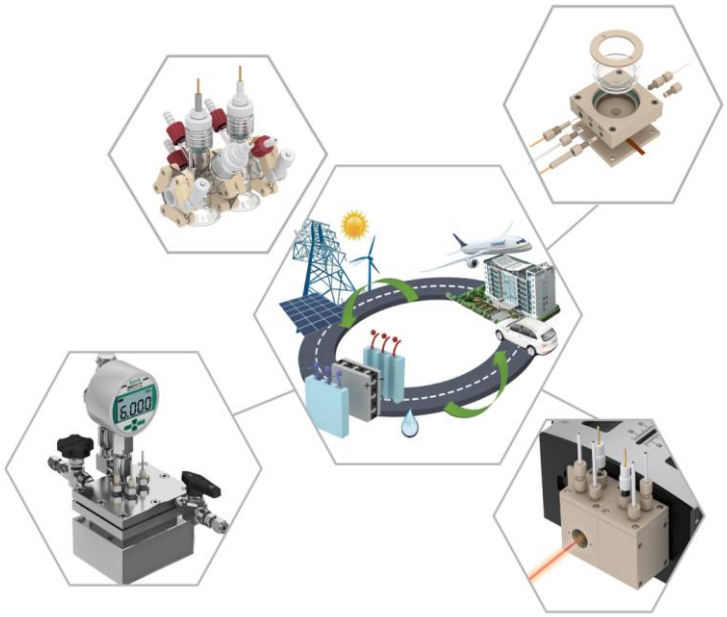
Electrochemical Product Catalogue



Electrode

Electrochemical Cells

Pressure Cells

Electrode

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Reference Electrodes

Ag/AgCl Electrode
•Ag/AgCl electrode is often used in neutral systems (filled with saturated KCl solution)
•In case of acid-base system, please increase the use of salt bridge

Saturated Calomel Electrode
•Saturated calomel electrode is often used in neutral systems (filled with saturated KCl solution)
•In case of acid-base system, please increase the number of salt bridge used

Hg/HgO Electrode
•Hg/HgO electrode is often used in basic systems (filled with 1 M KOH solution)
•If the concentration of alkaline solution is greater than 1 M, please increase the use of salt bridge

Hg_2SO_4 Electrode
•Hg_2SO_4 Electrode is often used in acidic systems (filled with saturated K_2SO_4 solution)

Ag/Ag⁺ Electrode

•Ag/Ag⁺ Electrode is used in organic solution system

Salt Bridge

•Effectively reduce resistance

•Cross mix application can effectively protect electrodes

•Salt bridge filling solution: the salt bridge filling solution is related to the reference electrode, which is basically the same as the reference electrode filling solution, but when used to avoid chloride ions, the salt bridge filling solution is saturated KNO_3 solution

Product Code

Name	Model	Body Material	Diameter (mm)	Total Length (mm)
Ag/AgCl Electrode	R1038	Glass	3.8	85.0
	R1060-regular	Glass	6.0	110.0
	R1060-lengthen	Glass	6.0	155.0
	R2060	PTFE	6.0	75.0
	R8060 (double-salt-bridge)	Glass	6.0	110.0
	PK-1020 (leakless)	PEEK	2.0	115.0
	PK-1038 (leakless)	PEEK	2.0	115.0
Saturated Calomel Electrode	232	Glass	5.0	135.0
	217 (double-salt-bridge)	Glass	5.0	135.0
	1545	Glass	5.0	105.0
Hg_2SO_4 Electrode	standard	Glass	6.0	85.0
Hg/HgO Electrode	single-salt-bridge	Glass	6.0	140.0
	double-salt-bridge	Glass	5.0	130.0
	PK-Hg/HgO	PEEK	3.8	140.0
Ag/Ag+ Electrode	4038	Glass	3.8	85.0
	4060	Glass	6.0	85.0

The above-mentioned dimensions are standard; customization can be done upon request.

Standard Hydrogen Reference Electrode

Standard Hydrogen Reference Electrode
•Easy to replace and provides hydrogen to the electrode
•The hydrogen electrode has no internal electrolyte, so there is no ion exit and no diffusion potential
•No electrolyte replenishment required
•The hydrogen electrode does not contain toxic/heavy metals. Can be used in high concentration fluorinated media as it is made of PTFE
•Very effective in highly concentrated alkaline and acidic media (pH2 to pH16)

Name	**Product ID**
Standard Hydrogen Electrode	10101
Standard hydrogen electrode sand core	10101-1
Standard hydrogen electrode salt bridge	10101-2
All sizes are common sizes. Customization is available upon request	

Counter Electrodes

Counter Electrode Instructions

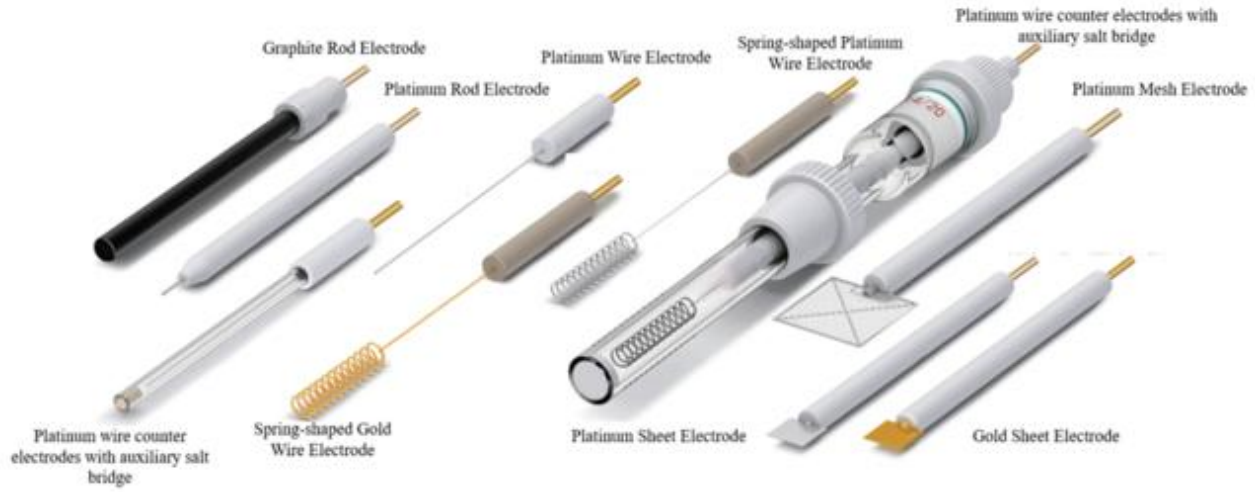
•Platinum sheet electrode: thickness 0.1-0.5mm, specification 5*10, 10*10, 10*15, 10*20, 15*15, 15*20, 20*20, 20*25, 25*25, 30*30 (in the unit of mm)

•Platinum mesh electrode: mesh 52, specification 10*10, 20*20, 30*30 (in the unit of mm)

•Platinum wire electrode: specification 0.5*37, 1*37, 1*5, 1*10, 0.5*230 (in the unit of mm) front spring diameter 4mm

•Gold wire electrode: specification 0.5*230mm, front spring diameter 4mm

•Graphite electrode: specification 6*75mm

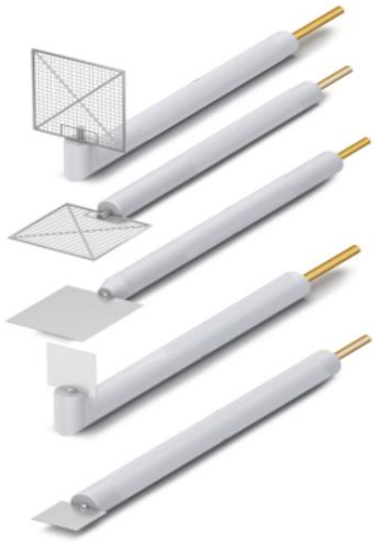


Platinum Wire/Rod Electrode

Name	Product ID	Specifications (mm)
Platinum Wire Electrode	PT0537	φ0.5*37mm
Platinum Wire Electrode	PT1037	φ1.0*37mm
Platinum Wire Electrode	PT0523	φ0.5*230mm
Salt Bridge Platinum Wire Electrode	PT052300	φ0.5*230mm
Platinum Rod Electrode	PT1005	φ1.0*5mm
Platinum Rod Electrode	PT1010	φ1.0*10mm
All sizes are common sizes and can be customized upon request		

Platinum Mesh Electrode

Product ID	Specifications (mm)
Pt 0510	5*10
Pt 1010	10*10
Pt 1015	10*15
Pt 1020	10*20
Pt 1030	10*30
Pt 1515	15*15
Pt 2020	20*20
Pt 3030	30*30
Pt-R20	Φ20
All sizes are common sizes and can be customized upon request. **Mesh number of platinum mesh：#52**	



Platinum Sheet Electrode

Product ID	Specifications (mm)
Pt 0505-1	5*5*0.1
Pt 0505-2	5*5*0.2
Pt 0505-3	5*5*0.3
Pt 0510-1	5*10*0.1
Pt 0510-2	5*10*0.2
Pt 0510-3	5*10*0.3
Pt 1010-1	10*10*0.1
Pt 1010-2	10*10*0.2
Pt 1010-3	10*10*0.3
Pt 1010-5	10*10*0.5
Pt 1015-1	10*15*0.1
Pt 1015-2	10*15*0.2
Pt 1015-3	10*15*0.3
Pt 1015-5	10*15*0.5
Pt 1020-1	10*20*0.1
Pt 1020-2	10*20*0.2
Pt 213	5*2*0.2

Product ID	Specifications (mm)
Pt 1020-3	10*20*0.3
Pt 1020-5	10*20*0.5
Pt 1030-1	10*30*0.1
Pt 1030-2	10*30*0.2
Pt 1030-3	10*30*0.3
Pt 1030-5	10*30*0.5
Pt 1515-1	15*15*0.1
Pt 1515-2	15*15*0.2
Pt 1515-3	15*15*0.3
Pt 1515-5	15*15*0.5
Pt 2020-1	20*20*0.1
Pt 2020-2	20*20*0.2
Pt 2020-3	20*20*0.3
Pt 2020-5	20*20*0.5
Pt 3030-1	30*30*0.1
Pt 3030-2	30*30*0.2
Pt 3030-2	30*30*0.3

Graphite Rod Counter Electrode

Name	Specifications (mm)	Purity
Graphite Rod Electrode (Japan)	φ3~6*75mm	99.99%
Graphite Rod Electrode (China)	φ3~6*75mm	98%
Bare Graphite Rod (Japan)	φ3~6*75mm	99.99%
Bare Graphite Rod (China)	φ3~6*75mm	98%
The length of the graphite rod can be customized according to the requirements		

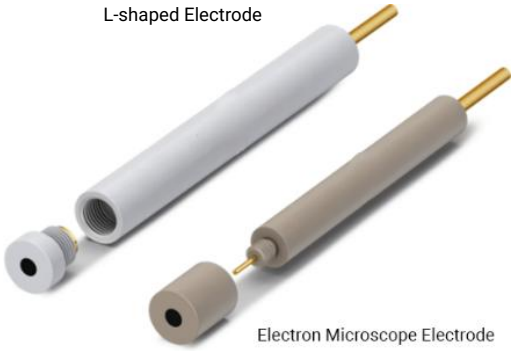
Working Electrodes

Different Configurations

Standard Working Electrode

L-shaped Electrode

T-shaped Working Electrode



Electron Microscope Electrode

Magnetic Electrode

Multifunctional Combination Electrode

1	Standard Electrode
2	L-shaped Electrode
3	T-shaped Electrode
4	Electron Microscope Electrode
5	Magnetic Electrode
6	Multifunctional Combination Electrode

Working Electrodes

Different Materials

Name	Specifications (mm)
Glassy Carbon Electrode (USA)	1mm
	2mm
	3mm
	4mm
	5mm
	6mm
Platinum Disk Electrode <99.99%>	0.5mm
	1mm
	2mm
	3mm
	4mm
	5mm
	6mm
Silver Disk Electrode	2mm
	3mm
	4mm
	5mm
	6mm
Pyrolytic Graphite Electrode	2 ~ 6mm
Isotropic Carbon Graphite Electrode	2 ~ 4mm
Nickel Electrode	2 ~ 4mm
Carbon Paste Electrode (Not Adjustable)	2 ~ 4mm
Tungsten Electrode	2 ~ 4mm
Carbon Steel Electrode	2～5mm

Name	Specifications (mm)
Glassy Carbon Electrode (Japan)	1mm
	2mm
	3mm
	4mm
	5mm
	6mm
	7mm
	8mm
	9mm
	10mm
	15mm
	20mm
Gold Disk Electrode <99.999%>	0.5mm
	1mm
	2mm
	3mm
	4mm
	5mm
	6mm
Mercury Film Silver based Electrode Hg(Ag)FE	2*10mm
Cadmium Electrode	2mm
Titanium Electrode	2 ~ 4mm
Palladium Electrode	3mm
Graphite Electrode	2 ~ 6mm
Zinc Electrode	2 ~ 4mm
Copper Electrode	2 ~ 4mm
Carbon Paste Electrode (Adjustable)	2 ~ 4mm
Iron Electrode	2 ~ 4mm
Stainless Steel Electrode	2～5mm

Electrode Clamp Series

Electrode Clamp

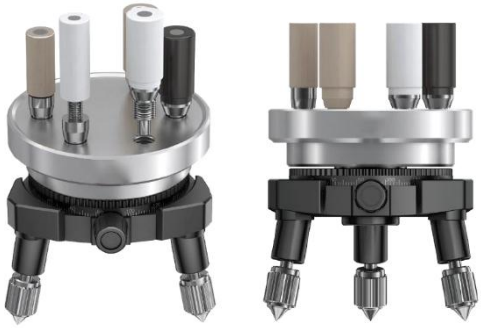
• The metal electrode clamp is manufactured in one piece, such as stainless steel, copper, and titanium.
• The insulating materials used are high purity PTFE and PEEK.
• The electrode clamp employs materials such as platinum, gold, and glassy carbon.

Name	Specifications
Stainless Steel Electrode Clamp	sus-1 (316F)
	sus-2 (PTFE shell)
	sus-X
Platinum Sheet Electrode Clamp	PT-1
	PT-2
	PT-3
	PT-X
Glassy Carbon Electrode Clamp	GC-2
	Special Electrode Clamp for Glassy Carbon Sheet (PEEK)
	GC-1010 (PTFE)
Titanium Electrode Clamp	TI-3
	TI-X

Rotating Disk (Ring Disk) Electrode

Rotating Disk/Ring Disk Electrode

•Glassy carbon electrode: glassy carbon is manufactured in the USA or Japan
• Gold electrode: 99.999% purity
• Platinum electrode: 99.999% purity
• Other electrodes available: silver, palladium, zinc, aluminum, iron, nickel, titanium, tungsten, molybdenum, tantalum, stainless steel, carbon steel and other electrodes
• Pyrolytic Graphite Electrode: Highly Oriented Pyrolytic Graphite (HOPG)

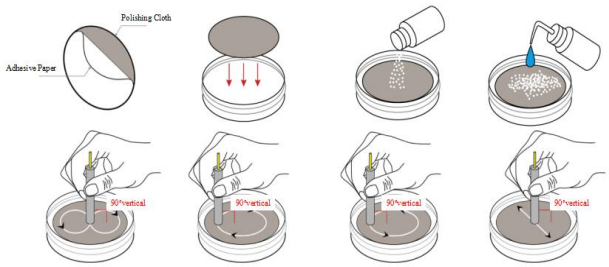


Product ID	Specifications
Rotating Disk Electrode (Compatible with the US made glassy carbon) (External thread & internal thread)	GC (glassy carbon) 5mm
	AU (gold) 5mm
	PT (platinum) 5mm
Rotating Disk Electrode (Compatible with the Japan made glassy carbon)	GC (glassy carbon) 3, 4, 5mm
	AU (gold) 3, 4, 5mm
	PT (platinum) 3, 4, 5mm
Rotating Ring Disk Electrode (Compatible with the US made glassy carbon) (External thread)	GC (glassy carbon) 5.6mm
	AU (gold) 5.6mm
	PT (platinum) 5.6mm
Rotating Ring Disk Electrode (Compatible with the Japan made glassy carbon)	GC (glassy carbon) 4mm
	AU (gold) 4mm
	PT (platinum) 4mm
Rotating Electrode Clamp	
Electric Rotary Dispenser	

All RDEs can be customized for high temperature (up to 300°) electrodes or electron microscope electrodes.

Electrode Polishing Series

Manual Polishing



Electric Polishing

• Set up the electrode polisher, attach the polishing cloth, add 0.05μm polishing powder, dampen with distilled water to form a paste.

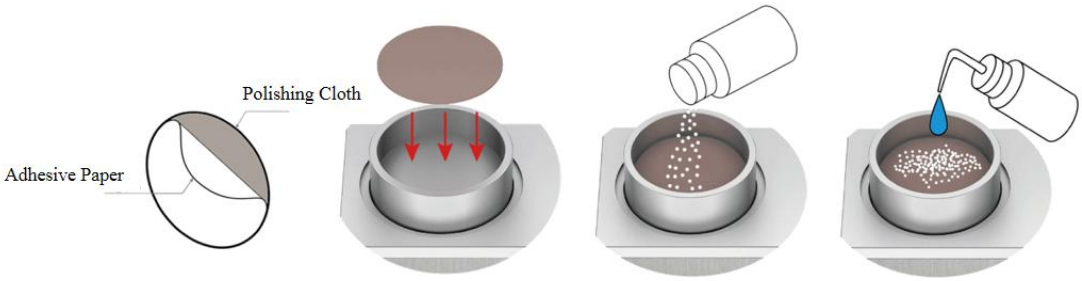
•Turn on the polishing machine and run at maximum speed. Hold the electrode vertically over the pad with proper pressure. After 20 seconds, polish is done. Rinse electrode with distilled water.

• On the electrochemical workstation, choose cyclic voltammetry and test the electrode in standard potassium ferricyanide solution. A peak difference of around 70 confirms electrode qualification.

Electrode Polisher

•Use two clean beakers, place A with absolute ethanol and B with Type II deionized water. Submerge the electrodes in A and then B, conducting ultrasonic cleaning for up to 60 seconds. Remove and air dry the electrode for future use.

• In case of electrode modification, invert the electrode onto an electrode drying rack for drop-coating.



