Klasifikasi Phylum Chlorophyta Kelas Chlorophyceae

Microalgae in Health and Disease Prevention is a comprehensive reference that addresses the historical and potential use of microalgae, its extracts, secondary metabolites, and molecular constituents for enhancing human health and preventing diseases. Each chapter features an overview, and the book includes coverage of microalgae biology, harmful algae, the use of microalgae in alcohol and food, and as sources of macronutrients, micronutrients, vitamins, and minerals. The historical use of microalgae, in addition to its potential use as a nutraceutical and cosmeceutical, is also addressed. The book provides coverage of relevant, up-to-date research as assembled by a group of contributors who are dedicated to the advancement of microalgae use in health, diet and nutrition. Discusses research findings on the relationship between microalgal diet, nutrition and human health Presents the medicinal, anti-allergic and psychoactive properties of microalgae Identifies toxic and harmful microalgae Addresses microalgal lipids, proteins and carbohydrates

Algae and Human Affairs provides a comprehensive survey of the major roles of algae in present and

future human life. This detailed synthesis is divided into four sections.

This volume examines the assessment of higher order thinking skills from the perspectives of applied cognitive psychology and measurement theory. The volume considers a variety of higher order thinking skills, including problem solving, critical thinking, argumentation, decision making, creativity, metacognition, and self-regulation. Fourteen chapters by experts in learning and measurement comprise four sections which address conceptual approaches to understanding higher order thinking skills, cognitively oriented assessment models, thinking in the content domains, and practical assessment issues. The volume discusses models of thinking skills, as well as applied issues related to the construction, validation, administration and scoring of perfomancebased, selected-response, and constructed-response assessments. The goal of the volume is to promote a better theoretical understanding of higher order thinking in order to facilitate instruction and assessment of those skills among students in all K-12 content domains, as well as professional licensure and cetification settings.

Identifying Marine Phytoplankton is an accurate and authoritative guide to the identification of marine diatoms and dinoflagellates, meant to be used with tools as simple as a light microscope. The book compiles the latest taxonomic names, an extensive

bibliography (referencing historical as well as up-to-date literature), synthesis and criteria in one indispensable source. Techniques for preparing samples and containing are included as well as hundreds of detailed, helpful information. Identifying Marine Phytoplankton is a combined paperback edition made available by popular demand of two influential books published earlier--Marine Phytoplankton and Identifying Marine Diatoms and Dinoflagellates. Contains hundreds of illustrations showing critical characteristics necessary for proper identification, plus keys and other guides Provides up-to-date taxonomic revisions Includes species from around the world Updates synthesis of modern and historical literature presented by active researchers in the field Compiles literature from around the world into one handy source Handbook of Microalgae: Biotechnology Advances offers complete coverage of marine microalgae, including biology, production techniques, biotechnological applications, economic perspectives of applications, and environmental effects of marine microalgae blooms. With contributions from world experts, Handbook of Microalgae: Biotechnology Advances focuses on microalgae from an organism perspective to offer a complete picture from evolution to biofuel. Focuses on a comprehensive approach from an organism point of view Contains full coverage of all aspects of microalgae from

biology through biotechnological and biomedical applications Includes biological properties of commercial algal species Provides microalgae screening and identification methods, culturing methods and new aspects of processing
Estuarine Ecohydrology focuses on the principal components of an estuary. The book demonstrates how one can quantify an estuarine ecosystem's ability to cope with human stresses. The theories, models, and real-world solutions covered will serve as a toolkit for designing a management plan for the ecologically sustainable development of an estuary. This book is organized into seven chapters dealing with topics such as estuarine water circulation; estuarine sediment dynamics; tidal wetlands; estuarine food webs; and ecohydrology models and solutions. Although each chapter contains rigorous specialist knowledge, it is presented in an accessible way that encourages multi-disciplinary collaboration between such fields as hydrology, ecology and mathematical modeling. Estuarine Ecohydrology is appropriate for use as a textbook and as a reference for researchers; advanced undergraduate and graduate students in marine biology, oceanography, coastal management, and coastal engineering; coastal developers; resources managers, shipping operators; and those involved in estuarine fisheries and sustainable development communities. * Appropriate for use as a textbook and as a reference

* Focuses on the principal components of an estuary
* Presents theories, models, and real-world solutions to serve as a toolkit for designing a management plan for the ecologically sustainable development of an estuary

Your upper-level science, botany, or biology majors will find the third edition of A Biology of the Algae to be concise, up-to-date, and accessible

