

The Realities and Economic Benefit of the Utilization of Fuel Cells as an Alternative Source of Energy: A Review.

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Deskriptoren

Kommerzialisierung; Brennstoffzelle; Energiekrise; Feuerungstechnik; Kleinwagen; Stadtbus; Elektrizität; Brennstoffzellenstapel; fossiler Brennstoff; Ausgangsleistung; Laptop

Freie Begriffe

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Abstract

The 21st century has seen a critical need for alternative cleaner sources of energy and fuel cells are one of the technologies that have been developed to address the need. This article reviews the realities of fuel cell technologies as an alternative source of energy. It gives insight into the past, present, and future status of fuel cells as a way of addressing the energy crisis. It can be inferred from this article that the fuel cell industry continues to be constrained in its ability to commercialize the technology by a circular logic whereby it cannot generate significant commercial sales due to relatively high costs of units. It is imperative that this cycle be broken by concerted actions of the fuel cell industry, the user community, and the governments. In spite of the challenges of commercialization, it was noted that fuel cells have been successfully delivering power to several prototypes and specialized applications in recent decades. The power output of a fuel cell stack is easily scalable to provide the right amount of electricity for a laptop computer, a small car, a city bus, or even utility generation and power building not connected to a national grid.

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