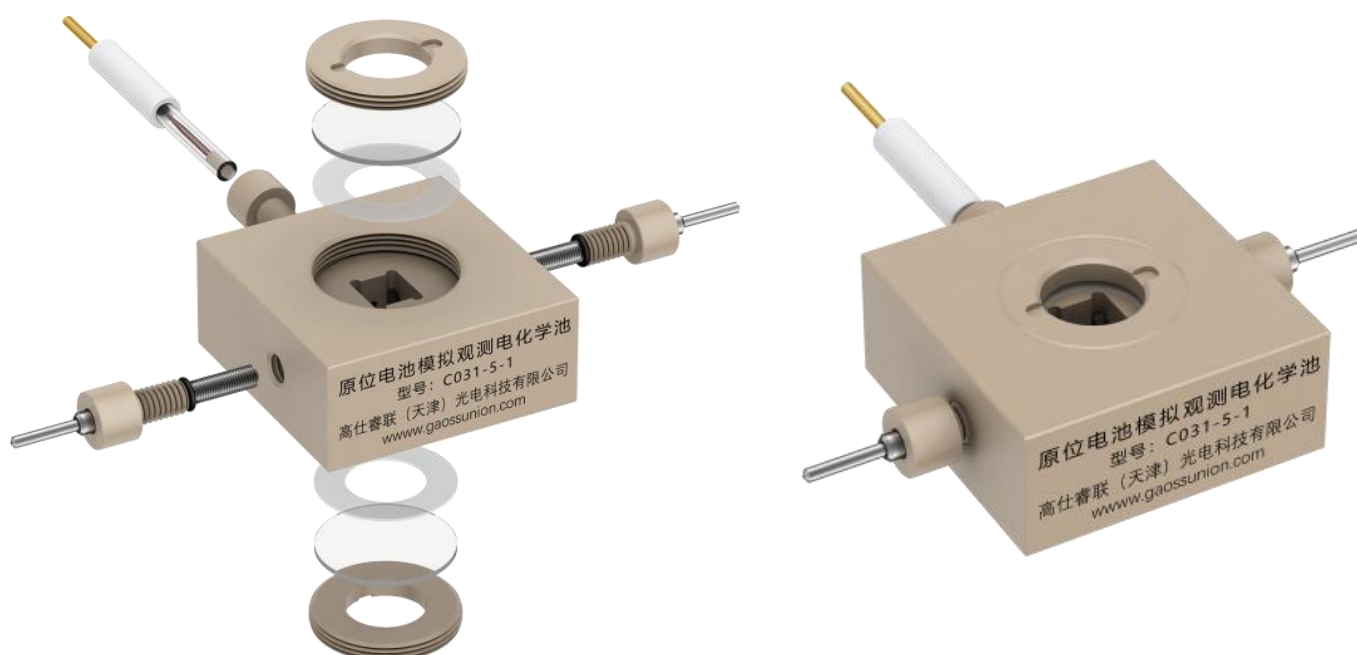
The conductive substrate is made of high-purity titanium.

This electrochemical cell simulates a lithium-ion coin cell to observe the growth of lithium dendrites on the cross-section of lithium foil.

The optical window adopts sapphire glass with a light transmittance of over 95%.

Size of the lithium foil used in the cell: 10 × 10 mm

€:1968



Solid State Battery Fixture

In-situ Assembly System for Lithium Batteries

Model: B004

This is a dedicated device designed for pressure testing of solid state batteries.

Product Features

Compact structure with quick-release design, facilitating fixture disassembly, assembly and battery powder loading.

The mold is made of high-purity titanium, featuring corrosion resistance, high mechanical strength and capability to withstand heavy pressure.

Equipped with a unique self-leveling mechanism to ensure uniform pressure distribution on the electrode surface, preventing electrolyte cracking or electrode delamination caused by excessive local pressure.

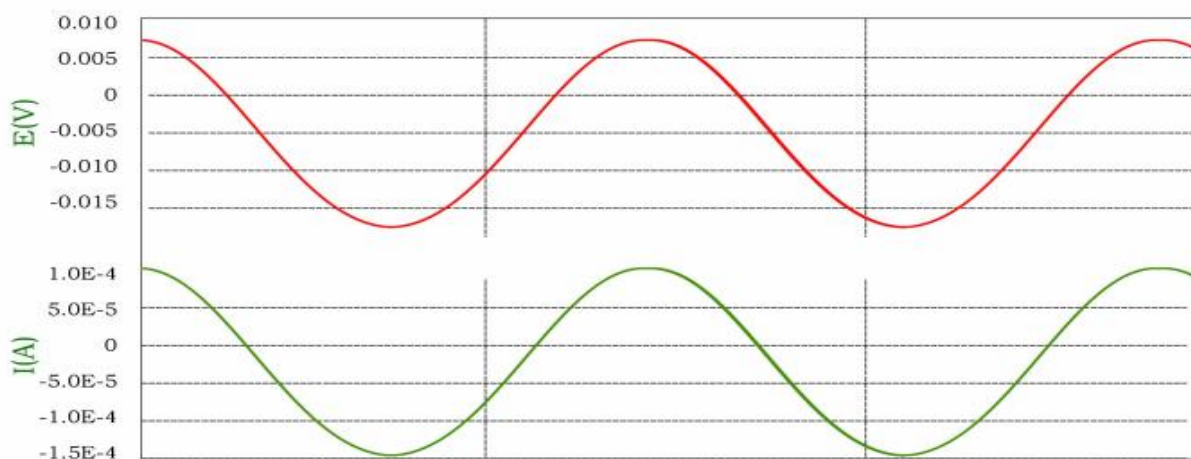
Adopt detachable gold-plated copper tabs to improve electrical conductivity and simplify after-sales replacement.

Large frame structure allows side loading and unloading of the battery fixture without removing the column fixing nuts.

The built-in pressure sensor integrates multi-stage amplification chips and is powered by an independent power supply. It supports flexible input and quick switching of multiple sensitivity parameters, with fast pressure feedback, high dynamic response frequency, excellent stability and strong anti-interference performance.

€:1868

波形图 (频率 (Hz) : 8.00E+6.电流量程: 2mA)



满足8MHz高频抗阻测试



Membrane Electrode Electrolysis Cell System

Metal Bipolar Plate Membrane Electrode Electrolysis Cell

Model: MEA-TI-TI

This electrolytic cell is mainly applied to research-oriented tests for electrochemical CO reduction, alkaline anion exchange membrane water electrolysis and other electrochemical processes.

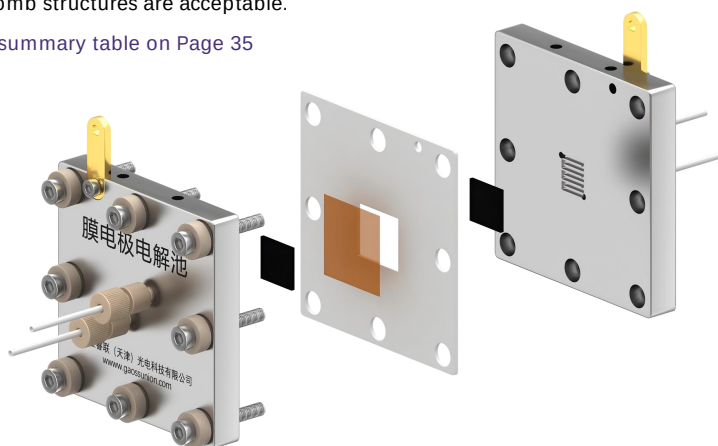
The cell body is equipped with double O-ring sealing grooves for excellent sealing performance.

The bipolar plates are prefabricated with heating and temperature measuring holes to facilitate electrochemical tests under temperature-controlled conditions.

The entire cell body is made of high-purity titanium. High-purity nickel plates are also available for electrochemical tests under special environments.

The reactor supports serpentine, parallel, vein-type flow channels; customized flow patterns including spiral, mesh and comb structures are acceptable.

Price: Refer to the summary table on Page 35



Graphite Bipolar Plate Membrane Electrode Electrolysis Cell

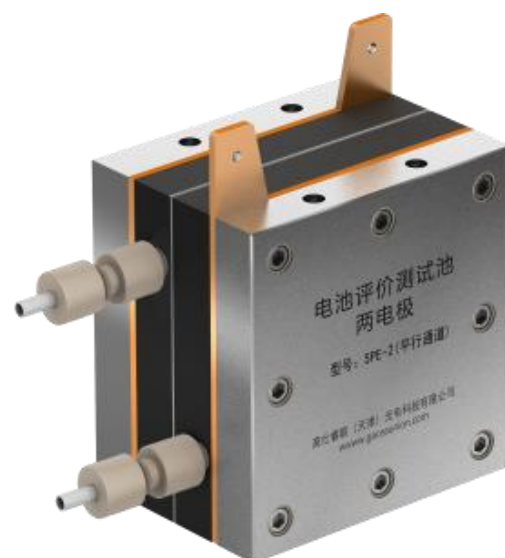
Model: MEA-GP

This electrolytic cell is mainly used for research tests on electrochemical carbon dioxide reduction, alkaline anion exchange membrane water electrolysis and other electrochemical processes.

The flow field plates of the cell are made of imported isostatic graphite plates, and the outermost fixing plates are titanium plates. Heating and temperature measuring holes are reserved on the top of titanium plates to facilitate electrochemical tests under temperature-controlled conditions.

The reactor is equipped with serpentine, parallel and vein-type flow channels; customized flow channel types such as spiral, mesh and comb structures are available.

Price: Refer to the summary table on Page 35



Membrane Electrode Electrolysis Cell System

Visualizable Membrane Electrode Electrolysis Cell

Model: MEA-Visualization Type A

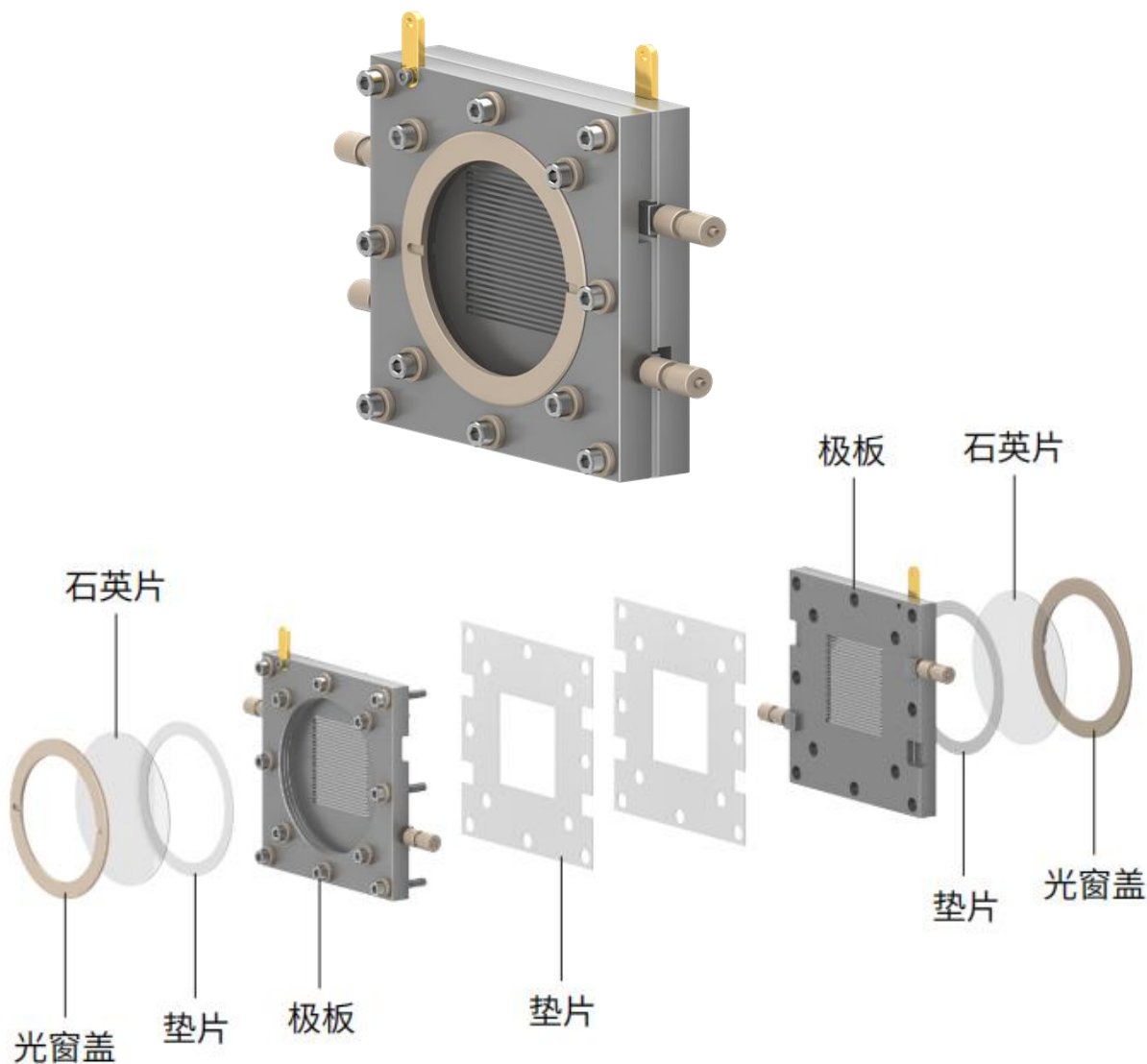
This electrolytic cell is mainly applied to research-oriented tests for electrochemical CO reduction, alkaline anion exchange membrane water electrolysis and other electrochemical processes.

Both anode and cathode are equipped with optical visualization windows for in-situ observation and high-speed photography.

The visualizable MEA is divided into Type A with circular windows and Type B with square windows according to experimental requirements.

The cathode adopts a hollow serpentine flow channel, and the anode adopts a hollow multi-parallel flow channel.

Price: Refer to the summary table on Page 35



Membrane Electrode Electrolysis Cell System

Membrane Electrode Electrolysis Cell with Thermostatic Water Bath

Model: MEA-TI-WB

This electrolytic cell is mainly applied to research-based electrochemical tests for electrochemical CO reduction and water electrolysis.

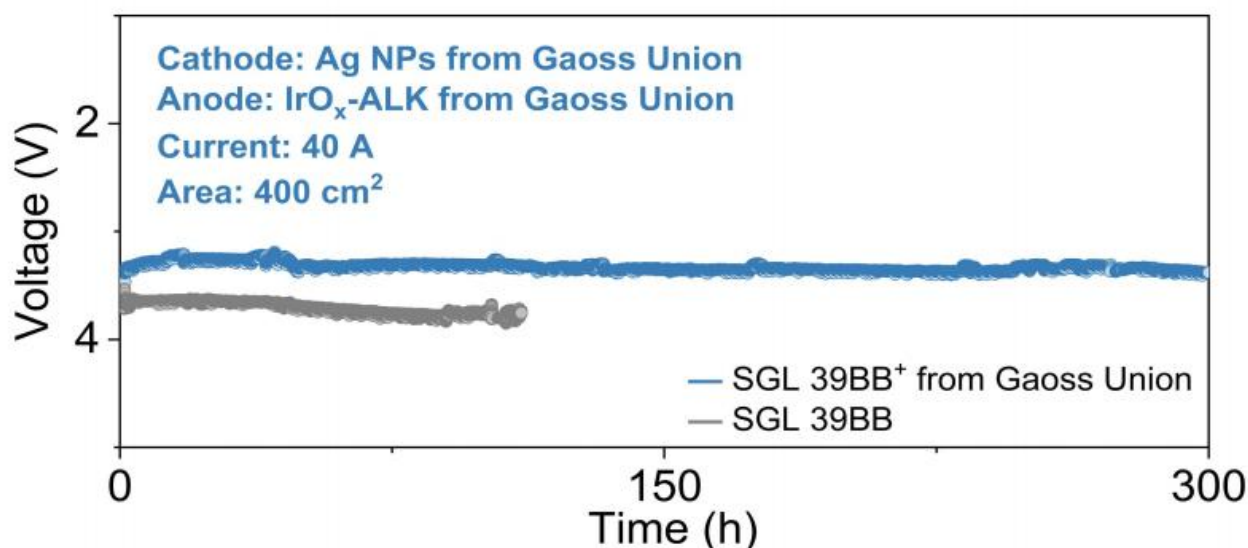
It is commonly used for temperature-controlled electrochemical measurements on large-flow-channel membrane electrode assemblies with dimensions of 50×50 mm, 100×100 mm, 200×200 mm, etc.

Equipped with a dual temperature control system consisting of a thermostatic water bath jacket (purple interlayer), heating rods and thermocouples.

The anode and cathode flow channels adopt a multi-serpentine large recirculation design. The serpentine channels incorporate a proprietary shear force structure, which can effectively reduce cell resistance when paired with the company's high-pressure pump (operating pressure up to nearly 1 MPa).

Detachable gold-plated copper tabs are adopted for easy replacement.

Price: Refer to the summary table on Page 35



Membrane Electrode Electrolysis Cell System

In-situ Raman Membrane Electrode Electrolysis Cell

Model: MEA-TI-RM

A membrane electrode electrolysis cell designed for in-situ Raman characterization.

Window material: Quartz plate or sapphire.

Plate material: High-purity titanium plate; high-purity nickel plate is available for customization upon experimental demand for superior corrosion resistance against alkaline solutions.

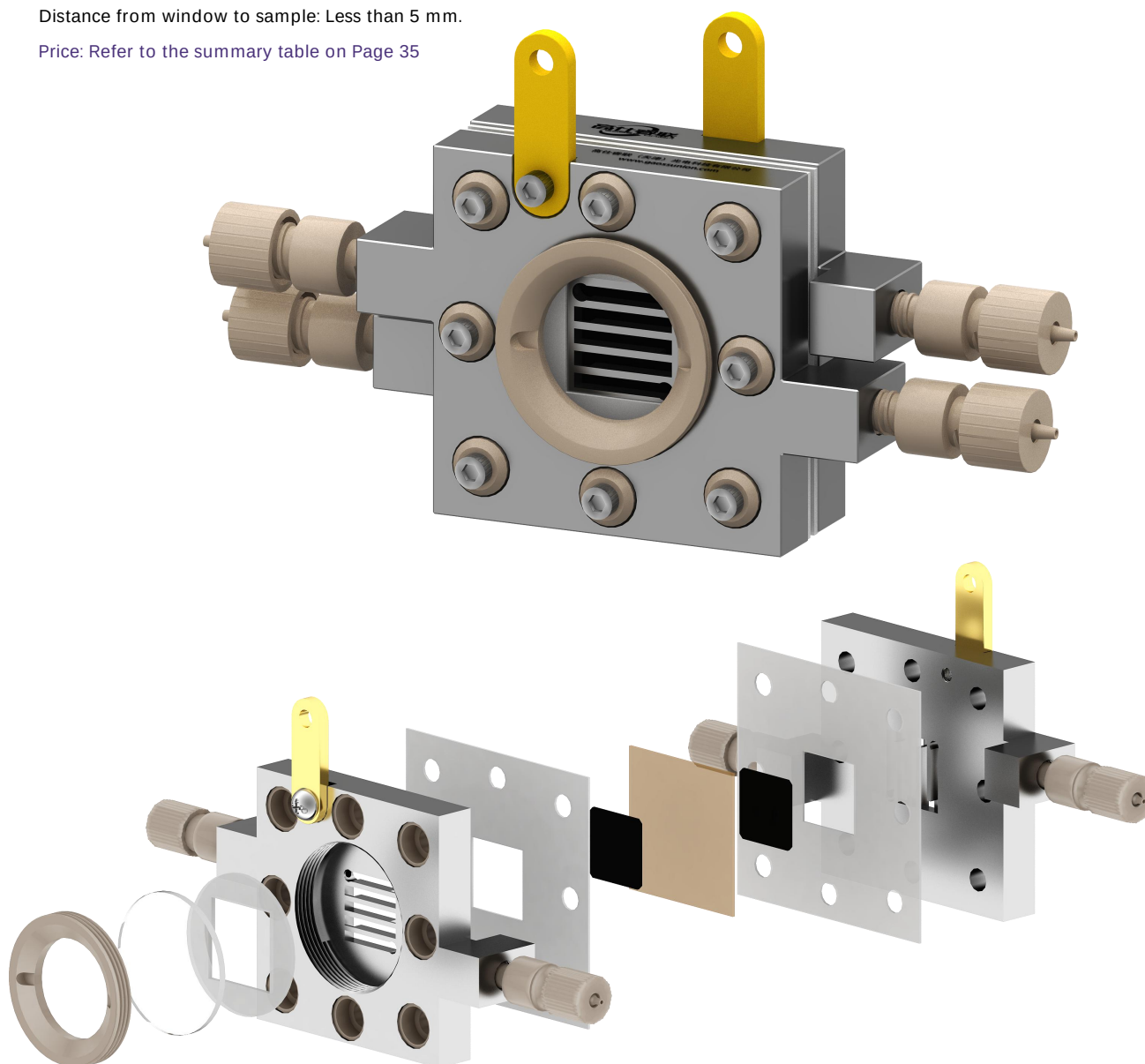
Tab material: Gold-plated copper to improve electrical conductivity and reduce resistance.

Fitting type: 1/8 inch British standard PEEK quick-connect fitting, corrosion resistant with internal shear force structure.

Flow channel size: 14×14 mm, customizable as required.

Distance from window to sample: Less than 5 mm.

Price: Refer to the summary table on Page 35



Membrane Electrode Electrolysis Cell System

Replaceable Flow Channel Membrane Electrode Electrolysis Cell

Model: MEA-Replaceable Flow Channel

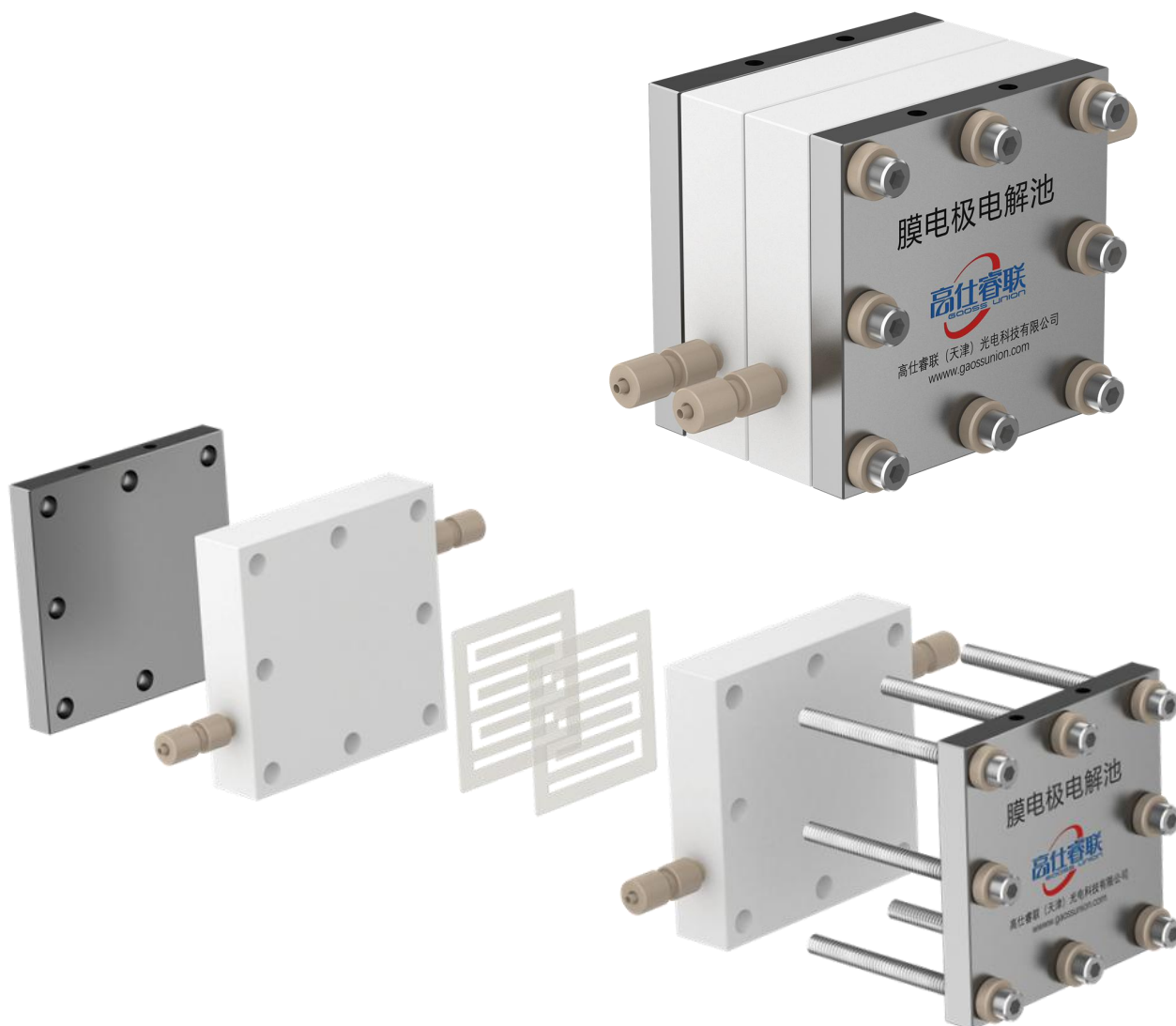
This electrolytic cell is applied to research-oriented tests for carbon dioxide reduction, water electrolysis and other electrochemical processes.

