

Solar Hydrogen Generation

Toward a Renewable Energy Future

Krishnan Rajeshwar, Robert McConnell, and Stuart Licht, *Editors*

Hydrogen has been touted as the basis of a new and powerful energy economy not reliant on fossil fuels. This book examines strategies for generating hydrogen from sunlight and water in a sustainable way. Authoritative discussions are provided by experts on topics ranging from a description of the solar resource, electrolysis of water, solar concentrator pathway to low cost electrolytic hydrogen, thermal/photo hybrid splitting of water, photochemical water splitting, hydrogen generation at inorganic semiconductor-electrolyte interfaces, to photobiological schemes for producing hydrogen from water. The book culminates with an analysis of a coupled water electrolyzer-solar photovoltaic system for the centralized production of hydrogen. The literature citation is extensive and comprehensive in each chapter and the book provides a broad perspective of the rapid developments in an important aspect of energy science and technology. The material covered is required reading for practioners of solar energy conversion R&D in academia, government, and industry. It originates from a spectrum of disciplines including chemistry, biology, physics, chemical and mechanical engineering, electrical engineering, and materials science.



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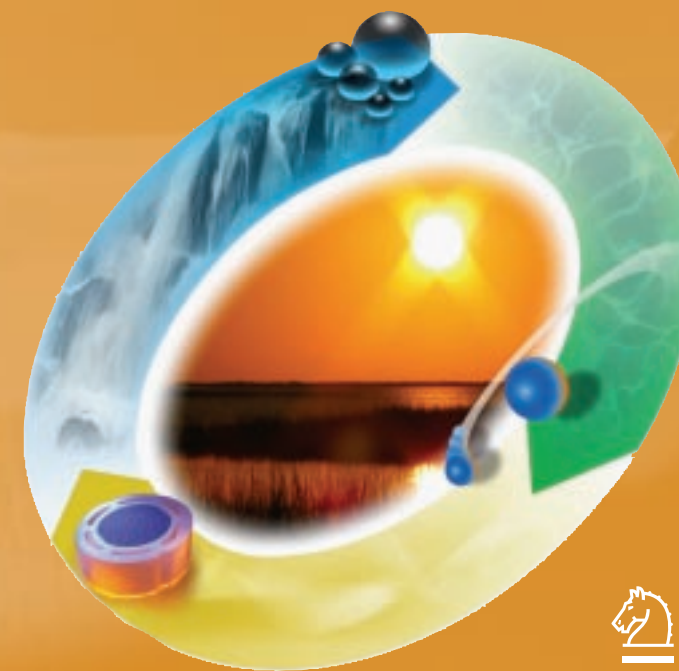
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