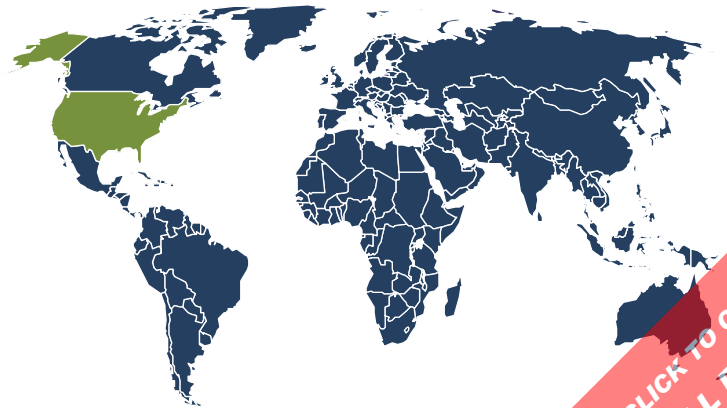




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Fuel Cell Materials: United States

January 2014



Highlights

Industry Overview

Market Size and Trends | Material Segmentation | Application Segmentation
Function Overview | Technology Trends

Demand Forecasts

Market Environment | Material Forecasts | Application Forecasts

Industry Structure

Industry Composition | Industry Leaders | Additional Companies Cited

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ABOUT THIS REPORT

Scope & Method

This report forecasts US fuel cell materials demand in US dollars at the manufacturers' level to 2017. Total demand is segmented by material in terms of:

- metals
- ceramics
- polymers
- carbon/graphite
- chemicals and other materials.

The term *fuel cell* in this report refers to the fuel cell stack. Materials used in the manufacture of additional fuel cell components such as external fuel tanks, fuel reformers, and piping are out of the scope of this report, as are fuel cell materials used in the manufacture of ancillary products.

Total demand is also segmented by application as follows:

- solid-oxide fuel cells (SOFCs)
- proton-exchange membrane (PEM) fuel cells
- molten carbonate fuel cells (MCFCs)
- other fuel cell applications such as phosphoric acid and direct methanol.

To illustrate historical trends, total demand is provided at five-year intervals for 2002, 2007, and 2012; the various segments are reported for 2007 and 2012. Forecasts emanate from the identification and analysis of pertinent statistical relationships and other historical trends/events as well as their expected progression/impact over the forecast period. Changes in quantities between reported years of a given total or segment are typically provided in terms of five-year compound annual growth rates (CAGRs). For the sake of brevity, forecasts are generally stated in smoothed CAGR-based descriptions to the forecast year, such as "demand is projected to rise 3.2% annually through 2017." The result of any particular year over that period, however, may exhibit volatility and depart from a smoothed, long-term trend, as historical data typically illustrate.

Key macroeconomic indicators are also provided at five-year intervals with CAGRs for the years corresponding to other reported figures. Other various topics, including profiles of pertinent leading suppliers, are covered in this report. A full outline of report items by page is available in the [Table of Contents](#).

Sources

Fuel Cell Materials: United States is based on [Battery & Fuel Cell Materials](#), a comprehensive industry study published by The Freedonia Group in January 2014. Reported findings represent the synthesis and analysis of data from various primary, secondary, macroeconomic, and demographic sources including:

- firms participating in the industry, and their suppliers and customers
- government/public agencies
- national, regional, and international non-governmental organizations
- trade associations and their publications
- the business and trade press
- The Freedonia Group Consensus Forecasts dated August 2013
- the findings of other industry studies by The Freedonia Group.

Specific sources and additional resources are listed in the [Resources](#) section of this publication for reference and to facilitate further research.

Industry Codes

The topic of this report is related to the following industry codes:

NAICS/SCIAN 2007		SIC	
North American Industry Classification System		Standard Industry Codes	
334413	Semiconductor and Related Device Manufacturing	3674	Semiconductors and Related Devices
335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing	3699	Electrical Machinery, Equipment, and Supplies, NEC

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