1 Tear off the Adhesive Paper

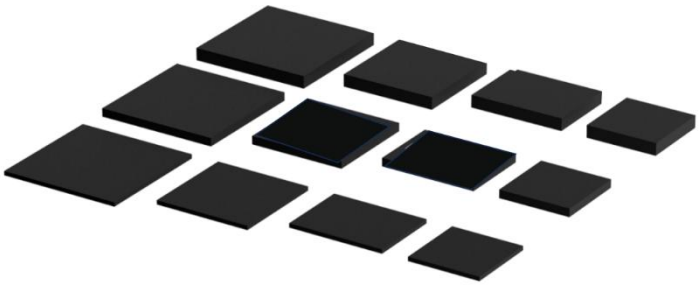
2 Stick Polishing Cloth

3 Pour Polishing Powder

4 Add Distilled Water

Glassy Carbon Sheet

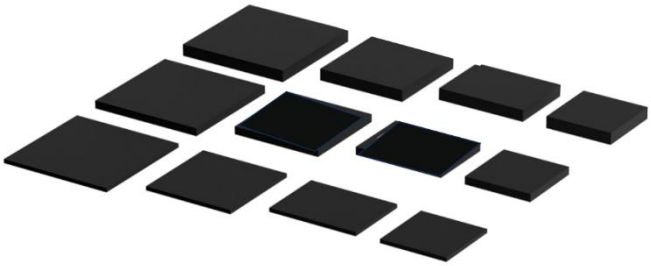
•Glassy carbon sheet size: 10*10mm, 15*10mm, 20*10mm, 25*10mm, 15*15mm, 20*20mm, 25*25mm
•Glassy carbon sheet thickness: 3mm, 2mm, 1mm
•Country of Origin: US, Japan
•The effect is better when used with special electrode clamps

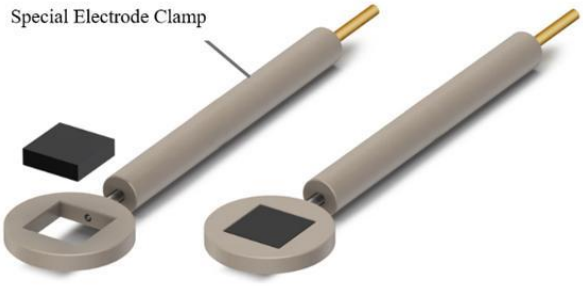


Product ID	Specifications (mm)	Product ID	Specifications (mm)
GC1010-1	10*10*1	GC1515-1	15*15*1
GC1010-2	10*10*2	GC1515-2	15*15*2
GC1010-3	10*10*3	GC1515-3	15*15*3
GC1015-1	10*15*1	GC1520-1	15*20*1
GC1015-2	10*15*2	GC1520-2	15*20*2
GC1015-3	10*15*3	GC1520-3	15*15*3
GC1020-1	10*20*1	GC2020-1	20*20*1
GC1020-2	10*20*2	GC2020-2	20*20*2
GC1020-3	10*20*3	GC2020-3	20*20*3
GC1025-1	10*25*1	GC2525-1	25*25*1
GC1025-2	10*25*2	GC2525-2	25*25*2
GC1025-3	10*25*3	GC2525-3	25*25*3
All sizes are common sizes and can be customized upon request			

Graphite Sheet

•Graphite sheet size: 10*10mm, 15*10mm, 20*10mm, 25*10mm, 15*15mm, 20*15mm, 20*20mm, 25*25mm
•Graphite sheet thickness: 3mm, 2mm, 1mm
•Origin: US, JP
•The effect is better when used with specially designed electrode clamps





Product ID	Specifications (mm)	Product ID	Specifications (mm)
1010-1	10*10*1	1515-1	15*15*1
1010-2	10*10*2	1515-2	15*15*2
1010-3	10*10*3	1515-3	15*15*3
1015-1	10*15*1	1520-1	15*20*1
1015-2	10*15*2	1520-2	15*20*2
1015-3	10*15*3	1520-3	15*15*3
1020-1	10*20*1	2020-1	20*20*1
1020-2	10*20*2	2020-2	20*20*2
1020-3	10*20*3	2020-3	20*20*3
1025-1	10*25*1	2525-1	25*25*1
1025-2	10*25*2	2525-2	25*25*2
1025-3	10*25*3	2525-3	25*25*3

Ion Exchange Membrane

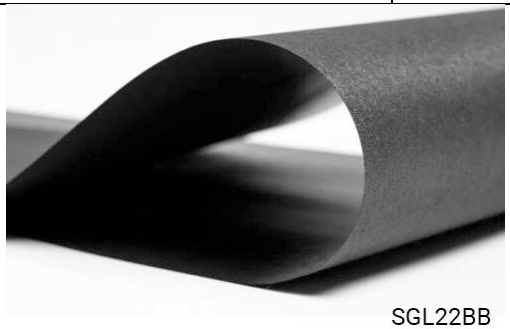
Name	Product ID	Size	Country of Origin
Cation Exchange Membrane	Nafion 115	100*100mm	US, Dupont
	Nafion 117	100*100mm	US, Dupont
	Nafion 211	100*100mm	US, Dupont
Anion Exchange Membrane	Fuma-FAA-3-PK-130	100*100mm	Germany

Fumatech

Nafion

Carbon Paper & Carbon Cloth

Name	Product ID	Size
Hydrophobic Carbon Paper (DE)	SGL22BB	100*100mm
Hydrophilic Carbon Paper (Taiwan)	CDS180S	100*100mm
Hydrophobic Carbon Cloth (Taiwan)	W1S1010	400*400mm
Hydrophilic Carbon Cloth (Taiwan)	W0S1009	400*400mm
PTFE Membrane		100*100mm

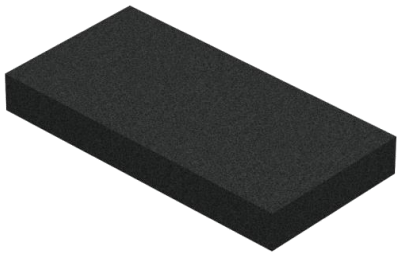


SGL22BB

W1S1011

Mesh Glass Carbon (RVC)

Name	Size	Remark
Mesh Glass Carbon (RVC)	100*50*10mm	100PPI
	100*100*10mm	100PPI



Metal Foam

Name	Size	Thickness
Copper Foam	210*295mm	0.5mm
Nickel Foam	210*295mm	0.5mm

Electrochemical Cells

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Single Chamber Glass Electrolytic Cell Series

Variable Diameter Electrolytic Cell (Non-Sealed) Model: C001

• Cell Material: High purity borosilicate glass.

• Commonly used in three-electrode systems, with a volume ranging from 30ml to 500ml, customizable based on requirements.

• The single-cell opening of the electrolytic cell employs a flanging design to enhance stability.

• The electrolytic cell is equipped with variable diameter electrode holes (diameters: 6.5mm, 8.5mm, 10.5mm, 12.5mm) for easy matching with electrodes of different diameters.

• Additional features include the option to add a salt bridge or gas vent as needed.

• Inlet and outlet gas ports can be added to the electrolytic cell for atmospheric control based on experimental requirements.

• Available in single-layer and jacketed-layer configurations, with the jacketed-layer version incorporating a constant temperature water bath function. The constant temperature effect is achieved by continuously circulating temperature-controlled water in the jacket layer of the electrolytic cell.

• The electrodes of the electrolytic cell need to be purchased separately.

Volume (mL)	Single layer	Jacketed
30mL		
50mL		
100mL		
150mL		
250mL		
300mL		
500mL		

All sizes listed are common sizes, can be customized according to requirements.

Single Chamber Glass Electrolytic Cell Series

Straight Five-Port Electrolytic Cell Model: C002-1

• Cell Material: High purity borosilicate glass.

• The electrolytic cell is a relatively sealed system commonly used in three-electrode systems, with a volume ranging from 30ml to 500ml, customizable based on requirements.

• The glass portion of the electrolytic cell achieves sealing between the cell and the cover through the screw-pressed O-ring on the cover. The electrode section also achieves sealing through sealed screws and compressed O-rings.

• The electrolytic cell is equipped with either a sand core salt bridge or a Luggin capillary.

• It features inlet and outlet gas ports with an aeration device for gas inlet, providing atmospheric control based on experimental needs.

• The jacketed-layer electrolytic cell includes a constant temperature water bath function, achieving a constant temperature effect by circulating temperature-controlled water within the cell for the measured solution.

• The cover material of the electrolytic cell is polytetrafluoroethylene (PTFE), with the size of the inner screw cover varying based on the cell's volume, typically ranging from 35mm, 50mm, 60mm, to 70mm in diameter.

• The electrodes of the electrolytic cell need to be purchased separately.

Volume (mL)	Opening Diameter		Volume (mL)	Opening Diameter		
30mL	50mm		200mL	60 mm	**Single layer**	**Jacketed**
50mL	50 mm		250mL	70 mm		
100mL	50 mm		500mL	70 mm		
150mL	60 mm		1000mL	70 mm		

All sizes listed are common sizes, can be customized according to requirements.

Single Chamber Glass Electrolytic Cell Series

Straight Five-Port Electrolytic Cell Model: C002-2

• Cell Material: High purity borosilicate glass.

• The electrolytic cell is part of an absolutely sealed system commonly used in three-electrode systems, with a volume ranging from 10ml to 500ml, customizable based on requirements.

• The electrode section of the electrolytic cell achieves internal insertion and extraction of electrodes through a headphone jack on the cover, ensuring absolute sealing in the three-electrode system.

• The electrodes must be matched with the cell body. The electrodes need to be purchased separately.

• Salt bridges or Luggin capillaries cannot be added to this electrolytic cell; only a Ag/AgCl reference electrode can be used.

• Atmosphere protection is achieved through added valves and an aeration device. The valve connected to the aeration device controls the direction of gas inlet.

• This electrolytic cell, as part of an absolute sealing system, can be subjected to vacuum (less than -100kPa) or pressure by using valves. Pressurization requires a rounded bottom shape, and the pressure should not exceed 0.5MPa for safety.

• Due to process limitations, **pressurization is prohibited in jacketed-layer electrolytic cells**, as the inner glass walls are relatively thin.

• The jacketed-layer electrolytic cell includes a constant temperature water bath function, maintaining a constant temperature in the measured solution by circulating temperature-controlled water.

Volume (ml)	Opening Diameter		Volume (ml)	Opening Diameter		
10mL	17mm		200mL	60 mm	**Single layer**	**Jacketed**
30mL	50 mm		250mL	70 mm		
50mL	50 mm		500mL	70 mm		
100mL	50 mm		1000mL	70 mm		
150mL	60 mm					

All sizes listed are common sizes, can be customized according to requirements.

Single Chamber Glass Electrolytic Cell Series

Multifunctional Electrolytic Cell Model: C003

• Cell Material: High purity borosilicate glass.

• Cover: Polytetrafluoroethylene (PTFE).

• The electrolytic cell's sheet-like working electrode is detachable for easy handling.

• This electrolytic cell is suitable for electrochemical experiments before scanning electron microscopy, corrosion testing, photoelectric experiments, and magnetic electrode experiments. It is single-layered, temperature-controlled, nitrogen-deoxygenated, and vacuum-compatible.

• The volume of the electrolytic cell can be customized according to experimental requirements.

• The electrodes of the electrolytic cell need to be purchased separately.

Volume (mL)	Single layer Open Type	Single layer Sealed Type	Jacketed Open Type	Jacketed Sealed Type
50mL				
100mL				
150mL				
200mL				
250mL				

All sizes listed are common sizes, can be customized according to requirements.

Single Chamber Glass Electrolytic Cell Series

Traditional Five-Port Electrolytic Cell Model: C004

• Cell Material: High purity borosilicate glass.
• Configuration: Cell body, F-type gas inlet, salt bridge, liquid seal, polytetrafluoroethylene plug.
• This electrolytic cell is a relatively sealed system. Sealing between the cell and the cover is achieved through a frosted mouth and an inverted cone-shaped cover. If used with a rotating disk electrode and the sealing cannot be achieved, can increase the gas inlet amount above the liquid level for atmospheric protection.
• Commonly used in three-electrode systems, the electrolytic cell can also be customized based on requirements. The electrodes of the electrolytic cell need to be purchased separately.
• The electrolytic cell can be designed with a conical bottom, with a volume ranging from 5 to 25 mL. It is equipped with an F-type gas inlet that allows both upward and downward ventilation. Atmospheric protection is adjusted based on different experiments. Ventilation under the liquid level should be stopped when the experiment begins, retaining only the ventilation above the liquid level.
• The electrodes of this electrolytic cell need to be compatible. The electrode section of the electrolytic cell achieves sealing through sealed screws and compressed O-rings.
• Equipped with a salt bridge, the electrolytic cell brings the reference electrode closer to the working electrode, effectively reducing resistivity.
• Available in single-layer and jacket-layer configurations. The constant temperature is achieved by continuously circulating temperature-controlled water in the jacket layer of the electrolytic cell for the measured solution.

Volume (ml)		Volume (ml)		
5-20mL*		150mL	**Single layer**	**Jacketed**
25mL		250mL		
50mL		500mL		
100mL		1000mL		

All sizes listed are common sizes, can be customized according to requirements.

*5-20mL are the cell with conical bottom.

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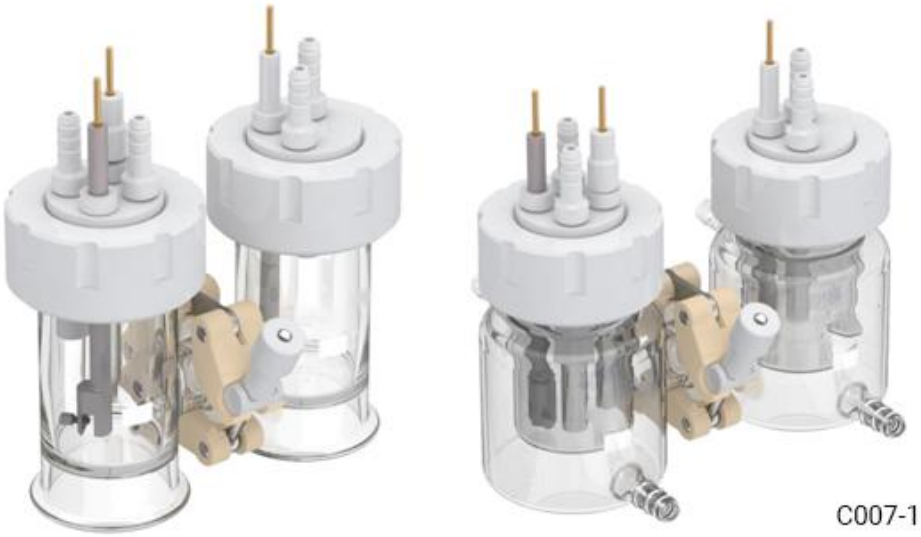
Replaceable Membrane Electrolytic Cell Series

2H Type Replaceable Membrane Electrolytic Cell (Relatively Sealed) Model: C007-1



• Cell Material: High purity borosilicate glass.

• This electrolytic cell is a relatively sealed system. The cathode chamber and anode chamber are isolated by an ion membrane (user-provided). The two chambers are sealed and linked using a chain for easy membrane replacement, effectively reducing the resistivity (R drop) with the reference electrode and working electrode in the same chamber. The glass sealing part of the electrolytic cell adopts an external threaded design, and the inner core uses 360-degree rotation of polytetrafluoroethylene for precise electrode alignment through tightening with a polyoxymethylene (POM) outer cover for sealing.

• The single-layer cell of this electrolytic cell has a special design to efficiently eliminate solution dead volume.

• The electrodes of the electrolytic cell need to be purchased separately.

• Commonly used in three-electrode systems, the electrolytic cell has a volume ranging from 30ml to 500ml and can be customized based on requirements. Electrodes must be dimensionally compatible with the cell. The electrode section sealing of the electrolytic cell is achieved on the PTFE plug. Sealing is accomplished by screws compressing O-rings.

• The electrolytic cell is equipped with an aeration device that allows ventilation below the liquid level. Gas bubbler can be adjusted based on different experiments, such as using a straight-type bubbler for carbon reduction or an L-shaped bubbler for nitrogen reduction.

Volume (ml)		Volume (ml)		
30mL		150mL	Single layer	Jacketed
50mL		200mL		
100mL		250mL		

All sizes listed are common sizes, can be customized according to requirements.

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Replaceable Membrane Electrolytic Cell Series

2H Type Replaceable Membrane Electrolytic Cell (Absolutely Sealed) Model: C007-2

• Cell Material: High purity borosilicate glass.

• The electrolytic cell achieves atmospheric protection by adding valves and an aeration component.

• This electrolytic cell is an absolutely sealed system. The glass sealing part of the electrolytic cell adopts an external threaded design, and the inner core uses 360-degree rotation of polytetrafluoroethylene for precise electrode alignment through tightening with a polyoxymethylene (POM) outer cover for sealing. It can be subjected to vacuum (less than -100Kpa) and slight pressurization, with a maximum pressure not exceeding 0.5MPa for safety. The cathode chamber and anode chamber are isolated by an ion exchange membrane, and the two chambers are sealed and linked using a chain for easy membrane replacement. The reference electrode and working electrode are in the same chamber, effectively reducing the resistivity (R drop).

• The electrode section of the electrolytic cell achieves internal insertion and extraction of electrodes through a headphone jack on the cover, ensuring absolute sealing in the electrode system. Electrodes must be dimensionally compatible with the cell. The electrodes need to be purchased separately.

• The single-layer cell of this electrolytic cell has a special design to efficiently eliminate solution dead volume.

• The electrolytic cell is equipped with an aeration device that allows ventilation below the liquid level. Different shapes of aeration devices are chosen based on the experiment, such as using a straight-type bubbler for carbon reduction or an L-shaped bubbler for nitrogen reduction.

• The Jacketed cell allows circulating temperature-controlled water achieves a constant temperature effect in the measured solution.

Volume (ml)		Volume (ml)	Single layer	Jacketed
30mL		150mL		
50mL		200mL		
100mL		250mL		

All sizes listed are common sizes, can be customized according to requirements.

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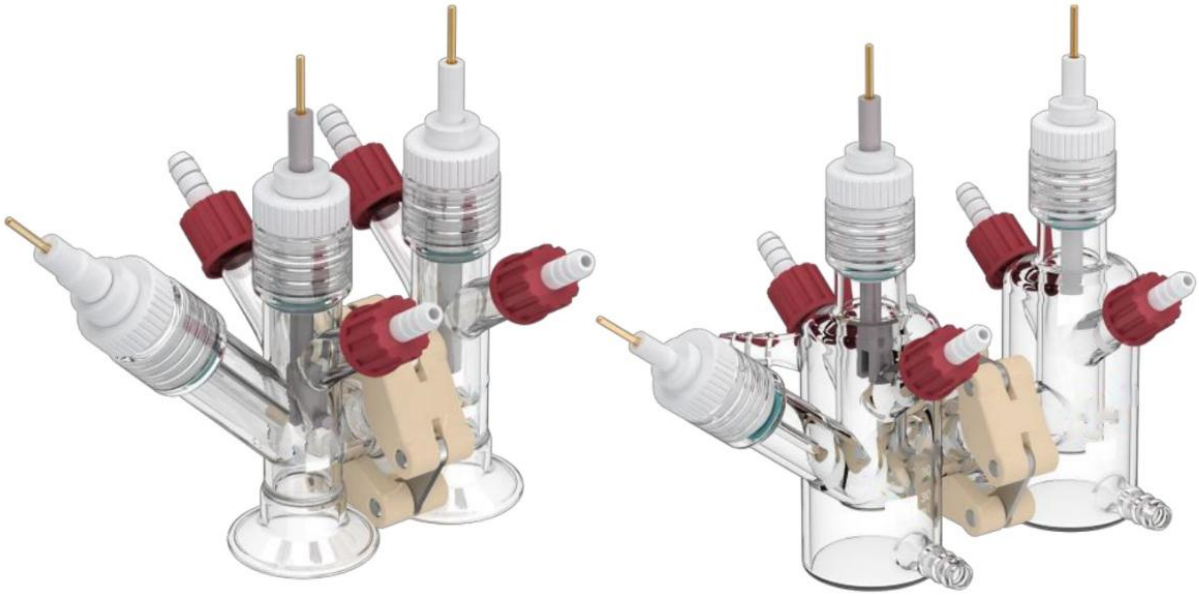
Replaceable Membrane Electrolytic Cell Series

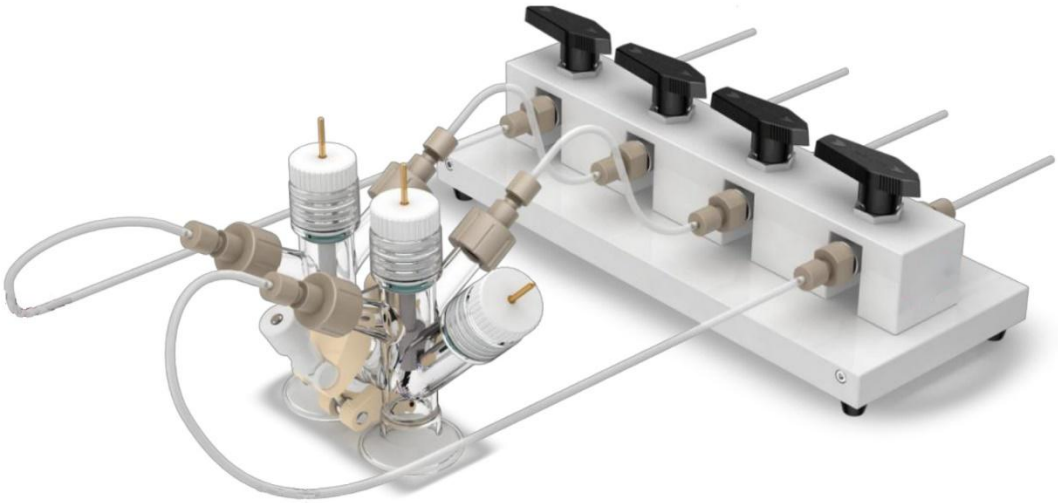
Small Volume H-Type Replaceable Membrane Electrolytic Cell (Relatively Sealed) Model: C007-10



• Cell Material: High purity borosilicate glass.
• Electrodes must be dimensionally compatible with the cell.
• The single-layer cell of this electrolytic cell has a special design to efficiently eliminate solution dead volume.
• Commonly used in three-electrode systems, the single-cell volume of the electrolytic cell is 10ml.
• The electrolytic cell is a relatively sealed system. The cathode chamber and anode chamber are isolated by an ion exchange membrane. The two chambers are sealed and linked using a chain for easy membrane replacement, with the reference electrode and working electrode in the same chamber, effectively reducing the resistivity (R drop).
• The glass sealing part of the electrolytic cell adopts an internal threaded design, achieving sealing by tightening polytetrafluoroethylene and compressing sealing rings.
• The electrode section of the electrolytic cell achieves sealing through screws compressing O-rings.
• The electrolytic cell can have a sampling port added to the cell body.
• The electrodes of the electrolytic cell need to be purchased separately.

