H-cell

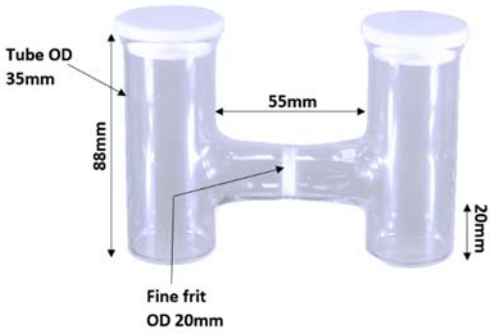
KEC13

H-cell (with Frit)

This H-cell is ideal for those experiments where it is necessary to isolate the working electrode from the counter electrode.

Product details

The design of the KLyte H-cell is simple, robust, and suitable for a wide variety of experiments. The two compartments, each having ~50 mL of volume, are separated by a porous glass frit (G4). This frit allows the ions to pass through but prevents the mixing of the two different solutions taken inside the two legs of the H-cell. The polytetrafluoroethylene (PTFE) airtight lids cover the glass-cells and contain bores to accommodate the electrodes, the gas-purging tubes, and a temperature sensor. The size and numbers of the bores are customizable.



PTFE lids

Application note

H-cells are used for a wide variety of electrochemical measurements.

- 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.
- For those experiments that require a known applied voltage or current (*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 frit completely to allow ion exchange.

Cleaning instruction

Cleaning this H-cell is quite easy because of its simple design, but one should be careful about the glass frit. The electrolyte inside the cell should be cleaned thoroughly with repeated washing with a suitable solvent and DI water. The glass frit should not be clogged or cracked. After cleaning the H-cell, it should be dried and stored in a dry place.

Optional accessories

Reference electrodes

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

KRE01 Silver-Silver Chloride (Ag/AgCl) electrode

KRE03 Mercury-Mercurious Chloride (Hg/Hg_2Cl_2, 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

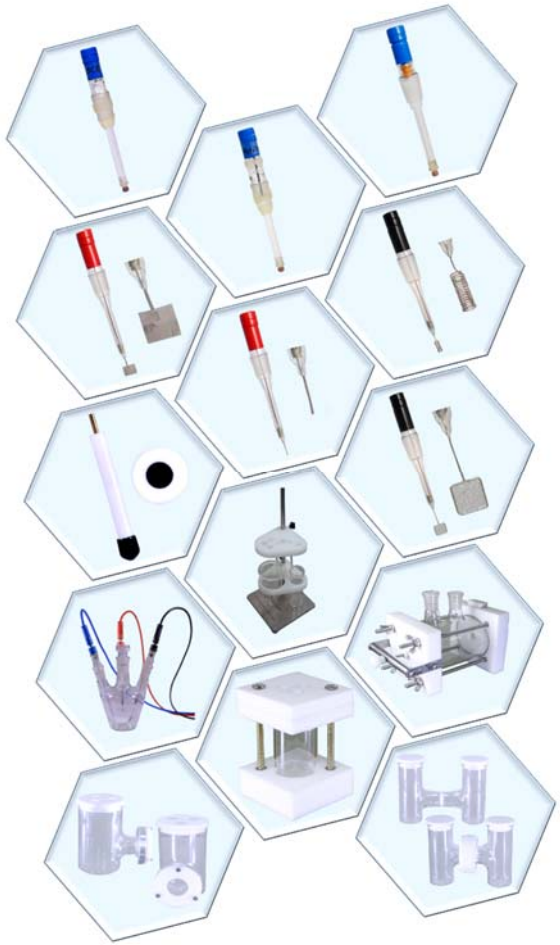
KWEH02B Working electrode holder, clip type

KEC10A
Banana Cable Set

KEC10B
Banana Connector Pin

KA01 (Red),**KA02** (Black)
Alligator Clip

KA28
Thermometer



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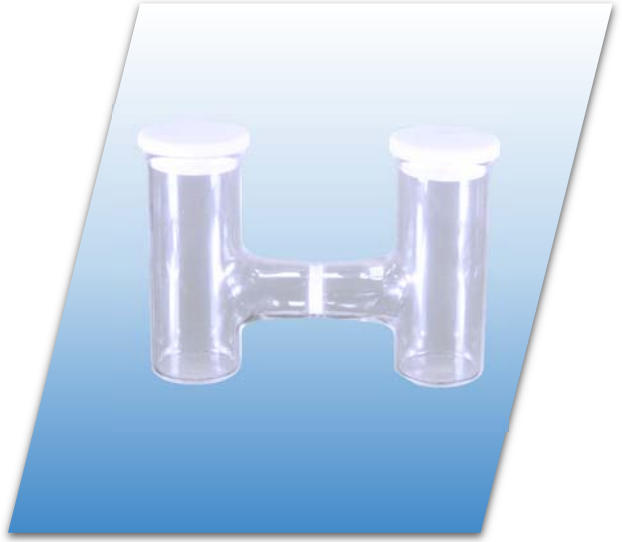
Product Information Leaflet



H-cell with membrane holder
Product ID: KEC13

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