1. Record Nr. UNISA990005580700203316

Autore	CARTER, John Marshall
Titolo	Medieval games : sports and recreations in Feudal society / John Marshall Carter
Pubbl/distr/stampa	New York : Greenwood press, 1992
Descrizione fisica	XIII,159 p. ; 23 cm.
Collana	Contributions to the study of world history ; 30
Disciplina	796.094
Soggetti	SPORT - EUROPA - STORIA - 500 / 1500
Collocazione	CC 796.094 CAR
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia

2. Record Nr. UNINA9910830720603321

Titolo	Artificial photosynthesis [[electronic resource]] : from basic biology to industrial application / / edited by Anthony F. Collings and Christa Critchley
Pubbl/distr/stampa	Weinheim, : Wiley-VCH [Chichester, : John Wiley, distributor], c2005
ISBN	1-281-08788-2 9786611087883 3-527-60674-2 3-527-60691-2
Edizione	[1st ed.]
Descrizione fisica	1 online resource (341 p.)
Altri autori (Persone)	CollingsAnthony F CritchleyChrista
Disciplina	660.6
Soggetti	Biotechnology Photosynthesis - Industrial applications Photosynthesis
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	Artificial Photosynthesis; Foreword; Preface; Contents; List of Contributors; Part I The Context; 1 Artificial Photosynthesis: Social and Political Issues; 1.1 Introduction; 1.2 The Need for a Transition to Artificial Photosynthesis; 1.3 Some Associated Social and Political Issues; 1.4 Using the Available Photons: Towards Sustainability Science; 1.5 Conclusions; References; 2 An Integrated Artificial Photosynthesis Model; 2.1 Introduction; 2.2 Natural Photosynthesis; 2.3 Artificial Photosynthesis: An Integrated Strategy; 2.4 A Technological Approach to Photosynthesis 2.5 Program 1: Biomimetic Photoelectric Generation2.5.1 Milestones; 2.6 Program 2: Electrolytic Hydrogen; 2.6.1 Milestones; 2.7 Programs 3 and 4: Waterless Agriculture; 2.7.1 Program 3: Bioenergetic Converters; 2.7.1.1 Milestones; 2.7.2 Program 4: The CO(2)-fixing Enzyme Reactor; 2.7.2.1 Milestones; 2.8 Conclusions; References; Part II Capturing Sunlight; 3 Broadband Photon-harvesting Biomolecules for Photovoltaics; 3.1 Introduction; 3.2 The Photoelectrochemical Gratzel Cell (Dye-sensitized Solar Cell); 3.3 Typical Components and Performance of a DSSC; 3.3.1 Construction and Mode of Operation 3.3.2 Typical DSSC Performance3.3.3 Device Limitations; 3.4 Melanins as Broadband Sensitizers for DSSCs; 3.4.1 Melanin Basics; 3.4.2 Melanin Chemical, Structural, and Spectroscopic Properties; 3.4.3 Melanin Electrical and Photoconductive Properties; 3.4.4 Melanins as Broadband Photon-harvesting Systems; 3.4.5 A DSSC Based Upon Synthetic Eumelanin; 3.5 Conclusions; References; 4 The Design of Natural Photosynthetic Antenna Systems; 4.1 Introduction; 4.2 Confined Geometries: From Weak to Strong Coupling and Everything in Between 4.2.1 Conventional Forster Theory: B800 to B800 Intra-band Energy Transfer4.2.2 Generalized Forster Theory: B800 to B850 Inter-band Energy Transfer; 4.2.3 Generalized Forster Theory with the Transition Density Cube Method: Car to Bchl Inter-pigment Energy Transfer; 4.2.4 Modified Redfield Theory: Intra-band B850 Exciton Dynamics; 4.3 Energetic Disorder Within Light-harvesting Complexes; 4.3.1 From Isolated Complexes to Membranes: Disorder in LH2; 4.3.2 Photosystem I; 4.4 Photochemistry and Photoprotection in the Bacterial Reaction Center; 4.5 The Regulation of Photosynthetic Light Harvesting 4.6 Concluding RemarksReferences; 5 Identifying Redox-active Chromophores in Photosystem II by Low-temperature Optical Spectroscopies; 5.1 Introduction; 5.2 Experimental Methods; 5.2.1 Sample Preparation; 5.2.2 Illumination; 5.2.3 Spectra; 5.3 Results and Discussion; 5.3.1 Absorption and CD Signatures: Plant PSII Cores and BBYs; 5.3.2 Absorption and CD Signatures: Plant and Cyanobacterial PSII Cores; 5.3.3 Absorption Signatures: The Native and Solubilized Reaction Center; 5.3.4 MCD Signatures: P680 and Chl(Z); 5.3.5 Electrochromic Signature: Pheo(D1) in Active PSII; 5.4 Conclusions 5.4.1 Low-temperature Precision Polarization Spectroscopies
Sommario/riassunto	Since the events crucial to plant photosynthesis are now known in molecular detail, this process is no longer nature's secret, but can for the first time be mimicked by technology. Broad in its scope, this book spans the basics of biological photosynthesis right up to the current approaches for its technical exploitation, making it the most complete resource on artificial photosynthesis ever published. The contents draw on the expertise of the Australian Artificial Photosynthesis Network,

currently the world's largest coordinated research effort to develop effective photosynthesis technolo