Replaceable Membrane Electrolytic Cell Series

Small Volume Replaceable Membrane Electrolytic Cell (Absolutely Sealed) Model: C007-10-2



• Cell Material: High purity borosilicate glass.
• The working electrode, counter electrode, and reference electrode of this electrolytic cell must be compatible.
• The single-layer cell of this electrolytic cell has a special design with an overhead layer, effectively eliminating solution dead volume.
• Commonly used in three-electrode systems, the single-cell volume of the electrolytic cell is 10ml.
• This electrolytic cell operates on an absolutely sealed system. The cathode chamber and anode chamber are isolated by an ion membrane. The two chambers are sealed and linked using a chain for easy membrane replacement, with the reference electrode and working electrode in the same chamber, effectively reducing the resistivity (R drop).
• The absolute sealing of the electrode section in this electrolytic cell is achieved through a headphone jack on the polytetrafluoroethylene cover, allowing internal insertion and extraction of electrodes, ensuring absolute sealing in the electrode system.
• The electrolytic cell is equipped with an aeration device that allows ventilation below the liquid level, adjusting atmospheric conditions based on different experiments.
• A sampling port and valve control module can be added to this electrolytic cell.
• Valves can be added to this electrolytic cell, and all absolute seals are accomplished through quick connections. The polytetrafluoroethylene tube used for quick connections has a diameter of 3mm.
• The electrodes of the electrolytic cell need to be purchased separately.

Replaceable Membrane Electrolytic Cell Series

3H Type Replaceable Membrane Electrolytic Cell (Relatively Sealed) Model: C008-1

• Cell Material: High purity borosilicate glass.

• This electrolytic cell separates the reference electrode and working electrode chambers, connected by a Luggin capillary, effectively reducing the resistivity (R drop). An agar-agar can be added inside the Luggin capillary of the cell to reduce the electrolyte flow rate. The aperture at the tip of the Luggin capillary extending into the working electrode chamber of the electrolytic cell is less than 0.2mm.

• The reference electrode chamber of the electrolytic cell adopts internal threaded sealing. It must be sealed during use to effectively prevent leakage between the reference electrode chamber and the working electrode chamber due to the U-shape effect.

• Electrodes must be dimensionally compatible with the cell.

• The electrodes of the electrolytic cell need to be purchased separately.

• The single-layer cell of this electrolytic cell has a special design with an overhead layer, effectively eliminating solution dead volume.

• This electrolytic cell operates on a relatively sealed system. The cathode and anode chambers are isolated by an ion membrane, and the two chambers are sealed and linked using a chain for easy membrane replacement.

• The inner core of the electrolytic cell adopts a 360-degree rotation of polytetrafluoroethylene, ensuring precise alignment of the electrodes with the channels (typically parallel to the membrane).

• The electrolytic cell is equipped with an aeration device that allows ventilation below the liquid level, choosing different shapes of aeration devices based on different experiments.

Volume (ml)		Volume (ml)		
5-10mL		150mL	**Single layer**	**Jacketed**
30mL		200mL		
50mL		250mL		
100mL				

All sizes listed are common sizes, can be customized according to requirements.

Replaceable Membrane Electrolytic Cell Series

3H Type Replaceable Membrane Electrolytic Cell (Absolutely Sealed) Model: C008-2

• Cell Material: High purity borosilicate glass.

• This electrolytic cell operates on an absolutely sealed system. The cathode and anode chambers are isolated by an ion exchange membrane, and the two chambers are sealed and linked using a chain for easy membrane replacement. It can achieve atmospheric protection by adding valves and an aeration device. It can be subjected to vacuum (less than -100Kpa), and slight pressurization with pressure not exceeding 0.5MPa.

• Commonly used in three-electrode systems. The electrodes of this electrolytic cell must be customized to match the cell dimension.

• This electrolytic cell separates the reference electrode and working electrode chambers, connected by a Luggin capillary, effectively reducing the resistivity (R drop). The aperture at the tip of the Luggin capillary extending into the working electrode chamber of the electrolytic cell must not exceed 0.2mm. An agar-agar can be added inside the Luggin capillary of the electrolytic cell to reduce the electrolyte flow rate.

• The reference electrode chamber of the electrolytic cell adopts internal threaded sealing. It must be sealed during use to effectively prevent leakage between the reference electrode chamber and the working electrode chamber due to the connector effect.

• The electrodes of the electrolytic cell need to be purchased separately.

• The inner core of the electrolytic cell adopts a 360-degree rotation of polytetrafluoroethylene, ensuring precise alignment of the electrodes with the channels (typically parallel to the membrane).

Volume (ml)		Volume (ml)		
5-10mL		150mL	**Single layer**	**Jacketed**
30mL		200mL		
50mL		250mL		
100mL				

All sizes listed are common sizes, can be customized according to requirements.

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Replaceable Membrane Electrolytic Cell Series

Small Volume 3H Type Replaceable Membrane Electrolytic Cell Model: C008-10

• Cell Material: High purity borosilicate glass.

• This electrolytic cell is available in both relatively sealed and absolutely sealed systems. The relative sealing of the electrode section in this electrolytic cell is achieved on the PTFE stopper, using screws to compress O-rings for effective sealing. The cathode chamber and anode chamber are isolated by an ion exchange membrane, and the two chambers are sealed and linked using a chain for easy membrane replacement.

• Commonly used in three-electrode systems, the single-cell volume of the electrolytic cell is 10ml.

• Electrodes of this electrolytic cell are required to be dimensionally compatible. The reference electrode and working electrode are in the same chamber, effectively reducing the resistivity (R drop).

• The electrodes of the electrolytic cell need to be purchased separately.

• The single-layer cell features a special suspension layer design, effectively eliminating dead volume.

• The electrolytic cell is equipped with an aeration device that allows ventilation below the liquid level, adjusting atmospheric conditions based on different experiments.

Corrosion Test Electrolytic Cell series

Spherical Corrosion Test Cell Model: C009

• Cell Material: High purity borosilicate glass.
• Configuration: Electrolytic cell body, F-type inlet, salt bridge, liquid seal, PTFE stopper, sample support electrode, reference electrode, graphite rod electrode.
• This electrolytic cell operates on a relatively sealed system, commonly used in three-electrode systems. The standard volumes are 500ml and 1000ml, but customization is available based on requirements. It is equipped with an F-type inlet that allows ventilation above and below the liquid level. Atmospheric protection can be adjusted based on different experiments. Venting below the liquid level should be stopped when the experiment begins, leaving only ventilation above the liquid level.
• The electrolytic cell features an adjustable angle salt bridge (Luggin capillary), allowing the reference electrode to align more effectively with corroded samples, thereby reducing the resistivity (R drop).
• When conducting corrosion experiments, chloride ions need to be avoided. Thus the solution filled in the salt bridge is a saturated potassium nitrate solution.
• The working electrode of the electrolytic cell is equipped with a sample support electrode, allowing for sample replacement according to specific requirements. The sample has a diameter of 15mm and a fixed area of 1cm^2.
• The electrodes of the electrolytic cell need to be purchased separately.
• Application: Suitable for testing and determining metal samples in corrosive environments, ensuring rapid and consistent testing of a set of metal samples in liquid environments. It is compatible with most electrochemical instruments for corrosion testing and can be used at room temperature and high temperatures in corrosive environments (except HF).

Volume (ml)		Volume (ml)	Single layer	Jacketed
500mL		1000mL		

All sizes listed are common sizes, can be customized according to requirements.

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Corrosion Test Electrolytic Cell series

Plate Corrosion Test Cell Model: C010

• Cell Material: High purity borosilicate glass.

• The working electrode of the electrolytic cell is a sheet-shaped working electrode, and the sample installation is simple and convenient, easy to disassemble, and easy to handle.

• The side of the electrolytic cell has a circular hole with a fixed area of 1cm2 (the required size can be customized according to requirements), and an O-ring that can be sealed.

• The conductive link of the working electrode of the electrolytic cell is made of gold-plated copper sheet, and the principle of extruding the sample sheet is used for conducting the sample sheet. The gold-plated copper sheet has good corrosion resistance and aesthetics.

• The electrolytic cell sample holder is made of corrosion resistant 316 stainless steel.

•To achieve a better experimental diffusion effect, the electrolytic cell has added a stirring bar under the cylindrical cell body, just place the stirring bar in the cell, and place the cell body on the magnetic stirrer for magnetic stirring.

• The auxiliary electrode (counter electrode) of the electrolytic cell is equipped with 20*20mm platinum mesh electrodes. The electrodes of the electrolytic cell need to be purchased separately.

• The electrolytic cell is equipped with a special salt bridge for the reference electrode. If the corrosion test needs to avoid chloride ions, can add saturated potassium nitrate solution to the salt bridge instead.

Volume (ml)	**Single layer**	**Jacketed**	**Volume (ml)**	**Single layer**
250mL			PTFE-500ml	
500mL				
1000mL				
Option to add thermometer				

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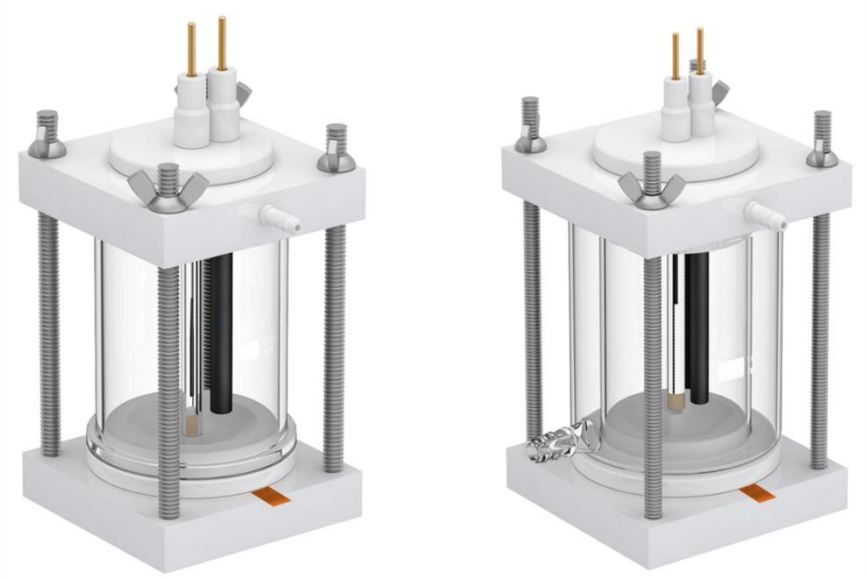
Corrosion Test Electrolytic Cell series

Coating Corrosion Test Cell Model: C011



• Cell Material: High purity borosilicate glass.
• The bottom of the electrolytic cell features a circular hole with a fixed area of 1 square centimeter (customizable to desired dimensions) and a sealable O-ring.
• After placing the sample in the circular hole, the working sample is pressed and sealed by adjusting the four screws on the top of the cell body.
• The conductive connection of the working electrode in this electrolytic cell uses the principle of bonding a copper tape to the working sample for sample conductivity.
• The working electrode employed in this electrolytic cell is a sheet-type working electrode, facilitating easy sample installation, removal, and handling.
• Copper tape is convenient to use, easily replaceable after corrosion, ensuring better conductivity.
• The electrolytic cell is available in single-layer and jacketed-layer forms. The jacketed-layer electrolytic cell incorporates a jacket layer allows temperature-controlled water circulation, which ensures a constant temperature inside the electrolytic cell.
• This electrolytic cell can be used for electrochemical experiments on samples before electron microscope scanning or for coating corrosion performance testing during corrosion tests.
• The electrodes of the electrolytic cell need to be purchased separately and must be matched with the cell.

Volume (ml)		Volume (ml)	Single layer	Jacketed
30mL		150mL		
50mL		200mL		
100mL		250mL		

All sizes listed are common sizes, can be customized according to requirements.

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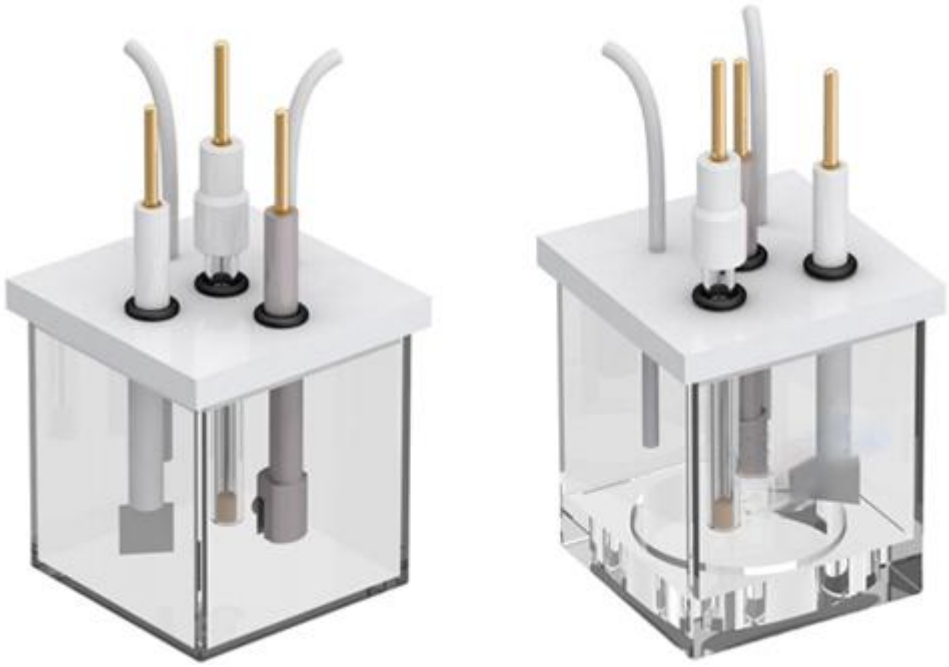
Quartz Electrochemical Cell Series

Square Quartz Electrochemical Cell (Non-Sealed) Model: C012-1



• Cell Material: highly transparent quartz.

• The transmittance of the cell > 95%.

• The electrolytic cell is polished from one piece, not glued nor formed.

• The cover of the cell is made of PTFE (the cover can be punched according to requirements, and round holes or square holes can be punched).

•The electrolytic cell can withstand a maximum temperature of 900°C. If the cell body is heated and sterilized, please separate the cover from the cell body.

• The electrolytic cell can add sand core salt bridge or Luggin capillary salt bridge.

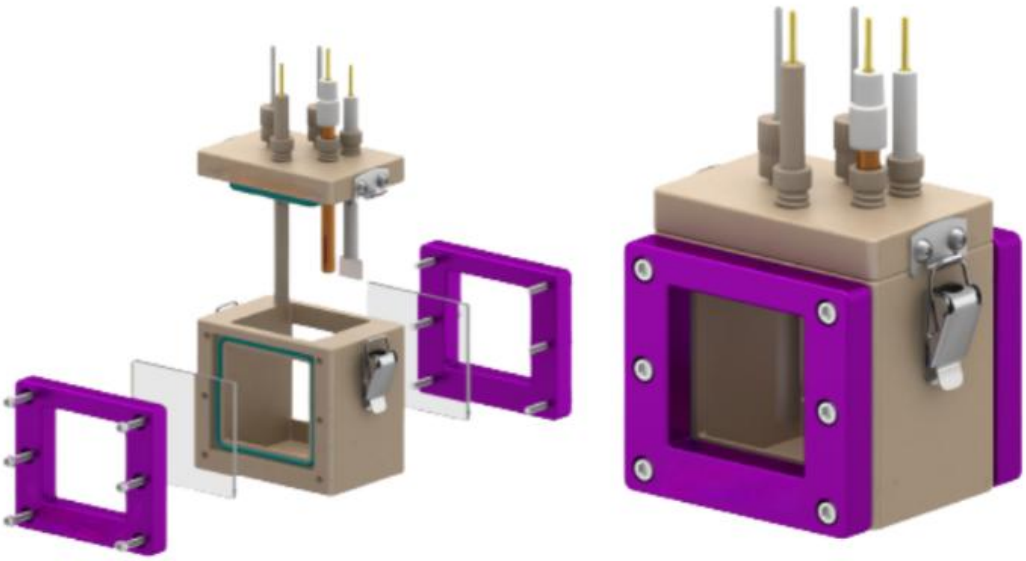
• The electrodes of the electrolytic cell need to be purchased separately and must be matched with the cell.

No.	L*W*H (mm)		No.	L*W*H (mm)
1	30*30*40		4	60*60*60
2	40*50*60		5	50*50*60 with integrated mixer
3	50*50*50			

All sizes listed are common sizes, can be customized according to requirements.

Quartz Electrochemical Cell Series

Square Quartz Electrochemical Cell (Sealed) Model: C012-2



• This electrochemical cell is a sealed photoelectrochemical cell.
• The cell window is made of high-transparency quartz glass with a light transmittance of no less than 95%.
• The window protection plate (purple) is made of aluminum alloy for better heat dissipation.
• The main body of the cell is made of PEEK, which provides high hardness and corrosion resistance.
• The cell cover adopts a quick-release design, making sealing and operation more convenient.

No.	L*W*H (mm)		No.	L*W*H (mm)
1	30*30*40		4	60*60*60
2	40*50*60		5	50*50*60 with integrated mixer
3	50*50*50			

All sizes listed are common sizes, can be customized according to requirements.

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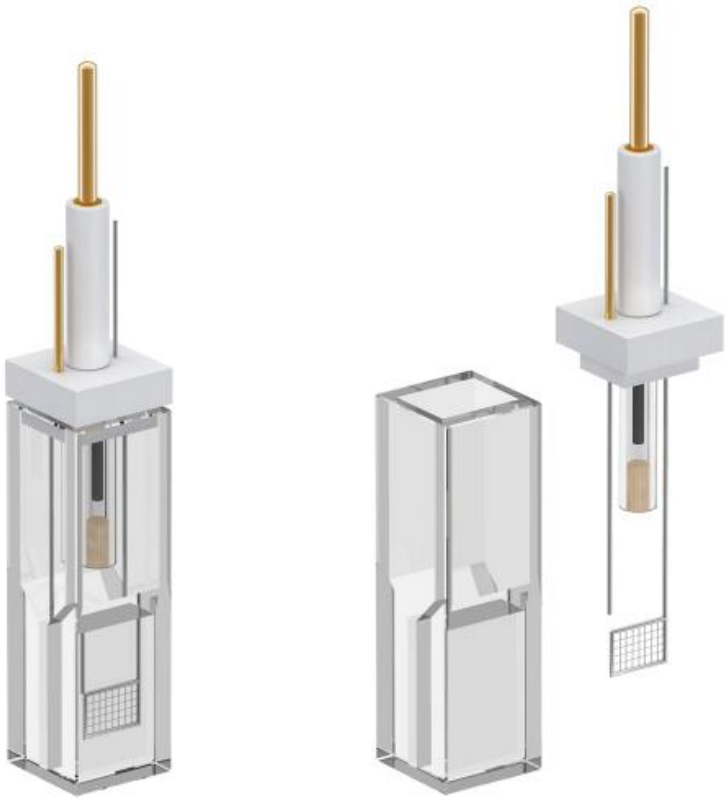
Quartz Electrochemical Cell Series

Thin-Layer Spectroelectrochemical Cell (Open) Model: C013-1



• The cell is made from one piece quartz material, finely polished, transparent on all 4 sides.
• The quartz material has an optical transmittance >95%.
• The cover is made of PTFE.
• The matching electrode of the electrolytic cell is the Ag/AgCl reference electrode (diameter of 3.8mm), the platinum wire counter electrode (diameter of 0.5mm), and the platinum mesh working electrode (6*7mm).
• The working electrode of the electrolytic cell can also be replaced with a glassy carbon or gold disk with a diameter of 3mm according to requirements.
• The gap size of the electrolytic cell is 8*6.5*1.5mm.
• The electrodes of the electrolytic cell need to be purchased separately and must be matched with the cell.

