

How do fuel cells store energy





Overview

What are fuel cells & how do they work?

What are fuel cells?

Fuel cells are devices that generate electricity through electrochemical redox reactions, not combustion. In short, they convert the chemical energy of fuels, such as hydrogen or methane, directly into electrical energy by combining them with oxygen.

How do hydrogen fuel cells work?

Photo of two hydrogen fuel cells. Fuel cells can provide heat and electricity for buildings and electrical power for vehicles and electronic devices. Fuel cells work like batteries, but they do not run down or need recharging. They produce electricity and heat as long as fuel is supplied.

How does a fuel cell generate electricity?

This chemical energy is stored in the hydrogen that is supplied to the anode of the fuel cell. A hydrogen fuel cell essentially consumes hydrogen and oxygen. When a fuel cell is continuously supplied with hydrogen and oxygen, and the product water is removed, the fuel cell can generate electricity.

What is a hydrogen fuel cell?

Hydrogen is a versatile energy carrier that can be used to power nearly every end-use energy need. The fuel cell — an energy conversion device that can efficiently capture and use the power of hydrogen — is the key to making it happen.



How do fuel cells store energy

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A fuel cell is required to convert hydrogen (H₂) into electricity, specifically a hydrogen-oxygen fuel cell. It is often simply referred to as a "hydrogen ...

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What are fuel cells, which types exist and how do they work?

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