Storming Media Pentagon Reports: Fast. Definitive. Complete.

Home About Us Contact Us View Cart My Account FAQ

username LOGIN New Account » Forgot Password? Photosynthesis GO Advanced Search »

Newsletter

To be informed of important news about our site, enter your email here. You can always unsubscribe later. Your address will not be released to others. (Read our Privacy Policy)

Your name

Your email

Unsubscribe » SUBMIT

Search Results for: Photosynthesis

Total Results: **27**

Results per page: 50

Sort by: Relevancy Title Date Pages Display: Full Text Only

GEOPHYSICAL FACTORS AFFECTING PLANT PRODUCTIVITY Sep 1969 38 pages

Authors: David M. Gates; Hyrum B. Johnson; Conrad S. Yocum; Paul W. Lommen; MISSOURI BOTANICAL GARDEN ST LOUIS

Full Text

A model for productivity is presented. It combines a model for **photosynthesis** with an energy budget approach to leaf energy balance. The **photosynthesis** model describes the rate of **photosynthesis** of a leaf as a function of leaf temperature, diffusive resistance to CO2 and biochemical reaction rate (using the Michaelis-Menton equation). ... , diffusive resistance to water vapor, leaf size, leaf orientation, and leaf spectral characteristics. When the **photosynthesis** and energy budget approaches are combined, photosynthetic rate and rate of water loss, ...

Efficient Electronic Energy Transfer in Polymer Nanocomposite Assemblies Sep 9, 1996 5 pages

Authors: S. A. Jenekhe; C. -j. Yang; ROCHESTER UNIV NY DEPT OF CHEMICAL ENGINEERING

Full Text

Electronic energy transfer plays a critical role in biological **photosynthesis**, artificial **photosynthesis**, photovoltaic devices, photocatalysis, and other multichromophore systems and photoinduced processes. Our studies of electronic energy transfer in novel thin film light-harvesting nanocomposite polymer assemblies consisting of a rod-coil copolymer antenna and a conjugated polymer energy trap are presented. Total singlet electronic energy transfer efficiencies as high as 93% were observed at energy trap concentrations as low as 9 mol %. It will be shown that the efficiency of energy transfer ...

ISOLATION, NUTRITION AND METABOLISM OF PHOTOSYNTHESIZING PLANT TISSUES Aug 1966 35 pages

Authors: A. C. Hildebrandt; WISCONSIN UNIV-MADISON

Full Text

... clumps of cells. Tissues on agar media may be grown as undifferentiated masses of cells or may be induced to differentiate roots, stems, leaves and plants by modifying the nutrient and other environments. Under space conditions the chlorophyllous tissues would have unlimited sunlight as energy for **photosynthesis**, would utilize carbon dioxide, and would produce oxygen in the process of synthesizing carbohydrate for food. Such abilities for growth and differentiation as a single cell or as tissue masses and even plants suggest this method has a great built-in potential to select for almost any ...

RESEARCH ON THE SYNTHESIS OF OXYGEN BY A PHYSICOCHEMICAL SYSTEM Feb 1969 72 pages

Authors: Norman Weliky; Nord L. Gale; Robert J. Day; Herbert P. Silverman; TRW SYSTEMS GROUP REDONDO BEACH CA

Full Text

Where space, weight, and power limitations are of major importance, **photosynthesis** is an inefficient process for providing the energy for the production of food and oxygen. The assimilation of carbon dioxide into food materials by green plants requires two important factors commonly provided by the photosynthetic process, adenosine triphosphate (ATP) and reduced triphosphopyridine nucleotide (TPNH). We have demonstrated that oxygen as well as enzymatically active TPNH can be generated by an electrochemical system which employs the mediating agents: methyl viologen and ferredoxin-TPN-reductase. ...

GROWTH OF CHLORELLA SOROKINIANA AT HYPERBARIC OXYGEN PRESSURES Jul 30, 1968 7 pages

Authors: Billy Richardson; Fred W. Wagner; Billy E. Welch; SCHOOL OF AEROSPACE MEDICINE BROOKS AFB TX

Full Text

... 1478 mm Hg. Under two atmospheres of oxygen pressure growth ceases after 10 to 12 hours. This cessation of growth is not due to any permanent injury, as growth is resumed when oxygen partial pressure is reduced to ambient levels. The inhibition occurs under both autotrophic and heterotrophic growth conditions and is not accompanied by an increase in cell size. The results indicate that the tolerance of OTS cells to elevated oxygen pressures is not an absolute immunity, and that inhibition of growth at very high oxygen pressures cannot be accounted for by an inhibition of **photosynthesis** alone.