Volume (ml)	**Open-type**
Gap size 8*6.5*1mm	

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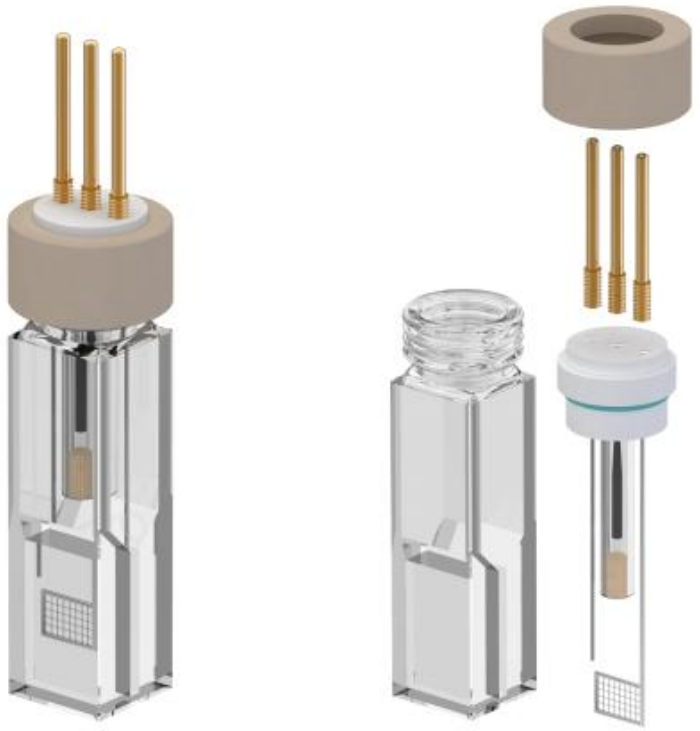
Quartz Electrochemical Cell Series

Thin-Layer Spectroelectrochemical Cell (Sealed) Model: C013-2



• The cell is made from one piece quartz material, finely polished, transparent on all 4 sides.
• The quartz material has an optical transmittance >95%.
• The lid of the cell is PEEK.
• The electrolytic cell is a square cell body with a size of 12*12mm.
• The electrolytic cell is equipped with electrodes, Ag/AgCl reference electrode (diameter of 3.0mm), platinum wire counter electrode (diameter of 0.5mm), platinum mesh working electrode (6*7mm).
• The gap size of the electrolytic cell is the gap 8*6.5*1.5mm.
• The quartz sealing part of the electrolytic cell is designed with an external threaded port, and the inner core is made of 360° rotating PEEK material, so that the electrodes can accurately correspond to the gaps, and the outer cover of the PEEK material is screwed tightly for sealing.
• The electrodes of the electrolytic cell need to be purchased separately and must be matched with the cell.

Volume (ml)	Sealed-type
Gap size 8*6.5*1mm	

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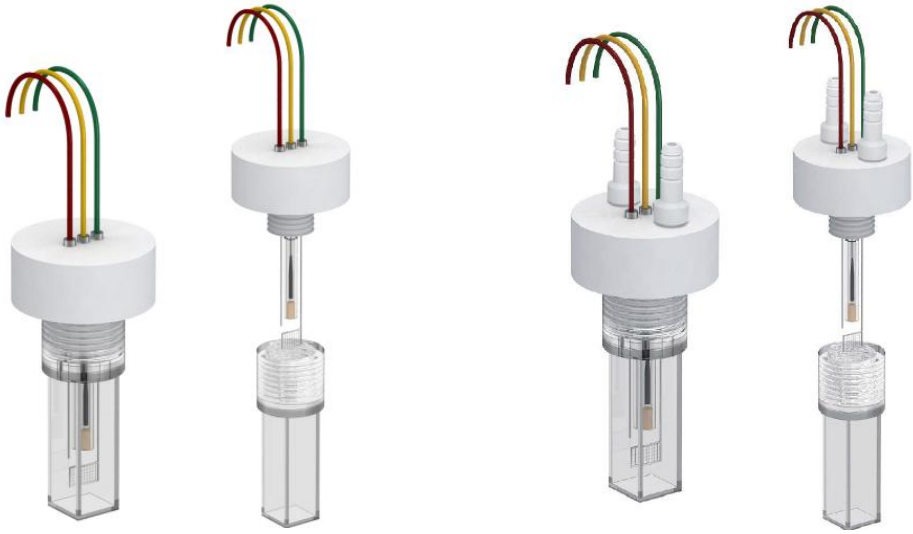
Quartz Electrochemical Cell Series

Small Quartz Spectroelectrochemical Cell (Sealed Cuvette Type) Model: C013-3



• The cell is made of all-quartz integrally polished, with light transmission on all sides, and the optical window of the electrolyte cell is made of quartz, with a transmittance >95%.

• The cover is made of PTFE.

• The electrolytic cell is equipped with gas inlet and outlet devices, and the electrolytic cell is equipped with electrodes, Ag/AgCl reference electrode (diameter of 3.0mm), platinum wire counter electrode (diameter of 0.5mm), glassy carbon working electrode (diameter of 3mm).

• The working electrode of the electrolytic cell can also be replaced with a gold disc, platinum disc or other electrodes with a diameter of 3mm according to requirements.

• The electrolytic cell is a square cell body with a size of 12*12mm. The electrolytic cell is an absolutely sealed system. The quartz sealing part of the electrolytic cell is designed with an internal thread port and sealed by tightening the cover made of PTFE.

• The electrodes of the electrolytic cell are plugged in and out through the earphone jack on the cover, so that the electrode system is absolutely sealed.

• The electrodes of the electrolytic cell need to be purchased separately and must be matched with the cell.

Size (mm)	Sealed-type
12*12mm	

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Quartz Electrochemical Cell Series

Cylindrical Quartz Electrochemical Cell (Open) Model: C014

• The body of the electrolytic cell is fabricated by full quartz fusion method.

• The optical window of the electrolyte cell is made of quartz, with a transmittance >95%.

• The cover is made of PTFE.

• The electrolytic cell can be equipped with gas inlet and outlet devices.

• The electrodes of this electrolytic cell need to be purchased separately.

• The electrolytic cell is equipped with gas inlet and outlet devices, and the electrolytic cell is equipped with electrodes, Ag/AgCl reference electrode (diameter of 3.8mm), platinum wire counter electrode (diameter of 0.5mm), glassy carbon working electrode (diameter of 3mm).

•The working electrode of the electrolytic cell can also be replaced with a 3mm diameter gold disc, platinum disc or other electrodes according to requirements.

• The electrolytic cell is an open system.

• The electrolytic cell contains a PTFE base to prevent the bottom quartz light window from being scratched.

No.	OD/mm	ID/mm	H/mm		No.	OD/mm	ID/mm	H/mm
1	15	12	20		3	25	15	32
2	25	20	30		4	50	46	50

Quartz Electrochemical Cell Series

Cylindrical Quartz Electrochemical Cell (Relatively Sealed) Model: C015-1

• The body of the electrolytic cell is fabricated by full quartz fusion method.
• The optical window of the electrolyte cell is made of quartz, with a transmittance >95%.
• The cover is made of PTFE.
• The electrolytic cell is a relatively sealed system. It is equipped with gas inlet and outlet devices.
• The electrolytic cell is recommended to choose Ag/AgCl reference electrode (diameter of 3.8mm), platinum wire counter electrode (diameter of 0.5mm), and glassy carbon working electrode (diameter of 3mm). The working electrode of the electrolytic cell can also consider a 3mm diameter gold disc, platinum disc or other electrodes according to requirements.
• The quartz sealing part of the electrolytic cell is designed with internal thread and is sealed by screwing the cover made of PTFE. Electrode area seals via O-rings and screws.
• The electrodes of the electrolytic cell need to be purchased separately and must be matched with the cell.

Volume (ml)	OD (mm)	ID (mm)	H (mm)
20mL	42	38	26

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Quartz Electrochemical Cell Series

Cylindrical Quartz Electrochemical Cell (Absolutely Sealed) Model: C015-2

• The body of the electrolytic cell is fabricated by full quartz fusion method.
• The optical window of the electrolyte cell is made of quartz, with a transmittance >95%.
• The cover is made of PTFE.
• The electrolytic cell is absolutely sealed system, which is equipped with gas inlet and outlet devices.
• It is recommended to choose Ag/AgCl reference electrode (diameter of 3.8mm), platinum wire counter electrode (diameter of 0.5mm), and glassy carbon working electrode (diameter of 3mm). The working electrode of the electrolytic cell can also consider a 3mm diameter gold disc, platinum disc or other electrodes according to requirements.
• The quartz sealing part of the electrolytic cell adopts a flange design, and the cover made of PTFE is screw threaded, with sealing O-ring.
• The electrodes of the electrolytic cell are plugged in and out through the earphone jack on the cover, so that the electrode system is absolutely sealed.
• The electrodes of the electrolytic cell need to be purchased separately and must be matched with the cell.

Volume (ml)	OD (mm)	ID (mm)	H (mm)
20mL	42	38	26

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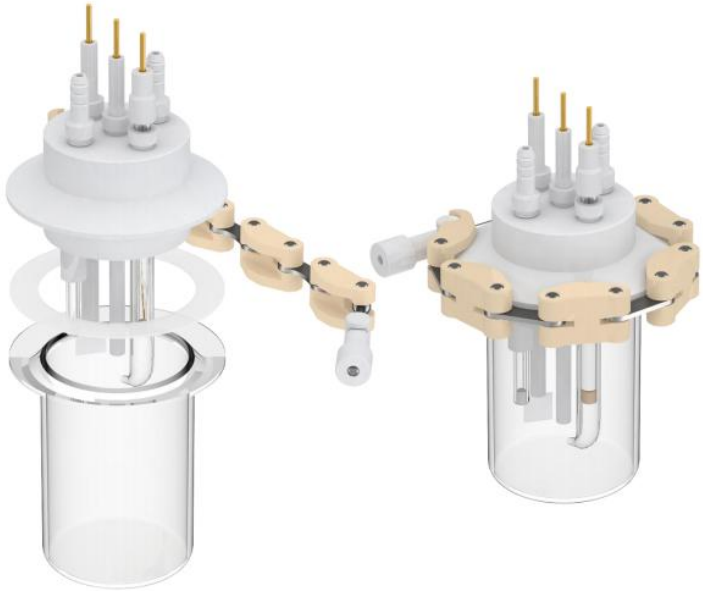
Quartz Electrochemical Cell Series

Cylindrical Quartz Electrochemical Cell (Relatively Sealed) Model: C017-1



• The body of the electrolytic cell is fabricated by full quartz fusion method.

• The optical window of the electrolyte cell is made of quartz, with a transmittance >95%.

• The cover is made of PTFE.

• The electrolytic cell is relatively sealed, which can be equipped with gas inlet and outlet devices.

• The reference electrode of the electrolytic cell generally chooses a conventional reference electrode with a diameter of 6mm.

• The electrodes of the electrolytic cell need to be purchased separately and must be matched with the cell.

• The counter electrode of the electrolytic cell is selected to have a diameter of 6mm.

• The working electrode of the electrolytic cell chooses an electrode or electrode clip with a diameter of 6mm.

• The quartz sealing part of the electrolytic cell adopts a flange design, and the PTFE cover is closed by a locking ring, and the seal is achieved by O-ring. Electrode area seals via O-rings and screws.

Volume (ml)	OD (mm)	ID (mm)	H (mm)
50mL	55	50	52 (effective height 35)

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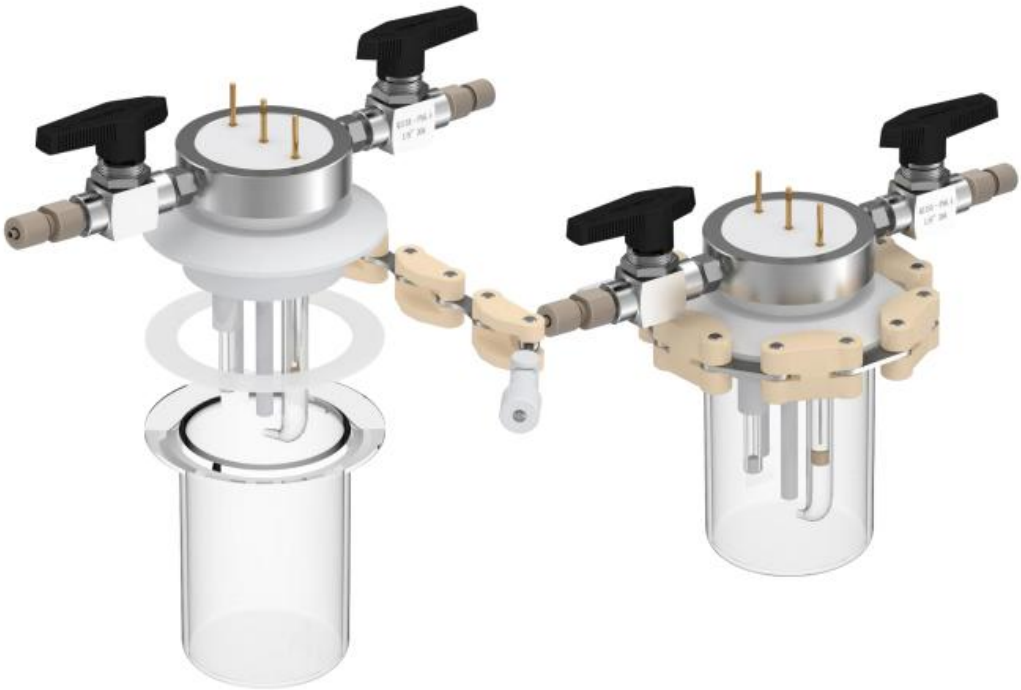
Quartz Electrochemical Cell Series

Cylindrical Quartz Electrochemical Cell (Absolutely Sealed) Model: C017-2



• The body of the electrolytic cell is fabricated by full quartz fusion method.

• The optical window of the electrolyte cell is made of quartz, with a transmittance >95%.

• The cover is made of PTFE.

• The electrolytic cell is equipped with gas inlet and outlet devices.

• The electrodes of the electrolytic cell are plugged in and out through the earphone jack on the cover, so that the electrode system is absolutely sealed.

• The electrodes of the electrolytic cell need to be purchased separately and must be matched with the cell.

• The reference electrode of the electrolytic cell generally chooses Ag/AgCl electrode (diameter of 3.8mm).

• The reference electrode of the electrolytic cell is a platinum wire electrode or a platinum sheet electrode with a diameter of 0.5mm.

• The working electrode of the electrolytic cell is a glassy carbon electrode, and the working electrode can also be replaced with a gold disc, platinum disc or other electrode holders with a diameter of 3mm.

Volume (ml)	OD (mm)	ID (mm)	H (mm)
50mL	55	50	52 (effective height 35)

Quartz Electrochemical Cell Series

Cylindrical Quartz Electrochemical Cell (Relatively Sealed, Side Window) Model: C018-1

• The body of the electrolytic cell is welded by full quartz fusion method.

• The optical window of the electrolyte cell is made of quartz, with a transmittance >95%.

• The cover is made of PTFE.

• The electrolytic cell is a relatively sealed system. The quartz sealing part of the electrolytic cell adopts a flange design, and the PTFE cover is locked by a locking ring, and the seal is sealed by squeezing the sealing ring. The electrolytic cell can be equipped with gas inlet and outlet devices.

• The reference electrode of the electrolytic cell generally chooses a conventional reference electrode with a diameter of 6mm.

• The contrast electrode of this electrolytic cell chooses an electrode with a diameter of 6mm.

• The working electrode of the electrolytic cell chooses an electrode or electrode clip with a diameter of 6mm.

• The electrodes of the electrolytic cell need to be purchased separately

• Electrode area seals via O-rings and screws.

• For absolute sealing system, please refer to C018-2.

Volume (ml)		Volume (ml)
50mL		200mL
100mL		250mL
150mL		500mL

Quartz Electrochemical Cell Series

Cylindrical Quartz Electrochemical Cell (Absolutely Sealed, Side Window) Model: C018-2

• The body of the electrolytic cell is welded by full quartz fusion method.

• The optical window of the electrolyte cell is made of quartz, with a transmittance >95%.

• The cover is made of PTFE.

• The cell is absolutely sealed, which can be equipped with gas inlet and outlet devices.

• The electrode part of the electrolytic cell is plugged in and out through the earphone jack on the cover, so that.

• The electrodes of the electrolytic cell need to be purchased separately, and must be matched with the cell.

• The reference electrode of the electrolytic cell generally chooses Ag/AgCl electrode (diameter of 3.8mm).

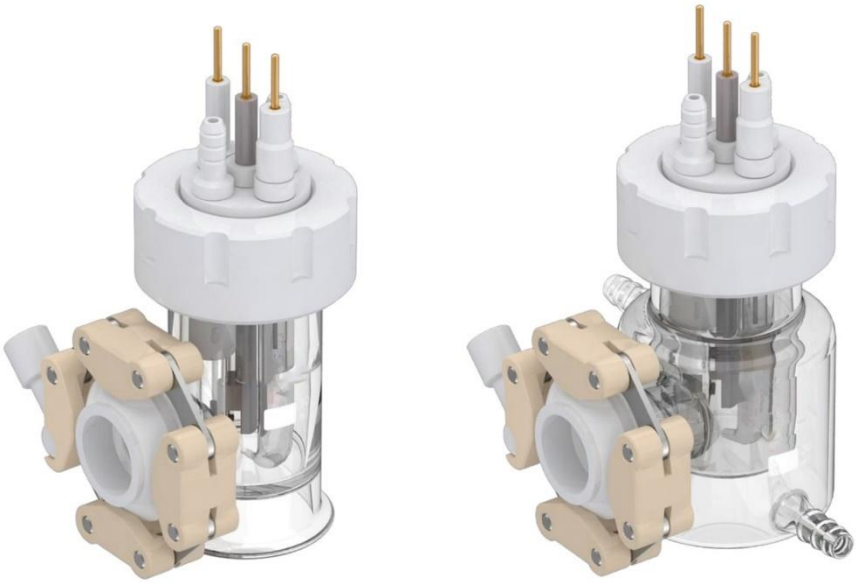
• The counter electrode of the electrolytic cell can choose a platinum wire electrode or a platinum sheet electrode with a diameter of 0.5mm.

• The working electrode can choose a glassy carbon electrode, can also use a gold disc, platinum disc or other electrode holders with a diameter of 3mm.

Volume (ml)		Volume (ml)
50mL		200mL
100mL		250mL
150mL		500mL

Photocatalytic Electrochemical Cell Series (Single)

Single-Cell Photocatalytic Electrochemical Cell (Relatively Sealed, Side Window) Model: C019-1



•The cell is made of high purity borosilicate glass.

•The optical window of the electrolyte cell is made of quartz, with a transmittance >95%.

•The quartz window is easily replaceable and securely sealed using a locking ring attached to the cell body.

•This cell is often used in a 3-electrode system, with a customizable volume of 30ml to 500ml.

•Electrodes need to be the longer type based on dimension of the cell.

•The top electrodes holder is 360-degree rotatable, made of PTFE, allowing precise alignment of electrodes to the optical window, then sealed by tightening the outer cover made of POM material.

•Electrode area seals via O-rings and screws.

•The electrolyte cell is equipped with a bubbler that can aerate below the liquid surface, creating different atmospheres for various experiments

•The electrolyte cell comes in both single-layer and jacket form. The jacket layer allows a constant temperature through water circulation on top of the single layer design.

