

Wen 5500 Generator Manual

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The Technological and Economic Future of Nuclear Power
Introduction to Internal Combustion Engines
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Proceedings of the 34th International MATADOR Conference
Handbook of Alternative Fuel Technologies, Second Edition
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Crop Modeling and Decision Support
IEEE Recommended Practice for Industrial and Commercial Power Systems Analysis
Social Forms/Human Capacities (RLE Social Theory)

Security and Privacy Protection in Information Processing Systems

This book constitutes the refereed proceedings of the 28th IFIP TC 11 International Information Security and Privacy Conference, SEC 2013, held in Auckland, New Zealand, in July 2013. The 31 revised full papers presented were carefully reviewed and selected from 83 submissions. The papers are organized in topical sections on malware, authentication and authorization, network security/cryptography, software security, policy compliance and obligations, privacy protection, risk analysis and security metrics, social engineering, and security management/forensics.

Computer, Intelligent Computing and Education Technology

Sewage Treatment Plants: Economic Evaluation of Innovative Technologies for Energy Efficiency aims to show how cost saving can be achieved in sewage treatment plants through implementation of novel, energy efficient technologies or modification of the conventional, energy demanding treatment facilities towards the concept of energy streamlining. The book brings together knowledge from Engineering, Economics, Utility Management and Practice and helps to provide a

better understanding of the real economic value with methodologies and practices about innovative energy technologies and policies in sewage treatment plants.

The Technological and Economic Future of Nuclear Power

Presented here are 73 refereed papers given at the 34th MATADOR Conference held at UMIST in July 2004. The MATADOR series of conferences covers the topics of Manufacturing Automation and Systems Technology, Applications, Design, Organisation and Management, and Research. The 34th proceedings contains original papers contributed by researchers from many countries on different continents. The papers cover both the technological aspect of manufacturing processes; and the systems, business and management features of manufacturing enterprise. The papers in this volume reflect: - the importance of manufacturing to international wealth creation; - the necessity of responsiveness and agility of manufacturing companies to meet market-led requirements and international change; - the role of information technology and electronic communications in the growth of global manufacturing enterprises; - the impact of new technologies, new materials and processes, on the ability to produce goods of higher quality, more quickly, to meet markets needs at a lower cost. Some of the major generic developments which have taken place in these areas since the 33rd MATADOR conference was held in 2000 are reported in this volume.

Introduction to Internal Combustion Engines

This Handbook covers all aspects related to Nanofibers, from the experimental set-up for their fabrication to their potential industrial applications. It describes several kinds of nanostructured fibers such as metal oxides, natural polymers, synthetic polymers and hybrid inorganic-polymers or carbon-based materials. The first part of the Handbook covers the fundamental aspects, experimental setup, synthesis, properties and physico-chemical characterization of nanofibers. Specifically, this part details the history of nanofibers, different techniques to design nanofibers, self-assembly in nanofibers, critical parameters of synthesis, fiber alignment, modeling and simulation, types and classifications of nanofibers, and signature physical and chemical properties (i.e. mechanical, electrical, optical and magnetic), toxicity and regulations, bulk and surface functionalization and other treatments to allow them to a practical use. Characterization methods are also deeply discussed here. The second part of the Handbook deals with global markets and technologies and emerging applications of nanofibers, such as in energy production and storage, aerospace, automotive, sensors, smart textile design, energy conversion, tissue engineering, medical implants, pharmacy and cosmetics. Attention is given to the future of research in these areas in order to improve and spread the applications of nanofibers and their commercialization.

Impacts of Climate Change on Rainfall Extremes and Urban Drainage Systems

This collection provides researchers and industry professionals with complete guidance on the synthesis, analysis, design, monitoring, and control of metals, materials, and metallurgical processes and phenomena. Along with the fundamentals, it covers modeling of diverse phenomena in processes involving iron, steel, non-ferrous metals, and composites. It also goes on to examine second phase particles in metals, novel sensors for hostile-environment materials processes, online sampling and analysis techniques, and models for real-time process control and quality monitoring systems.