Effects of Hydrostatic Pressure on Photosynthesis and Growth of Unicellular Marine Algae and Diatoms Apr 1, 1971 11 pages

Authors: Leslie R. Berger; HAWAII UNIV HONOLULU DEPT OF MICROBIOLOGY

Full Text

Light-dependent oxygen production and growth of algal cultures were measured at 25C at various light intensities and hydrostatic pressures. A device which maintains a desired concentration of dissolved oxygen during growth and oxygen evolution by photosynthetic organisms is described. The system uses a modified rate-measuring oxygen electrode system in conjunction with an oxygen concentration monitoring unit.

Water Quality Assessment Model - Oxygen Dynamics Model for Low-Flow Streams Mar 1977 33 pages

Authors: Stephen P. Shelton; CIVIL AND ENVIRONMENTAL ENGINEERING DEVELOPMENT OFFICE TYNDALL AFB FL DETACHMENT 1

Full Text

... this and previous investigations, an analysis of oxygen sinks and sources, unique in their level of significance for low-flow streams, was undertaken. Oxygen sources and sinks considered were carbonaceous BOD, nitrogenous BOD, stream reoxygenation, benthic oxygen demand, and **photosynthesis**/ respiration. In addition to these, the effects of toxic pollutants upon biological reaction rates and waste assimilative capacity were also explored. Techniques employed in this investigation may be considered as one approach to determine waste assimilation capacity and to simulate variations in the oxygen ...

Some Recent Developments in Electron Transfer: Charge Separation, Long Distances, Solvent Dynamics, and Free Energy Aspects May 29, 1987 10 pages

Authors: R. A. Marcus; CALIFORNIA INST OF TECH PASADENA ARTHUR AMOS NOYES LAB OF CHEMICAL PHYSICS

Full Text

Several topics in electron transfers are discussed, including the charge separation in a bacterial photosynthetic reaction center, long range electron transfer, solvent dynamical effects in electron transfer, and free energy aspects of these reactions. Keywords: Electron transfer, Bacterial, **Photosynthesis**, Solvents, Dynamics, Free energy.

Gordon Research Conference on Chronobiology, 1991 Jul 31, 1992 9 pages

Authors: J. W. Hastings; GORDON RESEARCH CONFERENCES INC KINGSTON RI

Full Text

... , including all Kingdoms and spanning the phylogenetic spectrum. It is relevant to many specific missions, such as medicine and pharmacology, agriculture and insect control, as well as marine biology and oceanography. The program (attached) thus reflects the wish and the willingness of workers in this area to consider a diversity of functions and a diversity of systems, ranging from nitrogen fixation in bacteria, **photosynthesis** and luminescence in marine dinoflagellates and CAB gene expression in wheat, to conidiation in Neurospora, eclosion in Drosophila, and activity in rodents and man.

Photosynthetic Responses to the Environment. Proceedings Symposium held August 24 - 27, 1992. Volume 8 Aug 27, 1992 263 pages

Authors: Harry Y. Yamamoto; Celia M. Smith; HAWAII UNIV AT MANOA HONOLULU

Full Text

Certain fundamental differences separate marine, aquatic and terrestrial plants as obviously as the difference in physical factors among their habitats. Yet at the core of their responses to environmental factors, **photosynthesis** ties these entities together in ways not typically seen in scientific meetings or collaboration among researchers. It was our optimistic intent in organizing this meeting 'Photosynthetic Responses to the Environment' to try to bridge these diverse groups of plant life and scientists by bringing together leaders, researchers and young scientists for three days of ...

Photochemically Induced Transformations of Transition Complexes May 17, 1993 136 pages

Authors: James E. Brown; NAVAL ACADEMY ANNAPOLIS MD

Full Text

... crystal X-ray diffraction techniques are described. A possible mechanism for the formation of the formyl derivatives 5 is outlined. In the synthesis and purification of ((N5C5H5)Ru(CO))2-u-DPPM and the attempted synthesis of the ((n5-C5H5)Ru(CO))2- u-DPPE, two ruthenium monomers of the form (n5-C5H5)Ru(Cl)DPPX resulted. A possible reaction pathway for the synthesis of these two monomers as byproducts in the ruthenium phosphine dimer preparation is suggested. Full structural and spectral characterizations of the monomeric compounds are Included. **Photosynthesis**, Organometallics, Reimer-Tiemann.