Both anode and cathode bipolar plates are made of imported high-purity PTFE with excellent corrosion resistance.

The fastening protective plates are manufactured from high-purity titanium.

The cell flow channels are made of PTFE, typically adopting serpentine design. The minimum thickness of the flow channel can reach 0.1 mm, and flow channels with various thicknesses are replaceable according to experimental requirements.

Price: Refer to the general list on Page 35



Membrane Electrode Electrolysis Cell System

Membrane Electrolysis Stack Electrochemical Cell

Model: MEA-TI-X

This electrolytic cell achieves higher voltage and power by stacking individual flow field plates. It is applicable to research tests on electrochemical CO reduction, water electrolysis, organic electrosynthesis and other electrochemical processes.

The flow field plates are made of high-purity titanium; materials such as high-purity nickel and PEEK can be customized according to customer requirements.

The plates adopt internal hidden flow channels, supporting series connection, parallel connection, and combined series-parallel connection. Heating and temperature measuring holes are reserved on flow field plates to facilitate electrochemical tests under temperature-controlled conditions.

Gold-plated tabs with excellent corrosion resistance.

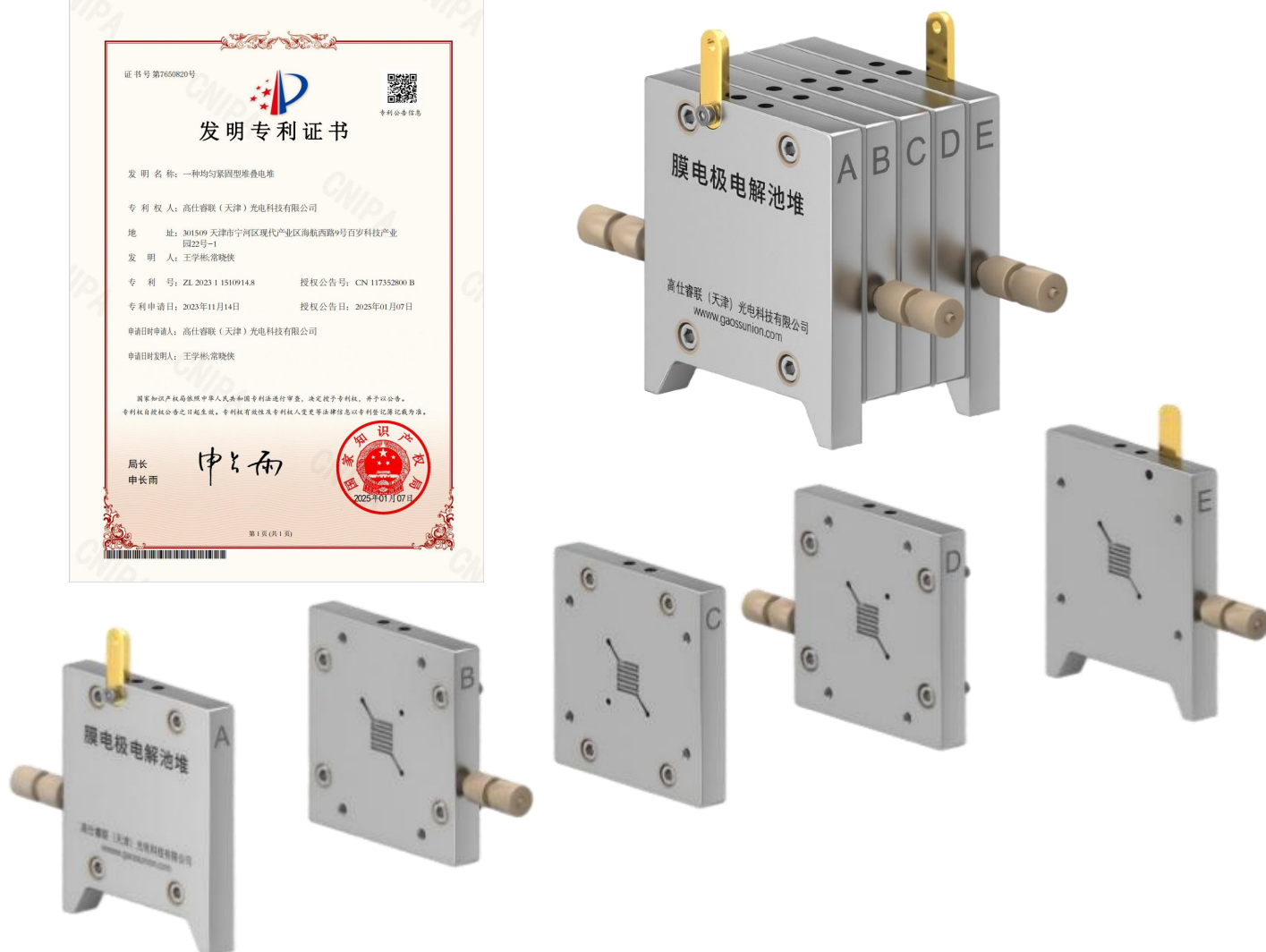
Available flow channel patterns include serpentine, parallel and vein types; customized patterns such as spiral, mesh and comb structures are acceptable.

Standard flow channel sizes: 10×10 mm, 20×20 mm, 22.4×22.4 mm, 30×30 mm, 50×50 mm, 100×100 mm; other sizes are customizable.

Unique Design Feature

Stackable structure with evenly distributed pressure between each plate.

Price: Refer to the summary table on Page 35



Membrane Electrode Electrolysis Cell System

Flow Path Design for Membrane Electrolysis Stack Electrochemical Cell

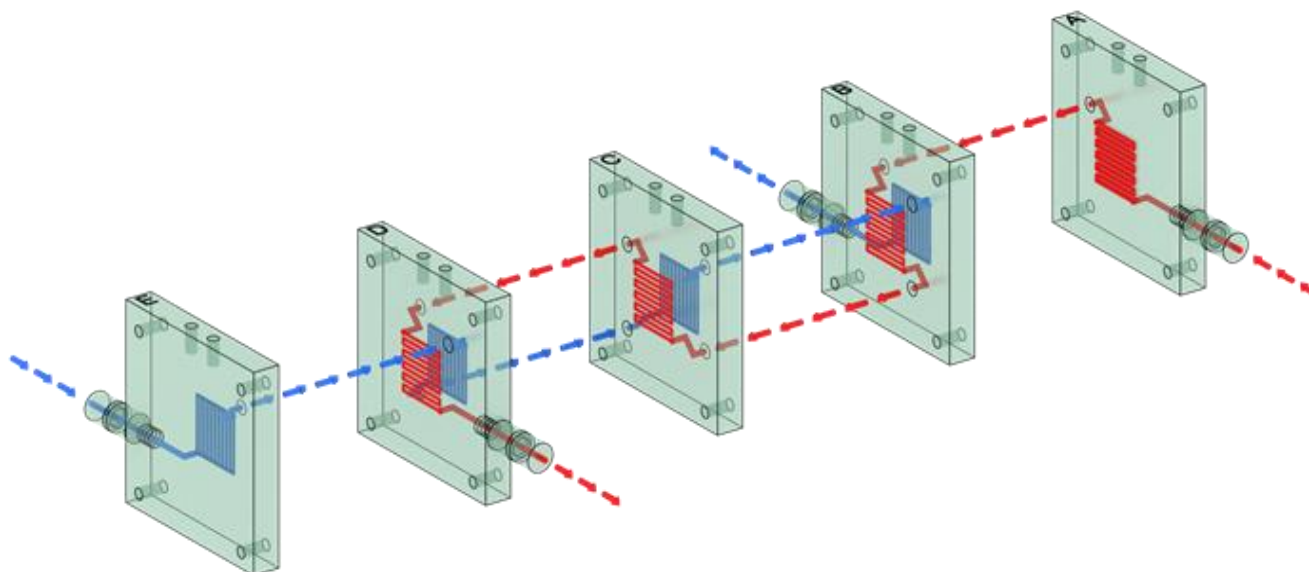
To accommodate diverse experimental requirements across different research fields, our company provides two types of flow path designs for the electrolyzer stack:

Series connection of cathode and anode flow channels

Cathode series connection + anode parallel connection

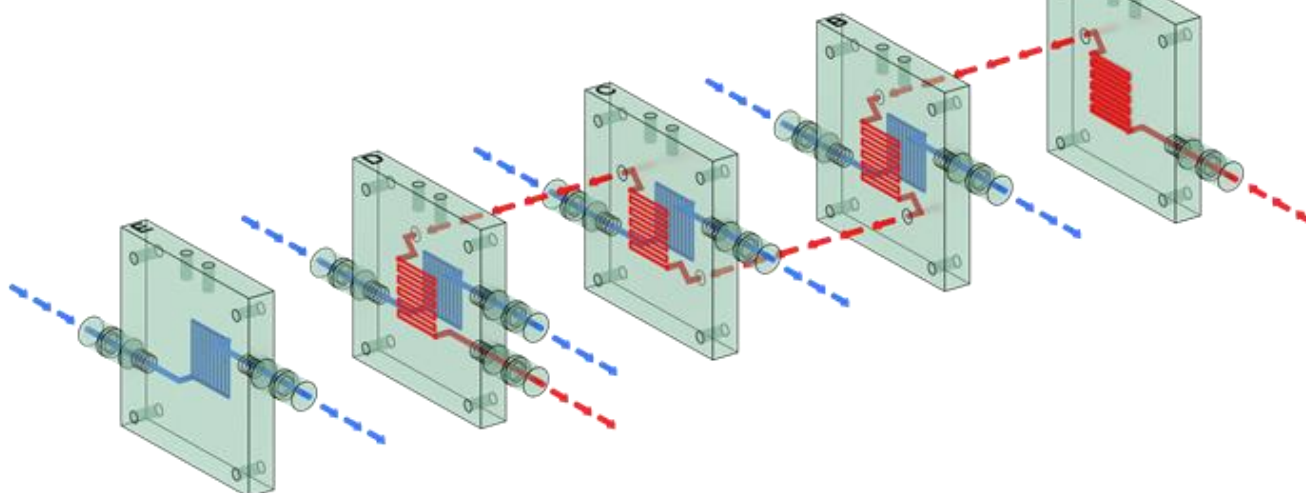
Schematic Diagram of Series Flow Channel

Both cathode and anode flow channels adopt series connection, which is commonly applied to hydrogen production via water electrolysis.



Series + Parallel Flow Channel Schematic Diagram

Each channel has a series-connected cathode and a parallel-connected anode with independent flow passages, which can effectively and quickly exhaust the gas produced at the anode. The electrolytic cell is generally used for carbon dioxide reduction.



Membrane Electrode Electrolysis Cell System

High-Current Solution for Membrane Electrode Electrolysis Cell

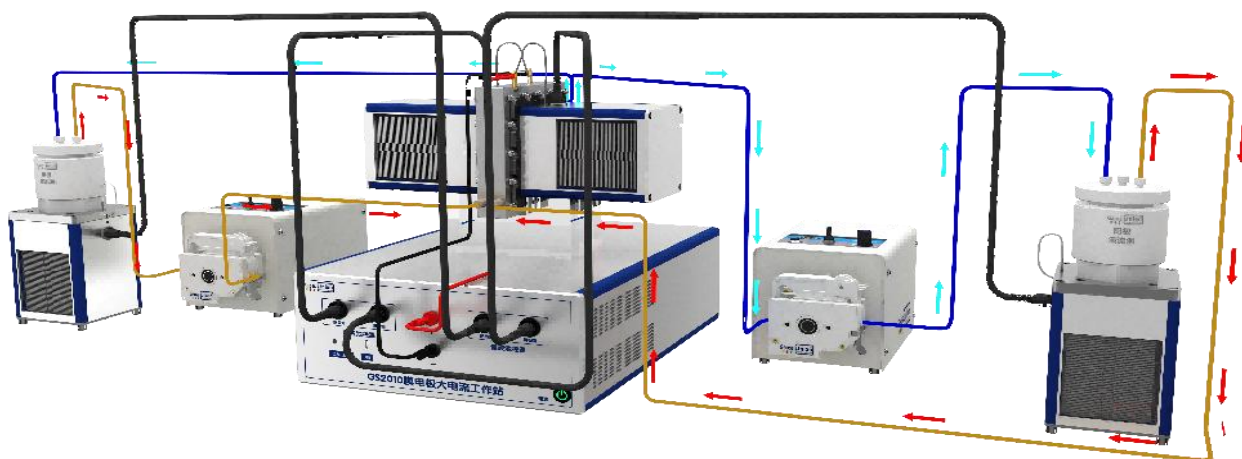
This device enables flexible regulation and recording of temperature (heating and cooling), current and voltage parameters, and is especially suitable for CO reduction reactions under high current density and large active area conditions. It can effectively control the influence of electrolysis temperature changes on reaction selectivity and help improve the stability of the device. The relevant parameter indicators are as follows:

Maximum output voltage: 32V; Maximum output current: 10A; Maximum measurable voltage: 20V; Maximum measurable current: 20A; Measurement accuracy: 0.01V (A)

Maximum controllable temperature: 100°C; Temperature accuracy: 0.1°C

The software supports recording and plotting of up to 12 physical parameters, with real-time recording and automatic data saving. It avoids data loss caused by sudden power failure, and the data acquisition interval is 0.02S to ensure detection sensitivity.

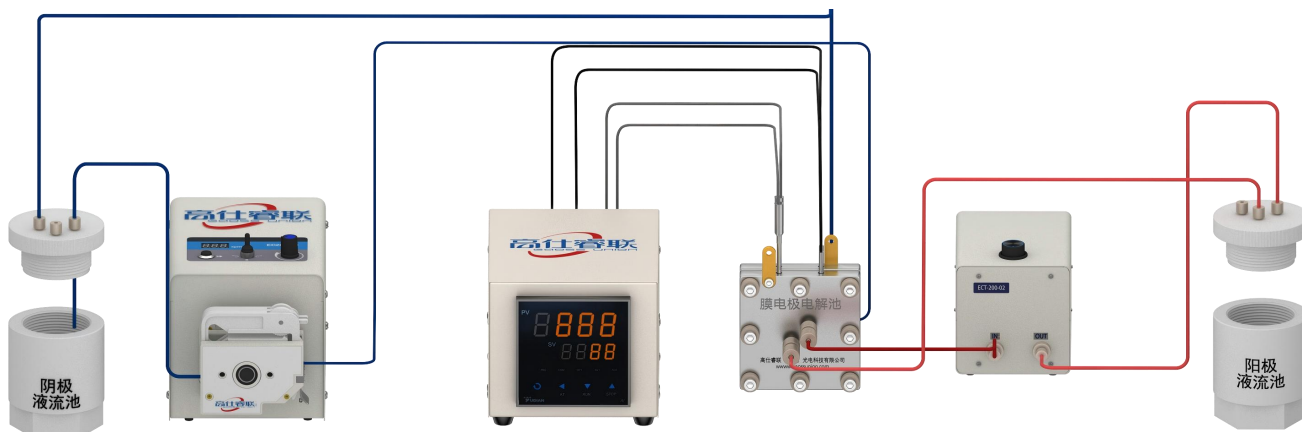
The system is modifiable and upgradable. Additional sensors can be added as required to record more parameters during the electrolysis process, such as gas flow rate, gas humidity, gas purity, etc.



Supporting Equipment Package Solution for Membrane Electrode Electrolysis Cell

For flow-type membrane electrode electrolysis cells, our company provides a complete one-stop turnkey solution, including electrochemical workstation, membrane electrode electrolysis cell, peristaltic pump, gas-liquid mixing pump, heating and temperature controller, as well as various required electrochemical consumables.

It enables researchers to build experimental platforms conveniently and efficiently, laying a solid foundation for the smooth and rapid advancement of experiments.



Membrane Electrode Electrolysis Cell System

General Price List for Membrane Electrode Electrolysis Cells

Product Name	Model	Flow Channel Specification	Price	Remarks
Titanium Metal Bipolar Plate Type	MEA-TI-TI	10*10mm; 20*20mm; 5cm ²	4534	Can be replaced with high-purity nickel plate; price to be quoted separately
		30*30mm	5200	
		50*50mm	6534	
		100*100mm	8534	
Graphite Bipolar Plate Type	MEA-GP	10*10mm; 20*20mm; 5cm ²	4534	
		30*30mm; 50*50mm	Inquiry	
Visualizable Type	可视化型	10*10mm; 20*20mm; 5cm ²	5200	
		30*30mm; 50*50mm	Inquiry	
With Thermostatic Water Bath	MEA-TI-WB	50*50mm	6534	Can be replaced with high-purity nickel plate; price to be quoted separately
		100*100mm	11200	
		200*200mm	28000	
Replaceable Flow Channel Type	MEA-TI-RM	14*14mm	5868	
Replaceable Flow Channel	Replaceable Flow Channel	30*30mm	5200	Minimum size 30×30 mm; no smaller flow channel specifications available
		50*50mm; 100*100mm	Inquiry	
Electrolyzer Stack	MEA-TI-X	10*10mm、20*20mm、5cm ² 5 flow field plates	Inquiry	Customization for larger sizes is supported
Integrated Control Workstation	EC-MEA		18668	

Integrated Solution Table for Membrane Electrode Assembly Electrolyzers

Product Name	Brand	Specification & Model	Price	Remarks
Membrane Electrode Electrolysis Cell	gaossunion	任选		Select one model as needed
Peristaltic Pump	gaossunion	EC200-01	2194	
Anion Exchange Membrane	Fumatech (Germany)	Fuma-FAA-3-50	534	
Cation Exchange Membrane	DuPont (USA)	117-100*100	400	
Kapton Tape	3M (USA)	8mm*30m	240	
Hydrophobic Carbon Paper	SGL 22BB (Germany)	100*100mm	668	10 pieces per box
Copper Tape	gaossunion	5mm*50 米	27	
Liquid Flow Cell	gaossunion	YL-1	588	
PTFE Tube	3M (USA)	3mm*5 米	200	
Electrolysis Cell Humidifier	gaossunion		614	
Gas-Liquid Mixing Pump	gaossunion	EC200-02	1468	
Heating & Temperature Controller	gaossunion	EC200-03	1868	
Mass Flow Meter	Sevenstar Huachuang		4400	

Gas Diffusion Electrolyzer Series

Entry-Level Gas Diffusion Electrolytic Cell

Model: 101014

This electrolytic cell is an entry-level product of gas diffusion flow cells.

Application Scenario: For beginners to get started with gas diffusion experiments.

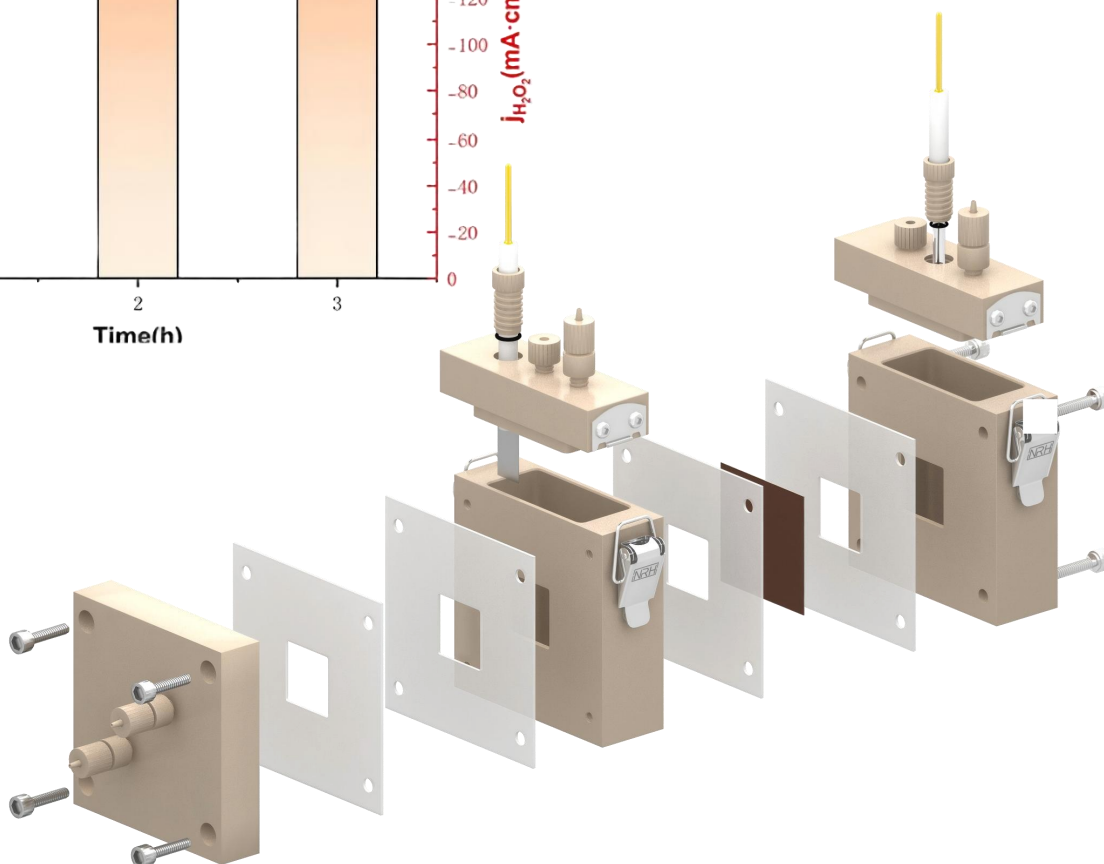
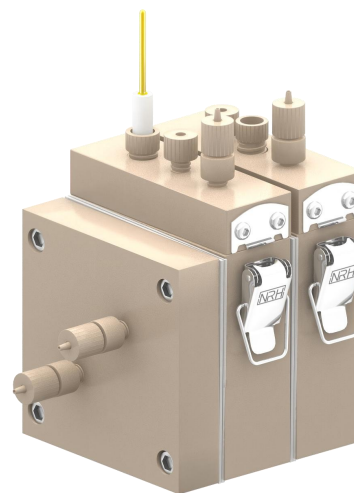
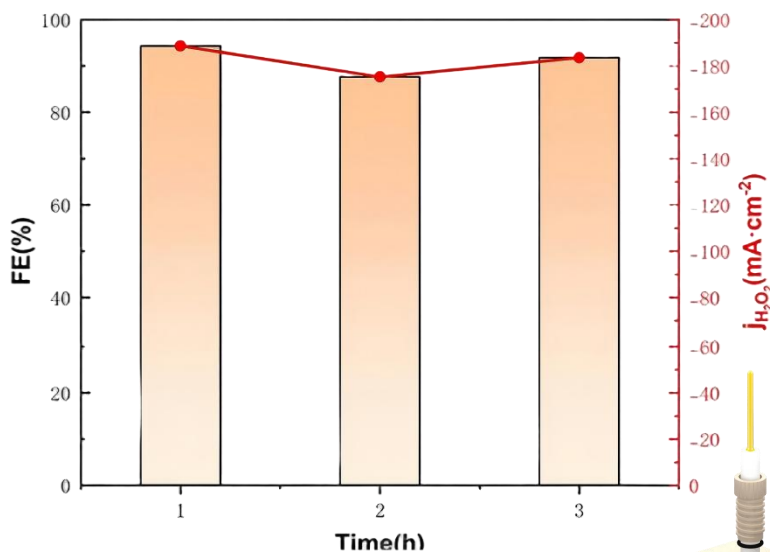
Cell Material: PEEK (PEEK is the only available material to meet the wall thickness requirement of the cell).

Adopts a quick-open design to facilitate opening and closing of the cell lid.

It features a three-electrode system: the working electrode is a gas diffusion electrode, while the counter electrode is a conventional rod electrode.

Gas inlet and outlet ports as well as spare plugs are pre-installed on both the anode and cathode sides for use in other experimental scenarios.

€:3200



Primary Gas Diffusion Electrolytic Cell

Gas Diffusion Electrolyzer Series

Model: CP10/CP20

This is a primary version gas diffusion electrolytic cell.

