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Intelligent Systems in Technical and Medical Diagnostics Jozef Korbicz 2013-07-18 For many years technical and medical diagnostics has been the area of intensive scientific research. It covers well-established topics as well as emerging developments in control engineering, artificial intelligence, applied mathematics, pattern recognition and statistics. At the same time, a growing number of applications of different fault diagnosis methods, especially in electrical, mechanical, chemical and medical engineering, is being observed. This monograph contains a collection of 44 carefully selected papers contributed by experts in technical and medical diagnostics, and constitutes a comprehensive study of the field. The aim of the book is to show the bridge between technical and medical diagnostics based on artificial intelligence methods and techniques. It is divided into four parts: I. Soft Computing in Technical Diagnostics, II. Medical Diagnostics and Biometrics, III. Robotics and Computer Vision, IV. Various Problems of Technical Diagnostics. The monograph will be of interest to scientists as well as academics dealing with the problems of designing technical and medical diagnosis systems. Its target readers are also junior researchers and students of computer science, artificial intelligence, control or robotics.

Conservation Drones Serge A. Wich 2018 This book aims to further build capacity in the conservation community to use drones for conservation and inspire others to adapt emerging technologies for conservation.

Entertainment for Education. Digital Techniques and Systems Xiaopeng Zhang 2010-08-12 With the technical advancement of digital media and the medium of communication in recent years, there is a widespread interest in digital entertainment. An emerging technical research area edutainment, or educational entertainment, has been accepted as education using digital entertainment. Edutainment has been recognized as an effective way of learning using modern digital media tools, like computers, games, mobile phones, televisions, or other virtual reality applications, which emphasizes the use of entertainment with application to the education domain. The Edutainment conference series was established in 2006 and subsequently organized as a special event for researchers working in this new interest area of e-learning and digital entertainment. The main purpose of Edutainment conferences is to facilitate the discussion, presentation, and information exchange of the scientific and technological development in the new community. The Edutainment conference series becomes a valuable opportunity for researchers, engineers, and graduate students to communicate at these international annual events. The conference series includes plenary invited talks, workshops, tutorials, paper presentation tracks, and panel discussions. The Edutainment conference series was initiated in Hangzhou, China in 2006. Following the success of the first event, the second (Edutainment 2007 in Hong Kong, China), third (Edutainment 2008 in Nanjing, China), and fourth editions (Edutainment 2009 in Banff, Canada) were organized. Edutainment 2010 was held during August 16–18, 2010 in Changchun, China. Two workshops were jointly organized together with Edutainment 2010.

Advanced Computational and Communication Paradigms Siddhartha Bhattacharyya 2018-05-25 The book titled Advanced Computational and Communication Paradigms: Proceedings of International Conference on ICACCP 2017, Volume 1 presents refereed high-quality papers of the First International Conference on Advanced Computational and Communication Paradigms (ICACCP 2017) organized by the Department of Computer Science and Engineering, Sikkim Manipal Institute of Technology, held from 8– 10 September 2017. ICACCP 2017 covers an advanced computational paradigms and communications technique which provides failsafe and robust solutions to the emerging problems faced by mankind. Technologists, scientists, industry professionals and research scholars from regional, national and international levels are invited to present their original unpublished work in this conference. There were about 550 technical paper submitted. Finally after peer review, 142 high-quality papers have been accepted and registered for oral presentation which held across 09 general sessions and 05 special sessions along with 04 keynote address and 06 invited talks. This volume comprises 65 accepted papers of ICACCP 2017.

Minimally Invasive Surgical Oncology Ronald Matteotti 2011-06-15 Minimally Invasive Surgical Oncology is aimed at the minimal invasive surgeon as well as at the general surgeon and surgical trainee who wish to explore this field. It covers disciplines like gastroenterology, gynecology, urology, thoracic and pediatrics and builds bridges to oncologists and internal medicine. It gives a state-of-the art overview and perspectives for future developments and research as well. The book serves as an operative guide for a new generation of surgeons and offers the extraordinary feature being a text book, an operative atlas and a quick reference guide as well. The reader is provided with a tool in hand which synthesizes the latest knowledge in traditional therapies like chemotherapies and gives a comprehensive overview how to proceed in treating a cancer patient using minimal access techniques.

