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Book review

Our future is hydrogen: energy, environment and economy
Robert Siberlud; New Science Publications, Wellington, CO, USA, 2001, 173 pages, paperback, US$14.95

This is an interesting paper-back pocket book written to extend public awareness of the two main problems posed by the use of fossil fuels (coal, oil and natural gas), namely: (1) rapid depletion of their resources, particularly of oil, and (2) environmental damage caused by their combustion.

The book opens with a succinct analysis of these problems and the urgency to limit and, eventually, to discontinue the burning of fossil fuels and switch over to environmentally agreeable, renewable energy sources. The most serious environmental problem today is the green house global warming caused mainly by CO_2-accumulation in the atmosphere, which cannot be prevented or arrested as long as carbon is present in any form in the fuel used. Nor is it practical to withdraw the excess CO_2 from the atmosphere. The only way-out to stop using carbon containing materials as fuels. This leaves us with HYDROGEN as the only choice as it is the only known carbon-free combustible material. With its high-energy content, superior pollution-free combustion characteristics and inexhaustible resource base, hydrogen makes an ideal replacement for the fossil fuels. This book is all about hydrogen.

In five of the nine chapters of the book, the author reviews of the technical features of hydrogen energy systems, namely: the technologies and resources for hydrogen production, its storage, transmission and distribution, its properties, practical applications as energy source, its safety aspects when used as a fuel and the current status of hydrogen energy development and usage in different countries. A whole chapter is deservingly devoted to the application of hydrogen in fuel cells, which are widely accepted as the power sources of the future for both stationary and mobile applications.

Finally, the author stresses the need for speeding-up the transition to hydrogen energy, for which public cooperation and governmental intervention are necessary. This book is an important contribution towards that objective. Brief reviews are presented of some alternative fuels for transportation, other than hydrogen, at the end of the book. These include alcohols, light hydrocarbons and vegetable oils.

The book is addressed to the lay public and is written in simple language without technical jargon. However, it would make a better impression on the reader if the text were supported by tables and illustrations. Unfortunately, these are totally lacking in the book.

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