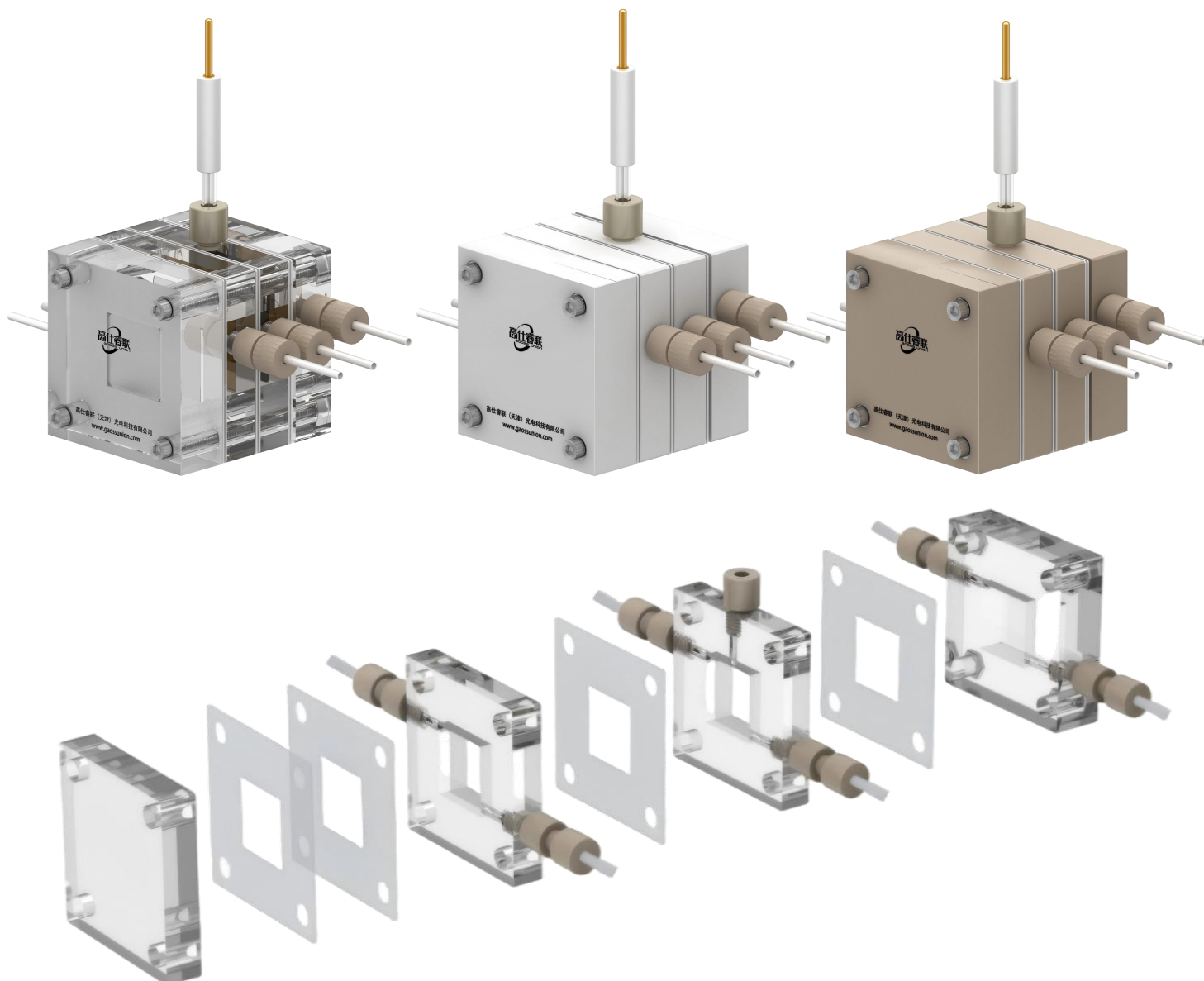
Upgraded from the entry-level gas diffusion electrolytic cell to a Flow Cell structure. In this Flow Cell, gas flows in from the top and exits from the bottom, while electrolyte liquid enters from the bottom and flows out from the top.

Standard channel sizes are 10×10 mm and 20×20 mm; customized dimensions are available upon request.

Distance between anode and cathode: 20 mm

Available cell materials: Polymethyl Methacrylate (PMMA), Polytetrafluoroethylene (PTFE), Polyetheretherketone (PEEK)

Price : PMMA&PTFE : 854
Peek : 1654



Advanced Gas Diffusion Electrolytic Cell

Model No.: 101016

This is a classic three-chamber gas diffusion electrolytic cell.

Cell body material: PEEK with excellent corrosion resistance.

Chamber dimension: 5×20 mm

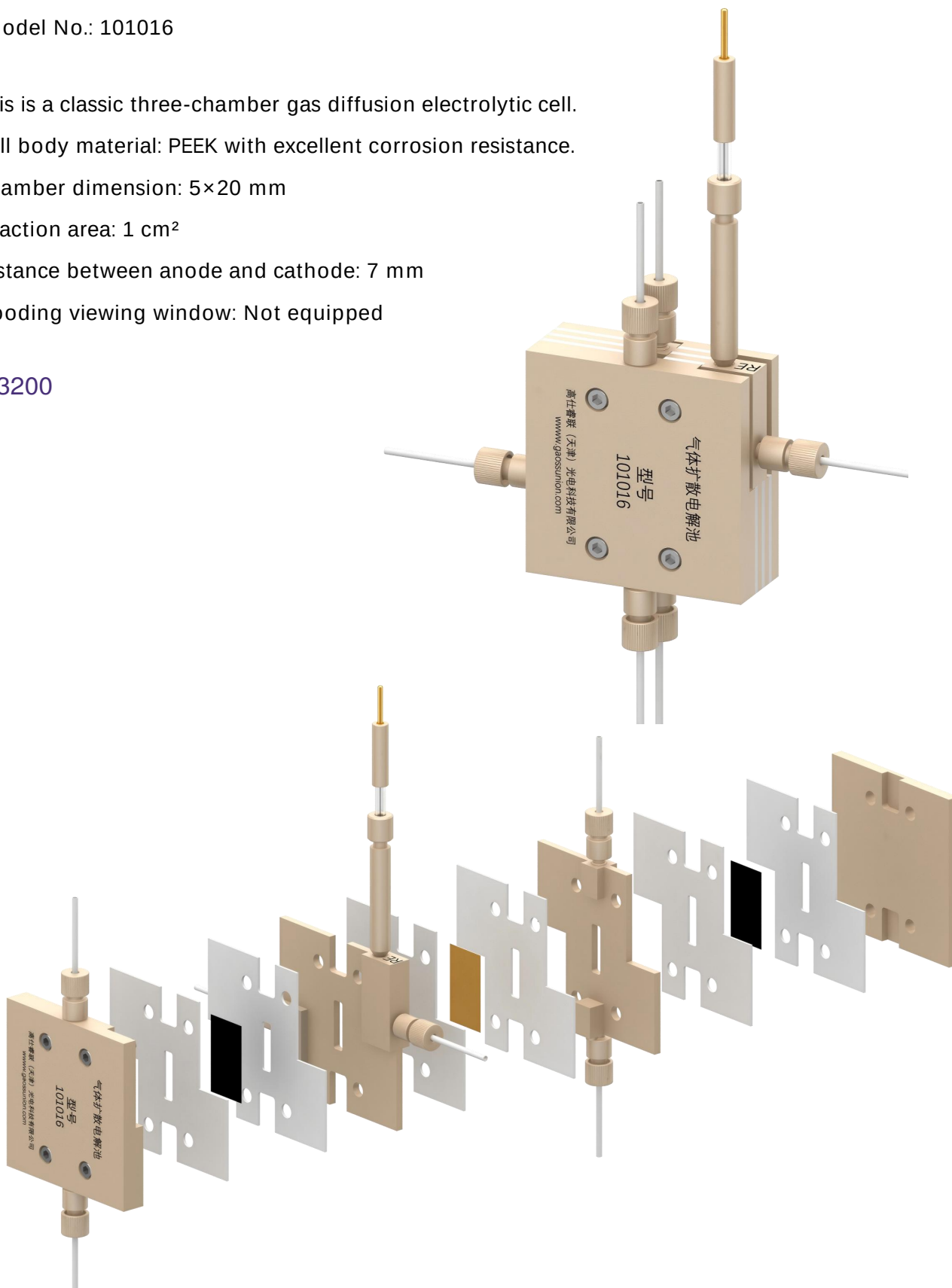
Reaction area: 1 cm²

Distance between anode and cathode: 7 mm

Flooding viewing window: Not equipped

€:3200

Gas Diffusion Electrolyzer Series



Gas Diffusion Electrolyzer Series

This is a classic three-chamber gas diffusion electrolytic cell.

Cell body material: PEEK with outstanding corrosion resistance.

Chamber size: 5×20 mm

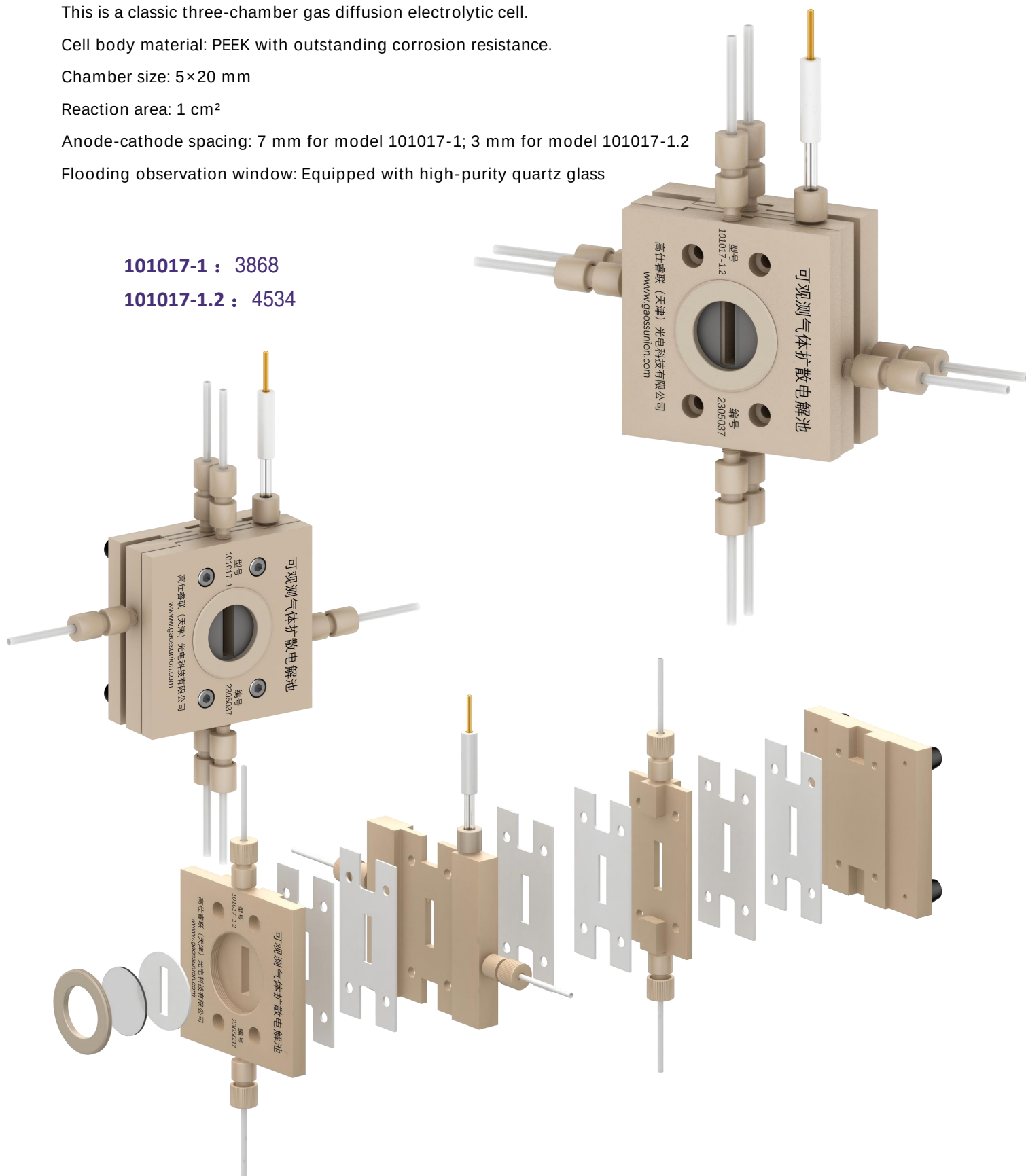
Reaction area: 1 cm²

Anode-cathode spacing: 7 mm for model 101017-1; 3 mm for model 101017-1.2

Flooding observation window: Equipped with high-purity quartz glass

101017-1 : 3868

101017-1.2 : 4534



Gas Diffusion Electrolyzer Series

High-End Multifunctional Gas Diffusion Electrolytic Cell

Model: 101018

This reactor adopts a sandwich structure, which can be freely configured into four functional modes according to experimental requirements: CO reduction gas diffusion electrolytic cell, solid-state electrolytic cell for producing pure liquid products, membrane electrode reactor, zinc-air battery and lithium-air battery.

Reaction chamber dimension: 10×10 mm

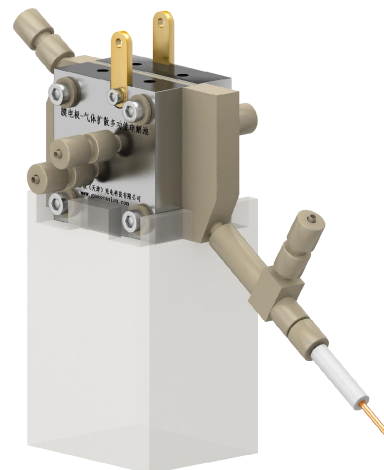
Reactor material: High-purity titanium + PEEK

Reaction area: 1 cm²

Thickness of PEEK chamber: 1.2 mm

Standard reference electrode: AgCl electrode

€:5868



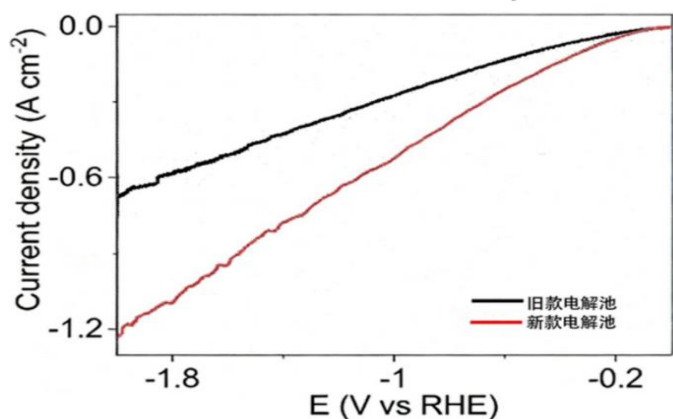
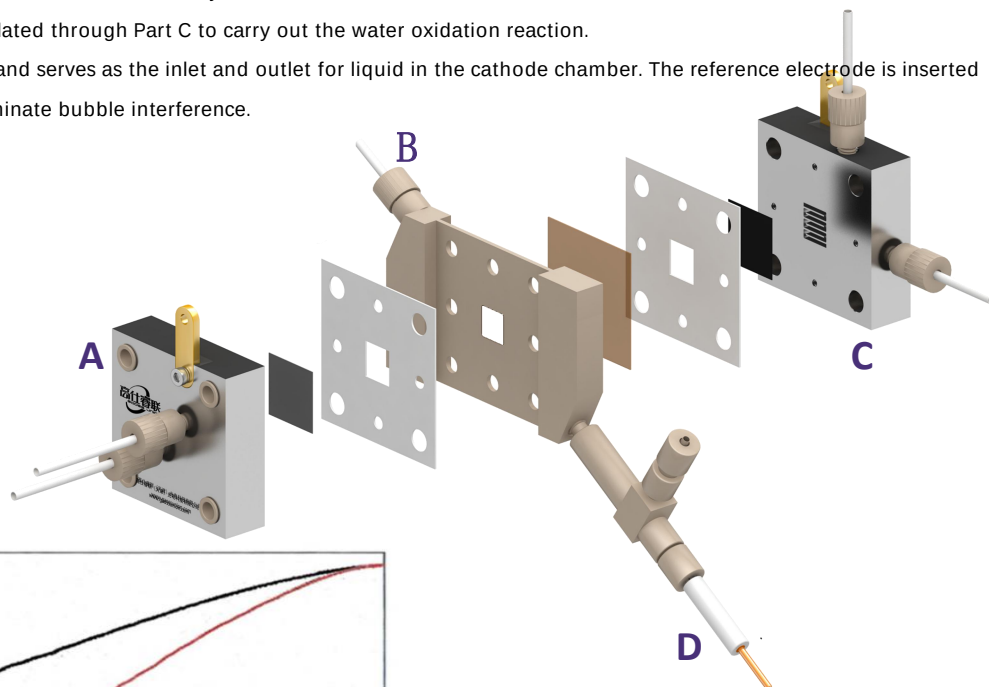
Function 1: CO₂ Reduction Gas Diffusion Mode

For this CO₂ reduction gas diffusion electrolytic cell (as shown in the figure), Plate A serves as the chamber for humidified CO gas inlet. A gas diffusion electrode (carbon paper) is placed between Plate A and Plate B, while Plate B acts as the flow chamber for cathodic liquid.

An anion exchange membrane and the anode are installed between Plate B and Plate C. The anode can be a metal mesh loaded with water splitting catalyst, or foam metal with water oxidation activity.

Neutral or alkaline electrolyte is circulated through Part C to carry out the water oxidation reaction.

Part D holds the reference electrode and serves as the inlet and outlet for liquid in the cathode chamber. The reference electrode is inserted at a 45° inverted angle to quickly eliminate bubble interference.



Gas Diffusion Electrolyzer Series

Function 2: Solid Electrolyte Mode

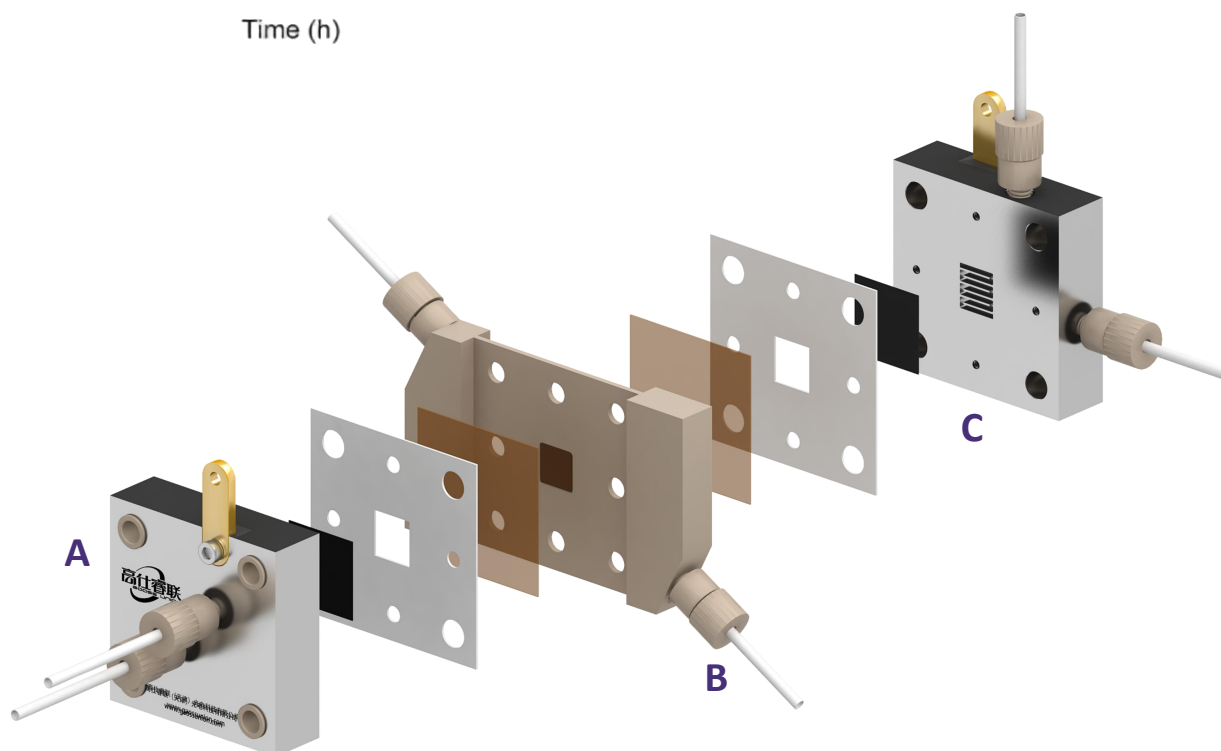
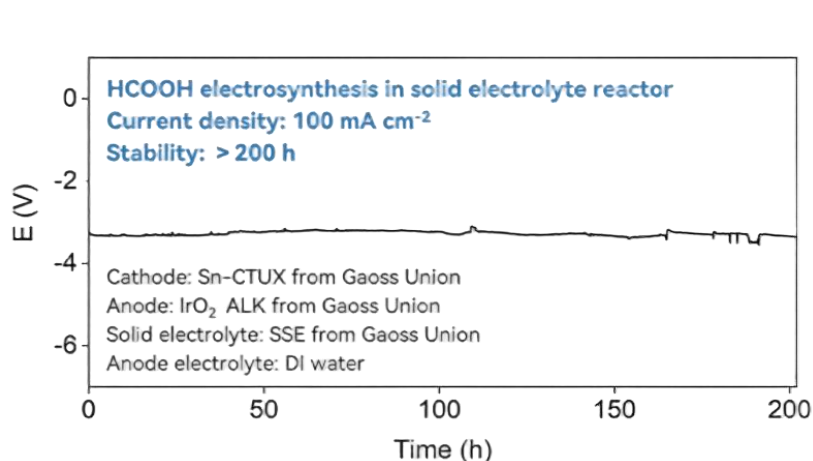
Assemble parts A, B and C. Solid electrolyte based on ion exchange resin is adopted to replace liquid electrolyte, so as to avoid introducing extra ions and directly prepare high-purity liquid products. The detailed structure is as follows:

Parts A and C are equipped with serpentine channels to prolong gas residence time and boost gas conversion efficiency.

Plate A serves as the chamber for feeding humidified CO₂ gas. A gas diffusion electrode (carbon paper) and an anion exchange membrane are placed between Plate A and Plate B (cold pressing or hot pressing can be applied to ensure sufficient interfacial contact).

A cation exchange membrane and an anode are arranged between Plate B and Plate C. The anode can be a metal mesh loaded with water splitting catalyst or foam metal with water oxidation activity. Acidic electrolyte is pumped into Part C to proceed with water oxidation reaction.

Part B is the core component of the solid-state electrolytic cell. Its overall cavity is I-shaped with a middle section thickness of 1.2 mm, which contains a 1×1 cm square through-hole. Granular ion exchange resin can be filled into the through-hole as solid electrolyte to substitute liquid electrolyte and directly produce pure liquid fuels. Pure water is fed into Part B to flush liquid products out of the reactor, yielding pure aqueous liquid products free of anions and cations.



Gas Diffusion Electrolyzer Series

Function 3: Membrane Electrode Electrolytic Cell Mode

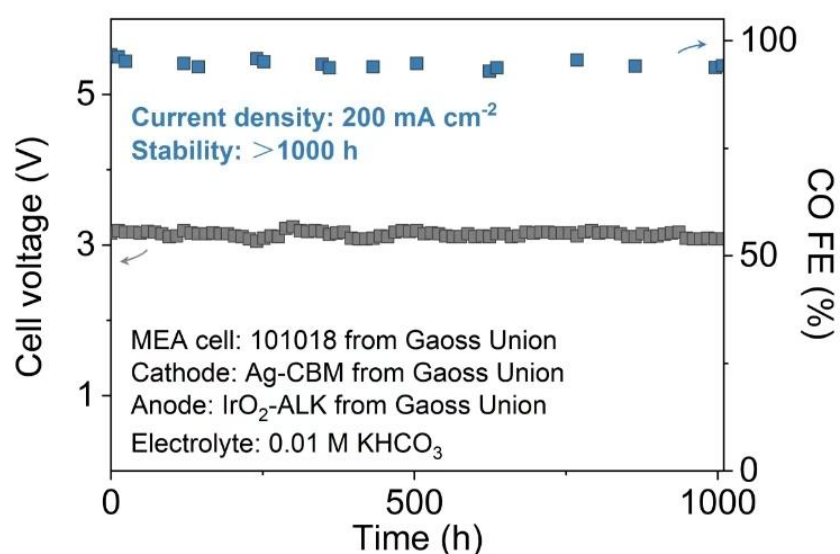
Assemble Part A and Part C while removing Part B and Part D to set up a membrane electrode electrolytic cell.

