

Definitions

Voltaic cells are devices that convert chemical energy to electrical energy.

Electrolytic cells are devices that convert electrical energy to chemical energy.

Spontaneous is something that happens by itself, without external stimulus.

Non-spontaneous is something that doesn't happen by itself, with external stimulus.

Electrochemical cells are devices that convert chemical energy to electrical energy, or electrical energy to chemical energy.

Half-cell is the component of a voltaic cell where either oxidation or reduction occurs.

Anode is the electrode, or half-cell, where oxidation occurs.

Cathode is the electrode or half-cell where reduction occurs.

Salt-bridge is a device that connects the anode and cathode in voltaic cell. It contains a concentrated solution of an unreactive salt and allows ions to flow into the two half-cells.

Cell-diagram convention is a method for representing the components of a voltaic cell.

Phase boundary is a boundary that exists between components of a cell that are in different phases.

Spectator ions are ions that are present in solution but do not participate in any reactions.

Closed circuit is a circuit through which current can flow without being interrupted.

Battery is a device that converts stored chemical energy into electrical energy.

Power source is an electronic device that is a source of electrical energy.

Electrolyte solution is a solution that contain ions and is able to conduct charge.

Molten is the melted form of a liquid that is only formed at high temperatures.

Discharged means the substance has been changed by an electrolysis reaction by losing its charge.

Types of electrochemical cells

There are two types of electrochemical cells, voltaic and galvanic.

Voltaic cell Uses spontaneous redox reactions to make electricity. Converts chemical energy into electrical energy.

Electrolytic cell Uses electricity to make non-spontaneous redox reactions happen. Converts electrical energy into chemical energy.

