

Common Fuel Cell Terms

Anode - The negative electrode at which oxidation occurs.

Alkaline Fuel Cell - A low temperature (80°C) liquid electrolyte hydrogen/oxygen fuel cell.

Catalyst - A chemical substance that increases the rate of a reaction without being consumed by that reaction.

Cathode - The positive electrode at which reduction occurs.

Cell - An individual unit that produces electrolysis, consisting of two electrodes and an electrolyte.

Direct Methanol Fuel Cell (DMFC) - A type of fuel cell that uses methanol as a fuel in either liquid or gaseous form.

Distributed Generation - Small-scale generation that provides power at or near user's site rather than a larger scale centrally located site.

Electrode - An electric conductor through which a current enters or exits an instrument or apparatus.

Electrolysis - An electrochemical process where water is separated into hydrogen and oxygen.

Electrolyte - A non-metallic conductor of electricity through which ions can move.

Fuel Cell - An electrochemical device that combines oxygen and a hydrogen fuel resulting in the generation of electrical energy.

Heat Exchanger - A mechanical assembly in which heat from one mass is transferred to another mass.

Membrane - A material in a fuel cell that acts as a separating layer for some molecules though allowing other molecules to pass through.

Molten Carbonate Fuel Cell (MCFC) - A type of very high temperature (650 °C) fuel cell that uses molten lithium or potassium carbonate as the electrolyte.

Phosphoric Acid Fuel Cell (PAFC) - A type of high temperature (190 °C) fuel cell that uses phosphoric acid as the electrolyte.

Proton Exchange Membrane Fuel Cell (PEM) - A low temperature (100 °C) fuel cell that uses a thin solid layer of acid based material as the electrolyte.

Reformer - A container in which fuels, heat and other gases are mixed to produce hydrogen for use in fuel cells.



Solid Oxide Fuel Cell (SOFC) - A very high temperature (1000 °C) fuel cell in which the electrolyte is a solid form of an oxide, usually a zinc compound.

Stack - A term referring to a physical assemblage of an adjacent number of fuel cells connected in series.