The specific structure is as follows:

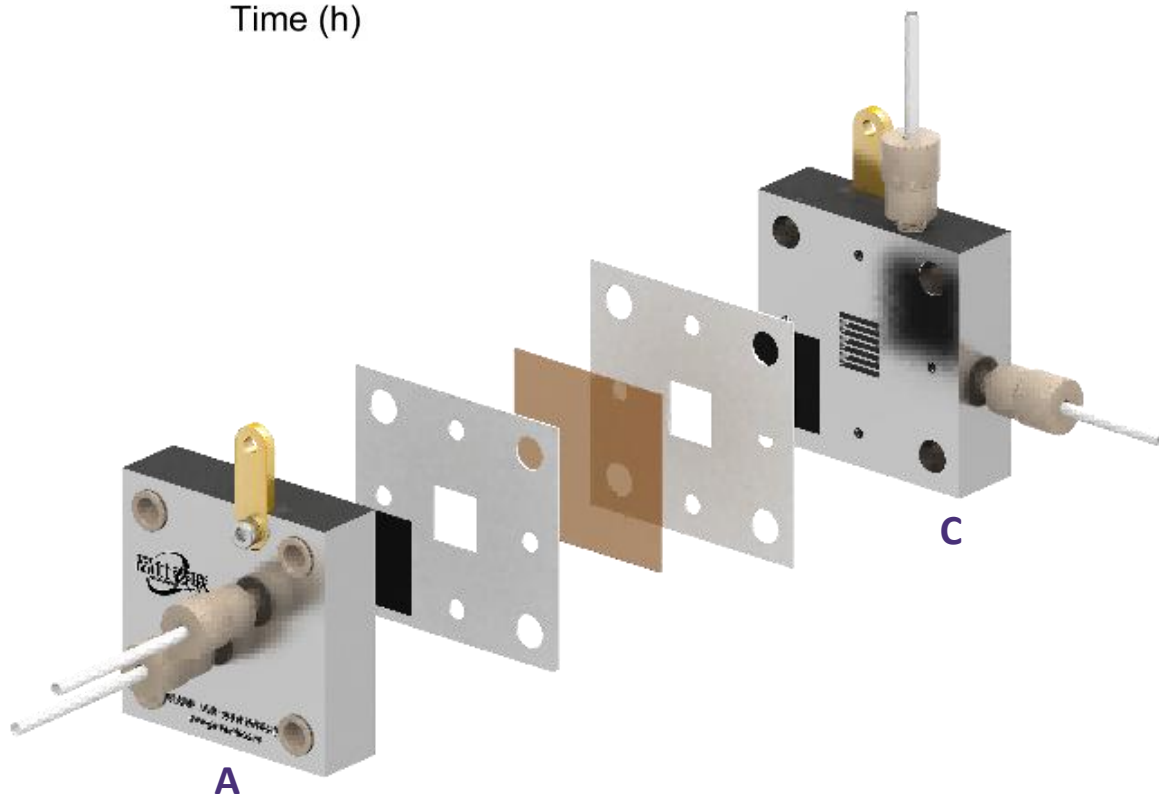
Part A and Part C are equipped with serpentine channels to extend gas residence time and improve gas conversion rate.

Plate A serves as the chamber for feeding humidified CO gas. Between Plate A and Plate C, components are placed in sequence from A to C: gas diffusion electrode (carbon paper), anion exchange membrane or proton exchange membrane (cold pressing or hot pressing can be adopted to ensure full contact between the gas diffusion electrode and ion exchange membrane), as well as metal mesh loaded with water splitting catalyst (or foam metal with water oxidation activity).

Neutral or alkaline electrolyte is circulated into Part C to carry out the water oxidation reaction.



Ultra-long Duration Continuous Operation Stability Test
Adopting the latest generation Model 101018 membrane electrode electrolytic cell from Gaossunion together with independently developed electrodes, the system has achieved continuous and stable electrochemical CO reduction to CO for more than 1000 hours.



Gas Diffusion Electrolyzer Series

Function 4: Zinc-Air & Lithium-Air Mode

Assemble plates A, B and C.

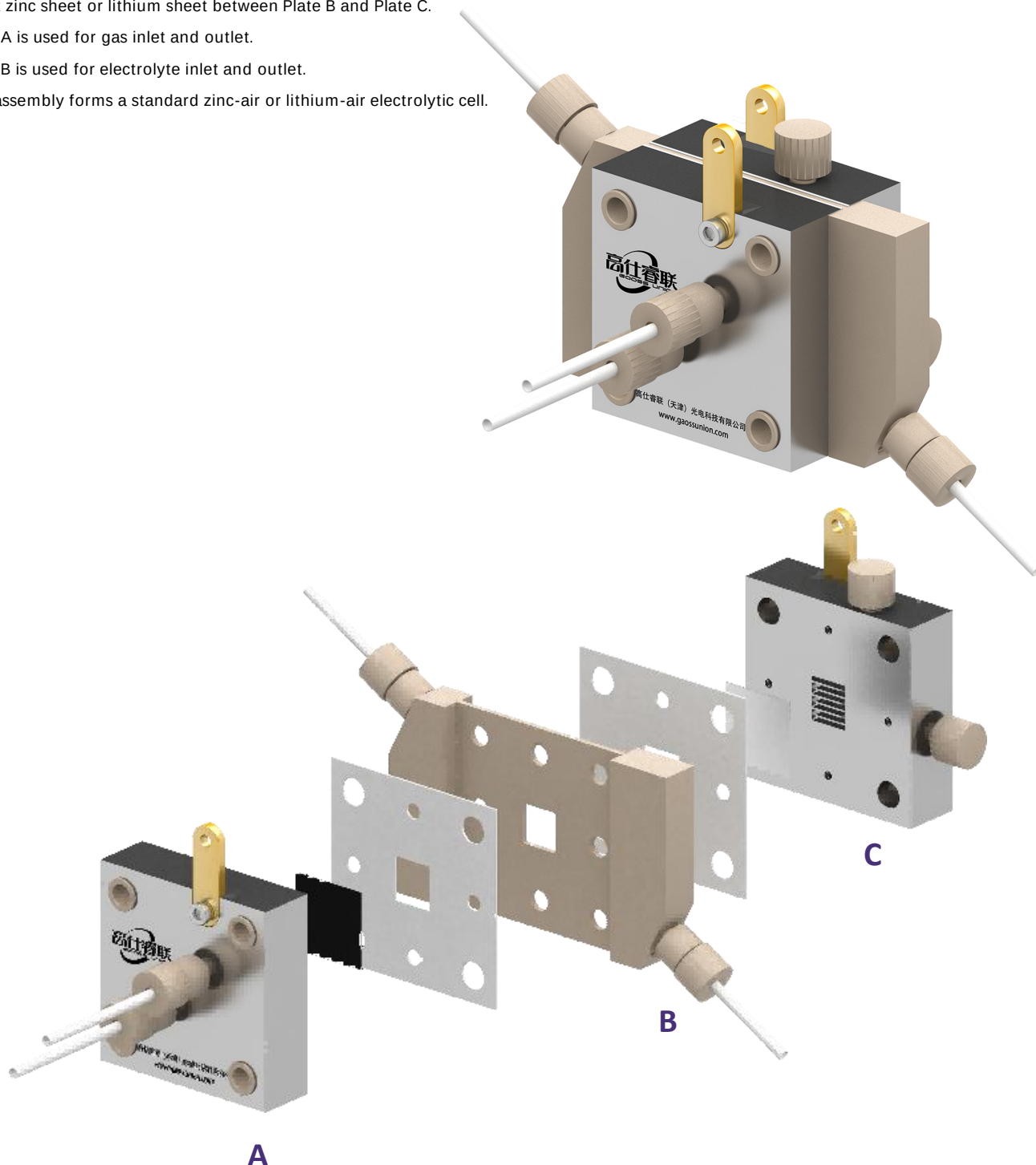
Place carbon paper between Plate A and Plate B.

Insert zinc sheet or lithium sheet between Plate B and Plate C.

Plate A is used for gas inlet and outlet.

Plate B is used for electrolyte inlet and outlet.

This assembly forms a standard zinc-air or lithium-air electrolytic cell.



Gas Diffusion Electrolyzer Series

Ultimate Version Membrane Electrode Gas Diffusion Electrolytic Cell

Model: 101019

As a new-type gas diffusion electrolytic cell, this product is comprehensively upgraded on the basis of membrane electrode electrolytic cells. The gas chamber adopts the serpentine flow channel commonly used in MEA cells, which greatly extends the contact duration between reaction gas and the cathode to boost reaction efficiency. With a brand-new flow path design for the cathode compartment, the gap between working electrode and counter electrode is reduced to 0.4 mm.

Plate material: High-purity titanium

Flow channel type: Serpentine flow channel (default), customized channels are available

Distance between working electrode and counter electrode: 0.4 mm

Electrode reaction area sizes: 10×10 mm, 20×20 mm and other options

Working electrode: Gas diffusion electrode (to be prepared by the user)

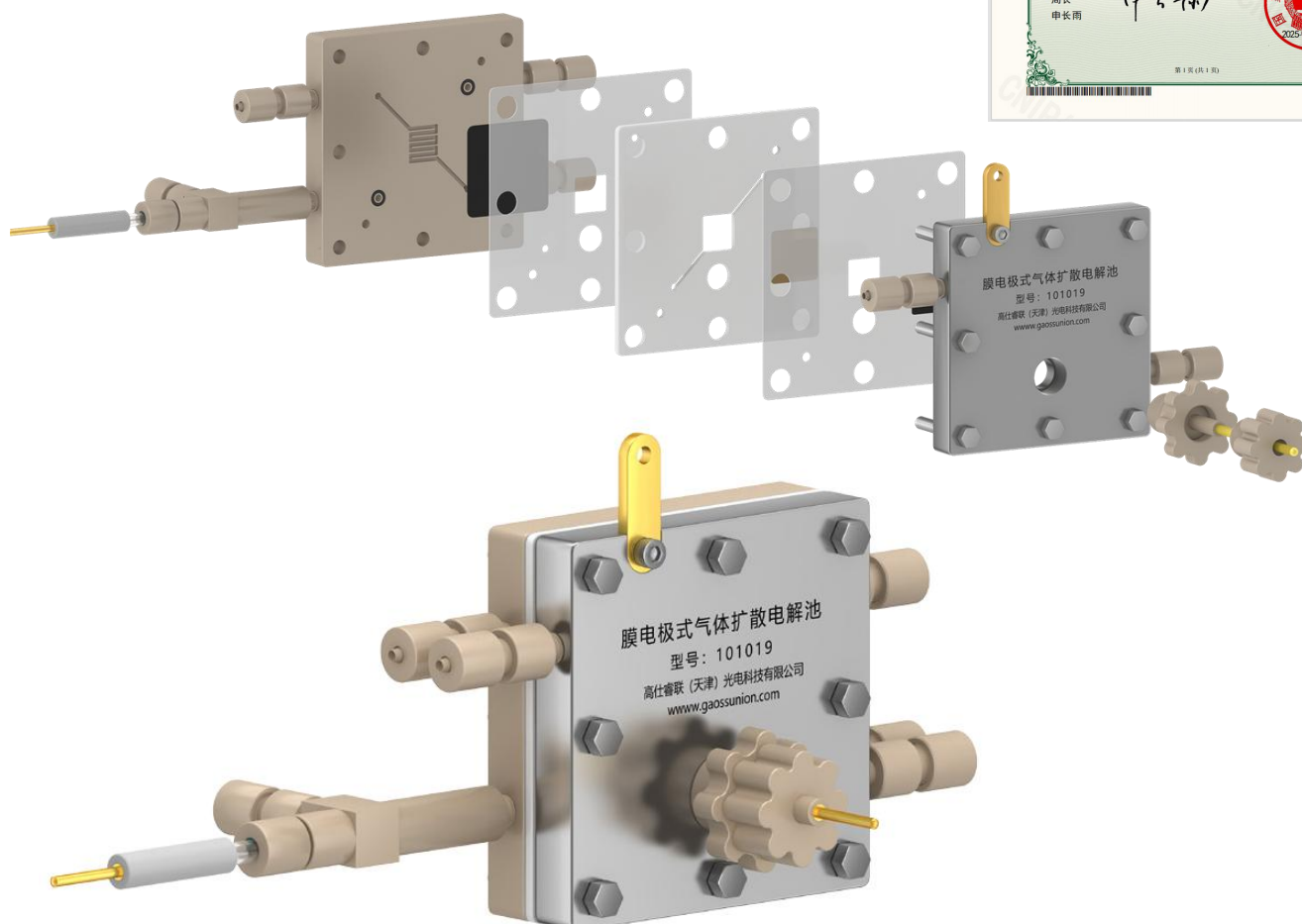
Reference electrode: Silver-silver chloride electrode (standard configuration)

Counter electrode: Porous materials such as iridium oxide mesh (to be prepared by the user)

Standard accessory: Torque wrench

10×10 mm version: €:5320

20×20 mm version: €:5720



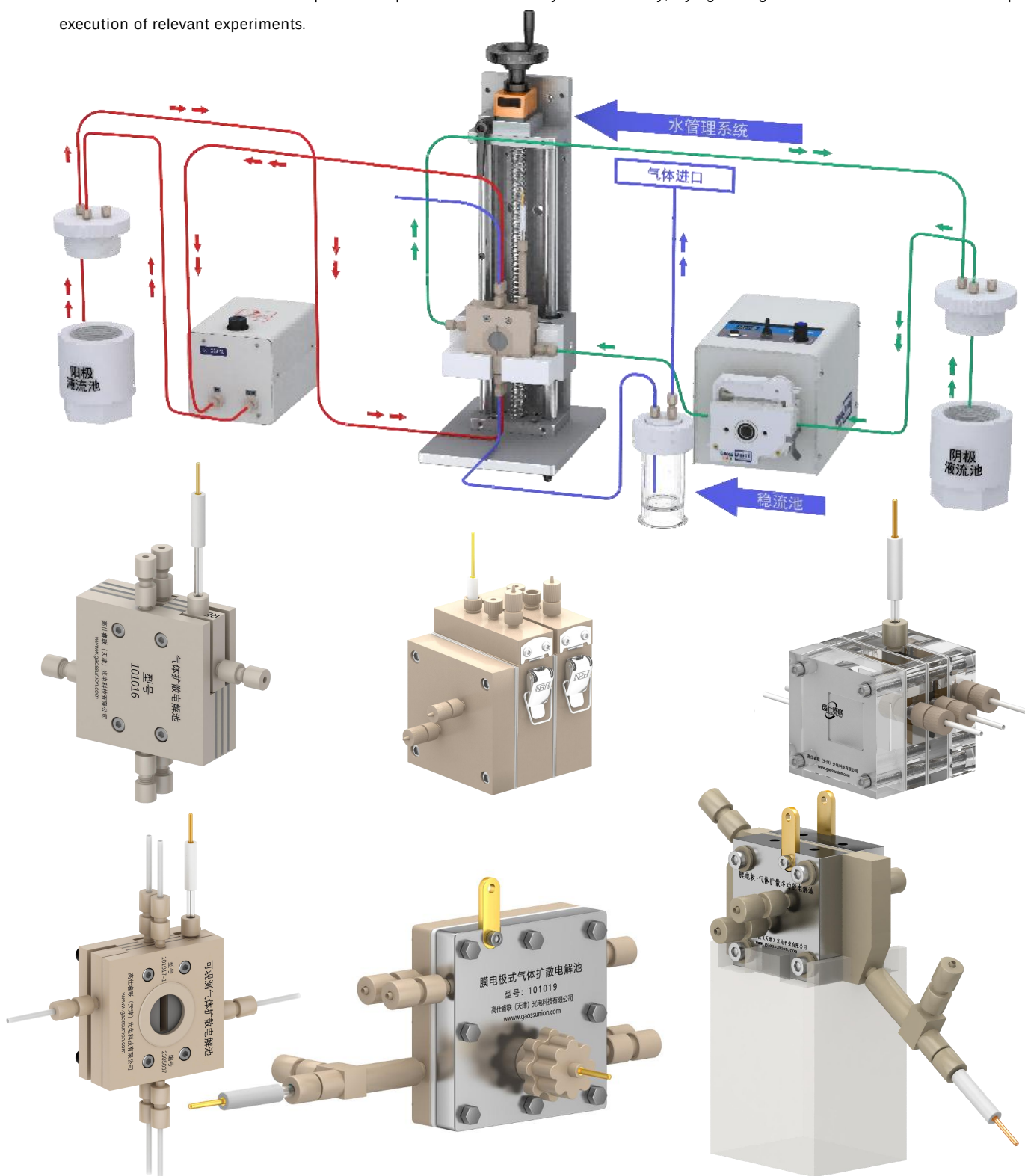
Gas Diffusion Electrolyzer Series

Complete Supporting Equipment Solution for Gas Diffusion Experiment Setup

For convection flow-through gas-diffusion electrolytic cells, our company provides a one-stop integrated turnkey solution.

The full package includes an electrochemical workstation, reaction electrolytic cell, peristaltic pump, gas-liquid mixing pump, humidifier, heating & temperature controller, mass flow meter, as well as all required electrochemical consumables.

This enables researchers to build experimental platforms conveniently and efficiently, laying solid groundwork for the smooth and rapid execution of relevant experiments.



Gas Diffusion Electrolyzer Series

Price List of Turnkey Solution for CO Electroreduction System

Table of Items

Product Name	Model	Price	Remarks
Entry-Level Gas Diffusion Electrolytic Cell	101014	3200	
Primary Gas Diffusion Electrolytic Cell CP10/CP20	PMMA	854	Single-chamber; Chamber size: 101010 mm or 202010 mm
	PTFE	854	
	PEEK	1654	
Standard Gas Diffusion Electrolytic Cell	101016	3200	No observation window
Observable Gas Diffusion Electrolytic Cell	101017-1	3868	With observation window; Anode-cathode spacing <7 mm
Observable Gas Diffusion Electrolytic Cell	101017-1.2	4534	With observation window; Anode-cathode spacing <3 mm
MEA-based Multifunctional Gas Diffusion Electrolytic Cell	101018	5868	Anode-cathode spacing: 1.2 mm
MEA-type Gas Diffusion Electrolytic Cell	101019	5320/5360	Anode-cathode spacing: 0.4 mm
Select one electrolytic cell from the list above			
Water Circuit Management System	101015	1200	
PEEK-shaft Ag/AgCl Reference Electrode	PK-1038	372	
PEEK-shaft Hg/HgO Reference Electrode	Hg-1038	372	
Platinum Plate Electrode	15*35*0.2	1360	
Peristaltic Pump	EC200-01	2194	
Anion Exchange Membrane	Fuma-FAA-3-50	534	
Cation Exchange Membrane	N117 100*100mm	400	
Hydrophobic Carbon Paper	100*100mm	668	10 pieces per box
Iridium Oxide Coated Mesh Electrode	100*100mm	800	Titanium substrate; Ir loading: 0.2 mg/cm ²
Salt Bridge	CP-1038	200	
Copper Conductive Tape	5mm*50 米	28	
Liquid Flow Cell	YL-1	588	
PTFE Tubing	3mm*5 米	200	
Flow Stabilization Reservoir	30ml	454	
Gas-Liquid Mixing Pump	EC200-02	630	Built-in shear force structure
Mass Flow Controller	七星华创	4400	
All listed dimensions are standard sizes. Custom chamber volumes are available upon request with price adjustments; final pricing shall prevail.			

Solid Electrolyte Electrochemical Cell (Two-Electrode System)

Gas Diffusion Electrolyzer Series

Model: QG-20-1

As illustrated in the figure, the solid electrolyte cell adopts an overall sandwich structure to construct a gas-solid interface. It replaces liquid electrolyte with solid electrolyte, eliminating the introduction of anions and cations, and directly enables the preparation of high-purity aqueous liquid products. The detailed structure is specified as follows:

1. Cell Body 1 & 3: Bipolar Plates

The inner side is machined with serpentine gas flow channels, which effectively raise the concentration of gaseous reactants on the catalyst surface and thus achieve high current density.

2. Membrane & Gas Diffusion Layer Assemblies

Between Cell Body 1 and 2: A dual-layer structure consisting of anion exchange membrane (dioxide material) and gas diffusion layer loaded with anode catalyst is adopted to form the gas-solid interface and facilitate anion transport.

Note: Thermal pressing is required for forming to ensure sufficient interfacial contact.

Between Cell Body 2 and 3: A dual-layer structure composed of Nafion 115 cation exchange membrane and gas diffusion layer loaded with cathode catalyst is used to construct the gas-solid interface and realize cation transport.

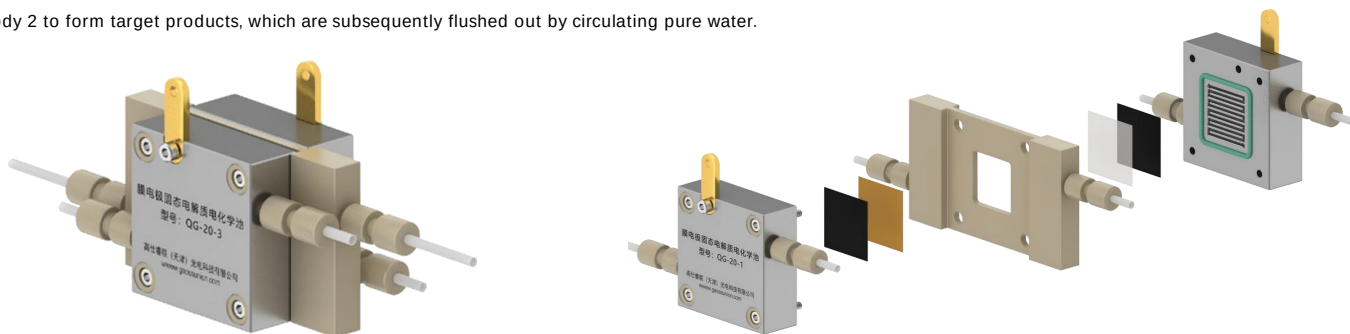
Note: Thermal pressing is required for forming to ensure sufficient interfacial contact.

3. Core Component — Cell Body 2

Cell Body 2 serves as the core unit of the solid electrolyte cell. It contains a square hollow cavity (4 cm² in area, 3 mm in thickness), which can be filled with shaped solid electrolyte to substitute liquid electrolyte and support direct synthesis of liquid fuels.

The solid electrolyte is typically high-conductivity polymer composites or porous ceramics. Pure water flows through the cavity to carry away liquid products, shifting the chemical equilibrium forward and yielding impurity-free aqueous product solutions.

Species generated from Cell Body 1 and Cell Body 3 permeate through their respective ion-exchange membranes, undergo combination reactions inside the intermediate Cell Body 2 to form target products, which are subsequently flushed out by circulating pure water.

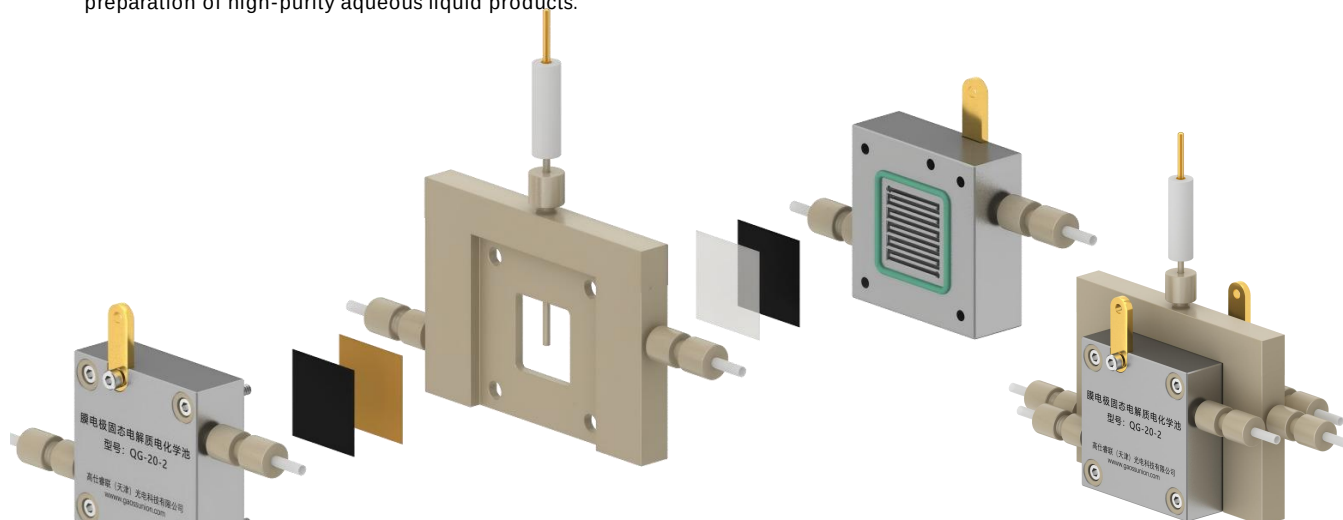


Solid Electrolyte Electrochemical Cell (Three-Electrode System)

Model: QG-20-2

This cell is developed on the basis of model QG-20-1 with an additional reference electrode. The plate thickness of the reference electrode compartment is 3 mm.

The solid electrolyte electrochemical cell adopts an integral sandwich structure to construct a gas-solid interface. It replaces liquid electrolyte with solid electrolyte to avoid the introduction of anions and cations, enabling the direct preparation of high-purity aqueous liquid products.



