

# newsworthy trends

## Solid Hydrogen Fuel Cells Give Cars A New Way To Go

by Robert C. Stempel,  
Chairman, Energy Conversion  
Devices, Inc.

(NAPSA)—*What's down the road for American autos? Here's an intriguing answer from the former chairman and CEO of General Motors, a man who personally fostered major advancements in pollution control, four-wheel drive, electronic engine controls, occupant safety systems and electric propulsion, who now heralds the latest advances in energy storage for cars.*

Propulsion experts agree that cars in the near future will be electrically-driven and fuel-cell powered to satisfy the need for environmentally-responsible transportation. A consensus is also forming, in both the automotive industry and energy supply sources, that hydrogen will be the ultimate fuel of the 21st century. With that in mind, ECD's metal-hydride storage system offer a cost-effective, safe and efficient means of transporting the energy necessary for vehicles of the future.

A metal hydride system consists of hydrogen gas, engineered metallic material and the space



Robert C. Stempel

where they interface. The hydrogen gets absorbed by the powdered metal. When the mixture is heated, the hydrogen gas comes out and can then be fed directly to a fuel cell which provides the electric energy to power the car.

In its natural form, hydrogen is bulky and can be hazardous. Liquefying it uses a lot of energy and requires exotic storage tanks.

Recent advances in metal-hydrides make storing sufficient hydrogen to power a fuel cell-driven electric vehicle several hun-

dred miles much easier. Unlike alternative methods under consideration for future cars, carrying hydrogen as a solid in a metal-hydride is by far the safest approach.

In addition, ECD has recently found a way to more than double the amount of hydrogen that can be carried this way, making the whole system much smaller than earlier ones. The company's researchers have also resolved the problem of getting the hydrogen out of the hydride again, so a typical fill-up would require only three or four minutes.

Tests suggest that metal-hydride systems will provide more than 2,000 refills, or hundreds of thousand of miles, with no fall-off in performance.

The company is also exploring the use of clean hydrogen fuel in conventional internal combustion engines, in small portable energy sources for home use and to operate lawn mowers, garden equipment and barbecue grills.

You can learn more about this new technology and what it may mean to you, online at [www.ovonic.com](http://www.ovonic.com).