Elastic Light Scattering Spectrometry Cheng Zhi Huang 2018-12-17 This book introduces the basics of light scattering and then presents theoretical methods and applications of elastic light scattering spectrometry in the field of analytical chemistry. Different elastic light scattering probes and how to use elastic light scattering probes for the analysis of inorganic ions, organic molecules, nucleic acids, proteins, biological microparticles, water and the atmospheric environment are discussed in detail.

Composite Materials Kamal K. Kar 2016-10-14 Composite materials are used as substitutions of metals/traditional materials in aerospace, automotive, civil, mechanical and other industries. The present book collects the current knowledge and recent developments in the characterization and application of composite materials. To this purpose the volume describes the outstanding properties of this class of advanced material which recommend it for various industrial applications.

Atmospheric Chemical Compounds T. E. Graedel 2012-12-02 This practical reference examines the structure and properties of the atmosphere, including listings of compounds in clouds, fog, rain, snow, and ice; a listing of compounds detected in the stratosphere; and a compendium of compounds in indoor air. An introduction to carcinogenicity and bioassay of atmospheric compounds is also presented. Readers will find the extensive cross-referencing especially useful--compounds can be located by chemical type, name, CAS registry number, or source.

A Thesaurus of English Word Roots Horace Gerald Danner 2014-03-27 Horace G. Danner's A Thesaurus of English Word Roots is a compendium of the most-used word roots of the English language. As Timothy B. Noone notes in his foreword: "Dr. Danner's book allows you not only to build up your passive English vocabulary, resulting in word recognition knowledge, but also gives you the rudiments for developing your active English vocabulary, making it possible to infer the meaning of words with which you are not yet acquainted. Your knowledge can now expand and will do so exponentially as your awareness of the roots in English words and your corresponding ability to decode unfamiliar words grows apace. This is the beginning of a fine mental linguistic library: so enjoy!" In A Thesaurus of English Word Roots, all word roots are listed alphabetically, along with the Greek or Latin words from which they derive, together with the roots' original meanings. If the current meaning of an individual root differs from the original meaning, that is listed in a separate column. In the examples column, the words which contain the root are then listed, starting with their prefixes, for example, dysacusia, hyperacusia. These root-starting terms then are followed by terms where the root falls behind the word, e.g., acouesthesia and acoumeter. These words are followed by words where the root falls in the middle or the end, as in such terms as bradyacusia and odyacusis.. In this manner, A Thesaurus of English Word Roots places the word in as many word families as there are elements in the word. This work will interest linguists and philologists and anyone interested in the etymological aspects of English language.

Handbook of Soil Analysis Marc Pansu 2007-04-18 This handbook is a reference guide for selecting and carrying out numerous methods of soil analysis. It is written in accordance with analytical standards and quality control approaches. It covers a large body of technical information including protocols, tables,

formulae, spectrum models, chromatograms and additional analytical diagrams. The approaches are diverse, from the simplest tests to the most sophisticated determination methods.

Future Babble Dan Gardner 2010-10-12 In 2008, as the price of oil surged above \$140 a barrel, experts said it would soon hit \$200; a few months later it plunged to \$30. In 1967, they said the USSR would have one of the fastest-growing economies in the year 2000; in 2000, the USSR did not exist. In 1911, it was pronounced that there would be no more wars in Europe; we all know how that turned out. Face it, experts are about as accurate as dart-throwing monkeys. And yet every day we ask them to predict the future — everything from the weather to the likelihood of a catastrophic terrorist attack. Future Babble is the first book to examine this phenomenon, showing why our brains yearn for certainty about the future, why we are attracted to those who predict it confidently, and why it's so easy for us to ignore the trail of outrageously wrong forecasts. In this fast-paced, example-packed, sometimes darkly hilarious book, journalist Dan Gardner shows how seminal research by UC Berkeley professor Philip Tetlock proved that pundits who are more famous are less accurate — and the average expert is no more accurate than a flipped coin. Gardner also draws on current research in cognitive psychology, political science, and behavioral economics to discover something quite reassuring: The future is always uncertain, but the end is not always near.