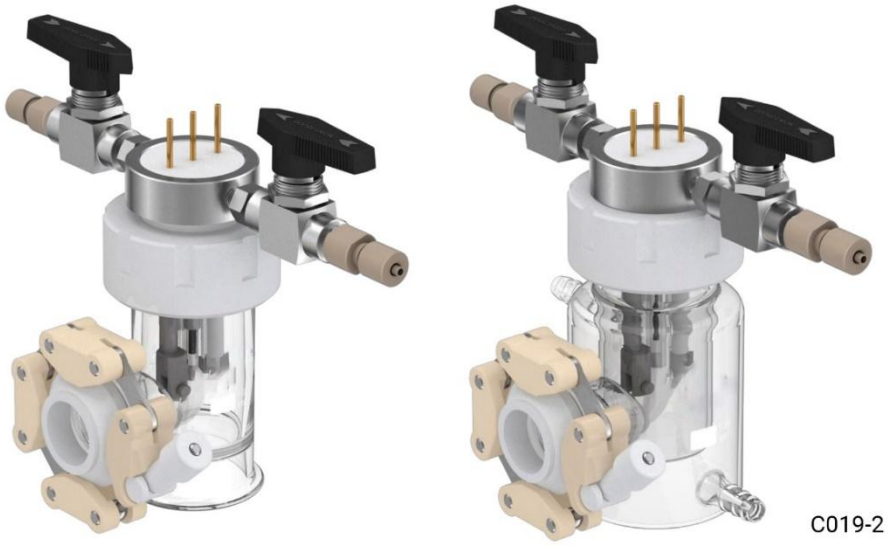
• The electrodes of the electrolytic cell need to be purchased separately, and must be matched with the cell.

Volume (ml)	Single layer	Jacketed
50mL		
100mL		
150mL		

All sizes listed are common sizes, can be customized according to requirements.

Photocatalytic Electrochemical Cell Series

Single Chamber Photoelectrochemical Cell (Absolutely Sealed, Side Window) Model: C019-2



• The optical window of the electrolyte cell is made of quartz, with a transmittance >95%.

• The quartz window is easily replaceable and securely sealed using a locking ring attached to the cell body.

• This cell is often used in a 3-electrode system, with a customizable volume of 30ml to 500ml.

•The sealed cell is equipped with valves and gas connectors; inlet direction is through the aeration device valve. The sealed cell is vacuumable (below -100Kpa), and can be slightly pressurized up to 0.5MPa.

• The working electrode, counter electrode and reference electrode of the cell need to be matched in dimension, inserted through the cover for absolute sealing.

• The compatible electrodes of the electrolytic cell need to be purchased separately.

• The top electrodes holder is 360-degree rotatable, made of PTFE, allowing precise alignment of electrodes to the optical window, then sealed by tightening the outer cover made of POM material.

• The cell is equipped with a bubbler that can aerate below the liquid surface, creating different atmospheres for various experiments

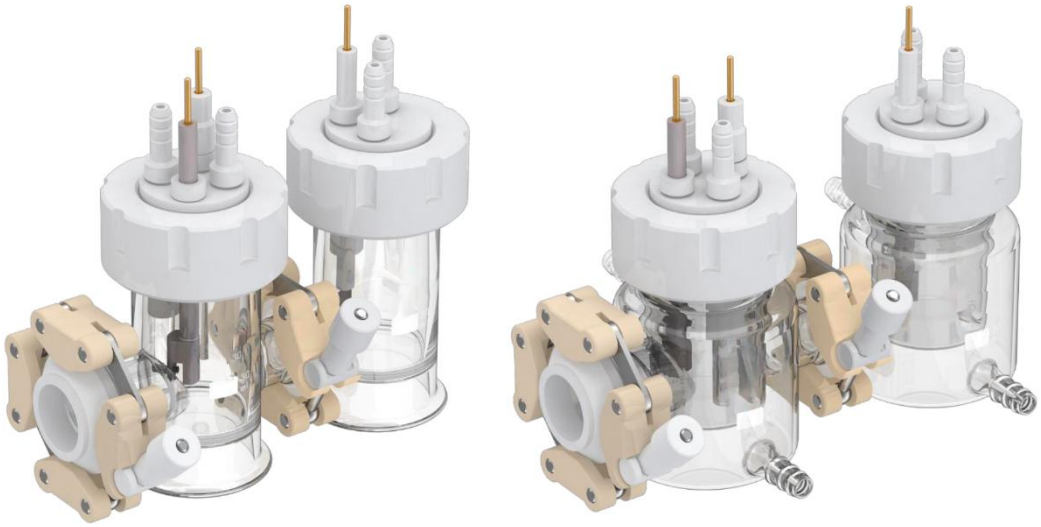
• The cell comes in both single-layer and jacket form. The jacket layer allows a constant temperature through water circulation on top of the single layer design.

Volume (ml)	Single layer	Jacketed
50mL		
100mL		
150mL		

All sizes listed are common sizes, can be customized according to requirements.

Single Window Photocatalytic Electrochemical Cell Series (2H)

H-Type Photoelectrochemical Cell (Single Optical Window, Relatively Sealed) Model: C023-1



• The cell is made of high purity borosilicate glass.

• The optical window of the electrolyte cell is made of quartz, with a transmittance >95%.

• The quartz window is easily replaceable and securely sealed using a proprietary designed clamp.

• Electrodes need to be the longer type based on dimension of the cell.

• The single-layer cell body has a top-drop vial design, which effectively reduces the dead volume

• This cell is often used in a 3-electrode system, with a customizable volume of 30ml to 500ml.

• The cell is a relatively sealed system. The cathode chamber and the anode chamber are separated by an ion exchange membrane. The two chambers are connected by a flange with chain-type clamp, which is convenient for assembling and disassembling. The reference electrode and the working electrode are in the same chamber, which effectively reduces the reduction in R value.

• The compatible electrodes of the electrolytic cell need to be purchased separately.

• The top electrodes holder is 360-degree rotatable, made of PTFE, allowing precise alignment of electrodes to the optical window, then sealed by tightening the outer cover made of POM material.

•Electrode area seals via O-rings and screws.

• The electrolyte cell comes in both single-layer and jacket form. The jacket layer allows a constant temperature through water circulation on top of the single layer design.

Volume (ml)		Single layer	Jacketed
30mL	150mL		
50mL	200mL		
100mL	250mL		

All sizes listed are common sizes, can be customized according to requirements.

Single Window Photocatalytic Electrochemical Cell Series

H-Type Photoelectrochemical Cell (Single Optical Window, Absolutely Sealed) Model: C023-2

• The optical window of the cell is made of high purity quartz, with a transmittance >95%.

• The sealed cell is vacuumable (below -100Kpa) and can be slightly pressurized up to 0.5MPa for single cell. **Jacketed cells cannot be used for pressurization**! The sealed cell is equipped with valves and gas connectors; inlet direction is through the aeration device valve.

• The working electrode, counter electrode and reference electrode of the cell need to be matched in dimension, inserted through the cover for absolute sealing. The compatible electrodes of the electrolytic cell need to be purchased separately.

• The quartz window is easily replaceable and securely sealed using a locking ring.

• The cathode chamber and the anode chamber are separated by an ion exchange membrane. The two chambers are connected by a flange with chain-type clamp, which is convenient for assembling and disassembling. The reference electrode and the working electrode are in the same chamber, which effectively reduces the reduction in R value.

• The top electrodes holder is 360-degree rotatable, made of PTFE, allowing precise alignment of electrodes to the optical window, then sealed by tightening the outer cover made of POM material.

• The cell is equipped with a bubbler that can aerate below the liquid surface, creating different atmospheres for various experiments. For example, straight bubbler is used for carbon reduction, and L-type bubbler is used for nitrogen reduction.

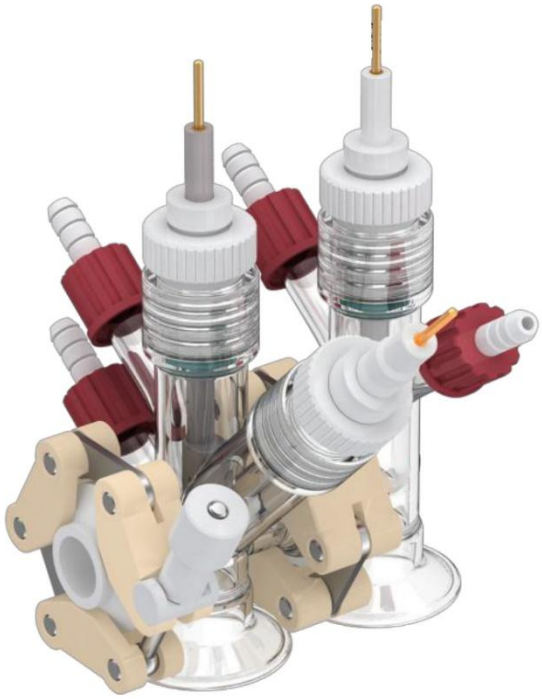
• The cell comes in both single-layer and jacket form. The jacket layer allows a constant temperature through water circulation on top of the single layer design.

Volume (ml)		**Single layer**	**Jacketed**
30mL	150mL		
50mL	200mL		
100mL	250mL		

All sizes listed are common sizes, can be customized according to requirements.

Single Window Photocatalytic Electrochemical Cell Series

Small Volume Photoelectrochemical Cell (Single Optical Window, Relatively Sealed) Model: C023-10



• The cell is made of high purity borosilicate glass.

• The optical window of the cell is made of quartz, with a transmittance >95%.

• The quartz window is easily replaceable and securely sealed using a proprietary designed clamp.

• The compatible electrodes of the electrolytic cell need to be purchased separately.

• The single-layer cell body has a top-drop vial design, which effectively reduces the dead volume

• This cell comes in a 3-electrode system, the single cell volume can be as low as 10ml

• The cathode chamber and the anode chamber are separated by an ion exchange membrane. The two chambers are connected by a flange with chain-type clamp, which is convenient for assembling and disassembling. The reference electrode and the working electrode are in the same chamber, which effectively reduces the reduction in R value.

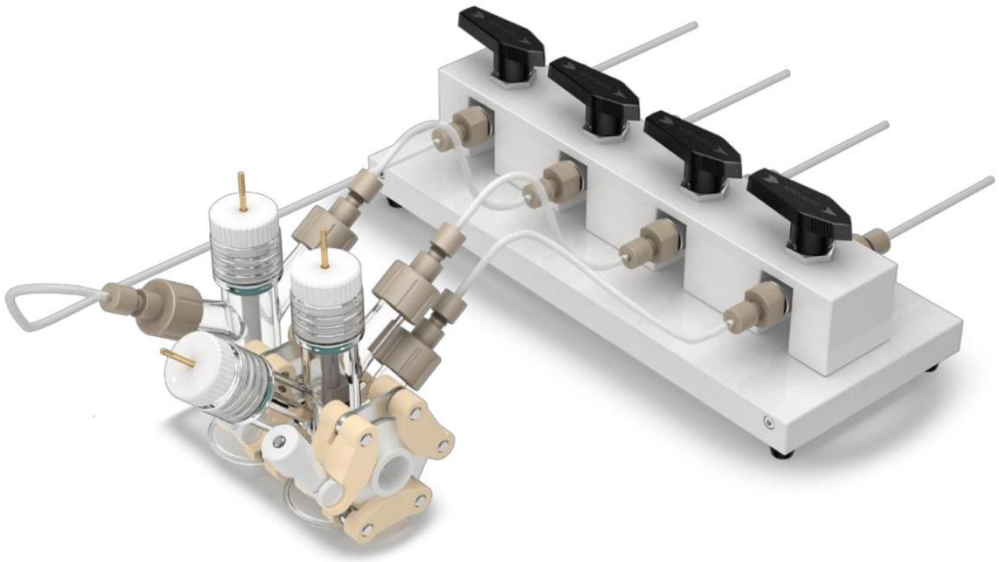
• The top electrodes holder is 360-degree rotatable, made of PTFE, allowing precise alignment of electrodes to the optical window, then sealed by tightening the outer cover made of POM material.

• Electrode area seals via O-rings and screws.

Jacket type is not available for small volume cells.

Single Window Photocatalytic Electrochemical Cell Series

Small Volume Replaceable Membrane Photoelectrochemical Cell (Single Optical Window, Absolutely Sealed) Model: C023-10-2



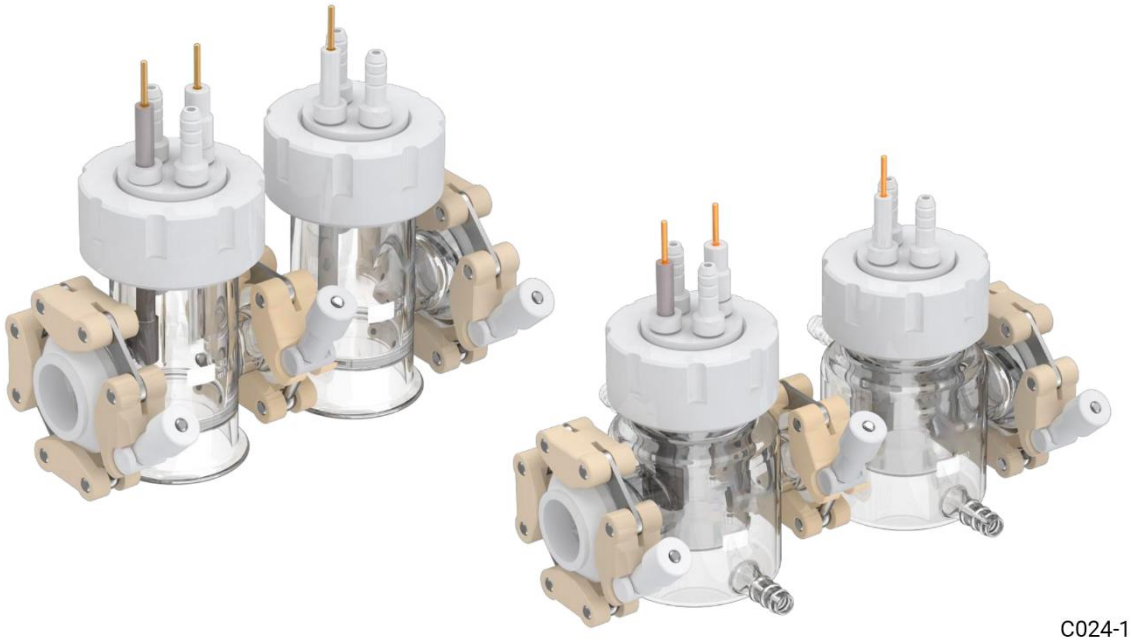
• The optical window of the cell is made of quartz, with a transmittance >95%.
• The quartz windows are easily replaceable and securely sealed using a proprietary designed clamp attached to the cell body, can be assembled and disassembled quickly and conveniently.
• The working electrode, counter electrode and reference electrode of the electrolytic cell must be matched as required. • The compatible electrodes of the electrolytic cell need to be purchased separately.
•The cell body of the electrolytic cell has an overhead layer design, which effectively breaks the solution hiding
• This electrolytic cell is often used in a 3-electrode system, and the single cell volume is 10ml.
• The cathodic chamber and the anode chamber of the electrolytic cell are separated by an ion exchange membrane (prepared by the user), and the two chambers adopt a chain. The sealed connection is convenient to replace the diaphragm, and the reference electrode and the working electrode are in the same room, which can effectively reduce the resistivity (R drop).
• The electrodes of the electrolytic cell are plugged in and out through the earphone jack on the PTFE cover, so that the electrode system is absolutely sealed

Jacket type is not available for small volume cells.

The default of air inlet and outlet are red screw cap with pagoda connector (For silicone tubing with ID6mm). PEEK quick connectors (for PTFE tubing with OD3mm, shown in the product image above) can be purchased separately.

Double Window Photocatalytic Electrochemical Cell Series (2H)

H-Type Photoelectrochemical Cell (Double Optical Window, Relatively Sealed) Model: C024-1



C024-1

• The cell is made of high purity borosilicate glass.

• The optical window of the electrolyte cell is made of quartz, with a transmittance >95%.

• The dual quartz windows are easily replaceable and securely sealed using a proprietary designed clamp attached to the cell body, can be assembled and disassembled quickly and conveniently.

• The single-layer cell body has a top-drop vial design, which effectively reduces the dead volume

• This cell is often used in a 3-electrode system, with a customizable volume of 30ml to 500ml.

• The compatible electrodes of the electrolytic cell need to be purchased separately.

• The top electrodes holder is 360-degree rotatable, made of PTFE, allowing precise alignment of electrodes to the optical window, then sealed by tightening the outer cover made of POM material.

• Electrode area seals via O-rings and screws.

• The electrolyte cell is equipped with a bubbler that can aerate below the liquid surface, creating different atmospheres for various experiments

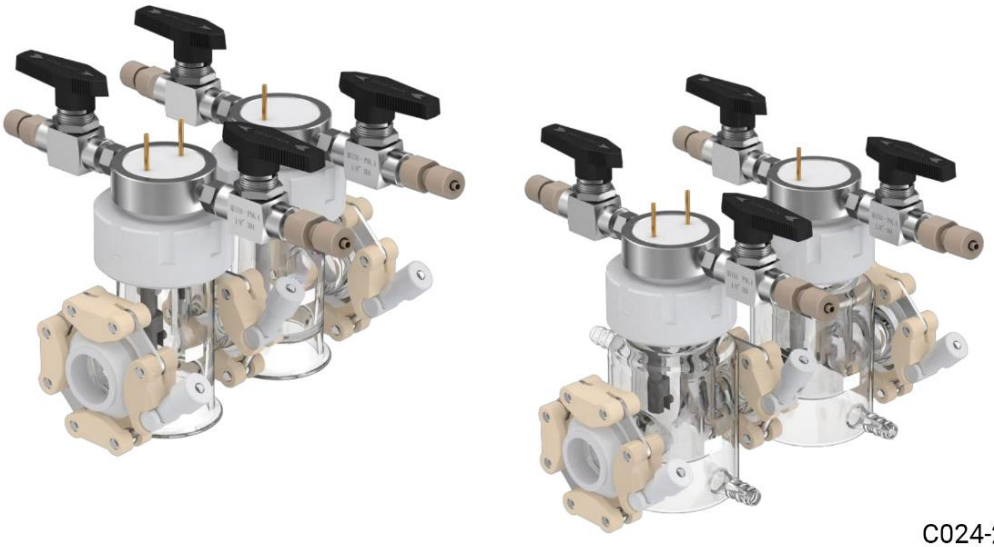
• The electrolyte cell comes in both single-layer and jacket form. The jacket layer allows a constant temperature through water circulation on top of the single layer design.

Volume (ml)		Volume (ml)	Single layer	Jacketed
30mL		150mL		
50mL		200mL		
100mL		250mL		

All sizes listed are common sizes, can be customized according to requirements.

Double Window Photocatalytic Electrochemical Cell Series

H-Type Photoelectrochemical Cell (Double Optical Window, Absolutely Sealed) Model: C024-2



C024-2

• The optical window of the cell is made of high purity quartz, with a transmittance >95%.

• The dual quartz windows are easily replaceable and securely sealed using a proprietary designed clamp attached to the cell body, can be assembled and disassembled quickly and conveniently.

•The sealed cell is equipped with valves and gas connectors, which is vacuumable (below -100Kpa) and can be slightly pressurized up to 0.5MPa for single cell. **Jacketed cells cannot be used for pressurization**!

• The compatible electrodes of the electrolytic cell need to be purchased separately.

• The single-layer cell body has a top-drop vial design, which effectively reduces the dead volume

• This cell is often used in a 3-electrode system, with a customizable volume of 30ml to 500ml.

• The cathode chamber and the anode chamber are separated by an ion exchange membrane. The two chambers are connected by a flange with chain-type clamp, which is convenient for assembling and disassembling. The reference electrode and the working electrode are in the same chamber, which effectively reduces the reduction in R value.

• The top electrodes holder is 360-degree rotatable, made of PTFE, allowing precise alignment of electrodes to the optical window, then sealed by tightening the outer cover made of POM material.

• The cell comes in both single-layer and jacket form. The jacket layer allows a constant temperature through water circulation on top of the single layer design.

Volume (ml)		Volume (ml)	Single layer	Jacketed
30mL		150mL		
50mL		200mL		
100mL		250mL		

All sizes listed are common sizes, can be customized according to requirements.

