

Alternative vehicle technologies

Hydrogen Fuel Cell

A hydrogen vehicle is a vehicle that uses hydrogen as its fuel source. The engines of hydrogen fuel cell vehicles convert the chemical energy of hydrogen to mechanical energy either by burning hydrogen in an internal combustion engine, or by reacting hydrogen with oxygen in a fuel cell to run electric motors.

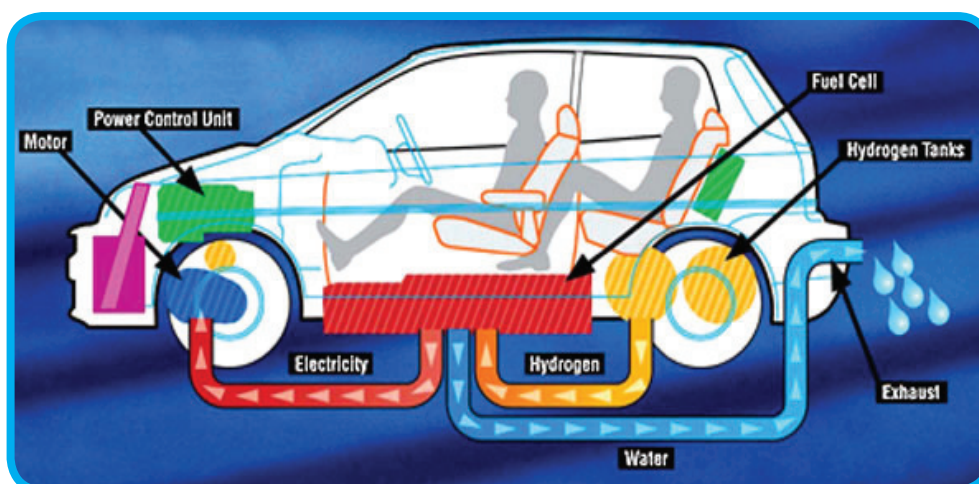


Hydrogen gas is stored in a compressed state in high-pressure tanks in the trunk or under the floor of the car. The gas is passed through a fuel cell stack that mixes the pure hydrogen with oxygen in the atmosphere to generate an electric current. The electricity is then used to power the electric motors driving the wheels. The only thing emitted out of the exhaust pipe is residual water vapor.

Just like hybrid petrol-electric cars, hydrogen cars also use a battery pack. The battery pack is charged through regenerative braking and with excess energy created by the hydrogen fuel cell.

Hydrogen as a fuel source is non-polluting and because of this it seems like an ideal fuel for the 21st century and a lot of people in the government and in vehicle manufacturing industries are excited about its potential.

Fuel cells are attractive for their high efficiency and low pollution. The fuel cell technology has been suggested for a number of applications other than vehicles, including baseload utility power plants, emergency backup generators, off-grid power storage and portable electronics.



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