Proceedings of the International Symposium on the Application of Fundamental Theory to Problems of Biology and Pharmacology Held at Ponte Vedra Beach, Florida on 12-19 February 1994. International Journal of Quantum Chemistry. Quantum Biology Symposium Nu Feb 1995 253 pages

Authors: Rodney J. Bartlett; FLORIDA UNIV GAINESVILLE

Full Text

... of Florida, was held on February 12-19, 1994, at the Marriott, Sawgrass Resort, Ponte Vedra Beach, Florida. Over 300 participants gathered for 8 days of lectures and informal discussions. The format of the symposium adopted for the past few years was followed again this year with a compact 8-day schedule with an integrated program of quantum biology, quantum chemistry, and condensed matter physics. The topics of the sessions covered by these proceedings include Quantum Chemistry of Biological Molecules, Spectroscopic Signatures of Biological Molecules, Protein Folding, and **Photosynthesis**. jg

International Conference on Solar Energy Storage and Applied Photochemistry Held in Cairo, Egypt on 8-14 January 95. The Program and List of Participants Jan 14, 1995 42 pages

Authors: AIN SHAMS UNIV CAIRO (EGYPT)

Full Text

Partial contents: Nanocrystalline solar cells; scientific principles and economic perspectives; Solar synthesis of hydrogen peroxide; Dye molecules in zeolites as artificial antenna systems; Mechanism of the early steps in **photosynthesis**; Novel vacuum-uv-(vuv) and uv excimer flow through photorectors for waste water treatment and for wavelengths selective photochemistry; Heterosupramolecular chemistry: an approach to modulating function in molecular devices; Excited state characteristics and new unactivated C-H bond functionalization photocatalysis by W10O32 (4-); Time -resolved photothermal ...

Oct 1995 77 pages

Studies of Water Movement in Vegetated and Unvegetated Littoral Areas

Authors: Craig S. Smith; William F. James; John W. Barko; Harry L. Eakin; ARMY ENGINEER WATERWAYS EXPERIMENT STATION VICKSBURG MS ENVIRONMENTAL LAB

Full Text

... mobilize sediment P by root uptake and senescence (Barko and Sman 1980; Carpenter 1980; Smith and Adams 1986). Macrophytes can also influence the release of nutrients from sediments by influencing pH and other environmental variables. Increasing pH in the water column caused by macrophyte **photosynthesis** stimulates P release from aerobic sediments through enhanced ligand exchange with iron hydroxide particles (Drake and Heaney 1987). Phosphorus and other nutrients mobilized by either of these mechanisms can then be carried from vegetated regions to nearby open water areas. By influencing water ...

Integrated Use of Fluridone and a Fungal Pathogen for Control of Hydrilla Jun 1996 14 pages

Authors: Michael D. Netherland; Judy F. Schearer; ARMY ENGINEER WATERWAYS EXPERIMENT STATION VICKSBURG MS ENVIRONMENTAL LAB

Full Text

... 200 colony forming units (CFU) per milliliter, and integrated treatments of 2, 5, and 12 micrograms/L + 100 and 200 CFU/ml, and 12 micrograms/L + 25 and 50 CFU/ml were tested. Although a dose response was noted among fluridone rates, all treatments resulted in linear decreases in biomass, **photosynthesis** (PTS), and chlorophyll from 14 through 94 days posttreatment. In contrast, Mt applications of 25 and 50 CFU/ml were ineffective throughout the study. Mt at 25 and 50 CFU/ml + 12 micrograms/L fluridone showed no differences from the 12 micrograms/L fluridone treatment alone. As Mt rates were ...

Interpreting the Variability of Near-Surface Optical and Biological Properties in Marine Waters Jul 19, 1996 7 pages

Authors: John J. Cullen; Marlon R. Lewis; BIGELOW LAB FOR OCEAN SCIENCES WEST BOOTHBAY HARBOR ME

Full Text

... , during which many optical instruments were deployed and evaluated. We demonstrated that a radiometer buoy provides reliable observations of ocean color, suitable for development of algorithms and for quantifying optical variability in surface waters. We examined the relationships between biological processes and optical properties of the upper ocean and made significant steps toward characterizing the relationships between irradiance, fluorescence, chlorophyll and **photosynthesis** near the sea-surface. Radiometer buoys have been established as extremely useful tools in optical oceanography.