Carbon footprint calculators for citizens Marja Salo 2017-08-16 In this report, we look into Nordic carbon footprint calculators and selected benchmarks from other countries. We present data on 10 carbon footprint calculators for public use. The focus is on the features, recorded number of users, and experiences on using the calculators in campaigns and research projects. The purpose is to highlight good practices in the design and use of calculators for ordinary citizens which can be used to introduce the role of consumption choices in climate change mitigation. The report provides suggestions for the future development of existing or new calculator initiatives. The study was carried out by the Finnish Environment Institute, financed by the Nordic Council of Ministers, administrated by the Sustainable Consumption and Production Working Group and guided by a steering group consisting of representatives from Finland, Iceland, Norway and Sweden.

Genetic Algorithms in Search, Optimization, and Machine Learning David Edward Goldberg 1989 A gentle introduction to genetic algorithms. Genetic algorithms revisited: mathematical foundations. Computer implementation of a genetic algorithm. Some applications of genetic algorithms. Advanced operators and techniques in genetic search. Introduction to genetics-based machine learning. Applications of genetics-based machine learning. A look back, a glance ahead. A review of combinatorics and elementary probability. Pascal with random number generation for fortran, basic, and cobol programmers. A simple genetic algorithm (SGA) in pascal. A simple classifier system(SCS) in pascal. Partition coefficient transforms for problem-coding analysis.

Soil Analysis J. Gautheyrou 2001-01-01 The objective of this book is to provide a better understanding of tools for soil analysis in order to use them more efficiently. It covers sampling problems as well as difficulties relating to actual analysis and quality control.

Toxicological Profile for Acetone 1994

Strategic Latency Unleashed Zachary Davis 2021-01-30 The world is being transformed physically and politically. Technology is the handmaiden of much of this change. But since the current sweep of global change is transforming the face of warfare, Special Operations Forces (SOF) must adapt to these circumstances. Fortunately, adaptation is in the SOF DNA. This book examines the changes affecting SOF and offers possible solutions to the complexities that are challenging many long-held assumptions. The chapters explore what has changed, what stays the same, and what it all means for U.S. SOF. The authors are a mix of leading experts in technology, business, policy, intelligence, and geopolitics, partnered with experienced special operators who either cowrote the chapters or reviewed them to ensure accuracy and relevance for SOF. Our goal is to provide insights into the changes around us and generate ideas about how SOF can adapt and succeed in the emerging operational environment.

Sensors in Water Pollutants Monitoring: Role of Material D. Pooja 2019-10-24 This book discusses the sensitivity, selectivity, and response times of different sensor materials and their potential application in the design of portable sensor systems for monitoring water pollutants and remediation systems. Beginning with an overview on water pollutants and analytical methods for their detection, the book then moves on to describing the advances in sensor materials research, and the scope for their use in different types of sensors. The book lays emphasis on techniques such as colorimetric, fluorescence, electrochemical, and biological sensing of conventional and emerging pollutants. This book will serve as a handy guide for students, researchers, and professional engineers working in the field of sensor systems for monitoring water pollutants to address various challenges.

