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Sommario/riassunto This book provides state-of-the-art reviews, current research and

prospects of producing hydrogen using bio, thermal and electrochemical methods and covers hydrogen separation, storage and applications. Hydrogen produced from biomass offers a clean and renewable energy source and a promising energy carrier that will supplement or replace fossil fuels in the future. The book is intended as a reference work for researchers, academics and industrialists working in the chemical and biological sciences, engineering, renewable resources and sustainability. Readers will find a wealth of information in the text that is both useful for the practical development of hydrogen systems and essential for assessing hydrogen production by bioelectrochemical, electrochemical, fermentation, gasification, pyrolysis and solar means, applied to many forms of biomass. Dr. Zhen

Fang is Professor in Bioenergy, Leader and founder of biomass group,

Chinese Academy of Sciences, Xishuangbanna Tropical Botanical Garden and is also adjunct Professor of Life Sciences, University of Science and Technology of China. Dr. Richard L Smith, Jr. is Professor of Chemical Engineering, Graduate School of Environmental Studies, Research Center of Supercritical Fluid Technology, Tohoku University, Japan. Dr. Xinhua Qi is Professor of Environmental Science, Nankai University, China.