

1. Record Nr.	UNINA9910797010903321
Titolo	Biohydrogen // edited by Matthias Rogner
Pubbl/distr/stampa	Berlin ; ; Boston : , : Walter de Gruyter GmbH & Co. KG, , [2015] ©2015
ISBN	1-5231-0447-3 3-11-033673-1 3-11-038934-7
Descrizione fisica	1 online resource (298 p.)
Disciplina	665.8/1
Soggetti	Hydrogen - Biotechnology Hydrogen as fuel Biomass energy
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Front matter -- Contents -- List of contributing authors -- Preface -- 1 Cyanobacterial design cell for the production of hydrogen from water -- 2 Analysis and assessment of current photobioreactor systems for photobiological hydrogen production -- 3 Catalytic properties and maturation of [FeFe]-hydrogenases -- 4 Oxygen-tolerant hydrogenases and their biotechnological potential -- 5 Metal centers in hydrogenase enzymes studied by X-ray spectroscopy -- 6 Structure and function of [Fe]-hydrogenase and biosynthesis of the FeGP cofactor -- 7 Hydrogenase evolution and function in eukaryotic algae -- 8 Engineering of cyanobacteria for increased hydrogen production -- 9 Semi-artificial photosynthetic Z-scheme for hydrogen production from water -- 10 Photosynthesis and hydrogen metabolism revisited. On the potential of light-driven hydrogen production in vitro -- 11 Re-routing redox chains for directed photocatalysis -- 12 Energy and entropy engineering on sunlight conversion to hydrogen using photosynthetic bacteria -- Index
Sommario/riassunto	Biohydrogen is considered the most promising energy carrier and its utilization for energy storage is a timely technology. This book presents latest research results and strategies evolving from an

international research cooperation, discussing the current status of Biohydrogen research and picturing future trends and applications.