And? Lynda Lawrence 2020-06-22 Steve Jobs used it to cut a better deal with Disney. George Mitchell and Mary Robinson used it to help end a decades-long war in Northern Ireland. And you can use it in your life and work to get better outcomes for years to come. AND? Inventive Negotiation provides a concrete set of steps that can help build long-term relationships instead of lasting enmity. Lavishly illustrated with real life stories from around the world, plus the latest neuroscience and behavioral economics, this book will show you how to get more than your share of the pie - it gives you the tools to build a pie factory. Learn what hostage negotiators and clowns have in common. How a teen bested the phone company. What it takes to talk your way into a prison in Bolivia, or out of a terrorist camp in Colombia. Why you need to handle your chairs carefully in Korea. Every example demonstrates a principle perfected by the authors' decades of experience in everything from oil-pipelines to international peace. Once you've learned the art and science of Inventive Negotiation, you'll never be satisfied with transactional or integrative bargaining again. The first thing I learned about negotiating between rival gangs is that the old rules don't work. The only way to stop those wars was to change the process, and create a community. Inventive Negotiation demonstrates exactly how it's done, no matter who or what is in conflict. Reading these stories can change the way you work with others. It might even change the world. Father Gregory Boyle - CEO Homeboy Enterprises, author of Tattoos on the Heart All of us who negotiate - and that really is all of us - would benefit from reading Inventive Negotiation. In clear prose and with wonderful examples, the authors explain the theory and practice of negotiation and how to foster long-term relationships. Every page is filled with insights that can benefit everyone, including even the most experienced negotiators. Erwin Chemerinsky - Dean, School of Law, UC Berkeley A unique use of new findings on facial expressions and emotion in improving negotiations processes. Paul Ekman - Professor Emeritus of Psychology, UCSF author of Emotions Revealed and Telling Lies The book is loaded with clear and engaging stories about inventive negotiations that I could identify with. It is also grounded in rigorous research and hard-earned wisdom that reflect the authors' wealth of real-world negotiation experiences. Their book takes the mystery out of complex global negotiations that confront most senior executives. John W. Slocum, Jr. - Professor Emeritus, Cox School of Business, SMU former President, Academy of Management Inventive Negotiation is full of memorable stories that demonstrate deep understandings of both the opportunities and difficulties of diversity in international commerce. The authors deliver fresh ideas for building the key personal relationships that are driving innovation in the new global economy. Katherine Xin - Bayer Chair of Global Leadership, China Europe International Business School

Fundamentals of Ceramic Powder Processing and Synthesis Terry A. Ring 1996-04-30 Ceramic powder synthesis and processing are two of the most important technologies in chemical engineering and the ceramics-related area of materials science. This book covers both the processing and the synthesis of ceramic powders in great depth and is indeed the only up-to-date, comprehensive source on the subject available. The application of modern scientific and engineering methods to the field of ceramic powder synthesis has resulted in much greater control of properties. Fundamentals of Ceramic Powder Processing and Synthesis presents examples of these modern methods as they apply to ceramic powders. The book is organized to describe the natural and synthetic raw materials that comprise contemporary ceramics. It covers the three reactant processes used in synthetic ceramic powder synthesis: solid, liquid, and gas. Ceramic powder processing, as a field of materials processing, is undergoing rapid expansion. The present volume is intended as a complete and useful source on this subject of great current interest. It provides comprehensive coverage from a strong chemistry and chemical engineering perspective and is especially applicable to materials scientists, chemical engineers, and applied chemists. Key Features * The most complete and updated reference source on the subject * Comprehensive coverage from a strong chemical engineering and chemistry perspective * Emphasis on both natural and synthetic raw materials in ceramic powder synthesis * Information on reaction kinetics * Superior, more comprehensive coverage than that in existing texts * Sample problems and exercises * Problems at the end of each chapter which supplement the material

Ewing's Analytical Instrumentation Handbook, Fourth Edition Nelu Grinberg 2019-02-21 This handbook is a guide for workers in analytical chemistry who need a starting place for information about a specific instrumental technique. It gives a basic introduction to the techniques and provides leading references on the theory and methodology for an instrumental technique. This edition thoroughly expands and updates the chapters to include concepts, applications, and key references from recent literature. It also contains a new chapter on process analytical technology.