Proceedings of the 34th International MATADOR Conference

Handbook of Alternative Fuel Technologies, Second Edition

This open access book discusses the eroding economics of nuclear power for electricity generation as well as technical, legal, and political acceptance issues. The use of nuclear power for electricity generation is still a heavily disputed issue. Aside from technical risks, safety issues, and the unsolved problem of nuclear waste disposal, the economic performance is currently a major barrier. In recent years, the costs have skyrocketed especially in the European countries and North America. At the same time, the costs of alternatives such as photovoltaics and wind power have significantly decreased. Contents History and Current Status of the World Nuclear Industry The Dramatic Decrease of the Economics of Nuclear Power Nuclear Policy in the EU The Legacy of Csernoby and Fukushima Nuclear Waste and Decommissioning of Nuclear Power Plants Alternatives: Heading Towards Sustainable Electricity Systems Target Groups Researchers and students in the fields of political, economic and technical sciences Energy (policy) experts, nuclear energy experts and practitioners, economists, engineers, consultants, civil society organizations The Editors Prof. Dr. Reinhard Haas is University Professor of energy economics at the Institute of Energy Systems and Electric Drives at Technische Universität Wien, Austria. PD Dr. Lutz Mez is Associate Professor at the Department for Political and Social Sciences of Freie Universität Berlin, Germany. PD Dr. Amela Ajanovic is a senior researcher and lecturer at the Institute of Energy Systems and Electrical Drives at Technische Universität Wien, Austria.--

Handbook of Nanofibers

Modern astronomy has been characterized by an enormous growth in data acquisition - from new technologies in telescopes, detectors, and computation. One can now compile catalogs of tens or hundreds of millions of stars or galaxies and databases from satellite-based observations are reaching terabit proportions. This wealth of data gives rise to statistical challenges not previously encountered in astronomy. This book is the result of a workshop held at Pennsylvania State University in August 1991 that brought together leading astronomers and statisticians to consider statistical

challenges encountered in modern astronomical research. The chapters have all been thoroughly revised in the light of the discussions at the conference, and some of the lively discussion is recorded here as well.

Muscle Foods

Buildings are one of the main causes of the emission of greenhouse gases in the world. Europe alone is responsible for more than 30% of emissions, or about 900 million tons of CO₂ per year. Heating and air conditioning are the main cause of greenhouse gas emissions in buildings. Most buildings currently in use were built with poor energy efficiency criteria or, depending on the country and the date of construction, none at all. Therefore, regardless of whether construction regulations are becoming stricter, the real challenge nowadays is the energy rehabilitation of existing buildings. It is currently a priority to reduce (or, ideally, eliminate) the waste of energy in buildings and, at the same time, supply the necessary energy through renewable sources. The first can be achieved by improving the architectural design, construction methods, and materials used, as well as the efficiency of the facilities and systems; the second can be achieved through the integration of renewable energy (wind, solar, geothermal, etc.) in buildings. In any case, regardless of whether the energy used is renewable or not, the efficiency must always be taken into account. The most profitable and clean energy is that which is not consumed.

Apple Confidential 2.0

Microreaction technology is the logically consistent application of microsystem techniques in chemical reaction and process engineering. Miniaturization in this field is the strategy of success and requires the development of small, inexpensive, independent and versatile chemical reaction units. Microreaction technology is at present regarded as one of the fastest evolving and most promising disciplines in chemical engineering, combinatorial synthesis and analysis, pharmaceutical drug development and molecular biotechnology. A broad range of microstructurable materials is a prerequisite for microreaction technology and the development of microreactors goes hand in hand with the availability of a number of modern, versatile microfabrication technologies. Today, it is possible to manufacture three dimensional microstructures, almost without any restrictions with regard to design and choice of suitable materials, for various chemical applications -just in time to support the development of functional units for microreactors, e. g. micromixers, micro heat exchangers, micro extractors, units for phase transfer, reaction chambers, intelligent fluidic control elements and microanalysis systems. The advantages of microreactors, e. g. the use of novel process routes, the reduction of reaction byproducts, the improvement of 'time to market', the high flexibility for all applications requiring modular solutions, have had a strong impact on concepts of sustainable development. Many of the leading companies and research institutes in the world have recognized the tremendous possibilities of microreactor concepts and of their economic potential, and have thus initiated worldwide

research and development activities.

