

H-cell

KEC14

H-cell (with membrane holder)

This H-cell is mainly designed for electrochemically characterizing membrane or any kind of separator in a liquid medium. The typical characterizations include measurement of selectivity, cross-over, resistance, and conductivity.



Product details

The design of Kanopy H-cell is simple, robust, and suitable for a wide variety of experiments. The construction includes non-reactive materials: borosilicate glass and polytetrafluoroethylene (PTFE). The two compartments, each having ~50 mL of volume, are held together by two PTFE circular rings with a small cut. A membrane or separator is fitted in an airtight manner in the middle of the two half cells with the help of PTFE circular rings. A pair of PTFE airtight lids cover the glass-cells and contain bores to accommodate the electrodes and other accessories like the gas-purging tubes, temperature sensor etc. The size and numbers of these bores are customizable.



Application note

This H-cells are ideal for a wide variety of electrochemical measurements such as redox-flow battery electrolytes, liquid fuel cells and battery, and electrochemical process chemistry.

- The potentiometric studies are conducted using two-electrode cell setups, where the counter/reference electrode leads, connected together, are placed in one compartment, and the working electrode should be placed in the other compartment.
- Experiments that require controlled voltage or current study (e.g., bulk electrolysis, electrochemical synthesis), three-electrode cell setups are generally used. Here, it is common to place the working and reference electrodes into the same compartment.
- The concentration of the electrolyte should be adequate in both the compartments.
- The height of the electrolyte solution inside the compartments should be high enough to immerse all the electrodes up to the required immersion length and also dip the membrane/separator completely to allow ion exchange.

Cleaning instruction

Cleaning this H-cell is easy because of its simple design. The electrolyte inside the cell should be cleaned thoroughly with repeated washing with a suitable solvent and DI water. After cleaning the H-cell, it should be dried and stored in a dry place.

Optional accessories

Nafion Membranes



KA07

Nafion™ 1110,
Nafion™ 115,
Nafion™ 117

Reference electrodes

Different kinds of Kanopy reference electrodes are available. One can choose any of these according to the reaction conditions such as acidic, basic, or neutral and operating temperature range.

KRE01 Silver-Silver Chloride (Ag/AgCl) electrode

KRE03 Mercury-Mercurous Chloride (Hg/Hg₂Cl₂, saturated KCl) or Saturated Calomel Electrode (SCE)

KRE04 Mercury-Mercuric oxide (Hg/HgO)

Platinum electrodes (working and auxiliary)

KWE01 Platinum wire electrode

KCE01 Platinum mesh electrode

KCE02 Platinum coil electrode

KWE03 Platinum foil electrode

Disc type electrodes (working)

KDE01, KDE02 Glassy carbon disc electrode

KDE03, KDE04 Gold disc electrode

KDE05, KDE06 Platinum disc electrode

Working electrode holder

KWEH01 Working electrode holder, screw type



KWEH02B Working electrode holder, clip type





KEC10A
Banana Cable Set



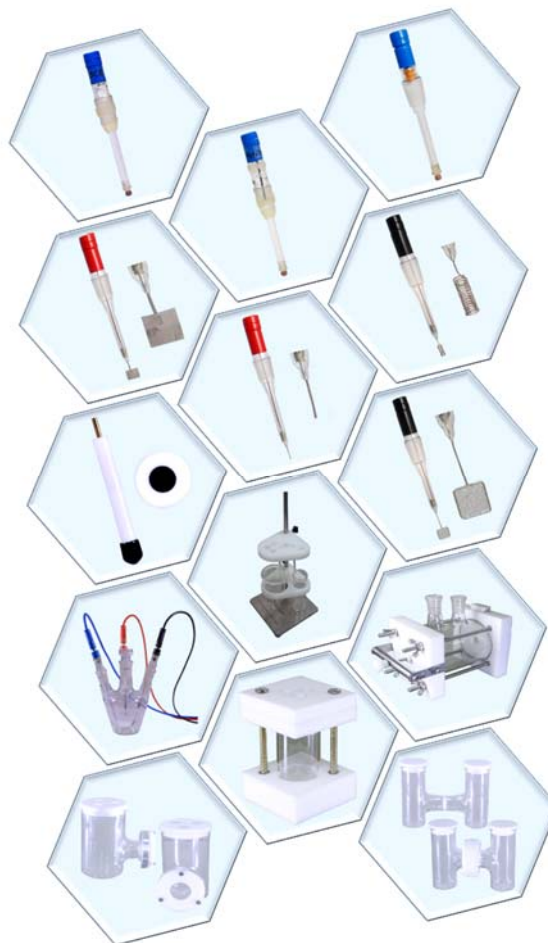
KEC10B
Banana Connector Pin



KA01 (Red), KA02 (Black)
Alligator Clip



KA28
Thermometer



Kanopy Techno Solutions

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Product Information Leaflet



H-cell with membrane holder
Product ID: KEC14

Contact us



www.kanopytech.com



contact@kanopytech.com



+91-8604355668, +91-8004567307

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