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Product Name :

Daniell Cell

Product Code :

SLE/CH/98



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Description :

Daniell Cell (Product Code: SLE/CH/98) is a classic zinc–copper electrochemical cell forstudying how a redox reaction between two metals and their salt solutions produces a voltage. Itconsists of a cylindrical zinc electrode and a copper electrode, a clay vessel and a battery glass;filled with electrolyte it supplies approx. 1.1 volts, and 4 mm jacks make connection to a meter straightforward. Chemistry and physics teachers in schools and colleges use it to introduce galvanic cells, electrode potentials and the origin of battery voltage. It is made by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, Ambala, as an electrochemical cell kit for school and college labs.

Specifications

Parameter	Detail
Purpose	Studying the properties of an electrochemical cell
Electrodes	Cylindrical zinc electrode and copper electrode
Vessels	Clay vessel and battery glass
Output voltage	Approx. 1.1 V when filled with cell electrolyte
Connections	Via 4 mm jacks
Dimensions	105 mm in height, 65 mm diameter
Suitable filling	Copper sulphate solution ($CuSO_4$), 10% concentration; zinc sulphate solution ($ZnSO_4$), 10% concentration
Supplied	Without filling (electrolytes not included)

Typical Use

Prepare 10% copper sulphate and 10% zinc sulphate solutions, place each electrode in the solution of its own metal with the clay vessel keeping the two liquids apart, and connect a voltmeter to the 4 mm jacks. Students should read close to 1.1 V, and can then discuss which electrode is oxidised, which way electrons flow through the external circuit, and why the clay vessel must let ions pass while stopping the solutions from mixing freely.

After the lesson, pour out both electrolytes, rinse the clay vessel and electrodes with clean water, and let everything dry so crystals do not build up in the clay. The zinc electrode is gradually consumed as the cell works, so inspect it before each class. As part of a school chemistry lab equipment set in India, the cell links electrochemistry theory to a reading students can take themselves.

Manufacturer

Jain Scientific Equipments Private Limited, known by its brand name **ScienceLab**, makes this cell and other teaching apparatus in Ambala, Haryana, India. You can read more about us in the company profile.

Rela

What

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