Smart Intelligent Computing and Communication Technology V.D. Ambeth Kumar 2021-10-07 Recent developments in the fields of intelligent computing and communication have paved the way for the handling of current and upcoming problems and brought about significant technological advancements. This book presents the proceedings of IConIC 2021, the 4th International Conference on Intelligent Computing, held on 26 and 27 March 2021 in Chennai,

India. The principle objective of the annual IConIC conference is to provide an international scientific forum where participants can exchange innovative ideas in relevant fields and interact in depth through discussion with their peer group. The theme of the 2021 conference and this book is 'Smart Intelligent Computing and Communication Technology', and the 109 papers included here focus on the technological innovations and trendsetting initiatives in medicine, industry, education and security that are improving and optimizing business and technical processes and enabling inclusive growth. The papers are grouped under 2 headings: Evolution of Computing Intelligence; and Computing and Communication, and cover a broad range of intelligent-computing research and applications. The book provides an overview of the cutting-edge developments and emerging areas of study in the technological fields of intelligent computing, and will be of interest to researchers and practitioners from both academia and industry.

Advances in Ceramics Costas Sikalidis 2011-08-09 The current book contains twenty-two chapters and is divided into three sections. Section I consists of nine chapters which discuss synthesis through innovative as well as modified conventional techniques of certain advanced ceramics (e.g. target materials, high strength porous ceramics, optical and thermo-luminescent ceramics, ceramic powders and fibers) and their characterization using a combination of well known and advanced techniques. Section II is also composed of nine chapters, which are dealing with the aqueous processing of nitride ceramics, the shape and size optimization of ceramic components through design methodologies and manufacturing technologies, the sinterability and properties of ZnNb oxide ceramics, the grinding optimization, the redox behaviour of ceria based and related materials, the alloy reinforcement by ceramic particles addition, the sintering study through dihedral surface angle using AFM and the surface modification and properties induced by a laser beam in pressings of ceramic powders. Section III includes four chapters which are dealing with the deposition of ceramic powders for oxide fuel cells preparation, the perovskite type ceramics for solid fuel cells, the ceramics for laser applications and fabrication and the characterization and modeling of protonic ceramics.

Catalysis for Global Development. Contributions Around the Iberoamerican Federation of Catalysis Helder T Gomes 2020-06-24 Adequate quality of life and well-being of modern societies is only achievable with sustainable manufacturing processes that efficiently use raw materials, eliminate waste, and avoid the use of hazardous materials. All this is hardly conceivable without catalysis. In a world concerned with the exploitation of natural resources, catalysis can offer direct synthesis routes that maximize resource efficiency. The Iberoamerican society is far too significant and far too involved in global development, owing to its natural richness of resources, not to have an essential role in current developments and future directions. Catalysis, in the Iberoamerican academic and industrial communities, is recognized as a relevant scientific discipline that supports several strategic industrial sectors through the manufacturing of products and materials, and the operationalization of processes to produce energy and other utilities. As a reflection of this, once every two years the Iberoamerican Congress on Catalysis takes place to share and discuss the state-of-the-art of this discipline with the Federation of Iberoamerican Catalysis Societies. This book collected sixteen outstanding contributions, stemming from this exceptional event-one which will undoubtedly mark a turning point and could be a source of inspiration to all those involved in catalysis, particularly the young generation of competent researchers taking their first steps in this incredibly complex and beautiful discipline.

Motivational Systems Frederick M. Toates 1986-02-27 This well-written and lively account of the principles of how motivational systems operate includes discussions of both theories and empirical results from individual systems. The book deals with motivation at all levels from the physiological to that of mathematical modelling and explains complex ideas lucidly.

