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Electrical Power ...

Fuel Cell Guide - Proton Exchange Membrane Fuel
Cells (PEMFC)

Proton Exchange Membrane Fuel Cell (PEMFC)
Market to Reach ...

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electrode ...

Proton-Exchange Membrane Fuel Cells - an
overview ...

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Models for ...

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fuel cells (PEMFC), also
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This spotlight focuses on materials for Proton Exchange Membrane (PEM) fuel cells, also referred to as Polymeric Electrolyte Membrane fuel cells, which operate at relatively low temperatures (~ 80 °C). For more information about high temperature fuel cells, please visit our technology spotlight on Solid Oxide Fuel Cells (SOFC).

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Membrane Fuel Cells

A proton-exchange membrane, or polymer-electrolyte membrane, is a semipermeable membrane generally made from ionomers

and designed to conduct protons while acting as an electronic insulator and reactant barrier, e.g. to oxygen and hydrogen gas. This is their essential function when incorporated into a membrane electrode assembly of a proton-exchange membrane fuel cell or of a proton-exchange membrane electrolyser: separation of reactants and transport of protons while blocking a direct electroni

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applications of proton exchange membrane fuel cells (PEMFCs), including direct methanol fuel cells (DMFCs).

Proton-exchange membrane fuel cells (PEMFC), also known as polymer electrolyte membrane (PEM) fuel cells, are a type of fuel cell being developed

mainly for transport applications, as well as for stationary fuel-cell applications and portable fuel-cell applications. Their distinguishing features include lower temperature/pressure ranges (50 to 100 °C) and a special proton-conducting polymer electrolyte membrane.

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