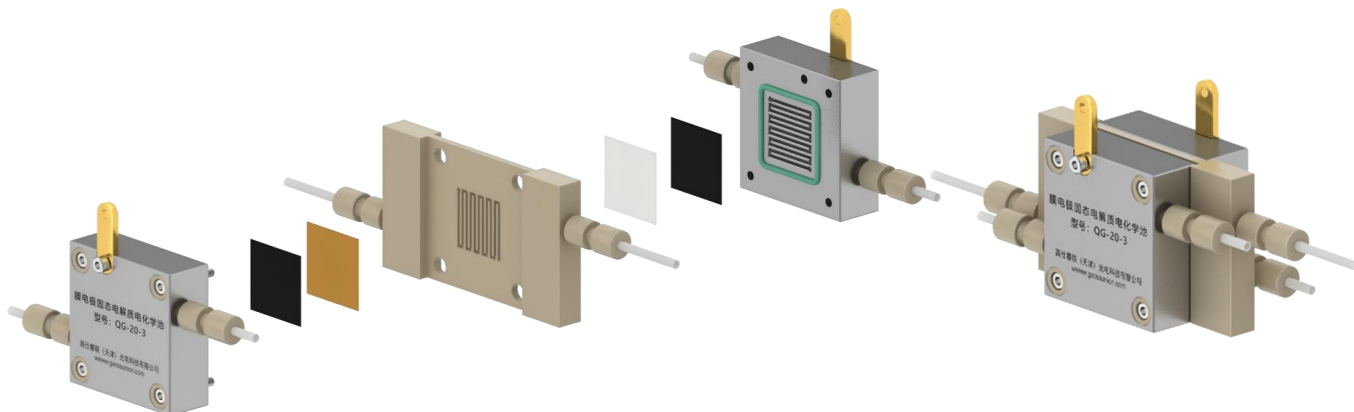
Gas Diffusion Electrolyzer Series

Solid Electrolyte Electrochemical Cell (Serpentine Flow Channel System)

Model: QG-20-3

As shown in the figure, this model optimizes the No.2 plate on the basis of QG-20-1 by adding serpentine flow channels.

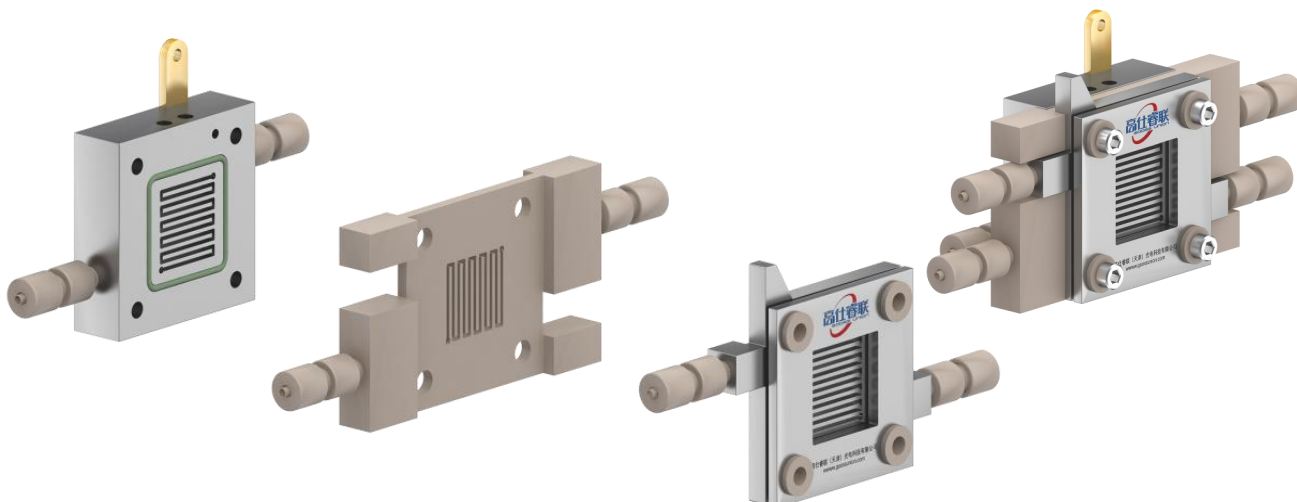
The solid electrolyte cell adopts an overall sandwich structure to construct a gas-solid interface. It replaces liquid electrolyte with solid electrolyte to eliminate the introduction of anions and cations, so as to directly prepare high-purity aqueous solutions of liquid-phase products.



Solid Electrolyte Electrochemical Cell (Visualizable Version)

Model: QG-20-4

As shown in the figure, this model is upgraded on the basis of QG-20-3. A high-transmittance quartz observation window is installed on the cathode compartment, which supports optical observation of the working electrode inside the cathode chamber or external light irradiation experiments.



Model	Specification	Price	Remarks
QG-20-1	20*20mm	4134	
QG-20-2	20*20mm	4508	Equipped with reference electrode
QG-20-3	20*20mm	4534	
QG-20-4	20*20mm	5200	

All listed dimensions are standard specifications. Custom dimensions are available upon request. Prices are subject to change without prior notice; the latest official quotation shall prevail.

Gas Diffusion Electrolyzer Series

Single Liquid Chamber Gas Diffusion Electrolysis Cell

Model: MTR-4-1

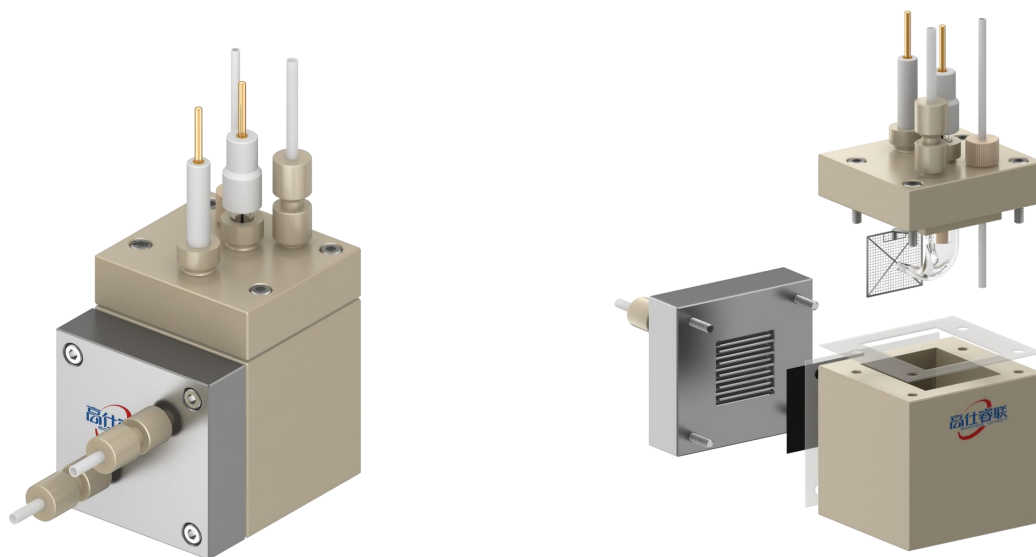
This electrolysis cell is applicable to electrochemical tests under flowing phase conditions.

The cell is composed of one liquid cavity compartment and one serpentine flow channel compartment. The serpentine channel is generally adopted as the gas flow path. Gas passes through the gas diffusion layer and undergoes electrochemical reaction inside the liquid cavity.

Channel dimension: 20 × 20 mm

The electrodes shown in the figure are for demonstration only. The platinum mesh electrode and reference electrode are not included in the quoted price and need to be purchased separately.

€:3200



Dual Liquid Chamber Gas Diffusion Electrolytic Cell

Model: MTR-4-2

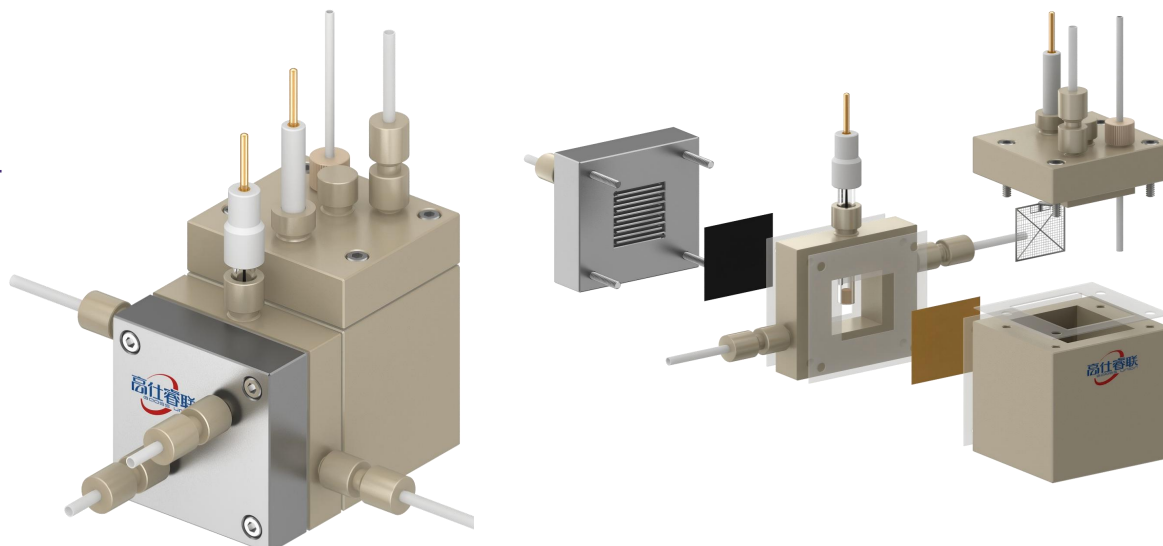
Compared with model MTR-4-1, Model -2 separates the working electrode, reference electrode and counter electrode via ion exchange membrane.

This electrolytic cell is designed for electrochemical tests under flowing phase conditions.

The cell consists of one liquid cavity compartment and one serpentine flow channel compartment. The serpentine channel is generally used as the gas inlet path; reactant gas permeates through the gas diffusion layer to carry out reactions inside the liquid cavity.

The electrodes shown in the diagram are for demonstration only. Platinum mesh electrode and reference electrode are not included in the listed price and need to be purchased separately.

€:3734



Gas Diffusion Electrolyzer Series

Gas Diffusion Photoelectrochemical Cell

Model: MTR-QW

This electrolytic cell enables photoelectrocatalytic reaction tests with gas diffusion electrodes.

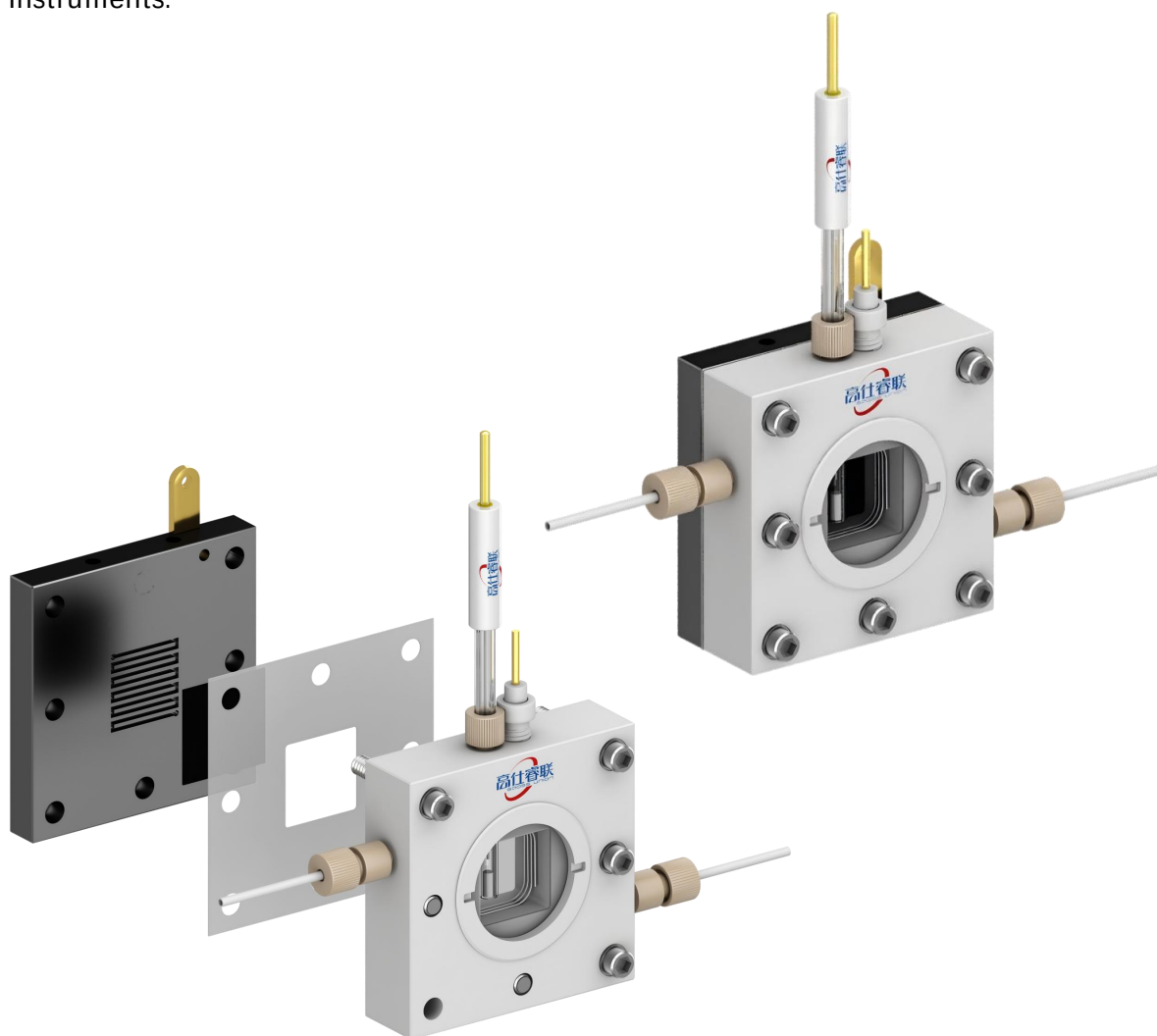
The cathode of the cell must adopt gas diffusion electrodes made of waterproof and gas-permeable materials such as carbon cloth and carbon paper.

A platinum wire counter electrode is equipped for the cathode (standard configuration: platinum wire of 0.5 mm × 230 mm).

A silver/silver chloride reference electrode is included as standard accessory.

A serpentine flow channel is designed for gas feeding on the cathode side to achieve sufficient contact and reaction between reactant gas and catalyst. If humidified gas is required, it is recommended to be used together with the custom gas humidifier developed by Corrtest Instruments.

€:3000



Gas Diffusion Electrolyzer Series

Gas Diffusion Membrane-Replaceable Photoelectrochemical Flow Cell

Model: MTR-FC-QW

This electrolytic cell addresses the drawback of conventional Flowcell gas diffusion electrolytic cells, where the loaded catalyst faces away from light irradiation.

It is mainly applied to flow system tests for photoelectrocatalytic reactions such as CORR and NRR.

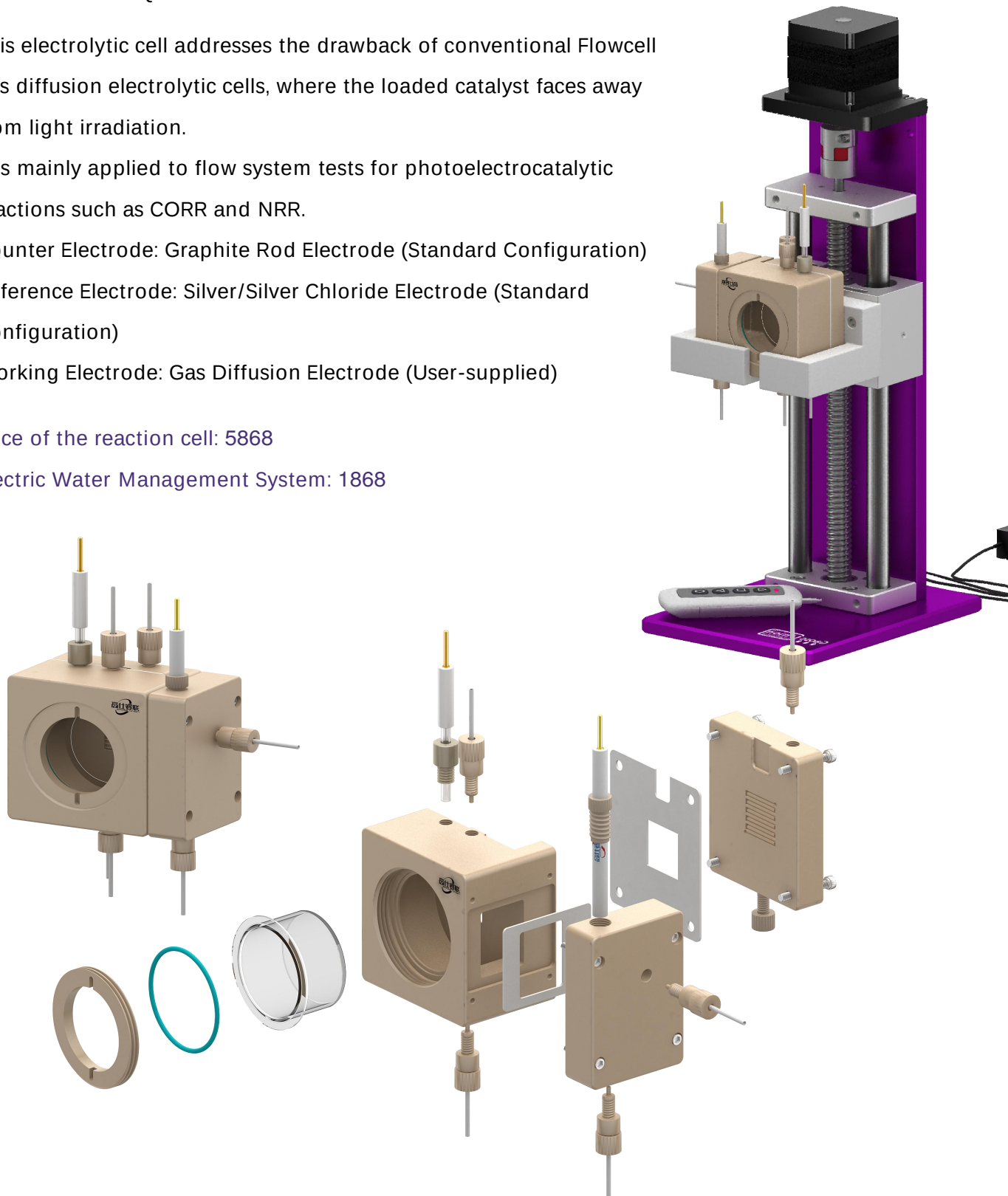
Counter Electrode: Graphite Rod Electrode (Standard Configuration)

Reference Electrode: Silver/Silver Chloride Electrode (Standard Configuration)

Working Electrode: Gas Diffusion Electrode (User-supplied)

Price of the reaction cell: 5868

Electric Water Management System: 1868



PressureCell High-Pressure Electrochemical Cell Series

Single-Chamber High-Pressure Electrochemical Cell

Model: P001-1

Material: Titanium (Ti)

Rated working pressure: 6 MPa

Maximum pressure resistance: 6 MPa

Volume options: 50 mL & 100 mL; custom volumes available on request

Valve material: 304 stainless steel

Reference Electrode: Ag/AgCl electrode (to be purchased separately)

Counter Electrode: Platinum plate electrode (to be purchased separately)

Working Electrode: Glassy carbon electrode holder (to be purchased separately)



Single-Chamber High-Pressure Electrochemical Cell

Model: P001-2

This cell is upgraded from model P001-1 with an additional optical window.

Available volumes: 50 mL & 100 mL; customized volumes are acceptable upon request.

It is a photoelectrochemical cell equipped with a quartz glass optical window whose light transmittance is higher than 95%.

Valve material: 304 stainless steel.

Reference Electrode: Ag/AgCl electrode (purchased separately).

Counter Electrode: Platinum plate electrode (purchased separately).

Working Electrode: Glassy carbon electrode holder (purchased separately).

Small-Volume Single-Chamber High-Pressure Electrochemical Cell

Model: P001-10

Material: Titanium (Ti)

Maximum pressure resistance: 6 MPa

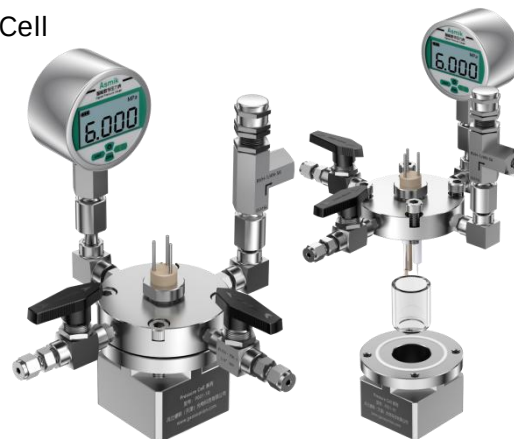
Standard volume: 10 mL; custom volumes are available upon request

Valve material: 304 stainless steel

Reference Electrode: Silver/Silver Chloride Electrode (to be purchased separately)

Counter Electrode: Platinum Plate Electrode (to be purchased separately)

Working Electrode: Glassy Carbon Electrode Holder (to be purchased separately)



Model	Specification	Price	Remarks
P001-1	50&100ml	30640	
P001-2	50 mL & 100 mL, with optical window	34640	
P001-10	10ml	36640	
High-Pressure Resistant Electrode Holder		1360	
High-Pressure Resistant Platinum Plate Electrode		1560	
High-Pressure Resistant Reference Electrode		1120	
All listed dimensions are standard specifications. Customized specifications are available upon request. Prices are subject to adjustment without prior notice, and the latest official quotation shall prevail.			

PressureCell High-Pressure Electrochemical Cell Series

Dual-Chamber High-Pressure Electrochemical Cell (Internally Replaceable Membrane)

Model: P002-1

Material: Titanium (Ti)

Maximum pressure resistance: 6 MPa

Standard volume: 20 mL + 20 mL

Valve material: 304 stainless steel

Single chamber volume: 20 mL; customized volumes are available on request

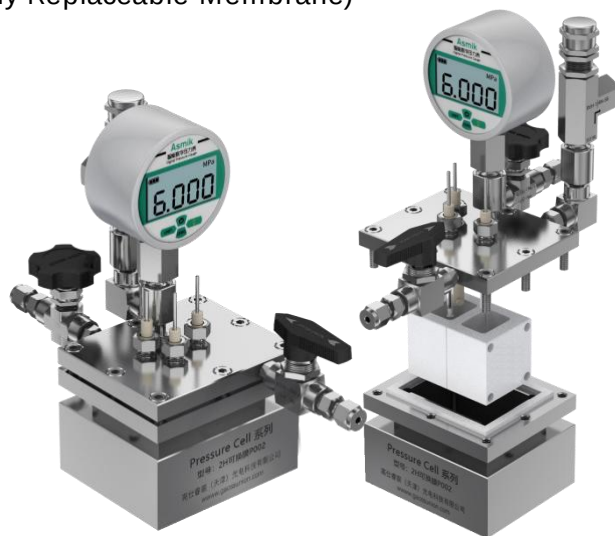
Adopts a three-electrode system

The reference electrode and working electrode are placed in one chamber, while the counter electrode is arranged in a separate chamber

Reference Electrode: Ag/AgCl electrode (to be purchased separately)

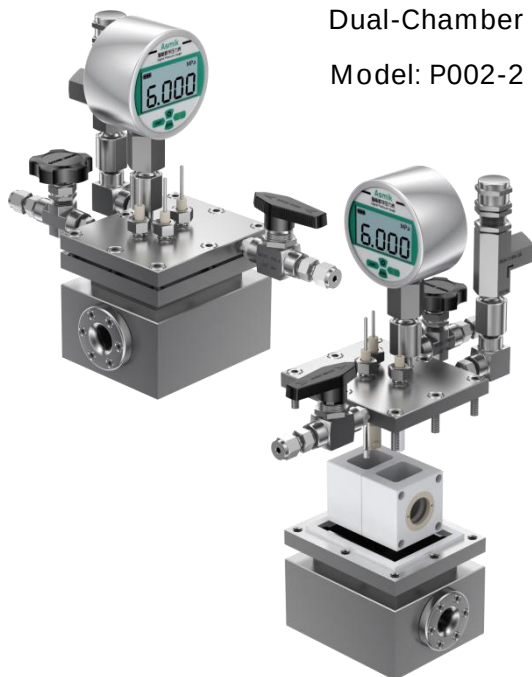
Counter Electrode: Platinum plate electrode (to be purchased separately)

Working Electrode: Glassy carbon electrode holder (to be purchased separately)



Dual-Chamber High-Pressure Electrochemical Cell (Internally Replaceable Membrane)

Model: P002-2



This cell is upgraded from model P002-1 with an added optical window.

Material: Titanium (Ti)

Maximum pressure resistance: 6 MPa

Standard volume: 20 mL + 20 mL

The optical window is made of quartz glass with a light transmittance higher than 95%.

Valve material: 304 stainless steel

Single chamber volume: 20 mL; customized specifications are available upon request.

Equipped with a three-electrode system.

The reference electrode and working electrode are placed in one chamber, while the counter electrode is arranged in an independent separate chamber.

Reference Electrode: Silver/Silver Chloride Electrode (to be purchased separately)

Counter Electrode: Platinum Plate Electrode (to be purchased separately)

Working Electrode: Glassy Carbon Electrode Holder (to be purchased separately)

Model	Specification	Price	Remarks
P002-1	20+20ml	11748	
P002-2	20+20ml; 带光窗	13080	
High-pressure Resistant Electrode Holder		454	
High-pressure Resistant Platinum Plate Electrode		520	
High-pressure Resistant Reference Electrode		374	
All listed dimensions are standard sizes, and customized specifications are available upon request. Prices are subject to revision without prior notice, and the latest official quotation shall prevail.			

