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Nota di contenuto	Book Cover; Title; Contents; Preface; Stabilisation of Si photoanodes by silicon oxynitride coatings: attempted synthesis of binuclear Co complexes for (photo)electrochemical reduction of CO ₂ ; Studies on isolated plant pigment-protein complexes; Primary reactions in plant photosynthetic reaction centers; Immobilized photosynthetic systems for the production of ammonia and photocurrents; Towards the design of molecular photochemical devices based on ruthenium bipyridine photosensitizer units; Photoinduced charge-separation in models for photosynthesis Electron transfer photosensitized by zinc porphyrins in reversed micelles Efficient visible light sensitization of TiO ₂ by surface complexation with transition metal cyanides; Photo-induced electron

transfer reactions in polymer-bound ruthenium bipyridyl complexes; Self organization and photofunctionalization of supramolecular systems: photosensitive polymeric monolayers, multilayers and liposomes; Photogeneration of hydrogen: the photochemical way of storing solar energy; Inorganic photosynthesis: the photofixation of the atmospheric dinitrogen on transition metal oxides
Recent trends in the search for new photosensitizers
Reactivity of CO₂ and related heterocumulenes towards transition metal compounds; Medium effects upon the stability of n-GaAs-based photoelectrochemical cells; Unpinning of energy bands in photoelectrochemical cells: a consequence of surface chemistry and surface charge; H₂O₂ production in a photoelectrochemical cell with TiO₂ electrodes: reaction mechanisms and efficiency; Adsorption experiments for modelling semiconductor/electrolyte interfaces; Cytochrome b-559 as a transducer of redox energy into acid-base energy in photosynthesis
Variations in the carotenoid complement of the pigment-protein complexes of *Rhodospirillum rubrum*
Towards an analogue of the bacterial photosynthetic reaction centre: synthesis of an oblique bis-porphyrin system containing a 1,10-phenanthroline spacer; Location and organisation of the chlorophyll-proteins of photosynthetic reaction centres in higher plants; Phosphorylation processes interacting in vivo in the thylakoid membranes from *C. reinhardtii*
Isolation and some properties of photosynthetic membrane vesicles enriched in photosystem I from the cyanobacterium *Phormidium laminosum* by a non-detergent method
Outdoor culture of selected nitrogen-fixing blue-green algae for the production of high-quality biomass; Hydrogen peroxide photoproduction by biological and chemical systems; Current topics in the biochemistry of Fe-hydrogenases; List of Participants

Sommario/riassunto

"This workshop comprises part of the four-year (1985-1988) non-nuclear energy R & D programme for the development of renewable energy sources which is being implemented by the Commission of the European Communities. The aim of the workshop was to present work by the contracting laboratories in addition to work by numerous other research laboratories in 11 European countries. Extensive discussions were also held on the present state of this basic, directed research in photochemistry, photoelectrochemistry and photobiology, and where the future emphasis may usefully lie. Thus the book presents the proceedings of all the papers presented and summarizes the recommendations made by the participants as to where future research support may be most effectively placed. It was emphasized in these recommendations that the interdisciplinary collaboration between photochemistry and photobiology had been quite successfully achieved in this European programme. There were both high quality basic research and practical benefits accruing from the work, and these are described in the report on proposed areas for future research. This book contains work reported by 30 leading researchers and laboratories in Europe. The contents parallels and overlaps research in photovoltaics and semiconductors and therefore provides a unique link and basis of information across the field of photovoltaics, semiconductors and photosynthesis."--Provided by publisher.