Advances in Technology and Management

The purpose of this Special Issue is to investigate topics related to sustainability issues in the new era, especially in Industry 4.0 or other new manufacturing environments. Under Industry 4.0, there have been great changes with respect to production processes, production planning and control, quality assurance, internal control, cost determination, and other management issues. Moreover, it is expected that Industry 4.0 can create positive sustainability impacts along the whole value chain. There are three pillars of sustainability, including environmental sustainability, economic sustainability, and social sustainability. This Special Issue collects 15 sustainability-related papers from various industries that use various methods or models, such as mathematical programming, activity-based costing (ABC), material flow cost accounting, fuel consumption model, artificial intelligence (AI)-based fusion model, multi-attribute decision model (MADM), and so on. These papers are related to carbon emissions, carbon tax, Industry 4.0, economic sustainability, corporate social responsibility (CSR), etc. The research objects come from China, Taiwan, Thailand, Oman, Cyprus, Germany, Austria, and Portugal. Although the research presented in this Special Issue is not exhaustive, this Special Issue provides abundant, significant research related to environmental, economic, and social sustainability. Nevertheless, there still are many research topics that require our attention to solve problems of sustainability.

Fundamentals of Fluid Mechanics

Novel Approaches to Minimising Mycotoxin Contamination

This 2 volume-set of IFIP AICT 583 and 584 constitutes the refereed proceedings of the 16th IFIP WG 12.5 International Conference on Artificial Intelligence Applications and Innovations, AIAI 2020, held in Neos Marmaras, Greece, in June 2020.* The 70 full papers and 5 short papers presented were carefully reviewed and selected from 149 submissions. They cover a broad range of topics related to technical, legal, and ethical aspects of artificial intelligence systems and their applications and are organized in the following sections: Part I: classification; clustering - unsupervised learning -analytics; image processing; learning algorithms; neural network modeling; object tracking - object detection systems; ontologies - AI; and sentiment analysis - recommender systems. Part II: AI ethics - law; AI constraints; deep learning - LSTM; fuzzy algebra - fuzzy systems; machine learning; medical - health systems; and natural language. *The conference was held virtually due to the COVID-19 pandemic.

Handbook of Food Preservation

This book and its sister volumes, i.e., LNCS vols. 3610, 3611, and 3612, are the proceedings of the 1st International Conference on Natural Computation (ICNC 2005), jointly held with the 2nd International Conference on Fuzzy Systems and Knowledge Discovery (FSKD 2005, LNAI vols. 3613 and 3614) from 27 to 29 August 2005 in Changsha, Hunan, China.

Modelling and Analysis of Sustainability Related Issues in New Era

This proceedings set contains selected Computer, Information and Education Technology related papers from the 2014 International Conference on Computer, Intelligent Computing and Education Technology (CICET 2014), held March 27-28, 2014 in Hong Kong. The proceedings aims to provide a platform for researchers, engineers and academics as well as indu

Advances in Natural Computation

Contamination of foods and agricultural commodities by various types of toxigenic fungi is a concerning issue for human and animal health. Moulds naturally present in foods can produce mycotoxins and contaminate foodstuffs under favourable conditions of temperature, relative humidity, pH, and nutrient availability. Mycotoxins are, in general, stable molecules that are difficult to remove from foods once they have been produced. Therefore, the prevention of mycotoxin contamination is one of the main goals of the agriculture and food industries. Chemical control or decontamination techniques may be quite efficient; however, the more sustainable and restricted use of fungicides, the lack of efficiency in some foods, and the consumer demand for chemical-residue-free foods require new approaches to control this hazard. Therefore, food safety demands continued research efforts for exploring new strategies to reduce mycotoxin contamination. This Special Issue contains original contributions and reviews that advance the knowledge about the most current promising approaches to minimize mycotoxin contamination, including biological control agents, phytochemical antifungal compounds, enzyme detoxification, and the use of novel technologies.