PressureCell High-Pressure Electrochemical Cell Series

Dual-Chamber High-Pressure Electrochemical Cell (Externally Replaceable Membrane)

Model: P003-1

Material: Titanium (Ti)

Maximum pressure resistance: 6 MPa

Optional volumes: 50 mL + 50 mL, 100 mL + 100 mL

Valve material: 304 stainless steel

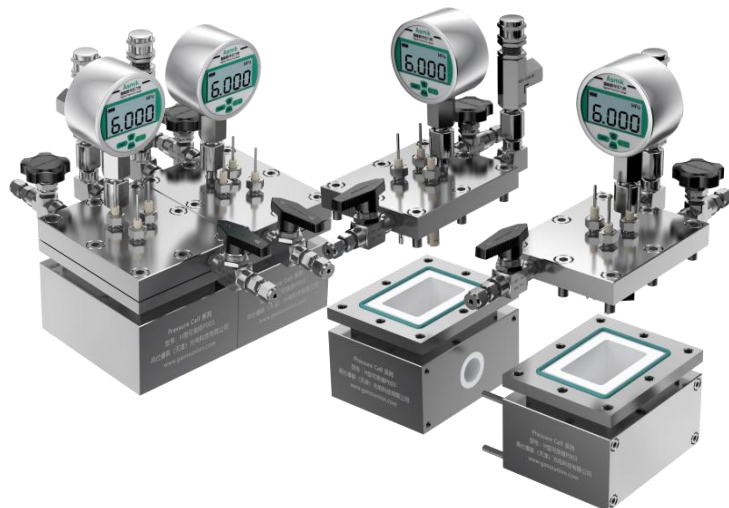
Adopts a three-electrode system

The reference electrode and working electrode are placed in one chamber, while the counter electrode is housed in a separate independent chamber

Reference Electrode: Silver/Silver Chloride Electrode (to be purchased separately)

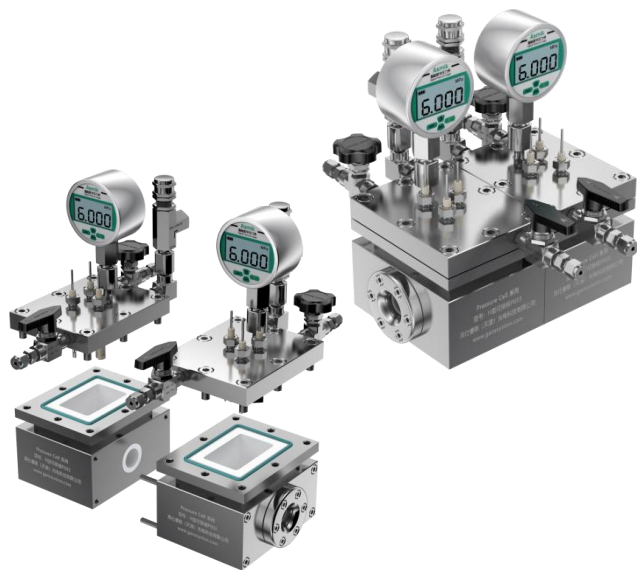
Counter Electrode: Platinum Plate Electrode (to be purchased separately)

Working Electrode: Glassy Carbon Electrode Holder (to be purchased separately)



Dual-Chamber High-Pressure Electrochemical Cell (Externally Replaceable Membrane)

Model: P003-2



This cell is upgraded from Model P003-1 with an additional optical window.

Material: Titanium (Ti)

Maximum pressure resistance: 6 MPa

Available volume options: 50 mL + 50 mL, 100 mL + 100 mL

The optical window is made of quartz glass with a light transmittance greater than 95%.

Valve material: 304 stainless steel

It adopts a three-electrode system.

The reference electrode and working electrode are placed in one chamber, and the counter electrode is arranged in an independent separate chamber.

Reference Electrode: Ag/AgCl electrode (to be purchased separately)

Counter Electrode: Platinum plate electrode (to be purchased separately)

Working Electrode: Glassy carbon electrode holder (to be purchased separately)

Model	Specification	Price	Remarks
P003-1	50+50ml	23614	
P003-1	100+100ml	25614	
P003-2	50+50ml	25614	
P003-2	100+100ml	27614	
High-pressure Resistant Electrode Holder		454	
High-pressure Resistant Platinum Plate Electrode		520	
耐高压参比电极		374	
所有尺寸为常用尺寸，可根据要求特殊定做；价格若有变化，以最新价格为准			

PressureCell High-Pressure Electrochemical Cell Series

Gas Diffusion High-Pressure Flow Test Cell

Model: PFC-1 / PFC-2

Performance Specifications

Flow rate setting range: 0.01~50.00 mL/min, setting step: 0.01 mL/min

Flow rate accuracy: $\pm 1.0\%$ (test condition: 10.00 mL/min, 8.5 MPa, water, ambient temperature)

Flow rate stability: $RSD \leq 0.3\%$ (test condition: 10.00 mL/min, 8.5 MPa, water, ambient temperature)

Maximum operating pressure:

30 MPa (flow rate 0.10~20.00 mL/min)

20 MPa (flow rate 20.01~50.00 mL/min)

Pressure accuracy: Displayed pressure error within $\pm 3\%$ or 0.5 MPa

Pressure pulsation: ≤ 0.4 MPa (flow rate 10.00 mL/min, pressure 8.5 ± 1.5 MPa)

Pump sealing performance: Under 30 MPa pressure for 10 minutes, pressure drop ≤ 1.5 MPa

Communication interface: RS485

Flow Cell Parameters

Cell body material: Titanium (Ti)

Cell volume: 1 mL

Cell dimension: 50 mm $\times$ 50 mm

Internal channel size: 10 mm $\times$ 10 mm $\times$ 10 mm

Physical Specifications

Weight: 12 kg

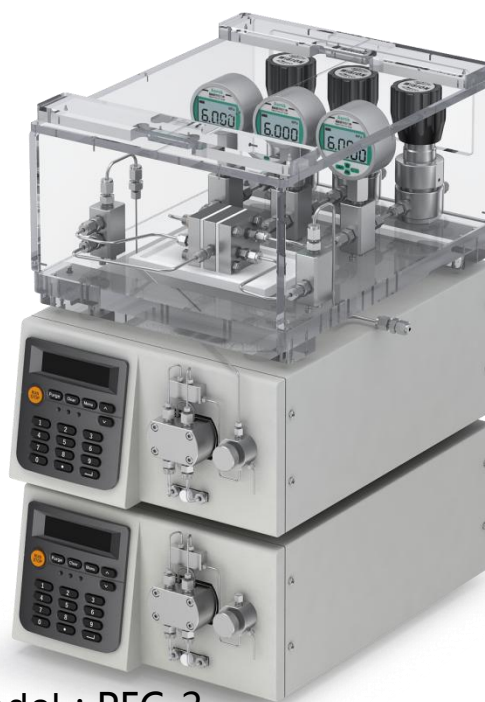
Power supply: AC 220V($\pm 10\%$), 50 Hz

Power consumption: 200 W

Overall dimension: 420 mm $\times$ 300 mm $\times$ 175 mm (Length $\times$ Width $\times$ Height)



Model : PFC-1



Model : PFC-2

Model	Specification	Price	Remarks
PFC-1	10*10	83334	Shared channel for anode and cathode
PFC-2	10*10	124000	Separate independent channels for anode and cathode

All listed dimensions are standard specifications; customized dimensions are available upon request. Prices are subject to revision without prior notice, and the latest official quotation shall prevail.

PressureCell High-Pressure Electrochemical Cell Series

Photocatalytic High-Pressure Electrochemical Cell

Model: P004

Cell body material: High-purity Titanium

Optical window material: Quartz glass (light transmittance > 95%)

Inner cell material: High borosilicate glass

This electrolytic cell supports vacuum pumping operation.



Model	Specification	Price	Remarks
P004-1	单层 50ml	3868	
P004-1	双层 50ml	8534	
All listed dimensions are standard specifications. Customized specifications are available upon request. Prices are subject to adjustment without prior notice, and the latest official quotation shall prevail.			

Swagelok-Type Battery Test Cell (Three-Electrode System)

Single-Function Cell Series

Model: B001-1

Cell body material: PEEK

Reference electrode: Silver/Silver Chloride (Ag/AgCl) electrode

The conductive medium connecting the positive and negative electrodes is a glassy carbon electrode (GC, diameter 3 mm)

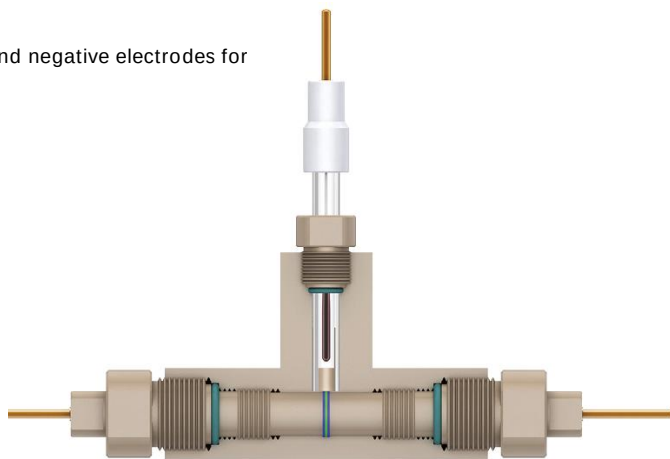
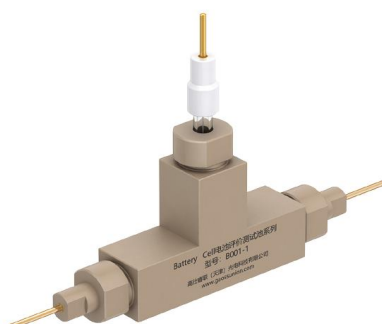
The positive and negative electrodes are test sample wafers, with a separator membrane sandwiched between the two sample wafers

Designed for simulative testing of coin cells

Tighten the glassy carbon electrodes on both sides to compress the positive and negative electrodes for electrical conduction, so as to realize battery testing

Unscrew the reference electrode port to add electrolyte externally

Applicable sample wafer diameters: 10 mm / 12 mm / 16 mm



Swagelok-Type Battery Test Cell (Two-Electrode System)

Model: B001-2

Cell body material: PEEK

The conductive medium connecting the positive and negative electrodes is glassy carbon electrode (GC, diameter 3 mm)

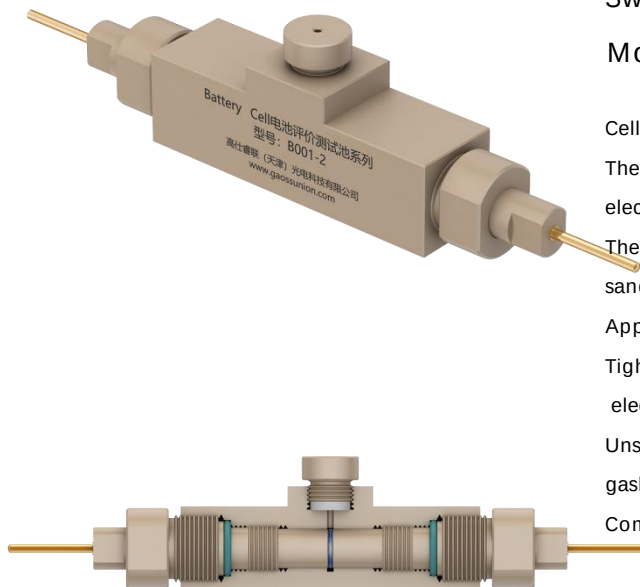
The positive and negative electrodes are test sample wafers, with a separator membrane sandwiched between the two sample wafers

Applied to simulated testing of coin cells

Tighten the glassy carbon electrodes on both sides to compress the positive and negative electrodes for electric conduction and realize battery testing

Unscrew the liquid inlet/outlet screw on the top, which is equipped with a gas phase gasket inside

Compatible sample wafer sizes: 10 mm / 12 mm / 16 mm



Model	Specification	Price	Remarks
B001-1		1868	
B001-2		1668	

All listed dimensions are standard sizes, and customized specifications are available upon customer request. Prices are subject to revision without prior notice, and the latest official quotation shall prevail.

Single-Function Cell Series

Visual Swagelok-Type Battery Test Cell (Two-Electrode System)

Model: B001-3

Cell body material: PEEK

The conductive medium connecting the positive and negative electrodes is a glassy carbon electrode (GC, diameter 3 mm)

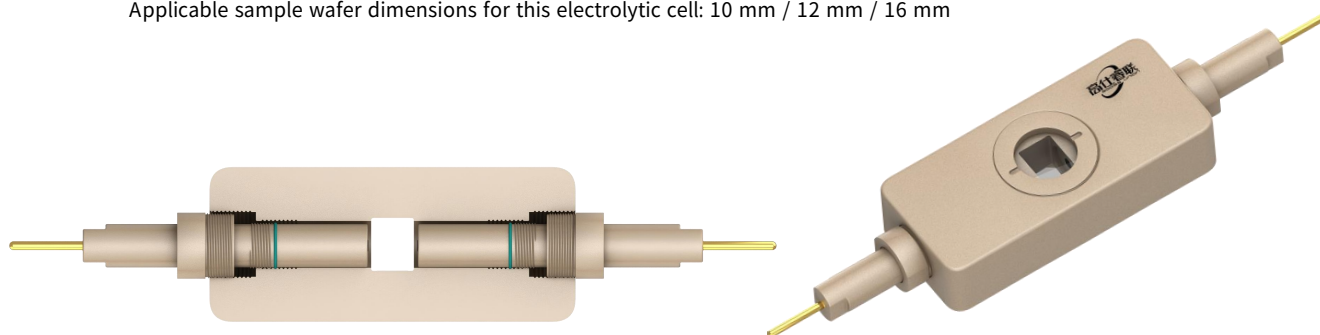
The positive and negative electrodes are test sample wafers, with a separator sandwiched between the two sample pieces

Designed for simulating coin cell battery testing

Tighten the left and right glassy carbon electrodes to compress the positive and negative electrodes for electrical conduction, achieving battery test performance

Optical windows are installed on both sides of the cell to enable real-time observation of the electrochemical reaction process

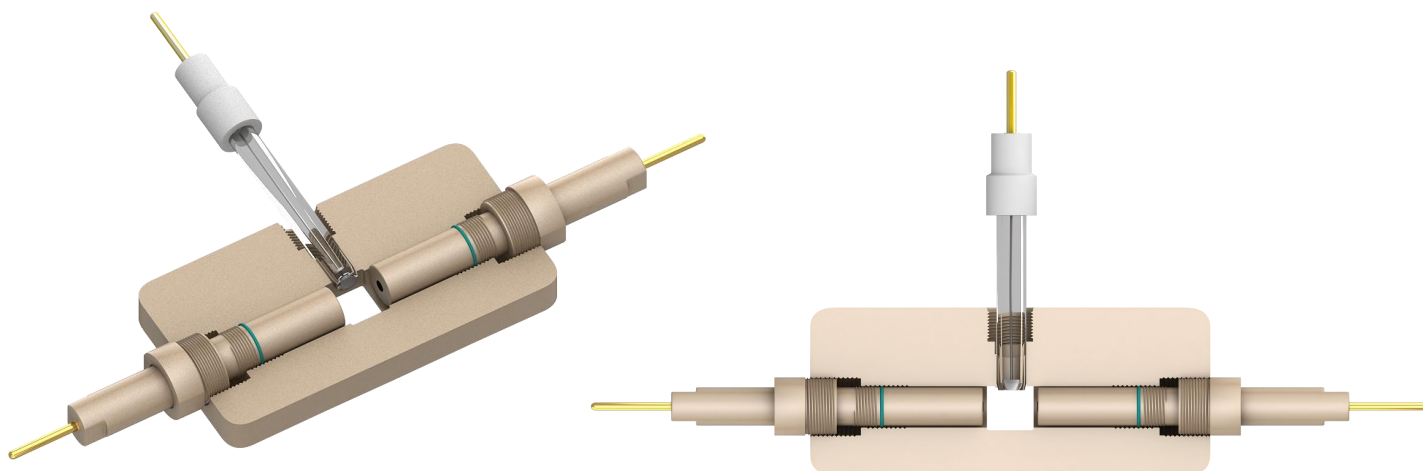
Applicable sample wafer dimensions for this electrolytic cell: 10 mm / 12 mm / 16 mm



Visual Swagelok-Type Battery Test Cell (Three-Electrode System)

Model: B001-4

This revised version adds a reference electrode jack on the basis of model B001-3, which is designed for three-electrode electrochemical testing.



Model	Specification	Price	Remarks
B001-3		2134	
B001-4		2134	
All listed dimensions are standard common sizes; customized specifications are available upon request. Prices are subject to change without prior notice, and the latest quotation shall prevail.			

Single-Function Cell Series

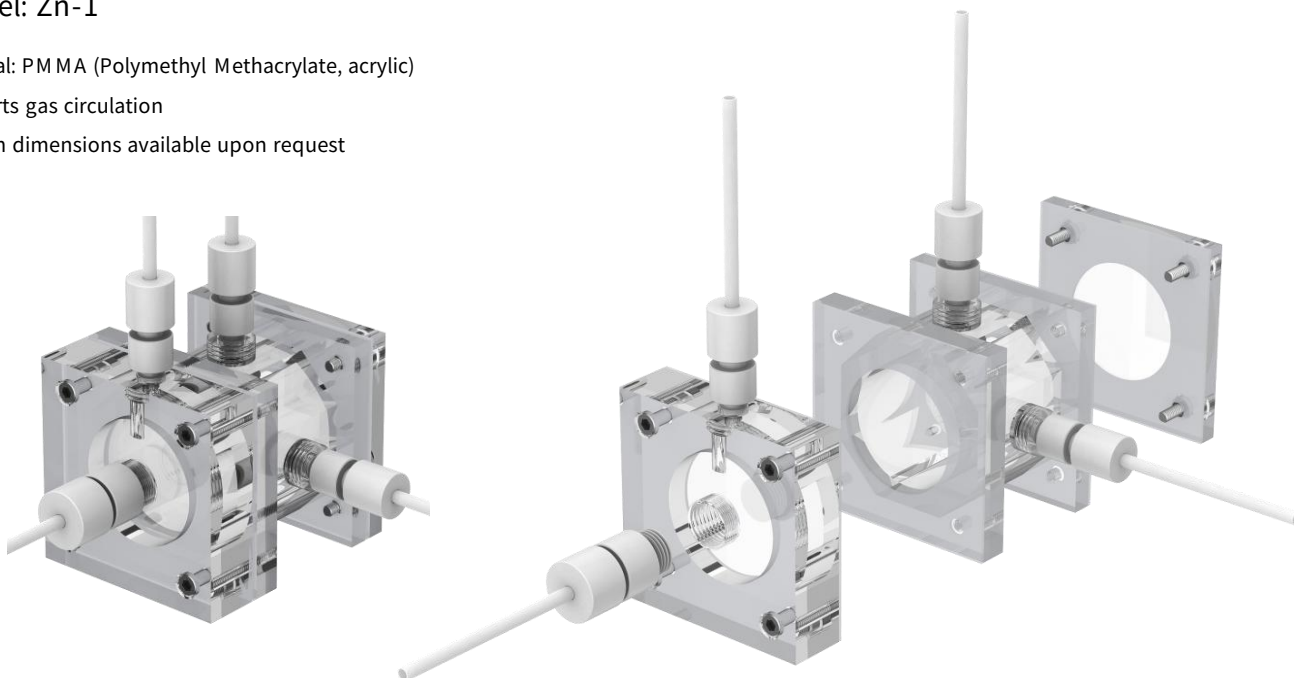
Metal-Air Battery Test Cell

Model: Zn-1

Material: PMMA (Polymethyl Methacrylate, acrylic)

Supports gas circulation

Custom dimensions available upon request



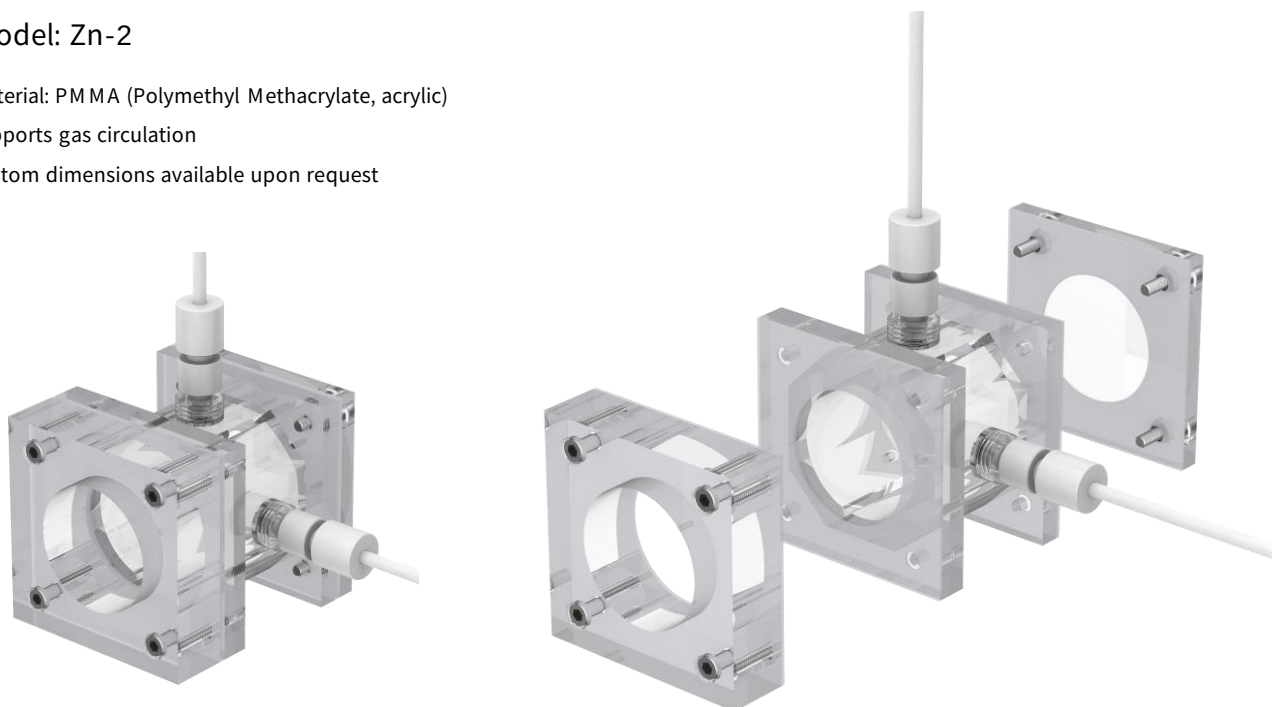
Metal-Air Battery Test Cell

Model: Zn-2

Material: PMMA (Polymethyl Methacrylate, acrylic)

Supports gas circulation

Custom dimensions available upon request



Model	Specification	Price	Remarks
Zn-1	30ml、50ml	588	
Zn-2	30ml、50ml	588	
All listed sizes are standard specifications; customized fabrication is available upon demand. Prices are subject to adjustment, and the latest quotation shall prevail.			

Single-Function Cell Series

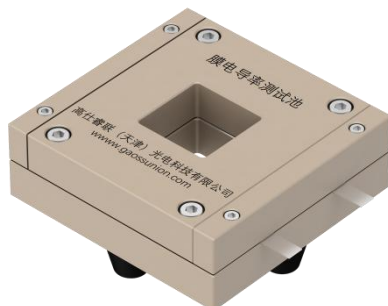
Membrane Conductivity Test Cell

Model: C034-1

Materials: Polyetheretherketone (PEEK) and platinum sheets

Application: Designed for testing the conductivity of ion exchange membranes and other solid membranes.

Operation Instruction: This electrolytic cell adopts the two-electrode testing method, and the clamping operation for measurement is shown in the figure below.



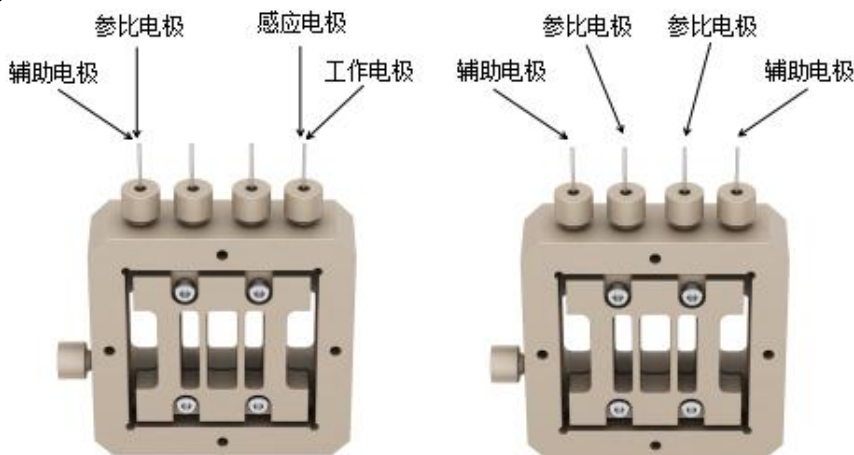
Membrane Conductivity Test Cell

Model: C034-2

Materials: Polyetheretherketone (PEEK) and platinum wires

Application: Used for conductivity measurement experiments of ion exchange membranes and other solid membranes.