Preharvest Food Safety Siddhartha Thakur 2019-12-17 An overview of farm-to-fork safety in the preharvest realm Foodborne outbreaks continue to take lives and harm economies, making controlling the entry of pathogens into the food supply a priority. Preharvest factors have been the cause of numerous outbreaks, including Listeria in melons, Salmonella associated with tomatoes, and Shiga toxin-producing E.coli in beef products, yet most traditional control measures and regulations occur at the postharvest stage. Preharvest Food Safety covers a broad swath of knowledge surrounding topics of safety at the preharvest and harvest stages, focusing on problems for specific food sources and food pathogens, as well as new tools and potential solutions. Led by editors Siddhartha Thakur and Kalmia Kniel, a team of expert authors provides insights into critical themes surrounding preharvest food safety, including Challenges specific to meat, seafood, dairy, egg, produce, grain, and nut production Established and emerging foodborne and agriculture-related pathogens Influences of external factors such as climate change and the growing local-foods trend Regulatory issues from both US and EU perspectives Use of pre- and probiotics, molecular tools, mathematical modeling, and one health approaches Intended to encourage the scientific community and food industry stakeholders to advance their knowledge of the developments and challenges associated with preharvest food safety, this book addresses the current state of the field and provides a diverse array of chapters focused on a variety of food commodities and microbiological hazards.

Multiple Heterogeneous Unmanned Aerial Vehicles Aníbal Ollero 2007-10-25 Complete with online files and updates, this cutting-edge text looks at the next generation of unmanned flying machines. Aerial robots can be considered as an evolution of the Unmanned Aerial Vehicles (UAVs). This book provides a complete overview of all the issues related to aerial robotics, addressing problems ranging from flight control to terrain perception and mission planning and execution. The major challenges and potentials of heterogeneous UAVs are comprehensively explored.

Automation in Garment Manufacturing Rajkishore Nayak 2017-11-10 Automation in Garment Manufacturing provides systematic and comprehensive insights into this multifaceted process. Chapters cover the role of automation in design and product development, including color matching, fabric inspection, 3D body scanning, computer-aided design and prototyping. Part Two covers automation in garment production, from handling, spreading and cutting, through to finishing and pressing techniques. Final chapters discuss advanced tools for assessing productivity in manufacturing, logistics and supply-chain management. This book is a key resource for all those engaged in textile and apparel development and production, and is also ideal for academics engaged in research on textile science and technology. Delivers theoretical and practical guidance on automated processes that benefit anyone developing or manufacturing textile products Offers a range of perspectives on manufacturing from an international team of authors Provides systematic and comprehensive coverage of the topic, from fabric construction, through product development, to current and potential applications

Enhancing Synergies in a Collaborative Environment Pablo Cortés 2015-02-04 This volume contains a selection of the best papers presented at the 8th International Conference on Industrial Engineering and Industrial Management, XX International Conference on Industrial Engineering and Operations Management, and International IIE Conference 2014, hosted by ADINGOR, ABEPRO and the IIE, whose mission is to promote links between researchers and practitioners from different branches, to enhance an interdisciplinary perspective of industrial engineering and management. The conference topics covered: operations research, modelling and simulation, computer and information systems, operations research, scheduling and sequencing, logistics, production and information systems, supply chain and logistics, transportation, lean management, production planning and control, production system design, reliability and maintenance, quality management, sustainability and eco-efficiency, marketing and consumer behavior, business administration and strategic management, economic and financial management, technological and organizational innovation, strategy and entrepreneurship, economics engineering, enterprise engineering, global operations and cultural factors, operations strategy and performance, management social responsibility, environment and sustainability. This book will be of interest to researchers and practitioners working in any of the fields mentioned above.