Artificial Intelligence Applications and Innovations

This book Advances in Technology and Management contains 116 full length papers presented at the International Conference on Technology and Management, held on June 12-13, 2012, Jeju-Island, Korea. The goal of ICTAM 2012 is to bring together researchers working in many different areas of technology and management to foster international collaborations and exchange of new ideas. This volume can be divided into two sections on the basis of the classification of manuscripts considered. The first section deals with technology. The second section of this volume consists of

management.

Global Security, Safety, and Sustainability

Scope of Publication A reference work for process designers and users of decanters, this book aims to bridge the information gap in this field - that between academic theory promoted in student textbooks and case study data in manufacturers sales literature. Design It includes information on design and specification, preparing the reader to select and correctly size equipment. Purchase As a design or project engineer working with vendors to make final equipment selection, this work provides the readers with the full facts before they start talking to product vendors. Supply In an environment of industry consolidation, the handbook allows you to track suppliers old and new, providing a basis on which users can find the new relevant company for the parts/service he/she wishes to purchase. Operation Once an equipment purchase is made, the user needs to be made aware of how to optimally operate decanters. The Decanter Centrifuge Handbook covers relevant (process) operating issues such as instrumentation and control and the use of flocculents.

Microreaction Technology

Now in its fourth edition, Introduction to Internal Combustion Engines remains the indispensable text to guide you through automotive or mechanical engineering, both at university and beyond. Thoroughly updated, clear, comprehensive and well-illustrated, with a wealth of worked examples and problems, its combination of theory and applied practice is sure to help you understand internal combustion engines, from thermodynamics and combustion to fluid mechanics and materials science. Introduction to Internal Combustion Engines: - Is ideal for students who are following specialist options in internal combustion engines, and also for students at earlier stages in their courses - especially with regard to laboratory work - Will be useful to practising engineers for an overview of the subject, or when they are working on particular aspects of internal combustion engines that are new to them - Is fully updated including new material on direct injection spark engines, supercharging and renewable fuels - Offers a wealth of worked examples and end-of-chapter questions to test your knowledge - Has a solutions manual available online for lecturers at www.palgrave.com/engineering/stone

Electronics World

This book introduces the 3R concept applied to wastewater treatment and resource recovery under a double perspective. Firstly, it deals with innovative technologies leading to: Reducing energy requirements, space and impacts; Reusing water and sludge of sufficient quality; and Recovering resources such as energy, nutrients, metals and chemicals, including biopolymers. Besides targeting effective C,N&P removal, other issues such as organic micropollutants, gases and odours

emissions are considered. Most of the technologies analysed have been tested at pilot- or at full-scale. Tools and methods for their Economic, Environmental, Legal and Social impact assessment are described. The 3R concept is also applied to Innovative Processes design, considering different levels of innovation: Retrofitting, where novel units are included in more conventional processes; Re-Thinking, which implies a substantial flowsheet modification; and Re-Imagining, with completely new conceptions. Tools are presented for Modelling, Optimising and Selecting the most suitable plant layout for each particular scenario from a holistic technical, economic and environmental point of view.

Energy Efficiency in Buildings

Prominent international experts came together to present and debate the latest findings in the field at the 2007 International Workshop on Multimedia Content Analysis and Mining. This volume includes forty-six papers from the workshop as well as thirteen invited papers. The papers cover a wide range of cutting-edge issues, including all aspects of multimedia in the fields of entertainment, commerce, science, medicine, and public safety.

Real-time Digital Signal Processing

Aeration, Mixing, and Energy: Bubbles & Sparks aims at compiling the existing knowledge on aeration, mixing, and their energy implications for water reclamation and wastewater treatment. The book assembles the numerous research papers published on this subject, plus an extensive amount of knowledge arising from the experience of the contributing team. The book is a valuable complement to any book on water reclamation and wastewater treatment. The audience includes both researchers and practitioners, using a combination of fundamentals of engineering science and practice, plus field observations.