Operation Instructions: It supports both two-electrode and four-electrode testing methods. The clamping setup for testing is shown in the figure below.



Model	Specification	Price	Remarks
C034-1		3868	两电极
C034-2		3868	四电极
All listed dimensions are standard common sizes, and customized production is available upon specific requirements. Prices are subject to change, and the latest quotation shall be taken as the valid standard.			

Capacitive Deionization Device (for Seawater Desalination)

Single-Function Cell Series

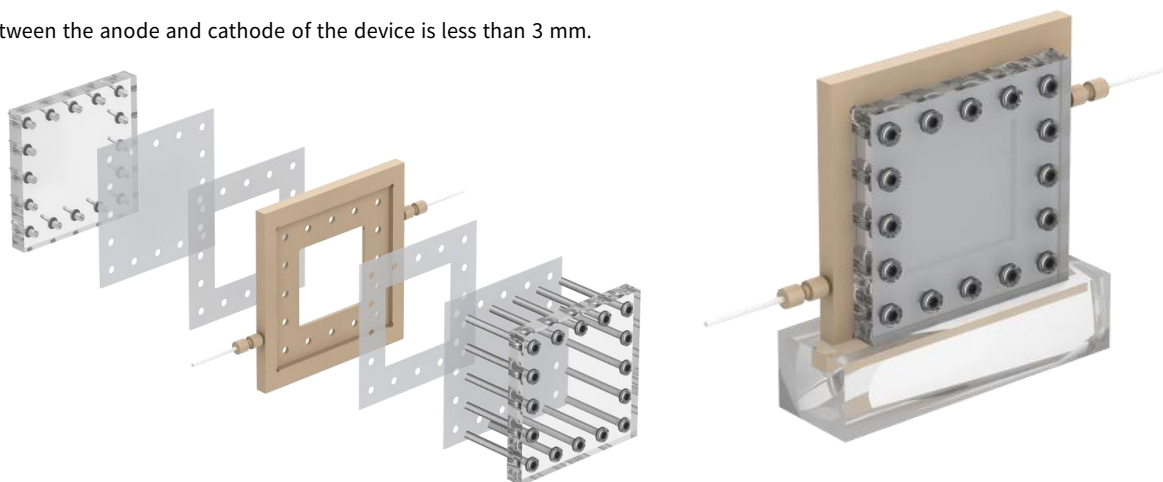
Model: DQ-1

Capacitive Deionization (CDI) is a water desalination and purification technology based on the electric double-layer capacitance theory. Its fundamental working principle is as follows: after a low voltage is applied to the electrodes, cations, anions and charged particles in the solution migrate toward the two electrodes under the combined effect of electric field force and concentration gradient, and adsorb onto the electrode surface to form an electric double layer, so as to realize desalination and water purification. This technology is also referred to as Electrosorption Technique (EST).

The protective plates on the left and right sides of this device are made of PMMA.

The PEEK component of the device measures 140×140×10 mm.

The spacing between the anode and cathode of the device is less than 3 mm.



Capacitive Deionization Device (Seawater Desalination)

Model: DQ-2

A current collector plate is added on the basis of Model DQ-1 to achieve efficient desalination and water purification.

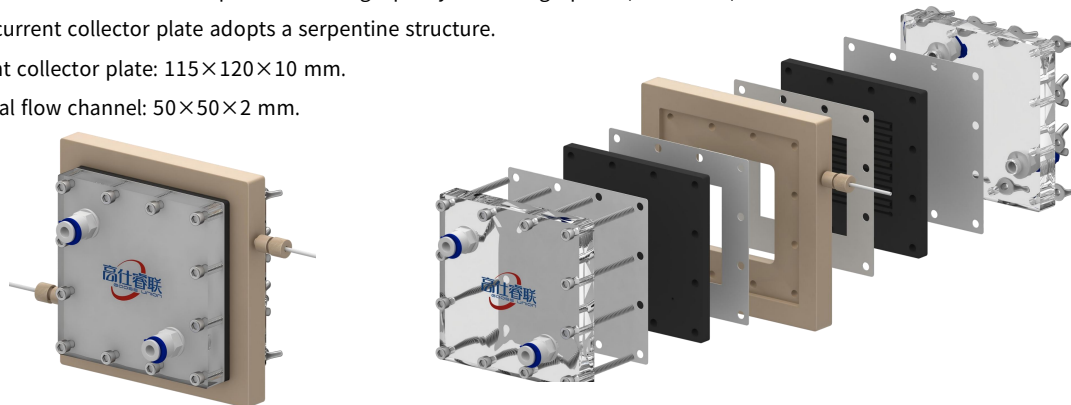
The guard plates on both left and right sides of the device are made of PMMA.

The current collector plate is fabricated from imported ultra-high-purity isostatic graphite (Grade 520).

The flow channel of the current collector plate adopts a serpentine structure.

Dimensions of the current collector plate: 115×120×10 mm.

Dimensions of the internal flow channel: 50×50×2 mm.



Model	Specification	Price	Remarks
DQ-1	50*50mm	1868	
DQ-2	50*50mm	2534	
All listed dimensions are standard common sizes, and customized production is available upon specific requirements. Prices are subject to change, and the latest quotation shall be taken as the valid standard.			

Single-Function Cell Series

All-Vanadium Redox Flow Battery Test Cell

Model: B-VRB

The flow channel area of this electrolytic cell is 50 cm², and customized dimensions are available upon user requirements.

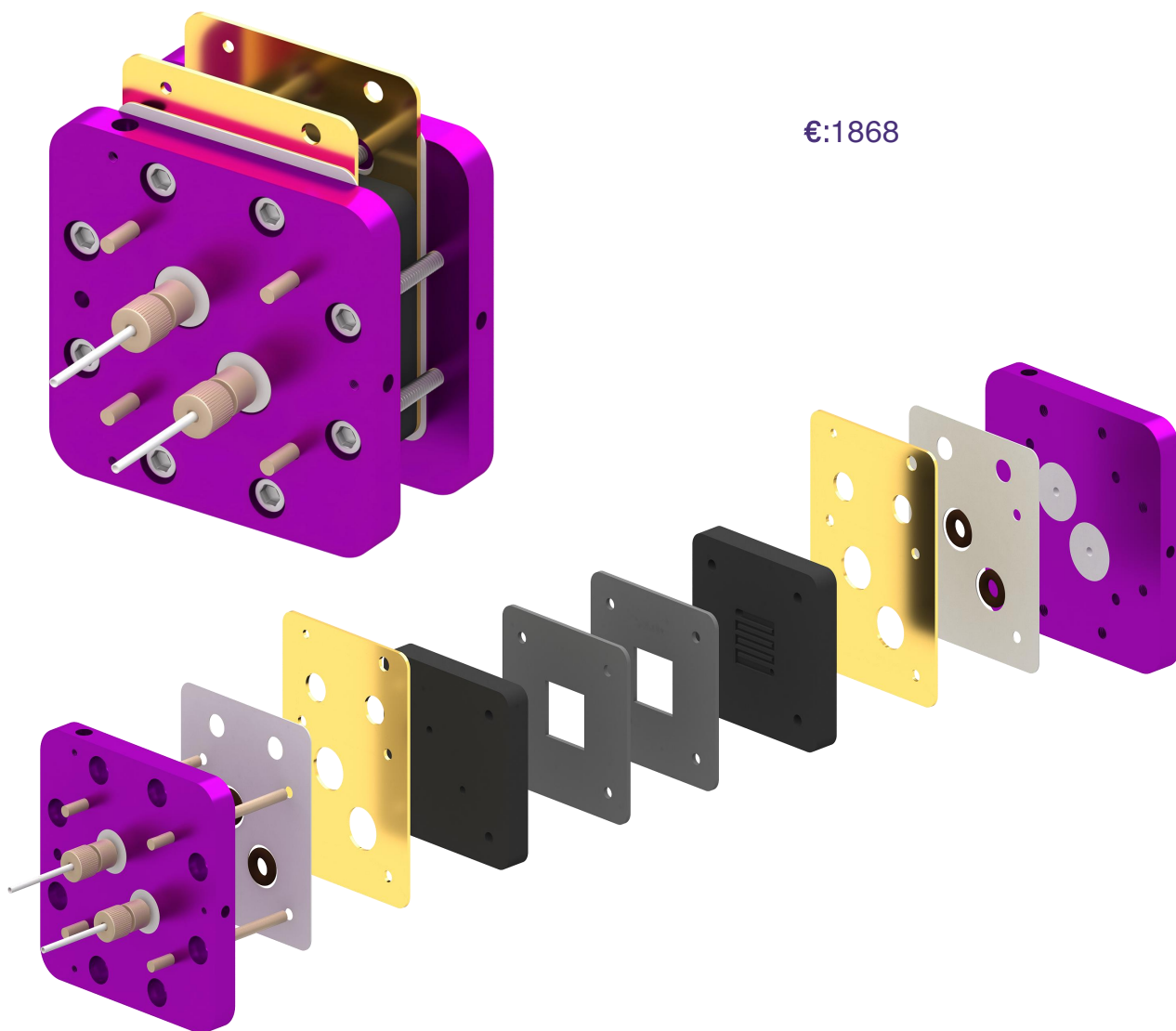
The electrolytic cell consists of end plates, current collector plates, bipolar plates and electrode frames.

To guarantee excellent electrical conductivity, the bipolar plates are made of high-purity graphite and equipped with PEEK fixing rods.

This electrolytic cell features outstanding stability and can sustain thousands of charge-discharge cycles. It withstands high-temperature testing and greatly improves evaluation efficiency.

During discharge, it steadily and continuously releases vanadium ions to carry out energy storage experiments.

It is applicable to preliminary research in large-scale energy storage fields, including supporting energy storage for renewable energy such as wind power and photovoltaic power, grid peak shaving and valley filling, as well as emergency backup power supplies. Benefiting from recyclable electrolyte, high safety and long service life, it has become a key technical route for long-duration energy storage.



Single-Function Cell Series

Electrochemiluminescence Electrolytic Cell

Model: C014PK-ECL

The bottom of the cell is equipped with a detection channel for electrode luminescence measurement. Transparent ITO or FTO conductive glass is adopted as the working electrode, with a fixed effective working area of 1 cm².

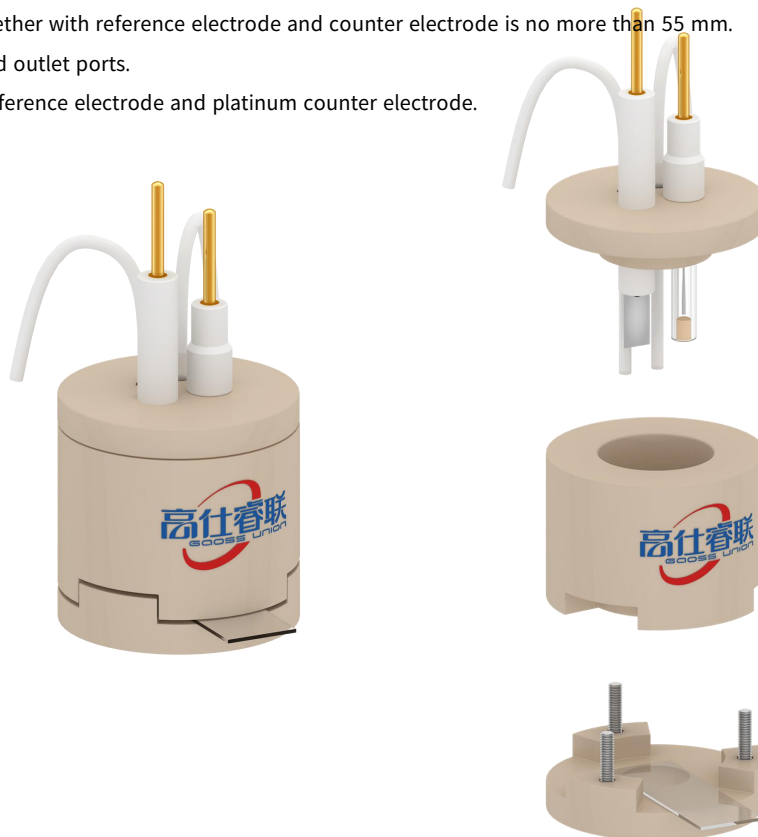
Outer diameter of the cell body: 40 mm; diameter and thickness of the bottom step: 29 mm × 1 mm.

The overall height of the cell together with reference electrode and counter electrode is no more than 55 mm.

The cell is fitted with gas inlet and outlet ports.

Standard accessories: Ag/AgCl reference electrode and platinum counter electrode.

€:1120



Dual-Station Magnetic Stirrer

Model: GU-2

This dual-station magnetic stirrer is a newly developed instrument specially designed to match H-type electrolytic cells. Adopting the working principle of traditional stirrers, it is equipped with two stirring stations to simultaneously agitate the two compartments of an H-type electrolytic cell.

In addition, to adapt to electrolytic cells of different sizes, the two rotating magnetic fields inside the instrument adopt a floating structure. The center distance between the two magnetic fields can be freely adjusted within a certain range, which greatly improves the convenience and working efficiency during electrochemical experiments.

Note: Stirring cell is not included in this equipment.

Technical Parameters

€:1868



Peristaltic Pump

Model: EC200-01

Model EC200-01 Peristaltic Pump is a fluid delivery product specially developed by our company for electrochemical testing scenarios. It is equipped with a rotary knob to enable flexible and quick speed regulation. A toggle switch is adopted to control start/stop and forward/reverse rotation switching, ensuring easy and dependable operation.

When rapid pipeline priming or flushing is needed, the full-speed button can be pressed for one-click activation.

It is a new-generation peristaltic pump with highly user-friendly operability.

Technical Parameters

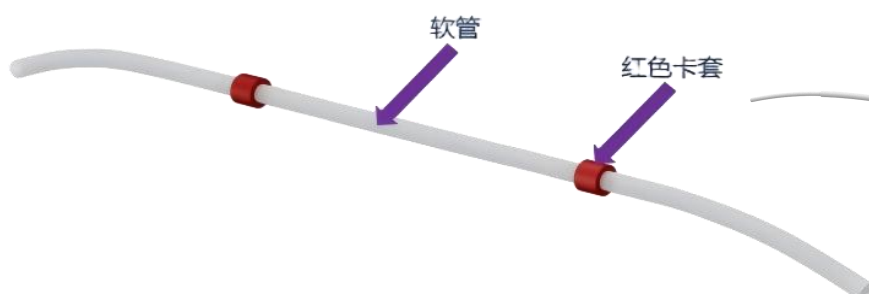
Tubing Specification: 2×1

Flow Rate Range: 0~35 mL/min

Motor Speed: 0~200 rpm

Power Supply: AC 220 V

€:2194



Gas-Liquid Mixed Flow Pump

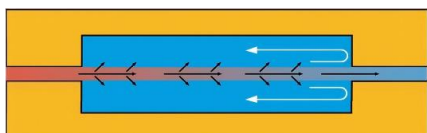
Model: EC200-02

This gas-liquid mixed flow pump is a fluid delivery product specially developed by our company for electrochemical testing applications.

The pump is mainly applied to the anode side, which can rapidly remove a large number of bubbles generated during anode reactions.

The pump is compatible with 3 mm PTFE tubing for connection.

When fitted with quick connectors, the pump generates unique shearing force to quickly disperse gas into fine mist, which is then carried away by the liquid stream. See the figure below for the shearing principle.



Schematic Diagram of Shearing Force

Technical Parameters

Flow Rate Range: 140 – 170 mL/min

Working Pressure: 90 kPa

Power Supply: AC 220 V

Rated Voltage: AC 24 V

Load Current: 150 mA

Overall Dimensions: 145 × 95 × 90 mm

€:1468



High-Pressure Constant-Flow Pump

Model: HP300-01

Model HP300-01 high-pressure constant-flow pump is a liquid delivery product with high pressure resistance and large flow rate, specially developed by our company for electrochemical testing applications.

Equipped with a knob adjustment structure, it can quickly set the flow rate to the value required by users. The full-speed button enables one-touch activation for rapid pipeline filling or flushing.

Its external port adopts 1/4-28 UNF thread design, compatible with most common pipeline connections. In addition, multi-channel expansion is available upon customized requirements.

Technical Parameters

Flow Rate Range: 0~300 mL/min

Flow Rate Resolution: 1 mL/min

Withstand Pressure Range: 0~0.8 MPa

Pipeline Interface: 1/4-28 UNF

Power Supply: AC 220 V, 50 Hz/60 Hz

Rated Voltage: AC 24 V

Working Environment: Temperature 0~40 °C; Humidity 780%

€:4800



Membrane Electrode Heating Temperature Controller

Instrument & Equipment Series

Model: EC200-301, EC200-302

This is a compact heating and temperature measuring instrument specially designed for membrane electrodes. It is portable and supports timing functions. Equipped with fuzzy PID temperature control algorithm, it features fast heating speed, high temperature control accuracy and flexible temperature setting & adjustment.

Adopting industry-leading manufacturing technology and design scheme, the controller delivers outstanding performance including high reliability and strong anti-interference capability.

Compared with conventional PID control, fuzzy PID control brings merits such as smaller temperature overshoot, faster stabilization time and superior temperature control precision.

Auto-tuning function is available to achieve more accurate heating and temperature regulation.

Technical Parameters

Dimension: 144×198×126 mm (Length × Width × Height)

Weight: 1.5 kg

Display Resolution: 0.1 °C

Temperature Measurement Accuracy: 0.3%FS±1°C or 0.3%FS±0.1°C

Power Supply Voltage: 100 – 240 VAC

Operating Environment: Temperature -10~60 °C, Humidity 0~90%RH

Temperature Control Range: Ambient Temperature +10 °C ~ 300 °C



EC200-301(Single Channel)1868

EC200-302(Dual Channel)2400

Mass Flow Meter & Controller

Models: D07-19B, D08-1FD

Product Features

Equipped with a 2.4-inch LCD display, which can show input/output signal type, real-time flow rate, flow setpoint, flow unit, valve control status, purge, shutdown and communication type indicators.

Flow rate can be set via a digital rotary encoder, supporting step flow setting and continuous flow setting.

The device automatically saves configured parameters, which will not be lost after power failure.

Silicone rubber buttons are adopted for elegant appearance, comfortable operation and long service life.

RS485/RS232 interfaces are reserved, supporting Modbus RTU protocol.

Parameters can be configured and modified conveniently via upper computer software, and calibration function is supported.

The signal interface and operation mode are fully compatible with the original D08-1F model.

A dedicated national standard AC connector is used for higher safety.

€:4400



Instrument & Equipment Series

Rotating Disk/Ring-Disk Electrode Apparatus

Model: ECR-6100C

The ECR-6100C is a compact rotating electrode device with a wide rotational speed range of 80~8000 rpm. Its rotating unit is separated from the control unit and features lightweight design, which can be widely applied to various experiments.

The rotating electrode shaft of ECR-6100C can operate at any fixed angle. It can be tilted by approximately 45 ° to eliminate foam generated during measurement, or rotated by 180 ° to coat and disperse catalysts instead of a spin coater.

Equipped with a maintenance-free brushless motor and built-in safety functions, the device monitors operating status in real time and triggers timely alarms in case of abnormalities. Mechanical coupling between the shaft and electrode effectively reduces operating noise.

Optional electrode accessories include Rotating Disk Electrode (RDE), Rotating Ring-Disk Electrode (RRDE), sample holders for rotating electrodes, etc. It can also be combined with various electrolytic cells such as electrochemistry spectroscopy cells and in-situ Raman cells.

Derived from the atmospheric-pressure H-type in-situ infrared test cell, this reaction cell is upgraded to withstand high pressure. The cell body is entirely made of high-purity titanium and sealed and fastened with stainless steel bolts. Electrodes are fixed internally to ensure safe and reliable operation.

€:50000

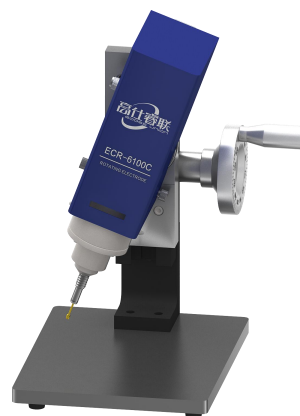
Instrument Applications

Quantitative analysis of electron transfer number and charge transfer rate.

Quality control of additives in electroplating solutions.

Investigation and analysis of metal corrosion behaviors.

Performance evaluation of fuel cell catalysts, etc.



Equipment Features

Compact Structure

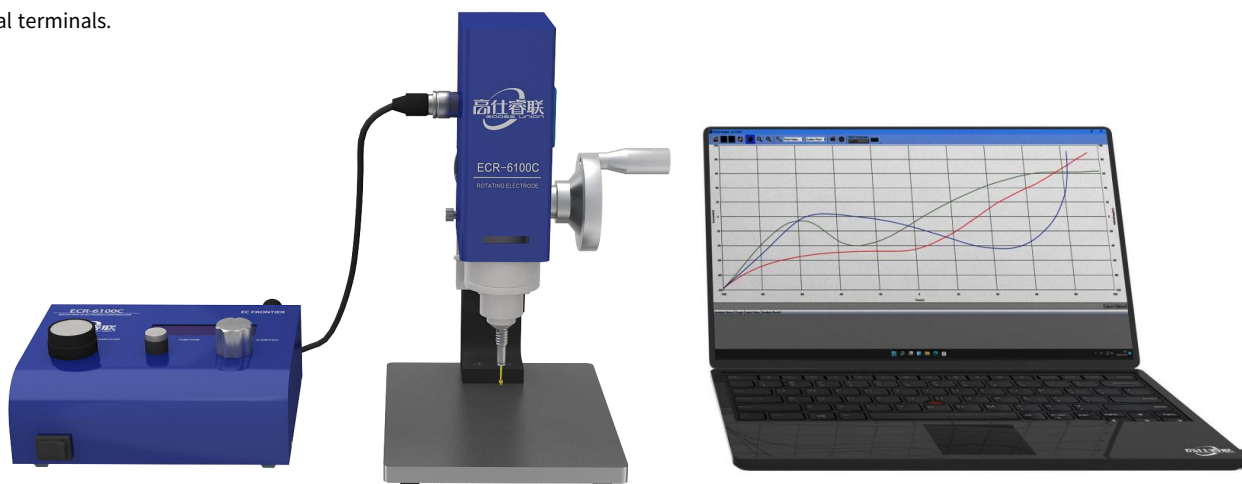
It saves installation space with a footprint roughly equivalent to an A4 sheet of paper. The rotating unit is separated from the control unit, weighing only 4 kg and 0.9 kg respectively. It can be held with one hand and boasts wide adaptability for various experiments.

Inert Gas Purging for Shaft

Inert gas is purged to regulate the gas atmosphere inside the cell and prevent component damage caused by organic solvents and acid vapor.

Remote Control

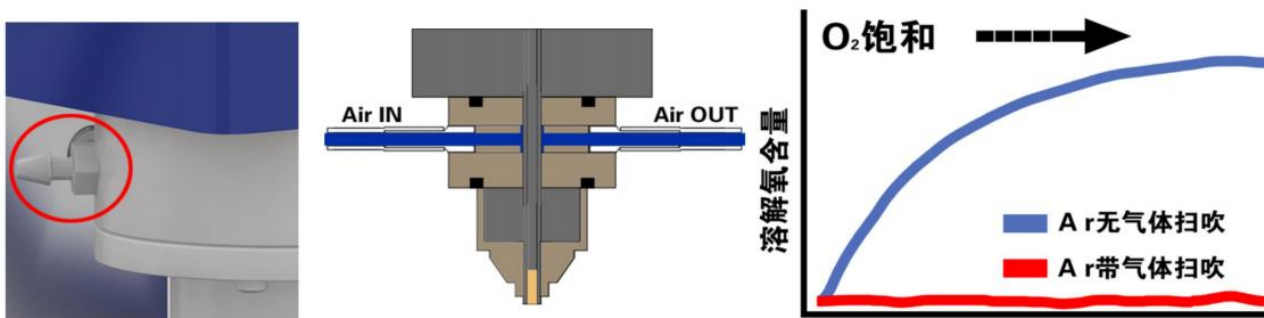
Apart from manual operation, remote control via PC is supported. Rotation can be managed by external commands and voltage input to external terminals.



Instrument & Equipment Series

Shaft Section Inert Gas Purging Mechanism

This structure introduces inert gas through tubing onto the shaft. It enables regulation of the gas atmosphere inside the electrolytic cell and prevents component damage caused by organic solvents and acid vapor.



Multiple Rotation Control Modes

Start and stop can be manually operated via the front panel. In addition, remote control is available via USB using the bundled control software. It can also be extended to realize synchronous control with our P/Gstat (ECstat) series instruments.

Furthermore, rotation can be controlled by external commands from various devices connected through the equipped RS-232C interface.

