

1. Record Nr.	UNINA9910783486703321
Titolo	Molecular to global photosynthesis [[electronic resource] /] / editors, Mary D. Archer, James Barber
Pubbl/distr/stampa	River Edge, NJ, : Imperial College Press, c2004
ISBN	1-281-86652-0 978186094549X 9786611866525 1-60119-772-1 1-86094-549-X
Descrizione fisica	1 online resource (785 p.)
Collana	Series on photoconversion of solar energy ; ; v. 2
Altri autori (Persone)	ArcherMary D BarberJ <1940-> (James)
Disciplina	572.46 662.8
Soggetti	Photosynthesis Energy crops
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	Molecular to Global Photosynthesis; CONTENTS; About the Authors; Preface; 1 Photosynthesis and photoconversion J. Barber and M. D. Archer; 2 Light absorption and harvesting A. Holzwarth; 3 Electron transfer in photosynthesis W. Leibl and P. Mathis; 4 Photosynthetic carbon assimilation G. E. Edwards and D. A. Walker; 5 Regulation of photosynthesis in higher plants D. Godde and J. F. Bornman; 6 The role of aquatic photosynthesis in solar energy conversion: a geoevolutionary perspective P. G. Falkowski, R. Geider and J. A. Raven 7 Useful products from algal photosynthesis R. Martinez and Z. Dubinsky8 Hydrogen production by photosynthetic microorganisms V. A. Boichenko, E. Greenbaum and M. Seibert; 9 Photoconversion and energy crops M. J. Bullard; 10 The production of biofuels by thermal chemical processing of biomass A. V. Bridgwater and K. Maniatis; 11 Photosynthesis and the global carbon cycle D. Schimel; 12 Management of terrestrial vegetation to mitigate climate change R. Tipper and R. Carr; 13 Biotechnology: its impact and future prospects D. J. Murphy;

Sommario/riassunto

Green plants and photosynthetic organisms are the Earth's natural photoconverters of solar energy. In future, biomass and bioenergy will become increasingly significant energy sources, making a contribution both to carbon dioxide abatement and to the security, diversity and sustainability of global energy supplies. In this book, experts provide a series of authoritative chapters on the intricate mechanisms of photosynthesis and the potential for using and improving photosynthetic organisms, plants and trees to sequester carbon dioxide and to provide fuel and useful chemicals for the benefit of