Wearable Robots José L. Pons 2008-04-15 A wearable robot is a mechatronic system that is designed around the shape and function of the human body, with segments and joints corresponding to those of the person it is externally coupled with. Teleoperation and power amplification were the first applications, but after recent technological advances the range of application fields has widened. Increasing recognition from the scientific community means that this technology is now employed in telemanipulation, man-amplification, neuromotor control research and rehabilitation, and to assist with impaired human motor control. Logical in structure and original in its global orientation, this volume gives a full overview of wearable robotics, providing the reader with a complete understanding of the key applications and technologies suitable for its development. The main topics are demonstrated through two detailed case studies; one on a lower limb active orthosis for a human leg, and one on a wearable robot that suppresses upper limb tremor. These examples highlight the difficulties and potentialities in this area of technology, illustrating how design decisions should be made based on these. As well as discussing the cognitive interaction between human and robot, this comprehensive text also covers: the mechanics of the wearable robot and its biomechanical interaction with the user, including state-of-the-art technologies that enable sensory and motor interaction between human (biological) and wearable artificial (mechatronic) systems; the basis for bioinspiration and biomimetism, general rules for the development of biologically-inspired designs, and how these could serve recursively as biological models to explain biological systems; the study on the development of networks for wearable robotics. Wearable Robotics: Biomechatronic Exoskeletons will appeal to lecturers, senior undergraduate students, postgraduates and other researchers of medical, electrical and bio engineering who are interested in the area of assistive robotics. Active system developers in this sector of the engineering industry will also find it an informative and welcome resource.

Forecasting and Management of Technology Alan L. Porter 1991 Consistently practical in its coverage, the book discusses general issues related to forecasting and management; introduces a variety of methods, and shows how to apply these methods to significant issues in managing technological

development. With numerous exhibits, case studies and exercises throughout, it requires only basic mathematics and includes a special technology forecasting TOOLKIT for the IBM and compatibles, along with full instructions for installing and running the program.

Applications of Networks, Sensors and Autonomous Systems Analytics Jyotsna Kumar Mandal 2021-11-27 This book presents high-quality research papers presented at International Conference on Applications of Networks, Sensors and Autonomous Systems Analytics (ICANSAA 2020), held during December, 11 – 12, 2020, at JIS College of Engineering, Kalyani, West Bengal, India. The major topics covered are cyber-physical systems and sensor networks, data analytics and autonomous systems and MEMS and NEMS with applications in biomedical devices. It includes novel and innovative work from experts, practitioners, scientists, and decision-makers from academia and industry.

Education Code Texas 1972

Theranostics Approaches to Gastric and Colon Cancer Ganji Seeta Rama Raju 2020-03-04 This book highlights the importance of understanding gastric and colon cancer metabolism in guiding diagnosis and drug discovery. It summarizes the correlation between adiponectin and matrix metalloproteinase with colorectal cancer. The book also evaluates the divergent role of hypoxia-inducible factor 1 in colorectal cancer growth and metastasis. After discussing the role of genetic polymorphisms in alcohol metabolizing enzymes and EPHX1 with the onset of colorectal cancer, it reviews the molecular mechanisms of chemoresistance in gastric cancer and novel therapeutic strategies to reverse the chemoresistance of tumors. In addition, the book explores the theranostic role of nanoparticles and therapeutic potential of phytochemicals with regard to colorectal cancer. Given its scope, the book offers a valuable guide for oncologists, academic researchers, pharmaceutical practitioners, and students who are involved in research and treatment of cancer.

Hypocretins Luis De Lecea 2007-04-25 The first report that rapid eye movements occur in sleep in humans was published in 1953. The research journey from this point to the realization that sleep consists of two entirely independent states of being (eventually labeled REM sleep and non-REM sleep) was convoluted, but by 1960 the fundamental duality of sleep was well established including the description of REM sleep in cats associated with “wide awake” EEG patterns and EMG suppression. The first report linking REM sleep to a pathology occurred in 1961 and a clear association of sleep onset REM periods, cataplexy, hypnagogic hallucinations and sleep paralysis was fully established by 1966. When a naïve individual happens to observe a full-blown cataplexy attack, it is both dramatic and unnerving. Usually the observer assumes that the loss of muscle tone represents syncope or seizure. In order to educate health professionals and the general public, Christian Guilleminault and I made movies of full-blown cataplectic episodes (not an easy task). We showed these movies of cataplexy attacks to a number of professional audiences, and were eventually rewarded with the report of a similar abrupt loss of muscle tone in a dog. We were able to bring the dog to Stanford University and with this as the trigger, we were able to develop the Stanford Canine Narcolepsy Colony. Breeding studies revealed the genetic determinants of canine narcolepsy, an autosomal recessive gene we termed canarc1. Emmanuel Mignot took over the colony in 1986 and began sequencing DNA, finally isolating canarc1 in 1999.