Spontaneous Self-Assembly of Vesicles from Electroactive and Photoactive Triblock Copolymers Nov 16, 1998 16 pages

Authors: Samson A. Jenekhe; X. L. Chen; ROCHESTER UNIV NY DEPT OF CHEMICAL ENGINEERING

Full Text

Surfactant and lipid vesicles and their self-assembly processes are of interest in many fields including materials science. The hollow spherical mesostructures find wide applications including drug delivery systems, cosmetics, pesticide carriers, models of biomembranes, catalysis, artificial **photosynthesis**, and microenvironment for template synthesis. Approaches explored to address the fragility and instability of vesicles and liposomes include polymerizable surfactants and lipids, cross-linking of the vesicles, incorporation of polymerizable monomers into the vesicles, polymeric grafts onto ...

Biological Effects of Inadvertent Perchlorate Releases During Launch Operations Sep 30, 2002 45 pages

Authors: Mark E. Hines; Frank von Hippel; John Kennish; TRW SPACE AND ELECTRONICS GROUP REDONDOBEACH CA

Full Text

... sediments, freshwater wetland peat, and upland soils; effects of perchlorate on the behavior and growth of the fish species threespine stickleback; and the bioaccumulation of perchlorate by freshwater and marine plankton and in the threespine stickleback fish. Results show that perchlorate will affect **photosynthesis** in aquatic systems, but this effect appears to occur only when perchlorate levels are extremely high (1000 ppm). Bacterial production also was not adversely affected by the presence of perchlorate except at very high levels in seawater samples. Respiration in marine and freshwater ...

NASA MODIS Products for Military Land Monitoring and Management Nov 2002 78 pages

Authors: Robert C. Lozar; Harold E. Balbach; ENGINEER RESEARCH AND DEVELOPMENT CENTER CHAMPAIGN IL CONSTRUCTION ENGINEERING RESEARCH LAB

Full Text

... Program (SERDP) Ecosystem Management Project (SEMP) sponsored a preliminary investigation to access and manipulate several example products generated from the Moderate Resolution Imaging Spectroradiometer (MODIS) instrument for storage in the SEMP data repository. The MODIS products include land cover, vegetation indices, leaf area index, net **photosynthesis**, fraction-of-photosynthetically active radiation, and vegetation cover conversion. This report describes those products, how they were processed, what they look like, and how they can be used for military land monitoring and management.

Influence of Sedimentary and Seagrass Microbial Communities on Shallow- Water Benthic Optical Properties-Data Mining Dec 22, 2003 7 pages

Authors: Lisa A. Drake; Fred C. Dobbs; OLD DOMINION UNIV NORFOLK VA

Full Text

... among sediment archetypes collected at LSI during field campaigns. Seagrass epiphyte loads, determined by measuring their lipid biomass, increased non-linearly with leaf age. The highest epiphyte loads, on eelgrass from Monterey Bay, absorbed 60% of incident light in peak chlorophyll absorption bands and reduced modeled **photosynthesis** by 49%. In the course of this research, we have found large, refractive, rhomboidal crystals in turtle grass from the Bahamas, Florida, and Texas. At all collection sites, crystals were present in leaves of all ages and in most, but not all, epidermal cells.

Efficacy of AVAST! (trademark) Fluridone Formulation Against Eurasian Watermilfoil and NOntarget Submersed Plants Jun 2004 29 pages

Authors: Angela G. Poovey; John G. Skogerboe; Kurt D. Getsinger; ENGINEER RESEARCH AND DEVELOPMENT CENTER VICKSBURG MS ENVIRONMENTAL LAB

Full Text

... of 45 and 90 days. Elevated phytoene concentrations indicated herbicide exposure in all treated plants at 7 days after treatment (DAT). Visually, plants did not manifest symptoms of injury from fluridone until 14 DAT. Beta-carotene concentrations suggested that fluridone disrupted **photosynthesis** as soon as 7 DAT. Both formulations were effective in controlling Eurasian watermilfoil. Biomass decreased by 90 percent at all application rates following the 45-day exposure and decreased by 99 percent following the 90-day exposure time. No significant differences occurred between application rates ...

Photosynthetic Complexes: Molecularly Activated Bioswitches and Agents for Light Powered Molecular Circuitry Sep 11, 2004 22 pages

Authors: Stephen R. Forrest; Marc Baldo; PRINCETON UNIV NJ

Full Text

... the fundamental engineering issues associated with the application of protein/molecular aggregates to electronic devices: purification of the complexes, and their interconnection to conventional bulk organic circuitry. We have demonstrated a molecular power source using a single antenna complex extracted from a biological photosynthetic unit. To exploit the optimization of **photosynthesis**, we have demonstrated, for the first time, the solid state integration of photosynthetic complexes in solar cells. The internal quantum efficiency of the first generation of devices is estimated to be 12%.