Double Window Photocatalytic Electrochemical Cell Series

Small-Volume Replaceable Membrane Photoelectrochemical Cell (Single Optical Window, Relatively Sealed) Model: C024-10

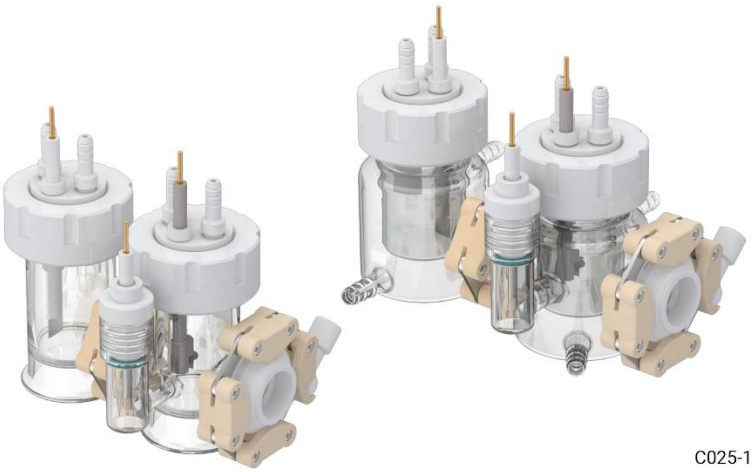
• The cell is made of high purity borosilicate glass.
• The optical window of the cell is made of quartz, with a transmittance >95%.
• The quartz window is easily replaceable and securely sealed using a proprietary designed clamp.
• The compatible electrodes of the electrolytic cell need to be purchased separately.
• The single-layer cell body has a top-drop vial design, which effectively reduces the dead volume
• This cell comes in a 3-electrode system, the single cell volume is 10ml.
• The cathode chamber and the anode chamber are separated by an ion exchange membrane. The two chambers are connected by a flange with chain-type clamp, which is convenient for assembling and disassembling. The reference electrode and the working electrode are in the same chamber, which effectively reduces the reduction in R value.
• The top electrodes holder is 360-degree rotatable, made of PTFE, allowing precise alignment of electrodes to the optical window, then sealed by tightening the outer cover made of POM material.
• Electrode area seals via O-rings and screw caps.

Options without sampling port and with sampling port are both available.

Jacket type is not available for small volume cells.

Single Window Photocatalytic Electrochemical Cell Series (3H)

3H Type Photoelectrochemical Cell (Single Optical Window, Relatively Sealed) Model: C025-1



• The cell is made of high purity borosilicate glass. The optical window of the cell is made of quartz, with a transmittance >95%.

• Easily replaceable, securely sealed quartz window with proprietary clamp for quick assembly and disassembly. The cell separates the reference electrode from the working electrode chamber, connected by Luggin capillary for reduction in R value. The aperture of the capillary is less than 0.2mm. Agar can be added inside the capillary to reduce the electrolyte flow rate.

• The reference electrode chamber of the cell is sealed with internal threads. Effective sealing is essential during experiments to prevent leakage due to capillary effects between the reference electrode chamber and the working electrode chamber. The anode and cathode chambers of the cell are isolated by an ion exchange membrane and sealed with a chain clamp, facilitating membrane replacement.

• The compatible electrodes of the electrolytic cell need to be purchased separately.

• The volume of the electrolytic cell ranges from 30ml to 500ml and can also be customized according to requirements.

• The top electrodes holder is 360-degree rotatable, made of PTFE, allowing precise alignment of electrodes with the channels (generally parallel to the membrane), then sealed by tightening the outer cover made of POM material.

• The cell is equipped with a bubbler that can ventilate under the liquid surface, and different shapes of bubblers are selected for the atmosphere according to different experiments. For example, straight bubbler is used for carbon reduction, and L-type bubbler is used for nitrogen reduction.

Volume (ml)		Volume (ml)		
30mL		150mL	**Single layer**	**Jacketed**
50mL		200mL		
100mL		250mL		

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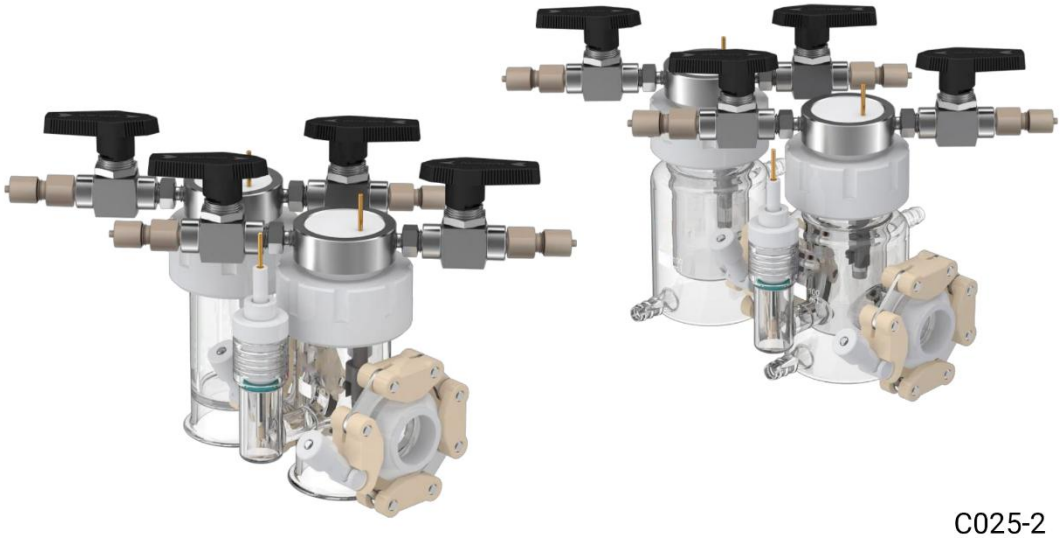
Single Window Photocatalytic Electrochemical Cell Series

3H Type Photoelectrochemical Cell (Single Optical Window, Absolutely Sealed) Model: C025-2



C025-2

• The optical window of the cell is made of quartz, with a transmittance >95%. It's easily replaceable and securely sealed with a unique clamp design, allowing quick assembly and disassembly.

• Commonly used in a 3-electrode setup, customizable volume: 30ml to 500ml (min. 30ml). Available in single-layer or jacketed form for precise temperature control through water circulation.

• The sealed cell is equipped with valves and gas connectors, which is vacuumable (below -100Kpa) and can be slightly pressurized up to 0.5MPa for single cell. **Jacketed cells cannot be used for pressurization**!

• The working electrode, counter electrode and reference electrode of the cell need to be matched in dimension, inserted through the cover for absolute sealing.

• The compatible electrodes of the electrolytic cell need to be purchased separately.

• Cell isolates reference electrode via a Luggin capillary (aperture < 0.2mm) to reduce R value. Agar can be added for lower electrolyte flow.

Volume (ml)		Volume (ml)	Single layer	Jacketed
30mL		150mL		
50mL		200mL		
100mL		250mL		

All sizes listed are common sizes, can be customized according to requirements.

Single Window Photocatalytic Electrochemical Cell Series

Small Volume 3H Type Photoelectrochemical Cell (Single Optical Window, Relatively Sealed) Model: C025-10

•The cell is made of high purity borosilicate glass.

•The cell's quartz optical window has >95% light transmittance. It's easily replaceable and securely sealed with a unique clamp design, allowing quick assembly and disassembly.

• The compatible electrodes of the electrolytic cell need to be purchased separately.

• The single-layer cell body has a top-drop vial design, which effectively reduces the dead volume

• This cell comes in a 3-electrode system, the single cell volume is 10ml.

• The cathode chamber and the anode chamber are separated by an ion exchange membrane. The two chambers are connected by a flange with chain-type clamp, which is convenient for assembling and disassembling.

• Electrode area seals via O-rings and screw caps.

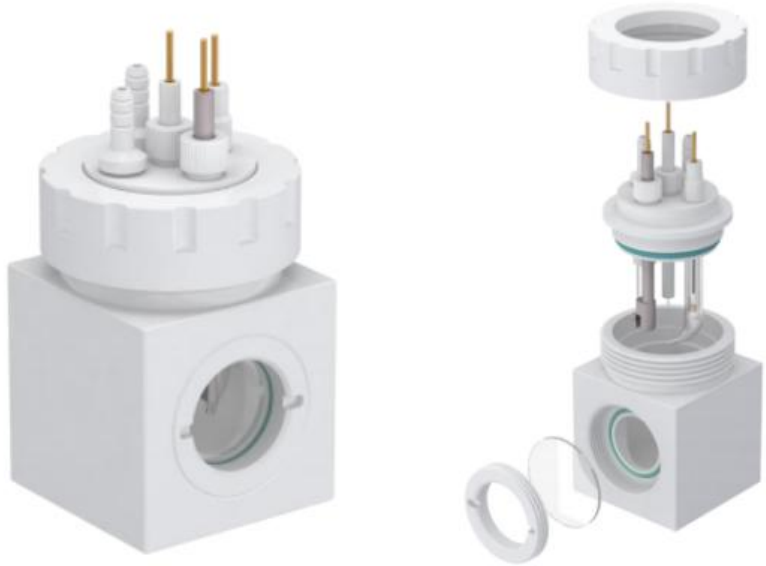
• Cell isolates reference electrode via a Luggin capillary (aperture < 0.2mm) to reduce R value. Agar can be added for lower electrolyte flow.

• The cell is equipped with a bubbler that can ventilate under the liquid surface, and different shapes of bubblers are selected for the atmosphere according to different experiments. For example, straight bubbler is used for carbon reduction, and L-type bubbler is used for nitrogen reduction.

Jacket type is not available for small volume cells.

Photoelectrochemical Cell Series

Single-Cell Full PTFE Photoelectrochemical Cell (Relatively Sealed) Model: C026-1



• The electrolytic cell is a photoelectrochemical cell.

• The optical window of the electrolyte cell is made of quartz, with a transmittance >95%.

• The compatible electrodes of the electrolytic cell need to be purchased separately.

•This cell is often used in a 3-electrode system, with a customizable volume of 30ml to 500ml.

• The cell body of the electrolytic cell is designed with an external threaded port. The top electrodes holder is 360-degree rotatable, made of PTFE, allowing precise alignment of electrodes with the channels (generally parallel to the membrane). lid to seal

• Electrode area seals via O-rings and screws.

• The electrolyte cell is equipped with a bubbler that can aerate below the liquid surface, creating different atmospheres for various experiments.

• This electrolytic cell can add a sampling port on the cell body, at this time additional cost is required

• The cell's quartz plate is removable for quick replacement

Volume (ml)		Volume (ml)
50mL		200mL
100mL		250mL
150mL		500mL

All sizes listed are common sizes, can be customized according to requirements.

Photoelectrochemical Cell Series

Single-Cell Full PTFE Photoelectrochemical Cell (Absolutely Sealed) Model: C026-2

• The electrolytic cell is a photoelectrochemical cell.

• The optical window of the cell is made of quartz, with a transmittance >95%.

• The compatible electrodes of the electrolytic cell need to be purchased separately.

• The electrode part of the electrolytic cell is plugged in and out through the earphone jack on the cover, so that the electrode system is absolutely sealed.

• The body of the cell is made of PTFE.

•This cell is often used in a 3-electrode system, with a customizable volume of 30ml to 500ml.

• The cell body of the electrolytic cell is designed with an external threaded port. The top electrodes holder is 360-degree rotatable, made of PTFE, allowing precise alignment of electrodes with the channels (generally parallel to the membrane). lid to seal

• The electrolyte cell is equipped with a bubbler that can aerate below the liquid surface, creating different atmospheres for various experiments.

• This electrolytic cell can add a sampling port on the cell body, at this time additional cost is required.

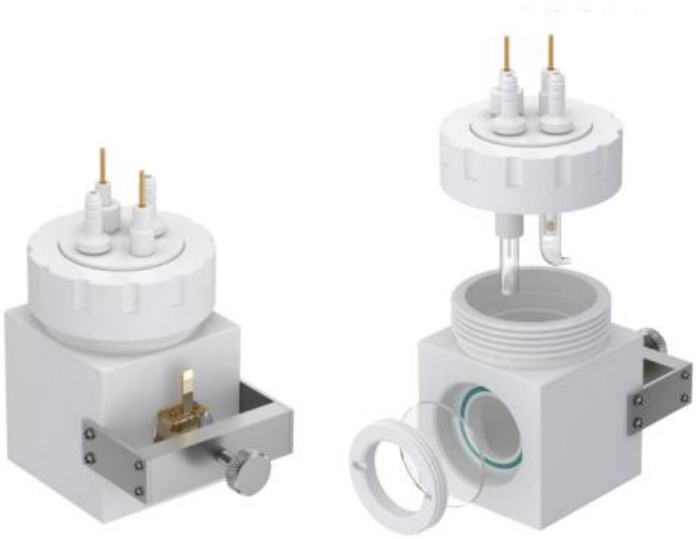
• The cell's quartz plate is removable for quick replacement.

Volume (ml)		Volume (ml)
50mL		200mL
100mL		250mL
150mL		500mL

All sizes listed are common sizes, can be customized according to requirements.

Photoelectrochemical Cell Series

Single-Cell Full PTFE Photoelectrochemical Cell (Relatively Sealed, Bracket Type) Model: C026-3



• The optical window of the electrolyte cell is made of quartz, with a transmittance >95%.

• The working electrode of the electrolytic cell can use non-standard samples, but it needs to cover the positioning hole.

• The electrolytic cell has a fixed area of 1cm^2, and can also be customized.

• The electrolytic cell is screwed into the back screw to withstand the working sample, and the working electrode is used to press the positioning hole to achieve the sealing of the cell body.

• The standard area of the electrolytic cell is 1cm^2, and it can also be customized according to requirements.

• The compatible electrodes of the electrolytic cell need to be purchased separately.

•This cell is often used in a 3-electrode system, with a customizable volume of 30ml to 500ml.

• The top electrodes holder is 360-degree rotatable, made of PTFE, allowing precise alignment of electrodes with the channels (generally parallel to the membrane), and seal by screwing on the PTFE outer cover.

• Electrode area seals via O-rings and screws.

• The electrolyte cell is equipped with a bubbler that can aerate below the liquid surface, creating different atmospheres for various experiments.

Volume (ml)		Volume (ml)
50mL		200mL
100mL		250mL
150mL		500mL

All sizes listed are common sizes, can be customized according to requirements.

Photoelectrochemical Cell Series

Single-Cell Full PTFE Photoelectrochemical Cell (Absolutely Sealed, Bracket Type) Model: C026-4

• The electrolytic cell is a photoelectrochemical cell.

• The optical window of the electrolyte cell is made of quartz, with a transmittance >95%. The cell's quartz plate is removable for quick replacement.

• The working electrode of the electrolytic cell can use non-standard samples, but it needs to cover the positioning hole.

• The cell is screwed into the back screw to withstand the working sample, and the working electrode is used to press the positioning hole to achieve the sealing of the cell body.

• The standard area of the cell is 1cm^2, and it can also be customized according to requirements. The counter electrode and reference electrode of the electrolytic cell must be customized to match the cell. The electrode part of the cell is plugged in and out through the earphone jack on the cover, so that the electrode system is absolutely sealed.

• The compatible electrodes of the electrolytic cell need to be purchased separately.

•This cell is often used in a 3-electrode system, with a customizable volume of 30ml to 500ml.

• The top electrodes holder is 360-degree rotatable, made of PTFE, allowing precise alignment of electrodes with the channels (generally parallel to the membrane).

• The cell is equipped with a bubbler that can aerate below the liquid surface, creating different atmospheres for various experiments.

Volume (ml)		Volume (ml)
50mL		200mL
100mL		250mL
150mL		500mL

All sizes listed are common sizes, can be customized according to requirements.

Photoelectrochemical Cell Series

Full PTFE H-Type Replaceable Membrane Photoelectrochemical Cell (Relatively Sealed)
Model: C027-1

• Electrodes need to be the longer type based on dimension of the cell.

• The body of the cell is made of PTFE.

•This cell is often used in a 3-electrode system, with a customizable volume of 30ml to 500ml.

• The cathode chamber and anode chamber of the electrolytic cell are separated by an ion membrane (prepared by the user), and the two chambers are sealed and connected by nails, which is convenient for replacing the diaphragm. The reference electrode and the working electrode are in the same chamber, effectively reducing the resistivity (R drop).

• The top electrodes holder is 360-degree rotatable, made of PTFE, allowing precise alignment of electrodes with the channels (generally parallel to the membrane), and seal by screwing on the PTFE outer cover.

• Electrode area seals via O-rings and screws.

• The electrolyte cell is equipped with a bubbler that can aerate below the liquid surface, creating different atmospheres for various experiments.

• The compatible electrodes of the electrolytic cell need to be purchased separately.

Volume (ml)	Volume (ml)
30mL	150mL
40mL	200mL
50mL	250mL
100mL	500mL

Photoelectrochemical Cell Series

Full PTFE H-Type Replaceable Membrane Photoelectrochemical Cell (Absolutely Sealed) Model: C027-2

• The sealed cell is equipped with valves and gas connectors, inlet direction is through the aeration device valve.

• The electrolytic cell is an absolutely sealed system, which can be vacuumed through the valve (below -100Kpa), and the electrolytic cell can be slightly pressurized. For safety reasons, the pressure should not be greater than 0.5MPa.

• The working electrode, auxiliary electrode and reference electrode of the electrolytic cell must be customized to match the electrolytic cell. The compatible electrodes of the electrolytic cell need to be purchased separately.

• The electrode part of the electrolytic cell is plugged in and out through the earphone jack on the cover, so that the electrode system is absolutely sealed.

•This cell is often used in a 3-electrode system, with a customizable volume of 30ml to 500ml.

• The cathode chamber and the anode chamber of the electrolytic cell are separated by an ion membrane (prepared by the user), and the two chambers are sealed and connected by nails, which is convenient for replacing the diaphragm.

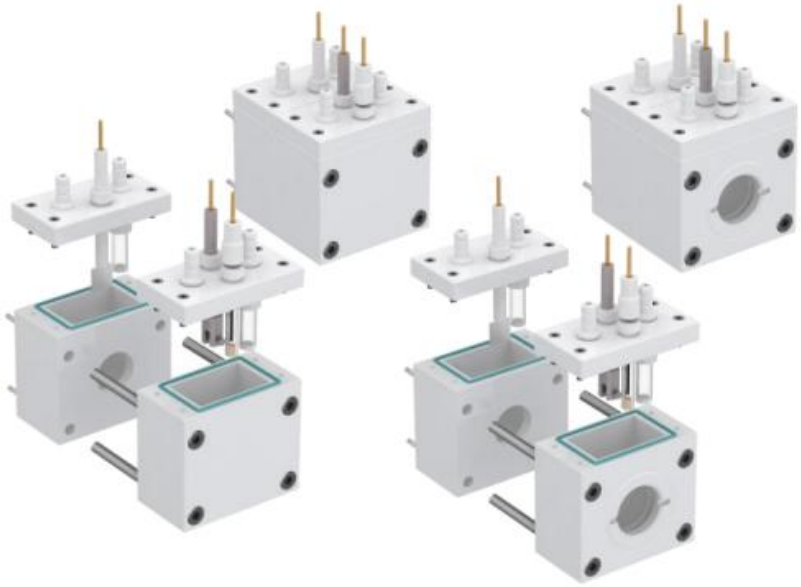
• The electrolyte cell is equipped with a bubbler that can aerate below the liquid surface, creating different atmospheres for various experiments.

• The quartz plate of the electrolytic cell can be quickly disassembled and replaced.

Volume (ml)	Volume (ml)
30mL	150mL
40mL	200mL
50mL	250mL
100mL	500mL

Photoelectrochemical Cell Series

Full PTFE H-Type Replaceable Membrane Photoelectrochemical Cell Model: C032-1



•Electrodes need to be the longer type based on dimension of the cell.

• The body of the cell is made of PTFE.

•This cell is often used in a 3-electrode system, with a customizable volume of 25ml to 40ml.

• The electrolytic cell is a relatively sealed system. The cathode chamber (working electrode) and the anode chamber (comparison electrode) are separated by an ion membrane (prepared by the user). The two chambers are sealed and connected by nails, which is convenient for replacing the diaphragm. The working electrode is in the same room, effectively reducing the resistivity (R drop).

•The sealing part of the cell body of the electrolytic cell is in the form of a pressure plate, so that the cover and the cell body can be sealed.

• Electrode area seals via O-rings and screws.

• The electrolyte cell is equipped with a bubbler that can aerate below the liquid surface, creating different atmospheres for various experiments.

