

> What is a fuel cell?

It's a better way to more efficient, cleaner energy.

Here's how:

A fuel cell is a device that efficiently generates electricity from hydrogen rich fuels, through a clean electrochemical reaction rather than dirty combustion.

A fuel cell is similar to a battery in that it provides continuous DC electricity from a chemical reaction. Like a battery, it has an anode, a cathode, and an electrolyte. Unlike batteries, fuel cells cannot store electrical energy, do not 'run flat', or require electricity to charge them. Fuel cells can continuously generate electricity as long as they have a supply of fuel and air.

How are fuel cells different from other electricity generators?

Unlike internal combustion engines or coal/gas powered turbines, fuel cells do not burn fuel. This means there are no noisy high-pressure rotors or loud exhaust noise and vibration. Fuel cells produce electricity through a silent electrochemical reaction. They also convert the chemical energy in the fuel directly into electricity, heat, and water.

How efficient are fuel cells in generating energy?

Very. And because fuel cells don't burn the fuel through combustion, they don't produce large quantities of greenhouse gases such as carbon dioxide (CO₂), methane (CH₄) and nitrogen oxide (NO_x). Fuel cell emissions amount to water in the form of steam and low levels of carbon dioxide - or no CO₂ at all, if the cell uses pure hydrogen as a fuel.

How is Ceramic Fuel Cells optimising these benefits?

A fuel cell needs sophisticated operating systems to function properly. Ceramic Fuel Cells designs and manufactures fuel cells as well as complete fuel cell systems. Ceramic Fuel Cells products have the potential to generate electricity much more efficiently and more cleanly than traditional fossil fuel-based combustion technologies.