Rotation control is also achievable by inputting voltage to external input terminals. Since the rotational speed corresponds to a voltage output value, the device can be controlled by any equipment equipped with voltage input and output functions.

手动控制



开始/停止

旋转速度设定

遥控



USB

RS-232C

电压输入端子

Instrument & Equipment Series

Electrochemical Workstation

Model: ECstat-302C

This is a compact and multi-functional electrochemical measuring instrument. It supports all electrochemical measurement methods except AC impedance, as well as charge and discharge testing.

Price: 50,000 , including the current amplifier.



Measurement Techniques List [ECstat-BASIC]	
CV — Cyclic Voltammetry	LSV — Linear Sweep Voltammetry
OCP — Open Circuit Potential	NPV — Normal Pulse Voltammetry
i-t — Amperometric i-t Curve	DPV — Differential Pulse Voltammetry
CA — Chronoamperometry	SWV — Square Wave Voltammetry
v-t — Potential v-t Measurement	PA — Pulse Amperometry
CP — Chronopotentiometry	Battery charge-discharge

Compact Design & Multifunctionality

Equipped with a 22-bit A/D converter, this device features a wide current range (5 selectable ranges from 3 μ A to 300 mA plus automatic ranging) and a controlled potential of ± 6.4 V. Compared with peer products of equivalent performance, it adopts an ultra-compact chassis of 190 mm $\times$ 100 mm $\times$ 43 mm, which is portable enough for single-hand holding and flexible for installation in any position.

Supports Dedicated Measurement Software (ECstatBasic)

It supports full-range electrochemical measurements covering almost all DC electrochemical techniques except electrochemical impedance spectroscopy (EIS), including Cyclic Voltammetry (CV), Open Circuit Potential (OCP), Linear Sweep Voltammetry (LSV), galvanostatic/potentiostatic tests, Differential Pulse Voltammetry (DPV), Normal Pulse Voltammetry (NPV), Square Wave Voltammetry (SWV), and pulse measurement modes.

Customizable Automated Measurement Sequences

With the optional ECstatAdvance software, users can customize arbitrary measurement sequences for fully automatic execution. The device supports battery charge and discharge testing, as well as multi-dimensional data analysis, including capacitance-voltage curves, voltage-dQ/dE curves, time-domain voltage/current variation curves, and cycle number-efficiency/voltage correlation curves.

Multi-Device Synchronous Control

The optional ECstatAdvance software enables synchronous control of multiple devices, such as the ECstat-302 electrochemical workstation, rotating disk electrode system, temperature/humidity environmental chamber, and quartz crystal microbalance measurement system. The built-in event triggering function realizes precise collaborative operation among connected devices.

Multi-Channel Electrode Potential Measurement

In electrochemical tests, the device supports not only WE-RE (Working Electrode-Reference Electrode) voltage measurement, but also WE-CE (Working Electrode-Counter Electrode) and CE-RE (Counter Electrode-Reference Electrode) voltage detection. During battery charge-discharge cycling tests, it can monitor the voltage between positive and negative electrodes, as well as the potential difference between positive/negative electrodes and the reference electrode.

In-Test Flexible Operation

During Cyclic Voltammetry (CV) testing, users can freely hold the current potential or reverse the scanning potential at any time throughout the measurement process.

Standard Wireless Communication Function

In addition to wired communication, the device supports wireless connection via router for remote computer control. It features automatic data recovery and continuous measurement even if the wireless connection is temporarily interrupted, ensuring test integrity.

Glovebox Compatibility

Constructed with vacuum-compatible components, the device adapts to vacuum and gas replacement environments, enabling stable operation inside gloveboxes.

IR Compensation Function

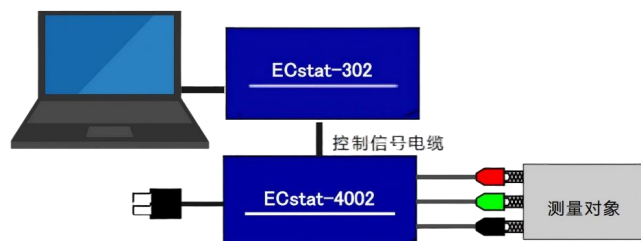
To eliminate the interference of high solution resistance in electrochemical tests, the device supports adjustable solution IR compensation with a resistance correction range from 61 $\mu\Omega$ to 25 M Ω .

Workstation Current Amplifier

Model: ECboost-4002

This device can be easily connected to ECstat via a connector wiring harness. When used together, the ECboost-4002 delivers a maximum output current of 300 mA.

Price: Sold as a matched set with Model 302C



Potentiostat/Galvanostat ECstat-302 (Product Code: 21050)

	Item	Specification
P.S.	Max Output Voltage / Max Output Current	± 13 V / ± 30 mA
P.S.	Max Output Voltage / Max Output Current	± 13 V / ± 30 mA
P.S.	Control Potential	± 6.4 V
P.S.	Current Range	± 3 μ A, ± 30 μ A, ± 300 μ A, ± 3 mA, ± 30 mA (Total 5 ranges + Auto range)
P.S.	Min Potential Resolution / Min Current Resolution	0.2 mV / approx. 180 fA (at 3 μ A range)
G.S.	Max Output Current / Max Output Voltage	± 30 mA / ± 13 V
G.S.	Potential Range	± 12.8 V (Total 1 range)
G.S.	Min Setting Resolution / Min Potential Resolution	100 pA (below 3 μ A) / approx. 800 nV
	Noise Filter	1 Hz, 10 Hz, 100 Hz, OFF
	Noise Filter	1 Hz, 10 Hz, 100 Hz, OFF
	Control Interface	USB / Wireless LAN IEEE802.11b/g/n
	Power	DC6V 1.8A AC adapter included
	Dimensions / Weight	W190 mm×D100 mm×H43 mm (excluding protrusions) / approx. 0.9 kg
	Dimensions / Weight	USB memory (ECstat Software / manual), battery cable, AC adapter, alligator clips, lead resistor
	Accessories	USB memory (ECstat Software / manual), battery cable, AC adapter, alligator clips, lead resistor, USB data cable, test certificate

Software (ECstat Advance) (Product Code: 21051)

PC Specification	OS: Windows7, Windows8.1, Windows10, Windows11
PC Specification	OS: Windows7, Windows8.1, Windows10, Windows11
Internet Connection	Required only during installation, depending on OS status
Required Interface	USB 2.0 or 3.0×2 slots or more
Accessories	USB memory, USB dongle

ECstat Current Booster ECboost-4002 (Product Code: 21064)

	Item	Specification
P.S.	Max Output Voltage / Max Output Current	±13 V/ ±300 mA
P.S.	Max Output Voltage / Max Output Current	±13 V/ ±300 mA
P.S.	Control Potential	±6.4 V
P.S.	Current Range	±3 μ A, ±30 μ A, ±300 μ A, ±3 mA, ±30 mA, ±300 mA (Total 6 ranges)
P.S.	Min Potential Resolution / Min Current Resolution	0.2 mV/ 100 pA (at 3 μ A range)
G.S.	Min Potential Resolution / Min Current Resolution	±300 mA/ ±13 V
G.S.	Max Output Current / Max Output Voltage	±0.64 V, ±1.28 V, ±6.4 V, ±12.8 V (Total 4 ranges)
G.S.	Voltage Range	100 pA/ 20 μ V (at ±0.64 V range)
G.S.	Min Setting Resolution / Min Potential Resolution	100 pA/ 20 μ V (at ±0.64 V range)
	Control Interface	Connector harness
	Control Interface	Connector harness
	Power Supply	100~240 VAC, 50/60 Hz
	Dimensions / Weight	W190 mm×D100 mm×H75 mm (excluding protrusions) / approx. 0.85 kg
	Dimensions / Weight	W190 mm×D100 mm (no condensation) (excluding protrusions) / approx. 0.85 kg
	Operating Temperature/Humidity	5~40 °C/ 10~90% (no condensation)

Instrument & Equipment Series

In-situ Differential Electrochemical Mass Spectrometer

Model: PM-DEMS

The PM-DEMS is a new-generation all-in-one multifunctional in-situ differential electrochemical mass spectrometer. It is applied to the online qualitative and quantitative analysis of gaseous products, volatile intermediates and final products generated in electrochemical reactions. The in-situ differential electrochemical mass spectrometer is a modern in-situ electrochemical testing technique developed by combining electrochemistry and mass spectrometry. It adopts a hydrophobic gas-permeable membrane as the interface between the electrochemical reaction cell and the mass spectrometer, paired with a high-performance vacuum system for rapid response. Benefiting from these advantages, it enables immediate detection right after electrochemical reaction products are generated.

This instrument performs real-time detection of volatile gaseous products, kinetic parameters, as well as the structural properties of intermediates produced during electrochemical reactions. In cases where multiple electrode reaction products precipitate simultaneously, DEMS technology can simultaneously quantify the Faradaic current of each product as a function of electrode potential or reaction time.

Price: On request

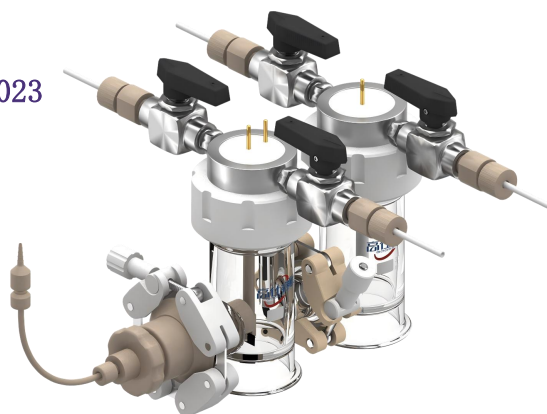


Supporting Reaction Cells for All Types of Electrochemical Mass Spectrometers

For flow-through gas-diffusion electrolytic cells, our company supplies a full range of electrochemical cells and in-situ hyphenated testing accessories. These allow researchers to build experimental platforms conveniently and efficiently, laying the foundation for smooth and rapid experimental testing.

1. H-type Membrane-Replaceable Electrolytic Cell for In-situ Mass Spectrometry

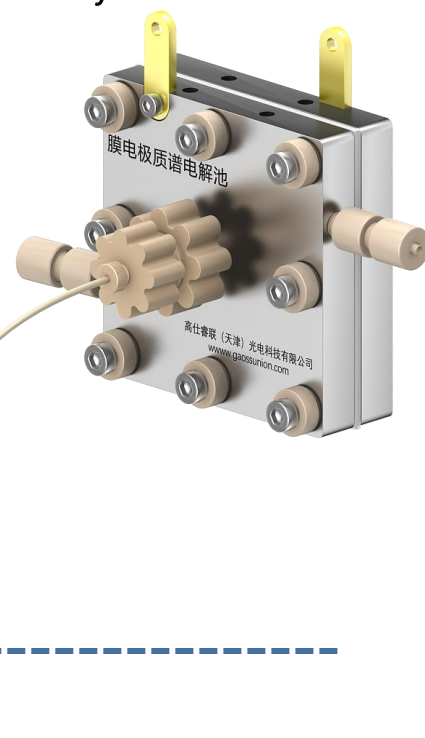
Price: €534 extra compared with standard Model C023



Instrument & Equipment Series

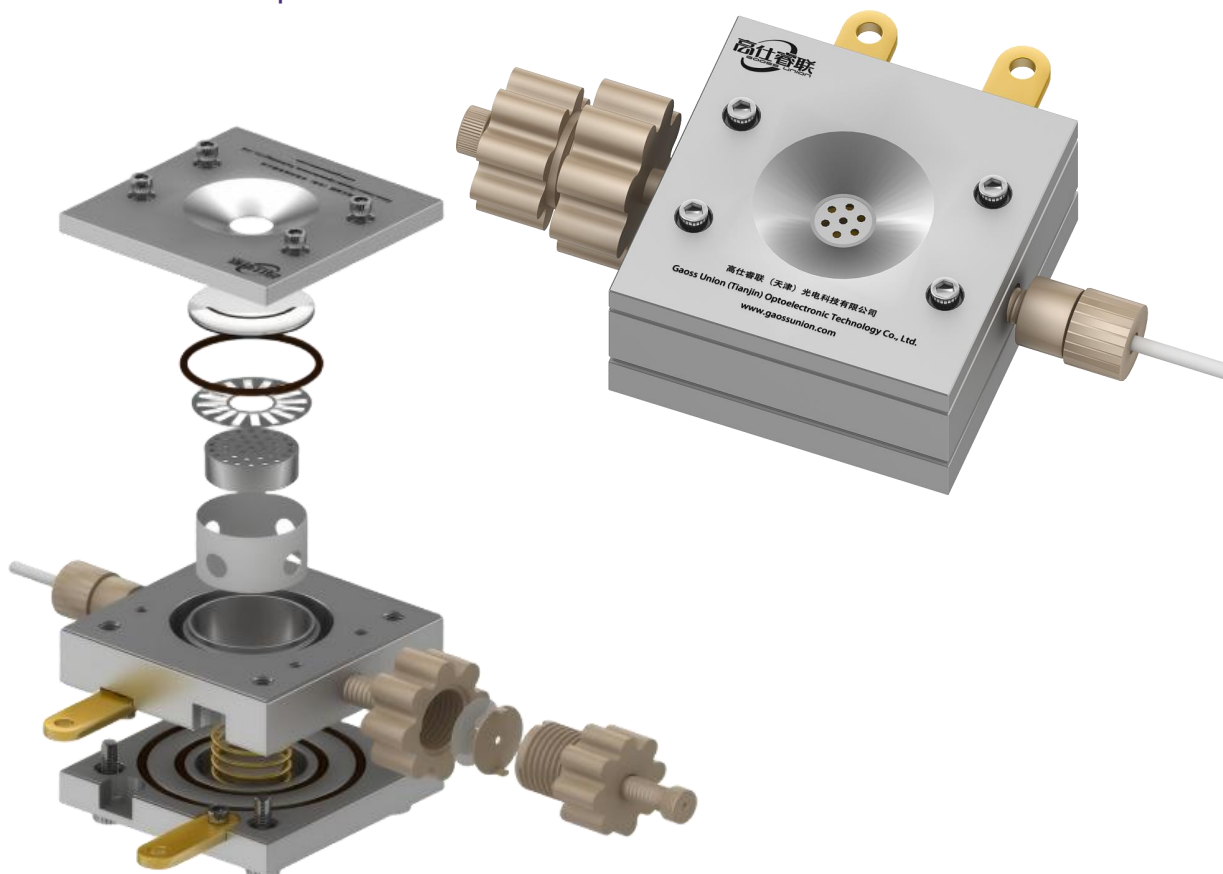
2. Membrane Electrode Assembly Electrolytic Cell for In-situ Mass Spectrometry

Price: €268 extra compared with standard MEA model



3. In-situ Mass Spectrometry-Raman Hyphenated Battery Test Cell

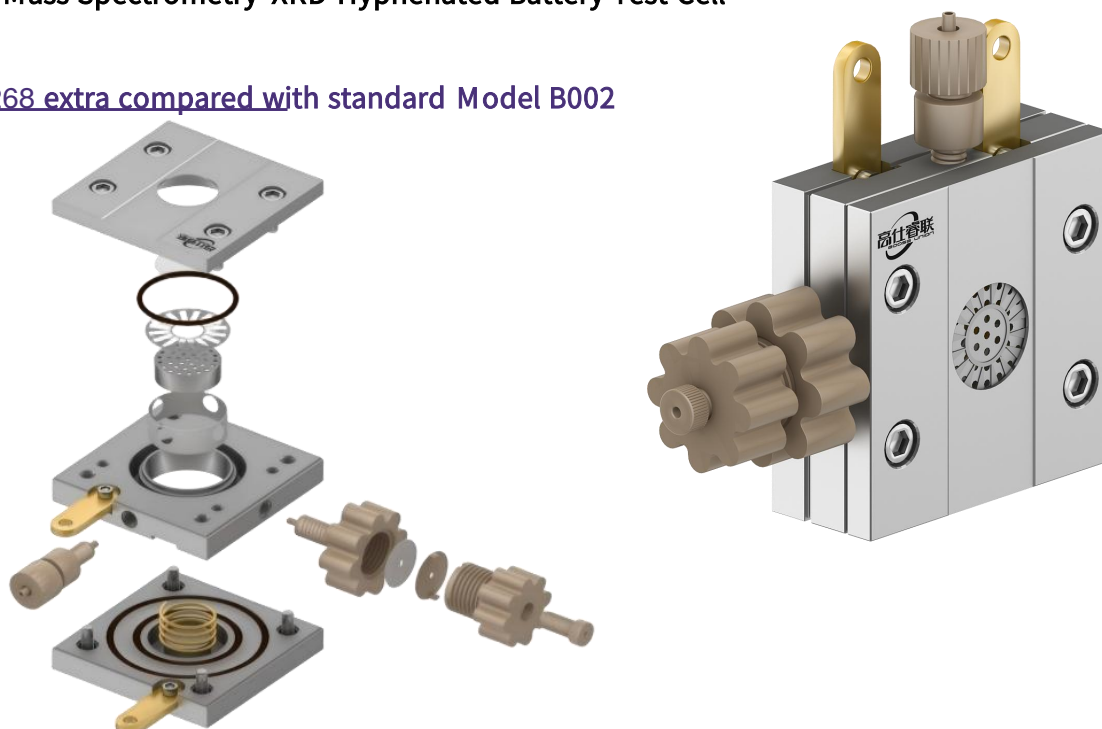
Price: €800 extra compared with standard Model B002



Instrument & Equipment Series

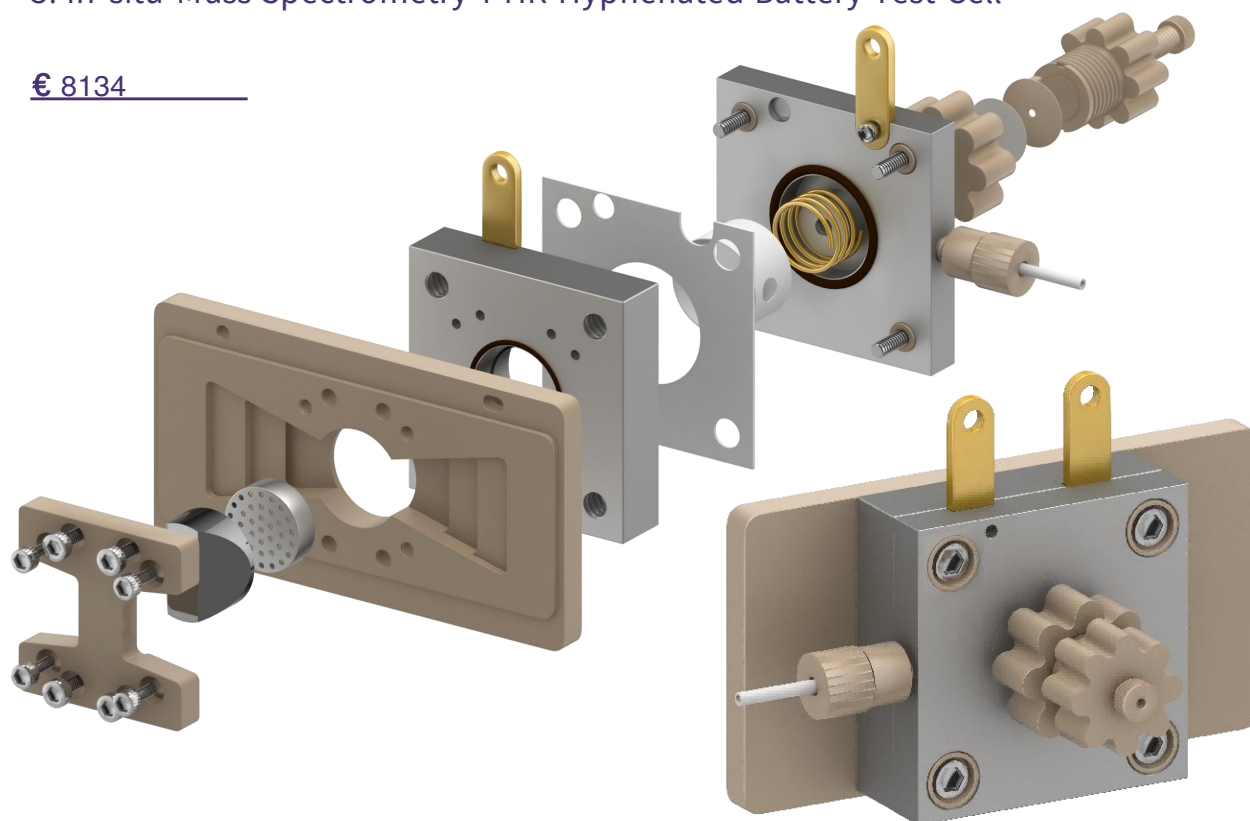
4. In-situ Mass Spectrometry-XRD Hyphenated Battery Test Cell

Price: € 268 extra compared with standard Model B002



5. In-situ Mass Spectrometry-FTIR Hyphenated Battery Test Cell

€ 8134



Instrument & Equipment Series

Foam Metal Level Regulator

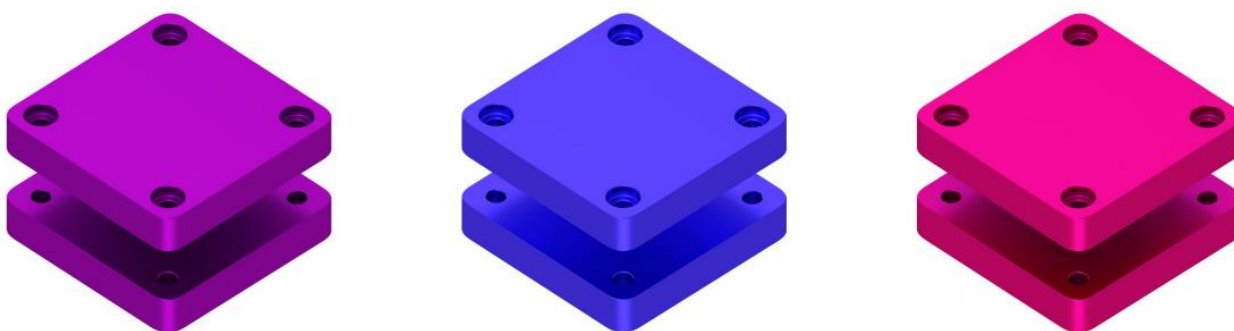
This regulator flattens the surface of foam metal to fit the anode cavity, improving electrolyte wetting performance.

Three compressed thickness options are available: 0.3 mm (blue), 0.5 mm (purple), and 1.0 mm (red). Color coding enables quick identification, covering the vast majority of experimental thickness requirements.

Simple operation: Place the foam metal sheet to be compressed into the groove, then tighten the fixing screws. Note: Tighten the screws in a diagonal sequence.

The maximum compressed area is 25×25 mm (with extra margin reserved). Secondary cutting is required if a smaller size is needed, and this area satisfies most experimental applications.

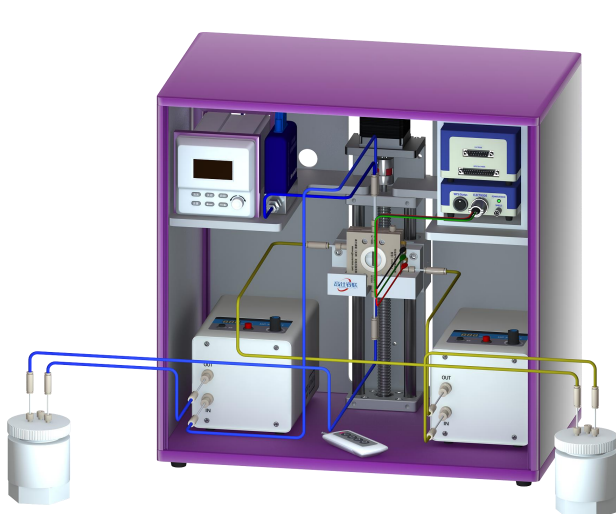
€ 134



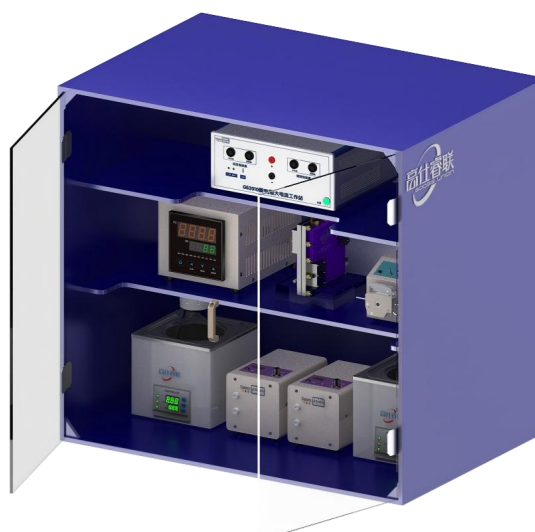
Custom Construction of Diverse Flow Reaction Equipment Platforms

Drawing on years of manufacturing experience in electrochemical reactors, our company assists laboratories in building various flow reaction equipment platforms. We provide robust technical support for researchers conducting reaction studies and process optimization under continuous flow conditions.

Price available upon negotiation



CO2 Reduction Flow Reaction Platform



High-Current Water Electrolysis