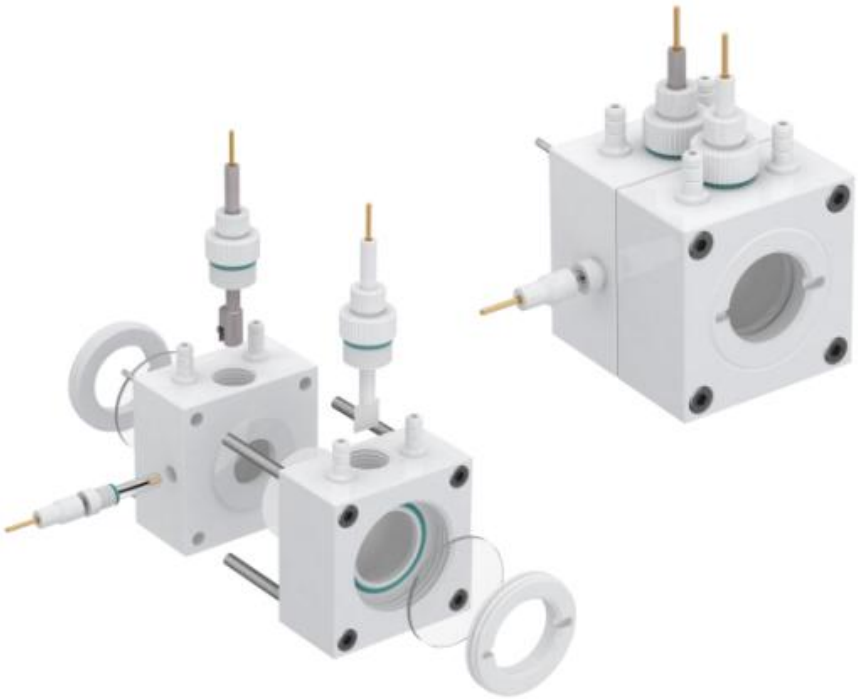
• The electrolytic cell can also increase the optical window.

• The compatible electrodes of the electrolytic cell need to be purchased separately.

Volume (ml)
25mL
40mL
25mL (with optical window)
40mL (with optical window)

Photoelectrochemical Cell Series

Full PTFE H-Type Replaceable Membrane Photoelectrochemical Cell Model: C032-2



• Electrodes need to be the longer type based on dimension of the cell.

• The body of the cell is made of PTFE.

•This cell is often used in a 3-electrode system, with a customizable volume of 30ml to 40ml.

• The electrolytic cell is a relatively sealed system. The cathode chamber (working electrode) and the anode chamber (comparison electrode) are separated by an ion membrane (prepared by the user). The two chambers are sealed and connected by nails, which is convenient for replacing the diaphragm. The working electrode is in the same room, effectively reducing the resistivity (R drop).

• The cell body of the cell is designed with internal thread. Electrode area seals via O-rings and screws.

• The electrolytic cell is equipped with a device that can ventilate under the liquid surface, and the atmosphere can be adjusted according to different experiments.

• The quartz plate of the electrolytic cell can be quickly disassembled and replaced.

• The diameter of the optical window is 37mm.

• The compatible electrodes of the electrolytic cell need to be purchased separately.

Volume (ml)
25mL
40mL

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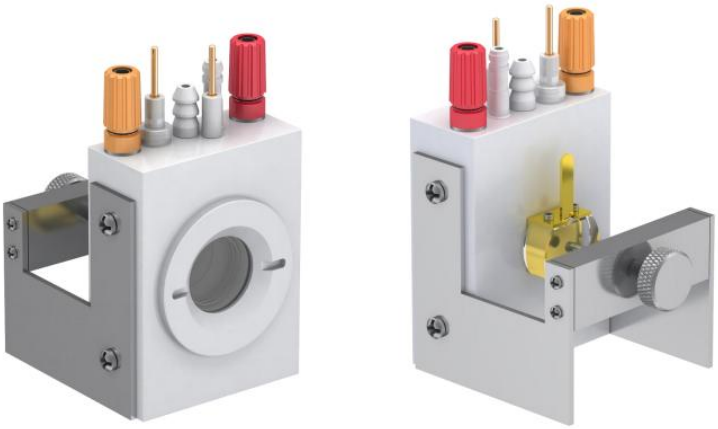
Photoelectrochemical Cell Series

Small Volume Side Window Electrochemical Cell (Bracket Type) Model: K1300



- The electrolytic cell is a photoelectrochemical cell. The cell is made of PTFE.
- The optical window of the electrolyte cell is made of quartz, with a transmittance >95%.
- The working electrode of the electrolytic cell can use non-standard samples, but it needs to cover the positioning hole.
- The electrolytic cell has a fixed area of 1cm^2, and can also be customized.
- The cell reference electrode is Ag/AgCl electrode.
- The counter electrode of the electrolytic cell is a platinum wire electrode.
- The electrolytic cell supports the working sample by screwing in the back screw, and uses the working electrode to press the positioning hole to achieve the sealing of the cell body.
- The cell has a nominal area of 1cm^2.
- The left and right colored interfaces of the electrolytic cell are convenient for connection with the reference electrode and counter electrode of the electrochemical workstation.
- The compatible electrodes of the electrolytic cell need to be purchased separately.

Volume (ml)
5mL
10mL

Photoelectrochemical Cell Series

Full PTFE Plate/Sheet Electrolytic Cell Model: C030

•The cell is made of PTFE. The cell is divided into upper and lower layers, the upper layer is the cell body, and the lower layer is the fixed backing plate.

•The cell compresses the working electrode sample by tightening the screws around it.

•The cell uses a sheet-shaped working electrode, and the sample is easy to install, easy to disassemble, and easy to handle.

•The cell can be used for electrochemical experiments before electron microscope scanning, or for coating corrosion performance testing during corrosion testing.

•The bottom of the electrolytic cell has a circular hole with a fixed area of 1cm2 (the required size can be customized according to requirements), and an O-ring that can be sealed. After placing the sample in the round hole, adjust and tighten the screw on the top of the cell body so that it can compress the sample to achieve a sealing effect.

• The conductive link of the working electrode of the electrolytic cell is made of copper tape, which is glued to the sample to make the sample conductive. Copper tape is easy to use, easy to replace after corrosion, and can better ensure electrical conductivity (sold separately).

•Reference Electrode: Ag/AgCl, Saturated Calomel (sold separately).

•Counter Electrode: platinum column, platinum sheet (sold separately).

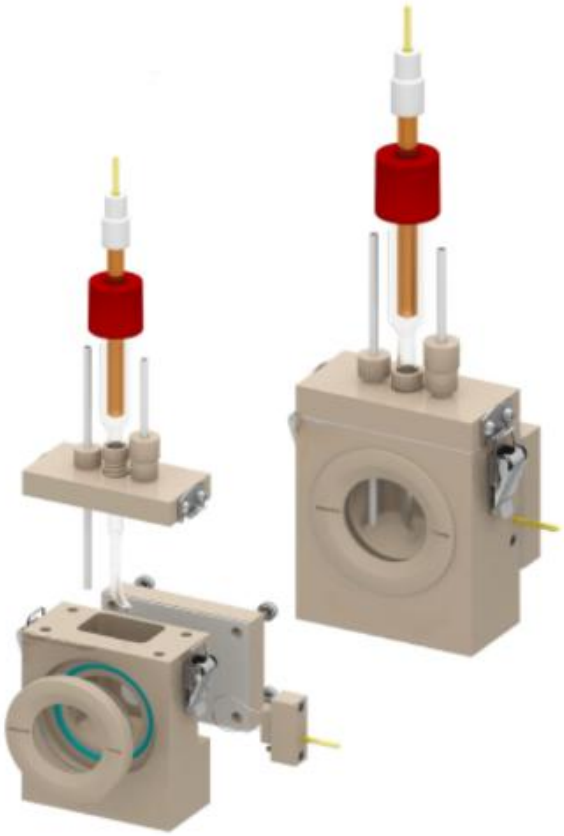
• Working Electrode: sample to be tested (need to be prepared).

Volume (ml)
5mL
25mL
40mL

Photoelectrochemical Cell Series

Full PEEK Compact Photoelectrochemical Cell Model: K1300 – New 2025 Edition

• This cell is a photoelectrochemical cell.
• The cell window is made of high-transparency quartz glass with a light transmittance exceeding 95%.
• The working electrode can accommodate non-standard samples. A fixed-area cavity of 1 cm² is
• provided by default, with optional customization available.
• The reference electrode is a light-shielded silver/silver chloride (Ag/AgCl) electrode.
• The cell includes a reference electrode salt bridge, with the distance between the salt bridge tip and the working electrode being less than 2 mm.
• The counter electrode is a platinum wire electrode featuring a newly designed side-mounted detachable structure, ensuring a tight and reliable seal around the working electrode.
• The working electrode sample is fixed securely via a rear clamping plate.
The main body of the cell is constructed from PEEK material, offering excellent mechanical strength and corrosion resistance.



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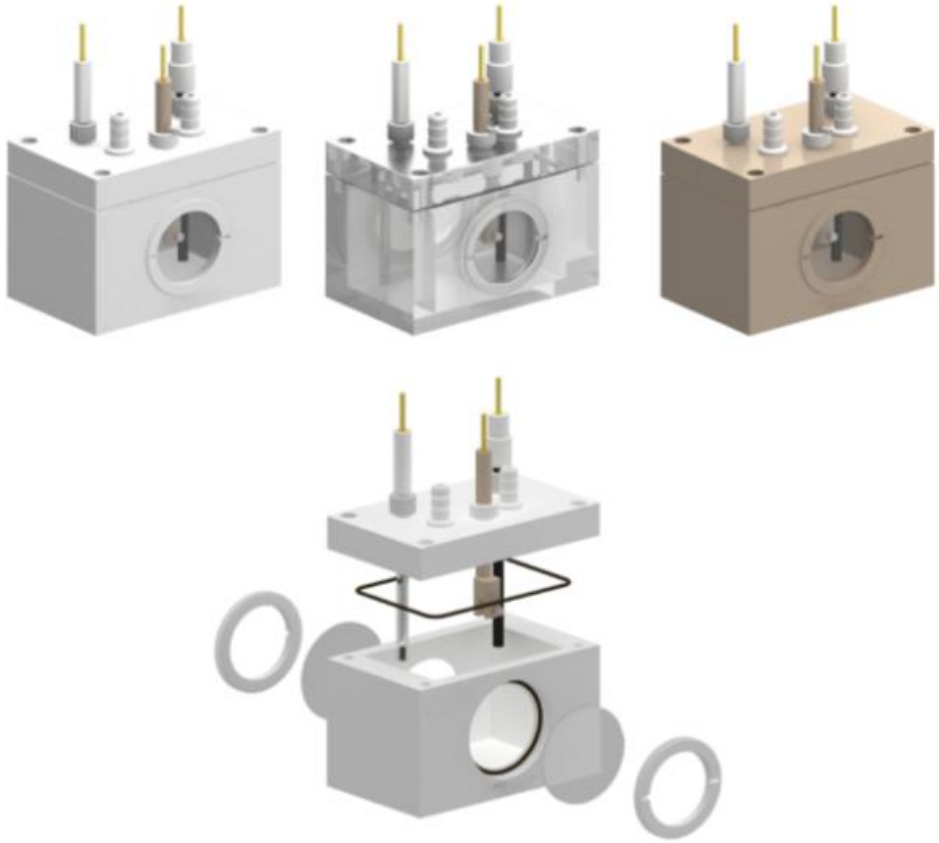
Photoelectrochemical Cell Series

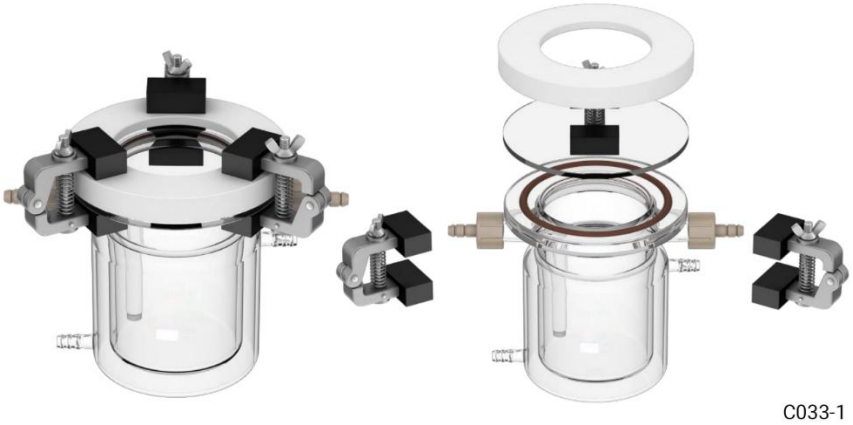
Full PTFE /PMMA/ PEEK Electrolytic Cell (Customization)



• This cell is a photoelectrochemical cell.
• It features three electrode ports and an auxiliary inlet, designed as a fully sealed electrochemical cell.
• The cell includes gas inlet/outlet channels for purging and deoxygenation.
• **Applications:** Ideal for photoelectrochemical spectroscopy and photocatalytic electrochemical experiments.
• **Main Body Materials:** PTFE (Polytetrafluoroethylene), PEEK, Acrylic (Organic Glass & PMMA).
• **Window Material:** Quartz glass.
• **Sealing Material:** Fluororubber (FKM).

Pure Photocatalytic Cell Series

Model: C033-1 (Without Electrodes)



• Top-illuminated pure photocatalytic reaction chamber.

• Imported quartz light window with a light transmittance of 95% or above.

• The chamber is equipped with a gas inlet tube to disperse incoming gas, enhancing aeration efficiency.

• The jacketed layer incorporating a constant temperature water bath function. The constant temperature is achieved by continuously circulating temperature-controlled water in the jacket layer of the photocatalytic cell.

• Simple structure for easy operation with clamps.

Model: C033-2 (Without Electrodes)

Model	Specifications
C033-1	50mL/100mL
C033-2	50mL/100mL

Electrode Frame Series

Simple Electrode Frame Model: E1000

Equipped with a small electrolytic cell (choose one of 7ml, 15ml, 25ml, 50ml)
The compatible electrodes of the electrolytic cell need to be purchased separately.

Model	Specifications
E1006	3 of Φ6.5, 2 of Φ2
E1008	1 of Φ8.5, 2 of Φ6.5, 2 of Φ2
E1010	1 of Φ10.5, 2 of Φ6.5, 2 of Φ2
E1012	1 of Φ12.5, 2 of Φ6.5, 2 of Φ2
E1016	1 of Φ16.5, 2 of Φ6.5, 2 of Φ2

Accessories

Name	Specifications
Chain	No.1
Chain	No.2
Chain	No.3
Quartz optical window	007-32
Inlet and outlet air pagoda joint	007-31
Aerator heads	007-30
F-type intake pipe	Joint 14#
F-type intake pipe	Joint 19#
Liquid seal tube	Joint 14#
Liquid seal tube	Joint 19#
Sealing screw	M10
Sealing screw	M14
Luggin Capillary	Φ10mm
Sand core salt bridge	140mm
Sand core salt bridge	170mm
Sand core salt bridge	Elbow*Φ10mm

Pressure Cells

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High-pressure Electrochemical Cell Series

Single chamber high-pressure electrochemical cell Model: P001-1

- Material: Ti construction.
- Max Pressure Resistance: 6Mpa.
- Volumes: Available in 50ml and 100ml, customizable as per needs.
- Valve Material: Stainless Steel 304.
- Reference Electrode: AgCl electrode
- Counter Electrode: Pt plate electrode
- Working Electrode: Electrode clamp

Single chamber high-pressure electrochemical cell Model: P001-2

- Modification: Added optical window to P001-1 model.
- Max Pressure Resistance: 6Mpa.
- Volumes: Available in 50ml and 100ml, customizable as per needs.
- Photoelectrochemical Cell: Features a quartz glass optical window with >95% transmittance.
- Material: Ti construction.
- Valve Material: Stainless Steel 304.
- Reference Electrode: AgCl electrode (sold separately).
- Counter Electrode: Pt plate electrode (sold separately).
- Working Electrode: Electrode clamp (sold separately).

High-pressure Electrochemical Cell Series

Small volume single chamber high-pressure electrochemical cell Model: P001-10

- Material: Constructed from high purity Ti.
- Max Pressure Resistance: 6Mpa.
- Volumes: Available in 10ml, customizable based on requirements.
- Valve Material: Stainless Steel 304.
- Reference Electrode: AgCl electrode
- Counter Electrode: Pt plate electrode
- Working Electrode: Electrode clamp

Model	Specifications
P001-1	50&100ml
P001-2	50&100ml, with optical window
P001-10	10ml

All sizes are standard sizes and can be custom-made according to specific requirements.

High-pressure Electrochemical Cell Series

Dual chamber high-pressure cell (with Internal replaceable film) Model: P002-1

- Material: Constructed from Ti.
- Max Pressure Resistance: 6Mpa.
- Volumes: Available in 20+20ml, with individual volumes of 20ml; customizable based on requirements.
- Valve Material: Stainless Steel 304.
- Electrode System: Three-electrode system.
- Electrode Configuration: Reference and working electrodes share a chamber, while the counter electrode is in a separate chamber.
- Reference Electrode: AgCl electrode
- Counter Electrode: Pt plate electrode
- Working Electrode: Electrode clamp

P002-1

Dual chamber high-pressure cell (with Internal replaceable film) Model: P002-2

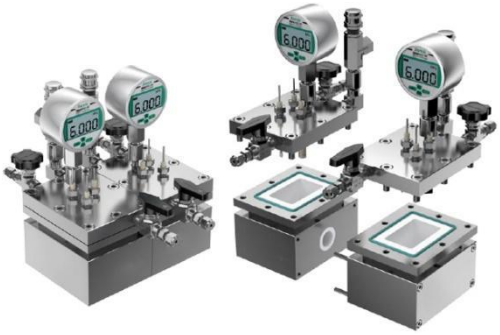
- The cell has been modified by adding an optical window on the basis of P002-1.
- The cell is made of high purity Ti.
- The maximum pressure resistance is 6Mpa.
- Available in volumes of 20+20ml.
- The cell with an optical window made of quartz glass, with a transmittance >95%.
- The valve is made of stainless steel 304.
- The individual volume is 20ml, and it can also be customized according to requirements.
- The reference electrode is a AgCl electrode.
- The counter electrode is a Pt plate electrode.
- The working electrode is the electrode clamp.

Model	Specifications
P002-1	20+20mL
P002-2	20+20ml, with optical window

High-pressure Electrochemical Cell Series

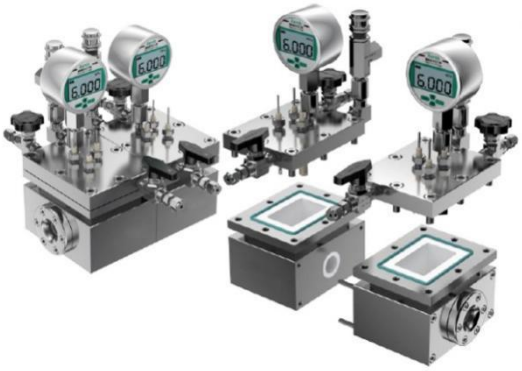
Dual chamber high-pressure cell (with externally exchange membrane) Model: P003-1

• The cell is made of high purity titanium.
• The maximum pressure resistance is 6Mpa.
• Available in volumes of 50+50ml, 100+100mL.
• The valve is made of stainless steel 304.
• The individual volume is 20ml, and it can also be customized according to requirements.
• Three-electrode system.
• The reference electrode is a pressure-resistant Ag/AgCl electrode.
• The counter electrode is a pressure-resistant platinum plate electrode.
• The working electrode is the electrode clamp.


P003-1

Dual chamber high-pressure cell (with externally exchange membrane) Model: P003-2

- Modification: Added optical window based on P003-1 model.
- Material: Constructed from high purity Ti.
- Max Pressure Resistance: 6Mpa.
- Volumes: Available in 50+50ml and 100+100ml.
- Optical Window: Quartz glass with >95% transmittance.
- Valve Material: Stainless Steel 304.
- Individual Volume: 20ml, customizable based on requirements.
- Electrode Configuration: Three-electrode system.
- Electrode Setup: Reference and working electrodes share a chamber, while the counter electrode is in a separate chamber.
- Reference Electrode: pressure resistant AgCl electrode.
- Counter Electrode: pressure-resistant Pt plate electrode.
- Working Electrode: Electrode clamp.