Multifunctional Barriers for Flexible Structure Sophie Duquesne 2007-08-29 This is the first complete overview of the present state of the art of flexible barrier materials such as textile, paper and leather, including methods for barrier evaluation. It will be of interest to readers in industries, consumers, and members of the scientific community. The scope of the field is clearly delineated here for the first time, and it deals with a number of specific topics such as barrier to fire and antibacterial properties.

Innovations and Interdisciplinary Solutions for Underserved Areas Jessica P. R. Thorn 2020-08-05 This book constitutes the refereed post-conference proceedings of the 4th EAI International Conference on Innovations and Interdisciplinary Solutions for Underserved Areas, InterSol 2020, held in Nairobi, Kenya, in March 2020. Due to the COVID-19 pandemic the conference is postponed to a later date in 2020. The 20 papers presented were selected from 50 submissions and issue different problems in underserved and unserved areas. They face problems in almost all sectors such as energy, water, communication, climate, food, education, transportation, social development, and economic growth.

Off-Grid Electrical Systems in Developing Countries Henry Louie 2018-07-30 This book provides students and practicing engineers with a comprehensive guide to off-grid electrification: from microgrids and energy kiosks to solar home systems and solar lanterns. As the off-grid electrification industry grows, universities are starting and expanding courses and programs in humanitarian engineering and appropriate technology. However, there is no textbook that serves this growing market. This book fills that gap by providing a technical foundation of off-grid electrical systems, putting into context the technical aspects for developing countries, and discussing best practices by utilizing real-world data. Chapters expertly integrate the technical aspects of off-grid systems with lessons learned from industry-practitioners taking a pragmatic, data-driven perspective. A variety of off-grid systems and technologies are discussed, including solar, wind, hydro, generator sets, biomass systems, battery storage and converters. Realistic examples, case studies and practical considerations from actual systems highlight the interaction of off-grid systems with the economic, environmental, social and broader development aspects of rural electrification. Whole chapters are dedicated to the operation and control of mini-grids, load and resource estimation, and design of off-grid systems. Special topics focused on electricity access in developing countries are included, such as energy use in rural communities, technical and economic considerations of grid extension, electricity theft, metering, and best practices devoted to common problems. Each chapter is instructor friendly and contains illustrative examples and problems that reinforce key concepts. Complex, open-ended design problems throughout the book challenge the reader to think critically and deeply. The book is appropriate for use in advanced undergraduate and graduate courses related to electrical and energy engineering, humanitarian engineering, and appropriate technology. Provides a technical foundation of off-grid electrical systems; Contextualizes the technical aspects for developing countries; Captures the current and state-of-the art in this rapidly developing field.

Bibliography of Publications George Washington University. Human Resources Research Office 1960

Textbook of Neural Repair and Rehabilitation Michael Selzer 2014-04-24 Volume 1 of the Textbook of Neural Repair and Rehabilitation covers the basic sciences relevant to recovery of function following injury to the nervous system.

Ground and Flight Evaluation of a Small-Scale Inflatable-Winged Aircraft 2002 A small-scale, instrumented research aircraft was flown to investigate the flight characteristics of inflatable wings. Ground tests measured the static structural characteristics of the wing at different inflation pressures, and these results compared favorably with analytical predictions. A research-quality instrumentation system was assembled, largely from commercial off-the-shelf components, and installed in the aircraft. Initial flight operations were conducted with a conventional rigid wing having the same dimensions as the inflatable wing. Subsequent flights were conducted with the inflatable wing. Research maneuvers were executed to identify the trim, aerodynamic performance, and longitudinal stability and control characteristics of the vehicle in its different wing configurations. For the angle-of-attack range spanned in this flight program.