India has 7,500 km of coastline with diverse habitats and rich biota. Coastal ecosystems, unfortunately, are experiencing wide range of pressures due to siltation, eutrophication, coastal development, aquaculture and climate change. Those species that adapt to these pressures will expand their living boundaries while others may fade away. Accordingly, the study of coastal biodiversity is of great concern globally and constitutes an important element of global change research. Gujarat has 1,600 km of coastline, reportedly with rich diversity of seaweeds. Previously published accounts on seaweed biodiversity were mainly in the form of checklists, the earliest among these being the checklist of Krishnamurthy and Joshi prepared in the early 1970s. The more recent checklists are based almost entirely on secondary information. The present book entitled Seaweeds of India – The Diversity and Distribution of Seaweeds of Gujarat Coast is a timely publication based wholly on primary data. Data were collected through extensive and systematic ? eld studies conducted by the authors during different seasons over a three year period. The authors collected nearly 200 species of seaweeds belonging to 100 genera of Chlorophyta, Phaeophyta and Rhodophyta. Twenty-four of the species are new to Gujarat coast and three are new to Indian waters. The book contains high-quality images of the different species in their existing habitats. Brief taxonomical descriptions,

together with information on ecology, distribution, seasonality and abundance, are covered for each of the species. Identifying Marine Diatoms and Dinoflagellates is the second identification manual created from the literature developed for the Advanced International Phytoplankton Course. This version, enlarged and modified from the earlier literature, deals with the identification of marine diatoms and dinoflagellates. The data and references presented here should allow the researcher to pursue the question of valid species and how they can be verified. This volume comprises three chapters, beginning with an introductory chapter discussing the subject's historical background. The next chapter focuses on marine diatoms, providing an introduction that describes their general characteristics, life cycles, morphology and terminology, and classification. It is followed by a discussion of genera represented in marine plankton, a description of taxa, and methodology. The third and final chapter focuses on dinoflagellates, beginning with an introduction that describes their general characteristics and eukaryotic unicells. The discussion continues with terminology and morphology, identification of species, techniques for preparation of dinoflagellates for identification, common dinoflagellate synonyms, and an index of dinoflagellate taxa. This book will be of interest to practitioners in the fields of biology, zoology, and environmental protection.

Photosynthesis, Photorespiration, and Plant Productivity provides a basis for understanding the main factors concerned with regulating plant productivity in plant communities. The book describes photosynthesis and other processes that affect the productivity of plants from the standpoint of enzyme chemistry, chloroplasts, leaf cells, and single leaves. Comprised of nine chapters, the book covers the biochemical and photochemical aspects of

photosynthesis; respiration associated with photosynthetic tissues; and photosynthesis and plant productivity in single leaves and in stands. It provides illustrated and diagrammatic discussion and presents the concepts in outlined form to help readers understand the concepts efficiently. Moreover, this book explores the rates of enzymatic reactions and the detailed structure and function of chloroplasts and other organelles and their variability. It explains the mechanism of photosynthetic electron transport and phosphorylation and the importance of diffusive resistances to carbon dioxide assimilation, especially the role of stomata. It also discusses the importance of dark respiration in diminishing productivity; the differences in net photosynthesis that occur between many species and varieties; and the influence of climate to photosynthetic reactions. The book is an excellent reference for teachers, as well as undergraduate and graduate students in biology, plant physiology, and agriculture. Research professionals working on the disciplines of plant production and food supply will also find this book invaluable.

Antenna Mutants, Domestication, by Roberto Bassi Heterotrophic Cultivation, by William McCaffrey Chlorella for industrial applications: Advances and prospective, by Feng Chen Carotinoide, by Carola Griehl Engineering the algal chloroplast for synthesis of therapeutic proteins, by Saul Purton Design Concepts and recent developments of photobioreactors, by Clemens Posten Efficiency of flat plate reactors, by Mario Tredici Measuring modelling and control, by Olivier Bernard Microalgae in Life Support Systems, by Klaus Slenzka Heterotrophic oil production, by Makato Watanabe

Kinetika fraktal yang dibahas dalam buku ini diturunkan dari mekanisme yang kompleks, yang sudah melibatkan adanya perpindahan massa dan reaksi kimia. Hasil penurunan persamaan-persamaan matematika tersebut menjadi

persamaan yang sederhana, sehingga sangat mudah diselesaikan. Perangkat lunak Microsoft Excel dipilih untuk menyelesaikan persamaan-persamaan tersebut karena sangat mudah. Model Michaelis-Menten diselesaikan dengan cara integral dan diferensial, vi sedangkan Model Valjamae dan Kopelman diselesaikan dengan coba-coba parameter konstanta kecepatan reaksi dan eksponen fraktal. Kinetika Hidrolisis Mikroalga Dengan Enzim ini diterbitkan oleh Penerbit Deepublish dan tersedia juga dalam versi cetak.