Multimedia Content Analysis and Mining

This Recommended Practice is a reference source for engineers involved in industrial and commercial power systems analysis. It contains a thorough analysis of the power system data required, and the techniques most commonly used in computer-aided analysis, in order to perform specific power system studies of the following: short-circuit, load flow, motor-starting, cable ampacity, stability, harmonic analysis, switching transient, reliability, ground mat, protective coordination, dc auxiliary power system, and power system modeling.

Materials Processing Fundamentals

This book outlines the challenges that increasing amounts of renewable and distributed energy represent when integrated into established electricity grid infrastructures, offering a range of potential solutions that will support engineers, grid operators, system planners, utilities, and policymakers alike in their efforts to realize the vision of moving toward greener, more secure energy portfolios. Covering all major renewable sources, from wind and solar, to waste energy and hydropower, the authors highlight case studies of successful integration scenarios to demonstrate pathways toward overcoming the complexities created by variable and distributed generation.

2004 emergency response guidebook

“Blue is the new green.” This is an all-new revised edition of a modern classic on one of the most important subjects in engineering: Water. Featuring a total revision of the initial volume, this is the most comprehensive and up-to-date coverage of the process of desalination in industrial and municipal applications, a technology that is becoming increasingly more important as more and more companies choose to “go green.” This book covers all of the processes and equipment necessary to design, operate, and troubleshoot desalination systems, from the fundamental principles of desalination technology and membranes to the much more advanced engineering principles necessary for designing a desalination system. Earlier chapters cover the basic principles, the economics of desalination, basic terms and definitions, and essential equipment. The book then goes into the thermal processes involved in desalination, such as various methods of evaporation, distillation, recompression, and multistage flash. Following that is an exhaustive discussion of the membrane processes involved in desalination, such as reverse osmosis, forward osmosis, and electrodialysis. Finally, the book concludes with a chapter on the future of these technologies and their place in industry and how they can be of use to society. This book is a must-have for anyone working in water, for engineers, technicians, scientists working in research and development, and operators. It is also useful as a textbook for graduate classes studying industrial water applications.

Geothermal Direct Use Engineering and Design Guidebook

"Crop Modeling and Decision Support" presents 36 papers selected from the International Symposium on Crop Modeling and Decision Support (ISCMDS-2008), held at Nanjing of China from 19th to 22nd in April, 2008. Many of these papers show the recent advances in modeling crop and soil processes, crop productivity, plant architecture and climate change; the rests describe the developments in model-based decision support systems (DSS), model applications, and integration of crop models with other information technologies. The book is intended for researchers, teachers, engineers, and graduate students on crop modeling and decision support. Dr. Weixing Cao is a professor at Nanjing Agricultural University, China.

Sewage Treatment Plants

Chronicles the best and the worst of Apple Computer's remarkable story.

The Chinese Navy

Mathematica Cookbook helps you master the application's core principles by walking you through real-world problems. Ideal for browsing, this book includes recipes for working with numerics, data structures, algebraic equations, calculus, and statistics. You'll also venture into exotic territory with recipes for data visualization using 2D and 3D graphic tools, image processing, and music. Although Mathematica 7 is a highly advanced computational platform, the recipes in this book make it accessible to everyone -- whether you're working on high school algebra, simple graphs, PhD-level computation, financial analysis, or advanced engineering models. Learn how to use Mathematica at a higher level with functional programming and pattern matching Delve into the rich library of functions for string and structured text manipulation Learn how to apply the tools to physics and engineering problems Draw on Mathematica's access to physics, chemistry, and biology data Get techniques for solving equations in computational finance Learn how to use Mathematica for sophisticated image processing Process music and audio as musical notes, analog waveforms, or digital sound samples

