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Prospects of Hydrogen Fueled Power Generation

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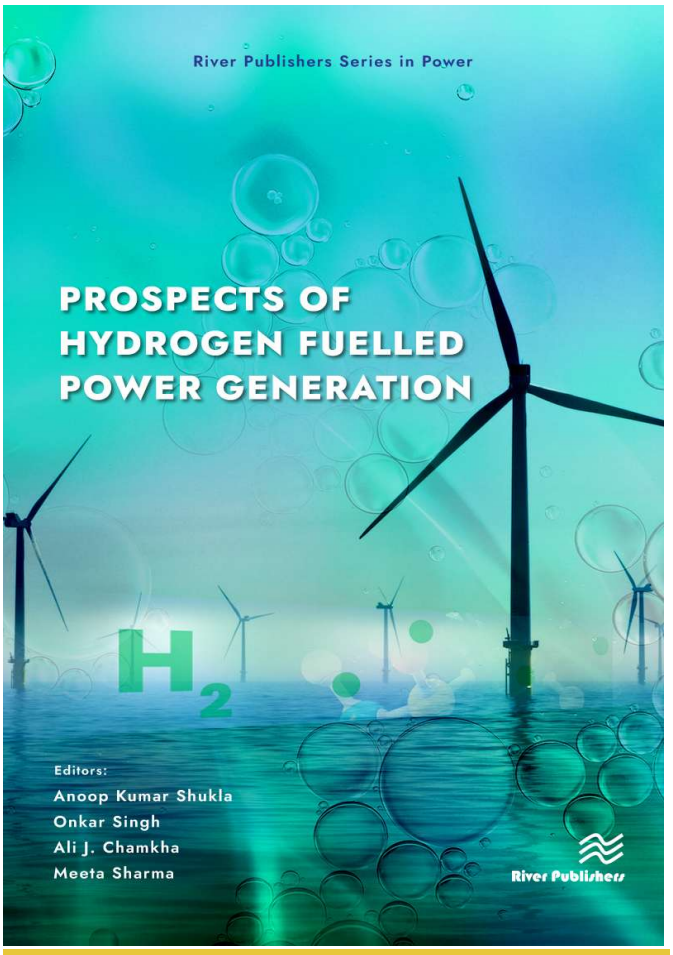
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Prospects of Hydrogen-fueled Power Generation brings together experts to explore the various challenges and opportunities of hydrogen as a fuel in power generation, transportation, storage, and safety. Special interest is given toproton exchange membrane fuel cell (PEMFC) fuel cells, hydrogen energy, and the conversion methods. The usage of clean fuel in road transportation, marine transportation, and the power generation sector are also discussed in detail. Additionally, performance investigations reveal information about the system's energy and exergy analysis.

Hydrogen-fueled power generation is the process of generating electricity using hydrogen as the primary fuel source. This process typically involves the conversion of hydrogen into electricity using fuel cells or combustion engines. Fuel cells are electrochemical devices that convert hydrogen into electricity and water with no emissions other than water vapor. Combustion engines, on the other hand, burn hydrogen to produce heat, which is used to generate electricity through a turbine. The byproducts of hydrogen combustion are water and heat, with no harmful emissions. One advantage of hydrogen-fueled power generation is that it produces no harmful emissions, making it a clean and sustainable source of energy. Additionally, hydrogen is a highly abundant element that can be produced from a variety of sources, including natural gas, biomass, and renewable energy sources like solar and wind power.



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