P003-2

Model	Specifications
P003-1	50+50mL
P003-1	100+100mL
P003-2	50+50mL
P003-2	100+100mL

All sizes are standard sizes and can be custom-made according to specific requirements.

High-pressure Electrochemical Cell Series

High-pressure flow test cell for gas diffusion Model: PFC-1\PFC-2

PFC-1 PFC-2

Performance indicators

- Flow rate setting range: 0.01~50.00mL/min, with a setting increment of 0.01mL/min.
- Flow accuracy: ±1.0% (10.00mL/min, 8.5MPa, water, room temperature).
- Flow stability: RSD≤0.3% (10.00mL/min, 8.5MPa, water, room temperature).
- Maximum working pressure: 30MPa (0.10~20.00mL/min), 20MPa (20.01~50.00mL/min).
- Pressure Accuracy: Display pressure error within ±3% or 0.5MPa.
- Pressure pulsation: ≤0.4MPa (flow rate 10.00mL/min, pressure 8.5±1.5MPa).
- Pump sealing: Pressure 30MPa, time 10min, pressure drop not exceeding 1.5MPa.
- Communication method: 485 interface communication.

Flow Cell indicators

- The cell is made of Ti.
- The volume of the cell is 1ml.
- The dimension of the cell is 50mm × 50mm.
- The internal channel is 10×10×10mm.

Physical specifications

- Weight: 12kg.
- Power supply: AC 220V (±10%), 50Hz.
- Power consumption: 200W.
- Dimensions: 420mm×300mm×175mm (L x W x H).

Model	Specifications	Remark
PFC-1	10*10	The anode and cathode share a common channel
PFC-2	10*10	The anode and cathode have separate channels

All sizes are standard sizes and can be custom-made according to specific requirements.

High-pressure Electrochemical Cell Series

Photocatalytic high-pressure electrochemical cell Model: P004

This electrochemical cell features a construction incorporating high-purity titanium for the cell body and high-borosilicate glass as the inner cell material. The utilization of a quartz optical window enhances its suitability for photochemical reactions. Furthermore, the cell chamber can be operated under vacuum conditions.

Cell Material: High-purity titanium
Optical Window Material: Quartz glass (Transparency >95%)
Inner Cell Material: High-borosilicate glass
Vacuum Capability: The electrolytic cell is vacuum-compatible.

Model	Specifications
P004-1	Single-layer capacity is 50m
P004-1	Double-layer capacity is 50ml

All sizes are standard sizes and can be custom-made according to specific requirements.

Specialized Function Cell Series

Membrane conductivity test cell Model: C034-1

Material: PEEK case, platinum foil conductive component

Purpose: Designed for conducting experiments to measure the ion-exchange membrane conductivity (or other solid membranes).

Usage Instructions: This electrochemical cell utilizes a two-electrode methodology. To ensure effective clamping, the four corners should be securely fastened by screwing, as depicted in the accompanying diagram.

Membrane conductivity test cell Model: C034-2

Material: PEEK case, platinum foil conductive component

Purpose: Designed for conducting experiments to measure the ion-exchange membrane conductivity (or other solid membranes).

Usage Instructions: This electrochemical cell utilizes a two-electrode or four-electrode methodology. To ensure effective clamping, the four corners should be securely fastened by screwing, as depicted in the accompanying diagram.

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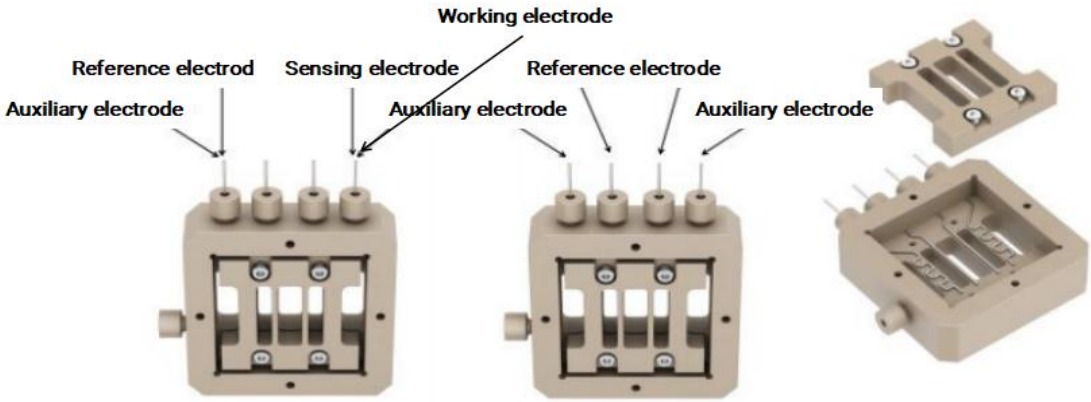

Model	Specifications
C034-1	Two-electrode
C034-2	Four-electrode

All sizes are standard sizes and can be custom-made according to specific requirements.

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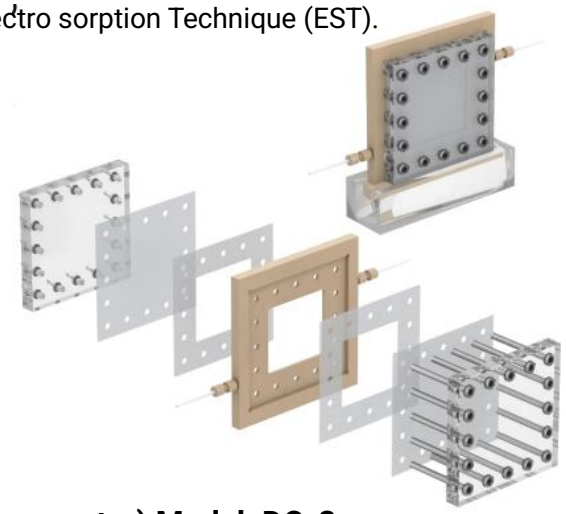
Specialized Function Cell Series

Capacitive deionization device (desalination of seawater) Model: DQ-1

Capacitive Deionization (CDI) is a water desalination and purification technology based on the theory of double-layer capacitance. The fundamental principle involves the application of low voltage to the electrodes. Following this, cations, anions, or charged particles in the solution migrate towards the respective poles under the influence of the electric field and concentration gradient. They adsorb onto the electrode surfaces, forming a double layer, thereby achieving the desalination or purification objective. This technology is also referred to as the Electro sorption Technique (EST).

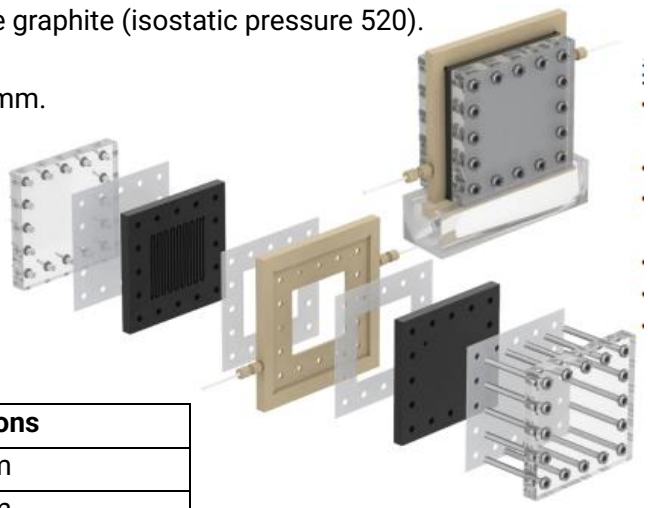
Device Specifications:
Protective panels: PMMA
Device material: PEEK
Dimensions: 140 x 140 x10mm
Anode-cathode distance: <3mm



Capacitive deionization device (desalination of seawater) Model: DQ-2

Improved upon the DQ-1 by incorporating a current collector plate to effectively achieve desalination or purification.

Device Specifications:
Protective panels on both sides: PMMA.
Device material: PEEK
Current collector plate material: Imported ultra-pure graphite (isostatic pressure 520).
Current collector plate design: Serpentine channel.
Current collector plate dimensions: 115 x 120 x 10mm.
Device channel dimensions: 50 x 50 x 2mm.

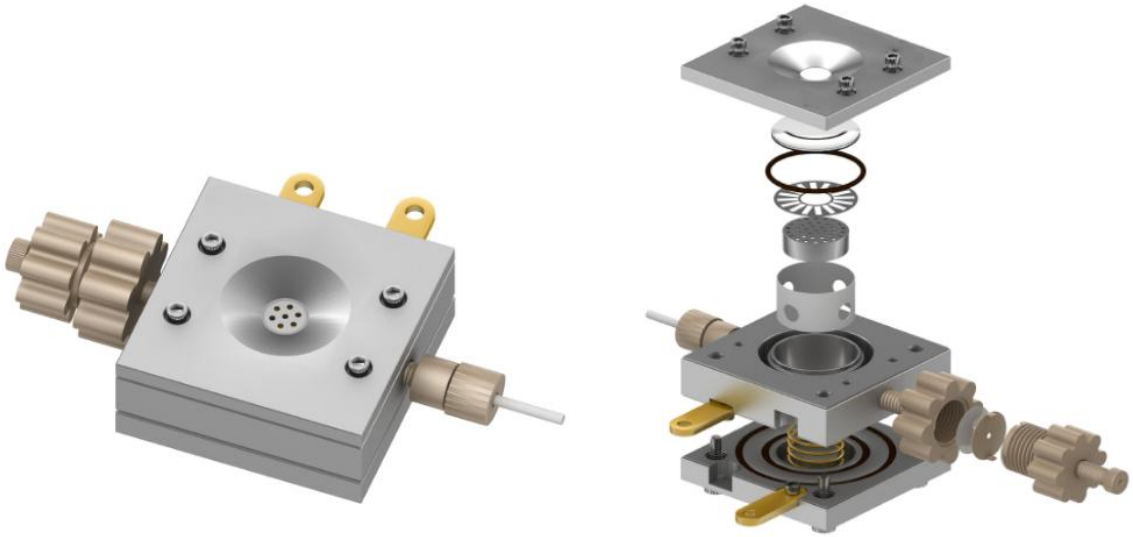


Model	Specifications
DQ-1	50*50mm
DQ-2	50*50mm

All sizes are standard sizes and can be custom-made according to specific requirements.

Specialized Function Cell Series

In-situ Raman and Mass-Spectroscopy Electrochemical Coupled Cell



Description

This integrated in-situ Raman and mass spectroscopy electrochemical cell is designed for synchronized electrochemical and spectroscopic measurements, enabling simultaneous structural and electrochemical characterization under controlled conditions. It provides a reliable and high-precision platform for studying reaction mechanisms and material behaviour in real time.

Product Features

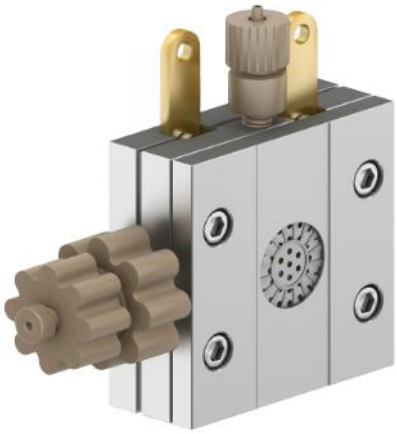
- **Optimized optical design:** Working electrode-to-window distance < 2 mm, with an 8 mm optical window diameter for enhanced Raman signal collection and spatial resolution.
- **High-purity titanium body:** Excellent corrosion resistance and structural integrity for diverse electrochemical environments.
- **Spectroscopy expansion capability:** Retains in-situ Raman testing while supporting mass spectrometry or gas analysis through independent sampling ports.
- **Superior sealing and compatibility:** Features chemically resistant O-ring and screw compression design for secure sealing and stability.
- **Compact and modular design:** Glovebox-compatible and easily assembled, ensuring convenient operation and flexibility.
- **Adjustable spring-loaded system:** Accommodates multiple sample types with self-adjusting contact pressure for optimal testing accuracy.

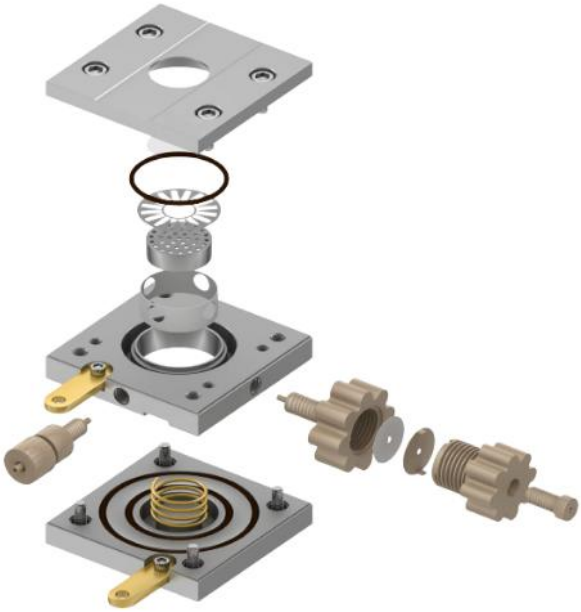
Specifications

- Optical window diameter: 8 mm
- Electrode-to-window distance: < 2 mm
- Body material: High-purity titanium
- Compatible techniques: In-situ Raman, electrochemical analysis, mass spectrometry, gas detection
- Sealing type: Corrosion-resistant O-ring compression design
- Special features: Adjustable spring loading, glovebox compatibility, modular structure

Specialized Function Cell Series

In-situ XRD Dual-Electrode Mass Spectrometry Cell





Description

The in-situ XRD Dual-Electrode Mass Spectrometry Cell is an upgraded version based on the B002-XRD model, featuring an additional sampling port for mass spectrometric analysis. Designed with high-purity titanium, this cell allows simultaneous electrochemical and structural characterization, enabling real-time observation of reaction mechanisms under varying load and cycling conditions.

Product Features

- Constructed from **high-purity titanium** for superior corrosion resistance and mechanical strength.
- Equipped with **dual electrodes (anode and cathode)**, separated by a user-replaceable membrane.
- Supports **adjustable mechanical loading** through spring compression to study strain-related electrochemical behaviour.
- Compatible with **charging/discharging and performance testing systems**, suitable for a wide range of battery cycling and characterization experiments.
- Gas-tight sealing ensured by **chemical-resistant O-rings** and precision screw fittings.
- Can be used both **inside or outside a glovebox**, offering flexibility for different environments.
- Enables **non-destructive sample removal** after electrochemical tests, ensuring sample integrity.
- **Quick-assembly modular design** allows easy cleaning and maintenance.

Specifications

- Electrode-to-XRD window distance: < 2 mm
- Optical window diameter: 8 mm
- Flow channel diameter: 8 mm
- Cell dimensions: 50 × 50 × 24 mm
- Material: High-purity titanium
- Suitable for: In-situ XRD, mass spectrometry, and electrochemical coupling studies

Specialized Function Cell Series

Electrochemical-luminescent cell

Description

This specialized electrolytic cell is designed for electrochemiluminescence (ECL) research. The cell body is made from durable, chemically resistant **PEEK material**, providing excellent stability under optical and electrochemical conditions. The base of the cell is equipped with a transparent illumination window, enabling light excitation from below. The working electrode uses **transparent ITO/FTO glass**, allowing optical access to the reaction interface, with an effective electrode area of **1 cm²**.

Product Features

- **Reference electrode:** Silver/silver chloride (Ag/AgCl).
- **Counter electrode:** Platinum wire electrode.
- **Cell body diameter:** 40 mm.
- **Base step diameter:** 29 mm × 1 mm.
- **Height between working, reference, and counter electrodes:** ≤ 55 mm.
- **Optical configuration:** Bottom illumination design for enhanced light collection efficiency.

Equipment Series

Dual-Position Magnetic Stirrer Model: GU-2

The Dual-Position Magnetic Stirrer is a newly designed instrument specifically developed to complement H-type electrolytic cells. Drawing on the working principles of conventional stirrers, this product features two stirring positions that enable simultaneous stirring of both chambers of an H-type electrolytic cell. Furthermore, to accommodate electrolytic cells of different sizes, the two internal rotating magnetic fields adopt a floating structure, allowing the center-to-center distance between the two magnetic fields to be freely adjusted within a certain range, greatly improving convenience and efficiency in electrochemical experiments. Note: This equipment does not include stirring cells.

Specifications

Speed Range: 200~1600 rpm
Adjustable Magnetic Field Spacing: 60~100 mm
Rated Voltage: AC 12 V
Rated Power: ≤ 20 W
Dimensions: 240*185*85 mm

Membrane Electrode Heating Temperature Controller Model: EC200-02/EC200-302

This is a compact heating and temperature measurement instrument designed for membrane electrode applications. The instrument is small and portable, with timing capability. Temperature control utilizes fuzzy PID control for rapid heating response and accurate temperature regulation, with enhanced temperature setting and adjustment. Industry-leading manufacturing processes and design schemes ensure high reliability and strong anti-interference performance. Compared with traditional PID control, fuzzy PID control offers smaller temperature overshoot, faster stabilization time, and improved temperature control accuracy. The auto-tuning function enables more precise heating and temperature control.

Specifications

Dimensions: L144*W198*H126 mm
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: 100~240 VAC
Operating Environment: Temperature -10~60 °C; Humidity 0~90% RH
Temperature Control Range: RT + 10~300 ° C

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Equipment Series

In-Situ Differential Electrochemical Mass Spectrometer Model: PM-DEMS

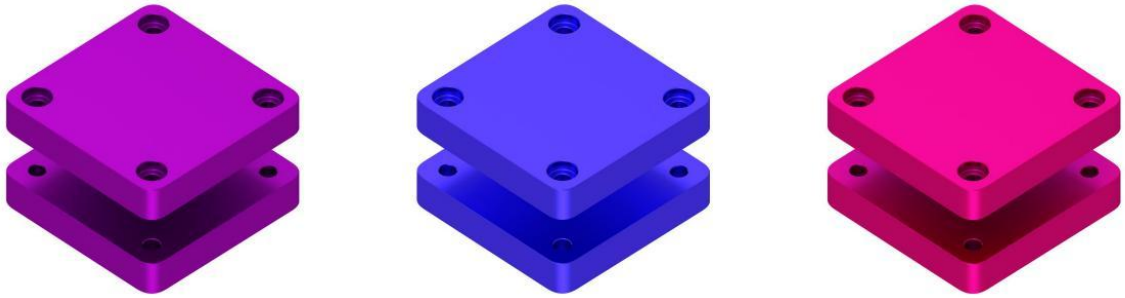
The next-generation multi-functional in-situ differential electrochemical mass spectrometer (PM-DEMS) is designed for real-time qualitative and quantitative analysis of gaseous products, volatile intermediates, and final products generated during electrochemical reactions.

The in-situ differential electrochemical mass spectrometer is a modern electrochemical in-situ testing technique developed by combining electrochemistry with mass spectrometry. By utilizing a hydrophobic gas-permeable membrane as the interface between the electrochemical reaction and the mass spectrometer, along with the advantages of an excellent vacuum system that reduces response time, it enables detection immediately after electrochemical reaction products are formed.

It can perform in-situ detection of volatile gaseous products, kinetic parameters, intermediates, and their structural properties during electrochemical reactions. When electrode reaction products are co-evolved, the in-situ differential electrochemical mass spectrometer technique can simultaneously determine the Faradaic current of each product as a function of electrode potential or time.

Equipment Series

Foam Metal Levelling Press



Description

The Foam Metal Levelling Press is designed to flatten and standardize foam metal electrodes prior to cell assembly. By improving surface uniformity and electrode contact, it enhances electrolyte wetting and contributes to more reliable electrochemical performance.

Product Features

The press accommodates foam metal electrodes with thicknesses of 0.3 mm, 0.5 mm, and 1.0 mm, each identified by a dedicated color code for quick selection. Its simple screw-tightening mechanism enables fast and reproducible sample preparation, while the compact design ensures uniform compression across the electrode surface.

Specifications

- Compatible thicknesses: 0.3 mm (Blue), 0.5 mm (Purple), 1.0 mm (Red)
- Maximum pressing area: 25 × 25 mm
- Compression method: Mechanical screw tightening
- Recommended operation: Diagonal screw-tightening sequence for uniform pressure distribution

Applications

- Foam metal electrode preparation
- Flow battery electrode conditioning
- Fuel cell electrode processing
- Electrochemical cell assembly and testing
- Research on porous electrode materials