Statistical Challenges in Modern Astronomy

While strides are being made in the research and development of environmentally acceptable and more sustainable alternative fuels—including efforts to reduce emissions of air pollutants associated with combustion processes from electric power generation and vehicular transportation—fossil fuel resources are limited and may soon be on the verge of depletion in the near future. Measuring the correlation between quality of life, energy consumption, and the efficient utilization of energy, the Handbook of Alternative Fuel Technologies, Second Edition thoroughly examines the science and technology of alternative fuels and their processing technologies. It focuses specifically on environmental, technoeconomic, and socioeconomic issues associated with the use of alternative energy sources, such as sustainability, applicable technologies, modes of utilization, and impacts on society. Written with research and development scientists and engineers in mind, the material in this handbook provides a detailed description and an assessment of available and feasible technologies, environmental health and safety issues, governmental regulations, and issues and agendas for R&D. It also includes alternative energy networks for production, distribution, and consumption. What's New in This Edition: Contains several new chapters of emerging interest and updates various chapters throughout Includes coverage of coal gasification and liquefaction, hydrogen technology and safety, shale fuel by hydraulic fracturing, ethanol from lignocellulosics, biodiesel, algae fuels, and energy from waste products Covers statistics, current concerns, and future trends A single-volume complete reference, the Handbook of Alternative Fuel Technologies, Second Edition contains relevant information on chemistry, technology, and novel approaches, as well as scientific foundations for further enhancements and

breakthroughs. In addition to its purposes as a handbook for practicing scientists and engineers, it can also be used as a textbook or as a reference book on fuel science and engineering, energy and environment, chemical process design, and energy and environmental policy.

Mathematica Cookbook

Traditionally, in the food industry, there has been a distinction made among meat, poultry, seafood, and game. Meat has historically been defined as the edible flesh of animals. This basically referred only to the red meats, namely, beef, lamb, pork, and veal, including both fresh and processed products as well as variety or glandular meats. It has been recognized more recently that all foods derived from muscle, or muscle foods, have basically the same or similar characteristics in physical and chemical properties. Therefore, it is logical to examine and consider all muscle foods under one cover. This book, therefore, is an attempt to address the various attributes of red meat, poultry, fish, and game under the single heading of muscle foods and to note any differences where they might occur. It is of interest that of the 10 top U. S. meat companies in 1990, 8 of them were dealing with poultry as well as red meats and that 4 of the 10 were also involved with seafoods. This lends impetus to the inclusion of all three in a book such as this. Furthermore, the rapid increase in consumption of poultry meat to approximately 30 kg (65 pounds) per capita and seafoods to 7 kg (16 pounds) per capita compared to beef at 34 kg (75 pounds) and pork at 30 kg (65 pounds), whereas veal and lamb/mutton represent only 0.

Endurance Sports Medicine

Aeration, Mixing, and Energy: Bubbles & Sparks

This is an exhilarating book, written by one of sociology's most imaginative theorists and critics. Professor Corrigan proceeds by turning old answers into new questions. He draws on a rich tradition of thought from sociology, philosophy, structuralism, post-structuralism, and literary criticism to explore major ongoing problems in everyday life: moral regulation, schooling, the capitalist world economy, intellectuals, and the problem of difference, masculinity. The result is one of the most dazzling contributions to critical sociology published in recent years.

Innovative Wastewater Treatment & Resource Recovery Technologies: Impacts on Energy, Economy and Environment

The annual International Conference on Global Security, Safety and Sustainability (ICGS3) is an established platform in

which security, safety and sustainability issues can be examined from several global perspectives through dialogue between academics, students, government representatives, chief executives, security professionals, and research scientists from the United Kingdom and from around the globe. The three-day conference focused on the challenges of complexity, rapid pace of change and risk/opportunity issues associated with modern products, systems, special events and infrastructures. The importance of adopting systematic and systemic approaches to the assurance of these systems was emphasized within a special stream focused on strategic frameworks, architectures and human factors. The conference provided an opportunity for systems scientists, assurance researchers, owners, operators and maintainers of large, complex and advanced systems and infrastructures to update their knowledge on the state of best practice in these challenging domains while networking with the leading researchers and solution providers. ICGS3 2010 received paper submissions from more than 17 different countries in all continents. Only 31 papers were selected and were presented as full papers. The program also included a number of keynote lectures by leading researchers, security professionals and government representatives.