Very comprehensive text for physiology (algae) and/or limnology (freshwater biology) courses at the junior/senior/grad level.

Pakan adalah makanan atau asupan yang diberikan kepada hewan ternak atau peliharaan. Istilah ini diadopsi dari bahasa Jawa. Pakan merupakan sumber energi dan materi bagi pertumbuhan dan kehidupan makhluk hidup.

Introduces the microorganisms; discusses the physical characteristics, life cycle, and uses for bacteria; and describes the different types of algae.

The systematics of the Chlorophyta: an historical review leading to some modern concepts - taxonomy of the Chlorophyta III; Cytosystematics of the green algae; Reviews of the systematics of selected higher groupings; Systematics and cytology of selected genera; Chemotaxonomy of the green algae; Extrinsic factors and green algal systematics.

Algal World has been carefully written and edited with an interdisciplinary appeal and aims to bring all aspects of Algae together in one volume. The 22 chapters are divided into two different parts which have been authored by eminent researchers from across the world. The first part, Biology of Algae, contains 10 chapters dealing with the general characteristics, classification and description of different groups such as Blue Green Algae, Green Algae, Brown Algae, Red Algae, Diatoms, Xanthophyceae, Dinophyceae,

etc. In , it has two important chapters covering Algae in Extreme Environments and Life Histories and Growth Forms in Green Algae. The second part, Applied Phycology, contains 12 chapters dealing with the more applied aspects ranging from Algal Biotechnology, Biofuel, Phycoremediation, Bioactive Compounds, Biofertilizer, Fatty Acids, Harmful Algal Blooms, Industrial Applications of Seaweeds, Nanotechnology, Phylogenomics and Algal culture Techniques, etc.

This timely book provides an overview of natural products/botanicals used for the management of insect-pest and diseases. It will help readers to update and widen their knowledge about natural products and their bio-activities against plant pathogens. The volume explores activity, chemistry, toxicity and geographic distribution of plants. Discussions concerning the methodology used for the detection of active principles, their mode of action and commercial prospects are of utmost importance and worthy of note. Focuses on recent achievements in natural bio-actives Global coverage of natural products / plants Targets the most important issues of natural botanicals/ biocides Includes innovative ideas with lucid explanations Contains specialized chapters, such as, natural control of multi-drug resistant organisms, anti-salmonella agents, natural house-dust-mite control agents, and naturally occurring anti-insect proteins, etc. Covers research on bioactives: From Lab to Field and Field to Market Includes eco-friendly and economically viable herbal technology

Emphasizes the ecological principles that guide marine life throughout environments within the world's oceans. The authors provide an ecological approach that helps students understand the real-world relevance of marine biology by exploring how organisms interact within their

individual ecosystems.

Seaweed in Health and Disease Prevention presents the potential usage of seaweed, macroalgae, and their extracts for enhancing health and disease. The book explores the possibilities in a comprehensive way, including outlining how seaweed can be used as a source of macronutrients and micronutrients, as well as nutraceuticals. The commercial value of seaweed for human consumption is increasing year-over-year, and some countries harvest several million tons annually. This text lays out the properties and effects of seaweeds and their use in the food industry, offering a holistic view of the ability of seaweed to impact or effect angiogenesis, tumors, diabetes and glucose control, oxidative stress, fungal infections, inflammation and infection, the gut, and the liver. Combines foundational information and nutritional context, offering a holistic approach to the relationship between sea vegetables, diet, nutrition, and health Provides comprehensive coverage of health benefits, including sea vegetables as sources of nutraceuticals and their specific applications in disease prevention, such as angiogenesis, diabetes, fungal infections, and others Includes Dictionary of Terms, Key Facts, and Summary points in each chapter to enhance comprehension Includes information on toxic varieties and safe consumption guidelines to supplement basic coverage of health benefits

While working in the laboratory of Professor Dr. Jacob Reinert at the Freie Universitat Berlin (1974-1976), I had the opportunity to become deeply involved in studying the intricacies of the fascinating phenomenon of somatic

embryogenesis in plant cells and protoplasts. In numerous stimu lating discussions with Professor Reinert on this subject, I was fully convinced that somatic embryogenesis would become one of the most important areas of study, not only regarding basic and fundamental aspects, but also for its application in crop improvement. During the last decade, we have witnessed tremendous interest and achievements in the use of somatic embryos for the production of synthetic seeds, for micro propagation, genetic transformation, cryopreservation, and conservation of germplasm. The en masse production of somatic embryos in the bioreactors has facilitated some of these studies. Somatic embryos have now been induced in more than 300 plant species belonging to a wide range offamilies. It was therefore felt that a compilation ofliterature/state of the art on this subject was necessary. Thus, two volumes on Somatic Embryo genesis and Synthetic Seed have been compiled, which contain 65 chapters contributed by International experts. Somatic Embryogenesis and Synthetic Seed I comprises 31 chapters, arranged in 3 sections: Section I Commitment of the cell to somatic embryogenesis; early events; anatomy; molecular basis; gene expression; role of polyamines; machine vision analysis of somatic embryos. Section II Applications of somatic embryos; technology of synthetic seed; fluid drilling; micropropagation; genetic transfor mation through somatic embryos; cryopreservation.

