

# H-Cell Kit

The H-Cell is designed for membrane and separator characterization in a liquid environment

Measure resistance, conductivity, permeability, cross-over, and selectivity. Ideal for redox flow battery electrolytes, liquid fuel cells and batteries, and electrochemical process chemistries.

## The H-Cell features

- Small volume, easy-to-use, robust design
- Non-reactive materials of construction
- Pt or Au CE/WE electrodes
- Selection of reference electrode types
- Adjustable Luggin probes
- Ports for purge gas & temperature sensor

## The Membrane H-Cell includes (x2)

- Glass half-cell
- PEEK cap
- Luggin tube with Teflon mount
- Inlet with frit and outlet tube
- One adjustable PET Cell Holder plus Clamp to hold the two cell halves together
- Two (2) Pseudo-disposable Ag/AgCl gel RE: Low Profile Silver/Silver Chloride Gel

## The Standard H-Cell includes (x2)

- Two (2) Pseudo-disposable Ag/AgCl gel RE: Low Profile Silver/Silver Chloride Gel
- Two (2) Pt wire coil CE/WE/Drive Electrodes
- Other RE and Drive Electrode types subject to availability

### OPTIONS

Pt Disk Electrode

Pt / Nb Mesh  
Cylinder Electrode

Pt Wire Coil  
Electrode

## SPECIFICATIONS: H-Cell

### Properties:

	1/2 cell volume ~30 mL
ID at cell face	= 3.0 cm, Area at cell face or exposed membrane = 7.07 cm <sup>2</sup>
Provisions for	Gas purge/vent and temperature probe
	Moveable Luggin Probe
Assembled Dimensions	<ul style="list-style-type: none"> <li>• Length = 24-35 cm depending on position of Luggin probes</li> <li>• Height = 10 cm (excluding cap and electrodes)</li> <li>• Width = 10 cm</li> </ul>

### Counter Electrode / Working Electrode (CE / WE) (A.K.A Drive Electrode) :

Options- 2 per cell required

Pt disk electrode	Pt disc OD = 0.16 cm, A ~ 0.02 cm <sup>2</sup>
Pt wire coil electrode	3.74 cm L x 0.05 cm OD, A ~ 0.69 cm <sup>2</sup>
Pt / Nb mesh cylinder electrode	A ~ 7.6 cm <sup>2</sup>

### Reference Electrode:

Options- 2 per cell required

Standard: Pseudo-disposable	Ag/AgCl gel RE: Low Profile Silver/Silver Chloride Gel
Other chemistries available upon request	