Integration of Large Scale Renewable Energy into Bulk Power Systems

The processing of food is no longer simple or straightforward, but is now a highly inter-disciplinary science. A number of new techniques have developed to extend shelf-life, minimize risk, protect the environment, and improve functional, sensory, and nutritional properties. The ever-increasing number of food products and preservation techniques cr

Desalination

Impacts of Climate Change on Rainfall Extremes and Urban Drainage Systems provides a state-of-the-art overview of existing methodologies and relevant results related to the assessment of the climate change impacts on urban rainfall extremes as well as on urban hydrology and hydraulics.

Biomass Chars: Elaboration, Characterization and Applications II

The Geothermal Direct Use Engineering and Design Guidebook is designed to be a comprehensive, thoroughly practical reference guide for engineers and designers of direct heat projects. These projects could include the conversion of geothermal energy into space heating cooling of buildings, district heating, greenhouse heating, aquaculture and industrial processing. The Guidebook is directed at understanding the nature of geothermal resources and the exploration of these resources, fluid sampling techniques, drilling, and completion of geothermal wells through well testing, and reservoir evaluation. It presents information useful to engineers on the specification of equipment including well pumps, piping, heat

exchangers, space heating equipment, heat pumps and absorption refrigeration. A compilation of current information about greenhouse, aquaculture and industrial applications is included together with a discussion of engineering cost analysis, regulation requirements, and environmental considerations. The purpose of the Guidebook is to provide an integrated view for the development of direct use projects for which there is a very potential in the United States.

Decanter Centrifuge Handbook

Crop Modeling and Decision Support

Providing comprehensive discussion of this newly developing branch of sports medicine, this unique and up-to-date book focuses specifically on the treatment of athletes who train for and participate in endurance sporting events, including not only traditional endurance athletes such as runners, swimmers, bikers and triathletes, but also rowers, adventure racers, military personnel, and cross-fit athletes. Detailing strategies for not only treating and preventing injuries and conditions but also for optimizing an athlete's performance, it is divided into three thematic sections. The first section covers common medical conditions faced by the endurance athlete, including cardiovascular conditions, asthma, and heat- and altitude-related illnesses, while also discussing gender differences, pregnancy and the pediatric endurance athlete. Section two focuses on the management of common musculoskeletal conditions, such as stress fractures, overuse injuries of the soft tissue, compartment syndrome, shoulder and hip injuries, and exercise and osteoarthritis. The last section presents special considerations for the endurance athlete, including gait and swim-stroke analysis, bike fitting, mental preparation, optimizing nutrition, and how to organize medical coverage for events, as well as decision-making for return to play. A timely topic and one which has not been written about extensively in one concise collection of chapters, Endurance Sports Medicine is a valuable guide for sports medicine physicians, orthopedists, athletic trainers, physical therapists, coaches, officials, and athletes in understanding the needs of the determined individuals who participate in endurance sports.

IEEE Recommended Practice for Industrial and Commercial Power Systems Analysis

Biomass can be converted to energy, biofuels, and bioproducts via thermochemical conversion processes, such as combustion, pyrolysis, and gasification. Combustion technology is most widely applied on an industrial scale. However, biomass gasification and pyrolysis processes are still in the research and development stage. The major products from these processes are syngas, bio-oil, and char (called also biochar for agronomic application). Among these products, biomass chars have received increasing attention for different applications, such as gasification, co-combustion, catalysts or adsorbents precursors, soil amendment, carbon fuel cells, and supercapacitors. This Special Issue provides an overview of

biomass char production methods (pyrolysis, hydrothermal carbonization, etc.), characterization techniques (e.g., scanning electronic microscopy, X-ray fluorescence, nitrogen adsorption, Raman spectroscopy, nuclear magnetic resonance spectroscopy, X-ray photoelectron spectroscopy, and temperature programmed desorption and mass spectrometry), their properties, and their suitable recovery processes.

Social Forms/Human Capacities (RLE Social Theory)

[ROMANCE](#) [ACTION & ADVENTURE](#) [MYSTERY & THRILLER](#) [BIOGRAPHIES & HISTORY](#) [CHILDREN'S](#) [YOUNG ADULT](#) [FANTASY](#)
[HISTORICAL FICTION](#) [HORROR](#) [LITERARY FICTION](#) [NON-FICTION](#) [SCIENCE FICTION](#)