This book is a collection of contributions from leading specialists on the topic of biosensors for health, environment and biosecurity. It is divided into three

sections with headings of current trends and developments; materials design and developments; and detection and monitoring. In the section on current trends and developments, topics such as biosensor applications for environmental and water monitoring, agro-industry applications, and trends in the detection of nerve agents and pesticides are discussed. The section on materials design and developments deals with topics on new materials for biosensor construction, polymer-based microsystems, silicon and silicon-related surfaces for biosensor applications, including hybrid film biosensor systems. Finally, in the detection and monitoring section, the specific topics covered deal with enzyme-based biosensors for phenol detection, ultra-sensitive fluorescence sensors, the determination of biochemical oxygen demand, and sensors for pharmaceutical and environmental analysis.

Since the publication of the first edition (1994) there have been rapid developments in the application of hydrology, geomorphology and ecology to stream management. In particular, growth has occurred in the areas of stream rehabilitation and the evaluation of environmental flow needs. The concept of stream health has been adopted as a way of assessing stream resources and setting management goals. Stream Hydrology: An Introduction for Ecologists Second Edition documents recent research and practice in these areas. Chapters provide information on sampling, field techniques, stream analysis, the hydrodynamics of moving water, channel form, sediment transport and commonly used statistical methods such as flow duration and flood frequency

analysis. Methods are presented from engineering hydrology, fluvial geomorphology and hydraulics with examples of their biological implications. This book demonstrates how these fields are linked and utilised in modern, scientific river management. Emphasis on applications, from collecting and analysing field measurements to using data and tools in stream management. Updated to include new sections on environmental flows, rehabilitation, measuring stream health and stream classification. Critical reviews of the successes and failures of implementation. Revised and updated windows-based AQUAPAK software. This book is essential reading for 2nd/3rd year undergraduates and postgraduates of hydrology, stream ecology and fisheries science in Departments of Physical Geography, Biology, Environmental Science, Landscape Ecology, Environmental Engineering and Limnology. It would be valuable reading for professionals working in stream ecology, fisheries science and habitat management, environmental consultants and engineers.

Selama ini kita hanya mengenal, bahwa bio-bahan bakar (biofuel) sebagian besar berasal dari tanaman darat. Nah…buku yang ada digenggaman tangan Anda ini akan menjawab bahwasanya tanaman yang hidup di air, baik itu air tawar maupun air laut seperti halnya mikroalga dapat pula menjadi bio-bahan bakar (biofuel). Kehadiran buku ini semoga dapat membuka pengetahuan kita seputar sumber bio-bahan bakar (biofuel) khususnya tanaman-tanaman yang berhabitat di air.

The new edition of An Introduction to the Biology of Marine Life is designed to reach your introductory

students with effective and interesting learning tools. Its design and content are focused on capturing the attention of your students-- and focused on helping you teach. In the sixth edition, author James Sumich has maintained the text's readability and balanced approach, while incorporating several exciting new features:

A synthesis of concepts and examples of how physiological processes influence seaweed communities worldwide, authored by experts in the field.

Freshwater Algae of North America: Ecology and Classification, Second Edition is an authoritative and practical treatise on the classification, biodiversity, and ecology of all known genera of freshwater algae from North America. The book provides essential taxonomic and ecological information about one of the most diverse and ubiquitous groups of organisms on earth. This single volume brings together experts on all the groups of algae that occur in fresh waters (also soils, snow, and extreme inland environments). In the decade since the first edition, there has been an explosion of new information on the classification, ecology, and biogeography of many groups of algae, with the use of molecular techniques and renewed interest in biological diversity. Accordingly, this new edition covers updated classification information of most algal groups and the reassignment of many genera and species, as well as new research on

harmful algal blooms. Extensive and complete Describes every genus of freshwater algae known from North America, with an analytical dichotomous key, descriptions of diagnostic features, and at least one image of every genus. Full-color images throughout provide superb visual examples of freshwater algae Updated Environmental Issues and Classifications, including new information on harmful algal blooms (HAB) Fully revised introductory chapters, including new topics on biodiversity, and taste and odor problems Updated to reflect the rapid advances in algal classification and taxonomy due to the widespread use of DNA technologies