Daily and Seasonal Variability of PH, Dissolved Oxygen, Temperature, and Specific Conductance in the Colorado River Between the Forebay of Glen Canyon Dam and Lees Ferry, Northeastern Arizona, 1998-99 2001 19 pages

Authors: M. E. Flynn; R. J. Hart; G. R. Marzolf; C. J. Bowser; DEPARTMENT OF THE INTERIOR WASHINGTON DC

Full Text

The productivity of the trout fishery in the tailwater reach of the Colorado River downstream from Glen Canyon Dam depends on the productivity of lower trophic levels. **Photosynthesis** and respiration are basic biological processes that control productivity and alter pH and oxygen concentration. During 1998-99, data were collected to aid in the documentation of short- and long-term trends in these basic ecosystem processes in the Glen Canyon reach. Dissolve -oxygen, temperature, and specific-conductance profile data were collected monthly in the forebay of Glen Canyon Dam to document the status ...

Analysis of Bacterial Population and Distribution in the Developing Strata of a Constructed Wetland Used for Chlorinated Ethene Bioremediation Mar 2006 220 pages

Authors: Jr Clausen Milton J.; AIR FORCE INST OF TECH WRIGHT-PATTERSON AFB OH SCHOOL OF ENGINEERING

Full Text

United States. These compounds attack the central nervous system in animals and can affect the **photosynthesis** of plants. These compounds are also resistant to degradation in the environment and, because of this, pose a risk to any ecosystem in which they are present. This study identified the dominant microbial species in a constructed treatment wetland at Wright-Patterson AFB, Dayton, Ohio using l6S rRNA gene sequence analysis. Samples were taken from three different depths and during each of the four seasons. These samples were compared with similar samples taken from an uncontaminated, ...

Assessing the Ability of Hyperspectral Data to Detect Lyngbya SPP.: A Potential Biological Indicator for Presence of Metal Objects in the Littoral Environment Dec 2006 261 pages

Authors: James R. Blankenship; NAVAL POSTGRADUATE SCHOOL MONTEREY CA

Full Text

The aquatic filamentous bacteria (Cyanobacterium) Lyngbya majuscula is a nitrogen-fixer found in coastal waters often attached or adjacent to sea grass, algae and coral. It is characterized by phycobiliproteins, unique pigments found only in cyanobacteria. To sustain **photosynthesis** and nitrogen fixation, L. majuscula requires iron proteins and is therefore sensitive to the availability of this metal. The hypothesis tested in this study concerns the potential use of hyperspectral imaging in detecting L. majuscula in coastal regions as biological indicators for the presence of iron debris or ...

Carbon-Flow-Based Modeling of Ecophysiological Processes and Biomass Dynamics of Submersed Aquatic Plants Sep 2007 109 pages

Authors: Elly P. H. Best; William A. Boyd; ENGINEER RESEARCH AND DEVELOPMENT CENTER VICKSBURG MS ENVIRONMENTAL LAB

Full Text

... distribution of shoot biomass in the water column; (2) recalculation procedures of vertical distribution with daily changes in water level; (3) ibidem with daily removal of shoot biomass at various levels within the water column; (4) species-characteristic epiphytic light interception; (5) species-characteristic effects of current velocity on **photosynthesis**; (6) removal of periodic shoot and tuber/root crown biomass; and (7) relationships of plant process parameters with site-specific climate by linkage with formatted weather files and calculation of latitude-specific effects on day length.

Analyzing Carbohydrate-Based Regenerative Fuel Cells as a Power Source for Unmanned Aerial Vehicles Mar 2008 62 pages

Authors: Olek Wojnar; AIR FORCE INST OF TECH WRIGHT-PATTERSON AFB OH SCHOOL OF ENGINEERING AND MANAGEMENT

Full Text

... (CRFC) as the primary power source for unmanned aerial vehicles (UAV) for long endurance missions where station keeping is required. A CRFC power system is based on a closed-loop construct where carbohydrates are generated from zooxanthellae, algae that create excess carbohydrates during **photosynthesis**. The carbohydrates are then fed to a carbohydrate fuel cell where electric power is generated for the UAV's propulsion, flight control, payload, and accessory systems. The waste products from the fuel cell are used by the zooxanthellae to create more carbohydrates, therefore mass is conserved ...

Total Results: **27**

Results per page: 50